

# CLEANUP ACTION REPORT

Lenora Building Site (aka Stratus Apartments),  
820 Lenora Street, Seattle, Washington  
Facility/Site #91413494  
Cleanup Site ID: 1802

Prepared for: Ninth and Lenora LLC

Project No. 170291 • March 26, 2020 FINAL



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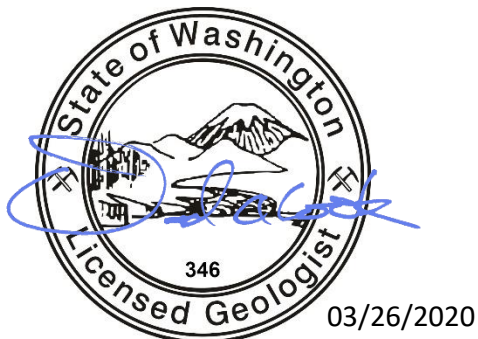
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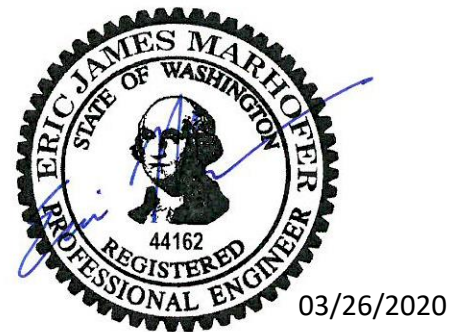


David A. Cook

**David A. Cook, LG, CPG**  
Principal  
dcook@aspectconsulting.com



**Fasih Khan**  
Environmental Project Manager  
emarhofer@aspectconsulting.com



**Eric Marhofer, PE**  
Associate Environmental Engineer  
emarhofer@aspectconsulting.com

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## Executive Summary

This report summarizes a cleanup action successfully completed at the Ninth and Lenora development property (now known as the Stratus Apartments) to the maximum extent practicable in compliance with applicable Washington State Model Toxics Control Act (MTCA) requirements. The Ninth and Lenora development property is located at 820 Lenora Street (formerly 2101 9th Avenue) in Seattle, Washington (herein referred to as the “Subject Property,” Figure 1).

### Regulatory Background

The Subject Property was enrolled in the Washington State Department of Ecology’s (Ecology) Voluntary Cleanup Program (VCP) on June 8, 2015 (Facility/Site No. 91413494, Cleanup Site ID: 1802, and VCP Project No. NW2980). A Remedial Investigation/Feasibility Study (RI/FS) and Cleanup Action Report (CAR) was prepared by GeoEngineers, Inc., (GeoEngineers) and submitted to Ecology in 2016. Subsequently, Ecology issued a property-specific no further action (NFA) determination in November 2017 based on the information presented in the 2016 RI/FS and the 2016 CAR.

In 2018, it was discovered that the Subject Property boundaries legally extended to the centerline of the adjacent roadways, which had implications for the property-specific NFA that Ecology issued in 2017. Aspect met with Ecology on July 23, 2019, to provide a project update. This 2019 cleanup action report prepared by Aspect Consulting, LLC (Aspect) on behalf of Ninth and Lenora LLC (Subject Property owner) supersedes the 2016 cleanup action report (GeoEngineers, 2016b) and presents new information for the following elements that were requested by Ecology during the July 2019 meeting:

- A map showing the new Subject Property boundary (shown in attached Figure 2).
- Analysis to demonstrate that vapor intrusion from the residual petroleum- and PAH-contaminated soil is not a risk (see Section 10)
- Impracticability Analysis to demonstrate that it is infeasible to excavate residual petroleum- and PAH-contaminated soil at the Site (see Section 11)
- Re-enrollment of the Site into the Voluntary Cleanup Program (VCP)

The objective of this 2019 Cleanup Action Report (CAR) is to obtain a Property-Specific NFA for the “newly-defined” Subject Property through Ecology’s VCP. Also, per Ecology’s request, a new VCP application is being presented separately along with this CAR.

This 2019 Cleanup Action Report is stamped by a Washington State licensed engineer to satisfy Ecology’s request for an engineering analysis of the impracticability to excavate residual petroleum- and PAH-contaminated soil at the Site.

## RI Results

Based on the results of the RI, petroleum hydrocarbons (diesel-, and heavy oil-range) and polycyclic aromatic hydrocarbons (PAHs) were the primary contaminants of concern with localized areas of gasoline-range hydrocarbons, benzene (near decommissioned tanks in south portion of the property) and/or lead (observed at only two locations) in fill soil, at the Subject Property (Figure 3). Groundwater is not impacted.

Sources of contamination included historical boiler and furnace/chimney systems of the former Subject Property buildings, underground storage tanks (UST1, removed in 2002, and UST2 that was closed-in-place), and historical property uses such as a wood yard, printing facility, metal shops, and former vehicle servicing/washing/restoration facility, and undocumented fill that was imported to the Subject Property.

## Site Definition

Based on the RI data, the “Site” includes the Subject Property and a limited portion of an adjacent alley to the west.

There is one area east of the new Stratus Apartments within 9th Avenue where gasoline contaminated soil was identified during utility installation. Although this contamination currently falls within the “newly identified” property boundary (which now includes part of the 9th Avenue right of way), this soil is attributable to an upgradient source, and therefore, not part of the “Site” (see Section 4.0 and Figure 7).

## 2015 Independent Cleanup – Successful Remedial Excavation

A cleanup action was conducted concurrent with Subject Property redevelopment of a 42-story residential tower with six levels of underground parking between June 2015 and August 2015. The construction excavation at the Subject Property extended from a starting surface elevation (Elevation)<sup>1</sup> of about 87 feet above mean sea level (amsl) at the highest side of the Subject Property near 9th Avenue and Lenora Street down to a bottom construction excavation Elevation of about 7 feet amsl. The contaminated soil (generally located in the upper 20 feet) was excavated and disposed of in accordance with a Construction Contingency Plan that was prepared and submitted to Ecology in December 2014, prior to construction.

The following is a summary of the 2015 Cleanup Action:

- As part of a much larger mass construction excavation, all accessible contaminated/impacted soil (14,550 tons) was excavated from the Subject Property and disposed of at Waste Management’s subtitle D landfill in Arlington, Oregon (Table 1 and Figure 4).
- A hydraulically operated steel elevator shaft and a concrete vault that housed a hydraulic hoist were discovered and subsequently removed during construction between June 2015 and August 2015. Confirmation samples indicate soil below the former shaft and vault locations was not impacted (Table 2 and Figure 5).

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<sup>1</sup> North American Vertical Datum 1988.

- A closed-in-place steel diesel tank (UST2) along with associated piping and petroleum-contaminated soil was removed from south portion of the Subject Property. Confirmation samples indicate that all petroleum-contaminated soil was successfully excavated from within the mass excavation limits at the Subject Property (Table 3 and Figure 5).
- An unknown heating-oil tank (UST3) was discovered and subsequently removed along with petroleum-contaminated soil during construction between June 2015 and August 2015. Confirmation samples indicate that petroleum-contaminated soil was successfully excavated from the UST3 location (Table 4 and Figure 6).

### Post-Remedial Excavation Conditions

- **Capped Residual Contaminated Soil.** Based on confirmation soil sampling data, residual petroleum- and PAH-contaminated soil exceeding MTCA cleanup levels remains capped in-place under hard pavements in three limited areas: (1) 9th Avenue (within the Subject Property), (2) Lenora Street (within the Subject Property), and (3) the alley (outside the Subject Property) owned by City of Seattle Department of Parks and Recreation (Figure 7). The contaminated soil in these areas is inaccessible and cannot be excavated due to the presence of structural impediments. Analysis of the infeasibility of excavating the residual petroleum- and PAH-contaminated soil within the Property is presented in detail below in the Impracticability Analysis at Section 11. Details for each location includes:
  - **9th Avenue.** Residual gasoline-range hydrocarbons and benzene-contaminated soil is present in an area measuring approximately 20 feet long (north-south) by 10 feet wide (east-west) and 9-feet thick (between approximate depths of 15 feet below ground surface (bgs) and 24 feet bgs [Elevations 72 feet and 63 feet amsl]) (Figures 8 and 9). Note that the 9th Avenue surface Elevation is 87 feet amsl.
  - **Lenora Street.** Residual gasoline- and heavy oil-range hydrocarbons, toluene- and PAH-contaminated soil is present in an area measuring approximately 40 feet long (east-west) by 8 feet wide (north-south) and 8-feet thick (between approximate depths of 24 feet bgs and 36 feet bgs [corresponding approximate Elevations 63 and 55 amsl]) (Figures 8 and 9). Note that the Lenora Street surface Elevation is 87 feet amsl.
  - **Alley.** Residual heavy oil-range hydrocarbons and PAH-contaminated soil is present in an area measuring approximately 60 feet long (north-south) by 10 feet wide (east-west) and 8-feet thick (between approximate depths of 6 feet bgs and 14 feet bgs [corresponding Elevation 63 to 55 feet amsl]) (Figures 8 and 9). Note that the alley surface Elevation is 69 feet amsl.
- **Regional Groundwater Quality Meets MTCA.** Regional groundwater is deep (53.30 feet and 55.39 feet bgs [Elevations 16 and 14 feet amsl]) based on measurements from a former groundwater monitoring well (G-1) at the Subject Property in 2014 and 2015. Groundwater samples tested from G-1 and from an

off-property well (MW-5) in July 2015 (Table 6 and Figure 11) demonstrated that:

- Arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels, and
- Petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range hydrocarbons) including BTEX were not detected.
- **Perched Water Discontinuous or Not Present.** Perched water was encountered in localized, discontinuous locations (for example in well MW-01 groundwater was occasionally observed at 18 feet bgs and then also was dry in 2014 and 2015). (Table 5 & 6 and Figure 10 & 11). No perched groundwater was encountered within the mass excavation footprint during construction in 2015 at the Subject Property.
- **Vapor Intrusion Pathway Incomplete.** The assessment of potential risk for vapor intrusion (VI) (VI Assessment, Section 10) demonstrates that the soil vapor to inhalation pathway is incomplete under current conditions at the Site.

### **Regulatory Closure and Request for Property Specific NFA**

The residual petroleum- and PAH-contaminated soil does not represent a threat to human health or the environment because the soil-to-direct contact pathway, the soil leaching to groundwater pathway, and soil vapor to inhalation pathways are incomplete at the Site. Additionally, our engineering analysis demonstrates that residual petroleum and PAH-contaminated soil is impracticable to remediate, and an environmental covenant will be placed on the Subject Property. The following summarizes our conclusions for regulatory closure:

- **Contaminated soil has been removed to the maximum extent practicable and capped where impracticable to remove.**
- **No contaminants of concern were detected at concentrations above MTCA Method A Cleanup Levels in groundwater at the Site. In addition, there is significant separation between the water table and remaining residual contaminated soil (over 39 feet).**
- **The VI Assessment demonstrates that the soil vapor to inhalation pathway is incomplete under current conditions at the Site (see Section 10).**
- **The Remediation Impracticability Analysis demonstrates that remediation of the limited residual petroleum- and PAH-contaminated soil that remains capped at three separate localized areas is infeasible and impractical (see Section 11).**
- **Environmental Covenant.** An environmental covenant will be recorded in accordance with Washington Administrative Code (WAC) 173-340-440, to implement institutional controls in areas where residual petroleum- and PAH-contaminated soil is present at the Subject Property (portions of 9<sup>th</sup> Avenue and Lenora Street) to ensure the integrity of the cap and prevent exposure to hazardous substances at the Property (Figure 12).

Based on the evaluation of Site conditions and remedial options described in the RI/FS, and the results of the cleanup action on the Subject Property documented in this Cleanup Action Report, a property-specific NFA determination for the Subject Property is warranted.

*This Executive Summary should be used only in the context of the full report for which it is intended.*

# 1 Introduction and Property Conditions

This report prepared by Aspect Consulting, LLC (Aspect) summarizes a 2015 Independent Washington State Model Toxics Control Act (MTCA) Cleanup Action successfully completed at the Ninth and Lenora development property to the maximum extent practicable in compliance with applicable MTCA requirements. This Cleanup Action Report (CAR) supersedes and updates the 2016 CAR because of new information that has since been obtained about the extent of the Subject Property boundary.

This 2019 report does not change any of the technical results from the 2016 cleanup action report (written by the same authors as this report). Additional details related to the purpose of this CAR are presented in Section 1.1.

The Ninth and Lenora development property located at 820 Lenora Street (formerly 2101 9th Avenue) in Seattle, Washington (herein referred to as the “Subject Property”) is situated in the Denny Triangle neighborhood and currently owned by Ninth and Lenora LLC.

The Subject Property location is shown relative to surrounding physical features in the attached Figure 1. For the purpose of this report, Aspect assigned the following geographic directions for the Subject Property and surrounding area:

- North – Retail building (cell phone repair store, espresso shop, bar)
- South – Lenora Street
- East – 9th Avenue
- West – Public park fronting Westlake Avenue

The Subject Property consists of two parcels (North Parcel [King County Parcel 0660000540] and South Parcel [King County Parcel 0660000545] encompassing approximately 0.49-acres and a 0.025-acre portion of an alley.

Based on a historical plat map recorded on December 14, 1875 (two decades after the City of Seattle [City] was founded in 1851) and property ownership research, it was discovered that the property boundary locations are unique in this part of downtown Seattle. The east and south boundaries of the Subject Property extend to the center line of 9th Avenue and Lenora Street respectively. This is uncommon because in most instances the property boundary extends to sidewalk or to the edge of the public right of way, or street. The approximate extent of the Subject Property is shown in the attached Figure 2.

With regard to ownership of the alley that separates the Subject Property from the City of Seattle Department of Parks and Recreation (Parks Department) public park, the Seattle City Council has approved an alley vacation which will result in Ninth and Lenora LLC owning the north half of the alley, while the Parks Department owns the south half (0.032 acre). Final fee transfer of the alley land is expected within the next six months.

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The Parks Department also owns the triangular parcel located west of the Subject Property (across the alley). The Parks Department-owned portion of the alley and the triangular parcel was redeveloped as a public park during the redevelopment of the Subject Property.

The 2015 Independent MTCA Cleanup Action at the Subject Property consisted of the following:

- Removal of fill soil primarily contaminated with petroleum hydrocarbons (diesel- and heavy oil-range) and polycyclic aromatic hydrocarbons (PAHs), and to a lesser extent with benzene, toluene, xylenes, (near decommissioned tanks in south portion) and/or lead (observed at only two locations in fill soil) from within the mass excavation limits.
- Removal of a hydraulically controlled elevator shaft, a concrete vault housing a hydraulic hoist, two underground storage tanks (USTs) containing diesel and heating oil, respectively; removal of petroleum contaminated soil associated with the USTs; as well as excavation and removal of petroleum and PAHs-contaminated/impacted fill soil from within the mass excavation limits.

The cleanup action details are presented in later sections of this report.

Following completion of the 2015 cleanup action, the Subject Property was redeveloped with a mixed-use 42-story building (Stratus Apartments) consisting of 6 sub-grade parking levels, retail at-grade, and residential apartments above.

## 1.1 Regulatory Status

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The cleanup action was completed in 2015 at the Subject Property (Figure 2). Based on the information available at the time, GeoEngineers, Inc., (GeoEngineers) prepared a Remedial Investigation/Feasibility Study (RI/FS) report dated March 24, 2016 (GeoEngineers, 2016a) and a Cleanup Action Report (CAR) dated March 25, 2016 (GeoEngineers, 2016b) on behalf of Ninth and Lenora LLC to document the assessment and cleanup activities performed at the Subject Property. These reports were authored by Fasih Khan and Dave Cook, now at Aspect.

These reports were submitted to the Washington State Department of Ecology (Ecology) in 2016 when the Subject Property was enrolled in the Voluntary Cleanup Program (VCP Project No. NW2980) administered by Ecology.

Because residual petroleum-contaminated soil with MTCA exceedance was present following redevelopment activities only in three areas (within 9th Avenue, Lenora Street, and the alley), Ecology issued a property-specific no further action (NFA) determination via an opinion letter dated November 14, 2017. Based on the information available at the time, these three areas of residual petroleum-contaminated soil were mapped outside the Subject Property boundaries (Figure 2).

A copy of Ecology's NFA opinion letter is presented in attached Appendix A.

In 2018, new information regarding the Subject Property boundaries was discovered by Ninth and Lenora LLC that indicated the east and south boundaries of the Subject Property extended to the center line of 9th Avenue and Lenora Street, respectively.

Based on the new information, the areas of residual petroleum-contaminated soil present in 9th Avenue and Lenora Street are now mapped inside the Subject Property (Figure 2).

Representatives of Ninth and Lenora LLC's legal counsel (Joyce Ziker Parkinson PLLC) and environmental consultant (Aspect Consulting, LLC) met with Ecology on July 23, 2019, to discuss the change in Subject Property boundaries and regulatory status of the 2017 Property-Specific NFA. Based on the discussion during the meeting, Ecology requested the following:

1. Re-enroll the Subject Property in the VCP.
2. Submit an analysis completed by a Washington State Licensed Professional Engineer to establish the impracticality of removal of the inaccessible residual petroleum contaminated soil present beneath 9th Avenue and Lenora Street due to structural/utility/road improvement features.
3. Re-evaluate the vapor intrusion (VI) pathway relative to the presence of residual petroleum-contaminated soil.
4. Submit a new cleanup action report containing information for the above listed items.

The requested elements #2 and #3 are included in this report in Sections 10 and 11. A new VCP application is being submitted separately along with this Cleanup Action Report to satisfy elements #1 and #4.

## 1.2 Purpose and Objective

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This 2019 Cleanup Action Report (CAR) supersedes the 2016 cleanup action report (GeoEngineers, 2016b). This 2019 CAR has been prepared to summarize the 2015 cleanup action and addresses the issues arising from the recently identified change in property boundaries, which includes the following additional information requested by Ecology during the July 2019 meeting:

- A map showing the new Subject Property boundary (Figure 2).
- Vapor Intrusion Analysis to demonstrate that vapor intrusion from the residual petroleum- and PAH-contaminated soil is not a risk (Section 10).
- Impracticability Analysis to demonstrate that it is infeasible to excavate residual petroleum- and PAH-contaminated soil at the Site (Section 11).

The objective of this CAR is to obtain a property-specific NFA for the Subject Property through a new enrollment in Ecology's VCP.

A completed VCP Application, VCP Agreement, Agency Determination Checklist, and Request for Opinion Form dated October 3, 2019 are presented separately along with this report.

## 1.3 Report Organization

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The remaining sections of this report have been organized as follows:

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- **Section 2—Environmental Background** summarizes the previous studies completed at the Site.
- **Section 3—Site Definition**
- **Section 4—Contamination in 9th Avenue** summarizes the rationale for exclusion of 9th Avenue soil contamination in the Site definition.
- **Section 5—Contaminants of Concern and Cleanup Levels** summarizes the chemicals of concern, affected media, and the cleanup levels (Cleanup Levels).
- **Section 6—Terrestrial Ecological Evaluation** presents the criteria for exclusion from terrestrial ecological evaluation.
- **Section 7—Selection of Preferred Cleanup Remedy** presents a summary of rationale and criteria utilized for selecting the preferred cleanup remedy and describes the preferred cleanup remedy.
- **Section 8—Pre-Cleanup Activities** summarizes the activities completed in preparation of the Cleanup Action.
- **Section 9—Cleanup Action** summarizes the various activities completed during the cleanup including mass excavation, removal of USTs and other historical features, confirmation soil and/or groundwater sampling/testing, and disposal of contaminated/impacted soil.
- **Section 10—Post-Cleanup Assessment of Potential Risk for Vapor Intrusion** summarizes Aspect’s 2019 VI assessment for the existing new Stratus building at the Subject Property.
- **Section 11—Analysis of Impracticability for Soil Removal** presents the results of Aspect’s analysis regarding the impracticability of removal of residual contaminated soil at the Site.
- **Section 12—Conclusions**
- **Section 13—References**
- **Section 14—Limitations**

## 2 Environmental Background

Several environmental investigations and a UST removal/decommissioning action were completed by others at the Subject Property between 2002 and 2014. The following is a summary of the 2002 UST removal/decommissioning and remedial investigation findings based on Aspect's review of the 2016 RI/FS report (GeoEngineers, 2016a).

### 2.1 2002 Tank Removal and In-Place Decommissioning

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Based on our review of a 2002 Environmental Tank Services (ETS; ETS, 2002) report during the 2007 Phase I ESA, two 1,000-gallon steel USTs were located in the southwest portion of the former two-story office/retail building (South Parcel). The two USTs were stacked on top of one another. The first/upper UST (UST1) and associated contaminated soil was successfully removed in 2002 by ETS.

The second/lower UST (UST2) was not removed in 2002 because of structural obstructions. UST2 was decommissioned-in-place by filling the tank with controlled density fill (CDF). The approximate location of UST2 is shown in attached Figure 3.

According to the ETS report, diesel- and heavy oil-range hydrocarbons, naphthalenes, benzene, and xylenes were detected at concentrations exceeding respective MTCA Method A Cleanup Levels from a soil sample obtained at a depth of 3 feet from the top of UST2. Soil characterized by this sample was not over-excavated in 2002 because of the presence of a structural column, hoist pad, and building foundations.

Ecology issued a NFA determination dated January 28, 2003 for the South Parcel (Parcel #0660000545) based on the 2002 tank removal/decommissioning activities. The NFA stated that if future development occurs at the Site, then a plan to test and manage the soil in accordance with MTCA cleanup requirements and best management practices must be prepared and Ecology must be notified.

### 2.2 Remedial Investigation Summary

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The following is a brief summary of the remedial investigation results based on Aspect's review of the 2016 RI/FS report (GeoEngineers, 2016a). All depths indicated in the below paragraphs were reportedly measured from the respective local ground surfaces at the time the explorations were completed. Please refer to the GeoEngineers RI/FS report (GeoEngineers, 2016a) for details.

#### 2.2.1 Soil Conditions

- Several geotechnical and environmental explorations were completed by others at the Subject Property and immediate vicinity to evaluate subsurface conditions. Twenty-six soil borings were completed to depths ranging from approximately 7 to 86.5 feet below ground surface (bgs) to evaluate subsurface conditions.
- According to the explorations completed by others, soils encountered at the site consisted of relatively shallow fill overlying recent deposits and competent glacially consolidated soils.

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- Fill (approximately 6 to 15 feet thick) generally consisted of loose to medium dense silty sand with variable gravel and cobble content and occasional brick, charcoal or wood debris.
- The recent deposits typically consisted of soft to hard silt and clay with occasional sand interbeds and variable gravel content or medium dense to dense sand with variable silt and gravel content.
- The glacially consolidated soils underlying the recent deposits were typically till-like deposits, which consisted of very dense silty sand with gravel and variable cobble and boulder content with isolated layers of hard silt and clay.
- Fill soil primarily contaminated with petroleum hydrocarbons (diesel-, and heavy oil-range) and PAHs; and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, (associated with the decommissioned USTs) and/or lead (observed at two locations in fill soil) was identified at concentrations exceeding MTCA Method A Cleanup Levels in areas where historic sources of contamination and/or imported fill exist at the subject property. Contaminated soil also was identified in a limited portion of the adjacent Lenora Street and the alley.

### **2.2.2 Perched Water Conditions**

- Perched water was intermittently observed at an approximate elevation of 63 feet above mean sea level (amsl on the North American Vertical Datum 1988 [NAVD88]; hereafter “Elevation amsl” used in this report refers to this datum) in RI explorations completed at the Subject Property and nearby area. However, perched water was not encountered within the mass excavation limits during the 2015 cleanup action.
- Petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range) and metals (arsenic, chromium, lead, and/or mercury) were detected at concentrations greater than MTCA Method A Cleanup Levels in perched water during the RI. However, GeoEngineers demonstrated in the 2016 RI/FS (GeoEngineers, 2016a) and Ecology concurred in the 2017 Property-Specific NFA (Ecology, 2017a), that these perched water results are not representative of groundwater quality at the Subject Property based on the following reasons:
  - The discrete, one-time perched water samples were obtained directly from the boreholes of soil borings in 2002 and were considered reconnaissance samples.
  - These samples are biased high for contaminants because silt particles were inherently present in the samples as a result of the sampling process.
  - Perched water was not encountered within the mass excavation limits during the 2015 cleanup action.
  - Groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site — depth-to-groundwater was

approximately 53-55 bgs at approximately Elevation 16 to 14 feet amsl (see Section 2.2.3 below)—were tested and did not contain contaminants of concern at levels of regulatory significance as discussed below.

### **2.2.3 Groundwater Conditions**

- Two monitoring wells (MW-01 and G-1) were completed to approximate depths of 18 and 86.5 feet bgs, respectively; to evaluate groundwater quality beneath the Subject Property between 2002 and 2014.
- The former shallow monitoring well MW-01 located at the Subject Property was observed dry on the days of groundwater sampling.
- The static groundwater table associated with the regional aquifer was measured on December 27, 2013 and July 1, 2014 in the former monitoring well G-1 located at the Subject Property. The measured depth-to-groundwater was approximately 53.30 feet bgs and 55.39 feet bgs (approximate Elevations 16 and 14 feet amsl) respectively; below the local Subject Property ground surface at G-1 location (approximate Elevation 69 feet amsl).
- Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations below the MTCA Method A Cleanup Levels and petroleum hydrocarbons were not detected.
- Additionally, a September 1993 groundwater sample from a former off-property monitoring well MW-5 located on the south sidewalk Lenora Street indicated no petroleum detections. MW-5 was completed by GeoEngineers in 1993 to an approximate depth of 60 feet bgs for a different project located opposite to the Subject Property, across Lenora Street.

### **2.2.4 Soil Vapor Conditions**

Soil vapor conditions were not evaluated prior to the 2015 cleanup action at the Subject Property because the planned construction excavation depth of approximately 80 feet bgs (approximate Elevation 7 feet amsl) resulted in the removal of all source material within the mass excavation limits.

Per Ecology's 2019 request, Aspect evaluated the potential risk for VI into the existing new building due to the presence of a limited amount of petroleum- and PAHs-contaminated soil outside the footprint of the existing building at the Subject Property. The result of the VI risk assessment is discussed in Section 10 of this report.

## **2.3 Additional Characterization in 9th Avenue**

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Prior to the mass excavation for construction, an excavation measuring approximately 25 feet long (north-south) by 15 feet wide (east-west) with a maximum depth of 18 feet bgs (approximate Elevation 69 feet) associated with installation of a deep sewer utility was performed in 9th Avenue by Gary Merlino Construction, the utility excavation and installation contractor for the redevelopment project.

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This utility-related excavation was performed outside the mass excavation footprint, but, within the Subject Property (Figure 3). GeoEngineers obtained soil samples from this excavation to evaluate whether soil exceeding MTCA Method A Cleanup Level for benzene in boring B-1 was a localized condition or extended into the mass excavation footprint at the Subject Property.

According to the soil sampling and testing results from the utility excavation in southeast portion of the Subject Property (9th Avenue):

- Gasoline-range hydrocarbons were detected at concentration exceeding the MTCA Method A Cleanup Level of 30 milligrams per kilogram (mg/kg) in 1 (east most) of the 9 samples, and
- Benzene was detected at a concentration exceeding the MTCA Method A Cleanup Level of 0.03 mg/kg in 2 (east most and west most) of the 9 samples.
- Gasoline-range hydrocarbons and benzene were not detected in the 3 samples obtained from the southeast portion of the mass excavation.

Gasoline-range hydrocarbons and benzene exceeded the MTCA Method A Cleanup Level in a localized area only in the samples obtained from the east sidewall of the utility excavation (slightly outside the Subject Property boundary). The west sidewall of the utility excavation extended laterally to the former boring B-1 location where MTCA exceedance of benzene was historically documented. Benzene was not detected in the soil samples obtained from the southeast limits of mass excavation located further west of former boring B-1. It is typical of gasoline sites for the downgradient plume to be benzene-dominated because benzene is the most soluble and most mobile of the chemicals that compose gasoline.

Based on the chemical analytical data and above rationale, the gasoline- and benzene-contaminated soil encountered in a limited portion of the 9th Avenue during deep sewer installation is a result of contamination migration from an off-property source and has been sufficiently characterized to support remedy selection as demonstrated in the 2016 RI/FS (GeoEngineers, 2016a). Ecology concurred with this conclusion in the 2017 property-specific NFA opinion (Ecology, 2017a). The recently identified change in property boundaries does not affect this conclusion.

The approximate footprint of the utility excavation in 9th Avenue is shown in attached Figures 3 and 7.

### 3 Site Definition

For this project, the “Site<sup>2</sup>” is those areas where hazardous substances have come to be located above applicable cleanup levels as a result of a release of hazardous substances related to historic Subject Property uses. For purposes of this report, the Site consists of the following:

- the two Subject Property parcels (Parcel Nos. 0660000540 and 0660000545),
- the portion of Lenora Street (right-of-way) that is owned by the Subject Property owner, and
- a limited south portion of the alley owned by the Parks Department and located beyond the west Subject Property boundary.

**Lenora Street and Alley (Included in “Site”).** Based on the Site characterization data, residual gasoline- and heavy oil-range hydrocarbons, toluene-, and/or PAH-contaminated soil is present in a limited area beneath the Lenora Street sidewalk (portion owned by the Subject Property owner) and in the adjacent alley owned by the Parks Department (located outside the west boundary of the Subject Property). This residual contaminated soil remains capped beneath the hard surfaces (concrete/asphalt) of Lenora Street and the alley.

The results of the VI Assessment demonstrate that the soil vapor to inhalation pathway due to the presence of petroleum- and PAH-contaminated soil is incomplete at the Site (Section 10).

Furthermore, excavation of the residual contaminated soil from beneath the Lenora Street and the alley is considered impracticable due to the presence of structural impediments (Section 11).

As demonstrated by the 2016 RI/FS (GeoEngineers, 2016a), Ecology concurred that the Site has been sufficiently characterized (Ecology, 2017a). The recently identified change in Subject Property boundaries does not affect the Site definition.

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<sup>2</sup> The “Site” as defined by Ecology’s MTCA (Chapter 173-340) means “any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located

## 4 Contamination in 9th Avenue (Not part of the Site but present at the Subject Property)

**9th Avenue.** Based on the chemical analytical results of soil samples obtained from the 9th Avenue utility excavation, gasoline-and benzene-contaminated soil exceeding MTCA Method A cleanup levels is present beneath a limited portion of 9th Avenue (portion owned by Subject Property owner). These impacts are attributed to a release from an off-property source that migrated to a limited portion of the Subject Property (capped beneath 9th Avenue) and not considered to be a part of the Site (Section 3) based on the following (Figure 7):

- Gasoline-range hydrocarbons and benzene exceeded the MTCA Method A Cleanup Level in a localized area only in the samples obtained from the east sidewall of the utility excavation (slightly outside the Subject Property boundary);
- The west sidewall of the utility excavation extended laterally to the former boring B-1 location where MTCA exceedance of benzene was historically documented. Benzene was not detected in the soil samples obtained from the southeast limits of mass excavation located further west of former boring B-1;
- It is typical of gasoline sites for the downgradient plume to be benzene-dominated because benzene is the most soluble and most mobile of the chemicals that compose gasoline; and
- No potential historical sources of gasoline were identified in the southeast portion of the Subject Property near the utility excavation.

Although the contamination in 9th Avenue is not part of the Site, appropriate mitigation measures were evaluated during the cleanup action to address this contamination because of its presence within the Subject Property boundaries. In addition, the contamination in 9th Avenue was analyzed as part of the VI Assessment (Section 10) and the Impracticability Analysis (Section 11).

The results of the VI Assessment demonstrate that the soil vapor to inhalation pathway due to the presence of petroleum- and PAH-contaminated soil in 9th Avenue is incomplete at the Site (Section 10).

Furthermore, excavation of the residual contaminated soil from beneath the 9th Avenue, is considered impracticable due to the presence of structural impediments (Section 11).

## 5 Contaminants of Concern and Cleanup Levels

Based on the chemical analytical results, the following are the contaminants of concern relative to the affected media at the Site<sup>3</sup>:

- **Soil.** Petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range) and PAHs are the primary contaminants of concern. Because benzene, toluene, xylenes, and lead were detected at concentrations exceeding the MTCA Method A cleanup levels only in one or two soil samples from localized areas at the Subject Property, these analytes are considered secondary contaminants of concern.
- **Perched Water.** Petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range) and metals (arsenic, chromium, lead, and/or mercury).

Confirmation samples were submitted for chemical analyses of one or more of the above mentioned primary and/or secondary contaminants of concern. The soil and groundwater chemical analytical results were evaluated relative to MTCA Method A Cleanup Levels for soil and groundwater applicable to Unrestricted Land Use.

The respective cleanup levels are summarized in attached Tables 1 through 5.

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<sup>3</sup> Ecology concurred with these contaminants of concern for the affected media at the Site (Ecology, 2017a). The recently identified change in property boundaries does not affect this conclusion.

## 6 Terrestrial Ecological Evaluation

Aspect completed a Terrestrial Ecological Evaluation (TEE) for the Site in accordance with MTCA. The Site qualifies for an exclusion from the TEE under (WAC 173-340-7491[c]) because there is “less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any area of the site.” Therefore, no further evaluation relative to the TEE is necessary. Based on this exclusion, MTCA Method A Cleanup Levels were used for the remedial excavation completed at the Site. Ecology concurred (Ecology, 2017a). The recently identified change in property boundaries does not affect this conclusion.

A copy of the TEE Exclusion Form is presented in Appendix B.

## 7 Selection of Preferred Cleanup Remedy

The objectives of the cleanup action at the Subject Property were to:

- Remove the contamination source.
- Prevent direct human contact with soil containing contaminant concentrations greater than the MTCA Method A cleanup levels for unrestricted land use and protection of groundwater.
- Obtain a written opinion from Ecology stating that no further remedial action is necessary at the Subject Property (Property-Specific NFA Determination).

An evaluation of feasible cleanup alternatives which included a disproportionate cost analysis (DCA) was performed and described in the 2016 RI/FS report for the Subject Property (GeoEngineers, 2016a).

The following discusses the rationale and criteria used to select a preferred remedy for the cleanup based on Site characterization data (GeoEngineers, 2016a), Ecology's 2017 Model Remedy Guidance (Ecology, 2017b) and the new 2018 information regarding the Subject Property boundaries.

The preferred cleanup remedy selected for the Site is consistent with Ecology's Model Remedy 3<sup>4</sup> and consisted of:

1. Excavation and off-site disposal of contaminated soil to the maximum practicable extent at the Subject Property (mass excavation limits)
2. Capping of residual contaminated soil by the existing rights-of-way pavement (concrete/asphalt)
3. Recording of an Environmental Covenant (subject to City of Seattle [City] agreement) in accordance with WAC 173-340-440 to implement applicable institutional controls.

The preferred cleanup remedy selected for the Site complies with applicable MTCA requirements for the following reasons:

- The selected cleanup remedy meets all of the "minimum requirements for cleanup actions" (WAC 173-340-360(2)). Specifically, the selected cleanup remedy:
  - Could be completed within a relatively short period of time,
  - Meets threshold requirements described by MTCA (e.g., protects human health and the environment, complies with the cleanup standards, complies with state and federal laws and provides for compliance monitoring),

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<sup>4</sup> Model Remedies for Sites with Petroleum Contaminated Soils, Toxics Cleanup Program, Publication No. 15-09-043, dated September 2015 and revised in December 2017.

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- Is expected to be more effective than other available methods in achieving concentrations that are protective of human health and the environment within a reasonable restoration timeframe,
- Is permanent to the maximum extent practicable, and
- Considers public concerns.
- Excavation and transport off site of contaminated soil for permanent treatment or disposal at a permitted waste facility was the most permanent and cost-effective cleanup option for the Subject Property since excavation was necessary for Subject Property redevelopment.
- The limited volume of petroleum- (gasoline- and heavy oil-range hydrocarbons, benzene, and toluene) and PAHs-contaminated fill soil remaining in two small areas on the Subject Property (beneath the 9th Avenue and Lenora Street) and outside the Subject Property (beneath the adjacent alley) cannot be removed because:
  - **9th Avenue and Lenora Street.** Contaminated soil is located approximately 15 feet deep beneath 9th Avenue surface and 24 feet deep beneath Lenora Street surface, which requires significant and costly shoring for excavation. Supplemental factors that preclude excavation of contaminated soil involves the presence of a multitude of utilities, adjacent underground parking garage structural and foundation elements (concrete footings and walls) that also support the Lenora Street stability, and closure of these rights-of-way will have an adverse and unacceptable impact on downtown traffic.
  - **Alley.** Presence of infrastructure elements in the alley associated with the triangular parcel shoring wall and adjacent underground parking garage structural and foundation elements (concrete footings and walls of the 42-storied Stratus building) that also support the Lenora Street stability preclude excavation.
- Groundwater samples obtained and tested from a former on-property monitoring well (G-1) and an off-property well (MW-5), screened within the regional aquifer showed no petroleum impacts and metals were detected at concentrations below MTCA Method A Cleanup Levels as follows:
  - Site characterization data demonstrated that deep regional groundwater was encountered in a former monitoring well (G-1) at approximately 53-55 bgs at approximately Elevation 14 to 16 feet (see Section 2.2.3) and the residual petroleum- and PAHs-contaminated soil is present at Elevations ranging from 63 to Elevation 54 feet (soil is not contaminated at Elevation 54 feet), at the Site.
  - The vertical separation between the lowest level of contaminated soil (Elevation 54 feet amsl) and the highest static groundwater table (Elevation 16 amsl) is 38 feet at the Site.

- Additionally, clean glacially competent, lower permeability soil exists below the residual petroleum- and PAHs-contaminated soil at the Site.
- Because of the above-mentioned reasons, capping of petroleum contaminated soil under hard pavements is an acceptable remedy under MTCA.

## 8 Pre-Cleanup Activities

The following activities were completed by GeoEngineers prior to the cleanup in 2014 and early-2015.

### 8.1 Construction Contingency Plan (CCP)

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A Construction Contingency Plan (CCP) dated December 12, 2014, was prepared by GeoEngineers (GeoEngineers, 2014) to guide the contractor in handling and disposing of contaminated soil discovered at the Subject Property in accordance with applicable regulations. The CCP included confirmation soil sampling and testing measures. Additionally, the CCP included communication protocol if USTs and/or undocumented potentially contaminated soil was discovered by the earthwork contractor during construction excavation.

The CCP (GeoEngineers, 2014) was submitted to Ecology in order to satisfy notification requirement of the intent to remove additional contaminated soil in accordance with the requirement specified by Ecology in a No Further Action (NFA) opinion letter dated January 28, 2003. The 2003 NFA letter was related to the removal of one tank (UST1) and decommissioning in-place of a second tank (UST2). Background regarding the 2003 NFA was discussed earlier in Section 3.1 of this report.

### 8.2 Well Decommissioning

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Two groundwater monitoring wells (G-1 and MW-01) present within the mass excavation footprint were decommissioned by Cascade Drilling, a Washington state licensed driller, prior to construction for the redevelopment project. The approximate location of the former monitoring wells is shown in attached Figure 3. Well decommissioning documents are presented in Appendix C.

## 9 Cleanup Action

Sellen Construction (Sellen) was the general construction contractor of the project. CTI Contractors (CTI) was the earthwork contractor subcontracted to Sellen. Gary Merlino Construction (Gary Merlino) was the utility excavation and installation contractor subcontracted to Sellen, and Donald B. Murphy Contractors, Inc. (DBM) was the shoring installation contractor subcontracted to Sellen.

The cleanup action consisted of remedial excavation of contaminated fill soil, removal of the closed-in-place tank (UST2) in south portion, and removal of another tank (UST3) that was discovered in north portion during construction activities, excavation and removal of contaminated soil associated with historic releases from the tanks, and confirmation soil/groundwater sampling and testing from final limits of remedial excavations.

The contaminated soil excavation and handling/disposal activities were completed in accordance with the CCP (GeoEngineers, 2014) that was submitted to Ecology in December 2014, prior to construction (discussed in Section 7.1 above).

The product/soil/groundwater samples were submitted to OnSite Environmental Laboratory in Redmond, Washington, an Ecology-accredited chemical analytical laboratory for chemical analysis of one or more of the following: gasoline-range hydrocarbons by Ecology Method NWTPH-Gx, diesel- and heavy oil-range hydrocarbons by Ecology Method NWTPH-Dx, BTEX (benzene, toluene, ethylbenzene, and xylenes) by United States Environmental Protection Agency (EPA) Method 8021B, and PAHs by EPA Method 8270D and/or 8270D/SIM,

A photo log of the cleanup action prepared by GeoEngineers is presented in Appendix D. A copy of the laboratory reports for the product/soil/groundwater samples analyzed during the Cleanup Action is presented in Appendix E.

The remainder of this section provides a summary of the various excavations (Shoring Installation/Duct Bank excavation; Mass Excavation of Fill Soil; Elevator Shaft/Hoist; and UST Removals) and confirmation soil/groundwater testing that was completed as part of the construction project.

### 9.1 Shoring Installation and Power Duct Bank Excavation

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Soil cuttings generated from the deep shoring wall installed at the north, south, east, and west property boundaries for facilitating mass excavation were temporarily stockpiled on plastic sheets (Visqueen) by DBM and CTI at the Subject Property. Soil excavated from the Lenora Street sidewalk for installing a power duct bank was combined with the shoring wall soil cuttings and stockpiled at the Site.

The excavation for the power duct bank measured approximately 25 feet long (east-west) by 4 feet wide (north-south) with a maximum depth of 20 feet below local ground surface (approximate Elevation 66 feet amsl). The residual petroleum-contaminated soil is present beneath the power duct bank excavation in Lenora Street sidewalk at Elevations ranging from 63 to 54 feet amsl.

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Based on field screening results (slight to moderate to heavy sheen, mild petroleum odor, and less than 1 parts per million [ppm] headspace vapor reading) and visual observations (black stained soil with wood and charcoal chips, and brick and concrete debris), the stockpiled soil (cuttings from shoring installation and soil excavated for the power duct bank) was considered contaminated and/or impacted.

Eight 3-point composite soil samples (SS-1 through SS-8) were obtained from the stockpiles during shoring installation and power duct bank excavation. All samples were submitted for chemical analysis of diesel- and heavy oil-range hydrocarbons and carcinogenic PAHs (cPAHs) to OnSite laboratory in Redmond, WA.

According to the chemical analytical data, diesel- and heavy oil-range hydrocarbons and cPAHs were detected at concentrations that were either greater than and/or less than respective MTCA Method A cleanup levels. Sample SS-5 was additionally analyzed for gasoline-range hydrocarbons and BETX as this soil was generated during shoring installation and power duct bank excavation (west sidewalk of Lenora Street) in south portion of the Subject Property where these contaminants were potentially present due to release(s) from the former USTs. Gasoline-range hydrocarbons and BETX were not detected.

CTI loaded the soil into truck and trailer combinations (T&Ts) and transported it to Waste Management's Seattle transfer station for permitted disposal.

Chemical analytical results of the stockpile samples are summarized in attached Table 1. A copy of the laboratory reports is presented in Appendix E.

## 9.2 Mass Excavation of Fill Soil

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Based on the RI data, observations during shoring installation, and chemical analytical results of soil stockpile samples (Section 8.1 above), contaminated and/or impacted fill soil was identified extending from beneath the slab of the former building (approximate Elevation 69 feet amsl) to approximate depths ranging from 6 to 18 feet below local Subject Property ground surface (approximate Elevations ranging from 63 to 51 feet amsl). Hence, the mass excavation area at the Subject Property was classified into three soil management zones that consisted of:

- **Zone 1.** Impacted fill soil defined as soil with concentrations of chemicals of concern less than MTCA cleanup levels, generally located on the east portion of the Subject Property and extending to an approximate depth of 10 feet bgs;
- **Zone 2.** Contaminated fill soil defined as soil with concentrations of chemicals of concern greater than MTCA cleanup levels, generally located on the west portion of the Subject Property and extending to an approximate depth of 6 feet bgs; and
- **Zone 3.** Contaminated fill in the area of the former USTs in the southwest portion of the Subject Property and extending to an approximate depth of 18 feet bgs.

The approximate extent of each zone is shown in the attached Figure 3.

CTI excavated all impacted and contaminated fill soil from within the mass excavation limits between July 2015 and August 2015. Excavated fill soil was either temporarily stockpiled on-site over plastic sheets (Visqueen) or directly loaded into truck and trailer combinations (T&Ts) and transported to Waste Management's Seattle transfer station for permitted disposal.

Field screening results of underlying native soil yielded no sheen, no odor, and less than 1 parts per million (ppm) headspace vapor readings. GeoEngineers obtained 11 confirmation soil samples at approximate depths ranging between 7 to 15 feet below local Subject Property ground surface (approximate Elevations ranging between 62 and 54 feet amsl) for chemical testing.

According to the chemical analytical data, diesel- and heavy oil-range hydrocarbons and cPAHs were not detected in any of the samples except two. Heavy oil-range hydrocarbons were detected at a low concentration of 61 mg/kg and 66 mg/kg in samples MASSEX-4-7.0 (approximate Elevation 62 amsl) and MASSEX-10-8.0 (approximate Elevation 61 feet amsl), respectively.

Soil represented by these samples was over-excavated and transported to Waste Management's Seattle transfer station for permitted disposal. GeoEngineers obtained samples MASSEX-4-9.0 (approximate Elevation 60 feet amsl) and MASSEX-10-9.0 (approximate Elevation 60 feet amsl) from the over-excavated area. Heavy oil-range hydrocarbons were not detected in the two samples thus demonstrating that all impacted soil (exceeding and/or below MTCA cleanup levels) was removed from the mass excavation limits at the Subject Property.

The mass excavation confirmation samples were not tested for lead because:

1. Lead was only detected in fill soil in two of 14 remedial investigation samples at concentrations exceeding MTCA Method A cleanup levels.
2. Lead (which was located at only two discrete locations) was considered a secondary contaminant of concern because its concentrations were captured within the more extensive petroleum and PAH contamination that was removed.
3. The entire fill soil body was excavated from within the mass excavation limits and no other Site contaminants were detected in any of the mass excavation confirmation soil samples.

Field screening and chemical analytical results of the mass excavation confirmation samples are presented in Table 1. The approximate locations of mass excavation confirmation samples are shown in Figure 4.

A copy of the laboratory results is presented in Appendix E.

### **9.3 Elevator Shaft and Hydraulic Hoist Removal**

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A hydraulically operated steel elevator shaft and a concrete vault that housed a hydraulic hoist were discovered in August 2015 during construction activities in east portion of the Subject Property. The shaft and the concrete vault were observed partially filled with a petroleum product. GeoEngineers obtained product samples from the elevator shaft

(ELVTR-Product) and hoist (HOIST-Product). The product samples were analyzed by Ecology Method NWT PH-HCID, for characterization.

According to the chemical results of the product samples, diesel- and heavy oil-range hydrocarbons were detected. Gasoline range hydrocarbons were not detected. Filco, a licensed tank decommissioner, vacuumed hydraulic oil from the shaft and vault on August 14, 2015. Based on field observations, the shaft and the vault did not leak.

Confirmation soil samples obtained from the locations of shaft (ELEVTR-1-20.0) at an approximate depth of 20 feet below local Subject Property ground surface (approximate Elevation 55 feet amsl) and the hoist (HOIST-EX-7.0) at an approximate depth of 7 feet below local Subject Property ground surface (approximate Elevation 62 feet amsl) indicated no detections of diesel- and heavy oil-range hydrocarbons.

Chemical analytical results of the product samples and the confirmation soil samples are summarized in attached Table 2. The shaft and hoist remedial excavations along with confirmation soil samples are shown in attached Figure 5.

## 9.4 Underground Storage Tanks Removal and Remedial Excavation

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The following describes the removal of two underground storage tanks (UST2 and UST3) and remedial excavation of associated contaminated soil during the 2015 cleanup action.

### 9.4.1 Diesel tank (UST2)

CTI removed overburden soil to expose the top surface of the known 1,000-gallon steel diesel tank (UST2) in southwest portion of the Subject Property on August 14, 2015. Field screening results of overburden soil yielded moderate sheen, mild petroleum odor and less than 1 ppm headspace vapor reading. These observations were anticipated because this was the location where former tank UST1 was located and removed in 2002. During the 2002 tank removal, UST2 was found beneath UST1, but UST2 could not be removed due to structural elements related to the former building and was decommissioned in-place by filling it with control density fill (CDF).

When the UST2 was exposed during the 2015 construction project, approximately 1.5-feet of free product was observed on top of the CDF within the tank. According to the chemical results of a product sample (SW-UST-Product) that was obtained from UST2 during tank removal, diesel- and heavy oil-range hydrocarbons were detected, while gasoline-range hydrocarbons were not detected.

On August 14, 2015, Filco, a licensed UST removal contractor, vacuumed the product from the tank and triple rinsed the tank. A Marine Chemist with Sound Testing, Inc. inerted UST2 and the tank was approved for removal by a Fire Marshall with City of Seattle Fire Department. CTI removed UST2 with a track hoe and transported it off site for disposal. GeoEngineers observed the physical condition of UST2 after it was removed, and two small holes were observed at the base of the tank.

The UST2 removal documents are presented in Appendix F.

After UST2 was removed, GeoEngineers field screened soil in the tank pit, obtained characterization soil samples, and submitted the soil samples for chemical testing. The three characterization soil samples obtained from the base (UST2-B-24.0), south (UST-S-22.0) and west (UST-W-22.0) sidewalls of the tank pit at approximate depths of 24, 22, and 22 feet below the Lenora Street ground surface (approximate Elevations, 63, 65, and 65 feet amsl) were chemically analyzed for diesel and heavy oil-range hydrocarbons and PAHs. According to the chemical analytical results, diesel- and heavy oil-range hydrocarbons, and PAHs were detected at concentrations exceeding MTCA Method A Cleanup Levels in the three characterization samples.

GeoEngineers then observed CTI, who excavated MTCA contaminated soil from the UST2 pit area until field screening yielded no evidence of petroleum contamination. GeoEngineers obtained 18 confirmation soil samples (two base samples and 16 sidewall samples) at depths ranging from 22 to 36 feet below the Lenora Street ground surface (approximate Elevations from 65 to 51 feet amsl) from the UST2 remedial excavation.

Confirmation samples were chemically analyzed for petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range), BTEX, and/or PAHs. Gasoline-range hydrocarbons and BTEX were added to the analysis to verify that no residual impacts remained within the Subject Property boundary from former UST1.

According to the chemical analytical results of the confirmation samples, petroleum hydrocarbons, BTEX, and PAHs either were not detected or were detected at concentrations less than the MTCA Method A Cleanup Level in each of the confirmation samples except one. Heavy oil-range hydrocarbons, naphthalenes, and cPAHs were detected at concentrations exceeding MTCA Method A Cleanup Levels in one sample (UST2EX-W1-24.0) obtained from the west shoring wall at an approximate depth of 24 feet below the Lenora Street ground surface (approximate Elevation 63 feet amsl).

This sample represents localized residual petroleum-contaminated soil that remains outside the west Subject Property boundary in the portion of alley owned by the Parks Department. As demonstrated in the 2016 RI/FS (GeoEngineers, 2016a) and discussed in section 6.0 of this report, excavation of contaminated soil located outside the Subject Property was not feasible to be removed from a cost-to-benefit standpoint due to disproportionate cost for the returned environmental benefit.

The final limits of the UST2 remedial excavation measured approximately 50 feet long (north-south) by 40 feet wide (east-west) with a maximum depth of 36 feet below the Lenora Street ground surface (approximate Elevation 51 feet amsl). Based on field screening and chemical testing, all petroleum-contaminated soil from within the mass excavation limits was successfully excavated from the UST2 location and transported to Waste Management's transfer station in Seattle, Washington for permitted disposal.

The field screening and chemical analytical results of the product sample, soil characterization samples, and remedial excavation confirmation samples are summarized in attached Table 3. The approximate final limits of the UST2 remedial excavation along with confirmation samples are shown in attached Figure 5.

A copy of the laboratory reports is presented in Appendix E.

### 9.4.2 Heating Oil Tank (UST3)

The following is based on Aspect's review of a UST Removal report prepared by GeoEngineers (GeoEngineers, 2015).

An undocumented 1,750-gallon steel tank (UST3) was discovered with some product at the 2118 Westlake Avenue property (North Parcel 0660000540) in June 2015 during construction activities. The tank (UST3) likely was associated with the former Subject Property facilities that were present in that area through the late 1950s.

According to the chemical analytical results of a product sample, diesel fuel #2 (heating oil) was identified as the product in the tank. Gasoline- and heavy oil-range hydrocarbons were not detected in the product sample.

Four soil samples were obtained from the tank pit and/or fuel line area by GeoEngineers and submitted for chemical analysis. According to the chemical analytical results, one of these samples UST3-B-7.0 obtained from the base of UST3 pit at an approximate depth of 7 feet below the local subject property ground surface (approximate Elevation 61 feet, amsl) had heating oil-range concentrations that exceeded MTCA cleanup levels.

CTI excavated heating oil-contaminated soil represented by the sample (UST3-B-7.0) in August 2015 during the mass construction excavation. GeoEngineers obtained five confirmation samples (one from the base and one each from the four sidewalls) from the final limits of the remedial excavation. Sidewall samples were obtained at an approximate depth of 10 feet below local Subject Property ground surface (approximate Elevation 57 feet amsl) and the base sample was obtained at an approximate depth of 15 feet below local Subject Property ground surface (approximate Elevation 52 feet amsl).

According to the chemical analytical results, diesel- and heavy oil-range hydrocarbons were not detected in any of the confirmation samples. The final limits of the UST3 remedial excavation measured approximately 20 feet long (north-south) by 10 feet wide (east-west) with an approximate depth of 15 feet below local Subject Property ground surface (approximate Elevation 52 feet amsl). Based on field screening and chemical testing, all petroleum-contaminated soil was successfully excavated from the UST3 location and transported to Waste Management's transfer station in Seattle, Washington for permitted disposal.

The field screening and chemical analytical results of the characterization and remedial excavation confirmation samples are summarized in Table 4. The approximate final limits of the UST3 remedial excavation along with confirmation samples are shown in Figure 6.

A copy of the laboratory report is presented in Appendix F.

## 9.5 Capped Residual Petroleum Contaminated Soil

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The contaminated/impacted soil was excavated to the maximum practicable extent during the construction excavation in 2015. A limited quantity of petroleum-and PAHs-contaminated soil remained capped by hard surfaces in three localized and separate areas beneath 9th Avenue, Lenora Street, and the alley. Excavation of this soil was not feasible and impractical because:

- **9th Avenue.** Residual gasoline-range hydrocarbons and benzene-contaminate soil is present in an area measuring approximately 20 feet long (north-south) by 10 feet wide (east-west) and 9-foot thick (between approximate depths of 15 feet bgs and 24 feet bgs [approximate Elevations 72 feet amsl and 63 feet amsl]). Note that the 9th Avenue surface elevation is 87 feet amsl.

Excavation would require significant and costly shoring for excavation and closure of 9th Avenue would have an adverse and unacceptable impact on downtown traffic. A multitude of utilities beneath 9th Avenue also make excavation infeasible. Furthermore, the contaminated soil is capped under the hard pavement (asphalt) of 9th Avenue.

- **Lenora Street.** Residual gasoline- and heavy oil-range hydrocarbons, toluene- and PAH-contaminated soil is present in an area measuring approximately 40 feet long (east-west) by 8 feet wide (north-south) and 8-foot thick (between approximate depths of 24 feet bgs and 36 feet bgs [corresponding approximate Elevations 63 feet amsl and 55 feet amsl]). Note that the Lenora Street surface Elevation is 87 feet amsl.

Excavation would require significant and costly shoring for excavation and closure of Lenora Street would have an adverse and unacceptable impact on downtown traffic. A multitude of utilities in the way also make excavation infeasible. Furthermore, the contaminated soil is capped under the hard pavement (concrete) of Lenora Street sidewalk.

- **Alley.** Residual heavy oil-range hydrocarbons and PAH-contaminated soil is present in an area measuring approximately 60 feet long (north-south) by 10 feet wide (east-west) and 8-foot thick between approximate depths of 6 feet bgs and 14 feet bgs [corresponding Elevation 63 to 55 feet amsl]. Note that the alley surface Elevation is 69 feet amsl.

Presence of infrastructural impediments in the alley associated with the triangular parcel shoring wall that also support the Lenora Street stability and adjacent underground parking garage structural and foundation elements of Stratus building preclude excavation. Furthermore, the contaminated soil is capped under the hard pavement (asphalt) of the alley.

The chemical analytical results of the residual petroleum- and PAHs-contaminated soil samples at the Subject Property (9th Avenue and Lenora Street), and in the adjacent alley are summarized in attached Table 7. A graphical summary of the chemical data along with approximate extent of the residual petroleum- and PAH-contaminated soil is shown in Figures 7, 8, and 9.

Furthermore, residual petroleum- and PAH-contaminated soil located in 9th Avenue and Lenora Street (within the Subject Property) and in the alley (outside the Subject Property) is inaccessible and cannot be excavated due to the presence of structural impediments (Section 11).

## 9.6 Groundwater

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Although perched water was encountered in localized, discontinuous locations in some of the RI explorations (Table 5 and Figure 10), perched water was not encountered in the mass excavation limits during construction in Summer of 2015. Groundwater in a former deep monitoring well G-1 (completed to an approximate depth of 86.5 feet below local Subject Property ground surface and screened within the regional aquifer) was observed at approximate depths of 53 to 55 feet bgs (approximate Elevations 16 to 14 feet amsl) in 2014 and 2015.

Groundwater samples tested from G-1 in July 2015 showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels and petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range hydrocarbons), and BTEX were not detected.

Also, a former off-property monitoring well (MW-5) that was located on the south sidewalk of Lenora Street was completed by GeoEngineers in 1993 to an approximate depth of 58 feet below Lenora Street ground surface and screened within the regional aquifer for a different project. Groundwater in MW-5 was observed at an approximate depth of 48 feet below the Lenora Street ground surface (approximate Elevation 28 feet amsl). Chemical analytical results of a groundwater sample obtained and tested from MW-5 in 1993 indicated no petroleum impacts.

Additionally, clean low permeability glacially consolidated vadose zone soil maintains significant vertical separation (39 feet) between remaining residual inaccessible petroleum-contaminated soil and the static groundwater table beneath the Subject Property.

Therefore, based on groundwater sample results from G-1 and MW-5 and presence of clean low permeability glacially consolidated vadose zone soil, the soil-to-groundwater pathway is incomplete, and groundwater is not a media of concern at the Site.

The 2002 and 2014 analytical data of the perched water samples is summarized in attached Table 5 and graphically shown in Figure 10. The deep regional groundwater analytical data is summarized in attached Table 6 and graphically shown in Figure 11.

A copy of the exploration logs except MW-5 (unavailable to Aspect) are presented in attached Appendix H.

A copy of the laboratory report for groundwater sample from G-1 is presented in Appendix E.

## 9.7 Contaminated Soil Disposal

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According to weight summaries provided by Sellen, approximately 14,550 tons of contaminated/impacted soil was excavated from the Subject Property and transported to Waste Management's transfer station in Seattle, Washington for rail hauling and permitted disposal at their Subtitle D landfill located in Arlington, Oregon.

Also, approximately 1,500 gallons of UST-rinse water (wastewater) was removed from the Subject Property during the tank removal activities and transported to Marine Vacuum Services facility in Seattle, Washington for permitted disposal.

A copy of the contaminated soil tonnage summaries and wastewater disposal receipts provided by Sellen are included in Appendix G.

## 10 Post-Cleanup (2019) Analysis of Potential Risk for Vapor Intrusion

Per Ecology’s 2019 request, Aspect performed this post-cleanup assessment to evaluate the potential risk for VI in the newly constructed Stratus Apartments building relative to the residual petroleum- and PAH-contaminated soil at the Site.

Aspect’s analysis demonstrates that the residual petroleum- and PAH-contaminated soil present at the Site does not pose a risk for potential VI into the existing Stratus Apartments building based on the following four lines of evidence:

### 10.1 Ecology’s 2017 Property-Specific NFA Determination

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- Based on the information provided in the 2016 RI/FS (GeoEngineers, 2016a) and CAR (GeoEngineers, 2016b) documents, Ecology stated in the 2017 property-specific NFA opinion letter that “the soil vapor intrusion pathway is not an issue at this Site” (Ecology, 2017a).

Note that nothing has changed at the Site relative to the soil, perched water, and groundwater quality, geological and hydrogeological conditions, and location, nature, and extent of residual petroleum- and PAHs-contaminated soil except for the change in east and south boundaries of the Subject Property (that extend to the centerline of 9th Avenue and Lenora Street).

Therefore, based on Ecology’s 2017 determination and supplemental considerations outlined below, the VI pathway is still considered incomplete for the Subject Property.

### 10.2 Stratus Apartments Building Ventilation

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- The existing 42-storied Stratus Apartments is a reinforced concrete building that consists of 6 sub-grade parking levels, retail at-grade, and residential apartments above. The 6-level underground parking structure has a separate ventilation system from the above-ground retail and residential floors. Therefore, the vapor exposure pathway for the inhabited/residential portion of the building is incomplete (see item 3 below).
- The air exchange rate of a building is considered a mitigating factor for the potential risk of vapor intrusion. For example, the Johnson-Ettinger (JE) model uses a conservative default air exchange rate of 0.25 exchanges per hour for residential buildings<sup>5</sup> to calculate the predicted indoor air concentration of contaminants that present a potential risk for vapor inhalation. Based on the mechanical drawings for the Stratus building, each of the 6 sub-grade parking

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<sup>5</sup> See Appendix D of Ecology’s Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, Washington State Department of Ecology, Toxics Cleanup Program, Publication No.09-09-047, Review Draft October 2009, Revised February 2016 and April 2018.

levels have a ventilation system that provides 7.8 air exchanges per hour<sup>6</sup> in each of the parking garage levels. This air exchange rate is considered adequate for the mitigation of potential impacts to indoor air that could pose a risk to human health in a parking garage use exposure scenario.

### 10.3 No Volatiles in Groundwater Beneath Stratus Building

- There are no volatiles in groundwater based on chemical testing and the groundwater is not in contact with the building foundation.
- The chemical analytical results of groundwater samples from two former monitoring wells (G-1 located on-property and MW-5 located off-property in south sidewalk of Lenora Street) that were screened in the deep regional aquifer showed no petroleum impacts.
- The 2002 chemical data from perched water samples (obtained directly from the boreholes [B-2 and B-3] that were completed within the Lenora Street and alley, respectively) indicated MTCA exceedances of petroleum hydrocarbons (gasoline- and oil-range). However, this 2002 data does not represent the current perched water conditions due to the following reasons:
  - The data are 17 years old and the petroleum constituents are likely to have experienced natural attenuation since that time.
  - GeoEngineers could not perform a boring at the B-2 location during their investigation in 2014 to verify the 2002 chemical data due to the presence of multiple utilities beneath the Lenora Street sidewalk. However, perched water sampled from three soil borings completed in the vicinity of B-2 (DP-3, DP-4, and DP-5) were below MTCA Method A cleanup levels for petroleum hydrocarbons.
  - Perched water was not encountered within the mass excavation limits during cleanup activities and building construction in 2015.
  - Additionally, clean low permeability glacially consolidated vadose zone soil maintains significant vertical separation (39 feet) between remaining residual inaccessible petroleum-contaminated soil and the static groundwater table beneath the Site.

### 10.4 Nature and Extent of Residual Contaminated Soil

- The petroleum- and PAH-contaminated soil at the Site is present in three localized and separate areas (9th Avenue, Lenora Street, and the alley) outside the footprint of the existing Stratus building (Figure 7). Only the 9th Avenue and Lenora Street contaminated soil areas are located on the Subject

<sup>6</sup> The air exchange rate per hour was calculated using the formula (CFM \* 60/Volume of Parking Garage). The average CFM of the garage fan for the six parking levels was 22,500 Cubic Feet per Minute (CFM) and the volume of parking garage was calculated by multiplying the length (180 feet), width (120 feet) and, height (8 feet) of one level of parking garage.

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Property. The nature and extent of these residual soil impacts are considered a low risk for VI based on the following:

- Clean low permeability glacially consolidated vadose zone soil (approximate thickness 39 feet) separates the residual petroleum- and PAHs-contaminated soil from the deep regional groundwater beneath the Site.
- The off-property contamination in the alley comprises oil-range hydrocarbons and carcinogenic PAHs. Based on the low volatility of these contaminants, the residual contaminated soil in the alley poses a low risk for VI.
- The contaminant concentrations documented in 2002 in Lenora Street (gasoline 2,400 mg/kg and oil-range 18,000 mg/kg) are dominated by weathered and heavier-end petroleum hydrocarbons that have a low volatility. These data are also 17 years old and the petroleum constituents are likely to have experienced further natural attenuation since that time as demonstrated by the 2016 RI testing (DP-3, DP-4, and DP-5) and the confirmation soil sampling results along the adjacent southern mass excavation wall during the cleanup action (UST2-EX-S1, Figure 7 and 9). Petroleum hydrocarbons either were not detected or detected at low concentrations below MTCA Method A cleanup levels in the 2014 RI soil samples, and not detected in the 2015 excavation confirmation soil samples.
- The soil contaminant concentrations in 9th Avenue (gasoline 50 mg/kg and benzene 0.23 mg/kg) only slightly exceed MTCA Method A Cleanup Levels (gasoline 30 mg/kg and benzene 0.03 mg/kg). These concentrations are unlikely to pose a risk for the vapor exposure pathway when taken under consideration with the previous lines of evidence including the presence of underground parking garage (6 levels) with high air exchange rate as outlined above.

# 11 Analysis of Impracticability for Soil Removal

Please note that this 2019 Cleanup Action Report is stamped by a Washington State licensed engineer to satisfy Ecology's request for an engineering analysis of impracticability to excavate residual petroleum- and PAH-contaminated soil at the Site.

Based on the chemical analytical results of the soil samples obtained within the Subject Property boundaries (includes portions of Lenora Street [boring B-2 in 2002] and 9th Avenue [utility excavation in 2015]) and the adjacent alley (borings DP-1 and DP-2 in 2014), petroleum hydrocarbons and PAHs were detected at concentrations greater than the MTCA Method A cleanup levels.

Site characterization data has demonstrated that the residual contamination in 9th Avenue is not part of the Site (Sections 3 and 4) while the likely source of contamination in Lenora Street and alley are the former Subject Property USTs that were removed in 2002 (UST1) and in 2015 (UST2).

The following summarizes Aspect's analysis regarding the impracticability of removal of this residual contaminated soil.

## 11.1 Location and Extent of Residual Contaminated Soil

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Excavation and removal of the residual petroleum- and PAHs-contaminated soil in 9th Avenue, Lenora Street, and the alley is not feasible and deemed impracticable because:

- **Lenora Street.** Residual gasoline- and heavy oil-range hydrocarbons, toluene- and PAH-contaminated soil that could not be removed during the cleanup and redevelopment is present in an area measuring approximately 40 feet long (east-west) by 8 feet wide (north-south) and 8-foot thick (between approximate depths of 24 feet bgs and 36 feet bgs [corresponding approximate Elevations 63 feet amsl and 55 feet amsl]). Note that the Lenora Street surface Elevation is 87 feet amsl.

Excavation would require significant and costly shoring for excavation. Closure of Lenora Street would have an adverse and unacceptable impact on downtown traffic. A multitude of utilities beneath Lenora Street also make excavation infeasible. Furthermore, the contaminated soil is capped under the hard pavement (concrete) of Lenora Street sidewalk. Additionally, in-situ treatment is not technically feasible or cost effective for heavy-range petroleum hydrocarbons and PAHs in the vadose zone above the water table.

- **Alley.** Residual heavy oil-range hydrocarbons and PAH-contaminated soil is present in an area measuring approximately 60 feet long (north-south) by 10 feet wide (east-west) and 8-foot thick between approximate depths of 6 feet bgs and 14 feet bgs [corresponding Elevation 63 to 55 feet amsl]. Note that the alley surface Elevation is 69 feet amsl.

The presence of infrastructural impediments eliminate the possibility of additional remedial excavation of residual contaminated soil in the alley.

Infrastructure impediments include a shoring wall that supports Lenora Street, adjacent historic underground parking garage structural elements now buried beneath the City park and presence of foundation elements of the new Stratus building. Furthermore, the contaminated soil is capped under the hard pavement (asphalt) of the alley. Additionally, *in situ* treatment is not technically feasible or cost effective for heavy-range petroleum hydrocarbons and PAHs in the vadose zone above the water table.

- **9th Avenue.** Residual gasoline-range hydrocarbons and benzene-contaminated soil from an off-site source is present in an area measuring approximately 20 feet long (north-south) by 10 feet wide (east-west) and 9 feet thick (between approximate depths of 15 feet bgs and 24 feet bgs [approximate Elevations 72 feet amsl and 63 feet amsl]). Note that the 9th Avenue surface elevation is 87 feet amsl.

Excavation would require significant and costly shoring for excavation. Closure of 9th Avenue and would have an adverse and unacceptable impact on downtown traffic. A multitude of utilities beneath 9th Avenue also make excavation infeasible. Furthermore, the contaminated soil is capped under the hard pavement (asphalt) of 9th Avenue. Finally, this contamination is considered a separate Site (Section 4).

## 11.2 2016 MTCA Disproportionate Cost Analysis

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The following summary of the MTCA Disproportionate Cost Analysis (DCA) performed by GeoEngineers in 2016 is based on Aspect's understanding of the cleanup action and our review of the RI/FS Report (GeoEngineers, 2016a).

- The DCA analysis involves comparing the costs and benefits of alternatives and selecting the alternative with incremental costs that are not disproportionate to the incremental benefits.
- The evaluation criteria for the DCA are specified in WAC 173-340-360(2) and WAC 173 340-360(3), and include protectiveness, permanence, cost, long-term effectiveness, management of short-term risks, implementability and consideration of public concerns.
- As outlined in WAC 173-340-360(3)(e), MTCA provides a methodology that uses the criteria below to determine whether the costs associated with each cleanup alternative are disproportionate relative to the incremental benefit of the alternative above the next lowest-cost alternative.
  - Costs are disproportionate to benefits if the incremental costs of the more permanent alternative exceed the incremental degree of benefits achieved by the other lower-cost alternative [WAC-173-340-360(e)(i)]. Where two or more alternatives are equal in benefits, Ecology selects the less costly alternative [WAC 173-340-360(e)(ii)(c)].

- The MTCA DCA evaluated the following three alternatives for remediating petroleum- and PAHs-contaminated soil remaining beneath 9th Avenue, Lenora Street, and alley. Each of the three alternatives mentioned below met the four MTCA threshold requirements for cleanup actions: protection of human health and the environment, compliance with cleanup standards, compliance with applicable state and federal regulations, and provision for compliance monitoring.
  - Alternative 1 – Capping with Institutional and Engineering Controls
  - Alternative 2 – Excavation
  - Alternative 3 – *In situ* Treatment
- Based on the DCA, remedial Alternative 1 – Capping (Institutional and Engineering Controls) is the preferred alternative for remediating the residual contaminated soil beneath 9th Avenue, Lenora Street, and the alley because it meets the minimum thresholds and other requirements as follows:
  - **Uses permanent solutions to the maximum extent practicable** [WAC 173-340-360(2)(b)(i)] as demonstrated by the disproportionate cost analysis.
  - **Provides a reasonable restoration time frame** [WAC 173-340-360(2)(b)(ii)]. The cap(s) already exist as paved sidewalks and/or city streets or alleys.
  - **Public Concerns.** For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. However, information is available to the public through Ecology’s Site Register, and the public could comment on any planned actions.

Based on the above analysis, Aspect believes it is highly infeasible and impractical to excavate the limited quantity of inaccessible residual petroleum- and PAHs-contaminated soil from portions of the 9th Avenue and Lenora Street on the Subject Property and in the alley located outside the Subject Property. Furthermore, the contaminated soil in these areas is capped under hard surfaces (concrete and/or asphalt pavement) which meets the MTCA cleanup requirements.

### 11.3 2017 Ecology’s Model Remedy 3

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The Ecology’s Model Remedy 3<sup>7</sup> for petroleum contaminated sites (Ecology, 2017b) states *“This model remedy applies to situations where Method A levels (either for unrestricted use, or for sites that meet the definition of industrial land use) are selected but the soil removal action is not sufficient to fully comply with the specified concentrations at all locations on the source property or within the portion of the right-of-way that is owned by the source property owner, due to the presence of one or more*

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<sup>7</sup> Model Remedies for Sites with Petroleum Contaminated Soils, Toxics Cleanup Program, Publication No. 15-09-043, dated September 2015 and revised in December 2017.

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*structural impediments (e.g., buildings, utility lines, or roadways).*” This is applicable to the Subject Property and the overall Site because:

- The contaminated/impacted soil removal was implemented to the maximum extent practicable (Figure 4, 5, and 6).
- Site characterization data confirms that no other pathway has or can reasonably be expected to be impacted.
- Presence of structural impediments consisting of building elements, utility lines, roadways in 9th Avenue and Lenora Street (a portion of these rights-of-way are part of the Subject Property) and the alley precludes access and removal of the limited contaminated soil present in these areas (Figures 7, 8, and 9) because any excavation activity will undermine the structural integrity of nearby improvements.
- Although intermittent perched water appears impacted in a limited southeast portion of the Subject Property based on 2002 chemical data (Figure 10), this data is considered superseded by the 2014 sampling and testing data. Also, the groundwater is not impacted at the Site (Figure 11).
- Contaminated soil that remains capped in place is separated from the deep regional groundwater table by clean low permeability glacially consolidated vadose zone soil (approximate thickness 39 feet) beneath the Site.
- An environmental covenant will be recorded in accordance with Washington Administrative Code (WAC) 173-340-440, to implement institutional controls in areas where residual petroleum- and PAH-contaminated soil is present at the Subject Property (portions of 9th Avenue and Lenora Street) to ensure the integrity of the cap and prevent exposure to hazardous substances at the Property (Figure 12).

Based on the above analysis, it is highly infeasible and impractical to excavate the limited quantity of inaccessible residual petroleum- and PAHs-contaminated soil from portions of Lenora Street and 9th Avenue that are part of the Subject Property, or from the alley located outside the Subject Property boundary. Furthermore, the contaminated soil in these areas is capped under hard surfaces (concrete and/or asphalt pavement) to prevent direct contact or soil leaching to groundwater.

## 12 Conclusions

The Property-specific NFA determination is based on the Site characterization data, chemical analytical results of the confirmation soil samples obtained at the final limits of the remedial excavations within the Subject Property, and groundwater samples obtained from former monitoring wells that were screened in the deep regional aquifer. Ecology had previously concurred with these findings (Ecology, 2017a) and, as explained in greater detail below, the recently identified change in property boundaries does not affect this conclusion; therefore, reissuance of a Property-Specific NFA is appropriate:

### 12.1 Soil

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Two underground storage tanks, a hydraulically operated elevator shaft, and a hydraulic hoist, were encountered and removed from the Subject Property between June 2015 and August 2015 in accordance with Ecology's Guidance for Site Checks and Site Assessments for Underground Storage Tanks" dated February 1991.

Soil with MTCA exceedances of diesel-, and heavy oil-range hydrocarbons and PAHs; and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, and/or lead was successfully removed from the mass excavation limits at the Subject Property.

Confirmation soil sampling demonstrated that applicable cleanup standards were met vertically and laterally within the mass excavation limits at the Subject Property.

Based on the contaminated soil disposal summaries provided by Sellen, the total quantity of contaminated/impacted soil removed from the Ninth and Lenora development project area for permitted disposal was 14,550 tons.

Residual petroleum- and PAHs-contaminated soil located outside the footprint of the new Stratus Apartments building in 9th Avenue and Lenora Street (within the Subject Property), and in the alley (outside the Subject Property) owned by the Parks Department, are inaccessible and cannot be excavated due to the presence of structural impediments (Section 11). Furthermore, the residual petroleum- and PAHs-contaminated soil in these three areas remains capped beneath hard pavements to prevent direct contact. Also, in-situ treatment is not technically feasible or cost effective for heavy-range petroleum hydrocarbons and PAHs in the vadose zone above the water table.

Additionally, based on the deep regional groundwater table; large vertical separation (39 feet) between groundwater and residual petroleum- and PAH-contaminated soil due to the presence of clean low permeable glacially consolidated soil; and no impacts to the groundwater documented by the groundwater samples analytical data, the soil-to-groundwater pathway for contaminant migration is incomplete at the Site.

### 12.2 Groundwater

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Regional groundwater is deep (55 to 53 feet bgs at approximate Elevations 16 to 14 feet amsl) based on the measurements from a former groundwater monitoring well G-1 which was installed prior to construction activities on the Subject Property.

Groundwater is not impacted by the releases at Subject Property based on the following:

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- Perched water was encountered at localized and discontinuous locations in the subsurface explorations (Figure 10) but was not encountered during shoring installation and mass construction excavation at the Subject Property.
- The 2002 chemical data from perched water samples (obtained directly from the boreholes [B-2 and B-3] that were completed within the Lenora Street and alley, respectively) indicated MTCA exceedances of petroleum hydrocarbons (gasoline- and oil-range). However, this 2002 data does not represent the current perched water conditions due to the following reasons:
  - The data are 17 years old and the petroleum constituents are likely to have experienced natural attenuation since that time.
  - GeoEngineers could not perform a boring at the B-2 location during their investigation in 2014 to verify the 2002 chemical data due to the presence of multiple utilities beneath the Lenora Street sidewalk. However, perched water sampled from three soil borings completed in the vicinity of B-2 (DP-3, DP-4, and DP-5) were below MTCA Method A cleanup levels for petroleum hydrocarbons.
  - Perched water was not encountered within the mass excavation limits during cleanup activities and building construction in 2015.
- Groundwater was encountered during the installation of vertical shoring elements at approximate Elevations ranging from 10 to 15 feet amsl, beneath the property (consistent with the observations in former monitoring well, G-1).
- The contaminated soil extended to a maximum depth of approximately 32 feet bgs (Elevation 55 feet amsl) and the regional groundwater aquifer was first encountered at depths of approximately 53 to 55 feet below local Subject Property ground surface (Elevations 16 to 14 feet amsl).

Therefore, a significant thickness (39 feet) of clean low permeable glacially consolidated vadose zone soil was documented separating the limited quantity of residual contaminated soil from deeper regional aquifer at the Subject Property.

- Groundwater samples tested from a former on-property monitoring well G-1 showed that arsenic, chromium, and lead were present at concentrations below MTCA Method A cleanup levels and petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range hydrocarbons), and BTEX were not detected (Figure 11).
- A groundwater sample obtained from a nearby off-property monitoring well (MW-5) located opposite to the Subject Property, in south sidewalk of Lenora Street, indicated no petroleum impacts (Figure 11).

Based on the rationale above, groundwater is not contaminated at the Site. Hence, the soil leaching to groundwater and groundwater exposure pathways for contaminant migration is incomplete at the Site and additional confirmation groundwater sampling is not necessary to verify the success of the 2015 cleanup action.

## 12.3 Soil Vapor

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As discussed earlier in Section 10 of this report, the soil vapor to inhalation pathway is considered incomplete under current conditions at the Site because:

- The nature and extent of residual petroleum- and PAH-contaminated soil impacts pose a low risk for VI, and the construction of the new Stratus building with 6 underground parking levels with ventilation system provide adequate mitigation of any potential VI pathway.
- There are no volatiles in groundwater and no groundwater impacts are in contact with the building foundation that would preclude the conclusions of this assessment.
- Based on the information provided in the 2016 RI/FS (GeoEngineers, 2016a) and CAR (GeoEngineers, 2016b) documents, Ecology stated in the 2017 Property-Specific NFA opinion letter that “the soil vapor intrusion pathway is not an issue at this Site” (Ecology, 2017a).
- Note that nothing has changed at the Site relative to the soil, perched water, and groundwater quality, geological and hydrogeological conditions, and location, nature, and extent of residual petroleum- and PAHs-contaminated soil except for the change in east and south boundaries of the Subject Property (that extend to the centerline of 9th Avenue and Lenora Street).

Based on Ecology’s 2017 determination, the low volatility and localized presence of residual petroleum-and PAH-contaminated soil in three separate areas that are limited in magnitude, the VI exposure pathway for the Subject Property is incomplete and does not warrant additional evaluation.

## 12.4 Regulatory Closure

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The cleanup action completed at the Subject Property resulted in conditions that are protective of human health and the environment. A Property-Specific no further action (NFA) determination from Ecology is considered appropriate based on the following:

- Chemical analytical results of confirmation soil and groundwater samples has documented removal of all contaminated/impacted soil from within the bounds of the mass excavation at the Subject Property. However,
- A limited volume of petroleum- and PAH-contaminated soil is present beneath limited portions of 9th Avenue and Lenora Street (within the Subject Property) and in a limited portion of the alley (outside the Subject Property). The results of 2016 MTCA DCA (GeoEngineers, 2016a) and Aspect’s 2019 Impracticability Analysis (Section 11) has demonstrated that it is not practicable to excavate the residual petroleum- and PAH-contaminated soil.
- Based on the deep regional groundwater table; large vertical separation (39 feet) between groundwater and residual petroleum- and PAH-contaminated soil due to the presence of clean low permeable glacially consolidated soil; and no impacts to the groundwater documented by the groundwater samples analytical data, the

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soil leaching and groundwater pathways for contaminant migration is incomplete at the Site.

- Residual petroleum- and PAHs-contaminated soil remains capped beneath hard pavements, which is considered protective of the soil direct contact and soil leaching pathways.
- The results of Aspect's 2019 VI assessment indicate that the soil vapor to inhalation pathway is incomplete under current conditions at the Site (Section 10).
- The Site qualified for an exclusion from the Terrestrial Ecological Evaluation (Section 6).
- An environmental covenant will be recorded in accordance with Washington Administrative Code (WAC) 173-340-440, to implement institutional controls in areas where residual petroleum- and PAH-contaminated soil is present at the Subject Property (portions of 9th Avenue and Lenora Street) to ensure the integrity of the cap and prevent exposure to hazardous substances at the Property (Figure 12).

Based on the evaluation of Site conditions and remedial options described in GeoEngineers' RI/FS (GeoEngineers, 2016a), and the results of the cleanup action on the Subject Property documented in this Cleanup Action Report, reissuance of a Property-Specific NFA determination for the Subject Property is requested.

## 13 References

- GeoEngineers, Inc., GeoEngineers 2014. Construction Contingency Plan for Contaminated Soil and Groundwater Management, 9th and Lenora Development, 2118 Westlake Avenue/2101 9th Avenue, Seattle, Washington, dated December 12, 2014.
- GeoEngineers, Inc., GeoEngineers 2015. Northeast Heating Oil UST Removal and Site Assessment Report, 9th and Lenora Development, Seattle, Washington, dated July 13, 2015.
- GeoEngineers, Inc., GeoEngineers 2016a. Remedial Investigation and Feasibility Study, Ninth and Lenora Development, 2101 9th Avenue, Seattle, Washington, Facility/Site #91413494, Cleanup Site ID: 1802, VCP Project No. NW2980, dated March 24, 2016.
- GeoEngineers, Inc., GeoEngineers 2016b. Cleanup Action Report, Ninth and Lenora Development, 2101 9th Avenue, Seattle, Washington, Facility/Site #91413494, Cleanup Site ID: 1802, VCP Project No. NW2980, dated March 25, 2016.
- Washington State Department of Ecology. Ecology 2017a. No Further Action at a Property associated with a Site opinion letter dated November 14, 2017.
- Washington State Department of Ecology. Ecology 2017b. Model Remedies for Sites with Petroleum Contaminated Soils, Toxics Cleanup Program, Publication No. 15-09-043, dated September 2015 and revised in December 2017.

## 14 Limitations

Work for this project was performed for the Ninth and Lenora LLC (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

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**Please refer to Appendix I titled “Report Limitations and Guidelines for Use” for additional information governing the use of this report.**

# **TABLES**

**Table 1. Soil Field Screening and Chemical Analytical Data<sup>1</sup>  
of Soil Stockpiles and Mass Excavation Samples - Petroleum Hydrocarbons and PAHs**

Project No. 170291, Lenora Building Project, Seattle, WA

Sample Location	Approximate Surface Elevation <sup>2</sup> (feet amsl)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet amsl)	Field Screening Results		Petroleum Hydrocarbons (mg/kg)		Total cPAHs (mg/kg)
					Sheen	Headspace Vapor (ppm)	Diesel Range	Heavy Oil Range	Toxicity Equivalent
<b>July and August 2015 Confirmation Samples</b>									
Soil Stockpiles from Shoring Installation and Lenora Street Duct Bank Excavation	na	SS-1	na	na	SS	<1	<b>56</b>	<b>350</b>	<b>0.0549</b>
		SS-2			SS	<1	<b>44</b>	<b>210</b>	<b>0.5135</b>
		SS-3			MS	<1	<b>74</b>	<b>650</b>	<b>0.0077</b>
		SS-4			MS	<1	<b>70</b>	<b>380</b>	<b>0.1324</b>
		SS-5 <sup>3</sup>			SS	<1	<40U	<b>300</b>	--
		SS-6			HS	<1	<b>610</b>	<b>2900</b>	<b>0.5016</b>
		SS-7			SS	<1	<b>43</b>	<b>120</b>	0.0138
		SS-8			SS	<1	<35U	<b>76</b>	<b>0.0305</b>
<b>August 2015 Confirmation Samples</b>									
Mass Excavation of Shallow Fill Soil	69	MASSEX-1-10.0	10.0	59	NS	<1	<30U	<59U	0.0059
		MASSEX-2-10.0	10.0	59	NS	<1	<30U	<59U	0.0059
		MASSEX-3-7.0	7.0	62	NS	<1	<30U	<60U	0.006
		MASSEX-4-7.0	7.0	62	NS	<1	<29U	61	0.0059
		MASSEX-4-9.0	9.0	60	NS	>1	<28U	<56U	--
		MASSEX-5-7.0	7.0	62	NS	<1	<31U	<61U	0.006
		MASSEX-6-7.0	7.0	62	NS	<1	<30U	<59U	0.006
		MASSEX-7-7.0	7.0	62	NS	<1	<31U	<63U	0.0062
		MASSEX-8-7.0	7.0	62	NS	<1	<31U	<61U	0.006
		MASSEX-9-8.0	8.0	61	NS	<1	<30U	<60U	0.0059
		MASSEX-10-8.0	8	61	NS	<1	<30U	<b>66</b>	0.0059
MASSEX-10-9.0	9	60	NS	<1	<28U	<56U	--		
MASSEX-11-15.0	15.0	54	NS	<1	<29U	<57U	0.0057		
<b>MTCA Method A or B Cleanup Level for Unrestricted Land Use</b>							2,000	2,000	0.1

**Notes**

ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

-- = Not analyzed

U = Analyte not detected at or above the listed Reporting Limit.

MTCA = Model Toxics Control Act

HS = Heavy sheen: MS = Moderate sheen: SS = Slight sheen: NS = No sheen

na = Not applicable

amsl = above mean sea level

ppm = parts per million

Sample elevation corresponds to North American vertical Datum 1988

**Bold** value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A Cleanup Level for unrestricted land use.

**Table 2. Soil Field Screening and Chemical Analytical Data<sup>1</sup>**  
**Elevator Shaft and Hoist Excavation Samples - Petroleum Hydrocarbons**

Project No. 170291, Lenora Building Project, Seattle, WA

Sample Location	Approximate Surface Elevation (feet amsl)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet amsl)	Field Screening Results		Petroleum Hydrocarbons		
					Sheen	Headspace Vapor (ppm)	Gasoline Range	Diesel Range	Heavy Oil Range
<b>August 2015 - Product Characterization Samples</b>									
Elevator Shaft	75	ELVTR-Product	na	na	HS	--	ND	Detected	Detected
Hydraulic	69	HOIST-Product	na	na	HS	--	ND	Detected	Detected
<b>August 2015 - UST2 Soil Confirmation Samples (mg/kg)</b>									
Elevator Shaft Excavation	75	ELEVTR-1-20.0	20.0	55	NS	<1	--	<28U	<56U
Hoist Excavation	69	HOIST-EX-7.0	7.0	62	NS	<1	--	<31U	<62U
<b>MTCA Method A Cleanup Levels for Soil - Unrestricted Land Use</b>							30*	2,000	2,000

**Notes**

ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

-- = Not analyzed

\* = MTCA cleanup level of Gasoline when benzene is

U = Analyte not detected at or above the listed Reporting Limit.

MTCA = Model Toxics Control Act

HS = Heavy sheen: MS = Moderate sheen: SS = Slight sheen: NS = No sheen

na = Not applicable

ppm = parts per million

asml = above mean sea level

Sample elevation corresponds to North American Vertical Datum 1988

**Table 3 Soil Field Screening and Chemical Analytical Data<sup>1</sup>**  
**of UST2 Excavation Samples- BETX, Petroleum Hydrocarbons, and PAHs**

Project No. 170291, Lenora Building Project, Seattle, Washington

Sample Location	Approximate Surface Elevation (feet amsl)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet amsl)	Field Screening		BTEX				Petroleum Hydrocarbons			Polycyclic Aromatic Hydrocarbons		
					Sheen	Headspace Vapor (ppm)	Benzene	Toluene	Ethyl benzene	Total Xylenes	Gasoline Range	Diesel Range	Heavy Oil Range	Naphthalenes	Total cPAHS (TEQ)	
<b>August 2015 - UST2 Product Characterization Sample</b>																
UST2	na	SW-UST-Product	na	na	HS	14	--	--	--	--	ND	Detected	Detected	--	--	
<b>August 2015 - UST2 Soil Characterization Samples (mg/kg)<sup>10</sup></b>																
UST2 Pit	87	UST2-W-22.0	22.0	65	HS	13	--	--	--	--	--	4,300	29,000	19.6	0.635	
		UST2-S-22.0	22.0	65	HS	23	--	--	--	--	--	2,500	30,000	25.5	0.489	
		UST2-B-24.0	24.0	63	HS	27	--	--	--	--	--	2,900	40,000	38.7	0.534	
<b>August 2015 - UST2 Soil Confirmation Samples (mg/kg)</b>																
UST2 Remedial Excavation	87	UST2EX-N-33.0	33.0	54	NS	<1	<0.020	<0.064	<0.064	<0.128	<6.4	<33	<66	<0.264	0.0066	
		UST2EX-S1-20.0	20.0	67	NS	<1	<0.020	<0.055	<0.055	<0.11	<5.5	<25	<50	--	--	
		UST2EX-S1-24.0	24.0	63	NS	<1	--	--	--	--	<7.6	<33	<65	--	--	
		UST2EX-S1-33.0	33.0	54	NS	<1	<0.020	<0.06	<0.06	<0.12	<6.0	<27	<55	<0.0219	0.0056	
		UST2EX-S2-22.0 <sup>11</sup>	22.0	65	NS	<1	--	--	--	--	--	<31	<61	<b>0.0568</b>	0.0062	
		UST2EX-S2-24.0 <sup>11</sup>	24.0	63	NS	<1	--	--	--	--	--	<b>56</b>	<b>490</b>	<b>0.73</b>	<b>0.008</b>	
		UST2EX-S2-33.0	33.0	54	NS	<1	<0.020	<0.069	<0.069	<0.138	<6.9	<32	<63	<0.0252	0.0063	
		UST2EX-E-24.0	24.0	63	NS	<1	--	--	--	--	--	<32	<64	<0.0255	0.0064	
		UST2EX-E-35.0	35.0	52	NS	<1	<0.020	<0.069	<0.069	<0.178	<6.9	<32	<64	<0.0258	0.0065	
		UST2EX-W1-22.0	22.0	65	NS	<1	--	--	--	--	--	<32	<64	<0.0255	0.0065	
		UST2EX-W1-24.0 <sup>11</sup>	24.0	63	NS	<1	--	--	--	--	--	<b>1,700</b>	<b>19,000</b>	<b>6.0</b>	<b>0.1501</b>	
		UST2EX-W1-33.0 <sup>11</sup>	33.0	54	NS	<1	<0.02	<0.079	<0.079	<0.158	<7.9	<33	<65	<b>0.082</b>	0.0066	
		UST2EX-W2-24.0	24.0	63	NS	<1	--	--	--	--	--	<32	<63	<0.0255	0.0065	
		UST2EX-W2-30.0 <sup>11</sup>	30.0	57	NS	<1	--	--	--	--	--	<b>240</b>	<b>1,800</b>	<b>1.72</b>	<b>0.022</b>	
		UST2EX-W2-33.0	33.0	54	NS	<1	<0.020	<0.067	<0.067	<0.134	<6.7	<31	<62	<0.0249	0.0063	
UST2EX-W3-30.0	30.0	57	NS	<1	<0.020	<0.064	<0.064	<0.128	<6.4	<32	<65	<0.0258	0.0065			
UST2EX-B1-35.0	35.0	52	NS	<1	<0.020	<0.063	<0.063	<0.126	<6.3	<26	<53	<0.021	0.0053			
UST2EX-B2-36.0	36.0	51	NS	<1	<0.020	<0.073	<0.073	<0.146	<7.3	<32	<64	<0.0255	0.0065			
<b>MTCA Method A Cleanup Levels for Soil - Unrestricted Land Use</b>							0.03	7	6	9	30*	2,000	2,000	2,000	2,000	

**Notes**

ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

-- = Not analyzed

\* = MTCA cleanup level of Gasoline when benzene is present.

U = Analyte not detected at or above the listed Reporting Limit.

MTCA = Model Toxics Control Act

HS = Heavy sheen: MS = Moderate sheen: SS = Slight sheen: NS = No sheen

na = Not applicable

ppm = parts per million

ND = Not detected

**Bold** value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A Cleanup Level for unrestricted land use.

## Table 4. Soil Field Screening and Chemical Analytical Data<sup>1</sup> of UST3 Excavation Samples - Petroleum Hydrocarbons

Project No. 170291, Lenora Building Project, Seattle, WA

Sample Location	Approximate Surface Elevation (feet amsl)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet amsl)	Field Screening Results		Petroleum Hydrocarbons	
					Sheen	Headspace Vapor (ppm)	Diesel Range	Heavy Oil Range
<b>June 2015 - UST3 Soil Characterization Samples (mg/kg)</b>								
UST3 Pit	67	UST3-N-3.0	3.0	64	SS	<1	<28	<56
		UST3-S-3.0	3.0	64	SS	<1	<28	<57
		UST3-B-7.0*	7.0	60	HS	<1	<b>2,300</b>	<b>1,400</b>
Fuel Supply Line	80	UST3-FL-2.0	2.0	78	NS	<1	<28	<56
<b>August 2015 - UST3 Soil Confirmation Samples (mg/kg)</b>								
UST3 Remedial Excavation	67	UST3EX-N-10.0	10.0	57	NS	<1	<31	<62
		UST3EX-S-10.0	10.0	57	NS	<1	<31	<61
		UST3EX-E-10.0	10.0	57	NS	<1	<33	<67
		UST3EX-W-10.0	10.0	57	NS	<1	<32	<63
		UST3EX-B-15.0	15.0	52	NS	<1	<31	<63
<b>MTCA Method A Cleanup Level for Unrestricted Land Use</b>							2,000	2,000

### Notes

ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

\* = Soil represented by this sample was excavated and transported to a permitted waste facility for disposal.

U = Analyte not detected at or above the listed Reporting Limit.

HS = Heavy sheen: MS = Moderate sheen: SS = Slight sheen: NS = No sheen

MTCA = Model Toxics Control Act

**Bold** value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A cleanup level for unrestricted land use.

**Table 5. Perched Water Chemical Analytical Data -  
Petroleum Hydrocarbons, BTEX, and Metals**

Project No.170291, Lenora Building Project, Seattle, Washington

Analyte Group			Total Petroleum Hydrocarbons			BTEX	
Analyte Name Concentration Unit			Gasoline Range Organics ug/L	Diesel Range Organics ug/L	Motor Oil Range Organics ug/L	Benzene ug/L	Toluene ug/L
MTCA Method A or B Cleanup Level			800*	500	500	5	1000
Location	Sample	Date					
B-2	B-2-20020131	1/31/2002	--	--	--	--	--
B-2	B-2-200208	8/1/2002	<b>28,000</b>	< 25000 UJ	<b>540,000</b>	< 10 U	< 10 U
B-3	B-3-20020131	1/31/2002	--	<b>73,000</b>	<b>470,000</b>	--	--
DP-3	DP-3-W	9/1/2014	< 100 U	< 270 U	< 430 U	< 1 U	< 1 U
DP-4	DP-4-W	9/1/2014	< 100 U	<b>310</b>	< 450 U	< 1 U	< 1 U
DP-5	DP-5-W	9/1/2014	< 100 U	< 310 U	< 490 U	< 1 U	< 1 U

**Notes**

ug/L = micrograms per liter

-- = Not analyzed

\* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate.

MTCA - Model Toxics Control Act

**Bold** indicates chemical detected at the listed concentration.

Shading indicates chemical detected at a concentration greater than the

**Table 5. Perched Water Chemical Analytical Data -  
Petroleum Hydrocarbons, BTEX, and Metals**

Project No.170291, Lenora Building Project, Seattle, Washington

Analyte Group			BTEX		Total Metals			
Analyte Name Concentration Unit			Ethylbenzene ug/L	Total Xylenes ug/L	Arsenic ug/L	Chromium ug/L	Lead ug/L	Mercury ug/L
MTCA Method A or B Cleanup Level			700	1000	5	50	15	2
Location	Sample	Date						
B-2	B-2-20020131	1/31/2002	--	--	10	70	69	< 0.2 U
B-2	B-2-200208	8/1/2002	39	170	--	--	--	--
B-3	B-3-20020131	1/31/2002	--	--	100	3200	8100	3.7
DP-3	DP-3-W	9/1/2014	< 1 U	< 2 U	25	90	12.5	< 0.5 U
DP-4	DP-4-W	9/1/2014	< 1 U	< 2 U	82	720	84	0.61
DP-5	DP-5-W	9/1/2014	< 1 U	< 2 U	43	310	41	< 0.5 U

**Notes**

ug/L = micrograms per liter

-- = Not analyzed

\* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate.

MTCA - Model Toxics Control Act

**Bold** indicates chemical detected at the listed concentration.

Shading indicates chemical detected at a concentration greater than the

**Table 6. Groundwater Chemical Analytical Data -  
Petroleum Hydrocarbons, BTEX, and Metals**

Project No. 170291, Lenora Building Project, Seattle, Washington

Analyte Group			Total Petroleum Hydrocarbons			BTEX
Analyte Name Concentration Unit			Gasoline-Range Organics ug/L	Diesel-Range Organics ug/L	Motor Oil-Range Organics ug/L	Benzene ug/L
MTCA Method A or B Cleanup Level			800	500	500	5
Monitoring Well	Sample Name	Sample Date				
G-1	G-1-20131223	12/23/2013	< 100 U	< 260 U	< 410 U	< 0.2 U
G-1	G-1-20140421	4/21/2014	--	--	--	--
G-1	G-1-W-071715	7/17/2015	< 100 U	< 260 U	< 410 U	< 1 U
MW-5	MW-5 1993	9/1/1993	< 50 U	< 250 U	< 750 U	< 1 U

**Notes**

ug/L = micrograms per liter

-- = Not analyzed

\* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

MTCA - Model Toxics Control Act

**Bold** indicates chemical detected at the listed concentration.

**Table 6. Groundwater Chemical Analytical Data -  
Petroleum Hydrocarbons, BTEX, and Metals**

Project No. 170291, Lenora Building Project, Seattle, Washington

Analyte Group			BTEX			Total Metals	
Analyte Name Concentration Unit			Toluene ug/L	Ethylbenzene ug/L	Total Xylenes ug/L	Arsenic ug/L	Chromium ug/L
<b>MTCA Method A or B Cleanup Level</b>			<b>1,000</b>	<b>700</b>	<b>1,000</b>	<b>5</b>	<b>50</b>
Monitoring Well	Sample Name	Sample Date					
G-1	G-1-20131223	12/23/2013	< 1 U	< 0.2 U	<b>1.27</b>	--	--
G-1	G-1-20140421	4/21/2014	--	--	--	<b>3.7</b>	< 0.5 U
G-1	G-1-W-071715	7/17/2015	< 1 U	< 1 U	< 2 U	--	--
MW-5	MW-5 1993	9/1/1993	< 1 U	< 1 U	< 2 U	--	--

**Notes**

ug/L = micrograms per liter

-- = Not analyzed

\* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

MTCA - Model Toxics Control Act

**Bold** indicates chemical detected at the listed concentration.

**Table 6. Groundwater Chemical Analytical Data -  
Petroleum Hydrocarbons, BTEX, and Metals**

Project No. 170291, Lenora Building Project, Seattle, Washington

Analyte Group			Total Metals		
Analyte Name Concentration Unit			Chromium ug/L	Lead ug/L	Mercury ug/L
<b>MTCA Method A or B Cleanup Level</b>			<b>50</b>	<b>15</b>	<b>2</b>
Monitoring Well	Sample Name	Sample Date			
G-1	G-1-20131223	12/23/2013	--	--	--
G-1	G-1-20140421	4/21/2014	<b>33</b>	<b>1.4</b>	< 0.5 U
G-1	G-1-W-071715	7/17/2015	--	--	--
MW-5	MW-5 1993	9/1/1993	--	--	--

**Notes**

ug/L = micrograms per liter

-- = Not analyzed

\* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

MTCA - Model Toxics Control Act

**Bold** indicates chemical detected at the listed concentration.

**Table 7. Chemical Analytical Data of Residual Contaminated Soil Samples - Petroleum Hydrocarbons, BTEX, Metals, and PAHs**

Project No. 170291, Lenora Building Project, Seattle, Washington

Analyte Group							Total Petroleum Hydrocarbons			BTEX				Metals	
Analyte Name Concentration Unit							Gasoline-Range Organics mg/kg	Diesel-Range Organics mg/kg	Motor Oil-Range Organics mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Total Xylenes mg/kg	Arsenic mg/kg	Cadmium mg/kg
MTCA Method A or B Cleanup Level							30*	2000	2000	0.03	7	6	9	20	2
Location	Exploration ID	Surface Elevation	Sample Name	Sample Date (feet bgs)	Sample Depth	Sample Elevation (feet)									
Subject Property - 9th Avenue	B-1	87	B-1-18.0	8/1/2002	18	69	< 3 U	<b>120</b>	<b>310</b>	<b>0.23</b>	< 0.05 U	< 0.05 U	< 0.2 U	--	--
			B-1-24.0	8/1/2002	24	63	< 3 U	< 25 U	< 50 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.2 U	--	--
	UTL9-E	87	UTL9-E-15.0	4/1/2015	15	72	< 6 U	<b>34</b>	< 59 U	<b>0.06</b>	< 0.06 U	< 0.06 U	< 0.06 U	--	--
			UTL9-E-18.0	4/1/2015	18	69	<b>50</b>	--	--	<b>0.052</b>	< 0.065 U	< 0.065 U	< 0.065 U	--	--
	UTL9-N	87	UTL9-N-5.0	4/1/2015	5	82	< 5.5 U	--	--	< 0.02 U	< 0.055 U	< 0.055 U	< 0.055 U	--	--
			UTL9-N-18.0	4/1/2015	18	69	< 5.9 U	<b>180</b>	<b>1700</b>	< 0.02 U	< 0.059 U	< 0.059 U	< 0.059 U	--	--
	UTL9-S	87	UTL9-S-5.0	4/1/2015	5	82	< 6.4 U	--	--	< 0.02 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--
			UTL9-S-15.0	4/1/2015	15	72	< 4.9 U	< 29 U	< 57 U	<b>0.022</b>	< 0.049 U	< 0.049 U	<b>0.057</b>	--	--
			UTL9-S-20.0	4/1/2015	20	67	< 5 U	--	--	<b>0.029</b>	< 0.05 U	< 0.05 U	<b>0.164</b>	--	--
			UTL9-S-23.0	4/1/2015	23	64	< 5.3 U	< 28 U	< 56 U	< 0.02 U	< 0.053 U	< 0.053 U	< 0.053 U	--	--
EX-1	87	EX-1-6.0	4/1/2015	6	81	< 5.1 U	--	--	< 0.02 U	< 0.051 U	< 0.051 U	< 0.051 U	--	--	
		EX-1-12.0	4/1/2015	12	75	< 5.9 U	< 27 U	< 55 U	< 0.02 U	< 0.059 U	< 0.059 U	< 0.059 U	--	--	
		EX-1-18.0	4/1/2015	18	69	< 6.1 U	< 28 U	<b>68</b>	< 0.02 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	
Subject Property - Lenora Street	B-2	87	B-2-24.0	8/1/2002	24	63	<b>2400 X</b>	< 500 U	<b>18,000</b>	< 0.6 U	<b>11</b>	< 1 U	< 3 U	--	--
			B-2-32.5	8/1/2002	32.5	54.5	< 3 U	< 25 U	<b>99</b>	< 0.03 U	< 0.05 U	< 0.05 U	< 0.2 U	--	--
	DP-3	87	DP-3-20.0	9/1/2014	20	67	<b>10</b>	< 28 U	< 56 U	< 0.02 U	< 0.054 U	< 0.054 U	< 0.108 U	--	--
			DP-3-24.0	9/1/2014	24	63	< 6.3 U	< 30 U	< 60 U	< 0.02 U	< 0.063 U	< 0.063 U	< 0.126 U	--	--
	DP-4	87	DP-3-28.0	9/1/2014	28	59	< 7.2 U	< 33 U	< 66 U	< 0.02 U	< 0.072 U	< 0.072 U	< 0.144 U	--	--
			DP-4-4.0	9/1/2014	4	83	--	< 27 U	< 54 U	--	--	--	--	--	--
			DP-4-20.0	9/1/2014	20	67	< 6.1 U	< 28 U	< 55 U	< 0.02 U	< 0.061 U	< 0.061 U	< 0.122 U	--	--
	DP-5	87	DP-4-24.0	9/1/2014	24	63	< 6.3 U	< 31 U	< 62 U	< 0.02 U	< 0.063 U	< 0.063 U	< 0.126 U	--	--
			DP-4-28.0	9/1/2014	28	59	< 6.6 U	< 32 U	< 63 U	< 0.02 U	< 0.066 U	< 0.066 U	< 0.132 U	--	--
			DP-5-2.0	9/1/2014	2	85	--	< 27 U	<b>580</b>	--	--	--	--	--	--
UST2EX-S1	87	DP-5-22.0	9/1/2014	22	65	< 5.9 U	< 29 U	< 59 U	< 0.02 U	< 0.059 U	< 0.059 U	< 0.118 U	--	--	
		DP-5-24.0	9/1/2014	24	63	< 5.9 U	< 29 U	< 58 U	< 0.02 U	< 0.059 U	< 0.059 U	< 0.118 U	--	--	
		DP-5-28.0	9/1/2014	28	59	< 6.8 U	< 30 U	< 61 U	< 0.02 U	< 0.068 U	< 0.068 U	< 0.136 U	--	--	
UST2EX-S1	87	UST2 EX-B1-35.0	8/26/2015	35	52	< 6.3 U	< 26 U	< 53 U	< 0.02 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	
		UST2EX-S1-20.0	8/1/2015	20	67	< 5.5 U	< 25 U	< 50 U	< 0.02 U	< 0.055 U	< 0.055 U	< 0.11 U	--	--	
		UST2EX-S1-24.0	8/19/2015	24	63	< 7.6 U	< 33 U	< 65 U	< 0.02 U	< 0.076 U	< 0.076 U	< 0.076 U	--	--	
UST2EX-W1	87	UST2EX-S1-33.0	8/28/2015	33	54	< 6 U	< 27 U	< 55 U	< 0.02 U	< 0.06 U	< 0.06 U	< 0.06 U	--	--	
		UST2EX-W1-22.0	8/20/2015	22	65	--	< 32 U	< 64 U	--	--	--	--	--	--	
		UST2EX-W1-24.0	8/20/2015	24	63	--	<b>1,700</b>	<b>19,000</b>	--	--	--	--	--	--	
UST2EX-W3	87	UST2EX-W1-33.0	8/28/2015	33	54	< 7.9 U	< 33 U	< 65 U	< 0.02 U	< 0.079 U	< 0.079 U	< 0.079 U	--	--	
		UST2 EX-W3-30.0	8/26/2015	30	57	< 6.4 U	< 32 U	< 65 U	< 0.02 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	
Alley	B-3	69	B-3-8.0	8/1/2002	8	61	< 12 U	<b>93</b>	<b>850</b>	< 0.03 U	< 0.05 U	< 0.05 U	< 0.2 U	<b>6</b>	< 0.59 U
			B-3-14.0	8/1/2002	14	55	< 3 U	< 25 U	<b>82</b>	< 0.03 U	< 0.05 U	< 0.05 U	< 0.2 U	<b>9.1</b>	< 0.64 U
	DP-1	69	DP-1-4.0	9/1/2014	4	65	--	<b>250</b>	<b>1,500</b>	--	--	--	--	< 11 U	< 1.1 U
			DP-1-8.0	9/1/2014	8	61	--	< 29 U	< 59 U	--	--	--	--	< 12 U	< 0.59 U
			DP-1-14.0	9/1/2014	14	55	--	< 32 U	< 65 U	--	--	--	--	--	--
	DP-2	69	DP-1-20.0	9/1/2014	20	49	--	< 28 U	< 58 U	--	--	--	--	--	--
			DP-2-4.0	9/1/2014	4	65	--	<b>380</b>	<b>1,900</b>	--	--	--	--	< 11 U	< 1.1 U
	GEI-1	67	DP-2-8.0	9/1/2014	8	61	--	<b>2,900</b>	<b>15,000</b>	--	--	--	--	< 12 U	< 0.63 U
DP-2-14.0			9/1/2014	14	55	--	< 33 U	< 65 U	--	--	--	--	--	--	
GEI-1-4			7/1/2007	4	63	< 20 U	< 50 U	< 100 U	--	--	--	--	--	--	
GEI-1-12	7/1/2007	12	55	< 20 U	< 50 U	< 100 U	--	--	--	--	--	--	--		

**Notes**

ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

-- = Not analyzed

\* = MTCA cleanup level of Gasoline when benzene is present at the Site.

U = Analyte not detected at or above the listed Reporting Limit.

X = Chromatographic pattern does not match quantitation standard. However, the listed values are considered detections based c

MTCA = Model Toxics Control Act

**Bolded** value indicates analyte detected at the listed concentration.

Shading indicates analyte detected at a concentration greater than the corresponding MTCA cleanup level.

**Aspect Consulting**

3/26/2020

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**Table 1**

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**Table 7. Chemical Analytical Data of Residual Contaminated Soil Samples - Petroleum Hydrocarbons, BTEX, Metals, and PAHs**

Project No. 170291, Lenora Building Project, Seattle, Washington

Analyte Group							Metals			Polycyclic Aromatic Hydrocarbons (PAHs)						
Analyte Name Concentration Unit							Chromium mg/kg	Lead mg/kg	Mercury mg/kg	1- Methylnaphthalene mg/kg	2- Methylnaphthalene mg/kg	Acenaphthene mg/kg	Acenaphthylene mg/kg	Anthracene mg/kg	Benz(a)anthracene mg/kg	
MTCA Method A or B Cleanup Level								250	2	34	320	4800		24000		
Location	Exploration ID	Surface Elevation	Sample Name	Sample Date (feet bgs)	Sample Depth	Sample Elevation (feet)										
Subject Property - 9th Avenue	B-1	87	B-1-18.0	8/1/2002	18	69	--	--	--	--	--	--	--	--	--	
			B-1-24.0	8/1/2002	24	63	--	--	--	--	--	--	--	--	--	
	UTL9-E	87	UTL9-E-15.0	4/1/2015	15	72	--	--	--	--	--	--	--	--	--	--
			UTL9-E-18.0	4/1/2015	18	69	--	--	--	--	--	--	--	--	--	
	UTL9-N	87	UTL9-N-5.0	4/1/2015	5	82	--	--	--	--	--	--	--	--	--	--
			UTL9-N-18.0	4/1/2015	18	69	--	--	--	--	--	--	--	--	--	
	UTL9-S	87	UTL9-S-5.0	4/1/2015	5	82	--	--	--	--	--	--	--	--	--	--
			UTL9-S-15.0	4/1/2015	15	72	--	--	--	--	--	--	--	--	--	
			UTL9-S-20.0	4/1/2015	20	67	--	--	--	--	--	--	--	--	--	
			UTL9-S-23.0	4/1/2015	23	64	--	--	--	--	--	--	--	--	--	
	EX-1	87	EX-1-6.0	4/1/2015	6	81	--	--	--	--	--	--	--	--	--	--
			EX-1-12.0	4/1/2015	12	75	--	--	--	--	--	--	--	--	--	
Subject Property - Lenora Street	B-2	87	B-2-24.0	8/1/2002	24	63	--	--	--	--	--	--	--	--	--	
			B-2-32.5	8/1/2002	32.5	54.5	--	--	--	--	--	--	--	--	--	
	DP-3	87	DP-3-20.0	9/1/2014	20	67	--	--	--	--	--	--	--	--	--	--
			DP-3-24.0	9/1/2014	24	63	--	--	--	--	--	--	--	--	--	
	DP-4	87	DP-3-28.0	9/1/2014	28	59	--	--	--	--	--	--	--	--	--	--
			DP-4-4.0	9/1/2014	4	83	--	--	--	--	--	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	
	DP-5	87	DP-4-20.0	9/1/2014	20	67	--	--	--	--	--	--	--	--	--	--
			DP-4-24.0	9/1/2014	24	63	--	--	--	--	--	--	--	--	--	
			DP-4-28.0	9/1/2014	28	59	--	--	--	--	--	--	--	--	--	
			DP-5-2.0	9/1/2014	2	85	--	--	--	--	--	--	--	--	--	
	UST2EX-B1	87	UST2EX-B1-35.0	8/26/2015	35	52	--	--	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	
			UST2EX-S1-20.0	8/1/2015	20	67	--	--	--	--	--	--	--	--	--	
UST2EX-S1	87	UST2EX-S1-24.0	8/19/2015	24	63	--	--	--	--	--	--	--	--	--	--	
		UST2EX-S1-33.0	8/28/2015	33	54	--	--	--	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U		
UST2EX-W1	87	UST2EX-W1-22.0	8/20/2015	22	65	--	--	--	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U		
		UST2EX-W1-24.0	8/20/2015	24	63	--	--	--	<b>1.9</b>	<b>2.8</b>	<b>0.08</b>	<b>0.036</b>	<b>0.15</b>	<b>0.17</b>		
UST2EX-W3	87	UST2EX-W1-33.0	8/28/2015	33	54	--	--	--	<b>0.021</b>	<b>0.021</b>	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U		
		UST2 EX-W3-30.0	8/26/2015	30	57	--	--	--	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U		
Alley	B-3	69	B-3-8.0	8/1/2002	8	61	<b>51</b>	< 7.1 U	<b>0.03</b>	--	--	--	--	--	--	
			B-3-14.0	8/1/2002	14	55	<b>41</b>	< 7.7 U	<b>0.04</b>	--	--	--	--	--	--	
	DP-1	69	DP-1-4.0	9/1/2014	4	65	<b>35</b>	<b>30</b>	< 0.56 U	--	--	<b>0.053</b>	<b>0.057</b>	<b>0.075</b>	<b>0.22</b>	
			DP-1-8.0	9/1/2014	8	61	<b>70</b>	< 5.9 U	< 0.29 U	--	--	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	
	DP-2	69	DP-1-14.0	9/1/2014	14	55	--	--	--	--	--	--	--	--	--	
			DP-1-20.0	9/1/2014	20	49	--	--	--	--	--	--	--	--	--	
	GEI-1	67	DP-2-4.0	9/1/2014	4	65	<b>28</b>	<b>22</b>	< 0.53 U	--	--	<b>0.019</b>	< 0.014 U	<b>0.027</b>	<b>0.06</b>	
			DP-2-8.0	9/1/2014	8	61	<b>52</b>	<b>22</b>	< 0.31 U	--	--	<b>0.18</b>	<b>0.044</b>	<b>0.064</b>	<b>0.12</b>	
GEI-1	67	DP-2-14.0	9/1/2014	14	55	--	--	--	--	--	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U		
		GEI-1-4	7/1/2007	4	63	--	--	--	--	--	--	--	--	--		
GEI-1-12	7/1/2007	12	55	--	--	--	--	--	--	--	--	--	--			

**Notes**  
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-- = Not analyzed  
\* = MTCA cleanup level of Gasoline when benzene is present at the Site.  
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MTCA = Model Toxics Control Act  
**Bolded** value indicates analyte detected at the listed concentration.  
Shading indicates analyte detected at a concentration greater than the corresponding MTCA cleanup level.

**Table 7. Chemical Analytical Data of Residual Contaminated Soil Samples - Petroleum Hydrocarbons, BTEX, Metals, and PAHs**

Project No. 170291, Lenora Building Project, Seattle, Washington

Analyte Group							Polycyclic Aromatic Hydrocarbons (PAHs)							
Analyte Name Concentration Unit							Benzo(a)pyrene mg/kg	Benzo(b)fluoranthene mg/kg	Benzo(g,h,i)perylene mg/kg	Benzo(j,k)fluoranthene mg/kg	Chrysene mg/kg	Dibenzo(a,h)anthracene mg/kg	Fluoranthene mg/kg	Fluorene mg/kg
MTCA Method A or B Cleanup Level							0.1						3200	3200
Location	Exploration ID	Surface Elevation	Sample Name	Sample Date (feet bgs)	Sample Depth	Sample Elevation (feet)								
Subject Property - 9th Avenue	B-1	87	B-1-18.0	8/1/2002	18	69	--	--	--	--	--	--	--	--
			B-1-24.0	8/1/2002	24	63	--	--	--	--	--	--	--	--
	UTL9-E	87	UTL9-E-15.0	4/1/2015	15	72	--	--	--	--	--	--	--	--
			UTL9-E-18.0	4/1/2015	18	69	--	--	--	--	--	--	--	--
	UTL9-N	87	UTL9-N-5.0	4/1/2015	5	82	--	--	--	--	--	--	--	--
			UTL9-N-18.0	4/1/2015	18	69	--	--	--	--	--	--	--	--
	UTL9-S	87	UTL9-S-5.0	4/1/2015	5	82	--	--	--	--	--	--	--	--
			UTL9-S-15.0	4/1/2015	15	72	--	--	--	--	--	--	--	--
			UTL9-S-20.0	4/1/2015	20	67	--	--	--	--	--	--	--	--
			UTL9-S-23.0	4/1/2015	23	64	--	--	--	--	--	--	--	--
	EX-1	87	EX-1-6.0	4/1/2015	6	81	--	--	--	--	--	--	--	--
			EX-1-12.0	4/1/2015	12	75	--	--	--	--	--	--	--	--
Subject Property - Lenora Street	B-2	87	B-2-24.0	8/1/2002	24	63	--	--	--	--	--	--	--	
			B-2-32.5	8/1/2002	32.5	54.5	--	--	--	--	--	--	--	--
	DP-3	87	DP-3-20.0	9/1/2014	20	67	--	--	--	--	--	--	--	--
			DP-3-24.0	9/1/2014	24	63	--	--	--	--	--	--	--	--
	DP-4	87	DP-3-28.0	9/1/2014	28	59	--	--	--	--	--	--	--	--
			DP-4-4.0	9/1/2014	4	83	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U
	DP-5	87	DP-4-20.0	9/1/2014	20	67	--	--	--	--	--	--	--	--
			DP-4-24.0	9/1/2014	24	63	--	--	--	--	--	--	--	--
			DP-4-28.0	9/1/2014	28	59	--	--	--	--	--	--	--	--
			DP-5-2.0	9/1/2014	2	85	--	--	--	--	--	--	--	--
	UST2EX-B1	87	UST2EX-B1-35.0	8/26/2015	35	52	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
			UST2EX-S1	8/1/2015	20	67	--	--	--	--	--	--	--	--
UST2EX-S1	87	UST2EX-S1-24.0	8/19/2015	24	63	--	--	--	--	--	--	--	--	
		UST2EX-S1-33.0	8/28/2015	33	54	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	
		UST2EX-W1-22.0	8/20/2015	22	65	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	
		UST2EX-W1-24.0	8/20/2015	24	63	<b>0.11</b>	<b>0.12</b>	<b>0.13</b>	< 0.044 U	<b>0.15</b>	< 0.044 U	<b>0.21</b>	<b>0.16</b>	
UST2EX-W3	87	UST2EX-W1-33.0	8/28/2015	33	54	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	
		UST2 EX-W3-30.0	8/26/2015	30	57	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	
Alley	B-3	69	B-3-8.0	8/1/2002	8	61	--	--	--	--	--	--	--	
			B-3-14.0	8/1/2002	14	55	--	--	--	--	--	--	--	--
	DP-1	69	DP-1-4.0	9/1/2014	4	65	<b>0.22</b>	<b>0.18</b>	<b>0.14</b>	<b>0.14</b>	<b>0.26</b>	<b>0.055</b>	<b>0.48</b>	<b>0.17</b>
			DP-1-8.0	9/1/2014	8	61	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U
	DP-2	69	DP-1-14.0	9/1/2014	14	55	--	--	--	--	--	--	--	--
			DP-1-20.0	9/1/2014	20	49	--	--	--	--	--	--	--	--
	GEI-1	67	DP-2-4.0	9/1/2014	4	65	<b>0.048</b>	<b>0.032</b>	<b>0.028</b>	<b>0.037</b>	<b>0.063</b>	< 0.014 U	<b>0.16</b>	<b>0.034</b>
			DP-2-8.0	9/1/2014	8	61	<b>0.1</b>	<b>0.058</b>	<b>0.11</b>	<b>0.02</b>	<b>0.12</b>	<b>0.014</b>	<b>0.045</b>	<b>0.31</b>
GEI-1	67	DP-2-14.0	9/1/2014	14	55	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	
		GEI-1-4	7/1/2007	4	63	--	--	--	--	--	--	--	--	
GEI-1-12	7/1/2007	12	55	--	--	--	--	--	--	--	--	--		

**Notes**

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-- = Not analyzed

\* = MTCA cleanup level of Gasoline when benzene is present at the Site.

U = Analyte not detected at or above the listed Reporting Limit.

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**Bolded** value indicates analyte detected at the listed concentration.

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**Table 1**

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**Table 7. Chemical Analytical Data of Residual Contaminated Soil Samples - Petroleum Hydrocarbons, BTEX, Metals, and PAHs**

Project No. 170291, Lenora Building Project, Seattle, Washington

Analyte Group							Polycyclic Aromatic Hydrocarbons (PAHs)					
Analyte Name Concentration Unit							Indeno(1,2,3-cd)pyrene mg/kg	Naphthalene mg/kg	Phenanthrene mg/kg	Pyrene mg/kg	Total Naphthalenes mg/kg	Total cPAHs TEQ (ND = 1/2 RDL) mg/kg
MTCA Method A or B Cleanup Level								5		2400		0.1
Location	Exploration ID	Surface Elevation	Sample Name	Sample Date (feet bgs)	Sample Depth	Sample Elevation (feet)						
Subject Property - 9th Avenue	B-1	87	B-1-18.0	8/1/2002	18	69	--	--	--	--	--	--
			B-1-24.0	8/1/2002	24	63	--	--	--	--	--	--
	UTL9-E	87	UTL9-E-15.0	4/1/2015	15	72	--	--	--	--	--	--
			UTL9-E-18.0	4/1/2015	18	69	--	--	--	--	--	--
	UTL9-N	87	UTL9-N-5.0	4/1/2015	5	82	--	--	--	--	--	--
			UTL9-N-18.0	4/1/2015	18	69	--	--	--	--	--	--
	UTL9-S	87	UTL9-S-5.0	4/1/2015	5	82	--	--	--	--	--	--
			UTL9-S-15.0	4/1/2015	15	72	--	--	--	--	--	--
			UTL9-S-20.0	4/1/2015	20	67	--	--	--	--	--	--
			UTL9-S-23.0	4/1/2015	23	64	--	--	--	--	--	--
	EX-1	87	EX-1-6.0	4/1/2015	6	81	--	--	--	--	--	--
			EX-1-12.0	4/1/2015	12	75	--	--	--	--	--	--
Subject Property - Lenora Street	B-2	87	B-2-24.0	8/1/2002	24	63	--	--	--	--	--	--
			B-2-32.5	8/1/2002	32.5	54.5	--	--	--	--	--	--
	DP-3	87	DP-3-20.0	9/1/2014	20	67	--	--	--	--	--	--
			DP-3-24.0	9/1/2014	24	63	--	--	--	--	--	--
	DP-4	87	DP-3-28.0	9/1/2014	28	59	--	--	--	--	--	--
			DP-4-4.0	9/1/2014	4	83	< 0.0072 U	--	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.00543 U
			DP-4-20.0	9/1/2014	20	67	--	--	--	--	--	--
	DP-5	87	DP-4-24.0	9/1/2014	24	63	--	--	--	--	--	--
			DP-4-28.0	9/1/2014	28	59	--	--	--	--	--	--
			DP-5-2.0	9/1/2014	2	85	--	--	--	--	--	--
	UST2EX-B1	87	UST2EX-B1-35.0	8/26/2015	35	52	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.021 U	0.0053
			UST2EX-S1	8/1/2015	20	67	--	--	--	--	--	--
Subject Property- Near Alley	87	UST2EX-S1-24.0	8/19/2015	24	63	--	--	--	--	--	--	
		UST2EX-S1-33.0	8/28/2015	33	54	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0219 U	0.0056	
		UST2EX-W1	8/20/2015	22	65	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0255 U	0.0065	
		UST2EX-W1-24.0	8/20/2015	24	63	<b>0.072</b>	<b>1.3</b>	<b>0.4</b>	<b>0.42</b>	<b>6</b>	<b>0.1501</b>	
		UST2EX-W1-33.0	8/28/2015	33	54	< 0.0087 U	<b>0.04</b>	< 0.0087 U	< 0.0087 U	<b>0.082</b>	<b>0.0066</b>	
UST2EX-W3	87	UST2 EX-W3-30.0	8/26/2015	30	57	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0258 U	0.0065	
Alley	B-3	69	B-3-8.0	8/1/2002	8	61	--	--	--	--	--	
			B-3-14.0	8/1/2002	14	55	--	--	--	--	--	--
	DP-1	69	DP-1-4.0	9/1/2014	4	65	<b>0.12</b>	--	<b>0.66</b>	<b>0.42</b>	<b>0.89</b>	<b>0.2941</b>
			DP-1-8.0	9/1/2014	8	61	< 0.0078 U	--	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.00588 U
			DP-1-14.0	9/1/2014	14	55	--	--	--	--	--	--
	DP-2	69	DP-1-20.0	9/1/2014	20	49	--	--	--	--	--	--
			DP-2-4.0	9/1/2014	4	65	<b>0.026</b>	--	<b>0.13</b>	<b>0.14</b>	<b>0.22</b>	<b>0.06483</b>
	GEI-1	67	DP-2-8.0	9/1/2014	8	61	<b>0.026</b>	--	<b>0.65</b>	<b>0.35</b>	<b>9.96</b>	<b>0.125</b>
DP-2-14.0			9/1/2014	14	55	< 0.0087 U	--	< 0.0087 U	< 0.0087 U	<b>0.055</b>	< 0.00656 U	
GEI-1-4	7/1/2007	4	63	--	--	--	--	--	--	--		
GEI-1-12	7/1/2007	12	55	--	--	--	--	--	--	--		

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ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

-- = Not analyzed

\* = MTCA cleanup level of Gasoline when benzene is present at the Site.

U = Analyte not detected at or above the listed Reporting Limit.

X = Chromatographic pattern does not match quantitation standard. However, the listed values are considered detections based c

MTCA = Model Toxics Control Act

**Bolded** value indicates analyte detected at the listed concentration.

Shading indicates analyte detected at a concentration greater than the corresponding MTCA cleanup level.

**Aspect Consulting**

3/26/2020

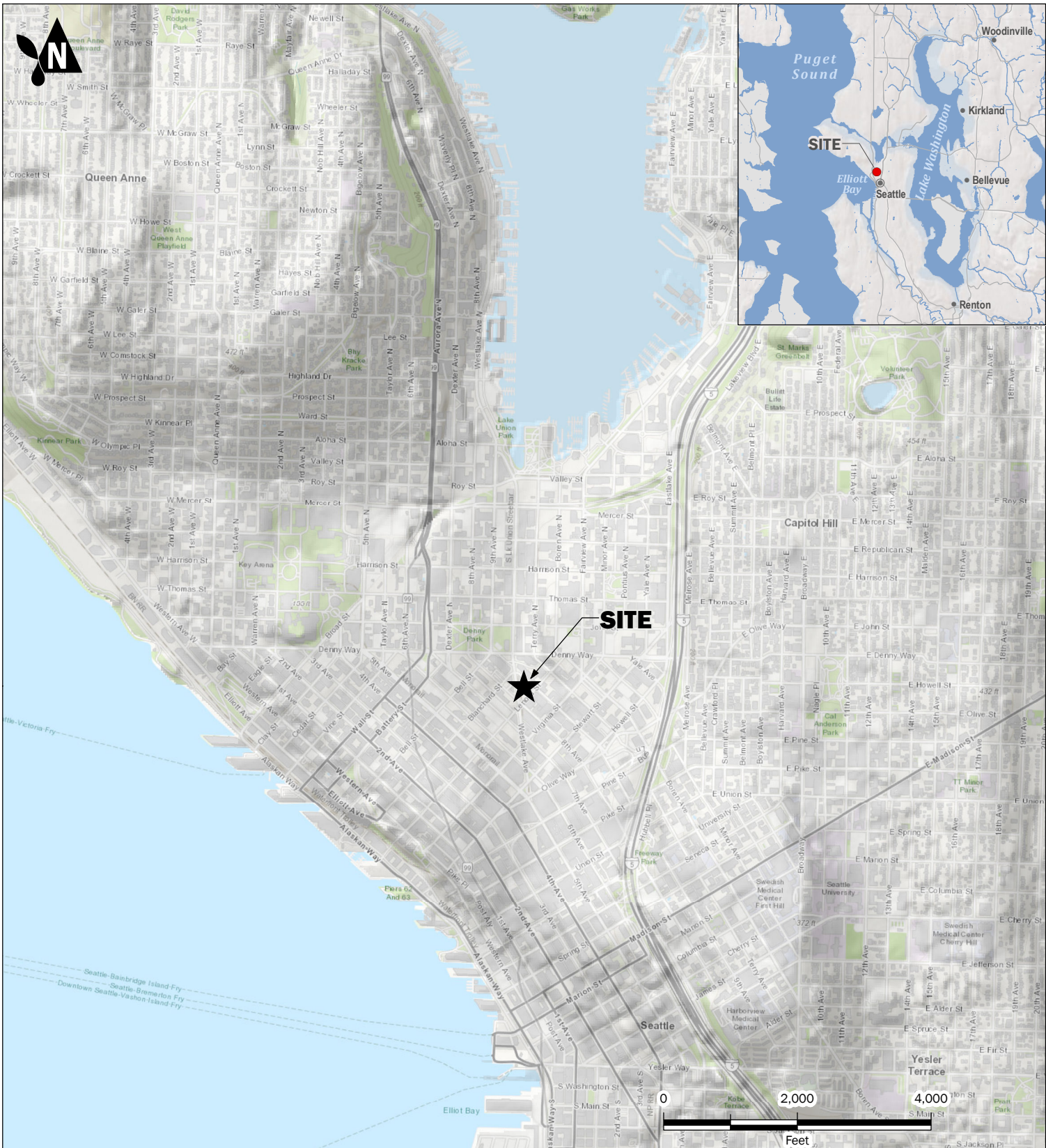
V:\170291 Ninth and Lenora Environmental Services\Deliverables\Cleanup Action Report\2020 Rev CAR\FINAL\Data Tables\Table 7

**Table 1**

Cleanup Action Report

Page 4 of 4

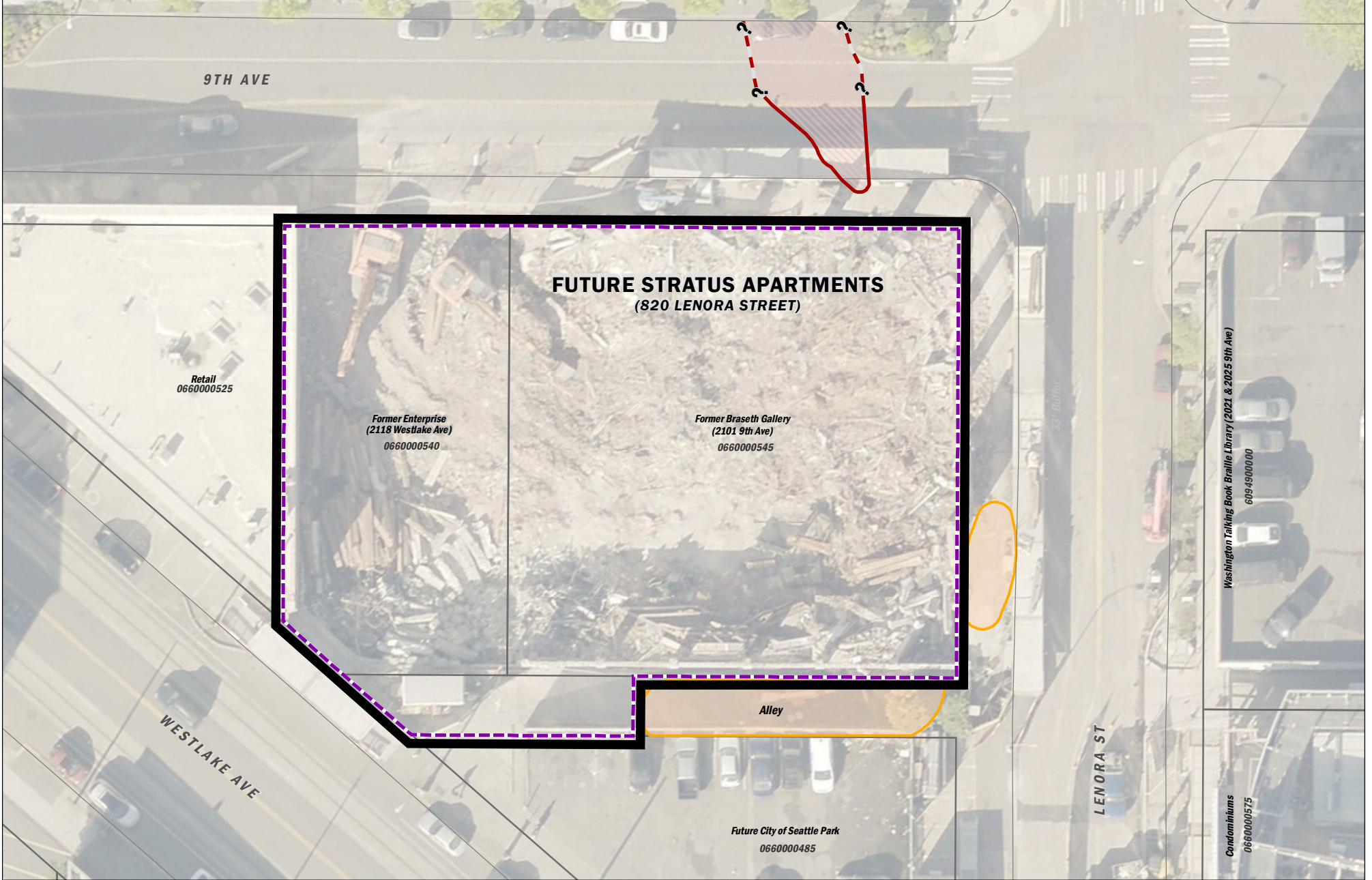
# FIGURES



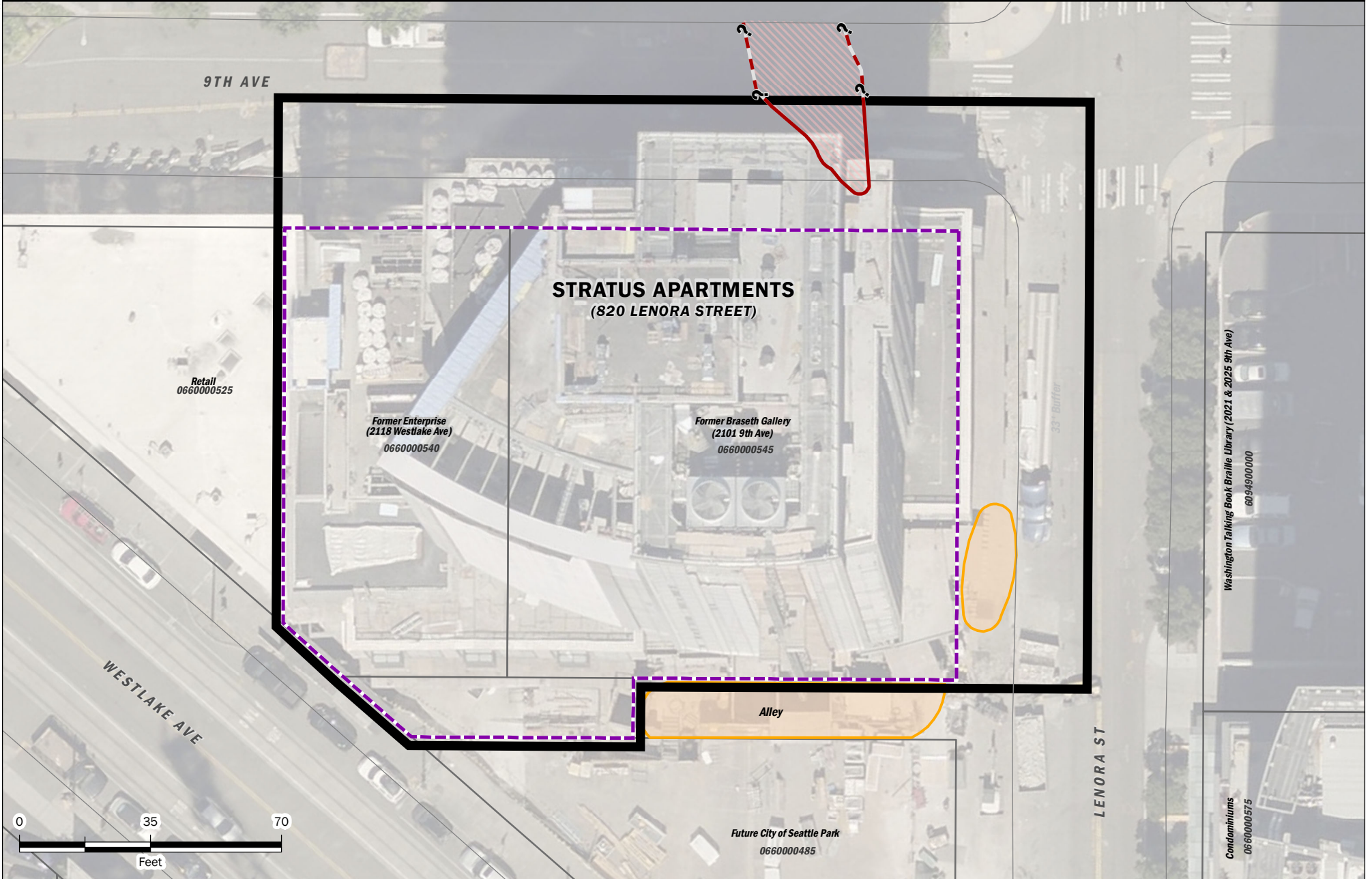
**Vicinity Map**  
 Cleanup Action Report  
 820 Lenora Street  
 Seattle, Washington




	SEP-2019	BY: FK / TDR	FIGURE NO. <b>1</b>
	PROJECT NO. 170291	REVISED BY: ---	



# 2015 Subject Property



# 2018 Subject Property



-  Mass excavation limits
-  Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
-  Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source

-  Subject Property
-  King County Parcel
- 0660000545** Parcel Number

MTCA: Model Toxics Cleanup Control Act  
PAH: Polycyclic aromatic hydrocarbons



## 2015 and 2018 Subject Property Boundary

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington

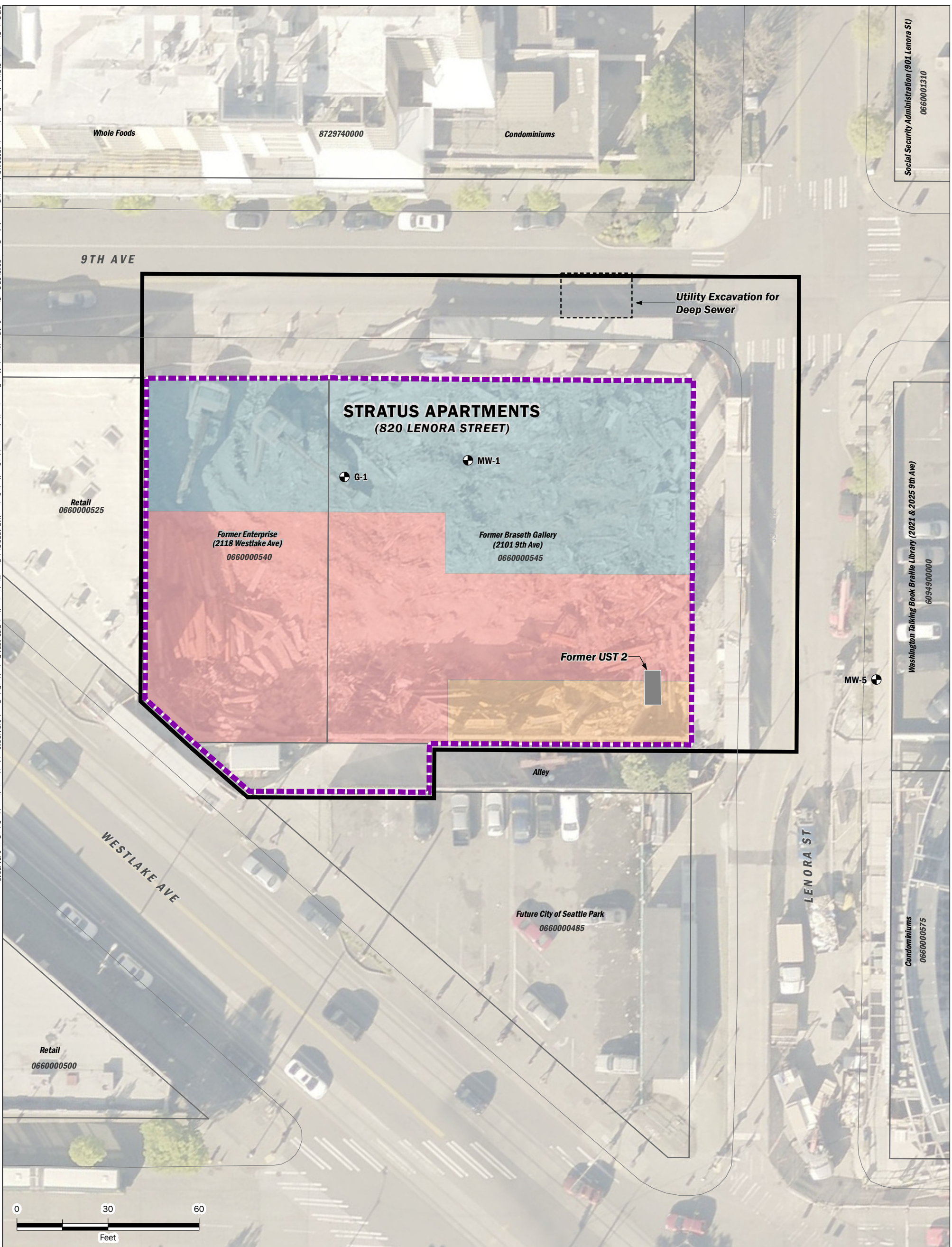


SEP-2019  
PROJECT NO.  
170291

BY:  
FK / KES  
REVISED BY:  
TDR

FIGURE NO.  
**2**

GIS Path: \\projects\_8\shland\landdev\development\_170291\Delivered\Cleanup Action Report 2019\03 Pre-Cleanup Soil Conditions in Mass Excavation Limits.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 9/24/2019 | User: rtolem | Print Date: 9/24/2019



**Note:**

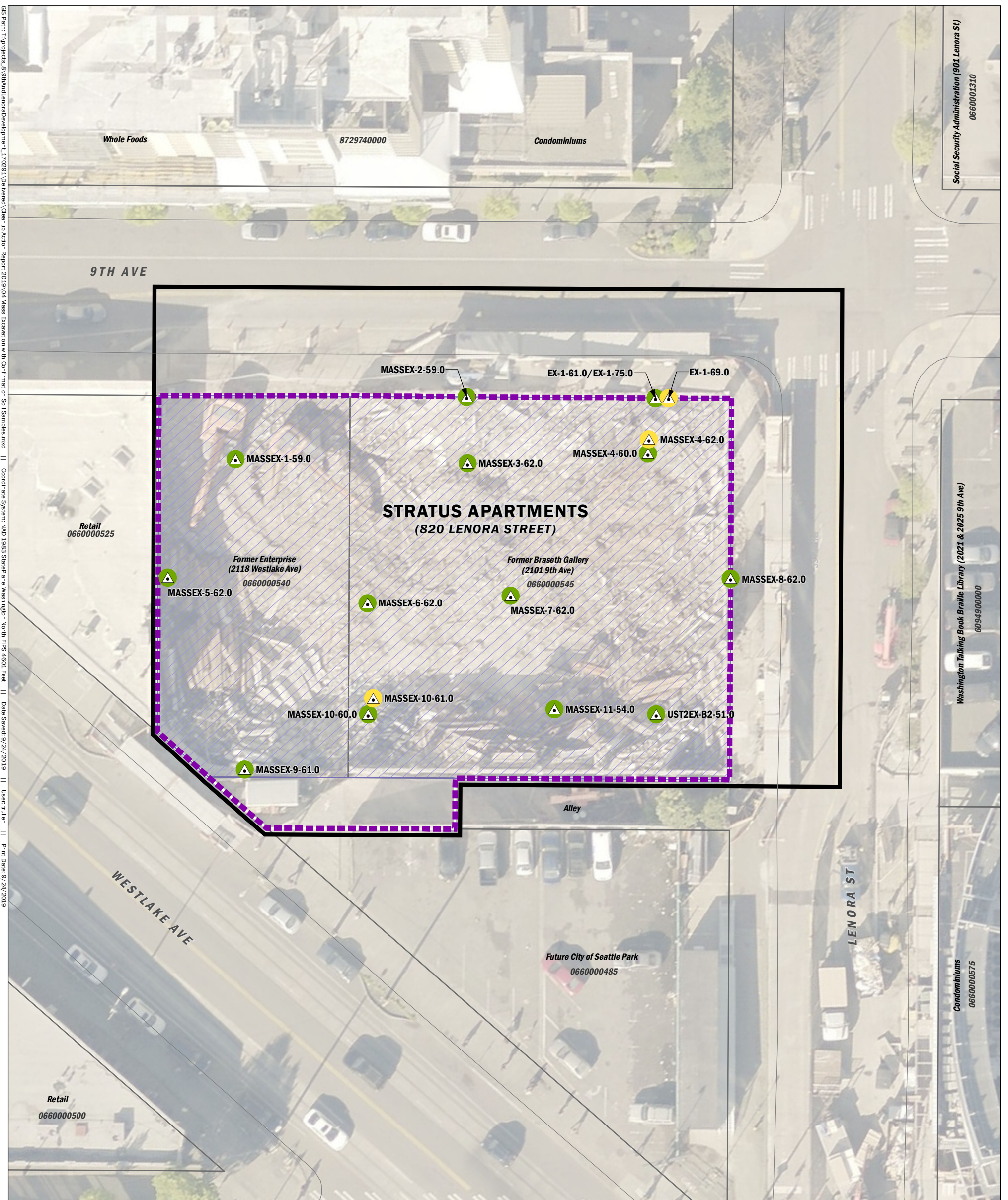
- The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.
- Soil conditions in mass excavation limits sourced from GeoEngineers, 2016.

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> <b>Zone 1:</b> Area of impacted fill to an approximate depth of 10 feet bgs (Elev. 60)</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #FF6347; border: 1px solid black; margin-right: 5px;"></span> <b>Zone 2:</b> Estimated extent of contaminated fill to an approximate depth of 6 feet bgs (Elev. 63)</li> <li><span style="display: inline-block; width: 20px; height: 10px; background-color: #FFA500; border: 1px solid black; margin-right: 5px;"></span> <b>Zone 3:</b> Estimated extent of contaminated fill to an approximated depth of 18 feet bgs (Elev. 51)</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; border-radius: 50%; margin-right: 5px;"></span> <b>Former Monitoring Well</b></li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px dashed purple; margin-right: 5px;"></span> Mass excavation limits</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px solid black; margin-right: 5px;"></span> Subject Property</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></span> King County Parcel</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></span> Parcel Number</li> </ul> <p>0660000545</p> <p>bgs: Below ground surface UST: Underground Storage Tank</p>	
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### Pre-Cleanup Soil Conditions in Mass Excavation Limits

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington

PROJECT NO. 170291	BY: FK / KES REVISED BY: TDR	FIGURE NO. <b>3</b>
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GIS Path: T:\projects\_8\98thandLenoraDevelopment\_170291\Delivered\Cleanup Action Report 2019\04 Mass Excavation with Confirmation Soil Samples.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 9/24/2019 | User: tulien | Print Date: 9/24/2019

Social Security Administration (901 Lenora St)  
0660001310

Washington Talking Book Braille Library (2021 & 2025 9th Ave)  
6094900000

Condominiums  
0660000575

**Note:**

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Sample elevation in feet

MASSEX-9-61.0

Sample name

0 30 60

Feet

Characterization soil sample location. Diesel- and heavy oil-range hydrocarbons and/or cPAHs were detected at concentrations below MTCA Method A Cleanup Level. Soil represented by this sample was subsequently excavated and transported from the site to Waste Management's Landfill for permitted disposal.

Confirmation soil sample location. Diesel- and heavy oil-range hydrocarbons and cPAHs were not detected.

Mass Excavation for removing contaminated and/or impacted fill soil.

Soil Sample

Mass excavation limits

Subject Property

King County Parcel

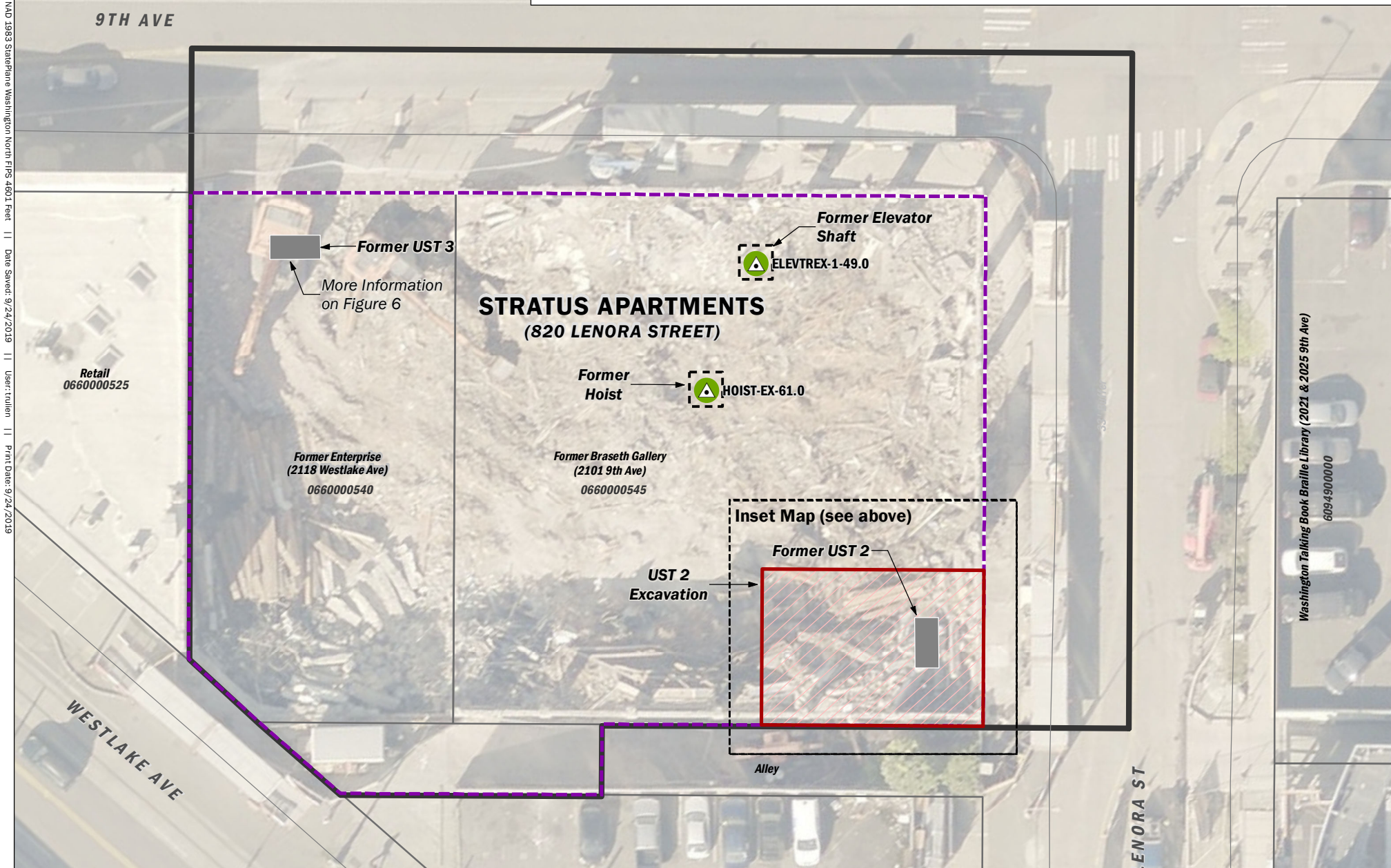
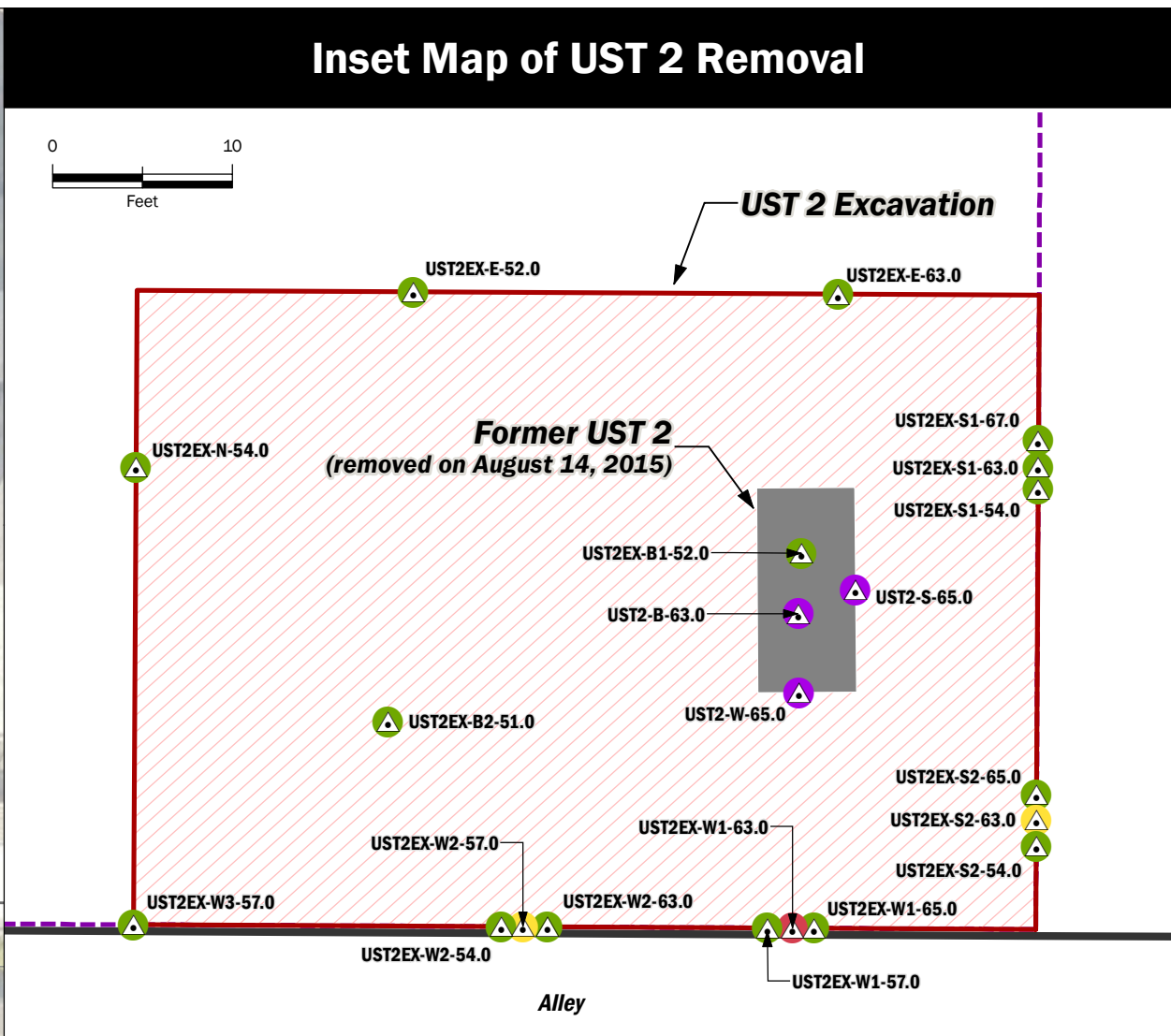
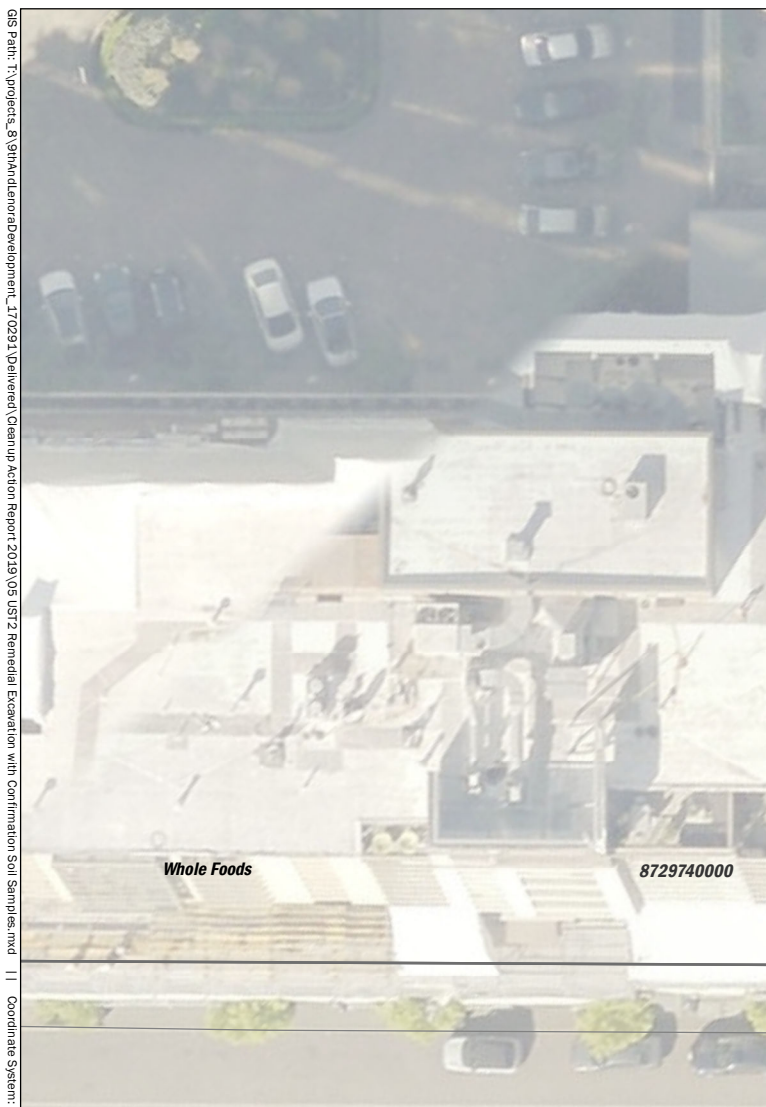
0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act  
cPAH: Carcinogenic polycyclic aromatic hydrocarbons

**Mass Excavation with Confirmation  
Soil Samples**

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington

Aspect CONSULTING	PROJECT NO. 170291	BY: FK / KES REVISED BY: TDR	FIGURE NO. <b>4</b>
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Note:  
1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Sample elevation in feet

MASSEX-9-61.0

Sample name

- Soil sample with MTCA exceedance for PAHs and/or diesel- and heavy oil- range hydrocarbons. Soil represented by this sample was subsequently excavated and transported to Waste Management's Landfill for permitted disposal.
- **Represents Soil Conditions at the Final Limits of Excavation**
- Confirmation soil sample with MTCA exceedance for heavy oil- range hydrocarbons and PAHs.
- Confirmation soil sample in which diesel- and heavy oil-range hydrocarbons and PAHs were detected at concentrations below MTCA Method A Cleanup Levels.
- Confirmation soil sample with no detections of petroleum hydrocarbons and PAHs.

- Soil Sample
- Mass excavation limits
- Subject Property
- King County Parcel
- 0660000545** Parcel Number

MTCA: Model Toxics Cleanup Control Act  
PAH: Polycyclic aromatic hydrocarbons  
UST: Underground Storage Tank

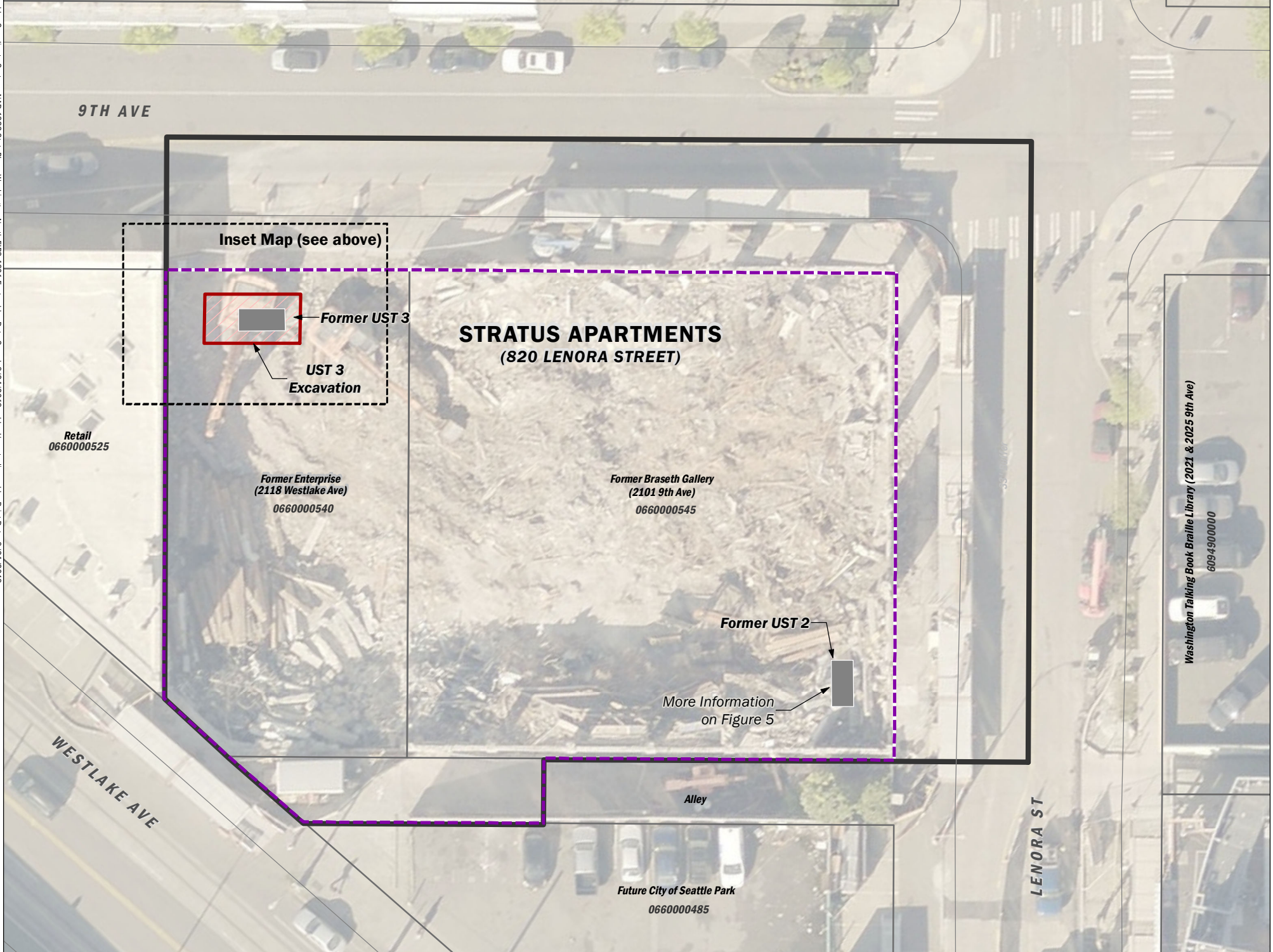
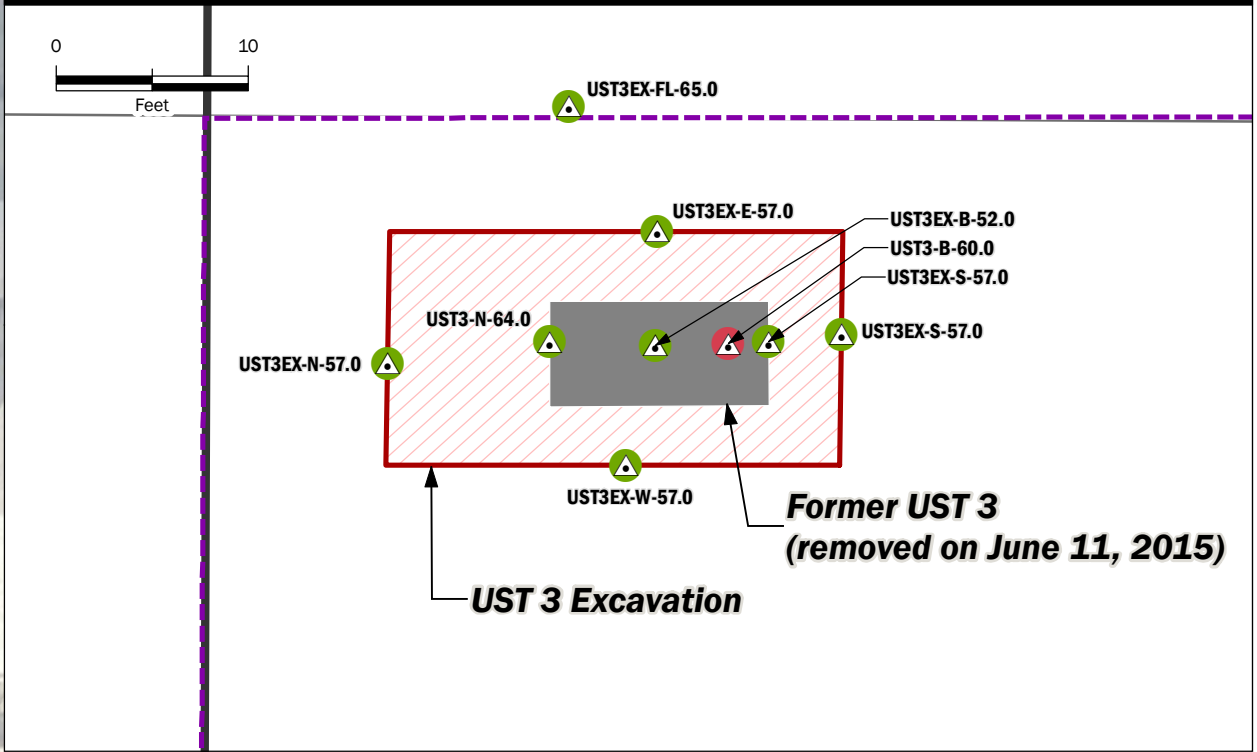


### UST2 Remedial Excavation with Confirmation Soil Samples

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington

 PROJECT NO. 170291	BY: FK / KES REVISED BY: TDR	FIGURE NO. <b>5</b>
---------------------------	---------------------------------------	------------------------

# Inset Map of UST 3 Removal



Note:  
1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

MASSEX-9-61.0

Sample elevation in feet

Sample name

0 30 60  
Feet

Soil sample with MTCA exceedance for diesel-range hydrocarbons. Soil represented by this sample was subsequently excavated and transported to Waste Management's Landfill for permitted disposal.

Confirmation soil sample with no detections of diesel- and heavy oil- range hydrocarbons. Represent soil conditions at the final excavation limits.

Soil Sample

Mass excavation limits

Subject Property

King County Parcel

0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act  
UST: Underground Storage Tank

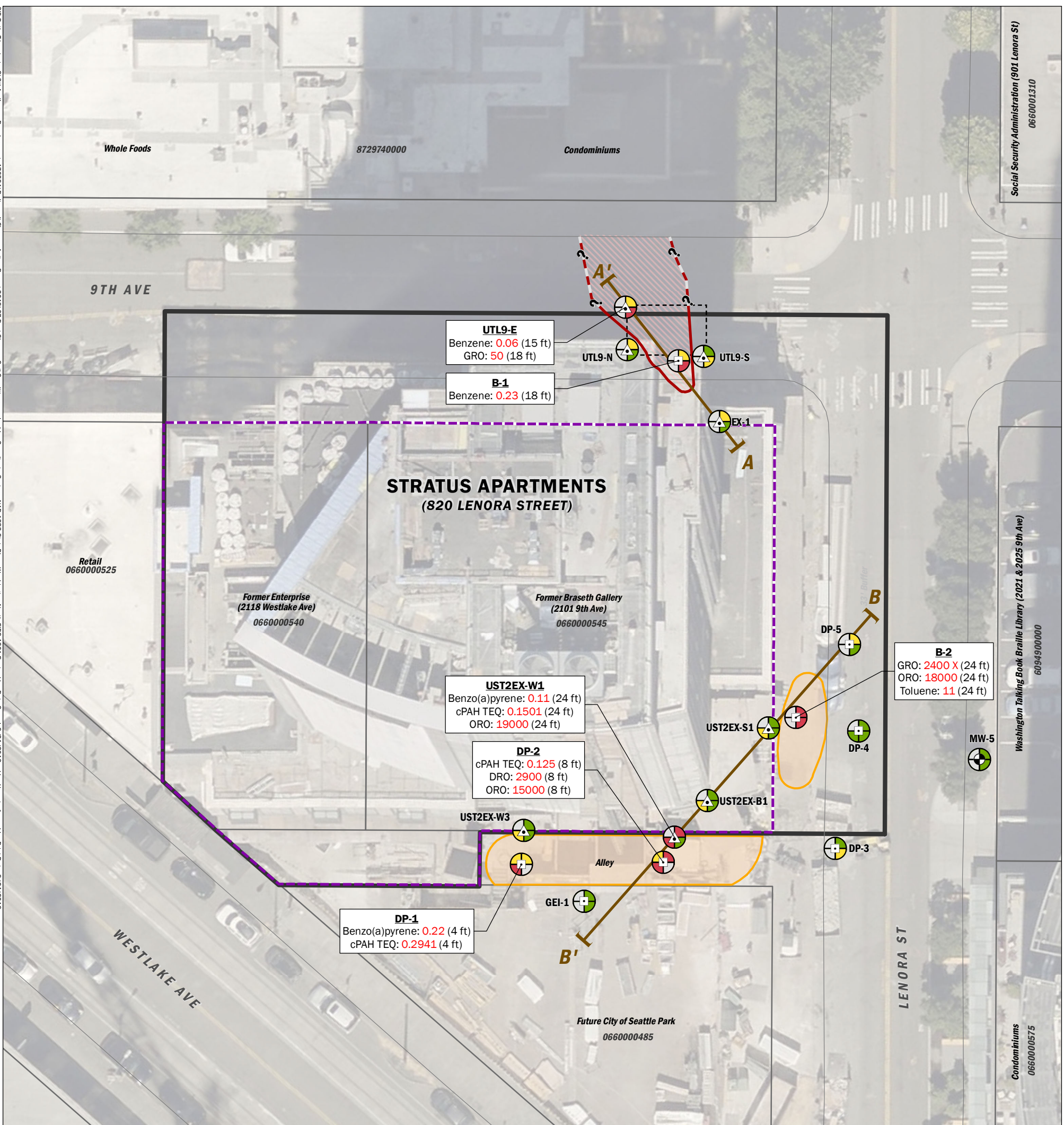
## UST3 Remedial Excavation with Confirmation Soil Samples

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington

Aspect CONSULTING	SEP-2019	BY: FK / KES	FIGURE NO. <b>6</b>
	PROJECT NO. 170291	REVISED BY: TDR	

GIS Path: \\projects\_8\shland\lanora\development\_170291\Delivered\Cleanup Action Report 2019\06 UST3 Remedial Excavation with Confirmation Soil Samples.mxd  
 Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet  
 Date Saved: 9/24/2019  
 User: tulien  
 Print Date: 9/24/2019

GIS Path: T:\projects\_8\9816\land\Development\170291\Delivered\Cleanup Action Report 2019\07 Post-Cleanup Soil Conditions.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4801 Feet | Date Saved: 9/24/2019 | User: trullen | Print Date: 9/24/2019



Social Security Administration (901 Lenora St)  
 0660001310

Washington Talking Book Braille Library (2021 & 2025 9th Ave)  
 6094900000

Condominiums  
 0660000575

Note:  
 1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Exploration name

B-1  
Benzene: 0.23 (18 ft)

Sample depth

Analyte with concentration in milligrams per kilogram

Metals

PAHs

Diesel or oil-range hydrocarbons

Gasoline-range hydrocarbons and/or benzene, toluene, ethylbenzene, and xylenes

0 30 60

Feet

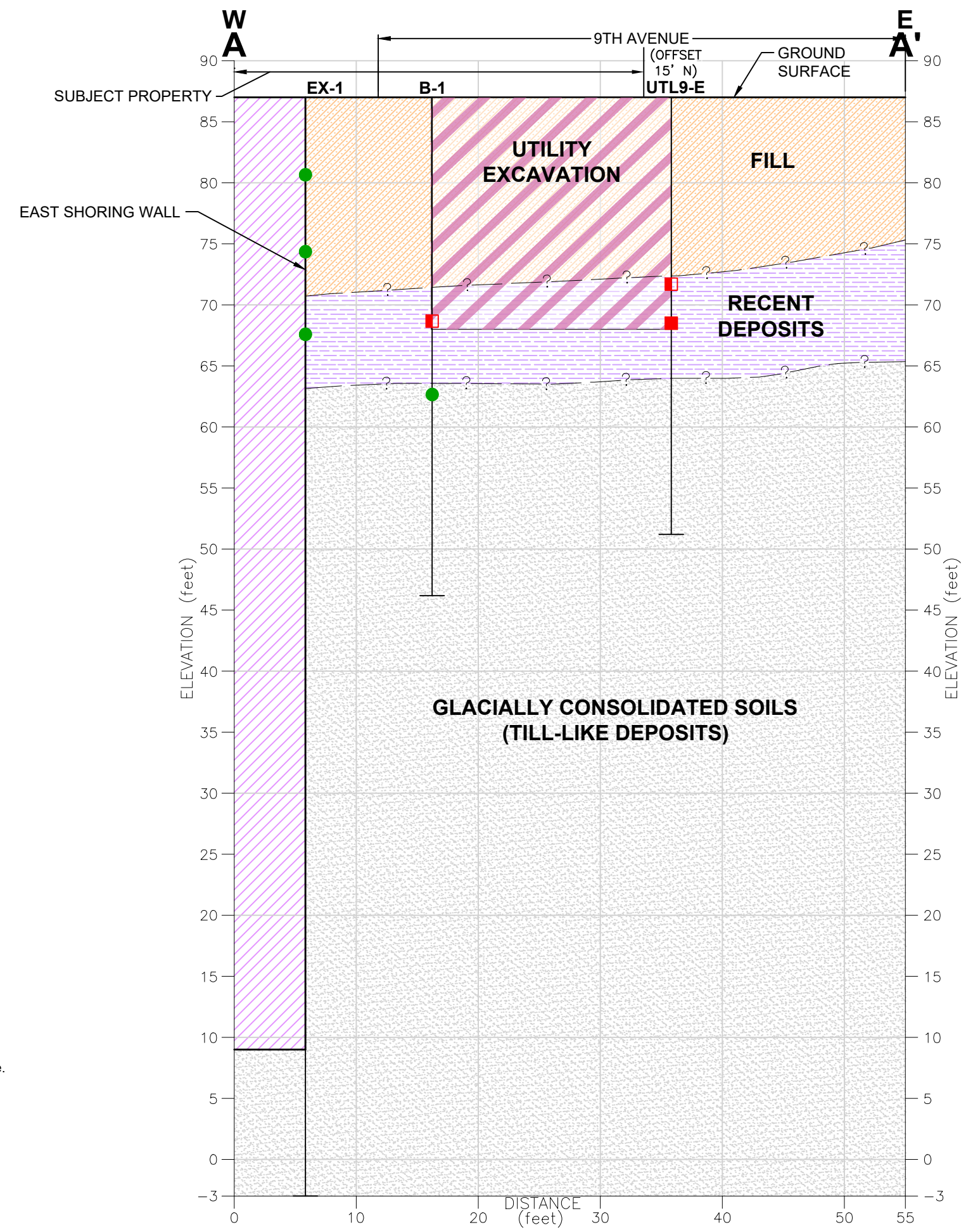
PAH: Polycyclic aromatic hydrocarbons  
 MTCA: Model Toxics Cleanup Control Act  
 GRO: Gasoline-range organics  
 DRO: Diesel-range organics  
 ORO: Oil-range organics

- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- △ Soil Sample
- Soil Boring
- ⊕ Former Monitoring Well
- Approximate extent of utility excavation
- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Cross Section
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

### Post-Cleanup Soil Conditions at the Subject Property and Alley

Cleanup Action Plan  
 820 Lenora Street  
 Seattle, Washington

Aspect <small>CONSULTING</small>	SEP-2019 PROJECT NO. 170291	BY: FK / KES REVISED BY: TDR
		FIGURE NO. <span style="font-size: 24pt; font-weight: bold;">7</span>



**EXPLANATION:**

- Benzene and Gasoline Detected at a concentration greater than the MTCA Method A Cleanup Level
- Benzene Detected at a concentration greater than the MTCA Method A Cleanup Level
- Gasoline and Benzene not detected
- MTCA Model Toxics Control Act
- (OFFSET 15' N)  
**UTL9-E** Sample number and approximate location
- |?— Soil contact
- Fill
- Recent deposits
- Glacially consolidated soils (till-like deposits)
- Soil at the Subject Property was excavated to an approximate elevation of 9 feet during mass excavation
- Deep sewer utility excavation

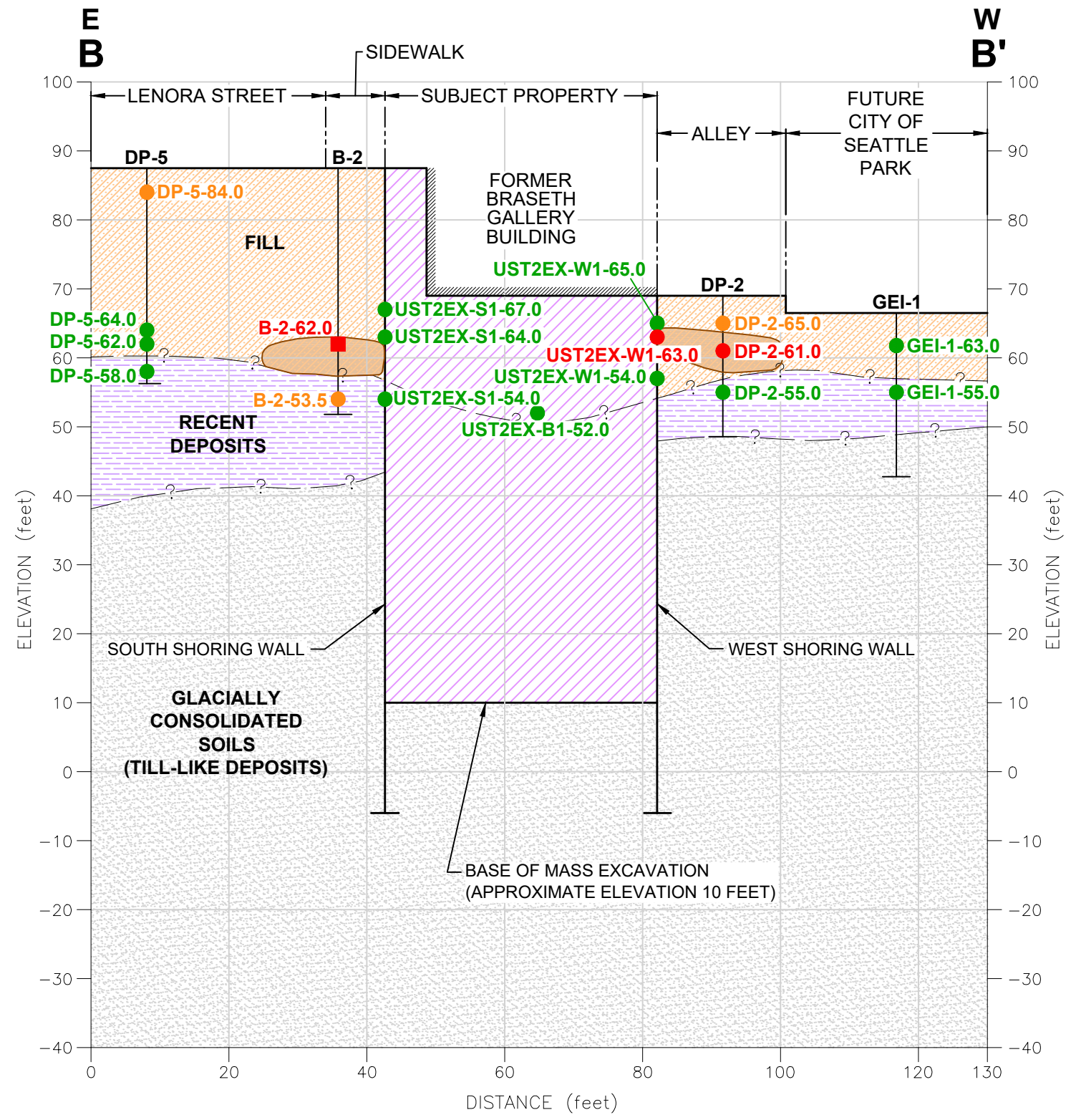
0      10      20  
  
 Feet

- Notes:**
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
  2. Refer to Figure 7 for location of Cross Section.
  3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure.
  4. Figure sourced from GeoEngineers, Cross Section C-C' Figure 7, 2016.

### Cross Section A-A'

Cleanup Action Report  
 820 Lenora Street  
 Seattle, Washington

	SEP-2019	BY: FK / TDR	<b>FIGURE NO.</b> <span style="font-size: 1.5em;">8</span>
	PROJECT NO. 170291	REV BY: ---	



**Legend**

- Soil sample with gasoline- and heavy oil-range hydrocarbons and toluene detections greater than MTCA Method A Cleanup Levels
- Soil sample with MTCA exceedance for diesel- and heavy oil-range hydrocarbons and PAHs
- Soil sample with petroleum hydrocarbons and PAHs detections less than MTCA Method A Cleanup Levels
- Soil sample non-detect for petroleum hydrocarbons and PAHs

MTCA Model Toxics Control Act  
PAHs Polycyclic aromatic hydrocarbons

**DP-2** Exploration and approximate location

—|?— Soil contact

- Approximate thickness of residual MTCA exceeding petroleum- and PAHs- contaminated soil
- Fill
- Recent deposits
- Glacially consolidated soils (till-like deposits)
- Former Braseth Gallery building was demolished and soil at the subject property was excavated to an approximate Elevation of 7 feet, NAVD88, during mass excavation

0 20 40  
Feet

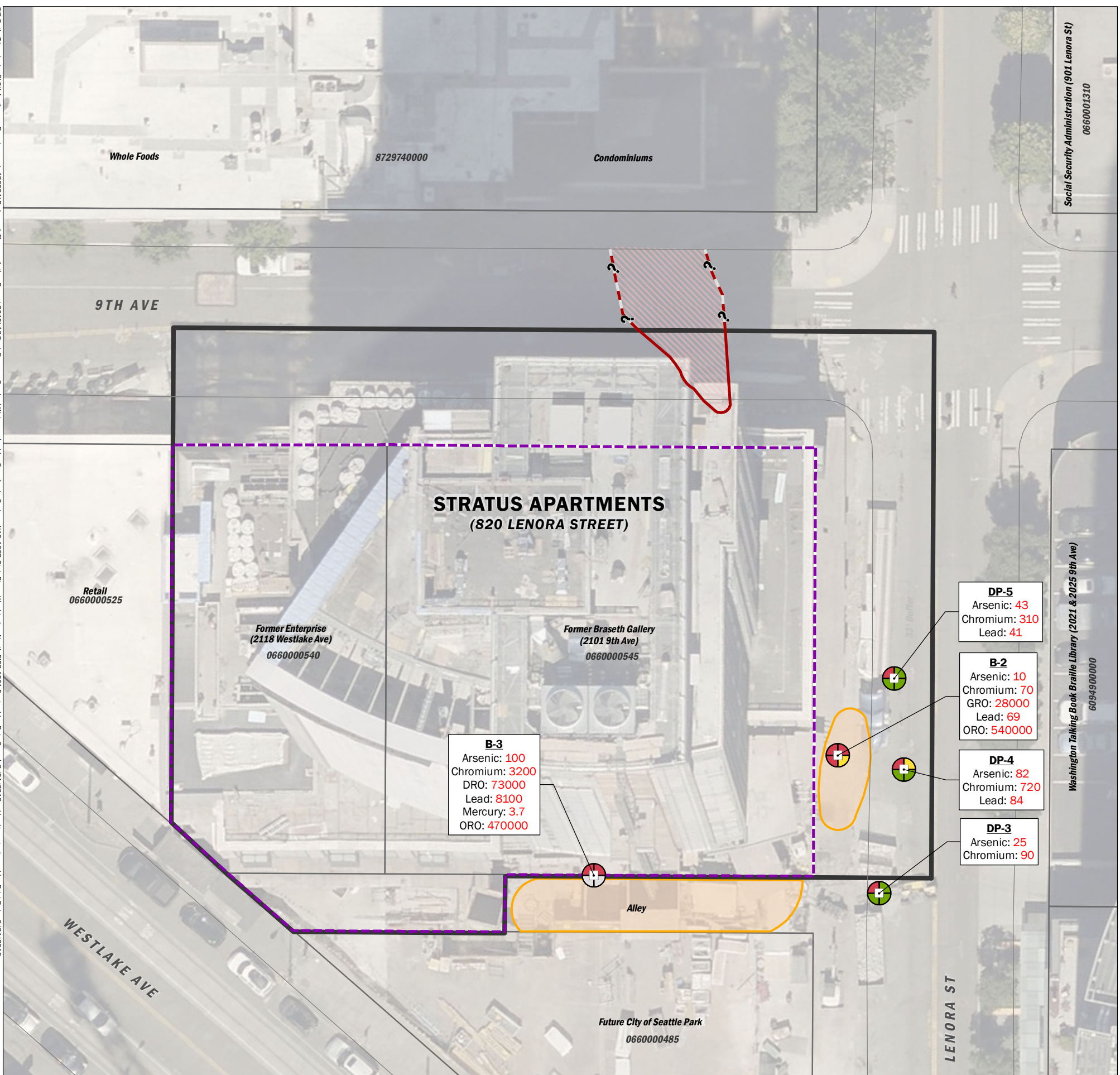
- Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
  2. Refer to Figure 7 for location of Cross Section.
  3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure.
  4. Figure sourced from GeoEngineers, Cross Section A-A' Figure 6, 2016.

### Cross Section B-B'

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington

	SEP-2019	BY: FK / TDR	FIGURE NO. <b>9</b>
	PROJECT NO. 170291	REV BY: ---	

GIS Path: \\projects\_8\shland\landdev\development\_170291\Delivered\Cleanup Action Report 2019\10 Post Cleanup Perched Water.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 9/24/2019 | User: tullen | Print Date: 9/24/2019



Social Security Administration (901 Lenora St)  
 0660001310

Washington Talking Book Braille Library (2021 & 2025 9th Ave)  
 6094900000

Condominiums  
 0660000575

**Note:**

- The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.
- Perched water - Although petroleum hydrocarbons (in B-2 and B-3) and metals (arsenic, chromium, lead, and/or mercury [in B-3 only]) were detected at concentrations greater than MTCA Method A Cleanup Levels in perched water these results are not representative of groundwater quality at the Site. Because these discrete, one-time samples were obtained directly from the boreholes of borings they are considered to be reconnaissance samples. These samples were biased high for contaminants because silt particles were present in the samples as a result of the sampling process. Perched water is not a media of concern at this Site because it was not encountered within the mass excavation limits. Additionally, groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site (approximate Elevation 14 feet, NAVD88) were tested and did not contain contaminants of concern at levels of regulatory significance. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).
- Groundwater - Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels and petroleum hydrocarbons were not detected. Additionally, a groundwater sample from an off-property monitoring well MW-5 located across Lenora Street indicated no detections of petroleum. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

Exploration name

DP-3  
Arsenic: 25  
Chromium: 90

Analyte with concentration in micrograms per liter

Metals

Gasoline range hydrocarbons

Diesel range hydrocarbons

Benzene, toluene, ethylbenzene, and xylenes

PAH: Polycyclic aromatic hydrocarbons  
 MTCA: Model Toxics Cleanup Control Act  
 GRO: Gasoline-range organics  
 DRO: Diesel-range organics  
 ORO: Oil-range organics

0 30 60  
Feet

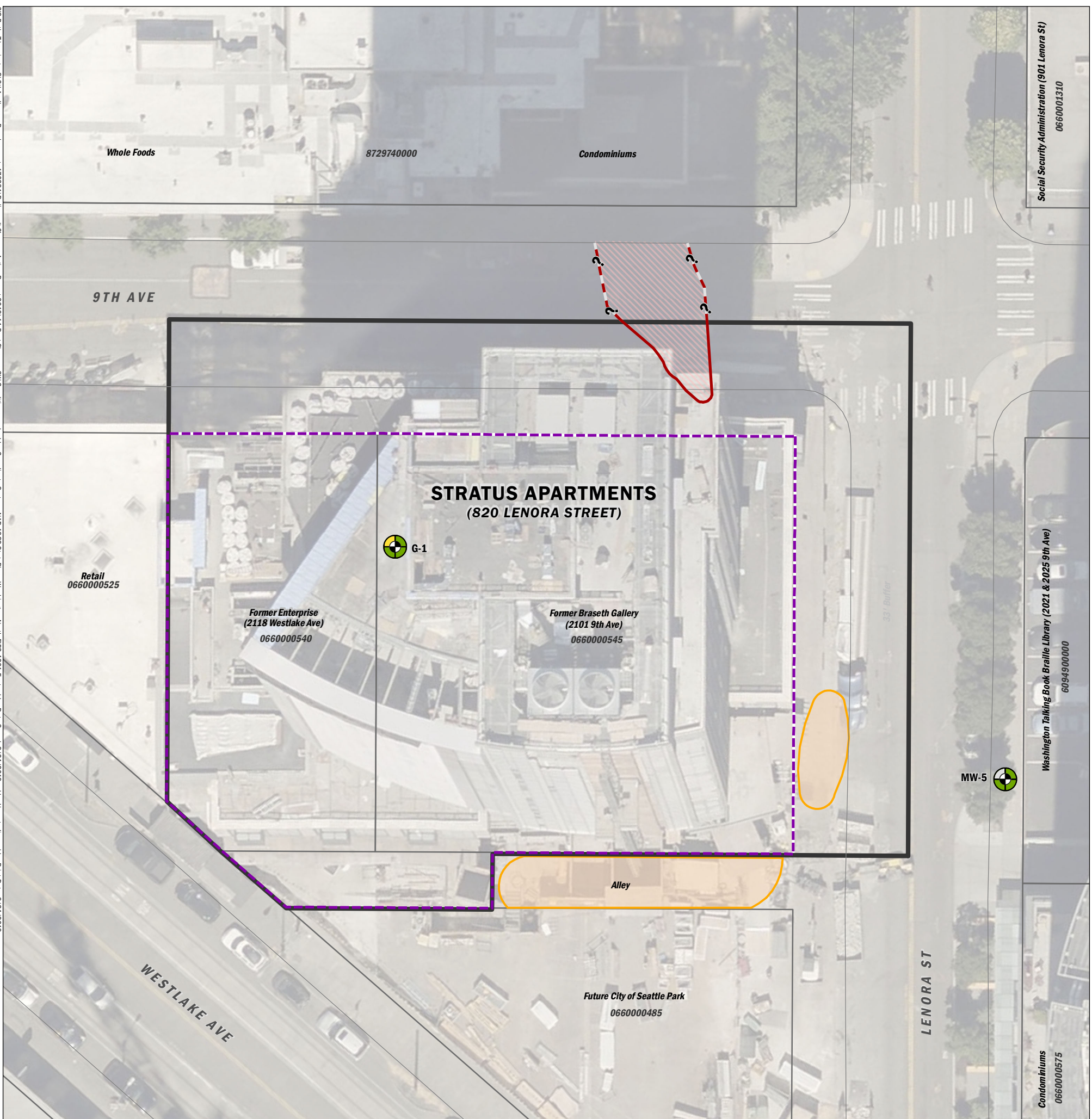
- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- Perched Water Sample from Soil Boring
- Mass excavation limits
- Subject Property
- King County Parcel
- 0660000545 Parcel Number
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance

## Post-Cleanup Perched Water Conditions at the Subject Property and Vicinity

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington

PROJECT NO. 170291	BY: FK / KES REVISED BY: TDR	FIGURE NO. <b>10</b>
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GIS Path: \\projects\_8\98handlenordev\development\_170291\Delivered\Cleanup Action Report 2019\1 Post-Cleanup GW Conditions.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 9/24/2019 | User: tullen | Print Date: 9/24/2019



**Note:**

- The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.
- Perched water - Although petroleum hydrocarbons (in B-2 and B-3) and metals (arsenic, chromium, lead, and/or mercury [in B-3 only]) were detected at concentrations greater than MTCA Method A Cleanup Levels in perched water these results are not representative of groundwater quality at the Site. Because these discrete, one-time samples were obtained directly from the boreholes of borings they are considered to be reconnaissance samples. These samples were biased high for contaminants because silt particles were present in the samples as a result of the sampling process. Perched water is not a media of concern at this Site because it was not encountered within the mass excavation limits. Additionally, groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site (approximate Elevation 14 feet, NAVD88) were tested and did not contain contaminants of concern at levels of regulatory significance. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).
- Groundwater - Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels and petroleum hydrocarbons were not detected. Additionally, a groundwater sample from an existing off-property monitoring well MW-5 located across Lenora Street indicated no detections of petroleum. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

Metals

Gasoline range hydrocarbons

Diesel range hydrocarbons

Benzene, toluene, ethylbenzene, and xylenes

0 30 60

Feet

PAH: Polycyclic aromatic hydrocarbons

MTCA: Model Toxics Cleanup Control Act

- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- Groundwater Sample from Former Monitoring Well
- Mass excavation limits
- Subject Property
- King County Parcel
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Subject Property
- King County Parcel
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance

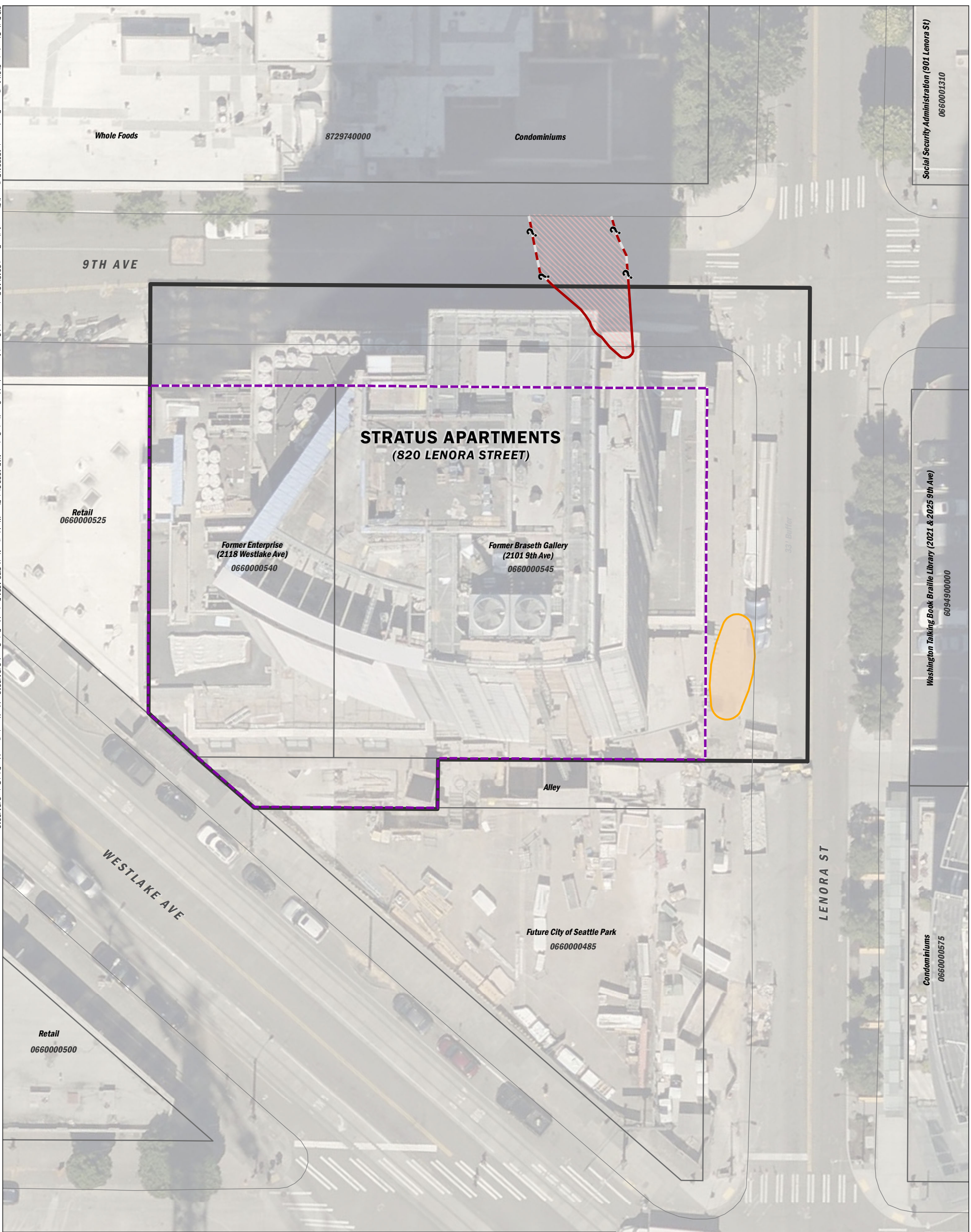
0660000545 Parcel Number

## Post-Cleanup Groundwater Conditions at the Subject Property and Vicinity

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington

Aspect CONSULTING	PROJECT NO. 170291	BY: FK / KES REVISED BY: TDR	FIGURE NO. <b>11</b>
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GIS Path: I:\projects\_8\9thandLenoraDevelopment\_170291\Delivered\Cleanup Action Report 2019\_12 Environmental Covenant Areas.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 9/24/2019 | User: trullen | Print Date: 9/24/2019








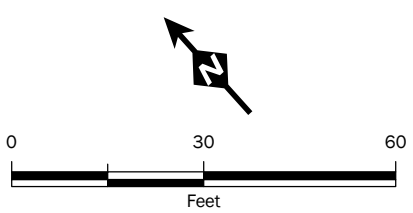
Social Security Administration (901 Lenora St)  
0660001310

Washington Talking Book Braille Library (2021 & 2025 9th Ave)  
6094900000

Condominiums  
0660000575

Note:  
1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

-  Mass excavation limits
-  Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
-  Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
-  Subject Property
-  King County Parcel
- 0660000545** Parcel Number



MTCA: Model Toxics Cleanup Control Act  
PAH: Polycyclic aromatic hydrocarbons

## Subject Property- Environmental Covenant Areas

Cleanup Action Report  
820 Lenora Street  
Seattle, Washington



SEP-2019  
PROJECT NO.  
170291

BY:  
FK / KES  
REVISED BY:  
TDR

FIGURE NO.  
**12**

## **APPENDIX A**

### **2017 Property-Specific No Further Action Letter**



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

November 14, 2017

Mr. Jeff Lowenberg  
Ninth and Lenora, LLC  
125 High Street, 27<sup>th</sup> Floor  
Boston, MA 02110

**Re: No Further Action at a Property associated with a Site:**

- **Site Name:** Lenora Building
- **Site Address:** 2101 9<sup>th</sup> Avenue, Seattle, Washington 98121
- **Facility/Site No.:** 91413494
- **Cleanup Site ID No.:** 1802
- **VCP Project No.:** NW2980

Dear Mr. Lowenberg:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of the **Lenora Building** (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

**Issues Presented and Opinion**

---

1. Is further remedial action necessary at the Property to clean up contamination associated with the Site?

**NO. Ecology has determined that no further remedial action is necessary at the Property to clean up contamination associated with the Site.**

2. Is further remedial action still necessary elsewhere at the Site?

**YES. Ecology has determined that further remedial action is still necessary elsewhere at the Site.**

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.



## **Description of the Property and the Site**

---

This opinion applies only to the Property and the Site described below. This opinion does not apply to any other site that may affect the Property. Any such sites, if known, are identified separately below.

### **1. Description of the Property.**

The Property includes the following two tax parcels in King County, which was affected by the Site and will be addressed by your cleanup:

- 0660000540
- 0660000545

**Enclosure A** includes a legal description of the Property. **Enclosure B** includes a diagram of the Site that illustrates the location of the Property within the Site.

### **2. Description of the Site.**

The Site is defined by the nature and extent of contamination associated with the following releases:

- Gasoline-range petroleum hydrocarbons (TPH-G), Diesel-range petroleum hydrocarbons (TPH-D), Oil-range petroleum hydrocarbons (TPH-O), benzene, xylenes, lead, and carcinogenic PAHs (cPAHs) into the Soil.

**Enclosure B** includes a detailed description and diagram of the Site, as currently known to Ecology.

### **3. Identification of Other Sites that may affect the Property.**

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the Property is affected by other Sites.

The Property does not include Lenora Street and the adjacent alley right-of-ways located south and west of the Lenora Building.

## **Basis for the Opinion**

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This opinion is based on the information contained in the following documents:

Mr. Jeff Lowenberg  
November 14, 2017  
Page 3

1. GeoEngineers, Inc., *Construction Contingency Plan, Contaminated Soil and Groundwater Management, 9<sup>th</sup> and Lenora Development, 2118 Westlake Avenue/2101 9<sup>th</sup> Avenue, Seattle, Washington*, dated December 12, 2014.
2. GeoEngineers, Inc., *Northeast Heating Oil UST Removal and Site Assessment Report; 9<sup>th</sup> and Lenora Development, 2118 Westlake Avenue/2101 9<sup>th</sup> Avenue, Seattle, Washington*, dated July 13, 2015.
3. GeoEngineers, Inc., *Remedial Investigation/Feasibility Study, Ninth and Lenora Redevelopment, 2101 9<sup>th</sup> Avenue, Seattle, Washington, VCP Project No. NW2980*, dated March 24, 2016.
4. GeoEngineers, Inc., *Cleanup Action Report, Ninth and Lenora Redevelopment, 2101 9<sup>th</sup> Avenue, Seattle, Washington, VCP Project No. NW2980*, dated March 24, 2016.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at 425.649.7235 or via email at [NWRO\\_public\\_request@ecy.wa.gov](mailto:NWRO_public_request@ecy.wa.gov).

This opinion is void if any of the information contained in those documents is materially false or misleading.

## **Analysis of the Cleanup**

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### **1. Cleanup of the Property located within the Site.**

Ecology has concluded that **no further remedial action** is necessary at the Property to clean up contamination associated with the Site. That conclusion is based on the following analysis:

#### **a. Characterization of the Site.**

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards for the Site and select a cleanup for the Property. The Site is described above and in **Enclosure B**.

#### **b. Establishment of cleanup standards for the Site.**

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

Soil:

Current Site uses include commercial businesses to which the public has access, so unrestricted land use is the appropriate basis for development of soil cleanup levels. The following potential exposure/risk pathways were appropriate to consider:

- Human health protection from direct soil contact pathway exposure.
- Human health protection from soil-to-groundwater pathway exposure.
- Human health protection from soil-to-air pathway exposure.
- Human health protection from soil-to-surface water pathway exposure.
- Terrestrial ecological protection.

Because the Site has relatively few contaminants, MTCA Method A can be used as cleanup levels for the Site contaminants of concern.

Appropriate soil cleanup levels are the WAC 173-340 Table 740-1 Method A values of 30 milligrams per kilogram (mg/kg) for gasoline-range organics when benzene is present, 0.03 mg/kg for benzene, 7 mg/kg for toluene, 6 mg/kg for ethylbenzene, 9 mg/kg for xylenes, 2,000 mg/kg for diesel-range organics and 2,000 mg/kg for oil-range organics.

Soil cleanup levels protective of terrestrial ecological species are also potentially applicable. However, they are deemed not applicable as this Site meets the simplified Terrestrial Ecological Evaluation (TEE) exclusion criteria (Table 749-1 of WAC 173-340-7492(2)(a)(ii)). The land use at the Property and surrounding area makes substantial wildlife exposure unlikely. The Site also meets the initial TEE exclusion criteria (MTCA WAC 173-340-7491(1)(c)(i)). There are less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any part of the Site.

The point of compliance for protection of human health (direct contact) for soil is throughout the Site to a depth of 15 feet below the ground surface. The standard point of compliance for soil for the protection of ground water is throughout the Site.

Ground Water:

Cleanup levels were set for ground water based on its potential use as a drinking water source. The MTCA Method A cleanup levels are appropriate for this purpose, and were selected as the cleanup levels for this Site.

Appropriate ground water cleanup levels are the WAC 173-340 Table 720-1 Method A values.

The point of compliance for ground water is throughout the Site from the uppermost level of the unsaturated zone extending vertically to the lowest most depth which could potentially be affected by the Site.

Soil Gas:

The soil vapor intrusion pathway is not an issue at this Site. For the vapor intrusion pathway to be considered complete, there must be three components: a source of volatile compounds in the subsurface environment (ground water and soil), building(s), and a migration route to connect them.

All contaminated soil associated with the releases were removed from the Property, and the shallow ground water was fully removed throughout the Property boundary upon completion of the building construction and redevelopment.

**c. Selection of cleanup of the Property.**

Ecology has determined the cleanup action you selected for the Property meets the substantive requirements of MTCA. The cleanup meets minimum cleanup requirements and does not exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Site.

The selected cleanup consisted of the excavation and removal of approximately 14,550 tons of petroleum-contaminated soil (contaminated with the COCs TPH-G, PAHs, benzene, xylenes, and lead), and which were transported off-Site to a regulated facility. The cleanup also consisted of the removal of a closed-in-place petroleum UST with fill ports and piping; a hydraulically operated steel elevator shaft and a concrete vault; and an undocumented heating oil tank. Confirmation soil samples confirmed that all PCS was excavated and removed from the heating tank location.

These actions meet the minimum requirements in WAC 173-340-360(2) because they are protective of human health and the environment, comply with the selected cleanup standards, comply with applicable state and federal laws and provide for compliance monitoring. The selected cleanup action used permanent solutions to the maximum extent practicable (source removal and off-Site disposal) and provided a reasonable restoration time frame.

**d. Cleanup of the Property.**

Ecology has determined the cleanup you performed meets the applicable Site cleanup standards within the Property.

The cleanup performed consisted of the excavation and removal of approximately 14,550 tons of petroleum-contaminated soil which were transported off-Site to the Waste Management (WM) transfer station in Seattle, Washington for rail haul and permitted disposal at the WM subtitle D landfill in Arlington, Oregon.

The lateral and vertical extent of petroleum-impacted soil had been adequately defined upon the completion of Site investigation, cleanup action, and confirmation soil sampling. Soil analytical results of confirmation samples were below MTCA Method A cleanup levels for the contaminants of concern. Ground water (perched) was not encountered during excavation associated with mass construction of the Property.

A hydraulically-operated steel elevator shaft and a concrete vault that housed a hydraulic hoist were removed during Property redevelopment and construction between June and August 2015. Confirmation samples confirmed that soil below the former elevator shaft and vault was not impacted.

A closed-in-place steel diesel tank (UST #2), along with associated piping and petroleum-contaminated soil were removed from the south portion of the Property. Confirmation soil samples confirmed that all petroleum-contaminated soil was excavated and removed from within the Property boundaries. Note that a gasoline UST (UST#1) was removed from the Property in 2002.

Residual petroleum-contaminated soil (exceeding MTCA Method A cleanup levels) remains in place outside the west Property boundary in a limited portion of an alley owned by the City of Seattle.

An undocumented heating oil tank (UST #3) was discovered during Property redevelopment and construction. The UST was excavated and removed along with petroleum-contaminated soil between June 2015 and August 2015. Confirmation samples confirmed that all petroleum-contaminated soil was excavated and removed from the UST#3 location.

Regional ground water was determined to be 53 to 55 feet bgs (elevation 14 to 16 feet above mean sea level (msl)) based on the results of ground water monitoring well MWG-1 which was installed prior to Property redevelopment and construction activities. Ground water was determined to be uncontaminated above COC MTCA Method A cleanup levels based on the analytical results of ground water samples collected from on-Property monitoring well MWG-1 and from on off-Property monitoring well MW-5 which was screened from 42 to 58 feet below the ground surface (bgs). These well locations are considered representative of ground water on the Site. Perched ground

water was encountered in localized, discontinuous locations during subsurface explorations, but was not encountered during excavation related to mass construction of the Property.

Based on the deep regional ground water table, the estimated extent of vertical separation (greater than 40 feet) between regional ground water and contaminated fill soil, and ground water sampling data, the soil to groundwater pathway for contaminant migration is most likely incomplete. The potential source of contaminated shallow ground water (the petroleum-contaminated soil) was excavated and removed from the Property and the regional ground water is not contaminated.

## 2. **Cleanup of the Site as a whole.**

Ecology has concluded that **further remedial action** under MTCA is still necessary elsewhere at the Site. In other words, while your cleanup constitutes the final action for the Property, it constitutes only an **“interim action”** for the Site as a whole.

Documentation has been provided which specifies that beyond the Property boundary a limited volume of petroleum- and PAH-contaminated soil is present beneath a portion of the adjacent Lenora Street sidewalk and the southeast portion of the alley (rights-of-ways located south and west of the Lenora Building Property: the Site).

- Lenora Street: Soil contaminated with TPH-G, TPH-D, TPH-O, benzene, xylenes, lead, and cPAHs above MTCA Method A is located approximately 24 feet bgs (under the street). Several utility corridors are present in Lenora Street that precluded further investigation.
- Alley: Utilities and additional infrastructure elements (concrete footings and walls) are present in the alley.
- In a regional aquifer underlying the Site, ground water occurs at 53 to 55 feet bgs; (near elevations 14 to 16 feet above msl).
- Lenora Street and the alley are currently capped with asphalt so there is some control of surface water and the infiltration of precipitation.

### **Listing of the Site**

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Based on this opinion, Ecology will update the status of remedial action at the Site on our database of hazardous waste sites. However, because further remedial action is still necessary elsewhere at the Site, we will not remove the Site from our lists of hazardous waste sites. Furthermore, the Property will remain listed as part of the Site because the cleanup of the Property does not change the boundaries of the Site.

## **Limitations of the Opinion**

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### **1. Opinion 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**:

- Change the boundaries of the Site.
- 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 must enter into a consent decree with Ecology under RCW 70.105D.040(4).

### **2. Opinion 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).

## **Termination of Agreement**

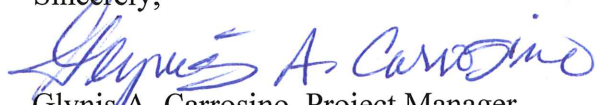
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Thank you for cleaning up your Property under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (VCP# NW2980). If you should decide to clean up the remainder of the Site, please do not hesitate to reapply and request additional services under the VCP.

For more information about the VCP and the cleanup process, please visit our web site: [www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at 425-649-4422, or via email at [gcar461@ecy.wa.gov](mailto:gcar461@ecy.wa.gov).

Mr. Jeff Lowenberg  
November 14, 2017  
Page 9

Sincerely,



Glynis A. Carrosino, Project Manager  
Toxics Cleanup Program, NWRO

Enclosures (2):   A – Legal Description of the Property  
                          B – Description and Diagrams of the Site (including the Property)

By Certified Mail:   [9171 9690 0935 0163 8405 95]

cc:   Fasih Khan, Aspect Consulting LLC  
      Matt Alexander, VCP Financial Manager, Ecology  
      Sonia Fernandez, NWRO VCP Coordinator, Ecology

# **Enclosure A**

## **Legal Description**

BELL HEIRS OF S A 2ND ADD E OF WESTLAKE BLVD  
Plat Block 24  
Plat Lot 10

BELL HEIRS of S A 2<sup>nd</sup> ADD

## **Enclosure B**

### **Description and Diagrams of the Site**

## Site Description

*This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.*

**Site:** The Site is defined by the release of diesel- and oil-range total petroleum hydrocarbons (TPH-D and TPH-O respectively) to soil associated with historical boiler and furnace/heating systems of the former property buildings, Underground Storage Tanks (USTs), and historic property uses. The Site is located at 2101 9<sup>th</sup> Avenue, in Seattle, Washington (Property).

**Area and Property Description:** The Property consists of two King County tax parcels encompassing approximately 0.49 acres. The north parcel is King County Parcel # 0660000540, and the south parcel is King County Parcel #0660000545. The Property does not include Lenora Street and the adjacent alley right-of-ways located south and west of the Lenora Building Property.

The Property is located in the Denny Triangle neighborhood and bounded to the north by retail properties, 9<sup>th</sup> Avenue to the east, Lenora Street to the south, and a public alley to the west in downtown Seattle, Washington. The Property is currently under construction as Stratus, a development consisting of a 42-story residential tower with ground level retail and six levels of subgrade parking. The construction of the exterior of the building has been completed, with the building interior in process. Land use surrounding the Site includes commercial businesses, residential apartments and condominiums.

**Property History and Current Use:** Early use of the Property was as a wood yard, printing facility, metal shop and a vehicle servicing/auto restoration garage. Additional historic facilities were identified: a former boiler room, chimney and furnace systems, former car wash area, printing facility and metal shops. USTs located on the Property consisted of: one former petroleum UST, (which was removed in 2002), one closed-in-place petroleum UST with fill ports and piping, and a heating oil UST.

### Key details:

Based on the historic fire insurance (Sanborn) maps, the North parcel (Parcel #0660000540) was undeveloped in 1905. A small structure and parking were present on the parcel in 1936. Later, a single-story office building with a basement was constructed between 1946 and 1948 and was used by a vehicle company for car sales, storage and repair. A boiler house was also present on the parcel and the building was heated by hot water and an oil burner. In 1980, an underground tunnel was constructed in order to provide access to the basement of the single-story building from the underground parking garage located on parcel #0660000485. Westlake Chevrolet Company owned the north parcel from 1946 until the mid-1980s (for car sales and possibly auto repair).

The parcel was occupied by a used car sales office until 1990s and the prior owner indicated that fill from an unknown source may have been brought to the parcels during the construction of the building.

Based on the historic fire insurance (Sanborn) maps and tax assessment records, the South Parcel (Parcel # 0660000545) was undeveloped from at least 1893 until approximately 1905 when a "wood yard" was located on the parcel. This parcel was owned by a lumber company from 1905 to 1924. A two-story office/retail building on the parcel was constructed in 1924 as a garage. The building was originally heated by an oil burner. The parcel was used as an auto repair facility between the 1940s and the 1970s. Later, the parcel was used as a printing facility during the 1980s and 1990s, and included a camera area, dark room and bindery area. A metal shop is shown in the west corner of the basement in 1998 building plans. Cornish College of Arts then owned the parcel since 2003.

The northern parcel was the former location of an Enterprise care rental company. The southern parcel was the former location of a two-story office/warehouse building with a garage below. The Property is currently under construction (building exterior is completed) as a Stratus development.

**Contaminant Source and History:** Sources of contamination include historical boiler and furnace/chimney systems of the former property buildings, USTs (UST#1 was removed in 2002; UST#2 with associated piping was closed in place; and UST#3 was a previously undocumented heating oil tank), and historic property uses such as a wood yard, printing facility, metal shops, and former vehicle servicing/washing/restoration facility, and undocumented fill that was imported to the Property. Because of the sloping nature of the Site from 9<sup>th</sup> Avenue down to the alley at the west side of the Property, the construction excavation extended from starting elevations of about 87 feet above mean sea level (msl) (high side near 9th Avenue) to 69 feet above msl (low side near the alley) to a bottom construction excavation of about elevation 7 feet above msl. Contaminated soil occurred within the upper 20 feet of fill soil at the Property.

All contaminated soil associated with the releases were removed from the Property, and shallow perched ground water was fully removed throughout the Property boundary upon completion of the remedial excavation conducted as part of the redevelopment.

**Physiographic Setting:** The Property is located within the Puget Lowland physiographic province, a broad, low-lying region situated between the Cascade Range to the east and the Olympic Mountains to the west. The Property grades drop about 10 feet from southeast to northwest. The alley along the west side of the Property historically provided access to the lowest level of the former building and slopes down near Westlake Avenue to the entrance of the former 2101 9th Avenue building. The alley does not extend through to Lenora Street. A permanent slope currently exists between the end of the alley and Lenora Street.

**Surface/Storm Water System:** Lake Union is located approximately 3,000 feet north of the Property. Elliott Bay is located approximately 3,000 feet southwest of the Property.

**Ecological Setting:** The Property is covered with a building (exterior is completed). Land surrounding the Site is primarily covered with buildings, asphalt and concrete with small landscaped areas.

**Geology:** The Property is underlain by relatively shallow fill overlying recent deposits and competent glacially consolidated soils. Fill generally consists of loose to medium dense silty sand with variable gravel and cobble content and occasional brick, charcoal or wood debris. Based on historical research, the block is located on the eastern edge of the 1928 to 1930 Denny Regrade, and portions of this area are reported to have up to 25 feet of fill added as part of the historical regrading process. The thickness of fill encountered in the explorations completed at the Site ranged from approximately 6 to 15 feet.

The recent deposits consist of soft to hard silt and clay with occasional sand interbeds and variable gravel content or medium dense to dense sand with variable silt and gravel content. The glacially consolidated soils were encountered below the fill and recent deposits. The glacially consolidated soils encountered in the explorations were till deposits, which consist of very dense silty sand.

**Ground Water:** Perched ground water was encountered intermittently in some of the Site characterization explorations completed during remedial investigations. No perched water was encountered within the mass excavation limits at the Property. The static ground water level associated with the regional aquifer was measured in former monitoring well MWG-1 in 2013 and 2014. The measured depths ranged from approximately 53.30 to 55.39 feet bgs (approximate elevations 16 and 14 feet above msl) respectively, at the MWG-1 location.

**Water Supply:** Seattle Public Utilities (SPU) provides drinking water to the building. The Cedar and the South Fork Tolt River Watersheds in eastern King County are the two sources for potable water supplied by SPU.

**Release and Extent of Soil and Ground Water Contamination:**

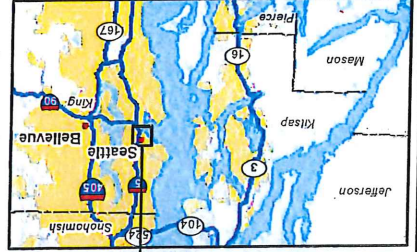
Petroleum hydrocarbons (TPH-G, TPH-D, and TPH-O), Benzene, Xylenes, Lead, and cPAHs were present in soil at the Property. Confirmation soil samples demonstrated that all identified soil contaminated above MTCA Method A cleanup levels was removed from the Property, and that a portion of Site soil contaminants exceeding MTCA Method A cleanup levels extended beyond the Property boundaries. Petroleum-contaminated soil at concentrations exceeding MTCA Method A cleanup levels is present beneath a portion of the adjacent Lenora Street sidewalk and the southeast portion of the alley (rights-of-ways owned by the city of Seattle located south and west of the Lenora Building Property)

During remedial excavation activities, shallow ground water was encountered, was intermittent and did not yield significant quantities of recoverable water. This perched ground water, which did not constitute a continuous water-bearing zone, was fully removed throughout the Property boundary upon completion of the excavation during redevelopment. The depth of the regional ground water is approximately 55 to 75 feet bgs.

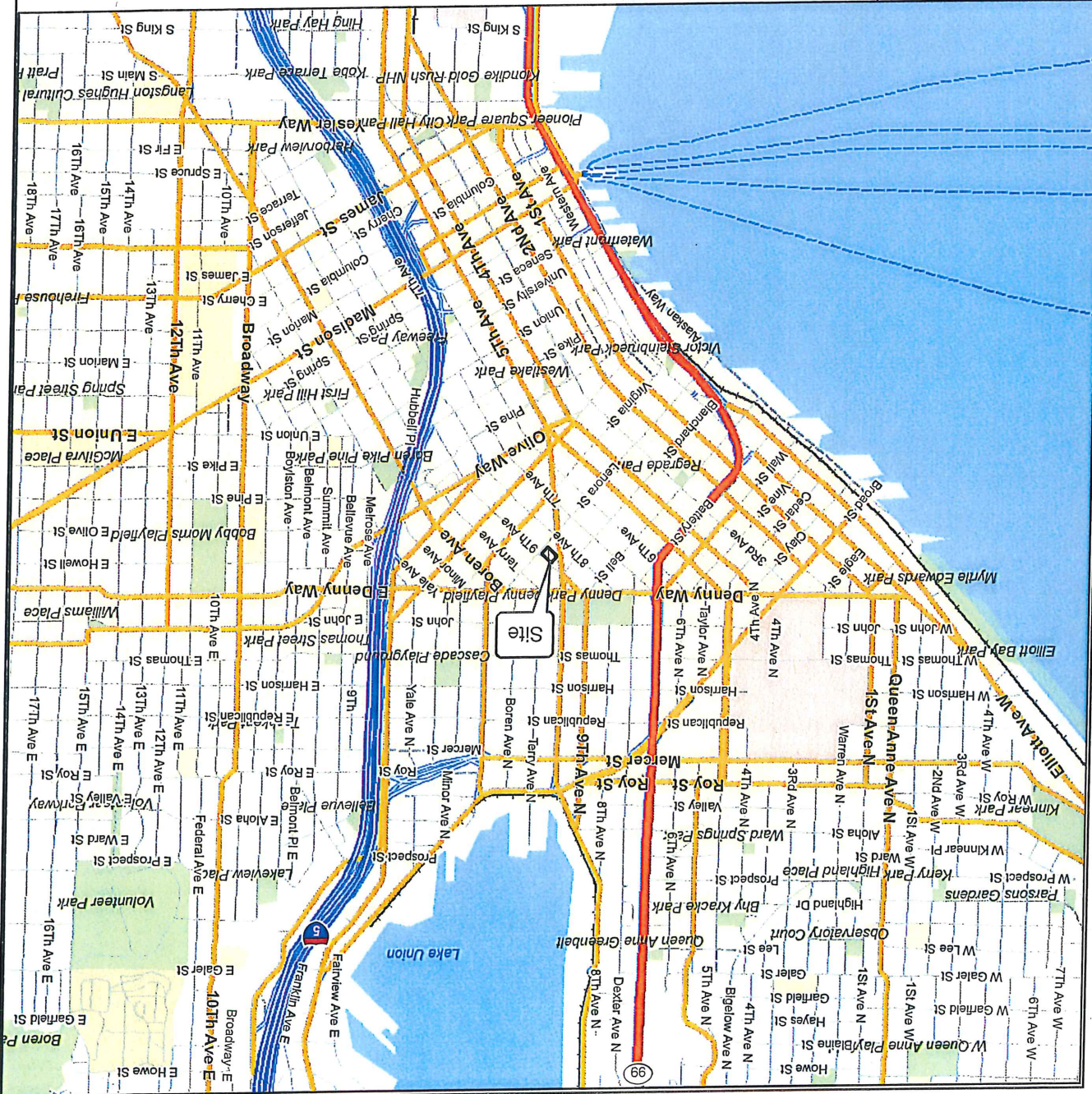
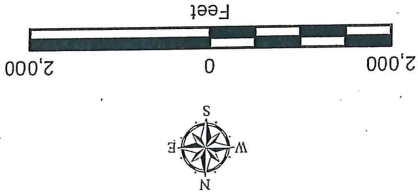
# Site Diagrams

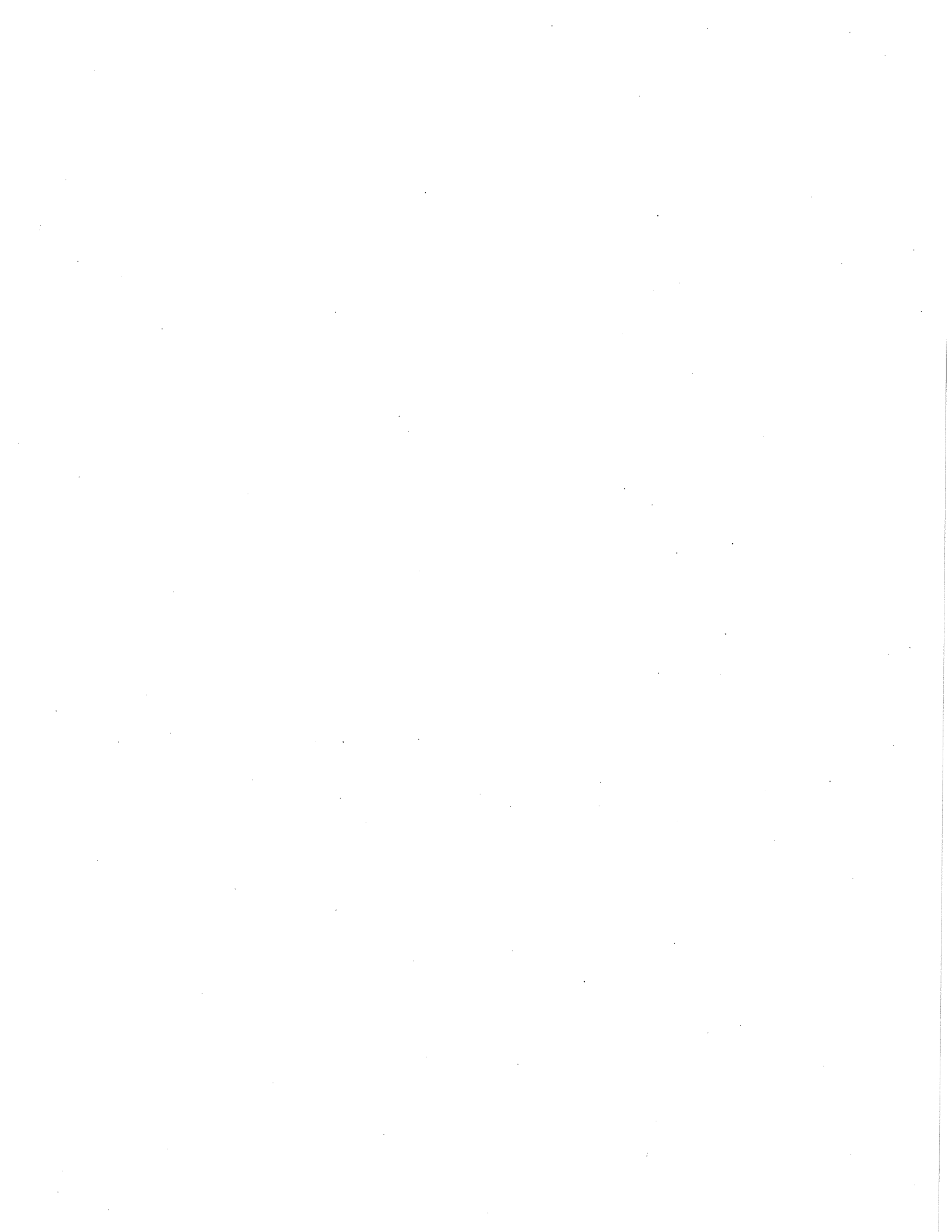


- Notes:
1. The locations of all features shown are approximate.
  2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
  3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.
- Data Sources: ESRI Data & Maps, Street Maps 2005  
 Transverse Mercator, Zone 10 N North, North American Datum 1983  
 North arrow oriented to grid north



	<b>Figure 1</b>
<b>9th and Lenora Development Seattle, Washington</b>	
<b>Vicinity Map</b>	

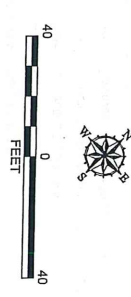






**Legend:**

- Subject Property Boundary
- Mass Excavation Limits
- DP-1 Direct-Push Boring (GeoEngineers, Sep. 2014)
- E-2 Soil Boring (GeoEngineers, Dec. 2013)
- G-1 Monitoring Well (GeoEngineers, Dec. 2013)
- G-2 Soil Boring (GeoEngineers, Dec. 2013)
- G-5 Soil Boring (GeoEngineers, July 2013)
- G-7 Soil Boring (GeoEngineers, July 2013)
- MW-01 Monitoring Well (GeoEngineers, July 2007)
- GEI-1 Soil Boring (GeoEngineers, July 2007)
- HA-1 Hand Auger Boring (GeoEngineers, Aug. 2002)
- B-2 Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- Catch Basin
- Parcel Address
- Property Address
- Parcel Number
- UST Underground Storage Tank
- Controlled Density Fill
- Parcel Line



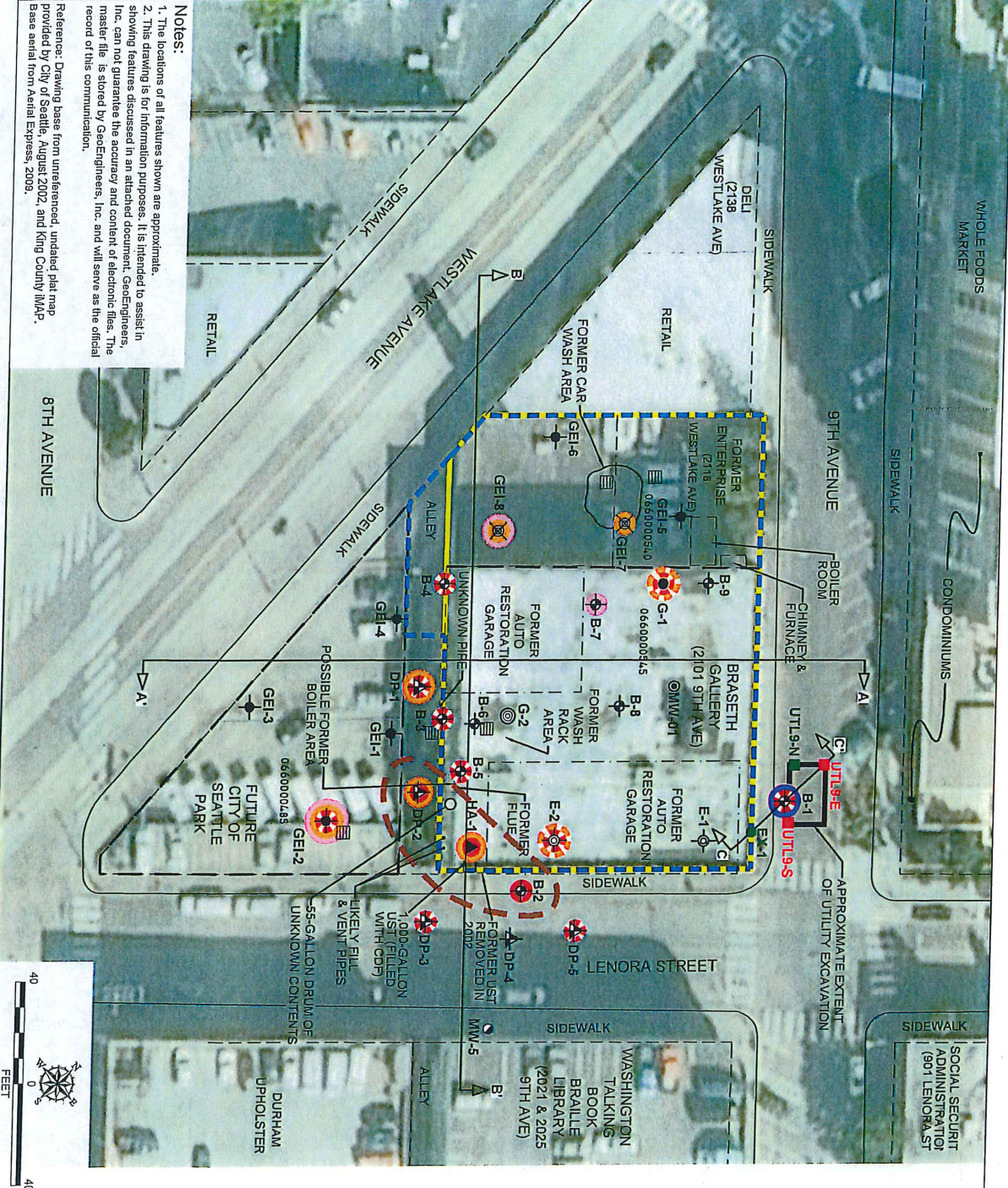
**Notes:**

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. can not 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.
- Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County IMAF. Base aerial from Aerial Express, 2009.

**Remedial Investigations Explorations**

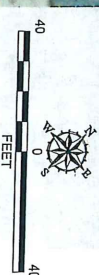
9th and Lenora Development  
Seattle, Washington

**Figure 2**



**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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County (MAP Base aerial from Aerial Express, 2009.

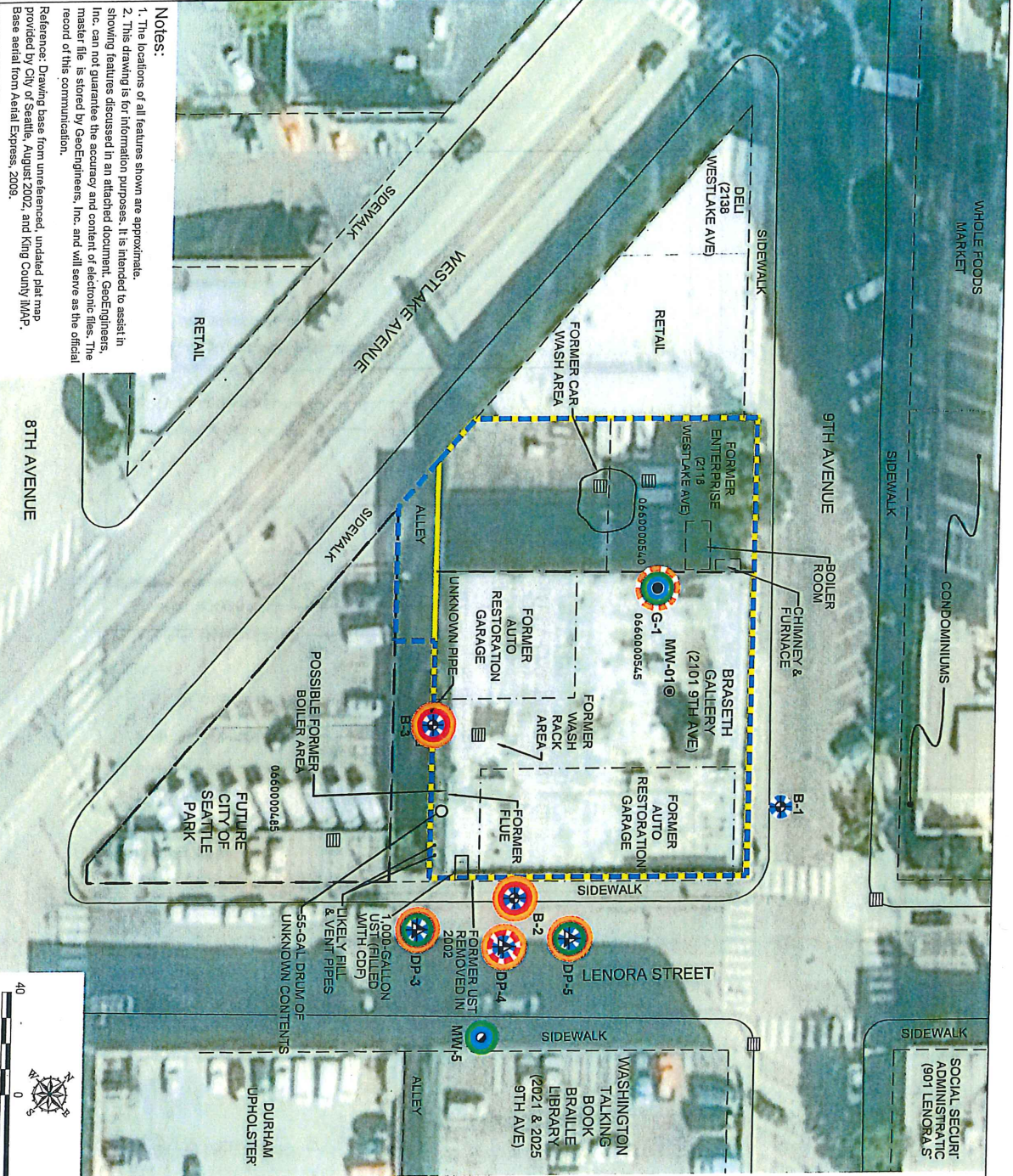


**Legend:**

- Subject Property Boundary
- Mass Excavation Limits
- Soil Sample Location
- U1L9-N ● Soil Sample Location
- DP-1 Direct-Push Boring (GeoEngineers, Sep. 2014)
- E-2 Soil Boring (GeoEngineers, Dec. 2013)
- G-1 Monitoring Well (GeoEngineers, Dec. 2013)
- G-2 Soil Boring (GeoEngineers, Dec. 2013)
- GE1-7 Soil Boring (GeoEngineers, July 2013)
- MW-01 Monitoring Well (GeoEngineers, July 2013)
- GE1-1 Soil Boring (GeoEngineers, July 2007)
- HA-1 Hand Auger Boring (GeoEngineers, Aug. 2002)
- B-2 Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 Ortese Monitoring Well (GeoEngineers, Sep. 1999)
- (2101 9TH AVE) Property Address
- 0660000545 Parcel Number
- UST Underground Storage Tank
- CPF Controlled Density Fill
- CUL Applicable MTCA Method A Cleanup Level
- PAHS Poly/cyclic Aromatic Hydrocarbons
- Parcel Line
- Estimated Footprint of Former Structures
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- PAHs detected at concentrations above CUL
- PAHs detected at concentrations below CUL
- Metals detected at concentrations above CUL
- Benzene detected at concentrations above CUL
- Benzene detected at concentrations below CUL
- Interpreted extent of petroleum-contaminated soil with MTCA exceedance
- Benzene and Gasoline Detected at a concentration greater than the MTCA Method A Cleanup Level
- Gasoline and Benzene not detected
- △ Approximate cross section location

**Summary of Petroleum Hydrocarbons, PAHs, and Metals Data in Soil**  
 9th and Lenora Development  
 Seattle, Washington

**GEOENGINEERS** Figure 3



**Notes:**

1. Benzene was not detected in B-1.
2. MW-01 was dry. Monitoring wells G-1 and MW-01 were decommissioned in July 2015, prior to mass excavation.
3. The discrete one-line perched water samples were obtained directly from the boreholes of borings B-2, B-3 in 2002 and DP-3, DP-4, and DP-5 in 2014. These perched water samples should be considered reconnaissance samples. These samples were checked high for metals because all particles were incorporated into the sample bottles and do not represent groundwater conditions at the subject property. Sample G-1 obtained from a monitoring well is representative of groundwater quality, at the subject property. Sample MW-5 obtained from a monitoring well is representative of groundwater quality, at the Lenora Street. See report text for further explanation.

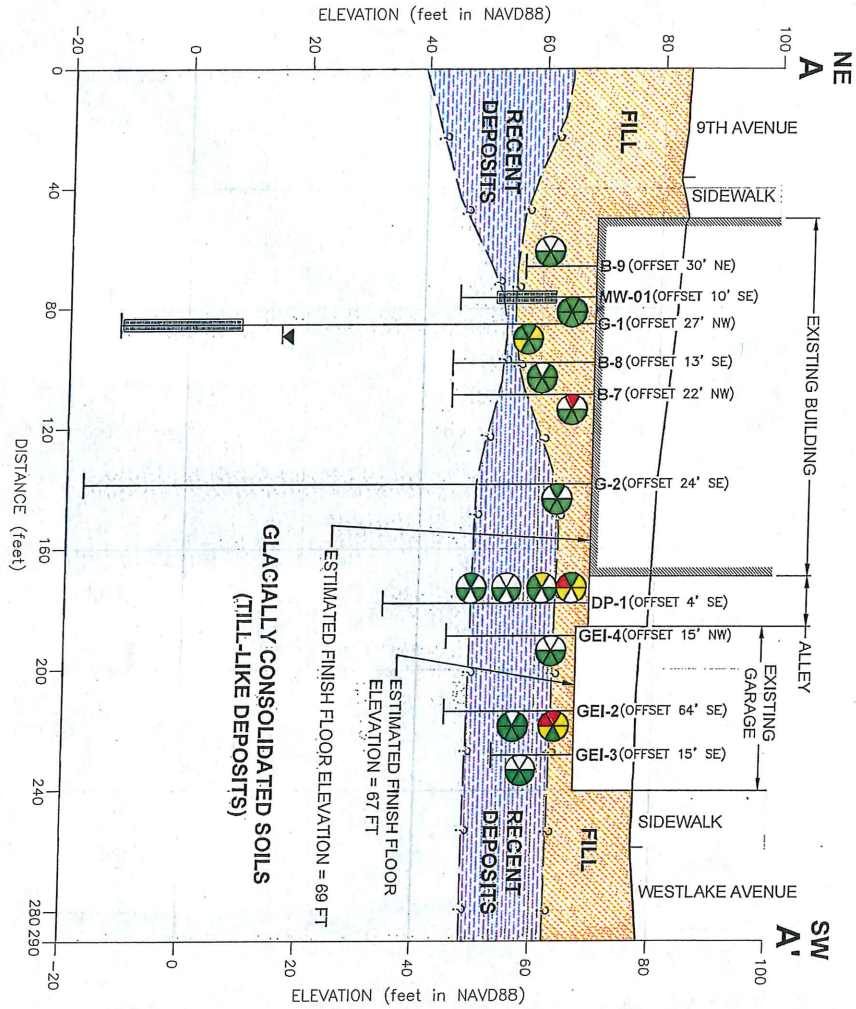
**Summary of Petroleum Hydrocarbons and Metals Data in Perched Water and Groundwater**

9th and Lenora Development  
Seattle, Washington

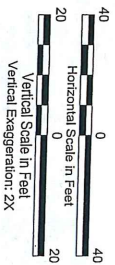
**GEOENGINEERS** Figure 4

**Legend:**

- Subject Property Boundary
- Mass Excavation Limits
- DP-1 Direct-Push Boring (GeoEngineers, Sep. 2014)
- G-1 Monitoring Well (GeoEngineers, Dec. 2013)
- MW-01 Monitoring Well (GeoEngineers, July 2013)
- B-2 Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 Offsite Monitoring Well (GeoEngineers, Sep. 1983)
- Catch Basin
- Property Address (2101 9TH AVE)
- Parcel Number (0660000545)
- UST Underground Storage Tank
- CDP Controlled Density Fill
- CUL Applicable MTCA Method A Cleanup Level
- Parcel Line
- Estimated Footprint of Former Structures
- Groundwater Sample from Monitoring Well
- Perched Water Sample from Boring
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- Metals detected at concentrations above CUL
- Metals detected at concentrations below CUL
- Petroleum hydrocarbons not detected



- Notes:**
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate. Actual subsurface conditions may vary from those shown.
  2. Refer to Figure 3 for location of Cross Section.
  3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.



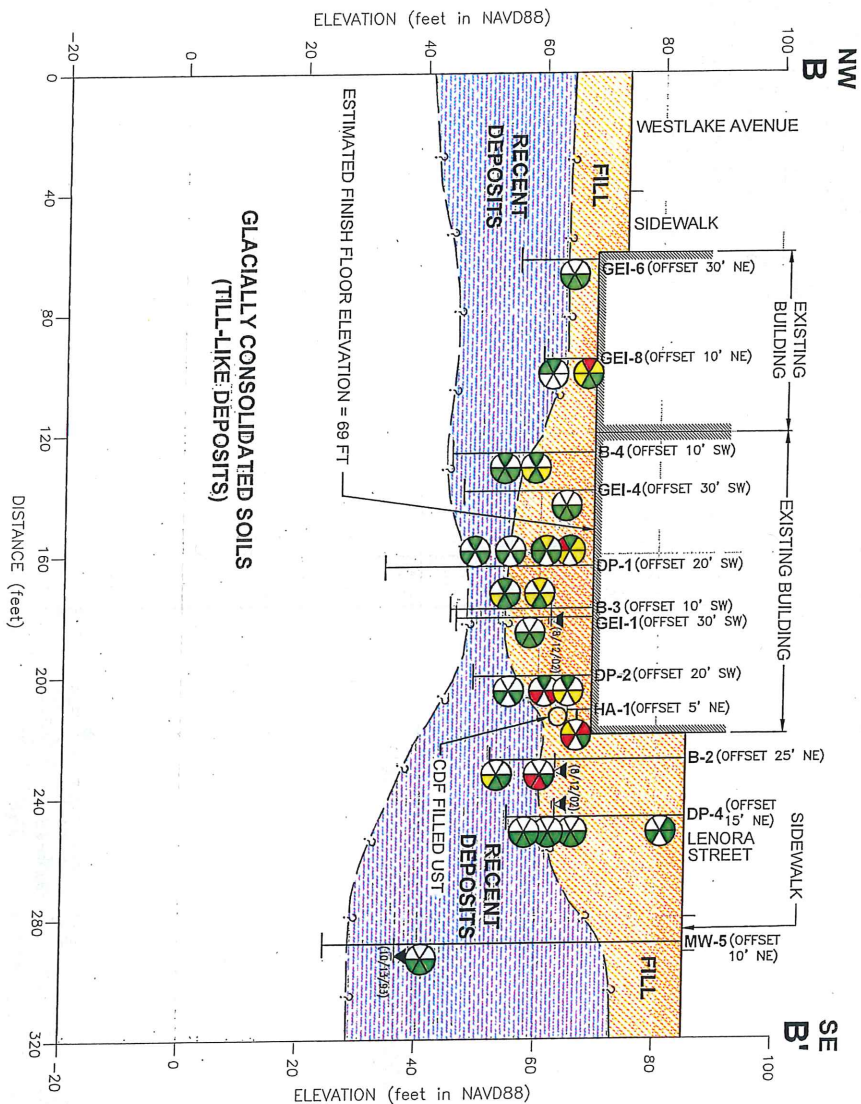
**EXPLANATION:**

- Chemical Analytical Results of Discrete Soil Samples**
  - PAHs: Diesel-Range Petroleum Hydrocarbons
  - Metals: Gasoline-Range Petroleum Hydrocarbons
  - cPAHs: Heavy Oil-Range Petroleum Hydrocarbons
  - Detected at a concentration greater than the MTCAL Method A Cleanup Level
  - Detected at a concentration less than the MTCAL Method A Cleanup Level
  - Metals detected at concentrations similar to Natural Background Concentrations.
  - Other analyses not detected
  - Not Analyzed
- PAHs: Polycyclic aromatic hydrocarbons
- cPAHs: carcinogenic PAHs
- Boring number and approximate location
- Groundwater level observed in monitoring well
- Perched groundwater observed during drilling
- Soil contact
- Screen location
- Fill
- Recent deposits
- Glacially consolidated soils (till-like deposits)

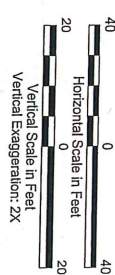
**Cross Section A-A'**  
 9th and Lenora Development  
 Seattle, Washington

**GEOENGINEERS**

**Figure 5**



- Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
  2. Refer to Figure 3 for location of Cross Section.
  3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.



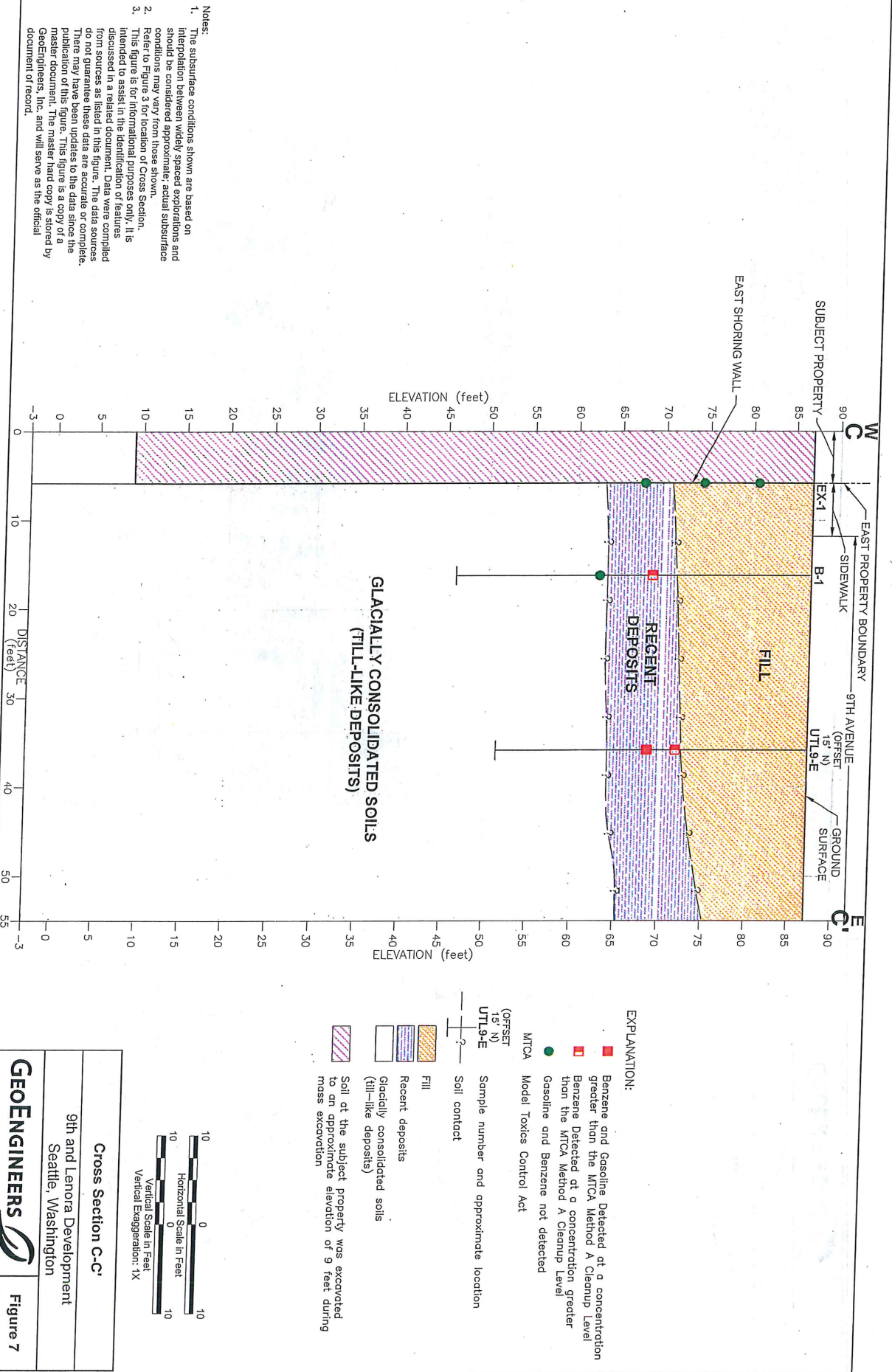
- EXPLANATION:**
- Chemical Analytical Results of Discrete Soil Samples
    - PAHs - Diesel-Range Petroleum Hydrocarbons
    - Metals - Gasoline-Range Petroleum Hydrocarbons
    - cPAHs - Heavy Oil-Range Petroleum Hydrocarbons
    - Detected at a concentration greater than the MITCA Method A Cleanup Level
    - Detected at a concentration less than the MITCA Method A Cleanup Level
    - Metals detected at concentrations similar to Natural Background Concentrations.
    - Other analytes not detected
    - Not Analyzed
  - PAHs - Polycyclic aromatic hydrocarbons
  - cPAHs - Carcinogenic PAHs
  - Boring number and approximate location
  - Groundwater level observed in monitoring well
  - Perched groundwater observed during drilling
  - Soil contact
  - UST - Underground storage tank
  - CDF - Controlled density fill
  - Fill
  - Recent deposits
  - Glacially consolidated soils (till-like deposits)

**Cross Section B-B'**

9th and Lenora Development  
Seattle, Washington

**GEOENGINEERS**

Figure 6



## KEY TO EXPLORATION LOGS

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.

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.

### Sampler Symbol Descriptions

- 2.4-inch I.D. split barrel
- Standard Penetration Test (SPT)
- Shelby tube
- Piston
- Direct-Push
- Bulk or grab

- %F Percent fines
- 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
- PMM Parts per million
- SA Sieve analysis
- TX Triaxial compression
- UC Unconfined compression
- VS Vane shear
- NS No Visible Sheen
- SS Slight Sheen
- MS Moderate Sheen
- HS Heavy Sheen
- NT Not Tested

### Laboratory / Field Tests

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

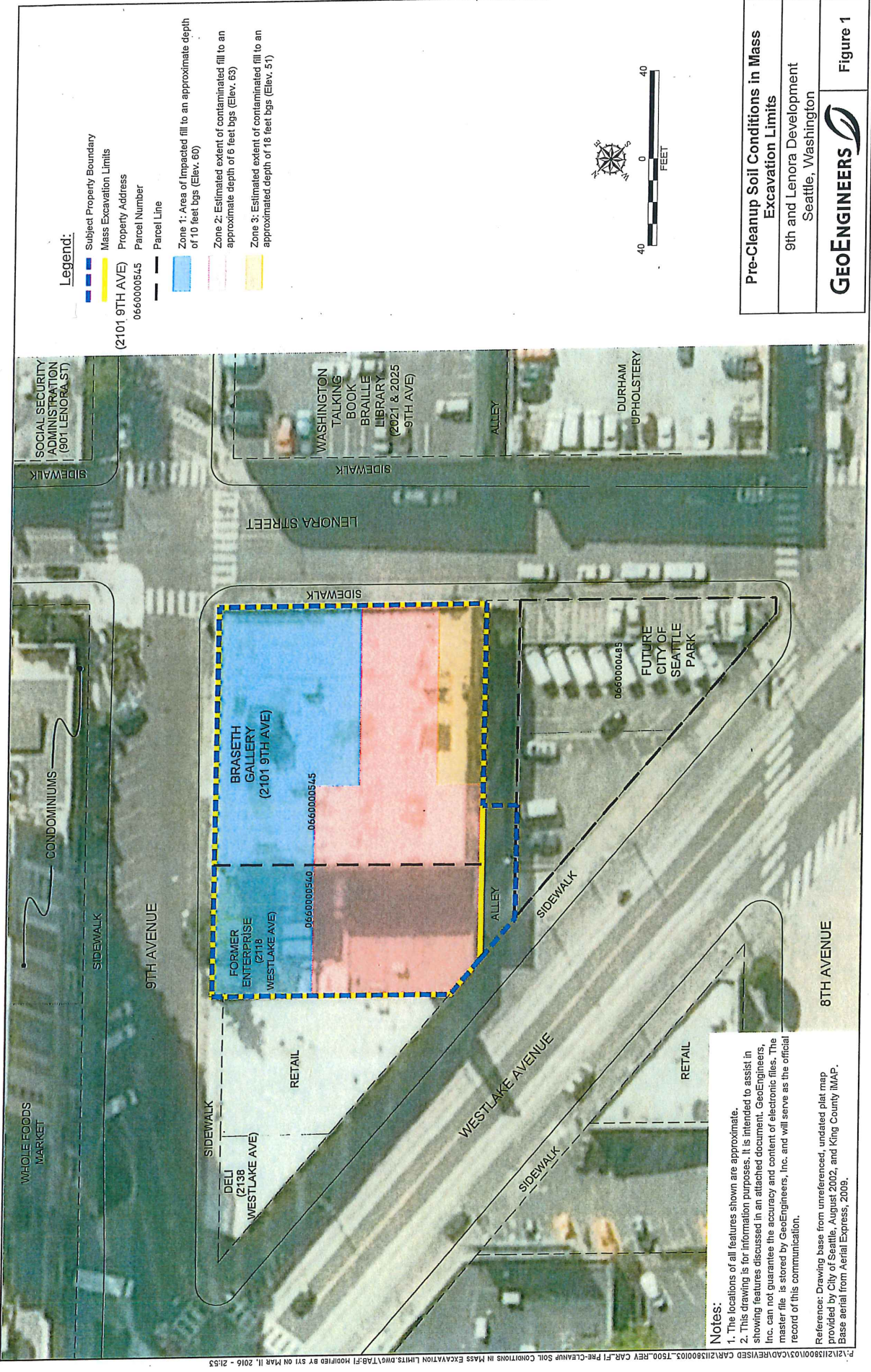
MAJOR DIVISIONS		TYPICAL DESCRIPTIONS	
SYMBOLS	GRAPH LETTER	SYMBOLS	GRAPH LETTER
FINE GRAINED SOILS MORE THAN 50% PASSED NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	PT	PEAT HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS
		OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
		CH	INORGANIC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

ADDITIONAL MATERIAL SYMBOLS		TYPICAL DESCRIPTIONS	
SYMBOLS	GRAPH LETTER	SYMBOLS	GRAPH LETTER
AC	ASPHALT CONCRETE	CC	CEMENT CONCRETE
CR	CRUSHED ROCK/ QUARRY SPALLS	TS	TOPSOIL/ FOREST DUFF/SOD

- Measured groundwater level in exploration, well, or piezometer
- Measured free product in well or piezometer
- Graphic Log Contact**
  - Distinct contact between soil strata or geological units
  - Approximate location of soil strata change within a geological soil unit
- Material Description Contact**
  - Distinct contact between soil strata or geological units
  - Approximate location of soil strata change within a geological soil unit

## SOIL CLASSIFICATION CHART





**Legend:**

- Subject Property Boundary
- Mass Excavation Limits
- Property Address (2101 9TH AVE)
- Parcel Number 0660000545
- Parcel Line

- Zone 1: Area of impacted fill to an approximate depth of 10 feet bgs (Elev. 60)
- Zone 2: Estimated extent of contaminated fill to an approximate depth of 6 feet bgs (Elev. 63)
- Zone 3: Estimated extent of contaminated fill to an approximated depth of 18 feet bgs (Elev. 51)

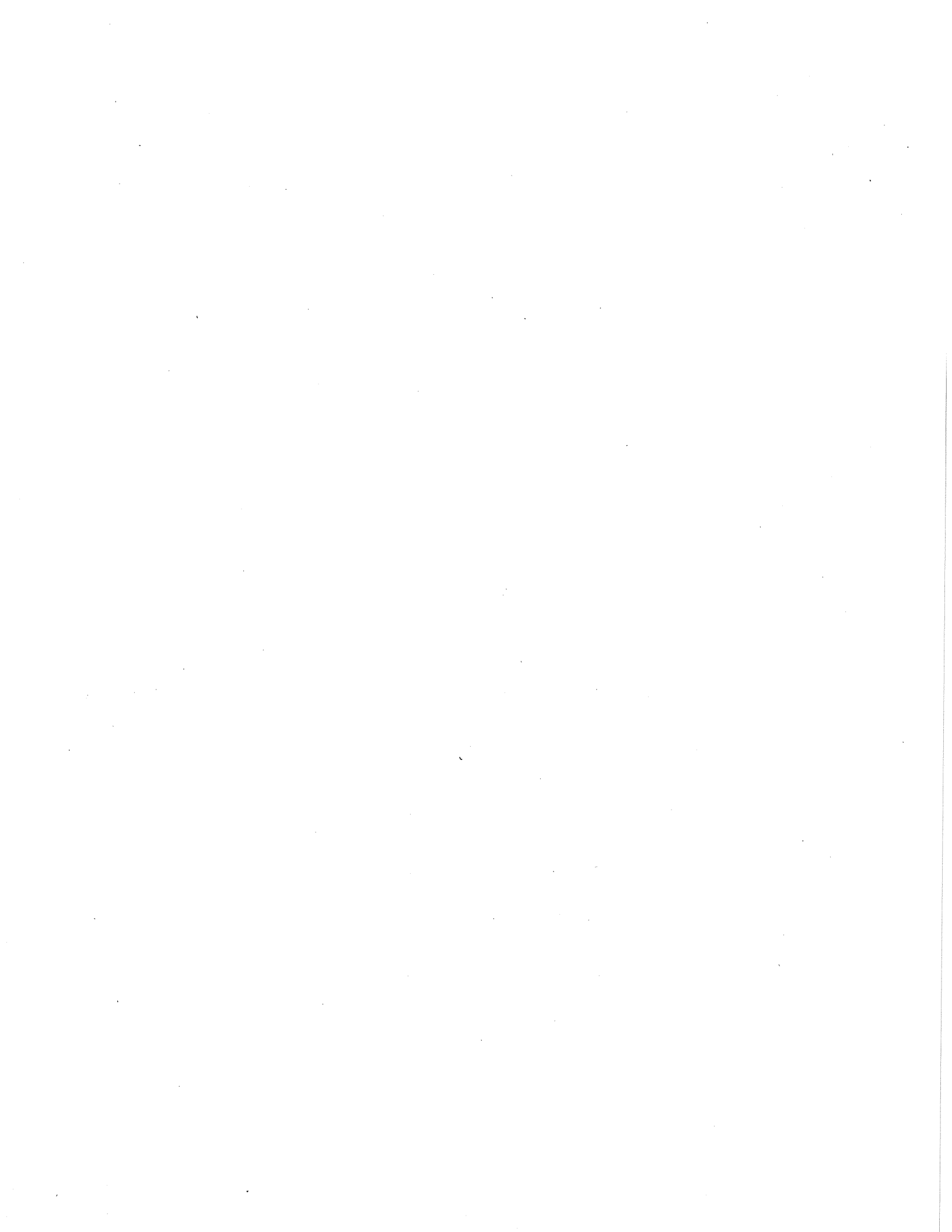


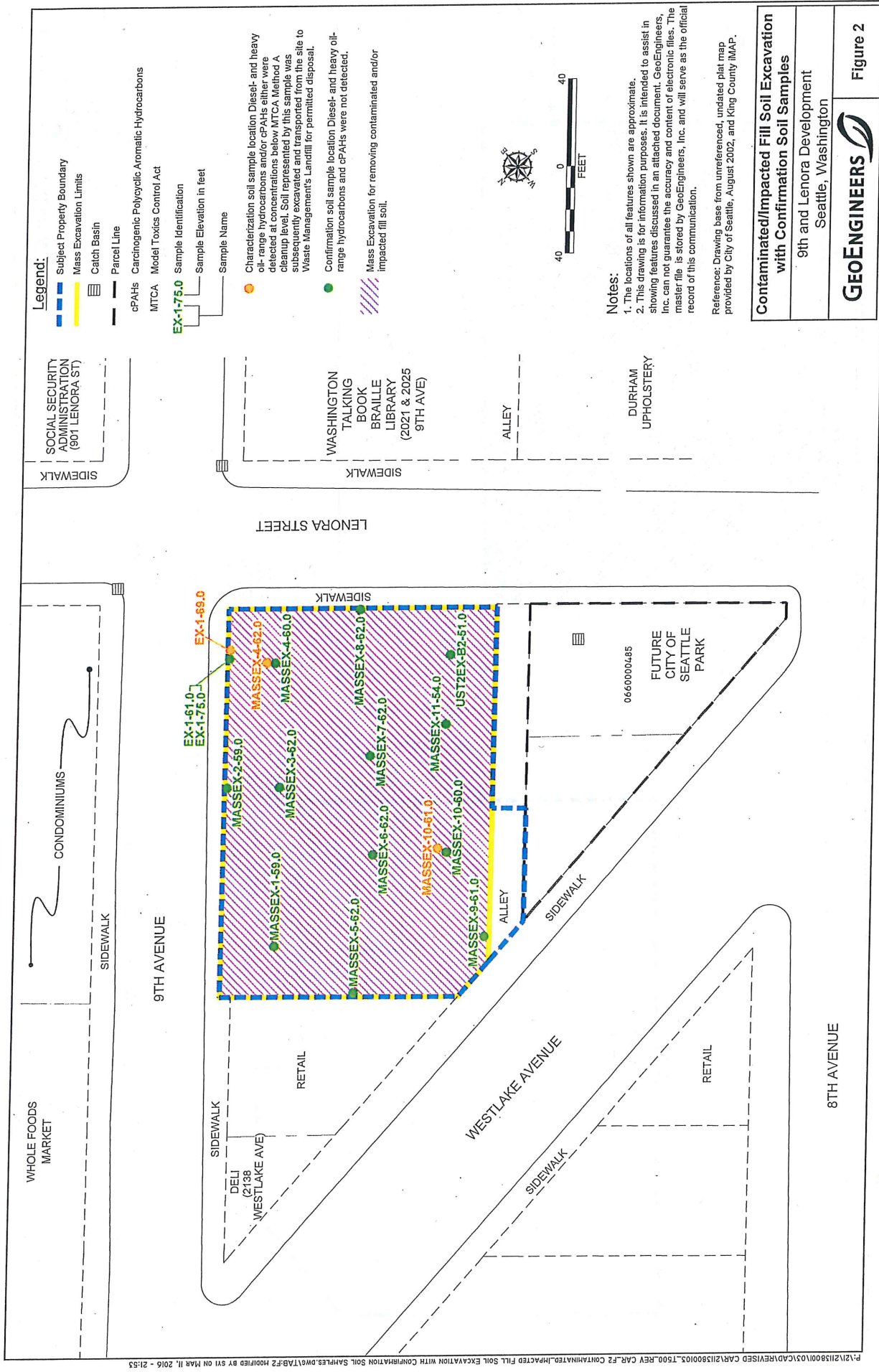
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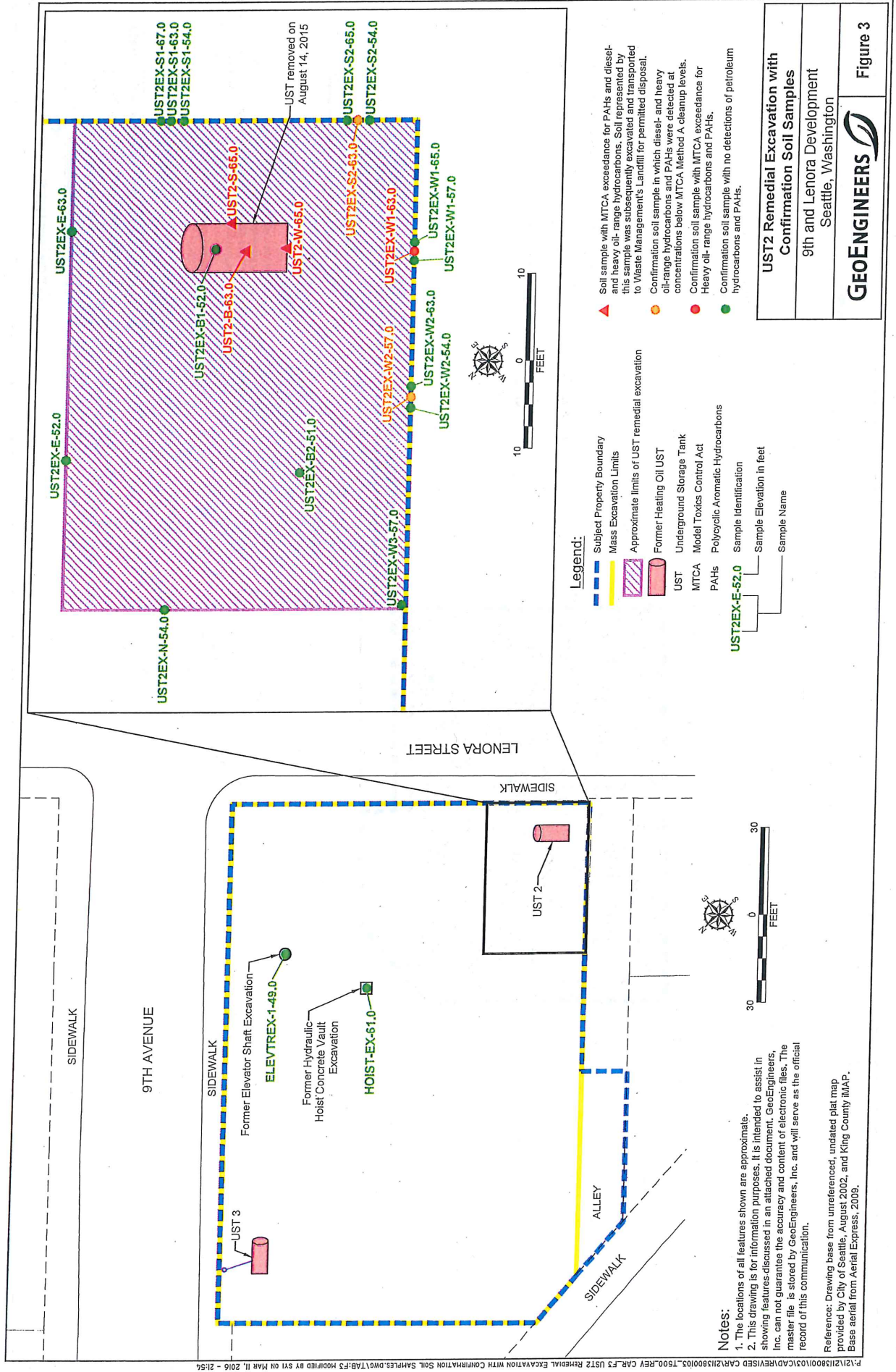
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers,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

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County IMAP. Base aerial from Aerial Express, 2009.

<b>Pre-Cleanup Soil Conditions in Mass Excavation Limits</b>
9th and Lenora Development Seattle, Washington
<b>GEOENGINEERS</b>
<b>Figure 1</b>







<b>UST2 Remedial Excavation with Confirmation Soil Samples</b>	
9th and Lenora Development Seattle, Washington	
<b>GEOENGINEERS</b>	
Figure 3	

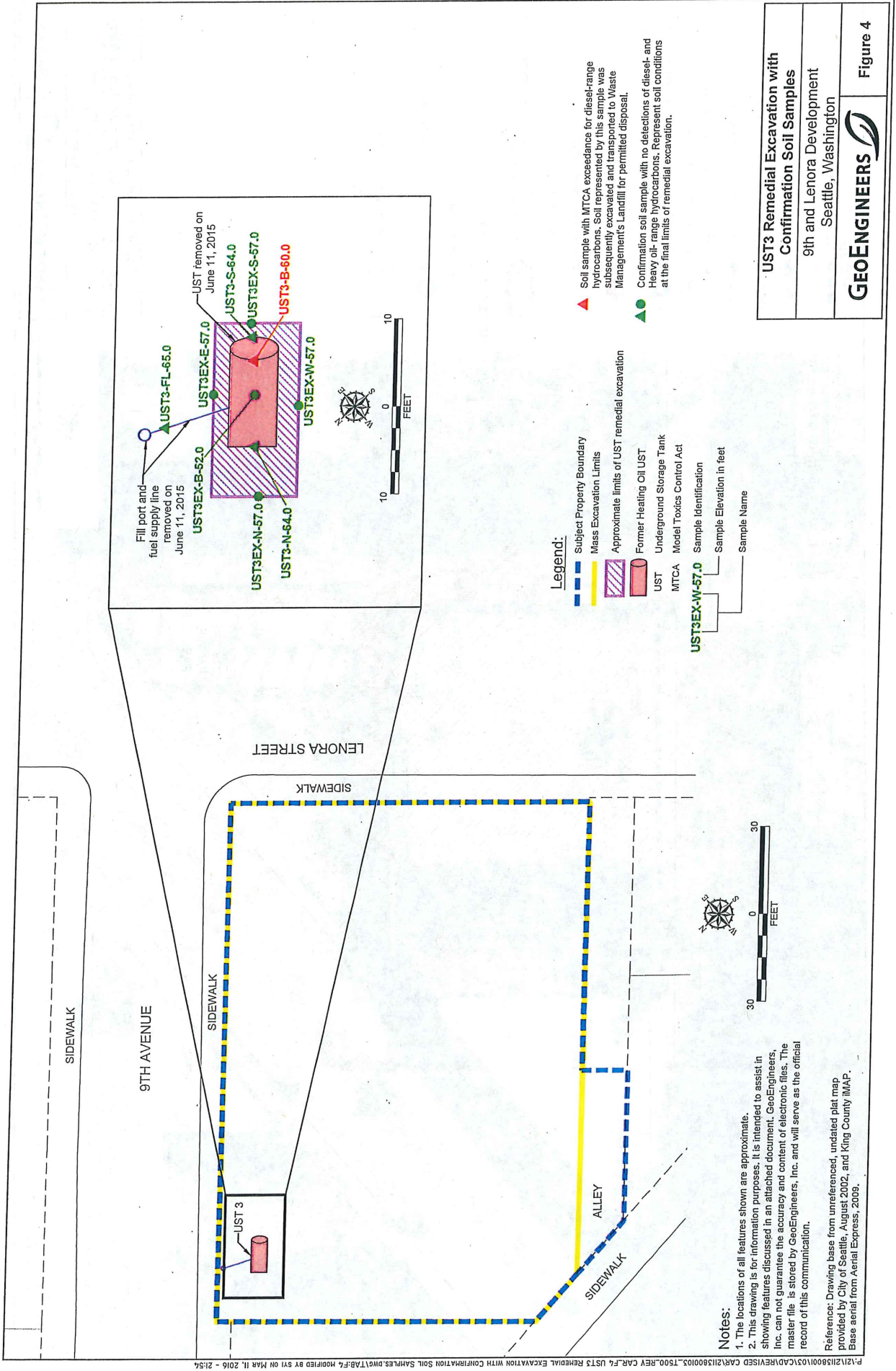
**Legend:**

- Subject Property Boundary
- Mass Excavation Limits
- Approximate limits of UST remedial excavation
- Former Heating Oil UST
- UST
- MTCAs
- PAHs
- Polycyclic Aromatic Hydrocarbons
- Sample Identification
- Sample Elevation in feet
- Sample Name

**Notes:**

- The locations of all features shown are approximate.
- This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County IMAP. Base aerial from Aerial Express, 2009.



P:\21213800\1053\ADP\REVISED CAR\211380012\_1500\_REV CAR\F4\_UST3 Remedial Excavation with Confirmation Soil Samples.dwg(TAB\F4 MODIFIED BY SYI ON MAR 11, 2016 - 2154

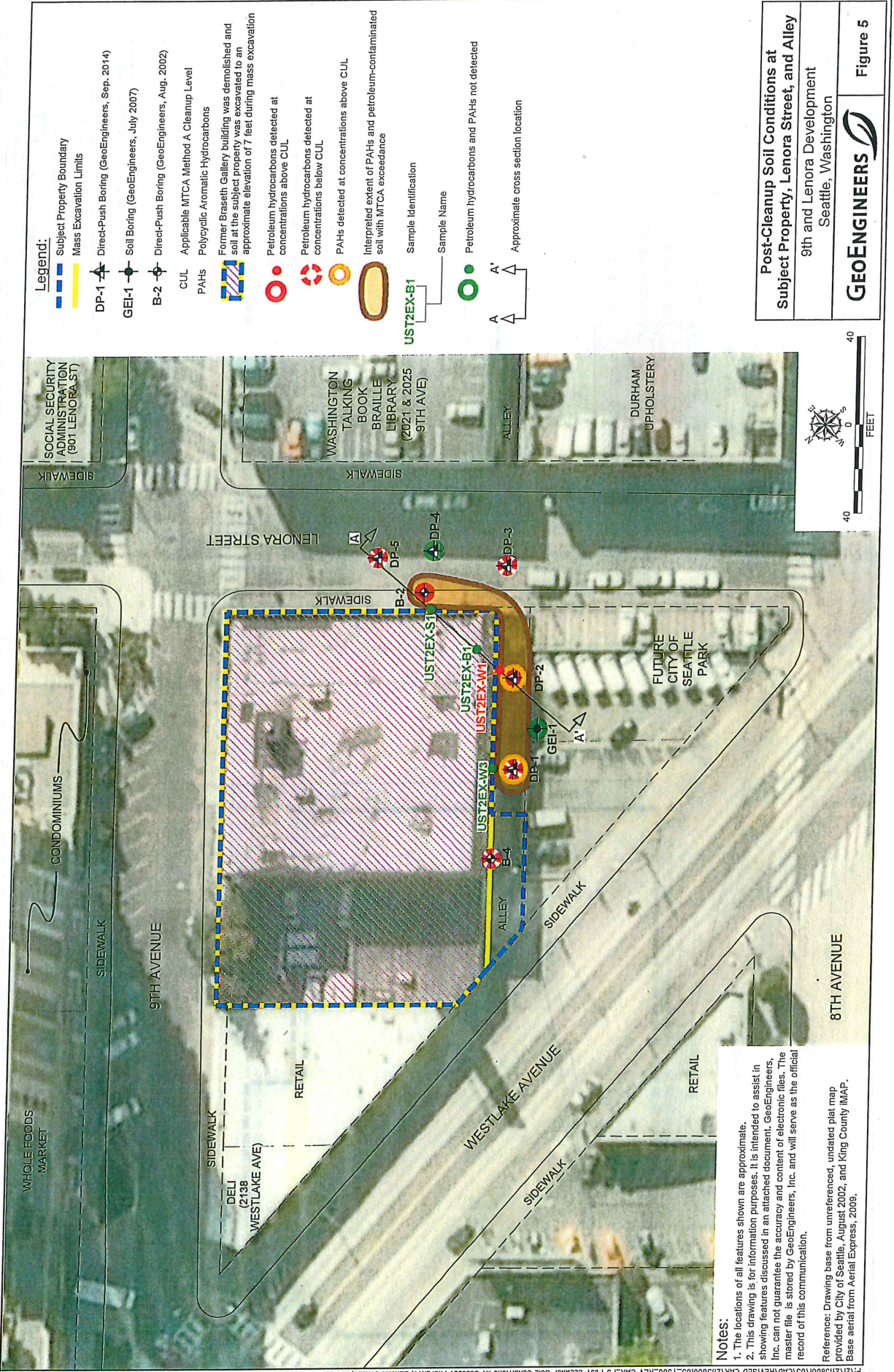
**Notes:**  
 1. The locations of all features shown are approximate.  
 2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored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

Reference: Drawing base from unreferenced, undated plot map provided by City of Seattle, August 2002, and King County IMAF. Base aerial from Aerial Express, 2009.

**Legend:**  
 Subject Property Boundary  
 Mass Excavation Limits  
 Approximate limits of UST remedial excavation  
 Former Heating Oil UST  
 UST  
 MTCA  
 Model Toxics Control Act  
 UST3EX-W-57.0  
 Sample Identification in feet  
 Sample Elevation in feet  
 Sample Name

▲ Soil sample with MTCA exceedance for diesel-range hydrocarbons. Soil represented by this sample was subsequently excavated and transported to Waste Management's Landfill for permitted disposal.  
 ● Confirmation soil sample with no detections of diesel- and Heavy oil- range hydrocarbons. Represent soil conditions at the final limits of remedial excavation.

<b>UST3 Remedial Excavation with Confirmation Soil Samples</b>	
9th and Lenora Development Seattle, Washington	
<b>GEOENGINEERS</b>	
<b>Figure 4</b>	



**Legend:**

- Subject Property Boundary
- Mass Excavation Limits
- DP-1 Direct-Push Boring (GeoEngineers, Sep. 2014)
- GEH-1 Soil Boring (GeoEngineers, July 2007)
- B-2 Direct-Push Boring (GeoEngineers, Aug. 2002)
- CUL Applicable MTCA Method A Cleanup Level
- PAHs Polycyclic Aromatic Hydrocarbons
- Former Brasserie Gallery building was demolished and soil at the subject property was excavated to an approximate elevation of 7 feet during mass excavation
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- PAHs detected at concentrations above CUL
- Interpreted extent of PAHs and petroleum-contaminated soil with MTCA exceedance
- Sample Identification
- Sample Name
- Petroleum hydrocarbons and PAHs not detected
- Approximate cross section location

**Post-Cleanup Soil Conditions at Subject Property, Lenora Street, and Alley**  
 9th and Lenora Development  
 Seattle, Washington

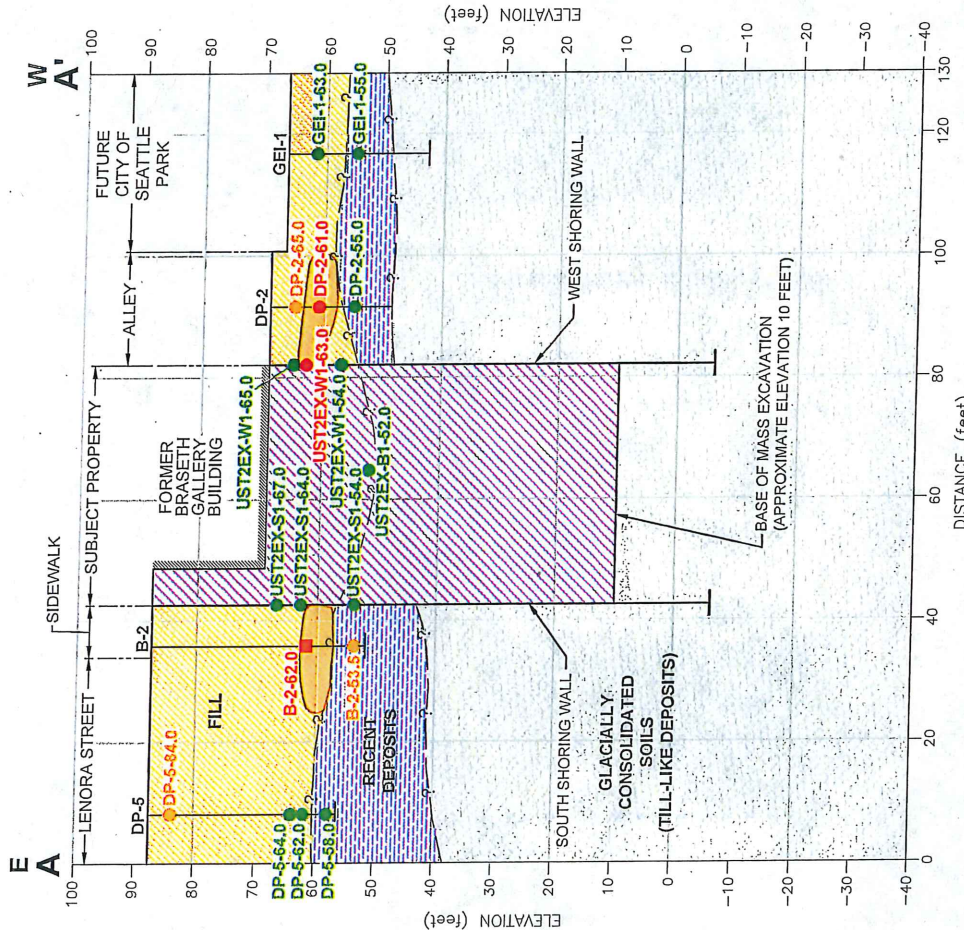
**GEOENGINEERS**

**Figure 5**

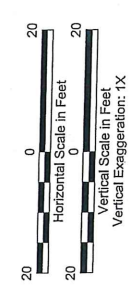
**Notes:**

- The locations of all features shown are approximate.
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Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County IIMAP. Base aerial from Aerial Express, 2009.



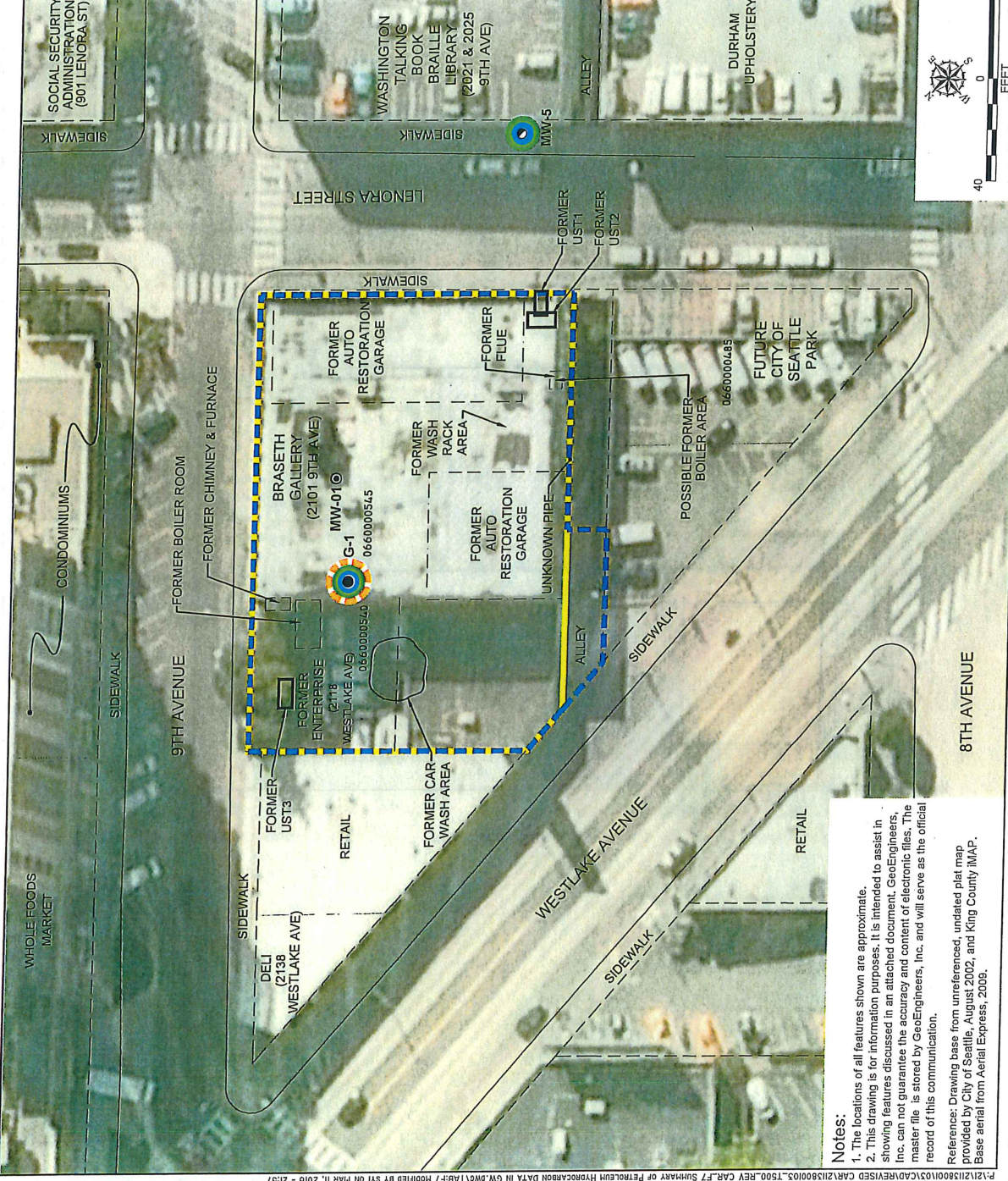
- Legend**
- Soil sample with gasoline- and heavy oil-range hydrocarbons and Toluene detections greater than MTCA Method A Cleanup Levels
  - Soil sample with MTCA exceedance for diesel- and heavy oil-range hydrocarbons and PAHs
  - Soil sample with petroleum hydrocarbons and PAHs detections less than MTCA Method A Cleanup Levels
  - Soil sample non-detect for petroleum hydrocarbons and PAHs
  - MTCA
  - PAHs
  - Model Toxics Control Act
  - Polycyclic aromatic hydrocarbons
  - Exploration and approximate location
  - Soil contact
  - Approximate thickness of residual MTCA exceeding petroleum hydrocarbons and PAHs contaminated soil
  - Fill
  - Recent deposits
  - Glacially consolidated soils (till-like deposits)
  - Former Braseh Gallery building was demolished and soil at the subject property was excavated to an approximate elevation of 7 feet during mass excavation



**Cross Section A-A'**  
 9th and Lenora Development  
 Seattle, Washington  
**GEOENGINEERS**  
 Figure 6

**Notes:**

- The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown. Refer to Figure 7 for location of Cross Section.
- This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.



**Legend:**

- Subject Property Boundary
- Mass Excavation Limits
- G-1 ● Monitoring Well (GeoEngineers, Dec. 2013)
- MW-01 ● Monitoring Well (GeoEngineers, July 2013)
- MW-5 ● Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- Property Address (2101 9TH AVE)
- Parcel Number 0660000545
- UST Underground Storage Tank
- CUL Applicable MTCA Method A Cleanup Level
- Estimated Footprint of Former Structures
- Groundwater Sample from Monitoring Well
- Metals detected at concentrations below CUL
- Petroleum hydrocarbons not detected

**Notes:**

1. Benzene was not detected in B-1.
2. MW-01 was dry. Monitoring wells G-1 and MW-01 were decommissioned in July 2015, prior to mass excavation.
3. The discrete, one-time perched water samples were obtained directly from the boreholes of borings B-2, B-3 in 2002 and DP-3, DP-4, and DP-5 in 2014. These perched water samples should be considered reconnaissance samples. These samples were biased high for metals because silt particles were incorporated into the sample bottles and do not represent groundwater conditions at the subject property. Sample G-1 obtained from a monitoring well is representative of groundwater quality, at the subject property. Sample MW-5 obtained from a monitoring well is representative of groundwater quality, at the Lenora Street. See report text for further explanation.

**Summary of Petroleum Hydrocarbons and Metals Data in Groundwater**  
 9th and Lenora Development  
 Seattle, Washington

**GEOENGINEERS**  
 Figure 7

**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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County IMAP. Base aerial from Aerial Express, 2009.

## **APPENDIX B**

### **Terrestrial Ecological Evaluation Form**



# Voluntary Cleanup Program

## Washington State Department of Ecology Toxics Cleanup Program

### TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

**Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.**

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation>.

#### Step 1: IDENTIFY HAZARDOUS WASTE SITE

Please identify below the hazardous waste site for which you are documenting an evaluation.

Facility/Site Name: **Lenora Building (alternate name: Stratus)**

Facility/Site Address: **2101 9th Avenue (alternately 820 Lenora Street), Seattle, WA 98121**

Facility/Site No: **91413494**

VCP Project No.: **To be determined**

#### Step 2: IDENTIFY EVALUATOR

Please identify below the person who conducted the evaluation and their contact information.

Name: **David A. Cook**

Title: **Principal**

Organization: **Aspect Consulting, LLC**

Mailing address: **710 2nd Avenue, Suite 550**

City: **Seattle**

State: **WA**

Zip code: **98104**

Phone: **206.838.5837**

Fax:

E-mail: **dcook@aspectconsulting.com**

### Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

#### A. Exclusion from further evaluation.

##### 1. Does the Site qualify for an exclusion from further evaluation?

- Yes    *If you answered "YES," then answer **Question 2**.*
- No or Unknown    *If you answered "NO" or "UNKNOWN," then skip to **Step 3B** of this form.*

##### 2. What is the basis for the exclusion? Check all that apply. Then skip to **Step 4** of this form.

Point of Compliance: WAC 173-340-7491(1)(a)

- All soil contamination is, or will be,\* at least 15 feet below the surface.
- All soil contamination is, or will be,\* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

- All contaminated soil, is or will be,\* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

- There is less than 0.25 acres of contiguous<sup>#</sup> undeveloped<sup>±</sup> land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.
- For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous<sup>#</sup> undeveloped<sup>±</sup> land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

- Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

\* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

± "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

# "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

## B. Simplified evaluation.

### 1. Does the Site qualify for a simplified evaluation?

- Yes *If you answered "YES," then answer **Question 2** below.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to **Step 3C** of this form.*

### 2. Did you conduct a simplified evaluation?

- Yes *If you answered "YES," then answer **Question 3** below.*
- No *If you answered "NO," then skip to **Step 3C** of this form.*

### 3. Was further evaluation necessary?

- Yes *If you answered "YES," then answer **Question 4** below.*
- No *If you answered "NO," then answer **Question 5** below.*

### 4. If further evaluation was necessary, what did you do?

- Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*
- Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

### 5. If no further evaluation was necessary, what was the reason? Check all that apply. Then skip to **Step 4** of this form.

#### Exposure Analysis: WAC 173-340-7492(2)(a)

- Area of soil contamination at the Site is not more than 350 square feet.
- Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

#### Pathway Analysis: WAC 173-340-7492(2)(b)

- No potential exposure pathways from soil contamination to ecological receptors.

#### Contaminant Analysis: WAC 173-340-7492(2)(c)

- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

**C. Site-specific evaluation.** A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. See WAC 173-340-7493(1)(c).

**1. Was there a problem?** See WAC 173-340-7493(2).

- Yes    *If you answered “YES,” then answer **Question 2** below.*
- No    *If you answered “NO,” then identify the reason here and then skip to **Question 5** below:*
- No issues were identified during the problem formulation step.
  - While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

**2. What did you do to resolve the problem?** See WAC 173-340-7493(3).

- Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

**3. If you conducted further site-specific evaluations, what methods did you use?**

*Check all that apply. See WAC 173-340-7493(3).*

- Literature surveys.
- Soil bioassays.
- Wildlife exposure model.
- Biomarkers.
- Site-specific field studies.
- Weight of evidence.
- Other methods approved by Ecology. If so, please specify:

**4. What was the result of those evaluations?**

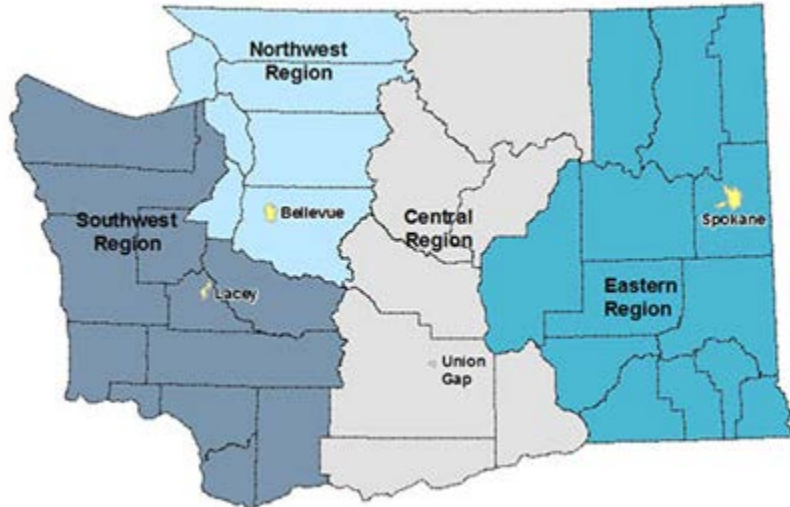
- Confirmed there was no problem.
- Confirmed there was a problem and established site-specific cleanup levels.

**5. Have you already obtained Ecology’s approval of both your problem formulation and problem resolution steps?**

- Yes    If so, please identify the Ecology staff who approved those steps:
- No

## Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



<b>Northwest Region:</b> Attn: VCP Coordinator 3190 160 <sup>th</sup> Ave. SE Bellevue, WA 98008-5452	<b>Central Region:</b> Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
<b>Southwest Region:</b> Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	<b>Eastern Region:</b> Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call 877-833-6341.

## **APPENDIX C**

### **Wells Decommissioning Documents**



Bill To:  
 ATTN: ACCOUNTS PAYABLE  
 GeoEngineers - Redmond  
 Fasih Khan  
 8410 154th Avenue NE  
 Redmond, Washington 98052

Invoice #: 1501183  
 Quote #: 00004090  
 Account #: 1GEOENG052  
 JobID #: 103150857  
 Invoice Date: 07/30/2015  
 Terms: Net 30  
 Due Date: 08/29/2015

REMIT TO: Cascade Drilling, LP. PO Box 844046 Los Angeles, CA. 90084-4046

Project Name: Commercial Building  
 Project Start/End Date: 07/27/2015 / 07/27/2015  
 Project Contact/Phone: /  
 Work Site Address: 9th and Lenora  
 Seattle, WA 98121

Customer Project#: 21138-001-03  
 Customer PO:  
 Additional Detail:

Billing Date: To:

Product	Description	UOM	Quantity	Rate	Extended Rate
Decommission Wells	Chip in Place (1)80-2" and (1) 17'6"-2" MW	Per Foot	97.00	\$6.00	\$582.00
Well Box	Cement Standard Well Box In Place	Each	2.00	\$50.00	\$100.00
Permits	Decommissioning	Each	2.00	\$35.00	\$70.00
Standby	To gain access	Per Hour	.50	\$250.00	\$125.00
Mob/Demob	Mobilization/Demobilization	Each	1.00	\$450.00	\$450.00
				Pre-Tax Total	\$1,327.00
				Tax Percentage	9.600%
				Taxes	\$127.39
				Invoice Total	<u>\$1,454.39</u>

As a courtesy, Cascade Drilling, LP and its subsidiaries allow Customers up to three days to approve this invoice. This invoice will be considered approved and final unless we hear from GeoEngineers - Redmond before the end of this period.



**CASCADe DRILLING, L.P.**  
LEADERS IN SAFETY

# CASCADe DRILLING DAILY WORK REPORT

19404 Woodinville Snohomish Rd NE, Woodinville, WA 98072  
425-485-8908 # CASCADL91508

CLIENT <i>Geo-Engineers</i>		PROJECT NO		DATE <i>7-27-15</i>	DAY <i>MON</i>				
JOB LOCATION <i>Westlake &amp; Lpova</i>		DIG ALERT #		CD-LP# <i>103-15-0857</i>					
Well #	Depth Bored	<b>DESCRIPTION OF WORK</b> Please explain reasons for Down Time and Standby Time and Shop Time			<b>HOURS</b>		Total Hrs	Charge Hrs	
					Start	Stop			
		AM Shop Time	<i>pre-trip, load W561</i>			<i>6:15</i>	<i>6:45</i>	<i>.5</i>	
		Travel to Site				<i>6:45</i>	<i>8:00</i>	<i>1.25</i>	
		<i>Gain access</i>			<i>8:00</i>	<i>8:30</i>	<i>.5</i>		
		<i>rip 2'x80' G-1 &amp; 6"x17' MW-1</i>			<i>8:30</i>	<i>9:30</i>	<i>1</i>		
		<i>- Leave monuments in place.</i>							
		Travel to Shop				<i>9:30</i>	<i>10:30</i>	<i>1</i>	
		PM Shop Time	<i>post. unload W561</i>			<i>10:30</i>	<i>11:00</i>	<i>.5</i>	
Total Ft.		<b>TOTAL CHARGEABLE RIG HOURS</b>							
<b>RIG ENGINE HOURS:</b>		START	STOP			<b>TOTAL</b>			
<b>EQUIPMENT</b>				<b>CASING</b>		<b>MATERIALS</b>			
DRILL RIG #		COMPRESSOR/JACKHAMMER		TYPE	SLOT	ITEM	QTY	ITEM	QTY
SUPPORT TRUCK #	<i>W561</i>	SNOW FENCE RENTAL		20'	SCREEN	SAND		WELL COVER 8"	
SUPPORT TRUCK #		CONTINUOUS SAMPLER		10'	SCREEN	READYMIX	<i>3</i>	WELL COVER 12"	
TRAILER #		CONTINUOUS SAMPLER FOOTAGE		5'	SCREEN	QUICKSET		MONUMENT CASING	
BOBCAT		# OF CORE CUTS		20'	BLANK	PORTLAND		BOLLARDS	
AUTO HAMMER		# OF BULLDOG CUTS		10'	BLANK	ASPHALT		SOIL DRUMS	
GROUT MIXER		# OF SERVICE RUNS		5'	BLANK	BENTONITE GROUT		DEVELOPMENT DRUMS	
GROUT PUMP		# OF SAW CUTS		5'	PP SCREEN	BENTONITE CHIPS	<i>6</i>	DECON DRUMS	
PERISTALTIC PUMP		PORTABLE RESTROOM		10'	PP SCREEN	BENTONITE POWDER		HOLE COVER PLATES	
FORKLIFT/HOPPER					SLIP CAP	BENTONITE PELLETS		PLASTIC SHEETING	
<b>LABOR</b>									
NAME	SIGNATURE	SHOP	DRILL	TOTAL HRS	THREADED CAPS	SAMPLER TUBES		CORE BOXES	
<i>Curtis A</i>	<i>[Signature]</i>			<i>4.75</i>	LOCKING CAPS	SHELBY TUBES		PLYWOOD	
					DRIVE SHOE	PROBE POINTS		SOIL SAMPLES	
					CENTRALIZERS	GW PROBE POINTS		WATER SAMPLES	
					LOCKS	MACRO LINERS		HYDRO PUNCH SAMPLES	
						SAMPLER SHOE		AUGER PLUGS	
CREW WITH PER DIEM		CHARGEABLE EXTRA LABOR HRS		<b>UTILITIES FOUND OR HIT</b>				DRILL OUT BITS	
<b>REMARKS</b>									

Client Signature \_\_\_\_\_

Operator Signature \_\_\_\_\_

# RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

**CURRENT**

Notice of Intent No. AE33096

**Construction/Decommission**

Construction  
 Decommission *ORIGINAL INSTALLATION* Notice of Intent Number \_\_\_\_\_

**Type of Well**

Resource Protection  
 Geotechnical Soil Boring

Consulting Firm GeoEngineers

Property Owner 9th & Lenora Development  
 Site Address Westlake Ave & Lenora St  
 City Seattle County King

Unique Ecology Well ID

Tag No. \_\_\_\_\_

Location 1/4 NE 1/4 NE Sec 31 TWN 25N R 4E of EWM  
 WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Materials used and the information reported above are true to my best knowledge and belief

Driller  Trainee Name (Print) Curtis Askew  
 Driller/Trainee Signature \_\_\_\_\_  
 Driller/Trainee License No. 2867

Tax Parcel No. \_\_\_\_\_  
 Cased or Uncased Diameter CIP 2" well Static Level 56'

Work/Decommission Start Date 7-27-15

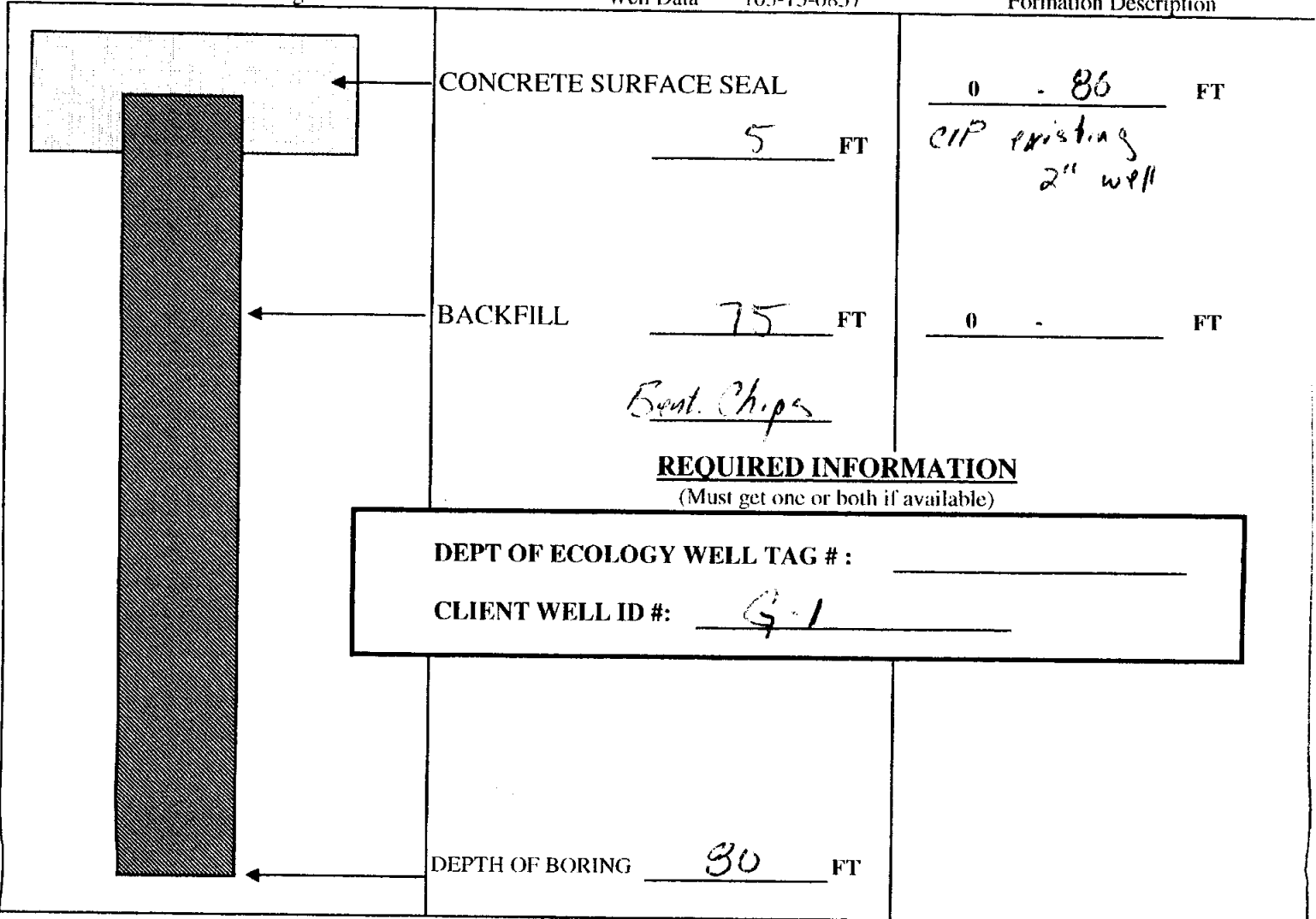
Work/Decommission Completed Date 7-27-15

If trainee, licensed drillers' Signature and License No. \_\_\_\_\_

**Construction/Design**

Well Data 103-15-0857

**Formation Description**



**REQUIRED INFORMATION**  
 (Must get one or both if available)

DEPT OF ECOLOGY WELL TAG #: \_\_\_\_\_  
 CLIENT WELL ID #: G-1

# RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

**CURRENT**

Notice of Intent No. AE33096

**Construction/Decommission**

Construction  
 Decommission *ORIGINAL INSTALLATION* Notice  
of Intent Number \_\_\_\_\_

**Type of Well**

Resource Protection  
 Geotechnical Soil Boring

Consulting Firm GeoEngineers

Property Owner 9th & Lenora Development  
Site Address Westlake Ave & Lenora St  
City Seattle County King

Unique Ecology Well ID  
Tag No. \_\_\_\_\_

Location 1/4 NE 1/4 NE Sec 31 TWN 25N R 4E or EWM  
WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards

Lat/Long (s,t,r Lat Deg n/a Lat Min/Sec n/a  
still Required) Long Deg n/a Long Min/Sec n/a

Materials used and the information reported above are true to my best knowledge and belief

Driller  Trainee Name (Print) Curtis Askew  
Driller/Trainee Signature \_\_\_\_\_  
Driller/Trainee License No. 2867

Tax Parcel No. \_\_\_\_\_

Cased or Uncased Diameter CIP 6" well Static Level U

Work/Decommission Start Date 7-27-15

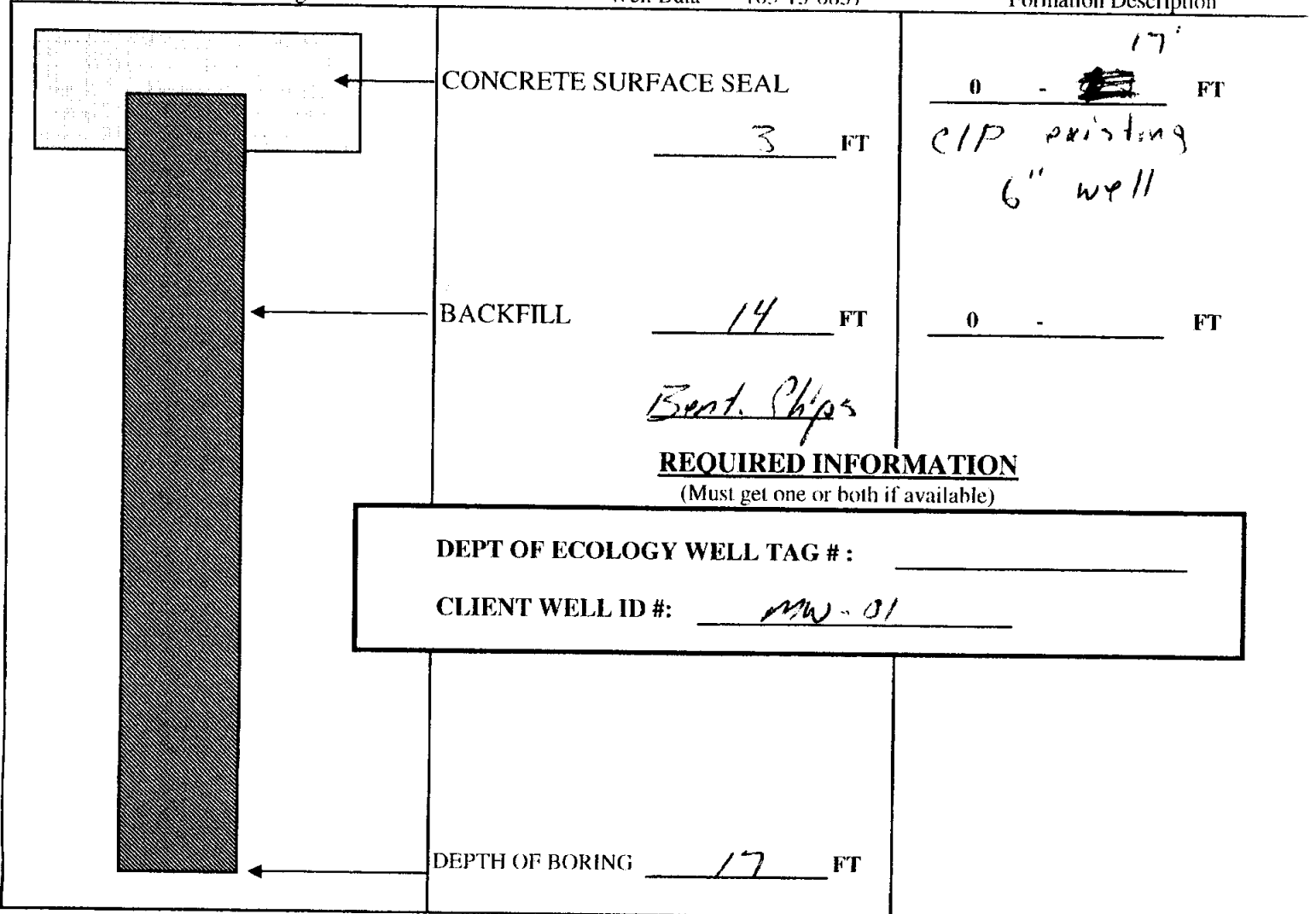
If trainee, licensed drillers' \_\_\_\_\_  
Signature and License No. \_\_\_\_\_

Work/Decommission Completed Date 7-27-15

**Construction/Design**

Well Data 103-15-0857

**Formation Description**



**REQUIRED INFORMATION**

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG #: \_\_\_\_\_

CLIENT WELL ID #: MW-01

## **APPENDIX D**

### **Cleanup Action Photographs**



**1. Contaminated fill soil in east portion of mass excavation - Looking North**



**2. Contaminated fill soil in north portion of mass excavation - Looking West**



**3. Contaminated fill soil excavation during construction - Looking Southeast**



**4. Non-contaminated soil underlying the contaminated fill soil excavated from the subject property - Looking North**

**Cleanup Action Photographs**

820 Lenora Street  
Seattle, Washington



**Appendix D**



**5. View of former UST2 In southwest portion of the subject property – Looking South**



**6. UST2 was removed form the subject property – Looking West**



**7. Controlled Density Fill inside the former UST2 and associated contaminated soil prior to excavation – Looking West**



**8. Clean native soil following excavation of contaminated soil at the former UST2 location In southwest portion of the subject property – Looking South**

## Cleanup Action Photographs

820 Lenora Street  
Seattle, Washington

**GEOENGINEERS** 

**Appendix D**



**9. Monitoring wells decommissioning activities at the subject property**



**10. Concrete vault of former hydraulic hoist in central portion of subject property**



**11. Excavation of former elevator shaft and hydraulic hoist – Looking South**



**12. Clean native soil at the former elevator shaft and hydraulic hoist location in central portion of the subject property – Looking Northeast**

## Cleanup Action Photographs

820 Lenora Street  
Seattle, Washington



Appendix D



**13. Former UST3 location in northeast portion of the subject property – Looking South**



**14. A small hole is visible in UST3 that was removed from the subject property**



**15. Contaminated soil at former UST2 location on the subject property**



**16. Clean native soil following excavation of contaminated soil at the former UST3 location – Looking North**

## Cleanup Action Photographs

820 Lenora Street  
Seattle, Washington



Appendix D

## **APPENDIX E**

### **Chemical Analytical Program**



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

April 29, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03, T300  
Laboratory Reference No. 1504-253

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 28, 2015.

**Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.**

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: April 29, 2015  
Samples Submitted: April 28, 2015  
Laboratory Reference: 1504-253  
Project: 21138-001-03, T300

### **Case Narrative**

Samples were collected on April 28, 2015 and received by the laboratory on April 28, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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/BTEX Analysis

Per EPA method 5035A, samples were received by the laboratory in pre-weighed 40 ml VOA vials preserved with either Methanol or Sodium Bisulfate.

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: April 29, 2015  
Samples Submitted: April 28, 2015  
Laboratory Reference: 1504-253  
Project: 21138-001-03, T300

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-5.0	04-253-02	Soil	4-28-15	4-28-15	
UTL9-N-5.0	04-253-04	Soil	4-28-15	4-28-15	

Date of Report: April 29, 2015  
 Samples Submitted: April 28, 2015  
 Laboratory Reference: 1504-253  
 Project: 21138-001-03, T300

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UTL9-S-5.0</b>					
Laboratory ID:	04-253-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	<b>ND</b>	0.064	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	<b>ND</b>	0.064	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	<b>ND</b>	0.064	EPA 8021B	4-28-15	4-28-15	
o-Xylene	<b>ND</b>	0.064	EPA 8021B	4-28-15	4-28-15	
Gasoline	<b>ND</b>	6.4	NWTPH-Gx	4-28-15	4-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	121	68-123				
<b>Client ID:</b>	<b>UTL9-N-5.0</b>					
Laboratory ID:	04-253-04					
Benzene	<b>ND</b>	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	<b>ND</b>	0.055	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	<b>ND</b>	0.055	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	<b>ND</b>	0.055	EPA 8021B	4-28-15	4-28-15	
o-Xylene	<b>ND</b>	0.055	EPA 8021B	4-28-15	4-28-15	
Gasoline	<b>ND</b>	5.5	NWTPH-Gx	4-28-15	4-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	121	68-123				

Date of Report: April 29, 2015  
 Samples Submitted: April 28, 2015  
 Laboratory Reference: 1504-253  
 Project: 21138-001-03, T300

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0428S1					
Benzene	ND	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	ND	0.050	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	ND	0.050	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	ND	0.050	EPA 8021B	4-28-15	4-28-15	
o-Xylene	ND	0.050	EPA 8021B	4-28-15	4-28-15	
Gasoline	ND	5.0	NWTPH-Gx	4-28-15	4-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	87	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	04-253-02							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				121	121	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0428S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.917	0.957	1.00	1.00	92	96	75-117	4	13
Toluene	0.934	0.971	1.00	1.00	93	97	78-118	4	12
Ethyl Benzene	0.934	0.970	1.00	1.00	93	97	78-118	4	12
m,p-Xylene	0.955	0.983	1.00	1.00	96	98	78-121	3	13
o-Xylene	0.946	0.982	1.00	1.00	95	98	77-119	4	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					88	90	68-123		

Date of Report: April 29, 2015  
Samples Submitted: April 28, 2015  
Laboratory Reference: 1504-253  
Project: 21138-001-03, T300

### % MOISTURE

Date Analyzed: 4-28-15

Client ID	Lab ID	% Moisture
UTL9-S-5.0	04-253-02	13
UTL9-N-5.0	04-253-04	14



### 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-naphthalene) 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





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

April 30, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1504-270

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 29, 2015.

**Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.**

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: April 30, 2015  
Samples Submitted: April 29, 2015  
Laboratory Reference: 1504-270  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on April 29, 2015 and received by the laboratory on April 29, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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/BTEX Analysis

Per EPA method 5035A, samples were received by the laboratory in pre-weighed 40 ml VOA vials preserved with either Methanol or Sodium Bisulfate.

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: April 30, 2015  
Samples Submitted: April 29, 2015  
Laboratory Reference: 1504-270  
Project: 21138-001-03

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-15.0	04-270-01	Soil	4-29-15	4-29-15	
UTL9-S-20.0	04-270-02	Soil	4-29-15	4-29-15	
UTL9-S-23.0	04-270-03	Soil	4-29-15	4-29-15	

Date of Report: April 30, 2015  
 Samples Submitted: April 29, 2015  
 Laboratory Reference: 1504-270  
 Project: 21138-001-03

### NWTPH-Gx/BTEX

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UTL9-S-15.0</b>					
Laboratory ID:	04-270-01					
Benzene	<b>0.022</b>	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	<b>ND</b>	0.049	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	<b>ND</b>	0.049	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	<b>0.057</b>	0.049	EPA 8021B	4-29-15	4-29-15	
o-Xylene	<b>ND</b>	0.049	EPA 8021B	4-29-15	4-29-15	
Gasoline	<b>ND</b>	4.9	NWTPH-Gx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>119</i>	<i>68-123</i>				
<b>Client ID:</b>	<b>UTL9-S-20.0</b>					
Laboratory ID:	04-270-02					
Benzene	<b>0.029</b>	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	<b>ND</b>	0.050	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	<b>ND</b>	0.050	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	<b>0.084</b>	0.050	EPA 8021B	4-29-15	4-29-15	
o-Xylene	<b>0.080</b>	0.050	EPA 8021B	4-29-15	4-29-15	
Gasoline	<b>ND</b>	5.0	NWTPH-Gx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>121</i>	<i>68-123</i>				
<b>Client ID:</b>	<b>UTL9-S-23.0</b>					
Laboratory ID:	04-270-03					
Benzene	<b>ND</b>	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	<b>ND</b>	0.053	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	<b>ND</b>	0.053	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	<b>ND</b>	0.053	EPA 8021B	4-29-15	4-29-15	
o-Xylene	<b>ND</b>	0.053	EPA 8021B	4-29-15	4-29-15	
Gasoline	<b>ND</b>	5.3	NWTPH-Gx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>116</i>	<i>68-123</i>				

Date of Report: April 30, 2015  
 Samples Submitted: April 29, 2015  
 Laboratory Reference: 1504-270  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UTL9-S-15.0</b>					
Laboratory ID:	04-270-01					
Diesel Range Organics	<b>ND</b>	29	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	<b>ND</b>	57	NWTPH-Dx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	87	50-150				
<b>Client ID:</b>	<b>UTL9-S-23.0</b>					
Laboratory ID:	04-270-03					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				

Date of Report: April 30, 2015  
 Samples Submitted: April 29, 2015  
 Laboratory Reference: 1504-270  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0429S1					
Benzene	ND	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	ND	0.050	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	ND	0.050	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	ND	0.050	EPA 8021B	4-29-15	4-29-15	
o-Xylene	ND	0.050	EPA 8021B	4-29-15	4-29-15	
Gasoline	ND	5.0	NWTPH-Gx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	04-254-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				93	93	68-123		

**MATRIX SPIKES**

Laboratory ID:	04-254-12									
	MS	MSD	MS	MSD	MS	MSD				
Benzene	0.848	0.950	1.00	1.00	ND	85	95	71-122	11	21
Toluene	0.870	0.960	1.00	1.00	ND	87	96	77-124	10	17
Ethyl Benzene	0.877	0.969	1.00	1.00	ND	88	97	77-121	10	19
m,p-Xylene	0.890	0.969	1.00	1.00	ND	89	97	78-124	8	19
o-Xylene	0.882	0.967	1.00	1.00	ND	88	97	75-117	9	13
<i>Surrogate:</i>										
<i>Fluorobenzene</i>						96	94	68-123		

Date of Report: April 30, 2015  
 Samples Submitted: April 29, 2015  
 Laboratory Reference: 1504-270  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0429S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>84</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	04-256-03							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				<i>81</i>	<i>82</i>	<i>50-150</i>		

Date of Report: April 30, 2015  
Samples Submitted: April 29, 2015  
Laboratory Reference: 1504-270  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 4-29-15

Client ID	Lab ID	% Moisture
UTL9-S-15.0	04-270-01	12
UTL9-S-20.0	04-270-02	12
UTL9-S-23.0	04-270-03	11



### 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-naphthalene) 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





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

May 1, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1504-279

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 29, 2015.

**Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.**

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: May 1, 2015  
Samples Submitted: April 29, 2015  
Laboratory Reference: 1504-279  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on April 29, 2015 and received by the laboratory on April 29, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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/BTEX Analysis

Per EPA method 5035A, samples were received by the laboratory in pre-weighed 40 ml VOA vials preserved with either Methanol or Sodium Bisulfate.

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: May 1, 2015  
Samples Submitted: April 29, 2015  
Laboratory Reference: 1504-279  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-N-18.0	04-279-03	Soil	4-29-15	4-29-15	
UTL9-E-15.0	04-279-06	Soil	4-29-15	4-29-15	
UTL9-E-18.0	04-279-07	Soil	4-29-15	4-29-15	

Date of Report: May 1, 2015  
 Samples Submitted: April 29, 2015  
 Laboratory Reference: 1504-279  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UTL9-N-18.0</b>					
Laboratory ID:	04-279-03					
Benzene	ND	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	ND	0.059	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	ND	0.059	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	ND	0.059	EPA 8021B	4-30-15	4-30-15	
o-Xylene	ND	0.059	EPA 8021B	4-30-15	4-30-15	
Gasoline	ND	5.9	NWTPH-Gx	4-30-15	4-30-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	109	68-123				
<b>Client ID:</b>	<b>UTL9-E-15.0</b>					
Laboratory ID:	04-279-06					
Benzene	0.060	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	ND	0.060	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	ND	0.060	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	ND	0.060	EPA 8021B	4-30-15	4-30-15	
o-Xylene	ND	0.060	EPA 8021B	4-30-15	4-30-15	
Gasoline	ND	6.0	NWTPH-Gx	4-30-15	4-30-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	110	68-123				
<b>Client ID:</b>	<b>UTL9-E-18.0</b>					
Laboratory ID:	04-279-07					
Benzene	0.052	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	ND	0.065	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	ND	0.065	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	ND	0.065	EPA 8021B	4-30-15	4-30-15	
o-Xylene	ND	0.065	EPA 8021B	4-30-15	4-30-15	
Gasoline	50	6.5	NWTPH-Gx	4-30-15	4-30-15	O
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	111	68-123				

Date of Report: May 1, 2015  
 Samples Submitted: April 29, 2015  
 Laboratory Reference: 1504-279  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UTL9-N-18.0</b>					
Laboratory ID:	04-279-03					
Diesel Range Organics	<b>180</b>	150	NWTPH-Dx	4-29-15	4-30-15	N
Lube Oil	<b>1700</b>	300	NWTPH-Dx	4-29-15	4-30-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				
<b>Client ID:</b>	<b>UTL9-E-15.0</b>					
Laboratory ID:	04-279-06					
Diesel Range Organics	<b>34</b>	30	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	<b>ND</b>	59	NWTPH-Dx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	77	50-150				

Date of Report: May 1, 2015  
 Samples Submitted: April 29, 2015  
 Laboratory Reference: 1504-279  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0430S1					
Benzene	ND	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	ND	0.050	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	ND	0.050	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	ND	0.050	EPA 8021B	4-30-15	4-30-15	
o-Xylene	ND	0.050	EPA 8021B	4-30-15	4-30-15	
Gasoline	ND	5.0	NWTPH-Gx	4-30-15	4-30-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	87	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	04-279-03							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				109	116	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0430S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.947	0.940	1.00	1.00	95	94	75-117	1	13
Toluene	0.952	0.947	1.00	1.00	95	95	78-118	1	12
Ethyl Benzene	0.952	0.950	1.00	1.00	95	95	78-118	0	12
m,p-Xylene	0.956	0.960	1.00	1.00	96	96	78-121	0	13
o-Xylene	0.953	0.959	1.00	1.00	95	96	77-119	1	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					90	90	68-123		

Date of Report: May 1, 2015  
 Samples Submitted: April 29, 2015  
 Laboratory Reference: 1504-279  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0429S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	4-29-15	4-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>84</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	04-279-06							
	ORIG	DUP						
Diesel Range Organics	<b>29.1</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				77	78	50-150		

Date of Report: May 1, 2015  
Samples Submitted: April 29, 2015  
Laboratory Reference: 1504-279  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 4-29&30-15

Client ID	Lab ID	% Moisture
UTL9-N-18.0	04-279-03	16
UTL9-E-15.0	04-279-06	15
UTL9-E-18.0	04-279-07	20



### 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-naphthalene) 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



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

# Chain of Custody

Company: <b>GEDENGINEERS</b> Project Number: <b>21138-001-03</b> Project Name: <b>9th &amp; LENORA PROJECT</b> Project Manager: <b>FASIH KHAN</b> Sampled by: <b>FASIH KHAN</b>		<b>Turnaround Request (in working days)</b> (Check One) <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> Standard (7 Days) (TPH analysis 5 Days) <input type="checkbox"/> _____ (other)			<b>Laboratory Number: 04-279</b>																				
		<b>Number of Containers</b>			NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	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	TCLP Metals	HEM (oil and grease) 1664A	D	F	H	%	Moisture
<b>Lab ID</b>	<b>Sample Identification</b>	<b>Date Sampled</b>	<b>Time Sampled</b>	<b>Matrix</b>																					
1	UTL9- <del>W</del> <sup>N</sup> -10.0	4/29/15	1300	S	2																				
2	UTL9- <del>W</del> <sup>N</sup> -15.0	↓	1320	↓	↓																				
3	UTL9- <del>W</del> <sup>N</sup> -18.0	↓	1340	↓	↓																				
4	UTL9- <del>W</del> <sup>N</sup> -25.0	↓	1350	↓	↓																				
5	UTL9-E-10.0	↓	1400	↓	↓																				
6	UTL9-E-15.0	↓	1410	↓	↓																				
7	UTL9-E-18.0	↓	1420	↓	↓																				
		<b>Signature</b>			<b>Company</b>			<b>Date</b>		<b>Time</b>		<b>Comments/Special Instructions</b>													
Relinquished					GIE			4/29/15		1630		O-Added 4/30/15 .DB (Same day)													
Received					COSG			4/29/15		1630															
Relinquished																									
Received																									
Relinquished																									
Received																									
<b>Reviewed/Date</b>					<b>Reviewed/Date</b>					Chromatograms with final report <input type="checkbox"/>															



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

May 6, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1505-024

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on May 5, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: May 6, 2015  
Samples Submitted: May 5, 2015  
Laboratory Reference: 1505-024  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on May 5, 2015 and received by the laboratory on May 5, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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/BTEX Analysis

Per EPA method 5035A, samples were received by the laboratory in pre-weighed 40 ml VOA vials preserved with either Methanol or Sodium Bisulfate.

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: May 6, 2015  
Samples Submitted: May 5, 2015  
Laboratory Reference: 1505-024  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-30.0	05-024-01	Soil	5-5-15	5-5-15	

Date of Report: May 6, 2015  
 Samples Submitted: May 5, 2015  
 Laboratory Reference: 1505-024  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UTL9-S-30.0</b>					
Laboratory ID:	05-024-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	5-5-15	5-5-15	
Toluene	<b>ND</b>	0.086	EPA 8021B	5-5-15	5-5-15	
Ethyl Benzene	<b>ND</b>	0.086	EPA 8021B	5-5-15	5-5-15	
m,p-Xylene	<b>ND</b>	0.086	EPA 8021B	5-5-15	5-5-15	
o-Xylene	<b>ND</b>	0.086	EPA 8021B	5-5-15	5-5-15	
Gasoline	<b>ND</b>	8.6	NWTPH-Gx	5-5-15	5-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	123	68-123				

Date of Report: May 6, 2015  
 Samples Submitted: May 5, 2015  
 Laboratory Reference: 1505-024  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0505S1					
Benzene	ND	0.020	EPA 8021B	5-5-15	5-5-15	
Toluene	ND	0.050	EPA 8021B	5-5-15	5-5-15	
Ethyl Benzene	ND	0.050	EPA 8021B	5-5-15	5-5-15	
m,p-Xylene	ND	0.050	EPA 8021B	5-5-15	5-5-15	
o-Xylene	ND	0.050	EPA 8021B	5-5-15	5-5-15	
Gasoline	ND	5.0	NWTPH-Gx	5-5-15	5-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-024-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				123	123	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0505S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.964	0.956	1.00	1.00	96	96	75-117	1	13
Toluene	0.941	0.960	1.00	1.00	94	96	78-118	2	12
Ethyl Benzene	0.961	0.962	1.00	1.00	96	96	78-118	0	12
m,p-Xylene	0.969	0.964	1.00	1.00	97	96	78-121	1	13
o-Xylene	0.949	0.964	1.00	1.00	95	96	77-119	2	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					89	91	68-123		

Date of Report: May 6, 2015  
Samples Submitted: May 5, 2015  
Laboratory Reference: 1505-024  
Project: 21138-001-03

**% MOISTURE**

Date Analyzed: 5-5-15

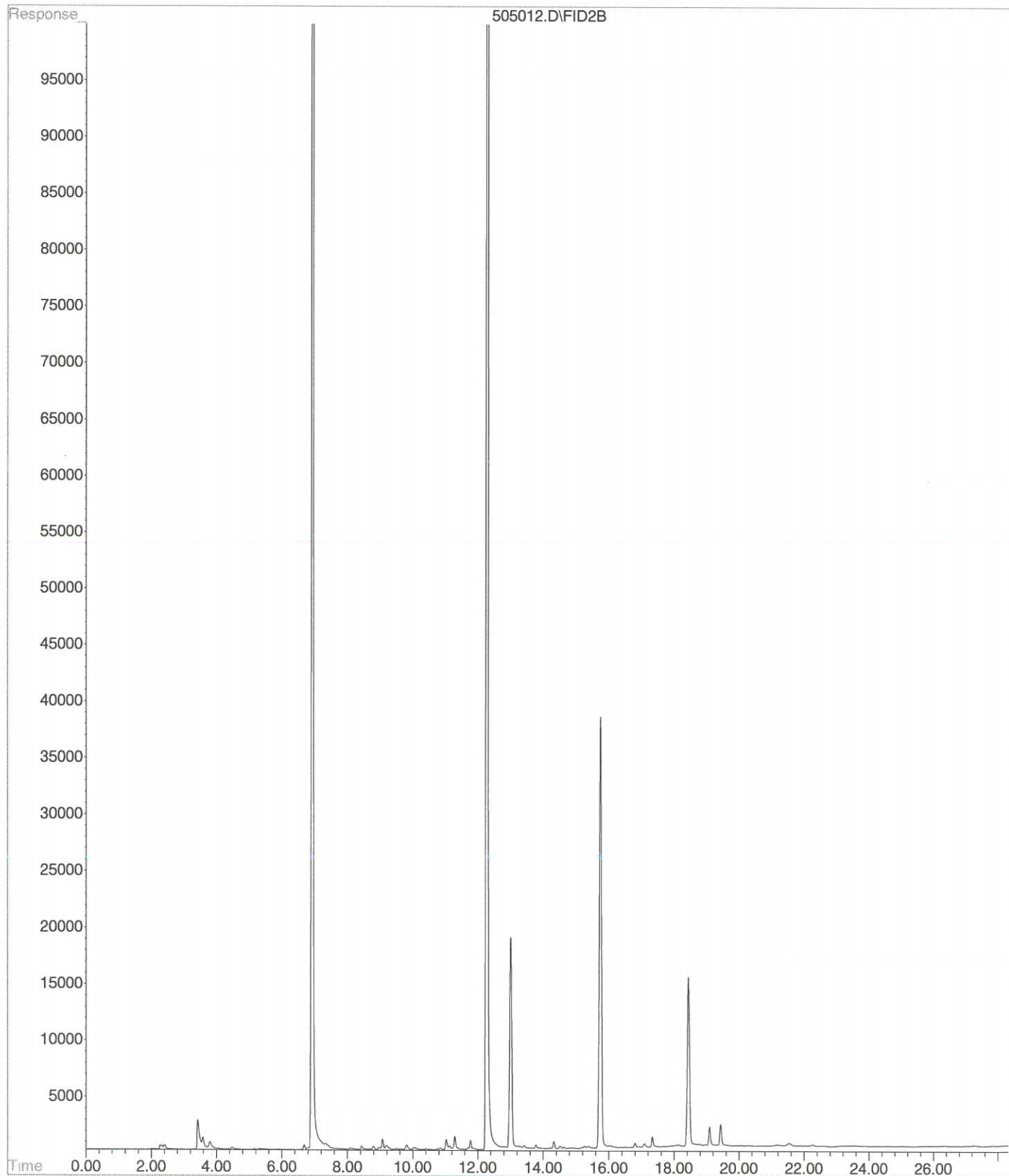
Client ID	Lab ID	% Moisture
UTL9-S-30.0	05-024-01	21



### 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-naphthalene) 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

File : X:\BTEX\DARYL\DATA\D150505\505012.D  
Operator :  
Acquired : 5 May 2015 16:25 using AcqMethod 150327B.M  
Instrument : Daryl  
Sample Name: 05-024-01s  
Misc Info : V2-36-17  
Vial Number: 12





# OnSite Environmental Inc.

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

# Chain of Custody

Company: **GEOENGINEERS**

Project Number: **21138-001-03**

Project Name: **9th & LENORA PROJECT**

Project Manager: **FASIH KHAN**

Sampled by: **FASIH KHAN**

**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: **05-024**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Analytical Parameters														% Moisture															
						NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semi-volatiles 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		TCLP Metals	HEM (oil and grease) 1664A													
1	UTL9-S-30.0	5/5/15	1315	S	2		<input checked="" type="checkbox"/>																										<input checked="" type="checkbox"/>		
2	UTL9-S-35.0	5/5/15	1350	S	2																														

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEOENGINEERS	5/5/15	1425	
Received		GEOENGINEERS	5/5/15	1425	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date					Chromatograms with final report <input type="checkbox"/>



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 29, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1507-215

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 27, 2015.

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: July 29, 2015  
Samples Submitted: July 27, 2015  
Laboratory Reference: 1507-215  
Project: 21138-001-03

### Case Narrative

Samples were collected on July 27, 2015 and received by the laboratory on July 27, 2015. 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/BTEX 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: July 29, 2015  
Samples Submitted: July 27, 2015  
Laboratory Reference: 1507-215  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-1-18.0	07-215-01	Soil	7-27-15	7-27-15	

Date of Report: July 29, 2015  
 Samples Submitted: July 27, 2015  
 Laboratory Reference: 1507-215  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>EX-1-18.0</b>					
Laboratory ID:	07-215-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	<b>ND</b>	0.061	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	<b>ND</b>	0.061	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	<b>ND</b>	0.061	EPA 8021B	7-28-15	7-28-15	
o-Xylene	<b>ND</b>	0.061	EPA 8021B	7-28-15	7-28-15	
Gasoline	<b>ND</b>	6.1	NWTPH-Gx	7-28-15	7-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	68-123				

Date of Report: July 29, 2015  
 Samples Submitted: July 27, 2015  
 Laboratory Reference: 1507-215  
 Project: 21138-001-03

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>EX-1-18.0</b>					
Laboratory ID:	07-215-01					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	7-28-15	7-28-15	
Lube Oil	<b>68</b>	56	NWTPH-Dx	7-28-15	7-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				

Date of Report: July 29, 2015  
 Samples Submitted: July 27, 2015  
 Laboratory Reference: 1507-215  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0728S1					
Benzene	ND	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	ND	0.050	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	ND	0.050	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	ND	0.050	EPA 8021B	7-28-15	7-28-15	
o-Xylene	ND	0.050	EPA 8021B	7-28-15	7-28-15	
Gasoline	ND	5.0	NWTPH-Gx	7-28-15	7-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-072-04							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				102	120	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0728S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzene	0.992	1.04	1.00	1.00	99	104	75-117	5	13	
Toluene	0.978	1.02	1.00	1.00	98	102	78-118	4	12	
Ethyl Benzene	0.965	1.00	1.00	1.00	97	100	78-118	4	12	
m,p-Xylene	0.976	1.02	1.00	1.00	98	102	78-121	4	13	
o-Xylene	0.967	1.01	1.00	1.00	97	101	77-119	4	13	
<i>Surrogate:</i>										
<i>Fluorobenzene</i>					88	92	68-123			

Date of Report: July 29, 2015  
 Samples Submitted: July 27, 2015  
 Laboratory Reference: 1507-215  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0728S2					
Diesel Range Organics	ND	25	NWTPH-Dx	7-28-15	7-28-15	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-28-15	7-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-194-05							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				93	97	50-150		

Date of Report: July 29, 2015  
Samples Submitted: July 27, 2015  
Laboratory Reference: 1507-215  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 7-28-15

Client ID	Lab ID	% Moisture
EX-1-18.0	07-215-01	10



### 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-naphthalene) 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



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Phone: (425) 883-3881 • www.onsite-env.com

# Chain of Custody

Company: CTEOENGINEERS  
 Project Number: 21138-001-03  
 Project Name: 9th & LENORA PROJECT  
 Project Manager: FASIH KHAN  
 Sampled by: FASIH KHAN

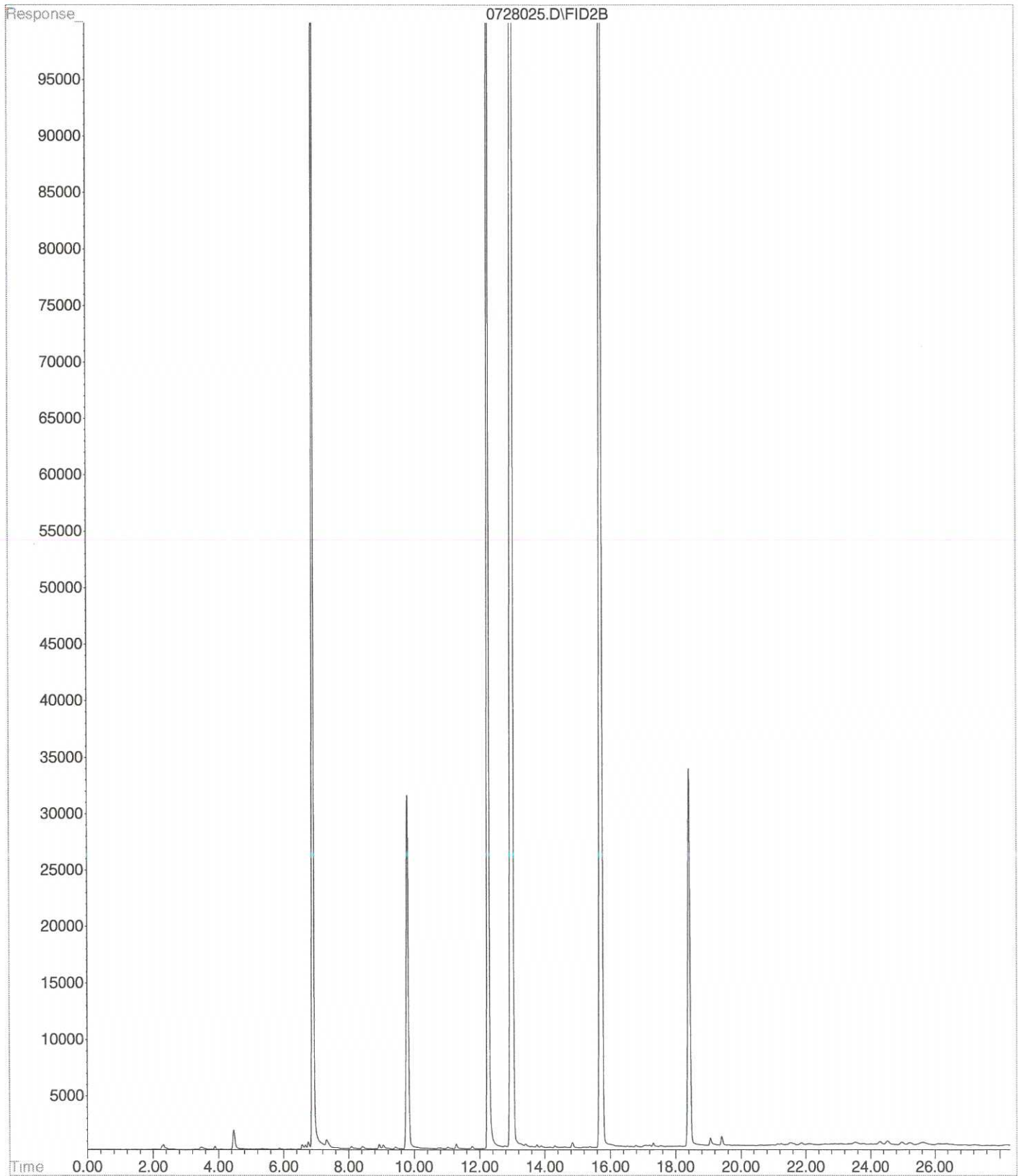
Turnaround Request (in working days)  
 (Check One)  
 Same Day     1 Day  
 2 Days     3 Days  
 Standard (7 Days) (TPH analysis 5 Days)  
 \_\_\_\_\_ (other)

Laboratory Number: **07-215**

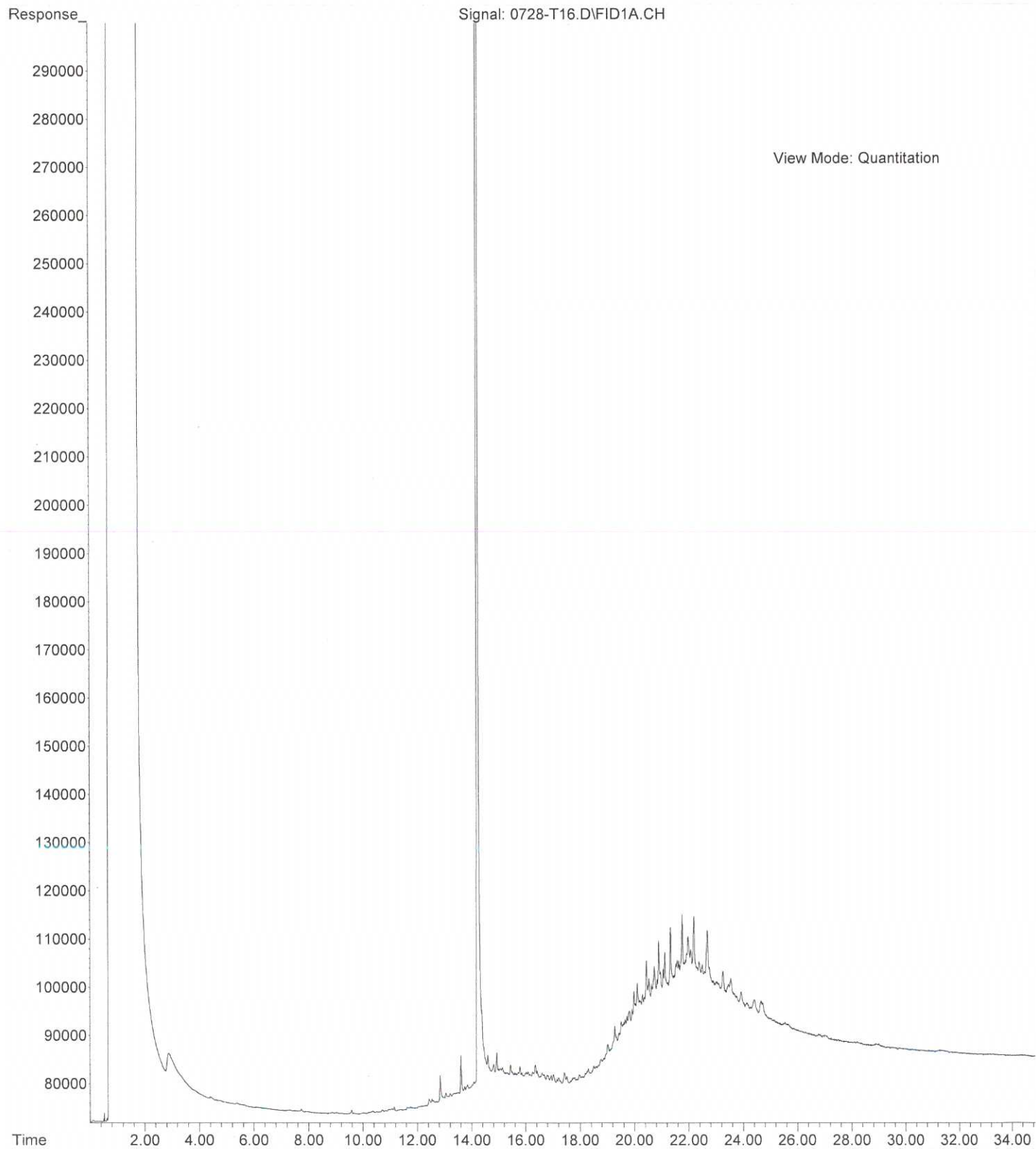
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	DFOH	% Moisture	
1	EX-1-18.0	7/27/15	0930	S	2		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																<input checked="" type="checkbox"/>
2	G-1-72715	7/27/15	0945	W	1																	<input checked="" type="checkbox"/>		

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GET	7/27/15	1440	
Received		OSI	7/27/15	1440	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/>

File : D:\BTEX\DATA\D150728\0728025.D  
Operator :  
Acquired : 29 Jul 2015 00:05 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 07-215-01s  
Misc Info :  
Vial Number: 25



File :X:\DIESELS\TERI\DATA\T150728\0728-T16.D  
Operator : ZT  
Acquired : 29 Jul 2015 10:23 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 07-215-01 RR  
Misc Info :  
Vial Number: 16





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 3, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1507-206

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 24, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 3, 2015  
Samples Submitted: July 24, 2015  
Laboratory Reference: 1507-206  
Project: 21138-001-03

### Case Narrative

Samples were collected on July 24, 2015 and received by the laboratory on July 24, 2015. 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/BTEX Analysis

Per EPA method 5035A, samples were received by the laboratory in pre-weighed 40 ml VOA vials preserved with either Methanol or Sodium Bisulfate.

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: August 3, 2015  
Samples Submitted: July 24, 2015  
Laboratory Reference: 1507-206  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-1	07-206-01	Soil	7-24-15	7-24-15	
SS-2	07-206-02	Soil	7-24-15	7-24-15	
SS-3	07-206-03	Soil	7-24-15	7-24-15	
SS-4	07-206-04	Soil	7-24-15	7-24-15	
EX-1-12.0	07-206-05	Soil	7-24-15	7-24-15	

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>EX-1-12.0</b>					
Laboratory ID:	07-206-05					
Benzene	<b>ND</b>	0.020	EPA 8021B	7-28-15	7-29-15	
Toluene	<b>ND</b>	0.059	EPA 8021B	7-28-15	7-29-15	
Ethyl Benzene	<b>ND</b>	0.059	EPA 8021B	7-28-15	7-29-15	
m,p-Xylene	<b>ND</b>	0.059	EPA 8021B	7-28-15	7-29-15	
o-Xylene	<b>ND</b>	0.059	EPA 8021B	7-28-15	7-29-15	
Gasoline	<b>ND</b>	5.9	NWTPH-Gx	7-28-15	7-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	120	68-123				

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SS-1</b>					
Laboratory ID:	07-206-01					
Diesel Range Organics	<b>56</b>	33	NWTPH-Dx	7-27-15	7-28-15	
Lube Oil Range Organics	<b>350</b>	67	NWTPH-Dx	7-27-15	7-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	57	50-150				
<b>Client ID:</b>	<b>SS-2</b>					
Laboratory ID:	07-206-02					
Diesel Range Organics	<b>44</b>	29	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	<b>210</b>	58	NWTPH-Dx	7-27-15	7-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	65	50-150				
<b>Client ID:</b>	<b>SS-3</b>					
Laboratory ID:	07-206-03					
Diesel Range Organics	<b>74</b>	32	NWTPH-Dx	7-27-15	7-28-15	
Lube Oil Range Organics	<b>650</b>	65	NWTPH-Dx	7-27-15	7-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	74	50-150				
<b>Client ID:</b>	<b>SS-4</b>					
Laboratory ID:	07-206-04					
Diesel Range Organics	<b>70</b>	30	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	<b>380</b>	59	NWTPH-Dx	7-27-15	7-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	65	50-150				
<b>Client ID:</b>	<b>EX-1-12.0</b>					
Laboratory ID:	07-206-05					
Diesel Range Organics	<b>ND</b>	27	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	<b>ND</b>	55	NWTPH-Dx	7-27-15	7-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	61	50-150				

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-1</b>					
Laboratory ID:	07-206-01					
Benzo[a]anthracene	<b>0.048</b>	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Chrysene	<b>0.049</b>	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[b]fluoranthene	<b>0.043</b>	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo(j,k)fluoranthene	<b>0.013</b>	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[a]pyrene	<b>0.041</b>	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Indeno(1,2,3-c,d)pyrene	<b>0.026</b>	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[g,h,i]perylene	<b>0.031</b>	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>59</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>31 - 116</i>				

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-2</b>					
Laboratory ID:	07-206-02					
Benzo[a]anthracene	<b>0.38</b>	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Chrysene	<b>0.35</b>	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[b]fluoranthene	<b>0.35</b>	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo(j,k)fluoranthene	<b>0.12</b>	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[a]pyrene	<b>0.33</b>	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Indeno(1,2,3-c,d)pyrene	<b>0.19</b>	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Dibenz[a,h]anthracene	<b>0.050</b>	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[g,h,i]perylene	<b>0.18</b>	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>77</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>74</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>95</i>	<i>31 - 116</i>				

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-3</b>					
Laboratory ID:	07-206-03					
Benzo[a]anthracene	<b>0.010</b>	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Chrysene	<b>0.010</b>	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[b]fluoranthene	<b>0.010</b>	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[a]pyrene	<b>ND</b>	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[g,h,i]perylene	<b>ND</b>	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>70</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>31 - 116</i>				

Date of Report: August 3, 2015  
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 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-4</b>					
Laboratory ID:	07-206-04					
Benzo[a]anthracene	<b>0.10</b>	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Chrysene	<b>0.11</b>	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[b]fluoranthene	<b>0.13</b>	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo(j,k)fluoranthene	<b>0.035</b>	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[a]pyrene	<b>0.095</b>	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Indeno(1,2,3-c,d)pyrene	<b>0.081</b>	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Dibenz[a,h]anthracene	<b>0.017</b>	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[g,h,i]perylene	<b>0.090</b>	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>62</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>81</i>	<i>31 - 116</i>				

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0728S1					
Benzene	ND	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	ND	0.050	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	ND	0.050	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	ND	0.050	EPA 8021B	7-28-15	7-28-15	
o-Xylene	ND	0.050	EPA 8021B	7-28-15	7-28-15	
Gasoline	ND	5.0	NWTPH-Gx	7-28-15	7-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	88	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-072-04							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				102	120	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0728S1									
	SB	SBD	SB	SBD	SB	SBD				
Benzene	0.992	1.04	1.00	1.00	99	104	75-117	5	13	
Toluene	0.978	1.02	1.00	1.00	98	102	78-118	4	12	
Ethyl Benzene	0.965	1.00	1.00	1.00	97	100	78-118	4	12	
m,p-Xylene	0.976	1.02	1.00	1.00	98	102	78-121	4	13	
o-Xylene	0.967	1.01	1.00	1.00	97	101	77-119	4	13	
<i>Surrogate:</i>										
<i>Fluorobenzene</i>					88	92	68-123			

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0727S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	7-27-15	7-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	55	50-150				

**DUPLICATE**

Laboratory ID:	07-206-05							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			61	74	50-150			

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0729S1					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[j,k]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[g,h,i]perylene	<b>ND</b>	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>83</i>	<i>31 - 116</i>				

Date of Report: August 3, 2015  
 Samples Submitted: July 24, 2015  
 Laboratory Reference: 1507-206  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent	Recovery	RPD	Limit	Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits			
<b>MATRIX SPIKES</b>										
Laboratory ID:	07-205-01									
	MS	MSD	MS	MSD		MS	MSD			
Naphthalene	<b>0.0727</b>	<b>0.0740</b>	0.0833	0.0833	ND	87	89	44 - 107	2	29
Acenaphthylene	<b>0.0728</b>	<b>0.0727</b>	0.0833	0.0833	ND	87	87	44 - 121	0	27
Acenaphthene	<b>0.0725</b>	<b>0.0726</b>	0.0833	0.0833	ND	87	87	47 - 109	0	26
Fluorene	<b>0.0744</b>	<b>0.0761</b>	0.0833	0.0833	ND	89	91	49 - 115	2	28
Phenanthrene	<b>0.0755</b>	<b>0.0751</b>	0.0833	0.0833	ND	91	90	45 - 114	1	26
Anthracene	<b>0.0976</b>	<b>0.0997</b>	0.0833	0.0833	ND	117	120	43 - 140	2	27
Fluoranthene	<b>0.0780</b>	<b>0.0764</b>	0.0833	0.0833	ND	94	92	44 - 126	2	27
Pyrene	<b>0.0776</b>	<b>0.0758</b>	0.0833	0.0833	ND	93	91	43 - 125	2	27
Benzo[a]anthracene	<b>0.0817</b>	<b>0.0820</b>	0.0833	0.0833	ND	98	98	42 - 134	0	27
Chrysene	<b>0.0750</b>	<b>0.0752</b>	0.0833	0.0833	ND	90	90	45 - 114	0	27
Benzo[b]fluoranthene	<b>0.0696</b>	<b>0.0742</b>	0.0833	0.0833	ND	84	89	38 - 131	6	33
Benzo(j,k)fluoranthene	<b>0.0660</b>	<b>0.0671</b>	0.0833	0.0833	ND	79	81	44 - 114	2	34
Benzo[a]pyrene	<b>0.0747</b>	<b>0.0745</b>	0.0833	0.0833	ND	90	89	40 - 136	0	29
Indeno(1,2,3-c,d)pyrene	<b>0.0701</b>	<b>0.0710</b>	0.0833	0.0833	ND	84	85	45 - 126	1	30
Dibenz[a,h]anthracene	<b>0.0728</b>	<b>0.0735</b>	0.0833	0.0833	ND	87	88	46 - 121	1	28
Benzo[g,h,i]perylene	<b>0.0744</b>	<b>0.0739</b>	0.0833	0.0833	ND	89	89	43 - 120	1	31
<i>Surrogate:</i>										
<i>2-Fluorobiphenyl</i>						<i>80</i>	<i>80</i>	<i>32 - 114</i>		
<i>Pyrene-d10</i>						<i>84</i>	<i>85</i>	<i>33 - 121</i>		
<i>Terphenyl-d14</i>						<i>83</i>	<i>87</i>	<i>31 - 116</i>		

Date of Report: August 3, 2015  
Samples Submitted: July 24, 2015  
Laboratory Reference: 1507-206  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 7-27-15

Client ID	Lab ID	% Moisture
SS-1	07-206-01	25
SS-2	07-206-02	14
SS-3	07-206-03	23
SS-4	07-206-04	15
EX-1-12.0	07-206-05	8



### 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-naphthalene) 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



# Onsite Environmental Inc.

Analytical Laboratory Testing Services  
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## Chain of Custody

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:

**07-206**

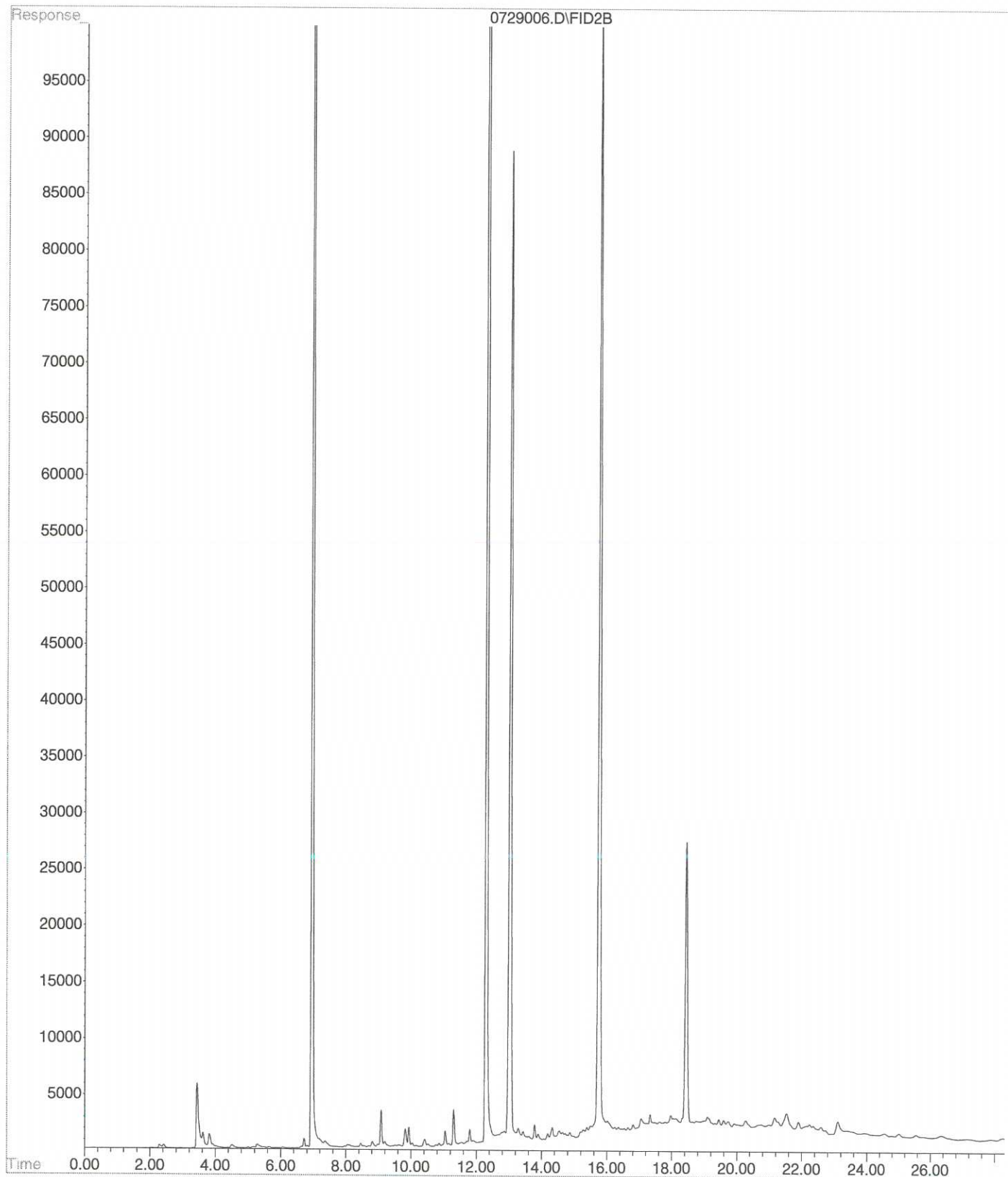
Company: **GEODENGINEERS**  
Project Number: **2-1138-001-08**  
Project Name: **9th & LENOIRA SITE**  
Project Manager: **FASIH KHAN**  
Sampled by: **FASIH KHAN**

Lab ID      Sample Identification      Date Sampled      Time Sampled      Matrix

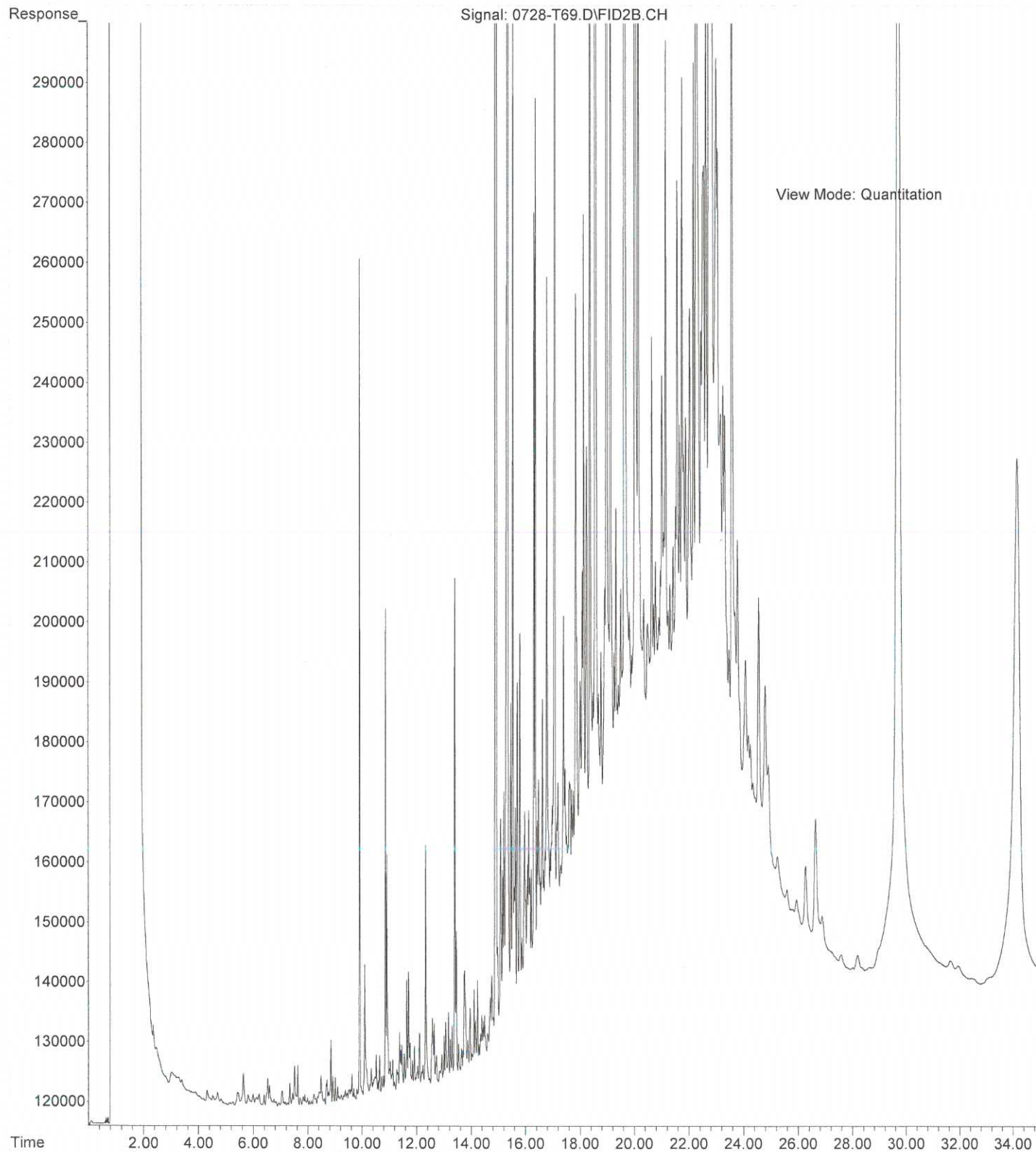
Number of Containers		NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	CPAHs ONLY	% Moisture
1	SS-1				<input checked="" type="checkbox"/>													<input checked="" type="checkbox"/>	
2	SS-2				<input checked="" type="checkbox"/>													<input checked="" type="checkbox"/>	
3	SS-3				<input checked="" type="checkbox"/>													<input checked="" type="checkbox"/>	
4	SS-4				<input checked="" type="checkbox"/>													<input checked="" type="checkbox"/>	
5	EX-1-12.0				<input checked="" type="checkbox"/>													<input checked="" type="checkbox"/>	

Signature	Company	Date	Time	Comments/Special Instructions
	GET	7/24/15	1623	
	GET	7/24/15	1623	
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Reviewed/Date	Reviewed/Date	Chromatograms with final report <input type="checkbox"/>		

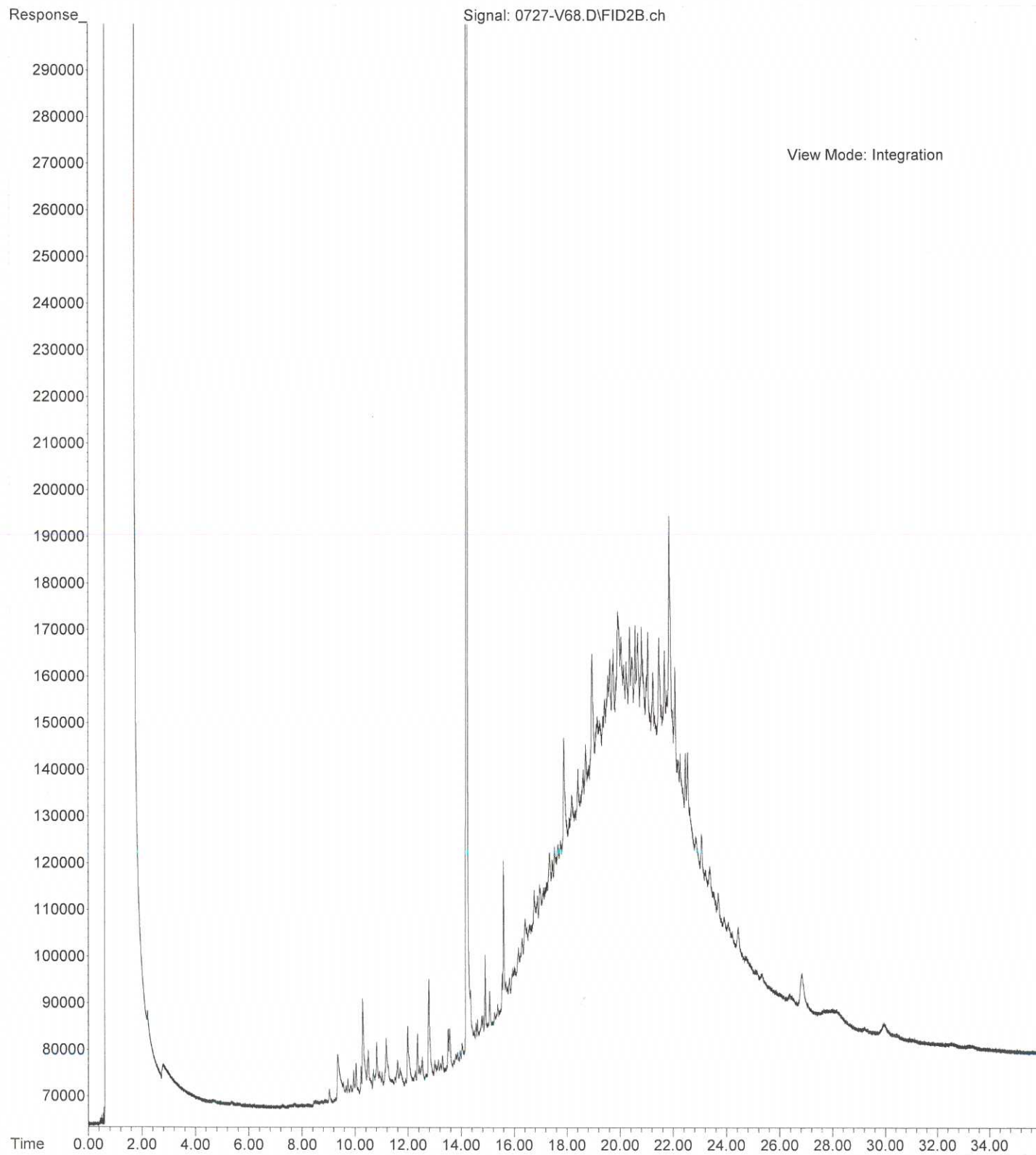
File : D:\BTEX\DATA\D150729\0729006.D  
Operator :  
Acquired : 29 Jul 2015 13:16 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 07-206-05 RRR  
Misc Info :  
Vial Number: 6



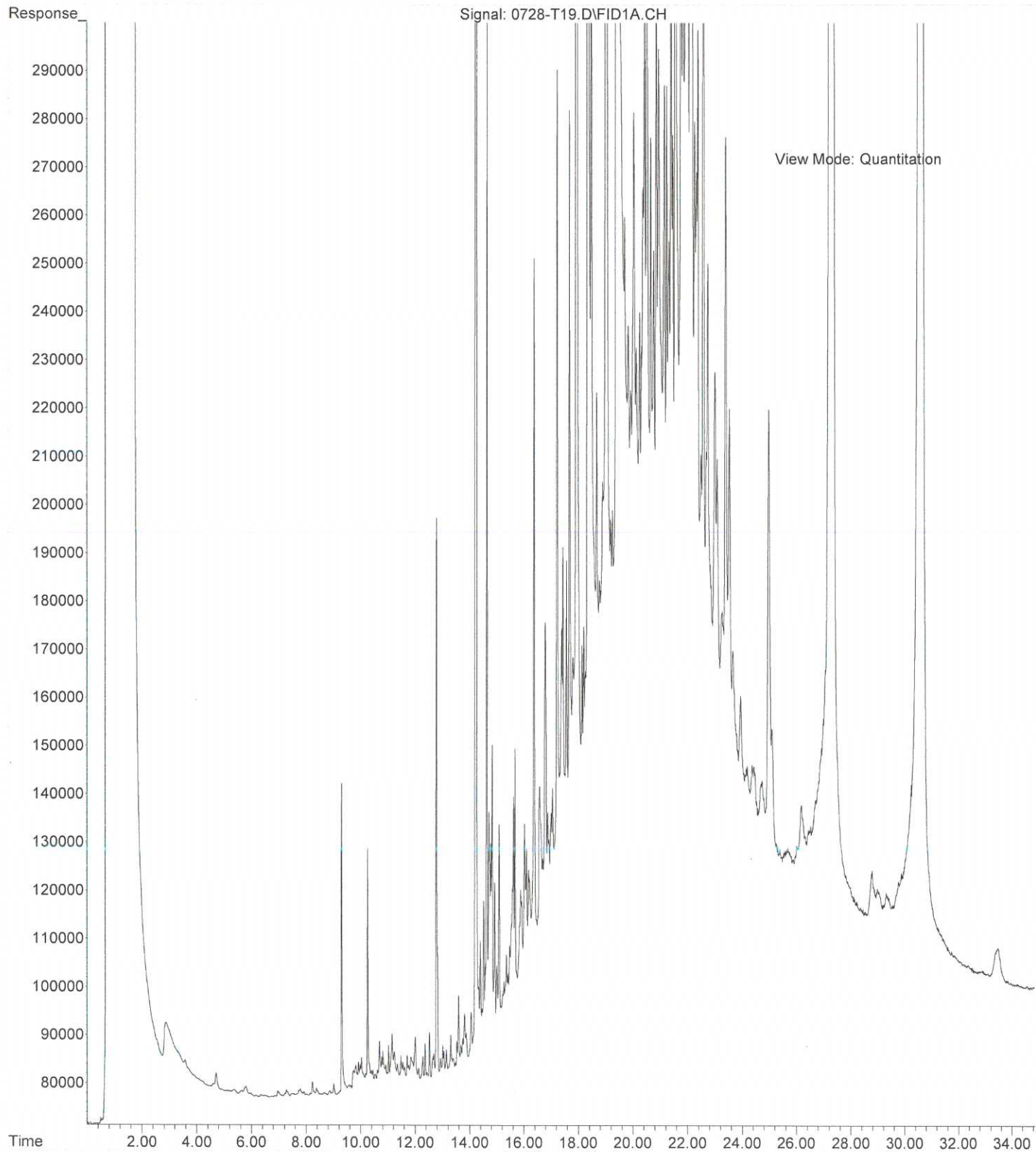
File :X:\DIESELS\TERI\DATA\T150728.SEC\0728-T69.D  
Operator : ZT  
Acquired : 29 Jul 2015 12:53 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 07-206-01 RR  
Misc Info :  
Vial Number: 69



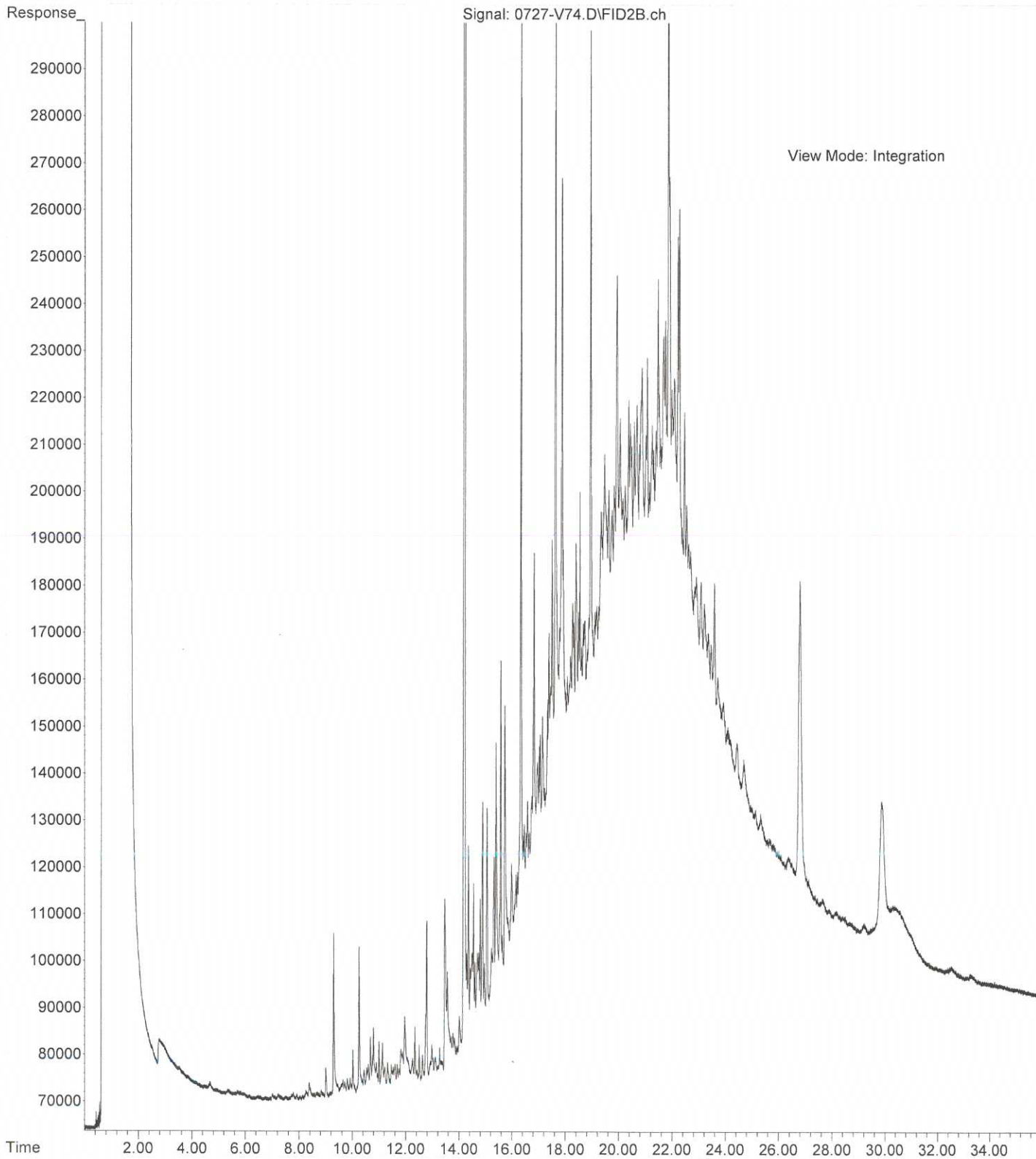
File :X:\DIESELS\VIGO\DATA\V150727.SEC\0727-V68.D  
Operator :  
Acquired : 28 Jul 2015 00:38 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 07-206-02  
Misc Info :  
Vial Number: 68



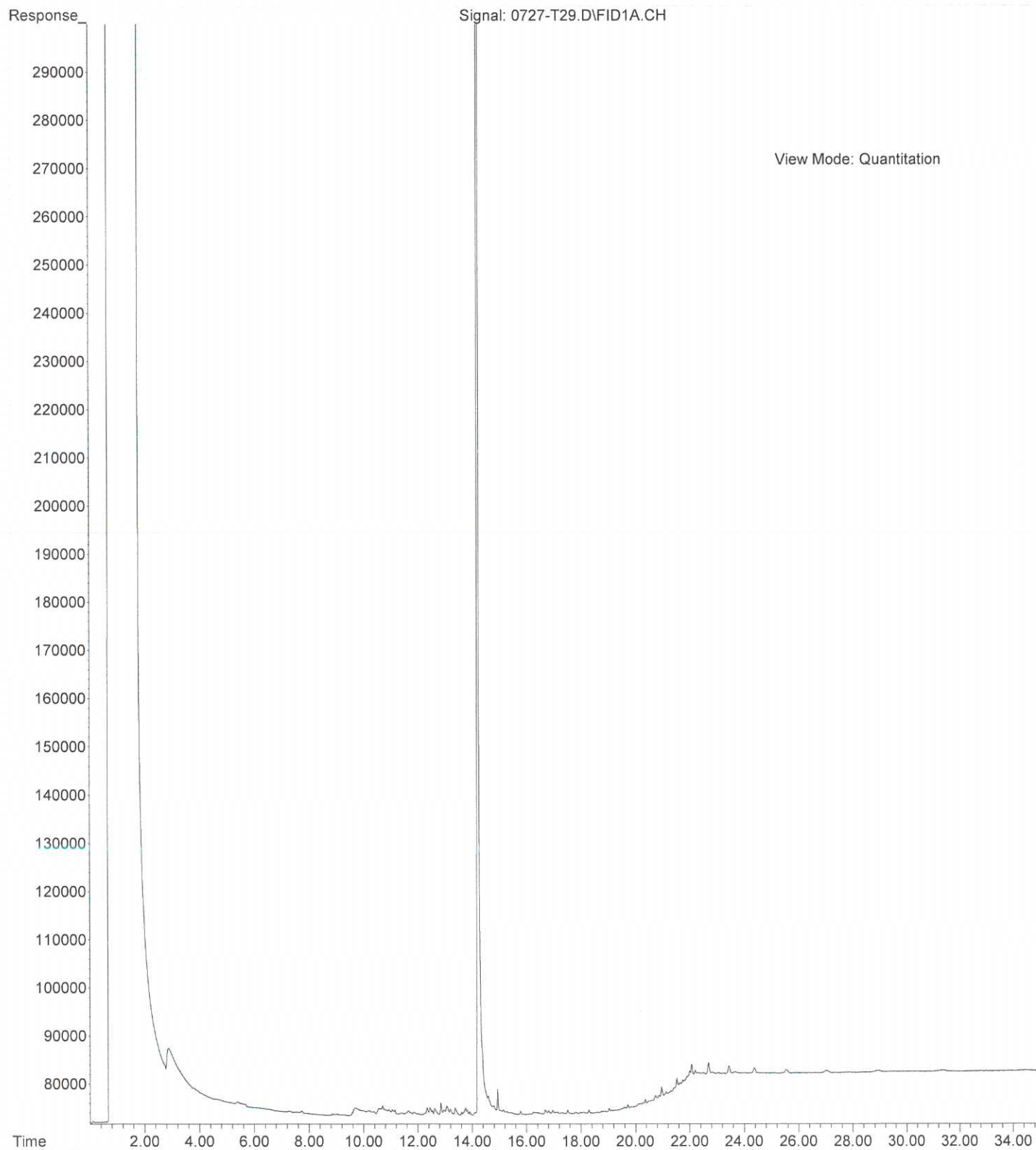
File :X:\DIESELS\TERI\DATA\T150728\0728-T19.D  
Operator : ZT  
Acquired : 29 Jul 2015 12:53 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 07-206-03 RR  
Misc Info :  
Vial Number: 19



File :X:\DIESELS\VIGO\DATA\V150727.SEC\0727-V74.D  
Operator :  
Acquired : 28 Jul 2015 4:43 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 07-206-04  
Misc Info :  
Vial Number: 74



File :X:\DIESELS\TERI\DATA\T150727\0727-T29.D  
Operator : ZT  
Acquired : 28 Jul 2015 8:42 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 07-206-05  
Misc Info :  
Vial Number: 29





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 3, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1507-254

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 31, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 3, 2015  
Samples Submitted: July 31, 2015  
Laboratory Reference: 1507-254  
Project: 21138-001-03

### Case Narrative

Samples were collected on July 31, 2015 and received by the laboratory on July 31, 2015. 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/BTEX 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: August 3, 2015  
Samples Submitted: July 31, 2015  
Laboratory Reference: 1507-254  
Project: 21138-001-03

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-5	07-254-01	Soil	7-31-15	7-31-15	

Date of Report: August 3, 2015  
 Samples Submitted: July 31, 2015  
 Laboratory Reference: 1507-254  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-5</b>					
Laboratory ID:	07-254-01					
Benzene	<b>ND</b>	0.022	EPA 8021B	7-31-15	7-31-15	
Toluene	<b>ND</b>	0.11	EPA 8021B	7-31-15	7-31-15	
Ethyl Benzene	<b>ND</b>	0.11	EPA 8021B	7-31-15	7-31-15	
m,p-Xylene	<b>ND</b>	0.11	EPA 8021B	7-31-15	7-31-15	
o-Xylene	<b>ND</b>	0.11	EPA 8021B	7-31-15	7-31-15	
Gasoline	<b>ND</b>	11	NWTPH-Gx	7-31-15	7-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>90</i>	<i>68-123</i>				

Date of Report: August 3, 2015  
 Samples Submitted: July 31, 2015  
 Laboratory Reference: 1507-254  
 Project: 21138-001-03

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-5</b>					
Laboratory ID:	07-254-01					
Diesel Range Organics	<b>ND</b>	40	NWTPH-Dx	7-31-15	7-31-15	U1
Lube Oil	<b>300</b>	55	NWTPH-Dx	7-31-15	7-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	70	50-150				

Date of Report: August 3, 2015  
 Samples Submitted: July 31, 2015  
 Laboratory Reference: 1507-254  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0731S2					
Benzene	ND	0.020	EPA 8021B			
Toluene	ND	0.050	EPA 8021B			
Ethyl Benzene	ND	0.050	EPA 8021B			
m,p-Xylene	ND	0.050	EPA 8021B			
o-Xylene	ND	0.050	EPA 8021B			
Gasoline	ND	5.0	NWTPH-Gx			
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	86	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-212-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				93	93	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0731S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.985	1.03	1.00	1.00	99	103	75-117	4	13
Toluene	0.971	1.02	1.00	1.00	97	102	78-118	5	12
Ethyl Benzene	0.957	1.00	1.00	1.00	96	100	78-118	4	12
m,p-Xylene	0.972	1.02	1.00	1.00	97	102	78-121	5	13
o-Xylene	0.960	0.994	1.00	1.00	96	99	77-119	3	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					89	93	68-123		

Date of Report: August 3, 2015  
 Samples Submitted: July 31, 2015  
 Laboratory Reference: 1507-254  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0731S1					
Diesel Range Organics	ND	25	NWTPH-Dx	7-31-15	7-31-15	
Lube Oil Range	ND	50	NWTPH-Dx	7-31-15	7-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	61	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-242-02							
	ORIG	DUP						
Diesel Fuel #2	4950	3390	NA	NA	NA	NA	37	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA U1
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			121	111	50-150			

Date of Report: August 3, 2015  
Samples Submitted: July 31, 2015  
Laboratory Reference: 1507-254  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 7-31-15

Client ID	Lab ID	% Moisture
SS-5	07-254-01	8



### 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-naphthalene) 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



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

# Chain of Custody

Company: GEOENGINEERS  
 Project Number: 21138-001-03  
 Project Name: 9th & LENORA PROJECT  
 Project Manager: FASIH KHAN  
 Sampled by: FASIH KHAN

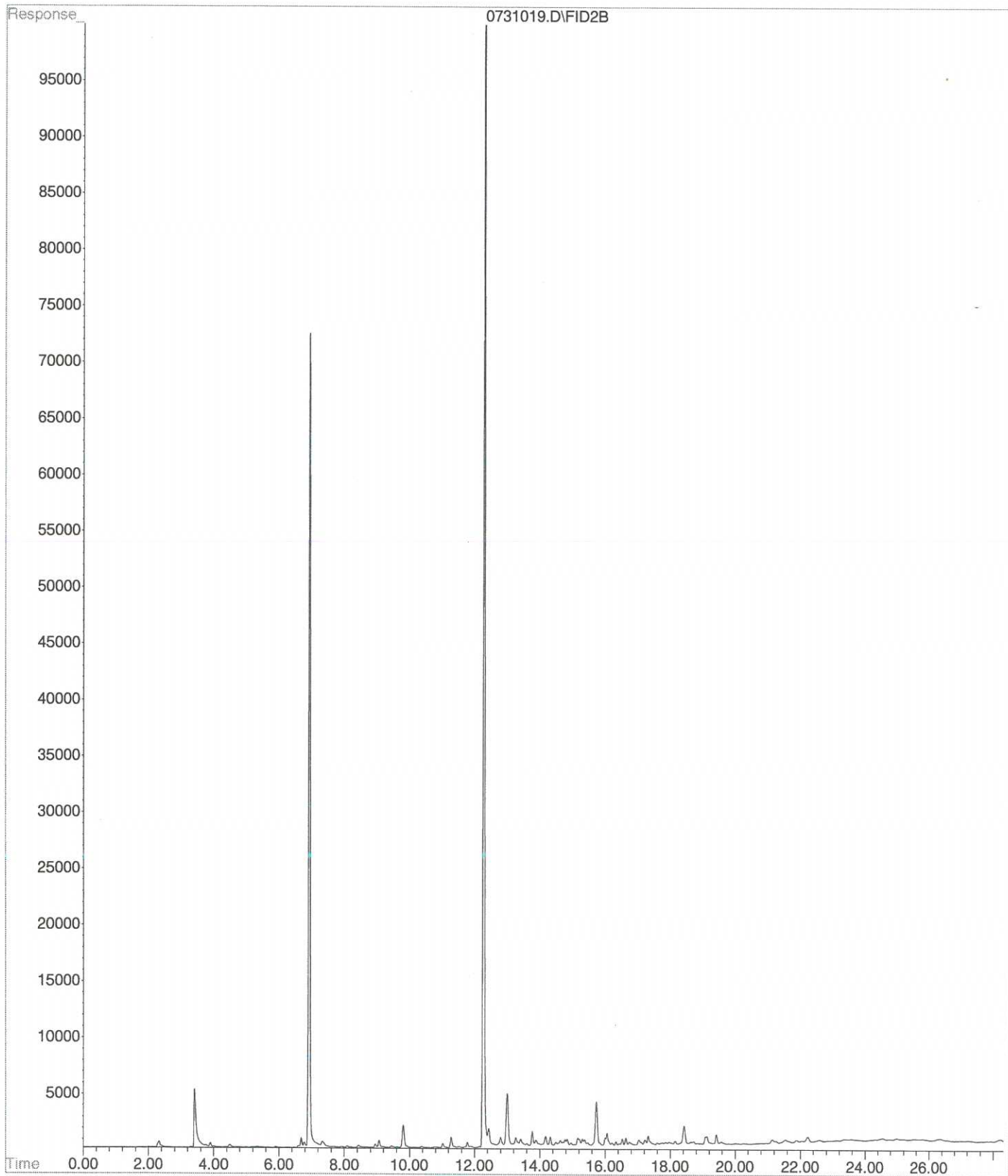
**Turnaround Request (in working days)**  
 (Check One)  
 Same Day  
 1 Day  
 2 Days  
 3 Days  
 Standard (7 Days) (TPH analysis 5 Days)  
 \_\_\_\_\_ (other)

**Laboratory Number: 07-254**

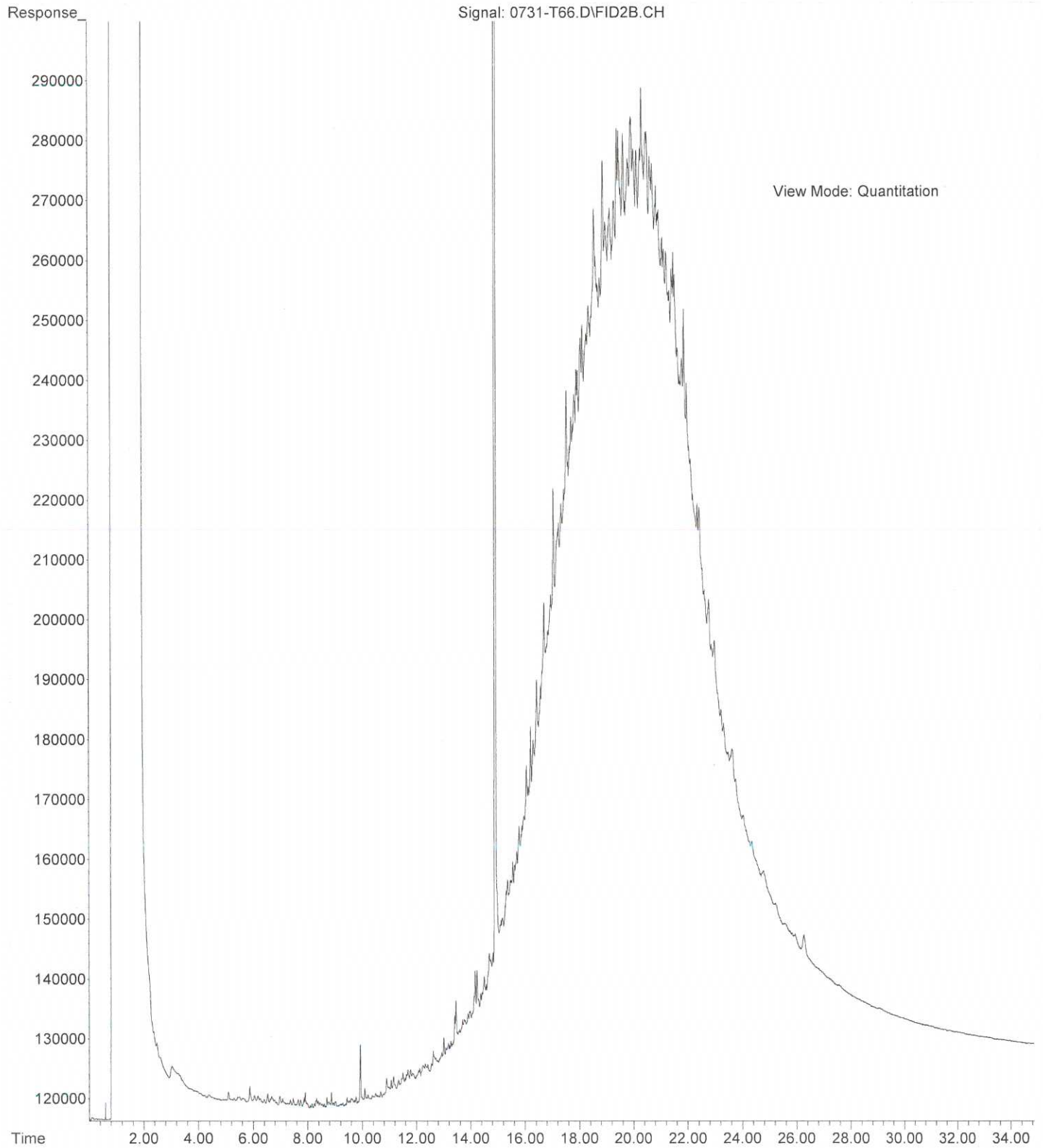
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticicides 8081B	Organophosphorus Pesticicides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture	
1	SS-5	7/31/15	0930	S	2		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															<input checked="" type="checkbox"/>

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEE	7/31/15	1155	
Received		LOBE	7/31/15	1155	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/>

File : D:\BTEX\DATA\D150731\0731019.D  
Operator :  
Acquired : 1 Aug 2015 00:24 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 07-254-01 1:100  
Misc Info :  
Vial Number: 19



File :X:\DIESELS\TERI\DATA\T150731.SEC\0731-T66.D  
Operator : ZT  
Acquired : 01 Aug 2015 0:27 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 07-254-01  
Misc Info :  
Vial Number: 66





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August 7, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-030

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 6, 2015.

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,

A handwritten signature in black ink, appearing to read 'DB', with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 7, 2015  
Samples Submitted: August 6, 2015  
Laboratory Reference: 1508-030  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 5, 2015 and received by the laboratory on August 6, 2015. 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.

Date of Report: August 7, 2015  
Samples Submitted: August 6, 2015  
Laboratory Reference: 1508-030  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-6	08-030-01	Soil	8-5-15	8-6-15	
SS-7	08-030-02	Soil	8-5-15	8-6-15	

Date of Report: August 7, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-030  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SS-6</b>					
Laboratory ID:	08-030-01					
Diesel Range Organics	<b>610</b>	31	NWTPH-Dx	8-6-15	8-6-15	N
Lube Oil	<b>2900</b>	63	NWTPH-Dx	8-6-15	8-6-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	72	50-150				
<b>Client ID:</b>	<b>SS-7</b>					
Laboratory ID:	08-030-02					
Diesel Range Organics	<b>43</b>	35	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	<b>120</b>	69	NWTPH-Dx	8-6-15	8-6-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Date of Report: August 7, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-030  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-6</b>					
Laboratory ID:	08-030-01					
Benzo[a]anthracene	<b>0.40</b>	0.017	EPA 8270D/SIM	8-6-15	8-7-15	
Chrysene	<b>0.40</b>	0.017	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[b]fluoranthene	<b>0.37</b>	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo(j,k)fluoranthene	<b>0.13</b>	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[a]pyrene	<b>0.38</b>	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Indeno(1,2,3-c,d)pyrene	<b>0.23</b>	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Dibenz[a,h]anthracene	<b>0.046</b>	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[g,h,i]perylene	<b>0.23</b>	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>77</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>53</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>86</i>	<i>31 - 116</i>				

Date of Report: August 7, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-030  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-7</b>					
Laboratory ID:	08-030-02					
Benzo[a]anthracene	<b>ND</b>	0.0093	EPA 8270D/SIM	8-6-15	8-6-15	
Chrysene	<b>ND</b>	0.0093	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[b]fluoranthene	<b>ND</b>	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[a]pyrene	<b>ND</b>	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[g,h,i]perylene	<b>ND</b>	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>63</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>82</i>	<i>31 - 116</i>				

Date of Report: August 7, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-030  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0806S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-6-15	8-6-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>88</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-031-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				93	95	50-150		

Date of Report: August 7, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-030  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0806S2					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[j,k]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[g,h,i]perylene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>86</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>90</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>99</i>	<i>31 - 116</i>				

Date of Report: August 7, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-030  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
	SB	SBD	SB	SBD	SB	SBD				
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0806S2									
Naphthalene	<b>0.0712</b>	<b>0.0711</b>	0.0833	0.0833	85	85	63 - 113	0	19	
Acenaphthylene	<b>0.0654</b>	<b>0.0731</b>	0.0833	0.0833	79	88	61 - 125	11	16	
Acenaphthene	<b>0.0684</b>	<b>0.0698</b>	0.0833	0.0833	82	84	66 - 113	2	16	
Fluorene	<b>0.0747</b>	<b>0.0731</b>	0.0833	0.0833	90	88	60 - 117	2	16	
Phenanthrene	<b>0.0723</b>	<b>0.0693</b>	0.0833	0.0833	87	83	63 - 116	4	12	
Anthracene	<b>0.0966</b>	<b>0.0845</b>	0.0833	0.0833	116	101	66 - 146	13	19	
Fluoranthene	<b>0.0733</b>	<b>0.0718</b>	0.0833	0.0833	88	86	60 - 125	2	13	
Pyrene	<b>0.0718</b>	<b>0.0682</b>	0.0833	0.0833	86	82	66 - 126	5	15	
Benzo[a]anthracene	<b>0.0646</b>	<b>0.0661</b>	0.0833	0.0833	78	79	60 - 128	2	15	
Chrysene	<b>0.0749</b>	<b>0.0781</b>	0.0833	0.0833	90	94	60 - 117	4	13	
Benzo[b]fluoranthene	<b>0.0668</b>	<b>0.0694</b>	0.0833	0.0833	80	83	60 - 131	4	16	
Benzo(j,k)fluoranthene	<b>0.0687</b>	<b>0.0690</b>	0.0833	0.0833	82	83	57 - 126	0	20	
Benzo[a]pyrene	<b>0.0700</b>	<b>0.0713</b>	0.0833	0.0833	84	86	62 - 136	2	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0640</b>	<b>0.0645</b>	0.0833	0.0833	77	77	60 - 127	1	19	
Dibenz[a,h]anthracene	<b>0.0653</b>	<b>0.0665</b>	0.0833	0.0833	78	80	62 - 133	2	22	
Benzo[g,h,i]perylene	<b>0.0628</b>	<b>0.0658</b>	0.0833	0.0833	75	79	63 - 129	5	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					83	86	32 - 114			
Pyrene-d10					90	87	33 - 121			
Terphenyl-d14					92	88	31 - 116			

Date of Report: August 7, 2015  
Samples Submitted: August 6, 2015  
Laboratory Reference: 1508-030  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-6-15

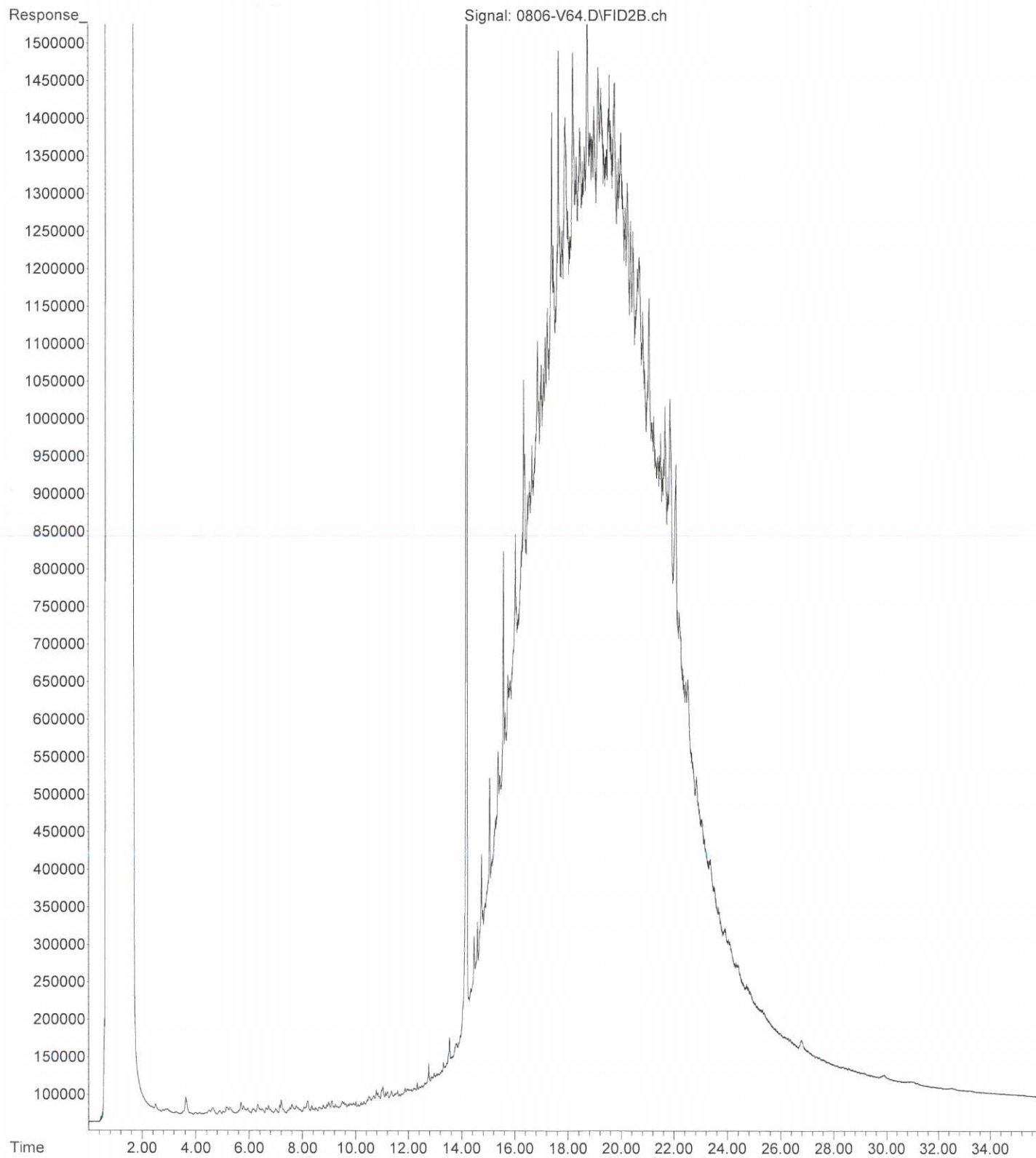
Client ID	Lab ID	% Moisture
SS-6	08-030-01	20
SS-7	08-030-02	28



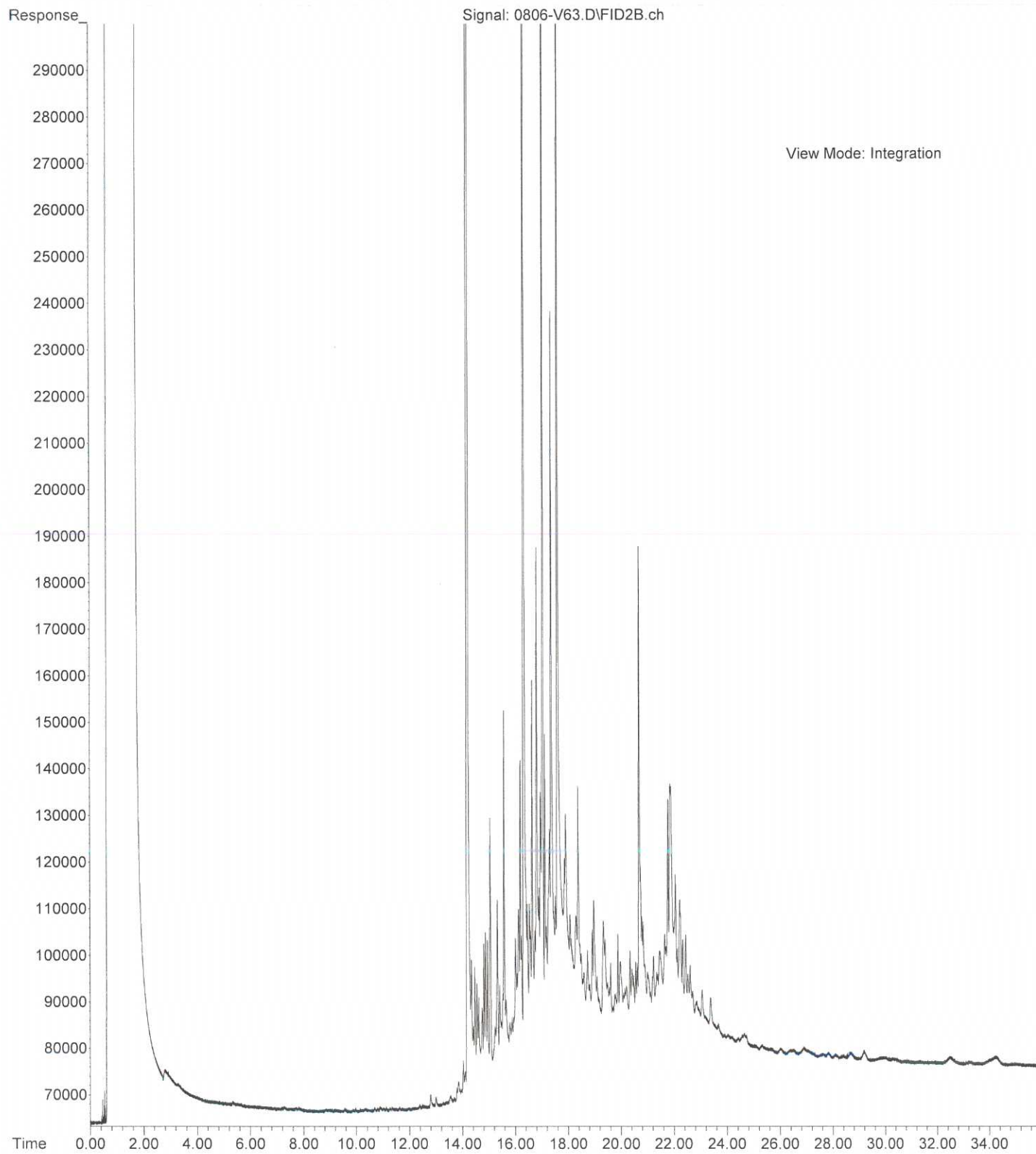
### Data Qualifiers and Abbreviations

- 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-naphthalene) 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

File :X:\DIESELS\VIGO\DATA\V150806.SEC\0806-V64.D  
Operator :  
Acquired : 6 Aug 2015 22:08 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 08-030-01  
Misc Info :  
Vial Number: 64



File :X:\DIESELS\VIGO\DATA\V150806.SEC\0806-V63.D  
Operator :  
Acquired : 6 Aug 2015 21:27 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 08-030-02  
Misc Info :  
Vial Number: 63







14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 14, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-100

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 14, 2015  
Samples Submitted: August 12, 2015  
Laboratory Reference: 1508-100  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 10 and 11, 2015 and received by the laboratory on August 12, 2015. 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.

Date of Report: August 14, 2015  
Samples Submitted: August 12, 2015  
Laboratory Reference: 1508-100  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-8	08-100-01	Soil	8-10-15	8-12-15	

Date of Report: August 14, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-100  
 Project: 21138-001-03

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>SS-8</b>					
Laboratory ID:	08-100-01					
Diesel Range Organics	<b>ND</b>	35	NWTPH-Dx	8-12-15	8-12-15	
Lube Oil	<b>76</b>	71	NWTPH-Dx	8-12-15	8-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>77</i>	<i>50-150</i>				

Date of Report: August 14, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-100  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SS-8</b>					
Laboratory ID:	08-100-01					
Benzo[a]anthracene	<b>0.019</b>	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Chrysene	<b>0.026</b>	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[b]fluoranthene	<b>0.025</b>	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[a]pyrene	<b>0.015</b>	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Indeno(1,2,3-c,d)pyrene	<b>0.014</b>	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>66</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>57</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>63</i>	<i>31 - 116</i>				

Date of Report: August 14, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-100  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0812S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-12-15	8-12-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-12-15	8-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	76	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-091-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	U1
Lube Oil	<b>150</b>	<b>143</b>	NA	NA	NA	5	NA	
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			87	90	50-150			

Date of Report: August 14, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-100  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0813S2					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>100</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>88</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>90</i>	<i>31 - 116</i>				

Date of Report: August 14, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-100  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>		<b>Spike Level</b>		<b>Source Result</b>	<b>Percent Recovery</b>		<b>Recovery Limits</b>	<b>RPD</b>	<b>RPD Limit</b>	<b>Flags</b>
<b>MATRIX SPIKES</b>											
Laboratory ID:	08-100-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	<b>0.144</b>	<b>0.168</b>	0.167	0.167	0.0371	64	78	44 - 107	15	29	
Acenaphthylene	<b>0.105</b>	<b>0.113</b>	0.167	0.167	ND	63	68	44 - 121	7	27	
Acenaphthene	<b>0.118</b>	<b>0.119</b>	0.167	0.167	ND	71	71	47 - 109	1	26	
Fluorene	<b>0.126</b>	<b>0.123</b>	0.167	0.167	ND	75	74	49 - 115	2	28	
Phenanthrene	<b>0.177</b>	<b>0.158</b>	0.167	0.167	0.0609	70	58	45 - 114	11	26	
Anthracene	<b>0.169</b>	<b>0.160</b>	0.167	0.167	0.00766	97	91	43 - 140	5	27	
Fluoranthene	<b>0.136</b>	<b>0.125</b>	0.167	0.167	0.0225	68	61	44 - 126	8	27	
Pyrene	<b>0.151</b>	<b>0.122</b>	0.167	0.167	0.0197	79	61	43 - 125	21	27	
Benzo[a]anthracene	<b>0.135</b>	<b>0.127</b>	0.167	0.167	0.0134	73	68	42 - 134	6	27	
Chrysene	<b>0.132</b>	<b>0.126</b>	0.167	0.167	0.0182	68	65	45 - 114	5	27	
Benzo[b]fluoranthene	<b>0.129</b>	<b>0.128</b>	0.167	0.167	0.0176	67	66	38 - 131	1	33	
Benzo(j,k)fluoranthene	<b>0.116</b>	<b>0.103</b>	0.167	0.167	ND	69	62	44 - 114	12	34	
Benzo[a]pyrene	<b>0.124</b>	<b>0.116</b>	0.167	0.167	0.0104	68	63	40 - 136	7	29	
Indeno(1,2,3-c,d)pyrene	<b>0.112</b>	<b>0.110</b>	0.167	0.167	0.0101	61	60	45 - 126	2	30	
Dibenz[a,h]anthracene	<b>0.103</b>	<b>0.102</b>	0.167	0.167	ND	62	61	46 - 121	1	28	
Benzo[g,h,i]perylene	<b>0.114</b>	<b>0.111</b>	0.167	0.167	0.0105	62	60	43 - 120	3	31	
<i>Surrogate:</i>											
2-Fluorobiphenyl						64	74	32 - 114			
Pyrene-d10						76	64	33 - 121			
Terphenyl-d14						91	70	31 - 116			

Date of Report: August 14, 2015  
Samples Submitted: August 12, 2015  
Laboratory Reference: 1508-100  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-12-15

Client ID	Lab ID	% Moisture
SS-8	08-100-01	29

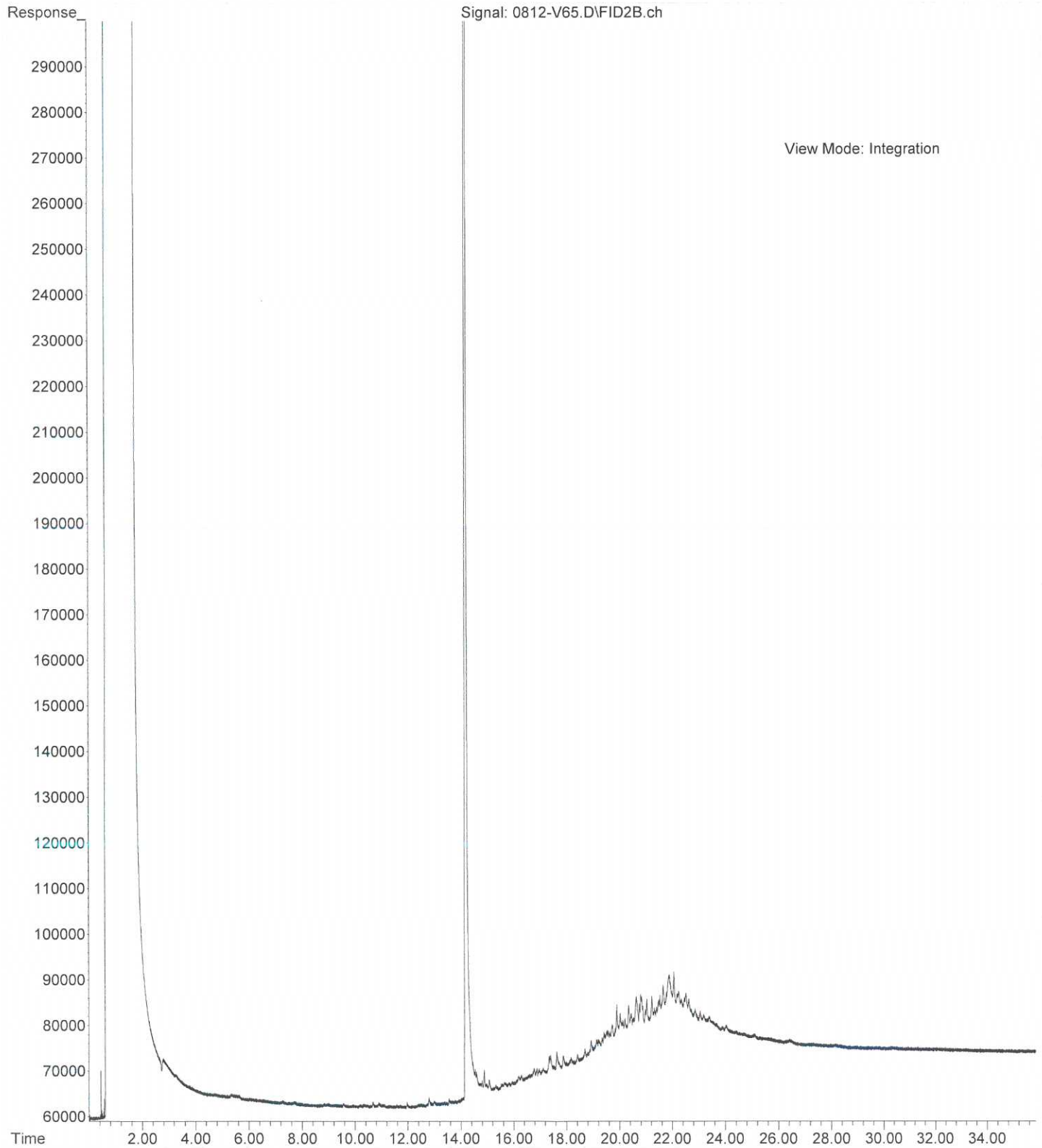


### Data Qualifiers and Abbreviations

- 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-naphthalene) 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



File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V65.D  
Operator :  
Acquired : 12 Aug 2015 21:58 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 08-100-01  
Misc Info :  
Vial Number: 65





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 28, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-267

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 27, 2015.

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,

A handwritten signature in black ink, appearing to read 'DB', with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 28, 2015  
Samples Submitted: August 27, 2015  
Laboratory Reference: 1508-267  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 26, 2015 and received by the laboratory on August 27, 2015. 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/BTEX 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: August 28, 2015  
Samples Submitted: August 27, 2015  
Laboratory Reference: 1508-267  
Project: 21138-001-03

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2 EX-E-35.0	08-267-01	Soil	8-26-15	8-27-15	
UST2 EX-B1-35.0	08-267-02	Soil	8-26-15	8-27-15	

Date of Report: August 28, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-267  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UST2 EX-E-35.0</b>					
Laboratory ID:	08-267-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	<b>ND</b>	0.069	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	<b>ND</b>	0.069	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	<b>ND</b>	0.069	EPA 8021B	8-27-15	8-27-15	
o-Xylene	<b>ND</b>	0.069	EPA 8021B	8-27-15	8-27-15	
Gasoline	<b>ND</b>	6.9	NWTPH-Gx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>89</i>	<i>68-123</i>				
<b>Client ID:</b>	<b>UST2 EX-B1-35.0</b>					
Laboratory ID:	08-267-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	<b>ND</b>	0.063	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	<b>ND</b>	0.063	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	<b>ND</b>	0.063	EPA 8021B	8-27-15	8-27-15	
o-Xylene	<b>ND</b>	0.063	EPA 8021B	8-27-15	8-27-15	
Gasoline	<b>ND</b>	6.3	NWTPH-Gx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>83</i>	<i>68-123</i>				

Date of Report: August 28, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-267  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2 EX-E-35.0</b>					
Laboratory ID:	08-267-01					
Diesel Range Organics	<b>ND</b>	32	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	<b>ND</b>	64	NWTPH-Dx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				
<b>Client ID:</b>	<b>UST2 EX-B1-35.0</b>					
Laboratory ID:	08-267-02					
Diesel Range Organics	<b>ND</b>	26	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	<b>ND</b>	53	NWTPH-Dx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				

Date of Report: August 28, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-267  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2 EX-E-35.0</b>					
Laboratory ID:	08-267-01					
Naphthalene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>62</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>60</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>63</i>	<i>31 - 116</i>				

Date of Report: August 28, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-267  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2 EX-B1-35.0</b>					
Laboratory ID:	08-267-02					
Naphthalene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	ND	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>55</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>52</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>54</i>	<i>31 - 116</i>				

Date of Report: August 28, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-267  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0827S1					
Benzene	ND	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	ND	0.050	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	ND	0.050	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	ND	0.050	EPA 8021B	8-27-15	8-27-15	
o-Xylene	ND	0.050	EPA 8021B	8-27-15	8-27-15	
Gasoline	ND	5.0	NWTPH-Gx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	84	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-267-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				89	94	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0827S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.887	0.952	1.00	1.00	89	95	75-117	7	13
Toluene	0.891	0.943	1.00	1.00	89	94	78-118	6	12
Ethyl Benzene	0.883	0.925	1.00	1.00	88	93	78-118	5	12
m,p-Xylene	0.903	0.980	1.00	1.00	90	98	78-121	8	13
o-Xylene	0.891	0.916	1.00	1.00	89	92	77-119	3	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					82	84	68-123		

Date of Report: August 28, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-267  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0827S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>94</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-267-02							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				<i>83</i>	<i>87</i>	<i>50-150</i>		

Date of Report: August 28, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-267  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0827S1					
Naphthalene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>82</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>87</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>92</i>	<i>31 - 116</i>				

Date of Report: August 28, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-267  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent		Recovery		RPD	Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	08-263-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	0.0583	0.0615	0.0833	0.0833	ND	70	74	44 - 107	5	29	
Acenaphthylene	0.0581	0.0652	0.0833	0.0833	ND	70	78	44 - 121	12	27	
Acenaphthene	0.0579	0.0636	0.0833	0.0833	ND	70	76	47 - 109	9	26	
Fluorene	0.0620	0.0653	0.0833	0.0833	ND	74	78	49 - 115	5	28	
Phenanthrene	0.0598	0.0638	0.0833	0.0833	ND	72	77	45 - 114	6	26	
Anthracene	0.100	0.110	0.0833	0.0833	ND	120	132	43 - 140	10	27	
Fluoranthene	0.0584	0.0641	0.0833	0.0833	ND	70	77	44 - 126	9	27	
Pyrene	0.0582	0.0636	0.0833	0.0833	ND	70	76	43 - 125	9	27	
Benzo[a]anthracene	0.0680	0.0727	0.0833	0.0833	ND	82	87	42 - 134	7	27	
Chrysene	0.0597	0.0654	0.0833	0.0833	ND	72	79	45 - 114	9	27	
Benzo[b]fluoranthene	0.0602	0.0651	0.0833	0.0833	ND	72	78	38 - 131	8	33	
Benzo(j,k)fluoranthene	0.0575	0.0636	0.0833	0.0833	ND	69	76	44 - 114	10	34	
Benzo[a]pyrene	0.0580	0.0638	0.0833	0.0833	ND	70	77	40 - 136	10	29	
Indeno(1,2,3-c,d)pyrene	0.0580	0.0623	0.0833	0.0833	ND	70	75	45 - 126	7	30	
Dibenz[a,h]anthracene	0.0597	0.0646	0.0833	0.0833	ND	72	78	46 - 121	8	28	
Benzo[g,h,i]perylene	0.0579	0.0626	0.0833	0.0833	ND	70	75	43 - 120	8	31	
<i>Surrogate:</i>											
2-Fluorobiphenyl						67	84	32 - 114			
Pyrene-d10						71	78	33 - 121			
Terphenyl-d14						75	84	31 - 116			

Date of Report: August 28, 2015  
Samples Submitted: August 27, 2015  
Laboratory Reference: 1508-267  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-27-15

Client ID	Lab ID	% Moisture
UST2 EX-E-35.0	08-267-01	22
UST2 EX-B1-35.0	08-267-02	5

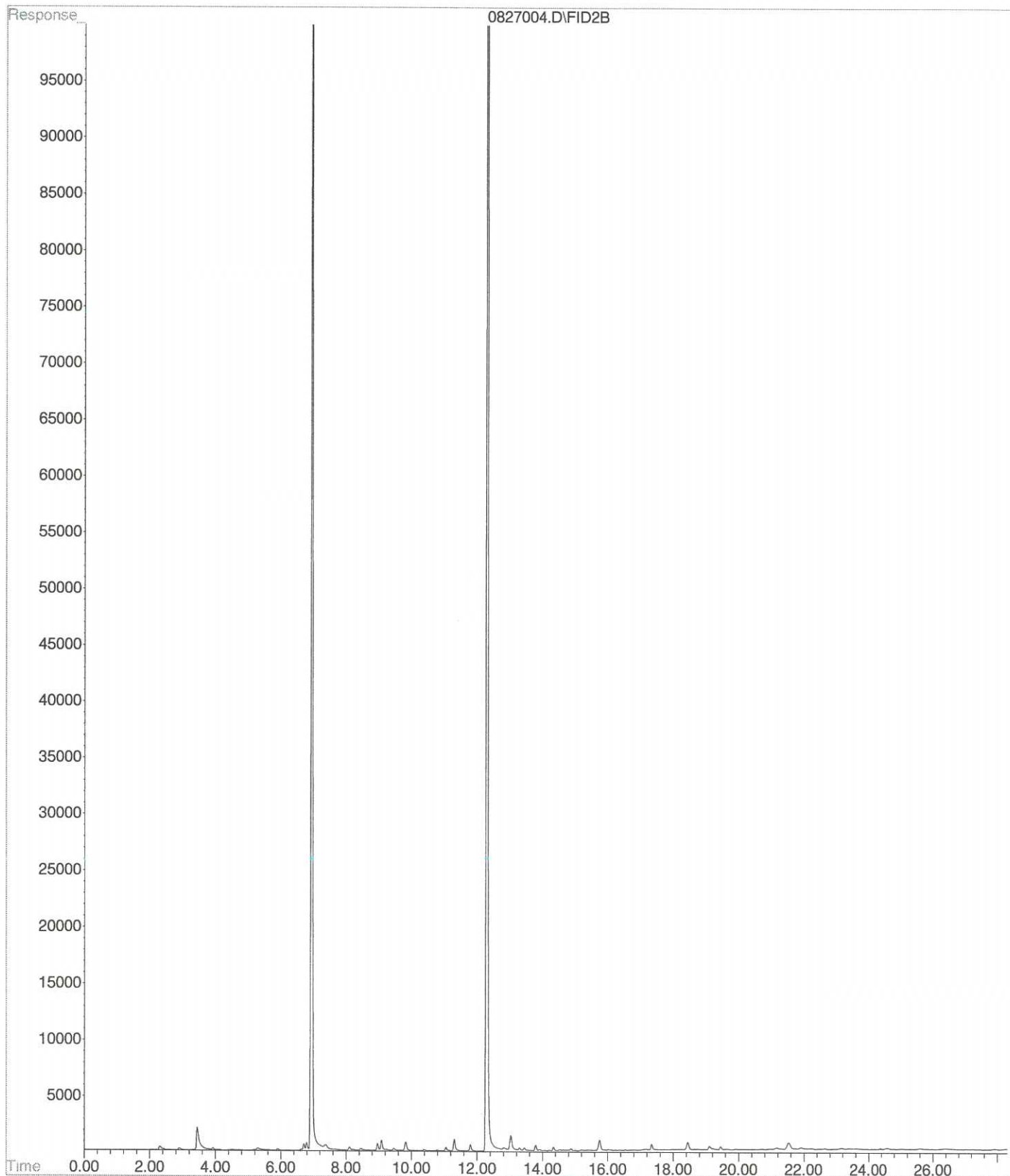


### Data Qualifiers and Abbreviations

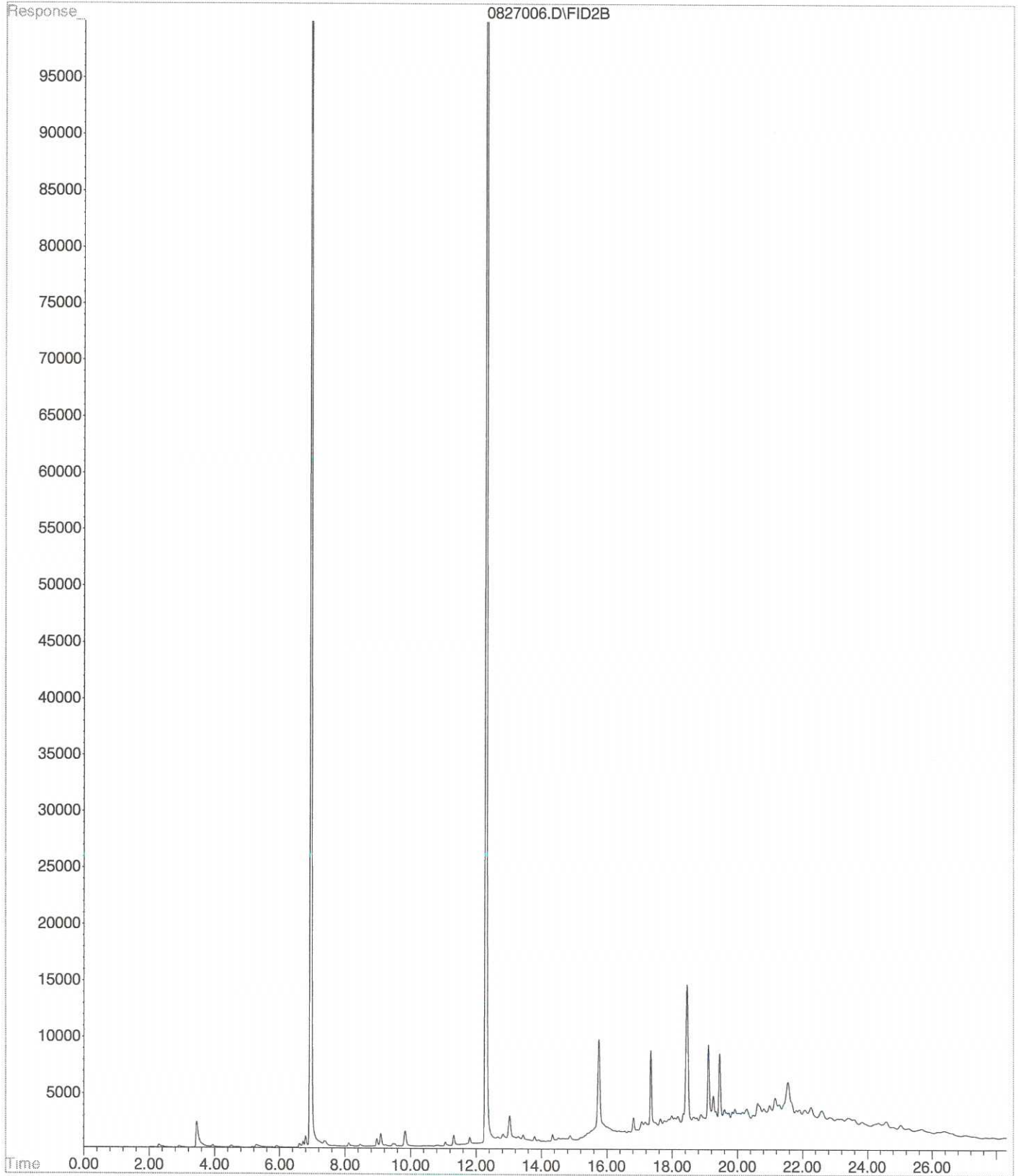
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



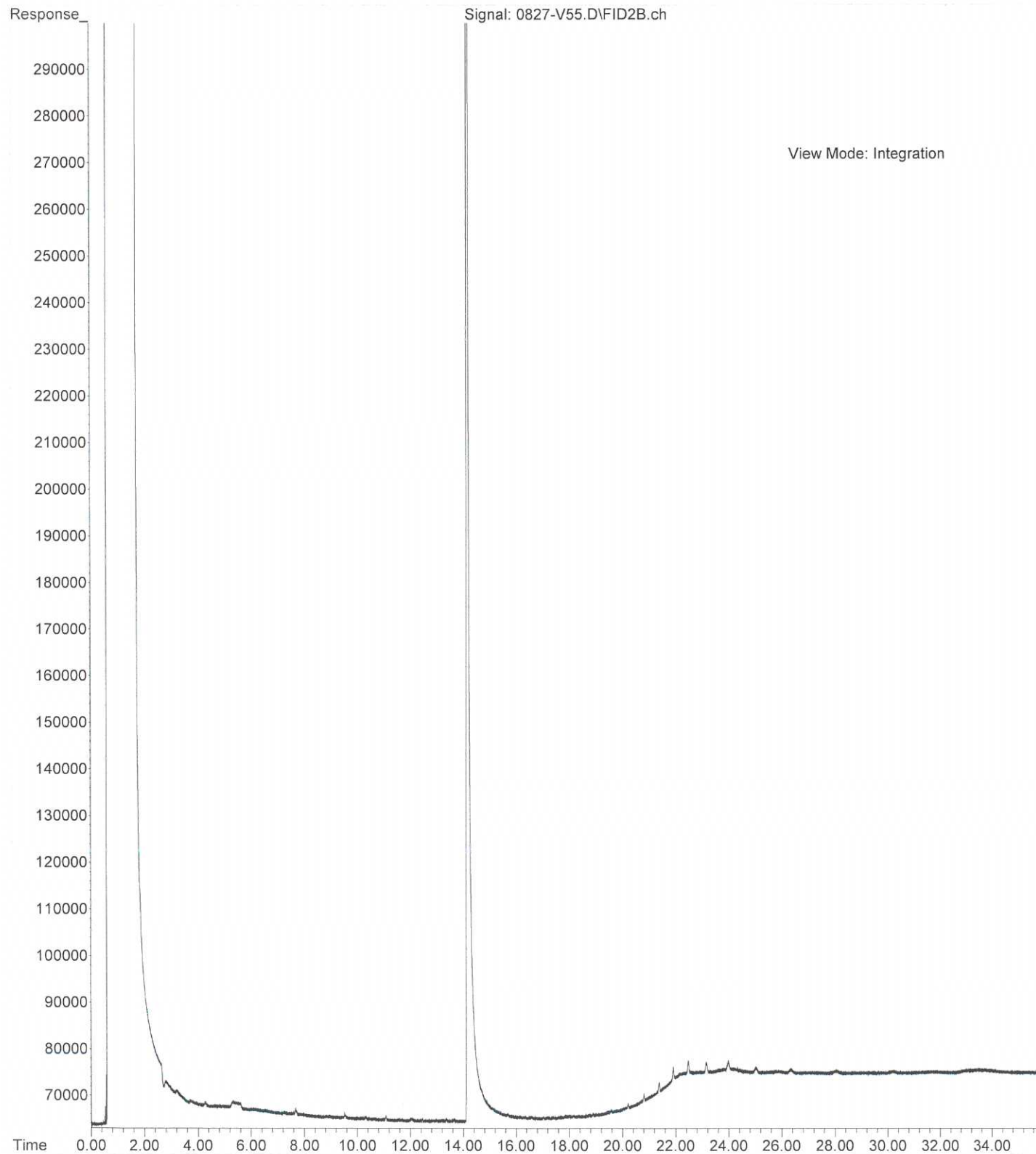
File : X:\BTEX\DARYL\DATA\D150827\0827004.D  
Operator :  
Acquired : 27 Aug 2015 12:40 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-267-01s  
Misc Info : V2-37-21  
Vial Number: 4



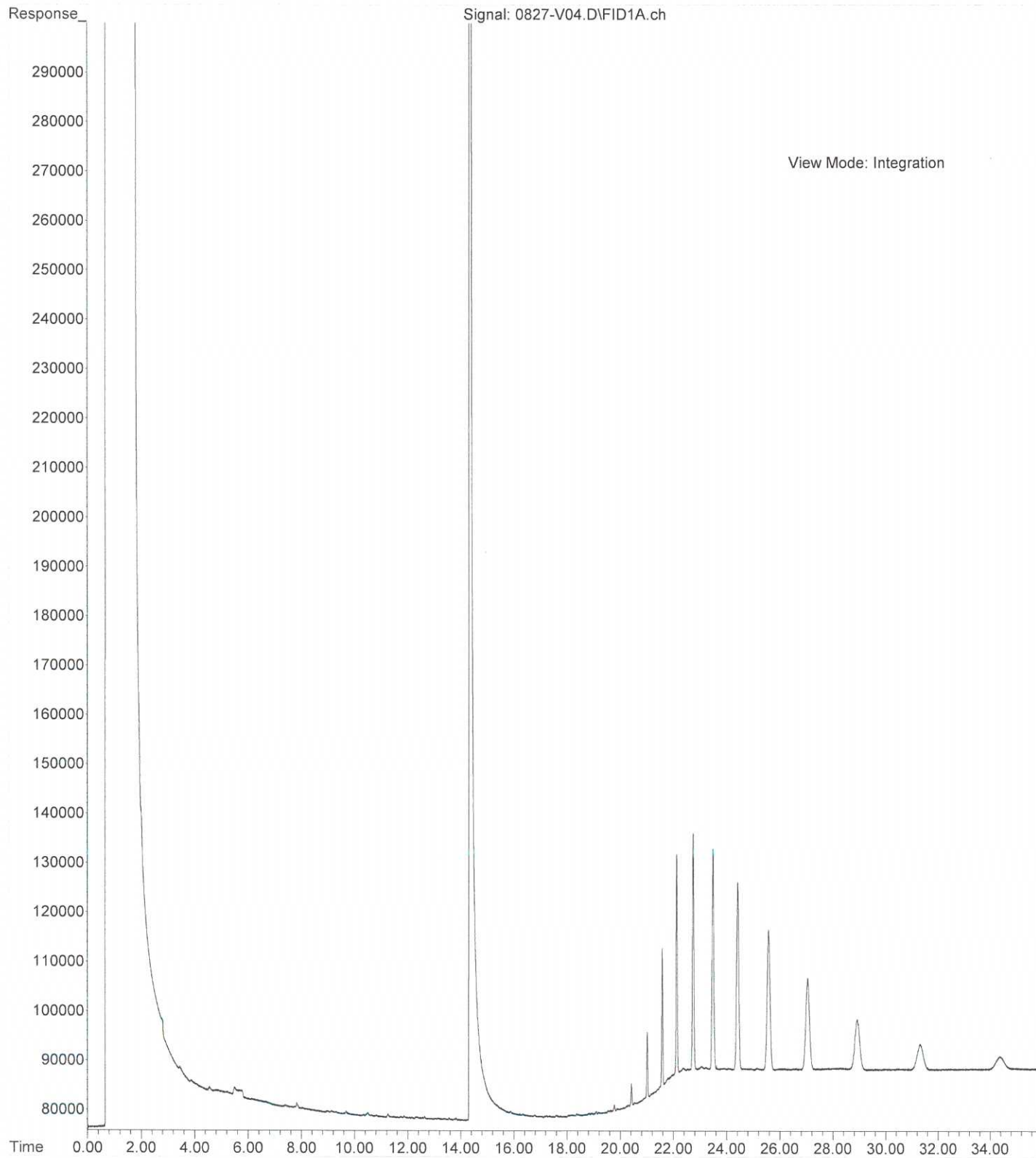
File : X:\BTEX\DARYL\DATA\D150827\0827006.D  
Operator :  
Acquired : 27 Aug 2015 13:49 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-267-02s  
Misc Info : V2-37-21  
Vial Number: 6



File :X:\DIESELS\VIGO\DATA\V150827.SEC\0827-V55.D  
Operator :  
Acquired : 27 Aug 2015 13:12 using AcqMethod V150507F.M  
Instrument : Vigo  
Sample Name: 08-267-01  
Misc Info :  
Vial Number: 55



File :X:\DIESELS\VIGO\DATA\V150827\0827-V04.D  
Operator :  
Acquired : 27 Aug 2015 12:30 using AcqMethod V150507F.M  
Instrument : Vigo  
Sample Name: 08-267-02  
Misc Info :  
Vial Number: 4





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 21, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-200

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 2015.

**Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.**

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: August 21, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-200  
Project: 21138-001-03

### Case Narrative

Samples were collected on August 18, 2015 and received by the laboratory on August 19, 2015. 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 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: August 21, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-200  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
HOIST-EX-7.0	08-200-01	Soil	8-18-15	8-19-15	
UST2EX-S1-24.0	08-200-02	Soil	8-18-15	8-19-15	

Date of Report: August 21, 2015  
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 Laboratory Reference: 1508-200  
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**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UST2EX-S1-24.0</b>					
Laboratory ID:	08-200-02					
Benzene	<b>ND</b>	0.020	EPA 8021B	8-19-15	8-19-15	
Toluene	<b>ND</b>	0.076	EPA 8021B	8-19-15	8-19-15	
Ethyl Benzene	<b>ND</b>	0.076	EPA 8021B	8-19-15	8-19-15	
m,p-Xylene	<b>ND</b>	0.076	EPA 8021B	8-19-15	8-19-15	
o-Xylene	<b>ND</b>	0.076	EPA 8021B	8-19-15	8-19-15	
Gasoline	<b>ND</b>	7.6	NWTPH-Gx	8-19-15	8-19-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	<i>87</i>	<i>68-123</i>				

Date of Report: August 21, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-200  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>HOIST-EX-7.0</b>					
Laboratory ID:	08-200-01					
Diesel Range Organics	<b>ND</b>	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	<b>ND</b>	62	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	71	50-150				
<b>Client ID:</b>	<b>UST2EX-S1-24.0</b>					
Laboratory ID:	08-200-02					
Diesel Range Organics	<b>ND</b>	33	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	<b>ND</b>	65	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	73	50-150				

Date of Report: August 21, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-200  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0819S1					
Benzene	ND	0.020	EPA 8021B	8-19-15	8-19-15	
Toluene	ND	0.050	EPA 8021B	8-19-15	8-19-15	
Ethyl Benzene	ND	0.050	EPA 8021B	8-19-15	8-19-15	
m,p-Xylene	ND	0.050	EPA 8021B	8-19-15	8-19-15	
o-Xylene	ND	0.050	EPA 8021B	8-19-15	8-19-15	
Gasoline	ND	5.0	NWTPH-Gx	8-19-15	8-19-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	81	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-097-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				86	87	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0819S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.876	0.912	1.00	1.00	88	91	75-117	4	13
Toluene	0.866	0.906	1.00	1.00	87	91	78-118	5	12
Ethyl Benzene	0.851	0.892	1.00	1.00	85	89	78-118	5	12
m,p-Xylene	0.865	0.906	1.00	1.00	87	91	78-121	5	13
o-Xylene	0.866	0.902	1.00	1.00	87	90	77-119	4	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					81	85	68-123		

Date of Report: August 21, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-200  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0820S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	111	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-203-04							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil	<b>71.9</b>	<b>65.6</b>	NA	NA	NA	NA	9	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			101	95	50-150			

Date of Report: August 21, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-200  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-20-15

Client ID	Lab ID	% Moisture
HOIST-EX-7.0	08-200-01	19
UST2EX-S1-24.0	08-200-02	23

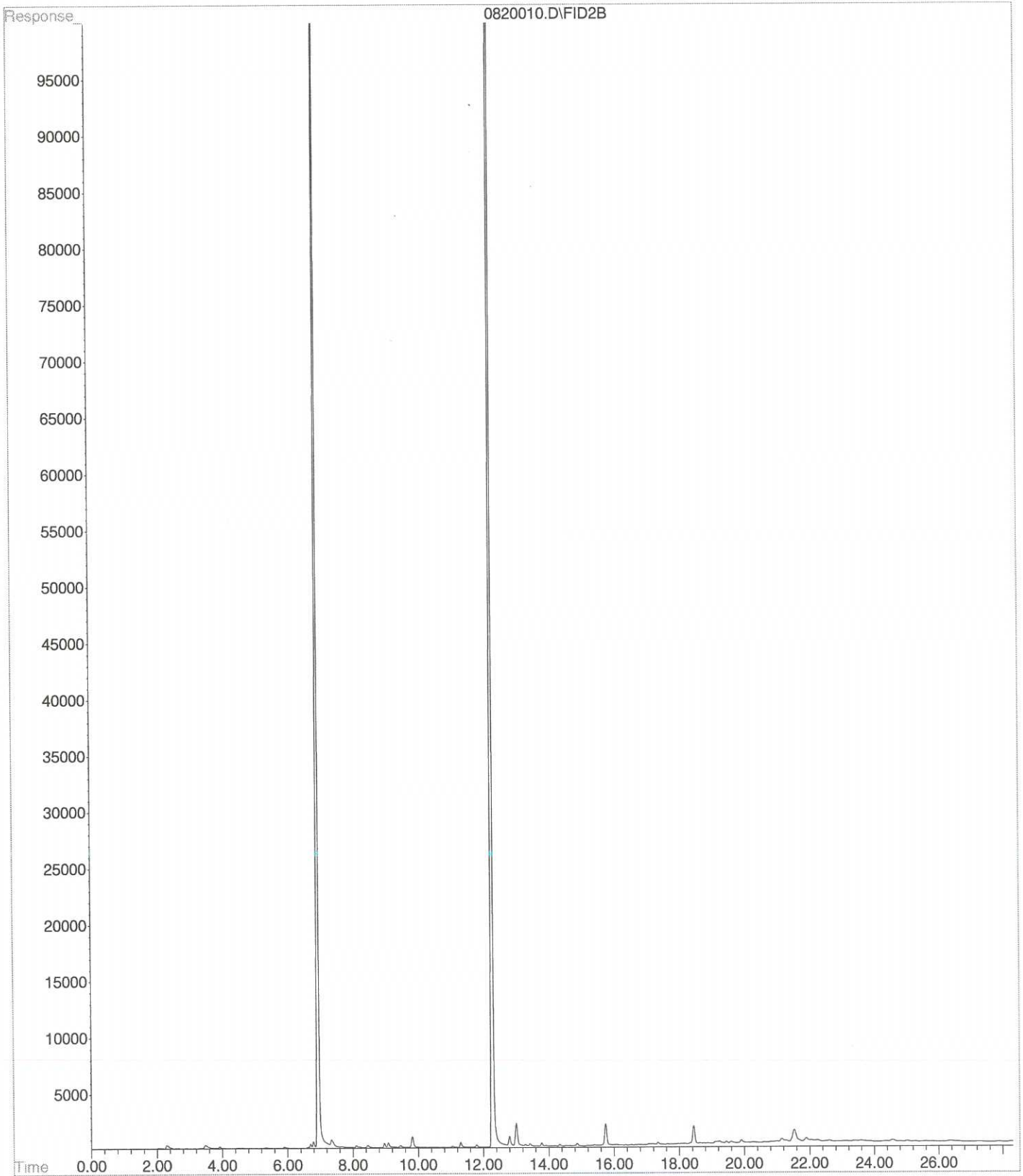


### Data Qualifiers and Abbreviations

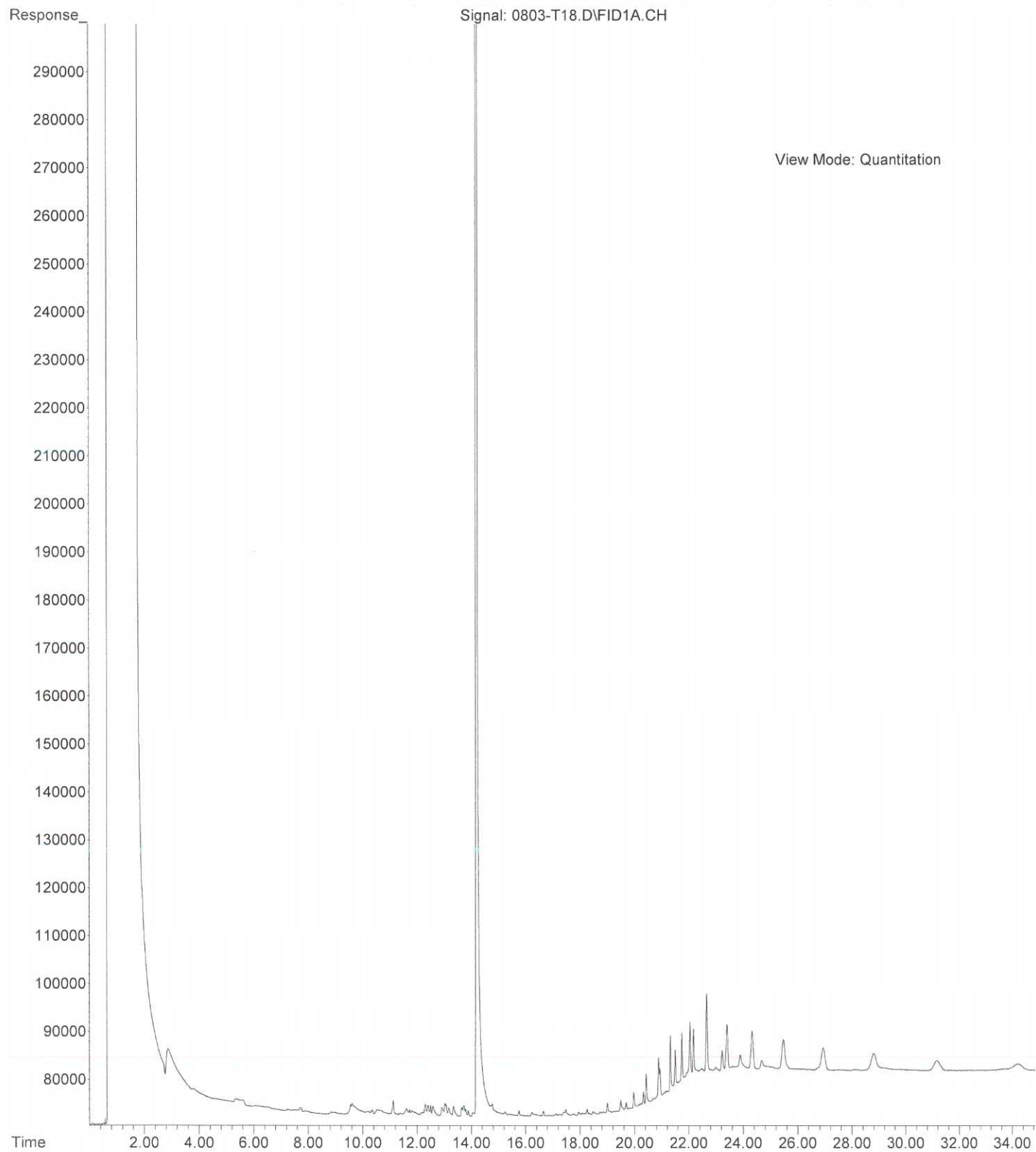
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



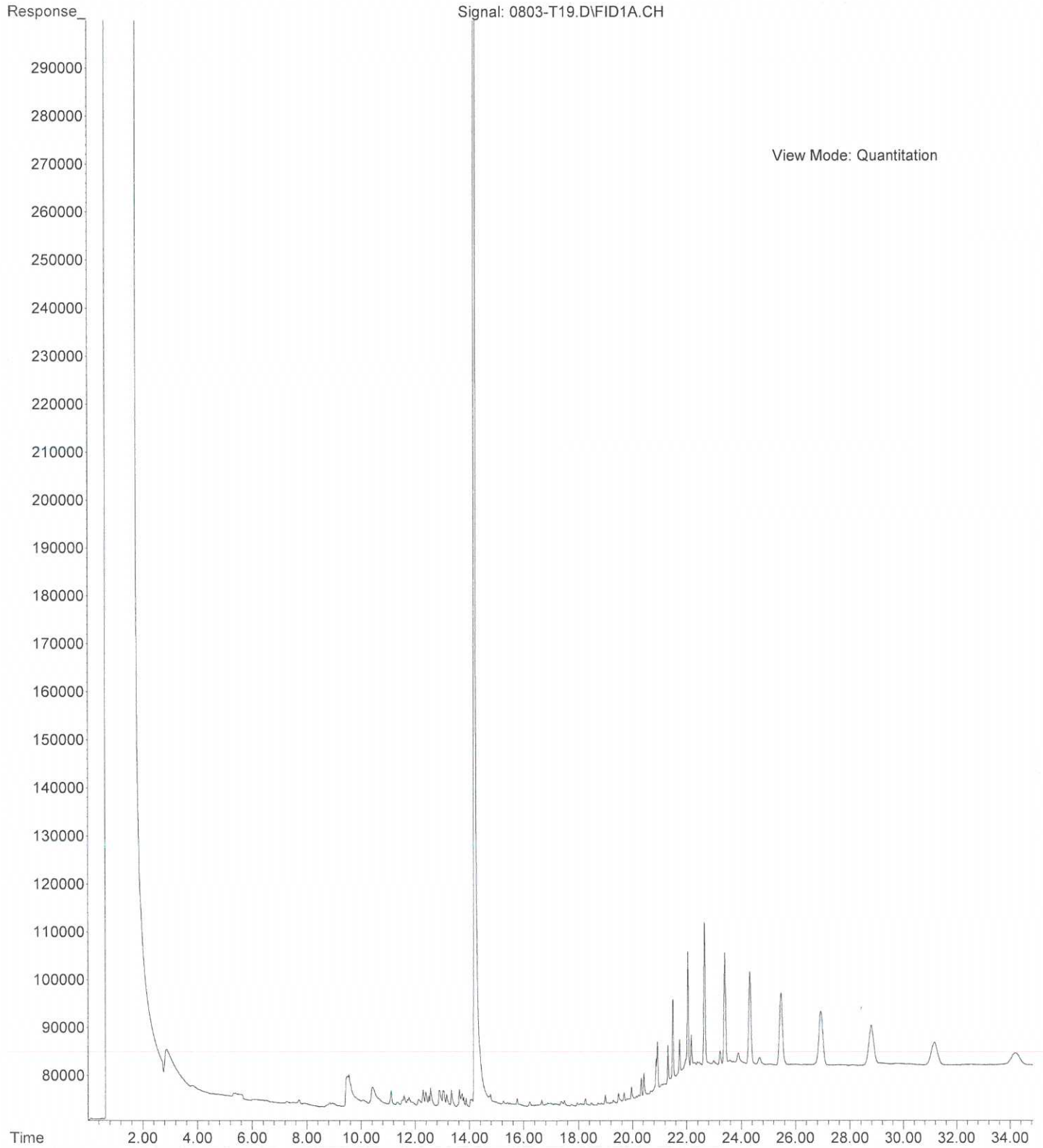
File : X:\BTEX\DARYL\DATA\D150820\0820010.D  
Operator :  
Acquired : 20 Aug 2015 19:20 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-200-02s  
Misc Info : V2-37-21  
Vial Number: 10



File :X:\DIESELS\TERI\DATA\T150820\0803-T18.D  
Operator : ZT  
Acquired : 21 Aug 2015 3:40 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-200-01  
Misc Info :  
Vial Number: 18



File :X:\DIESELS\TERI\DATA\T150820\0803-T19.D  
Operator : ZT  
Acquired : 21 Aug 2015 4:23 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-200-02  
Misc Info :  
Vial Number: 19





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 25, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-216

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 21, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 25, 2015  
Samples Submitted: August 21, 2015  
Laboratory Reference: 1508-216  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 20, 2015 and received by the laboratory on August 21, 2015. 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.

Date of Report: August 25, 2015  
Samples Submitted: August 21, 2015  
Laboratory Reference: 1508-216  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-E-24.0	08-216-01	Soil	8-20-15	8-21-15	
UST2EX-S2-22.0	08-216-02	Soil	8-20-15	8-21-15	
UST2EX-W1-22.0	08-216-03	Soil	8-20-15	8-21-15	
UST2EX-W1-24.0	08-216-04	Soil	8-20-15	8-21-15	
UST2EX-W2-24.0	08-216-05	Soil	8-20-15	8-21-15	

Date of Report: August 25, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-216  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-E-24.0</b>					
Laboratory ID:	08-216-01					
Diesel Range Organics	ND	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	ND	64	NWTPH-Dx	8-21-15	8-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	95	50-150				
<b>Client ID:</b>	<b>UST2EX-S2-22.0</b>					
Laboratory ID:	08-216-02					
Diesel Range Organics	ND	31	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	ND	61	NWTPH-Dx	8-21-15	8-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				
<b>Client ID:</b>	<b>UST2EX-W1-22.0</b>					
Laboratory ID:	08-216-03					
Diesel Range Organics	ND	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	ND	64	NWTPH-Dx	8-21-15	8-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				
<b>Client ID:</b>	<b>UST2EX-W1-24.0</b>					
Laboratory ID:	08-216-04					
Diesel Range Organics	1700	33	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil	19000	1300	NWTPH-Dx	8-21-15	8-24-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S
<b>Client ID:</b>	<b>UST2EX-W2-24.0</b>					
Laboratory ID:	08-216-05					
Diesel Range Organics	ND	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	ND	63	NWTPH-Dx	8-21-15	8-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Date of Report: August 25, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-216  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-E-24.0</b>					
Laboratory ID:	08-216-01					
Naphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>85</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>68</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>83</i>	<i>31 - 116</i>				

Date of Report: August 25, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-216  
 Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-S2-22.0</b>					
Laboratory ID:	08-216-02					
Naphthalene	<b>0.0088</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	<b>0.029</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	<b>0.019</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>77</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>83</i>	<i>31 - 116</i>				

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 Laboratory Reference: 1508-216  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-W1-22.0</b>					
Laboratory ID:	08-216-03					
Naphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>79</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>70</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>87</i>	<i>31 - 116</i>				

Date of Report: August 25, 2015  
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 Laboratory Reference: 1508-216  
 Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-W1-24.0</b>					
Laboratory ID:	08-216-04					
Naphthalene	<b>1.3</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
2-Methylnaphthalene	<b>2.8</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
1-Methylnaphthalene	<b>1.9</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Acenaphthylene	<b>0.036</b>	0.0089	EPA 8270D/SIM	8-21-15	8-24-15	
Acenaphthene	<b>0.080</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Fluorene	<b>0.16</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Phenanthrene	<b>0.40</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Anthracene	<b>0.15</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Fluoranthene	<b>0.21</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Pyrene	<b>0.42</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[a]anthracene	<b>0.17</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Chrysene	<b>0.15</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[b]fluoranthene	<b>0.12</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[a]pyrene	<b>0.11</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Indeno(1,2,3-c,d)pyrene	<b>0.072</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[g,h,i]perylene	<b>0.13</b>	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>73</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>100</i>	<i>31 - 116</i>				

Date of Report: August 25, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-216  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-W2-24.0</b>					
Laboratory ID:	08-216-05					
Naphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	ND	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>59</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>73</i>	<i>31 - 116</i>				

Date of Report: August 25, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-216  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0821S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-21-15	8-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>101</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-215-04							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				111	99	50-150		

Date of Report: August 25, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-216  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0821S1					
Naphthalene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	99	32 - 114				
<i>Pyrene-d10</i>	77	33 - 121				
<i>Terphenyl-d14</i>	96	31 - 116				

Date of Report: August 25, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-216  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
	SB	SBD	SB	SBD	SB	SBD				
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0821S1									
Naphthalene	<b>0.0683</b>	<b>0.0624</b>	0.0833	0.0833	82	75	63 - 113	9	19	
Acenaphthylene	<b>0.0731</b>	<b>0.0651</b>	0.0833	0.0833	88	78	61 - 125	12	16	
Acenaphthene	<b>0.0755</b>	<b>0.0669</b>	0.0833	0.0833	91	80	66 - 113	12	16	
Fluorene	<b>0.0681</b>	<b>0.0614</b>	0.0833	0.0833	82	74	60 - 117	10	16	
Phenanthrene	<b>0.0645</b>	<b>0.0576</b>	0.0833	0.0833	77	69	63 - 116	11	12	
Anthracene	<b>0.104</b>	<b>0.0933</b>	0.0833	0.0833	125	112	66 - 146	11	19	
Fluoranthene	<b>0.0610</b>	<b>0.0560</b>	0.0833	0.0833	73	67	60 - 125	9	13	
Pyrene	<b>0.0679</b>	<b>0.0632</b>	0.0833	0.0833	82	76	66 - 126	7	15	
Benzo[a]anthracene	<b>0.0805</b>	<b>0.0740</b>	0.0833	0.0833	97	89	60 - 128	8	15	
Chrysene	<b>0.0647</b>	<b>0.0606</b>	0.0833	0.0833	78	73	60 - 117	7	13	
Benzo[b]fluoranthene	<b>0.0654</b>	<b>0.0623</b>	0.0833	0.0833	79	75	60 - 131	5	16	
Benzo(j,k)fluoranthene	<b>0.0702</b>	<b>0.0631</b>	0.0833	0.0833	84	76	57 - 126	11	20	
Benzo[a]pyrene	<b>0.0710</b>	<b>0.0655</b>	0.0833	0.0833	85	79	62 - 136	8	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0687</b>	<b>0.0628</b>	0.0833	0.0833	82	75	60 - 127	9	19	
Dibenz[a,h]anthracene	<b>0.0655</b>	<b>0.0607</b>	0.0833	0.0833	79	73	62 - 133	8	22	
Benzo[g,h,i]perylene	<b>0.0689</b>	<b>0.0637</b>	0.0833	0.0833	83	76	63 - 129	8	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					105	84	32 - 114			
Pyrene-d10					82	76	33 - 121			
Terphenyl-d14					99	94	31 - 116			

Date of Report: August 25, 2015  
Samples Submitted: August 21, 2015  
Laboratory Reference: 1508-216  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-21-15

Client ID	Lab ID	% Moisture
UST2EX-E-24.0	08-216-01	22
UST2EX-S2-22.0	08-216-02	18
UST2EX-W1-22.0	08-216-03	22
UST2EX-W1-24.0	08-216-04	25
UST2EX-W2-24.0	08-216-05	21

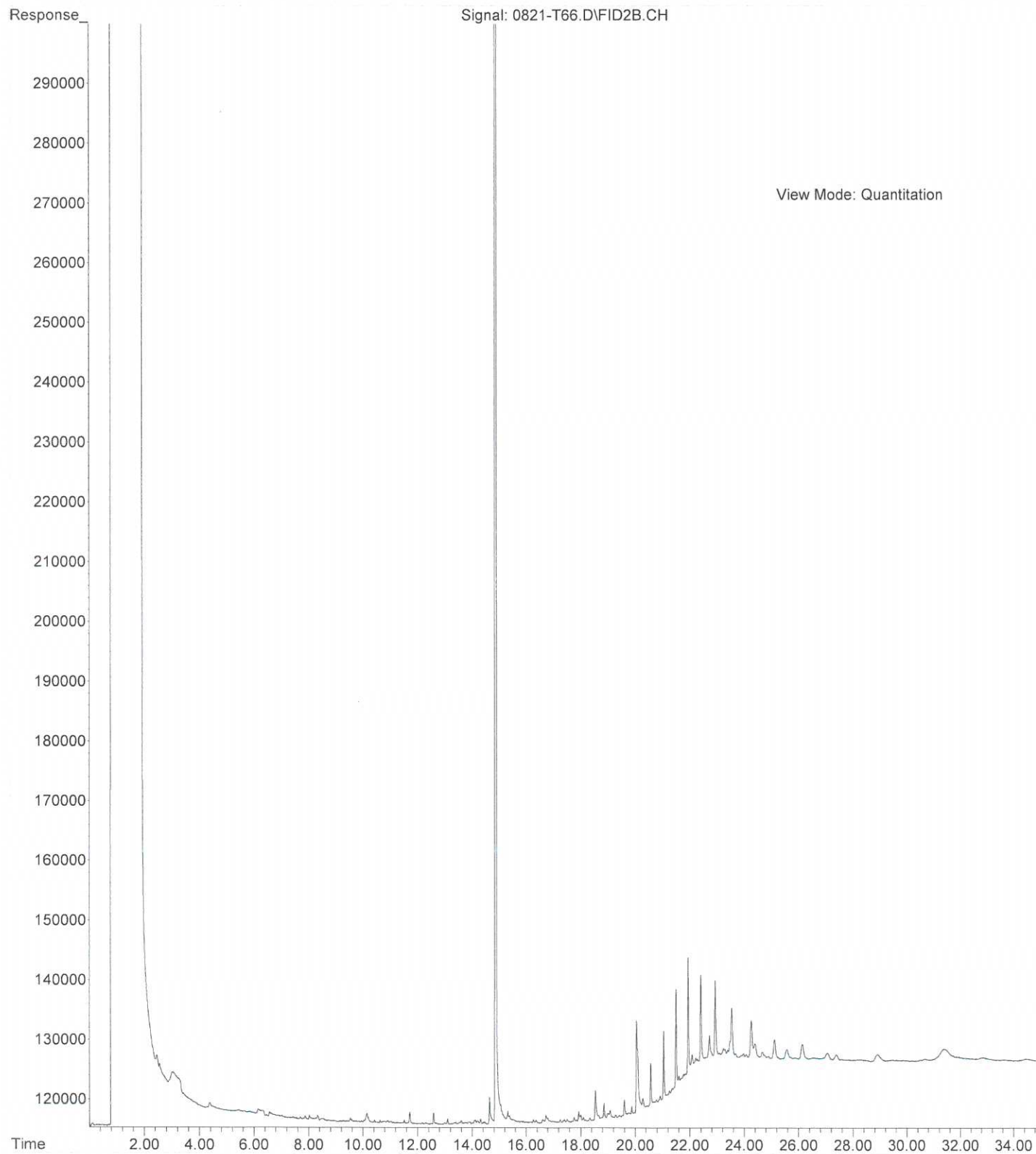


### Data Qualifiers and Abbreviations

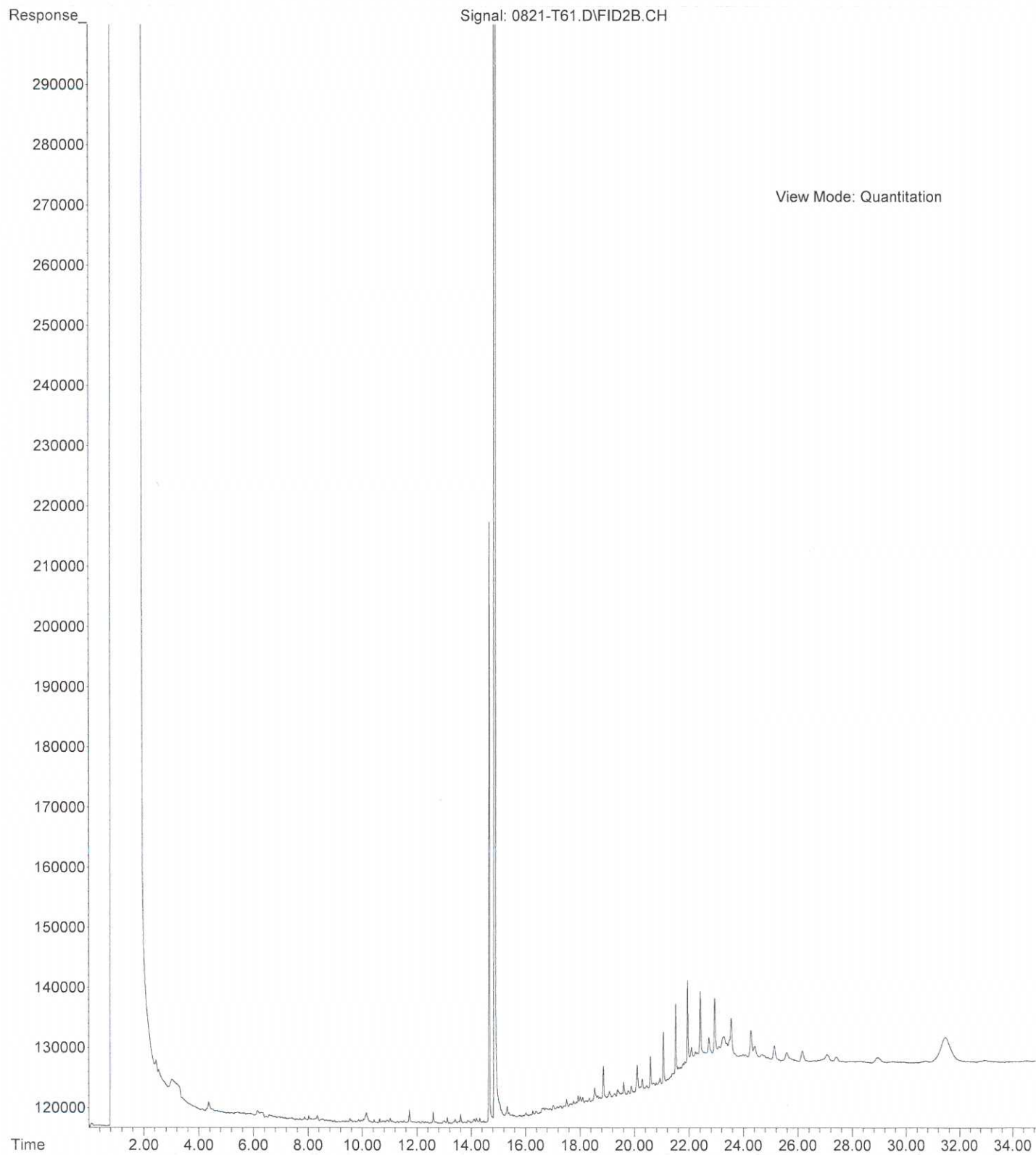
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



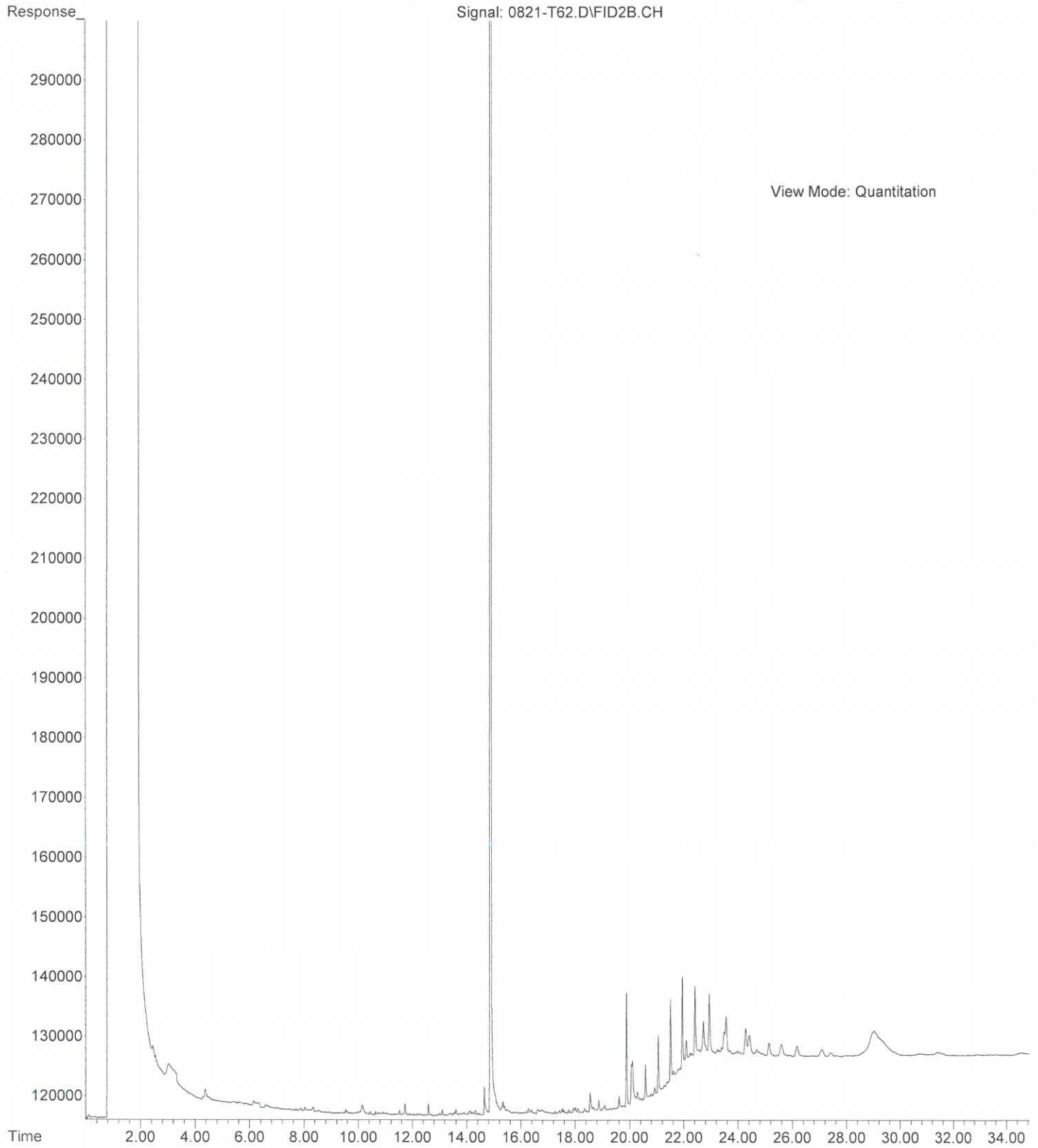
File :X:\DIESELS\TERI\DATA\T150821.SEC\0821-T66.D  
Operator : ZT  
Acquired : 21 Aug 2015 23:45 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-216-01  
Misc Info :  
Vial Number: 66



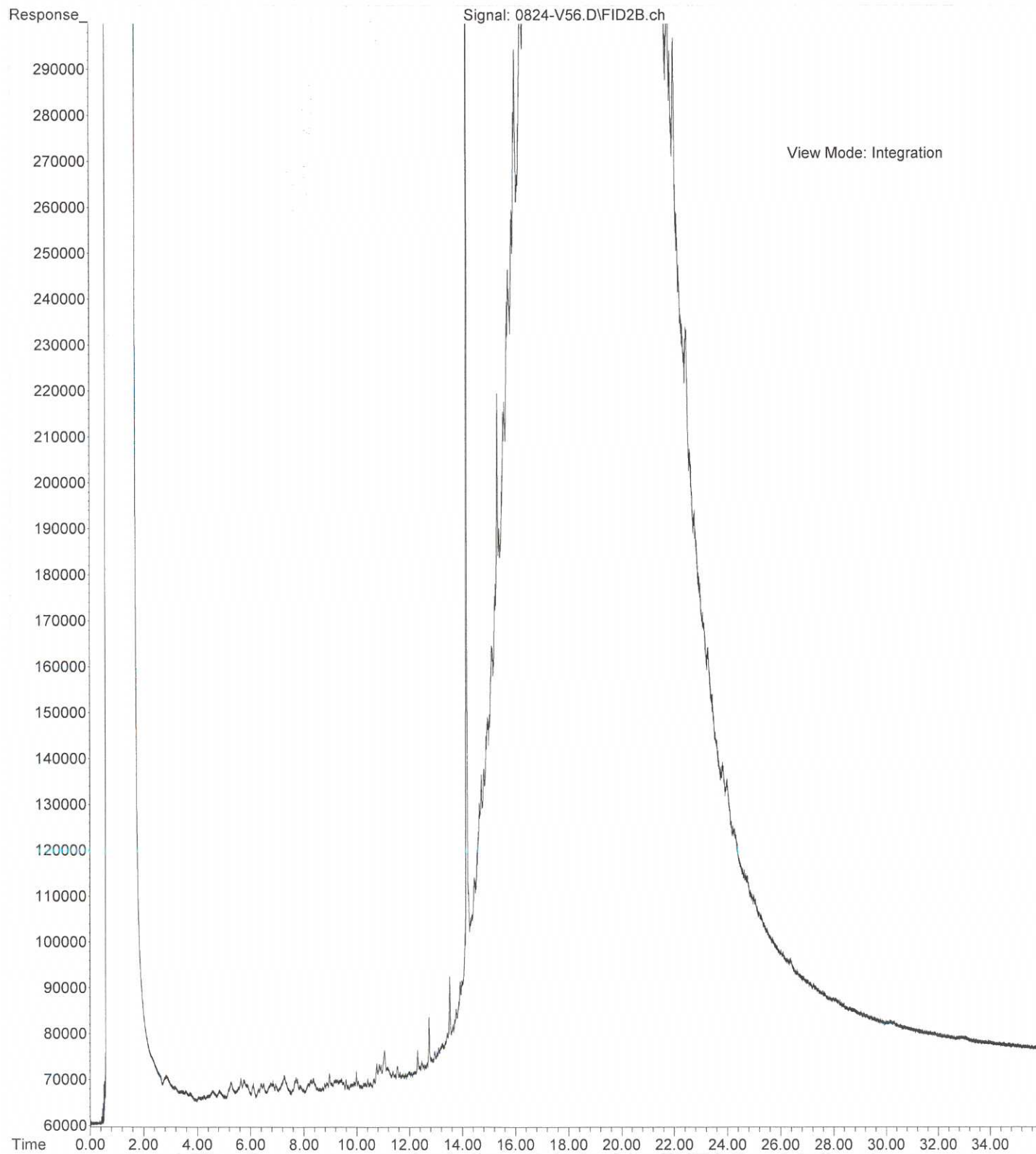
File :X:\DIESELS\TERI\DATA\T150821.SEC\0821-T61.D  
Operator : ZT  
Acquired : 21 Aug 2015 20:09 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-216-02  
Misc Info :  
Vial Number: 61



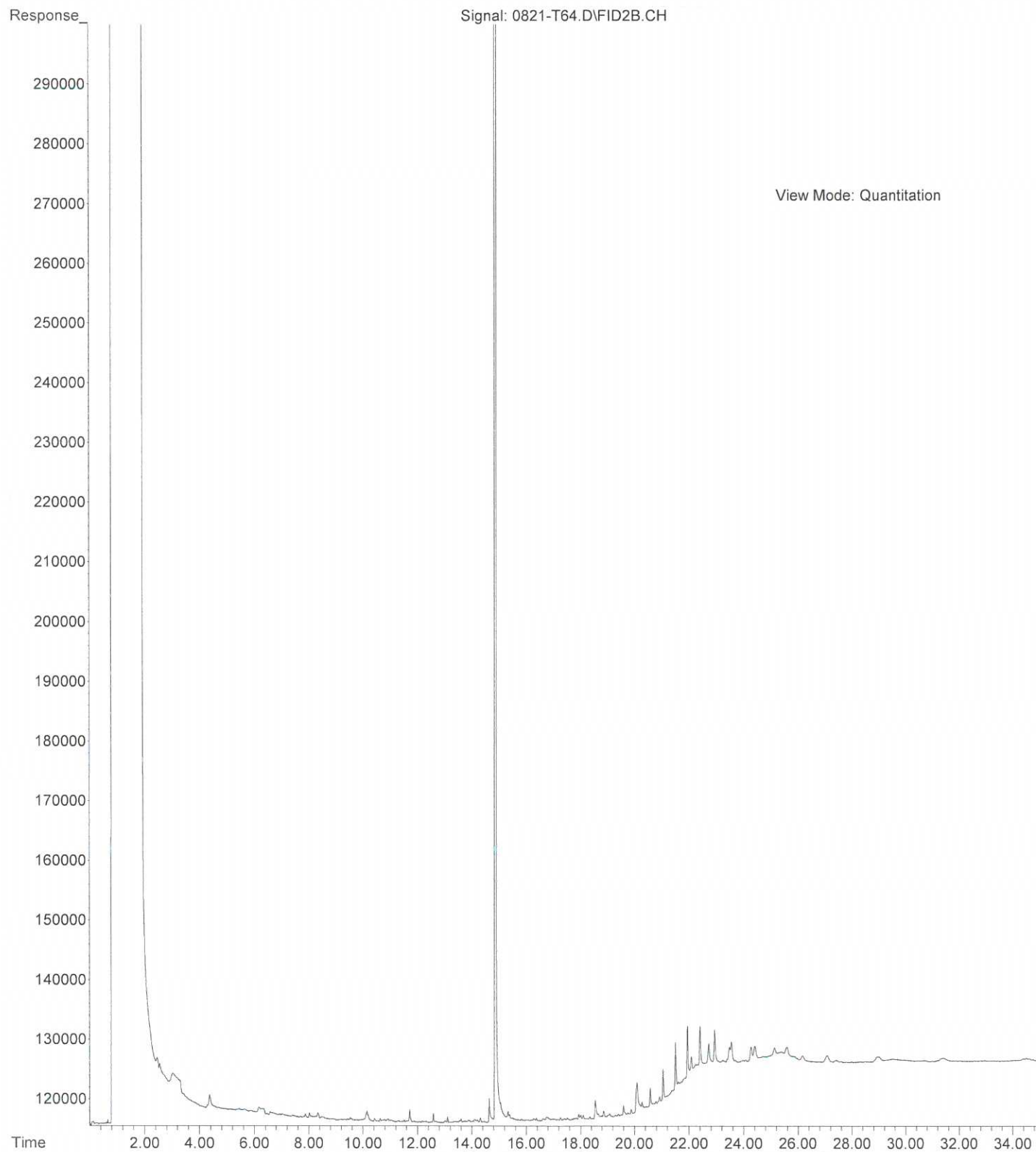
File :X:\DIESELS\TERI\DATA\T150821.SEC\0821-T62.D  
Operator : ZT  
Acquired : 21 Aug 2015 20:52 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-216-03  
Misc Info :  
Vial Number: 62



File :X:\DIESELS\VIGO\DATA\V150824.SEC\0824-V56.D  
Operator :  
Acquired : 24 Aug 2015 12:57 using AcqMethod V150507F.M  
Instrument : Vigo  
Sample Name: 08-216-04 20X  
Misc Info :  
Vial Number: 56



File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T64.D  
Operator : ZT  
Acquired : 21 Aug 2015 22:19 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-216-05  
Misc Info :  
Vial Number: 64





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

September 1, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-268

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 27, 2015.

**Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.**

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: September 1, 2015  
Samples Submitted: August 27, 2015  
Laboratory Reference: 1508-268  
Project: 21138-001-03

### Case Narrative

Samples were collected on August 26, 2015 and received by the laboratory on August 27, 2015. 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/BTEX 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: September 1, 2015  
Samples Submitted: August 27, 2015  
Laboratory Reference: 1508-268  
Project: 21138-001-03

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2 EX-N-33.0	08-268-01	Soil	8-26-15	8-27-15	
UST2 EX-W3-30.0	08-268-02	Soil	8-26-15	8-27-15	

Date of Report: September 1, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-268  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UST2 EX-N-33.0</b>					
Laboratory ID:	08-268-01					
Benzene	ND	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	ND	0.064	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	ND	0.064	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	ND	0.064	EPA 8021B	8-27-15	8-27-15	
o-Xylene	ND	0.064	EPA 8021B	8-27-15	8-27-15	
Gasoline	ND	6.4	NWTPH-Gx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	68-123				
<b>Client ID:</b>	<b>UST2 EX-W3-30.0</b>					
Laboratory ID:	08-268-02					
Benzene	ND	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	ND	0.064	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	ND	0.064	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	ND	0.064	EPA 8021B	8-27-15	8-27-15	
o-Xylene	ND	0.064	EPA 8021B	8-27-15	8-27-15	
Gasoline	ND	6.4	NWTPH-Gx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	111	68-123				

Date of Report: September 1, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-268  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2 EX-N-33.0</b>					
Laboratory ID:	08-268-01					
Diesel Range Organics	<b>ND</b>	33	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	<b>ND</b>	66	NWTPH-Dx	8-27-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				
<b>Client ID:</b>	<b>UST2 EX-W3-30.0</b>					
Laboratory ID:	08-268-02					
Diesel Range Organics	<b>ND</b>	32	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	<b>ND</b>	65	NWTPH-Dx	8-27-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	99	50-150				

Date of Report: September 1, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-268  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2 EX-N-33.0</b>					
Laboratory ID:	08-268-01					
Naphthalene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	ND	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>58</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>57</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>60</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-268  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2 EX-W3-30.0</b>					
<b>Laboratory ID:</b>	<b>08-268-02</b>					
Naphthalene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	ND	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>56</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>59</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-268  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0827S1					
Benzene	ND	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	ND	0.050	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	ND	0.050	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	ND	0.050	EPA 8021B	8-27-15	8-27-15	
o-Xylene	ND	0.050	EPA 8021B	8-27-15	8-27-15	
Gasoline	ND	5.0	NWTPH-Gx	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	84	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-267-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	30	
Toluene	ND	ND	NA	NA	NA	NA	30	
Ethyl Benzene	ND	ND	NA	NA	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA	NA	NA	30	
o-Xylene	ND	ND	NA	NA	NA	NA	30	
Gasoline	ND	ND	NA	NA	NA	NA	30	
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				89	94	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0827S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.887	0.952	1.00	1.00	89	95	75-117	7	13
Toluene	0.891	0.943	1.00	1.00	89	94	78-118	6	12
Ethyl Benzene	0.883	0.925	1.00	1.00	88	93	78-118	5	12
m,p-Xylene	0.903	0.980	1.00	1.00	90	98	78-121	8	13
o-Xylene	0.891	0.916	1.00	1.00	89	92	77-119	3	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					82	84	68-123		

Date of Report: September 1, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-268  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0827S3					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-27-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>108</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-246-02							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				103	93	50-150		

Date of Report: September 1, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-268  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0827S1					
Naphthalene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>82</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>87</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>92</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 27, 2015  
 Laboratory Reference: 1508-268  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent		Recovery		RPD	Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	08-263-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	<b>0.0583</b>	<b>0.0615</b>	0.0833	0.0833	ND	70	74	44 - 107	5	29	
Acenaphthylene	<b>0.0581</b>	<b>0.0652</b>	0.0833	0.0833	ND	70	78	44 - 121	12	27	
Acenaphthene	<b>0.0579</b>	<b>0.0636</b>	0.0833	0.0833	ND	70	76	47 - 109	9	26	
Fluorene	<b>0.0620</b>	<b>0.0653</b>	0.0833	0.0833	ND	74	78	49 - 115	5	28	
Phenanthrene	<b>0.0598</b>	<b>0.0638</b>	0.0833	0.0833	ND	72	77	45 - 114	6	26	
Anthracene	<b>0.100</b>	<b>0.110</b>	0.0833	0.0833	ND	120	132	43 - 140	10	27	
Fluoranthene	<b>0.0584</b>	<b>0.0641</b>	0.0833	0.0833	ND	70	77	44 - 126	9	27	
Pyrene	<b>0.0582</b>	<b>0.0636</b>	0.0833	0.0833	ND	70	76	43 - 125	9	27	
Benzo[a]anthracene	<b>0.0680</b>	<b>0.0727</b>	0.0833	0.0833	ND	82	87	42 - 134	7	27	
Chrysene	<b>0.0597</b>	<b>0.0654</b>	0.0833	0.0833	ND	72	79	45 - 114	9	27	
Benzo[b]fluoranthene	<b>0.0602</b>	<b>0.0651</b>	0.0833	0.0833	ND	72	78	38 - 131	8	33	
Benzo(j,k)fluoranthene	<b>0.0575</b>	<b>0.0636</b>	0.0833	0.0833	ND	69	76	44 - 114	10	34	
Benzo[a]pyrene	<b>0.0580</b>	<b>0.0638</b>	0.0833	0.0833	ND	70	77	40 - 136	10	29	
Indeno(1,2,3-c,d)pyrene	<b>0.0580</b>	<b>0.0623</b>	0.0833	0.0833	ND	70	75	45 - 126	7	30	
Dibenz[a,h]anthracene	<b>0.0597</b>	<b>0.0646</b>	0.0833	0.0833	ND	72	78	46 - 121	8	28	
Benzo[g,h,i]perylene	<b>0.0579</b>	<b>0.0626</b>	0.0833	0.0833	ND	70	75	43 - 120	8	31	
<i>Surrogate:</i>											
2-Fluorobiphenyl						67	84	32 - 114			
Pyrene-d10						71	78	33 - 121			
Terphenyl-d14						75	84	31 - 116			

Date of Report: September 1, 2015  
Samples Submitted: August 27, 2015  
Laboratory Reference: 1508-268  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-27-15

Client ID	Lab ID	% Moisture
UST2 EX-N-33.0	08-268-01	24
UST2 EX-W3-30.0	08-268-02	23

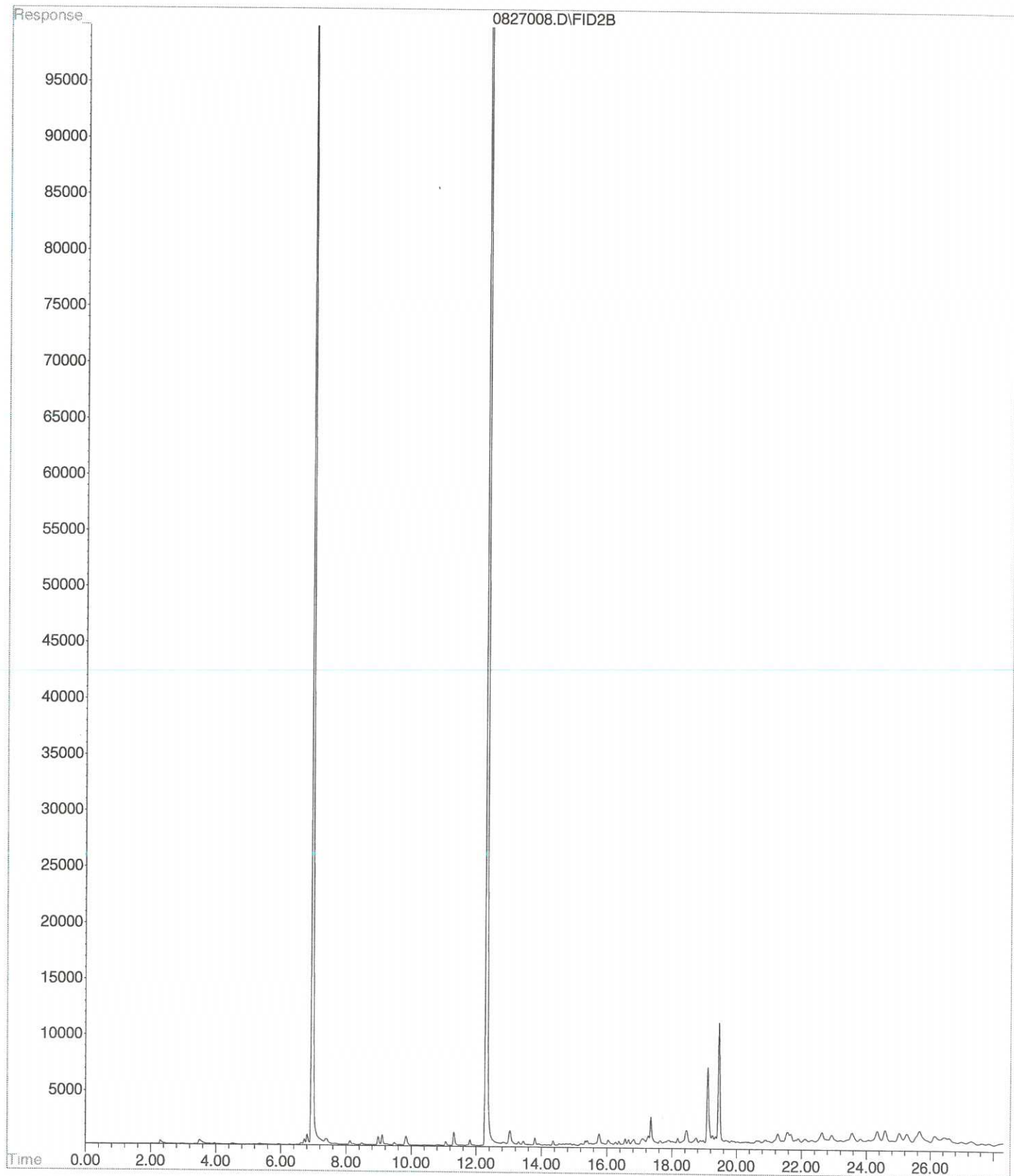


### Data Qualifiers and Abbreviations

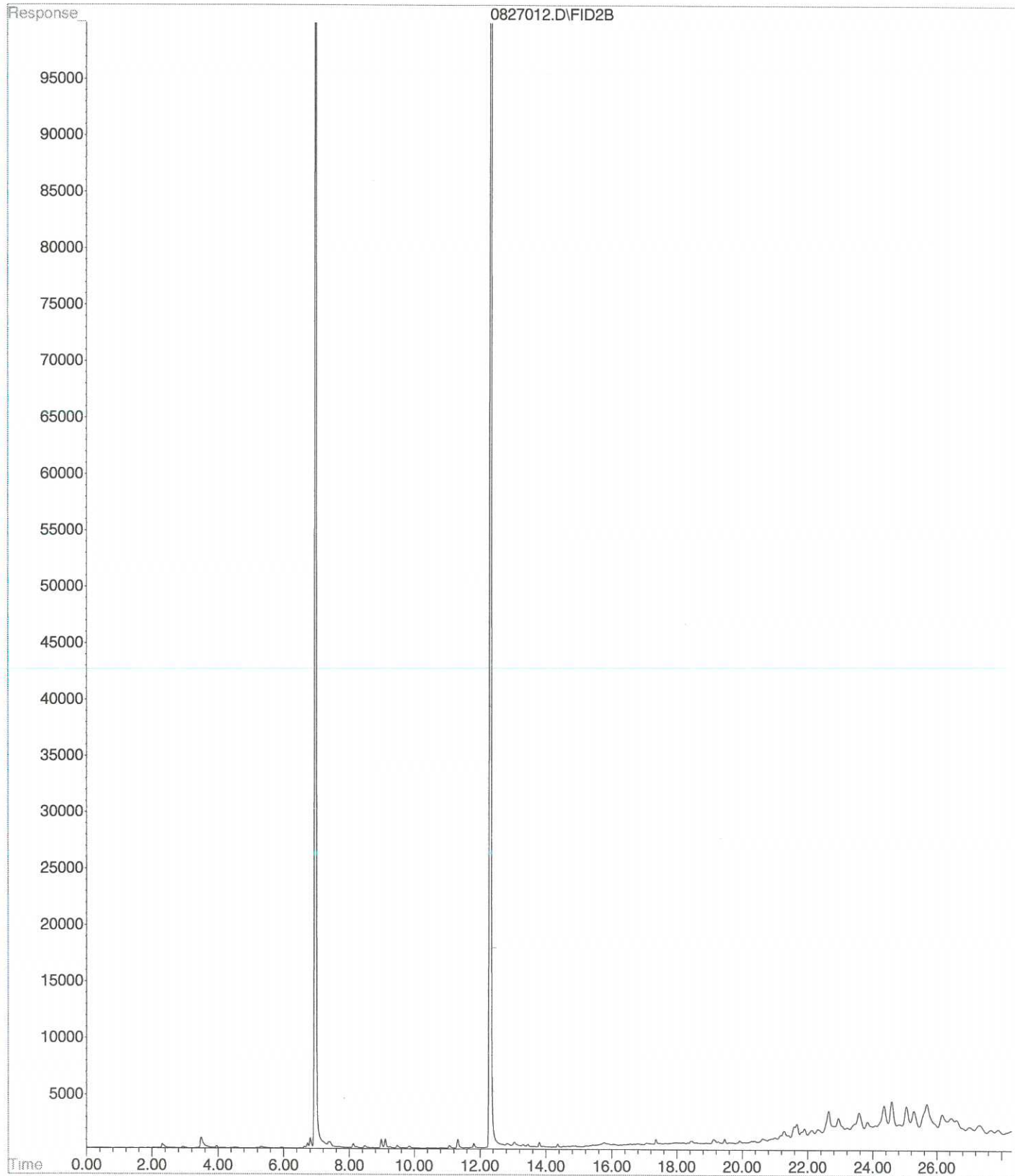
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



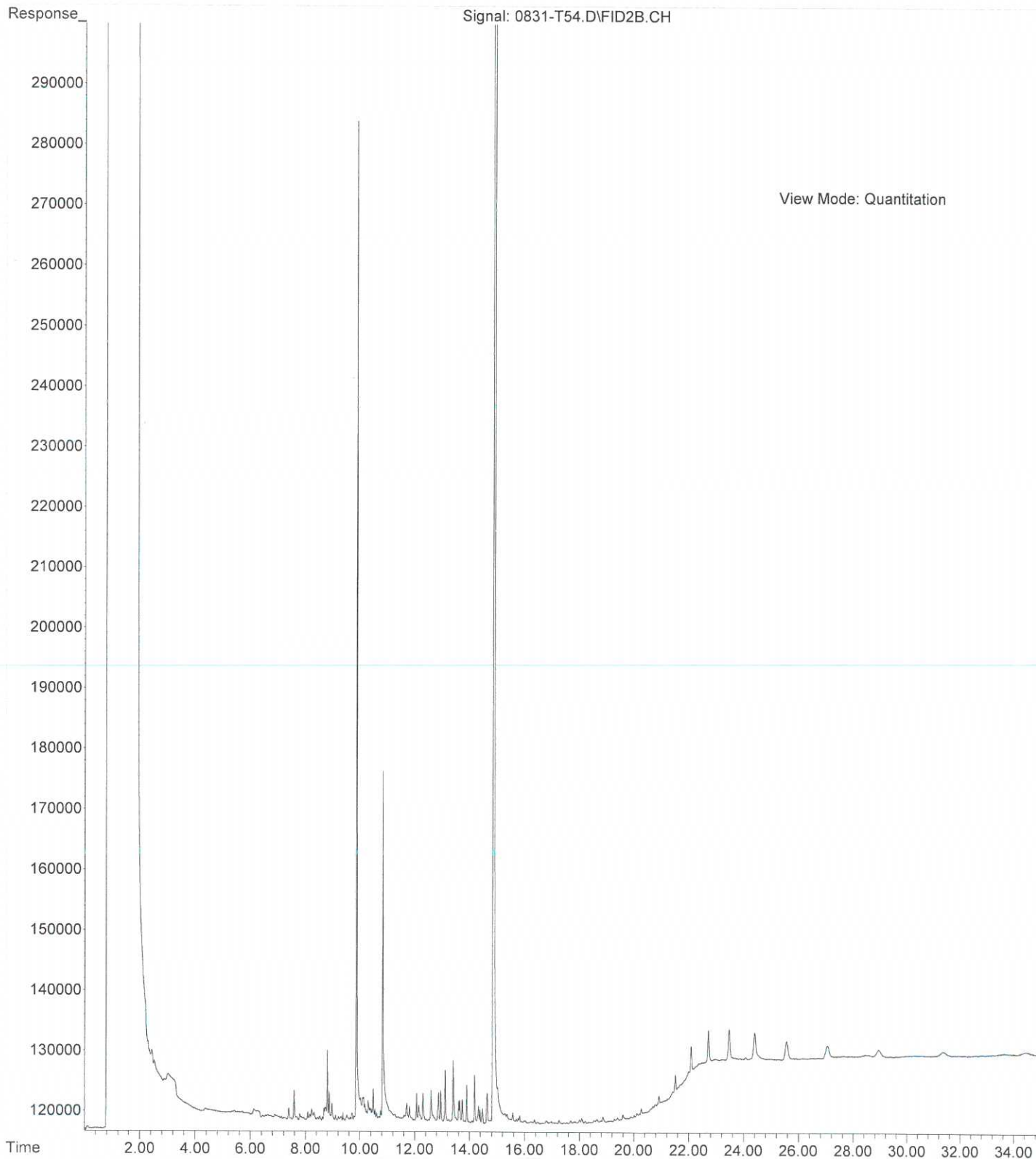
File : X:\BTEX\DARYL\DATA\D150827\0827008.D  
Operator :  
Acquired : 27 Aug 2015 14:59 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-268-01s  
Misc Info : V2-37-21  
Vial Number: 8



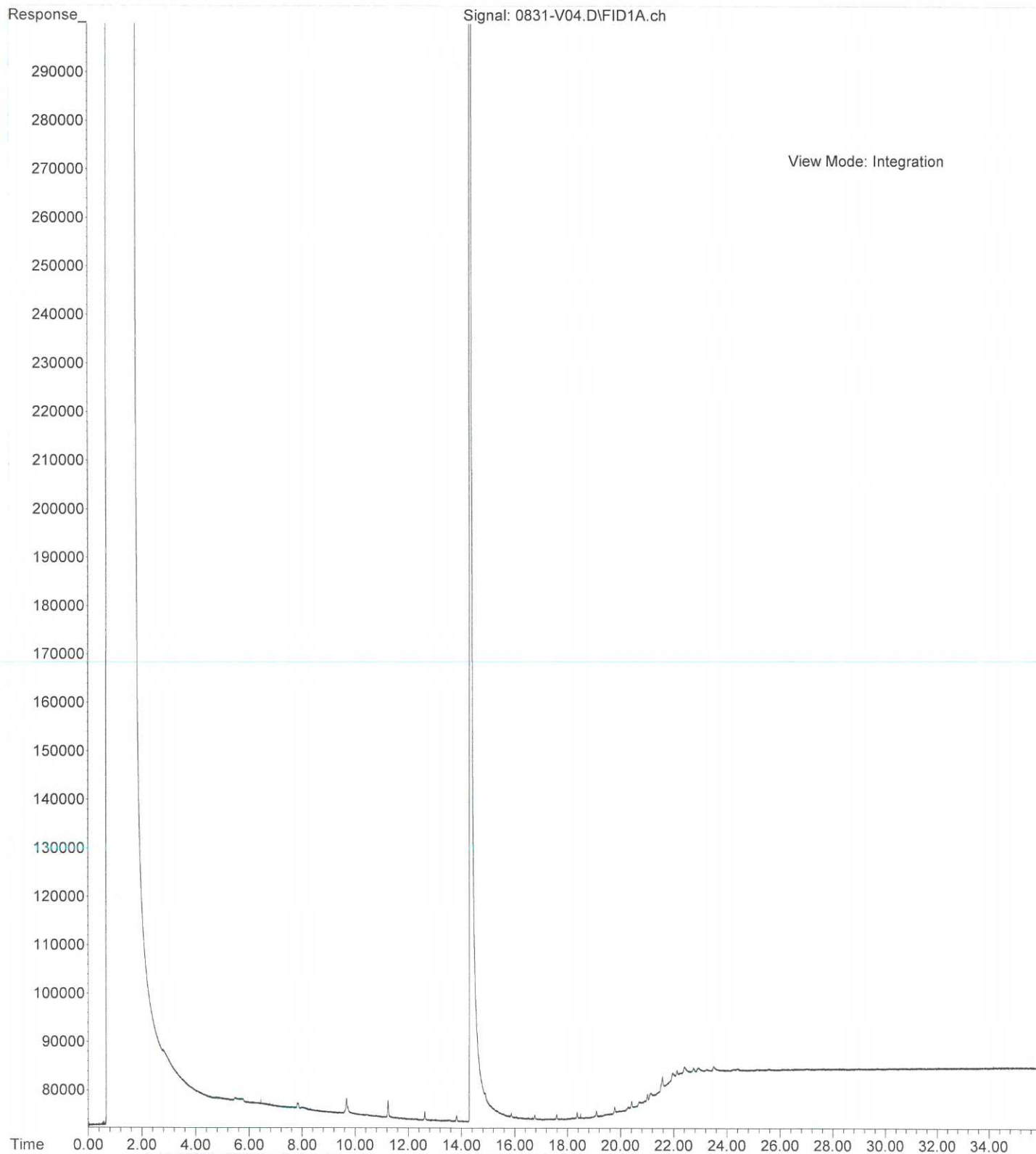
File : X:\BTEX\DARYL\DATA\D150827\0827012.D  
Operator :  
Acquired : 27 Aug 2015 17:33 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-268-02s  
Misc Info : V2-37-21  
Vial Number: 12



File :X:\DIESELS\TERI\DATA\T150831.SEC\0831-T54.D  
Operator : ZT  
Acquired : 31 Aug 2015 11:33 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-268-01  
Misc Info :  
Vial Number: 54



File :X:\DIESELS\VIGO\DATA\V150831\0831-V04.D  
Operator :  
Acquired : 31 Aug 2015 11:56 using AcqMethod V150507F.M  
Instrument : Vigo  
Sample Name: 08-268-02  
Misc Info :  
Vial Number: 4





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 21, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-158

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 17, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 21, 2015  
Samples Submitted: August 17, 2015  
Laboratory Reference: 1508-158  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 14, 2015 and received by the laboratory on August 17, 2015. 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.

Date of Report: August 21, 2015  
Samples Submitted: August 17, 2015  
Laboratory Reference: 1508-158  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2-B-24.0	08-158-01	Soil	8-14-15	8-17-15	
UST2-S-22.0	08-158-02	Soil	8-14-15	8-17-15	
UST2-W-22.0	08-158-03	Soil	8-14-15	8-17-15	

Date of Report: August 21, 2015  
 Samples Submitted: August 17, 2015  
 Laboratory Reference: 1508-158  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2-B-24.0</b>					
Laboratory ID:	08-158-01					
Diesel Range Organics	<b>2900</b>	620	NWTPH-Dx	8-17-15	8-19-15	M,N
Lube Oil	<b>40000</b>	1200	NWTPH-Dx	8-17-15	8-19-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S
<b>Client ID:</b>	<b>UST2-S-22.0</b>					
Laboratory ID:	08-158-02					
Diesel Range Organics	<b>2500</b>	620	NWTPH-Dx	8-17-15	8-19-15	M,N
Lube Oil	<b>30000</b>	1200	NWTPH-Dx	8-17-15	8-19-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S
<b>Client ID:</b>	<b>UST2-W-22.0</b>					
Laboratory ID:	08-158-03					
Diesel Range Organics	<b>4300</b>	340	NWTPH-Dx	8-17-15	8-18-15	M,N
Lube Oil	<b>29000</b>	690	NWTPH-Dx	8-17-15	8-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	---	50-150				S

Date of Report: August 21, 2015  
 Samples Submitted: August 17, 2015  
 Laboratory Reference: 1508-158  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2-B-24.0</b>					
Laboratory ID:	08-158-01					
Naphthalene	<b>6.7</b>	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	<b>20</b>	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	<b>12</b>	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	<b>0.32</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthene	<b>0.71</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	<b>1.2</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	<b>2.7</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	<b>0.91</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	<b>0.79</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	<b>1.8</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	<b>0.51</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	<b>0.87</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	<b>0.40</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	<b>0.072</b>	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[a]pyrene	<b>0.40</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	<b>0.24</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	<b>0.036</b>	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	<b>0.72</b>	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>42</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>56</i>	<i>31 - 116</i>				

Date of Report: August 21, 2015  
 Samples Submitted: August 17, 2015  
 Laboratory Reference: 1508-158  
 Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2-S-22.0</b>					
Laboratory ID:	08-158-02					
Naphthalene	<b>6.7</b>	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	<b>12</b>	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	<b>6.8</b>	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	<b>0.10</b>	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Acenaphthene	<b>0.16</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	<b>0.44</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	<b>1.4</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	<b>0.49</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	<b>0.68</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	<b>1.3</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	<b>0.55</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	<b>0.68</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	<b>0.34</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	<b>0.072</b>	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[a]pyrene	<b>0.36</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	<b>0.25</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	<b>0.64</b>	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>56</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>79</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>77</i>	<i>31 - 116</i>				

Date of Report: August 21, 2015  
 Samples Submitted: August 17, 2015  
 Laboratory Reference: 1508-158  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2-W-22.0</b>					
Laboratory ID:	08-158-03					
Naphthalene	<b>5.5</b>	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	<b>8.9</b>	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	<b>5.2</b>	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	<b>0.12</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthene	<b>0.14</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	<b>0.41</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	<b>1.2</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	<b>0.48</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	<b>0.86</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	<b>1.4</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	<b>0.59</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	<b>0.74</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	<b>0.67</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	<b>0.20</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]pyrene	<b>0.44</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	<b>0.37</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	<b>0.041</b>	0.037	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	<b>0.83</b>	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>51</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>63</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>60</i>	<i>31 - 116</i>				

Date of Report: August 21, 2015  
 Samples Submitted: August 17, 2015  
 Laboratory Reference: 1508-158  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0817S2					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-17-15	8-18-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-17-15	8-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	105	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-145-07							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	U1,
Lube Oil	<b>5440</b>	<b>4100</b>	NA	NA	NA	28	NA	
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				---	---	50-150		S,S

Date of Report: August 21, 2015  
 Samples Submitted: August 17, 2015  
 Laboratory Reference: 1508-158  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0818S1					
Naphthalene	ND	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
2-Methylnaphthalene	ND	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
1-Methylnaphthalene	ND	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>70</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>72</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>90</i>	<i>31 - 116</i>				

Date of Report: August 21, 2015  
 Samples Submitted: August 17, 2015  
 Laboratory Reference: 1508-158  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
	SB	SBD	SB	SBD	SB	SBD				
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0818S1									
	SB	SBD	SB	SBD	SB	SBD				
Acenaphthylene	<b>0.0754</b>	<b>0.0732</b>	0.0833	0.0833	91	88	61 - 125	3	16	
Acenaphthene	<b>0.0752</b>	<b>0.0719</b>	0.0833	0.0833	90	86	66 - 113	4	16	
Fluorene	<b>0.0787</b>	<b>0.0725</b>	0.0833	0.0833	94	87	60 - 117	8	16	
Phenanthrene	<b>0.0746</b>	<b>0.0741</b>	0.0833	0.0833	90	89	63 - 116	1	12	
Anthracene	<b>0.114</b>	<b>0.113</b>	0.0833	0.0833	137	136	66 - 146	1	19	
Fluoranthene	<b>0.0921</b>	<b>0.0828</b>	0.0833	0.0833	111	99	60 - 125	11	13	
Pyrene	<b>0.0802</b>	<b>0.0784</b>	0.0833	0.0833	96	94	66 - 126	2	15	
Benzo[a]anthracene	<b>0.0726</b>	<b>0.0774</b>	0.0833	0.0833	87	93	60 - 128	6	15	
Chrysene	<b>0.0709</b>	<b>0.0735</b>	0.0833	0.0833	85	88	60 - 117	4	13	
Benzo[b]fluoranthene	<b>0.0766</b>	<b>0.0748</b>	0.0833	0.0833	92	90	60 - 131	2	16	
Benzo(j,k)fluoranthene	<b>0.0786</b>	<b>0.0765</b>	0.0833	0.0833	94	92	57 - 126	3	20	
Benzo[a]pyrene	<b>0.0796</b>	<b>0.0795</b>	0.0833	0.0833	96	95	62 - 136	0	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0824</b>	<b>0.0878</b>	0.0833	0.0833	99	105	60 - 127	6	19	
Dibenz[a,h]anthracene	<b>0.0753</b>	<b>0.0765</b>	0.0833	0.0833	90	92	62 - 133	2	22	
Benzo[g,h,i]perylene	<b>0.0769</b>	<b>0.0828</b>	0.0833	0.0833	92	99	63 - 129	7	22	
<i>Surrogate:</i>										
<i>2-Fluorobiphenyl</i>					97	93	32 - 114			
<i>Pyrene-d10</i>					97	94	33 - 121			
<i>Terphenyl-d14</i>					97	111	31 - 116			

Date of Report: August 21, 2015  
Samples Submitted: August 17, 2015  
Laboratory Reference: 1508-158  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-17-15

Client ID	Lab ID	% Moisture
UST2-B-24.0	08-158-01	19
UST2-S-22.0	08-158-02	19
UST2-W-22.0	08-158-03	27



### 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-naphthalene) 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



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

# Chain of Custody

Company: **GEDENGINEERS**

Project Number: **21138-001-03**

Project Name: **9<sup>th</sup> & LENORA PROJECT**

Project Manager: **FASIH KHAN**

Sampled by: **FASIH KHAN**

**Turnaround Request (in working days)**

(Check One)

Same Day  1 Day

2 Days  3 Days

Standard (7 Days)  
(TPH analysis 5 Days)

\_\_\_\_\_ (other)

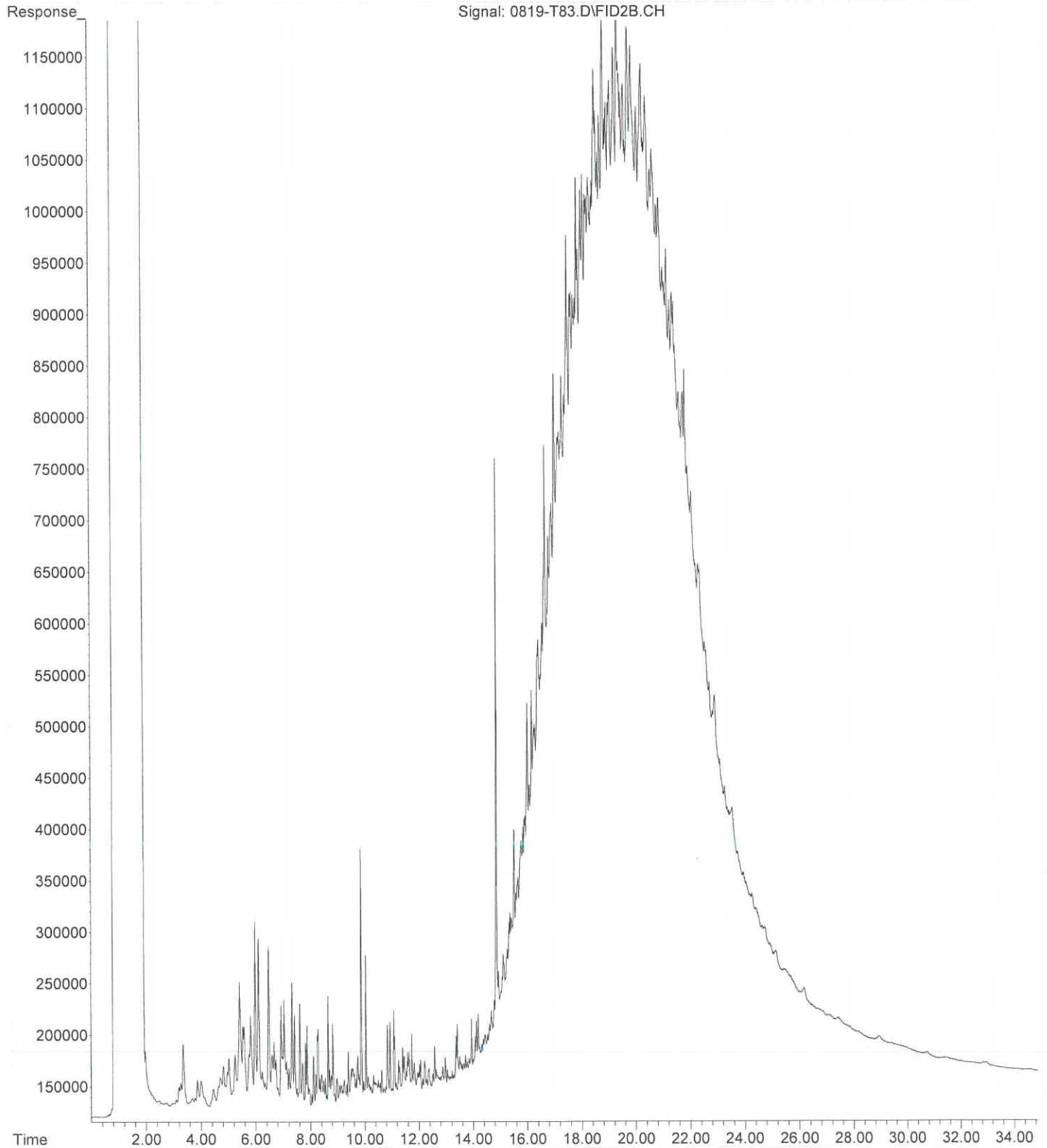
Laboratory Number:

**08-158**

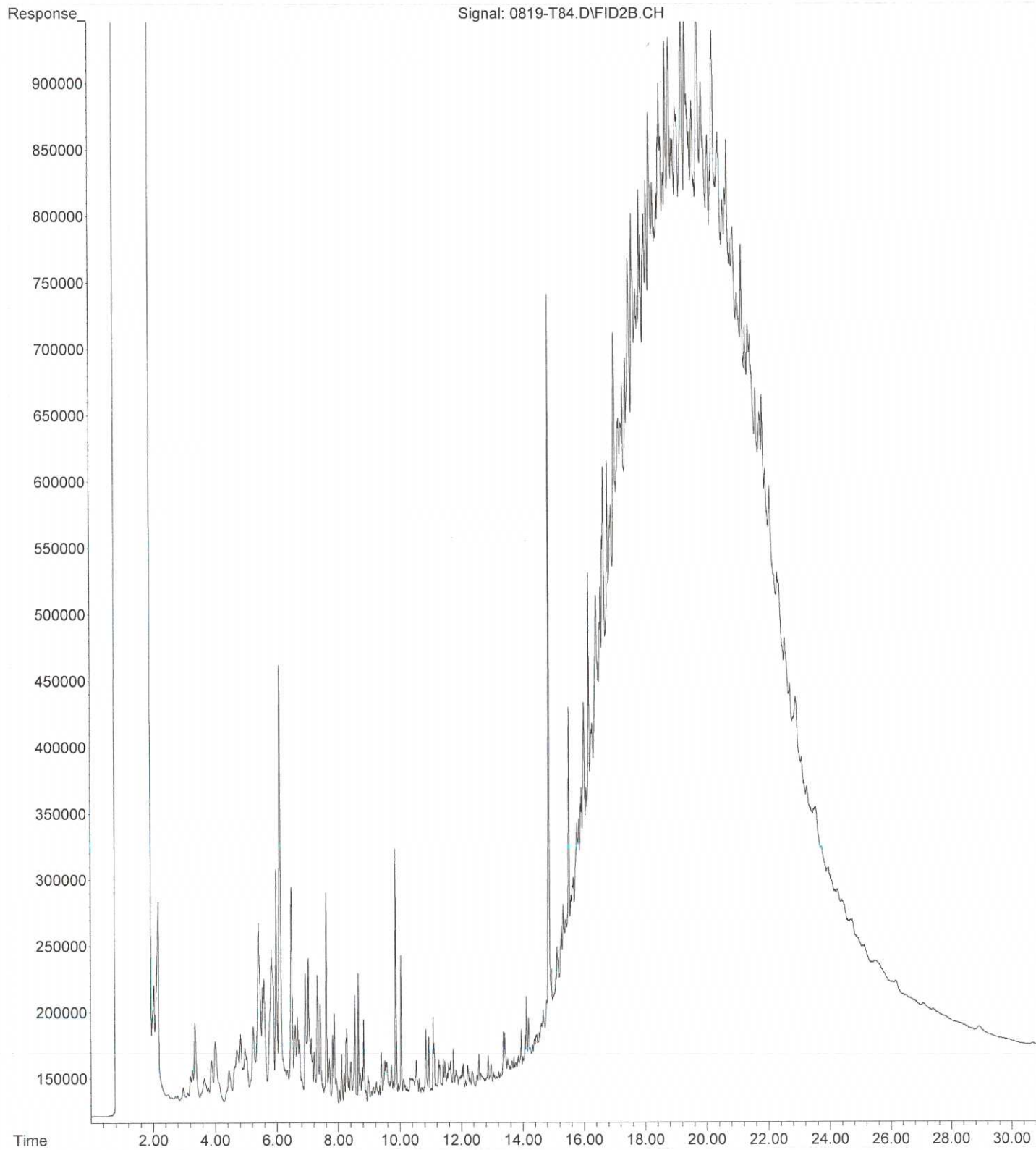
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture	
1	UST2-B-24.0	8/14/15	1245	S	1																		X
2	UST2-S-22.0	↓	1300	↓	↓																		X
3	UST2-W-22.0	↓	1310	↓	↓																		X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<i>[Signature]</i>	GED	8/17/15	0825	
Received	<i>[Signature]</i>	OSE	8.17.15	8:25A	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/>

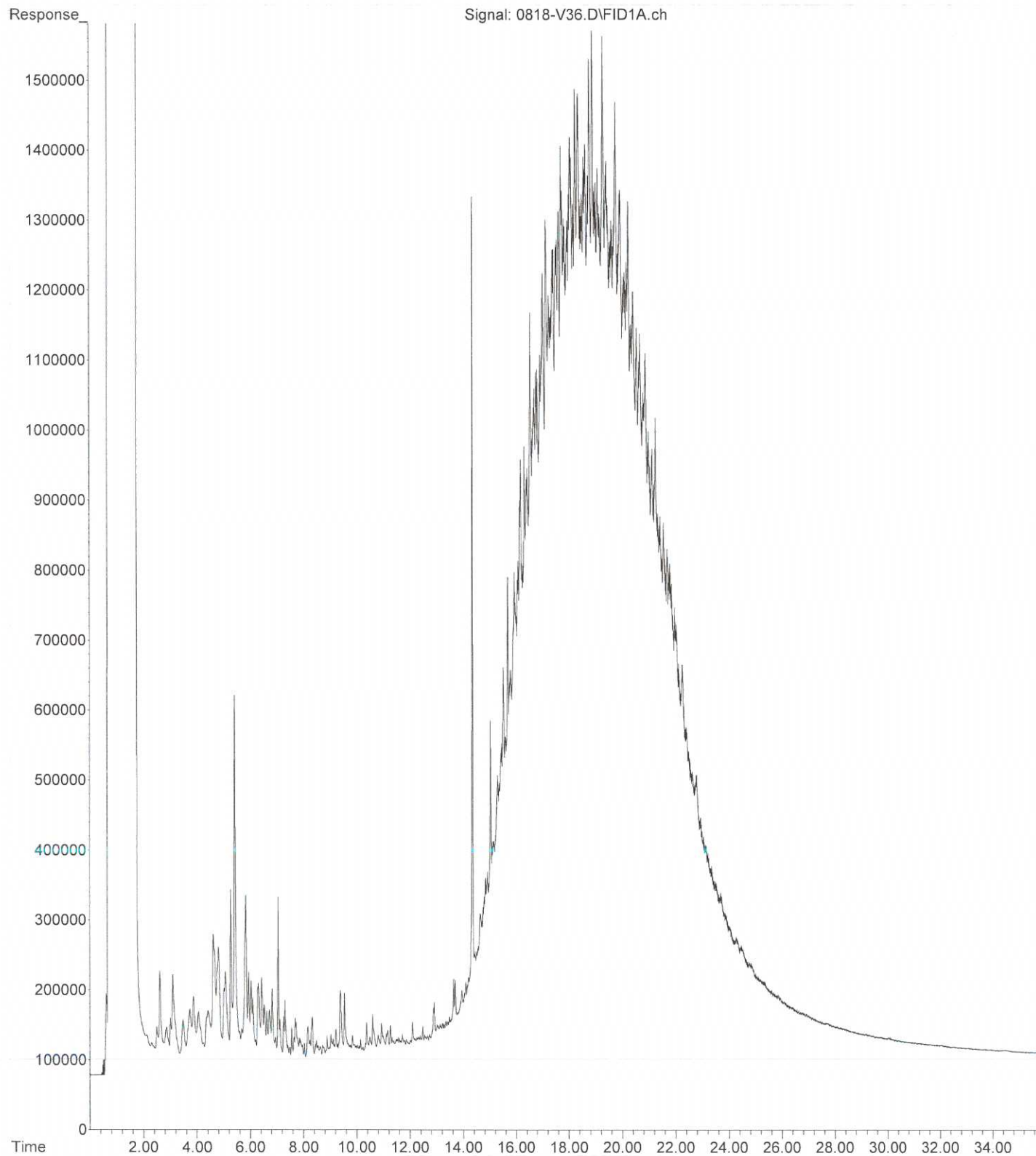
File :X:\DIESELS\TERI\DATA\T150819.SEC\0819-T83.D  
Operator : ZT  
Acquired : 20 Aug 2015 10:45 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-158-01 20X  
Misc Info :  
Vial Number: 83



File :X:\DIESELS\TERI\DATA\T150819.SEC\0819-T84.D  
Operator : ZT  
Acquired : 20 Aug 2015 11:28 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-158-02 20X  
Misc Info :  
Vial Number: 84



File :X:\DIESELS\VIGO\DATA\V150818\0818-V36.D  
Operator :  
Acquired : 19 Aug 2015 14:39 using AcqMethod V150507F.M  
Instrument : Vigo  
Sample Name: 08-158-03 10X  
Misc Info :  
Vial Number: 36





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August 12, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-101

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 12, 2015  
Samples Submitted: August 12, 2015  
Laboratory Reference: 1508-101  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 11, 2015 and received by the laboratory on August 12, 2015. 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.

Date of Report: August 12, 2015  
Samples Submitted: August 12, 2015  
Laboratory Reference: 1508-101  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SW-UST-PRODUCT	08-101-01	Product	8-11-15	8-12-15	

Date of Report: August 12, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-101  
 Project: 21138-001-03

### NWTPH-HCID

Matrix: Product  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>SW-UST-PRODUCT</b>					
Laboratory ID:	08-101-01					
Gasoline Range Organics	<b>ND</b>	8600	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Fuel #2	<b>Detected</b>	2400	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil	<b>Detected</b>	4800	NWTPH-HCID	8-12-15	8-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>106</i>	<i>50-150</i>				

Date of Report: August 12, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-101  
 Project: 21138-001-03

**NWTPH-HCID  
 QUALITY CONTROL**

Matrix: Product  
 Units: mg/Kg (ppm)

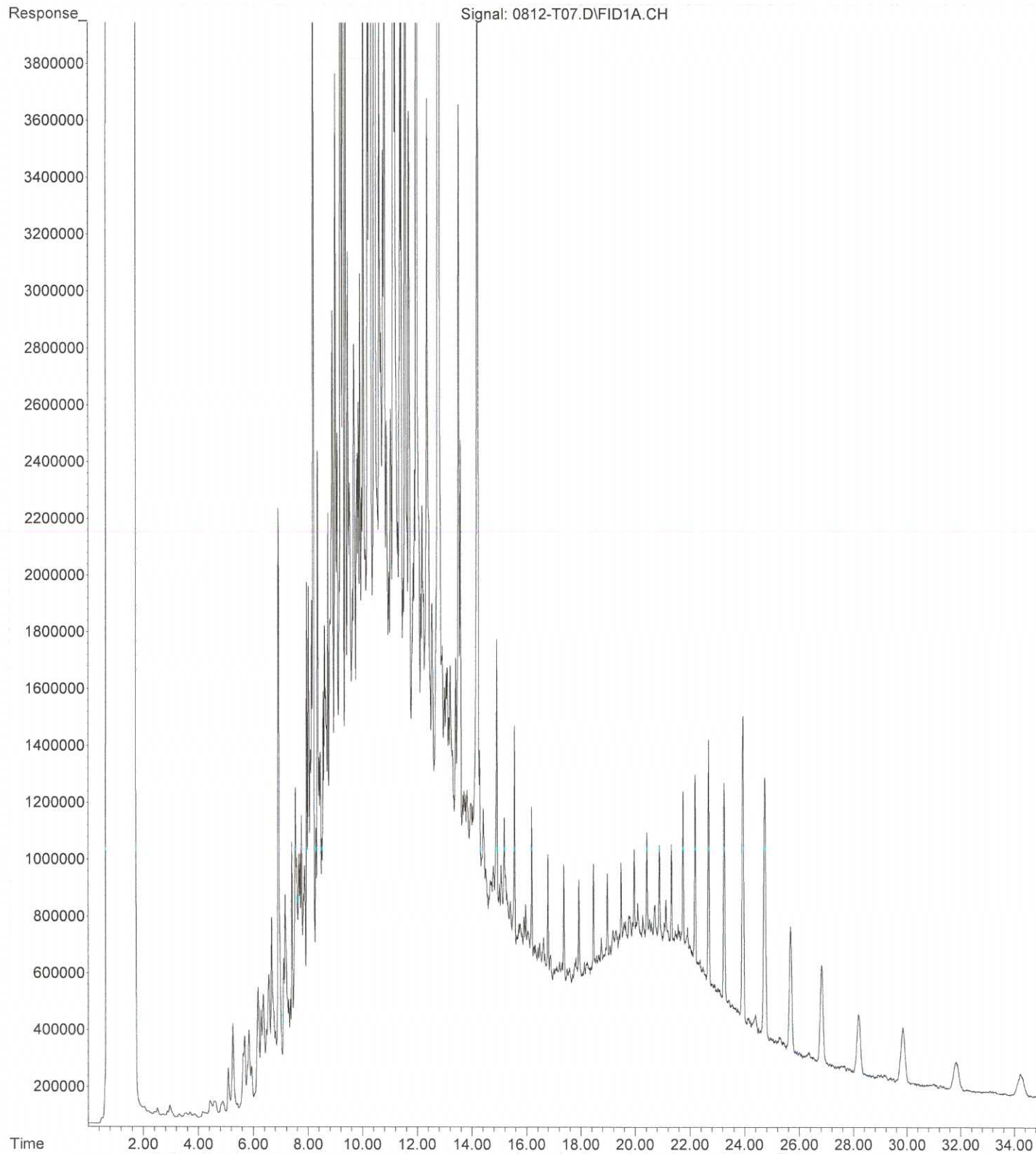
<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0812P1					
Gasoline Range Organics	<b>ND</b>	1000	NWTPH-HCID	8-12-15	8-12-15	
Diesel Range Organics	<b>ND</b>	2500	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil Range Organics	<b>ND</b>	5000	NWTPH-HCID	8-12-15	8-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>85</i>	<i>50-150</i>				



### 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-naphthalene) 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

File :X:\DIESELS\TERI\DATA\T150812\0812-T07.D  
Operator : ZT  
Acquired : 12 Aug 2015 15:35 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-101-01 HC P  
Misc Info :  
Vial Number: 7



# Chain of Custody

Company: <u>GEOENGINEERS</u> Project Number: <u>2138-001-03</u> Project Name: <u>9th &amp; LENORA PROJECT</u> Project Manager: <u>FASIH KHAN</u> Sampled by: <u>FASIH KHAN</u>		<b>Turnaround Request (in working days)</b> (Check One) <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> Standard (7 Days) (TPH analysis 5 Days) <input type="checkbox"/> _____ (other)			<b>Laboratory Number: 08-101</b>																
		<b>Number of Containers</b>			NWTPH-HCID	NWTPH-GxBTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	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	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
<b>Lab ID</b>	<b>Sample Identification</b>				<b>Date Sampled</b>	<b>Time Sampled</b>	<b>Matrix</b>														
1	SW-UST-PRODUCT	8/11/15	0930	PRODUCT 1	1																
		<b>Signature</b>	<b>Company</b>	<b>Date</b>	<b>Time</b>	<b>Comments/Special Instructions</b>															
		Relinquished	GES	8/12/15	0925																
		Received	OGE	8/12/15	0925																
		Relinquished																			
		Received																			
		Relinquished																			
		Received																			
Reviewed/Date			Reviewed/Date			Chromatograms with final report <input type="checkbox"/>															



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August 11, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-031

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 6, 2015.

**Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.**

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: August 11, 2015  
Samples Submitted: August 6, 2015  
Laboratory Reference: 1508-031  
Project: 21138-001-03

### Case Narrative

Samples were collected on August 4, 2015 and received by the laboratory on August 6, 2015. 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/BTEX 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: August 11, 2015  
Samples Submitted: August 6, 2015  
Laboratory Reference: 1508-031  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-S1-20.0	08-031-01	Soil	8-4-15	8-6-15	

Date of Report: August 11, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-031  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UST2EX-S1-20.0</b>					
Laboratory ID:	08-031-01					
Benzene	<b>ND</b>	0.020	EPA 8021B	8-7-15	8-7-15	
Toluene	<b>ND</b>	0.055	EPA 8021B	8-7-15	8-7-15	
Ethyl Benzene	<b>ND</b>	0.055	EPA 8021B	8-7-15	8-7-15	
m,p-Xylene	<b>ND</b>	0.055	EPA 8021B	8-7-15	8-7-15	
o-Xylene	<b>ND</b>	0.055	EPA 8021B	8-7-15	8-7-15	
Gasoline	<b>ND</b>	5.5	NWTPH-Gx	8-7-15	8-7-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	68-123				

Date of Report: August 11, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-031  
 Project: 21138-001-03

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-S1-20.0</b>					
Laboratory ID:	08-031-01					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-6-15	8-6-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Date of Report: August 11, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-031  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0807S1					
Benzene	ND	0.020	EPA 8021B	8-7-15	8-7-15	
Toluene	ND	0.050	EPA 8021B	8-7-15	8-7-15	
Ethyl Benzene	ND	0.050	EPA 8021B	8-7-15	8-7-15	
m,p-Xylene	ND	0.050	EPA 8021B	8-7-15	8-7-15	
o-Xylene	ND	0.050	EPA 8021B	8-7-15	8-7-15	
Gasoline	ND	5.0	NWTPH-Gx	8-7-15	8-7-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-047-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				89	89	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0807S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	1.03	1.03	1.00	1.00	103	103	75-117	0	13
Toluene	1.02	1.02	1.00	1.00	102	102	78-118	0	12
Ethyl Benzene	1.01	1.01	1.00	1.00	101	101	78-118	0	12
m,p-Xylene	1.02	1.02	1.00	1.00	102	102	78-121	0	13
o-Xylene	1.02	1.01	1.00	1.00	102	101	77-119	1	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					96	95	68-123		

Date of Report: August 11, 2015  
 Samples Submitted: August 6, 2015  
 Laboratory Reference: 1508-031  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0806S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-6-15	8-6-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-031-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				93	95	50-150		

Date of Report: August 11, 2015  
Samples Submitted: August 6, 2015  
Laboratory Reference: 1508-031  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-6-15

Client ID	Lab ID	% Moisture
UST2EX-S1-20.0	08-031-01	12

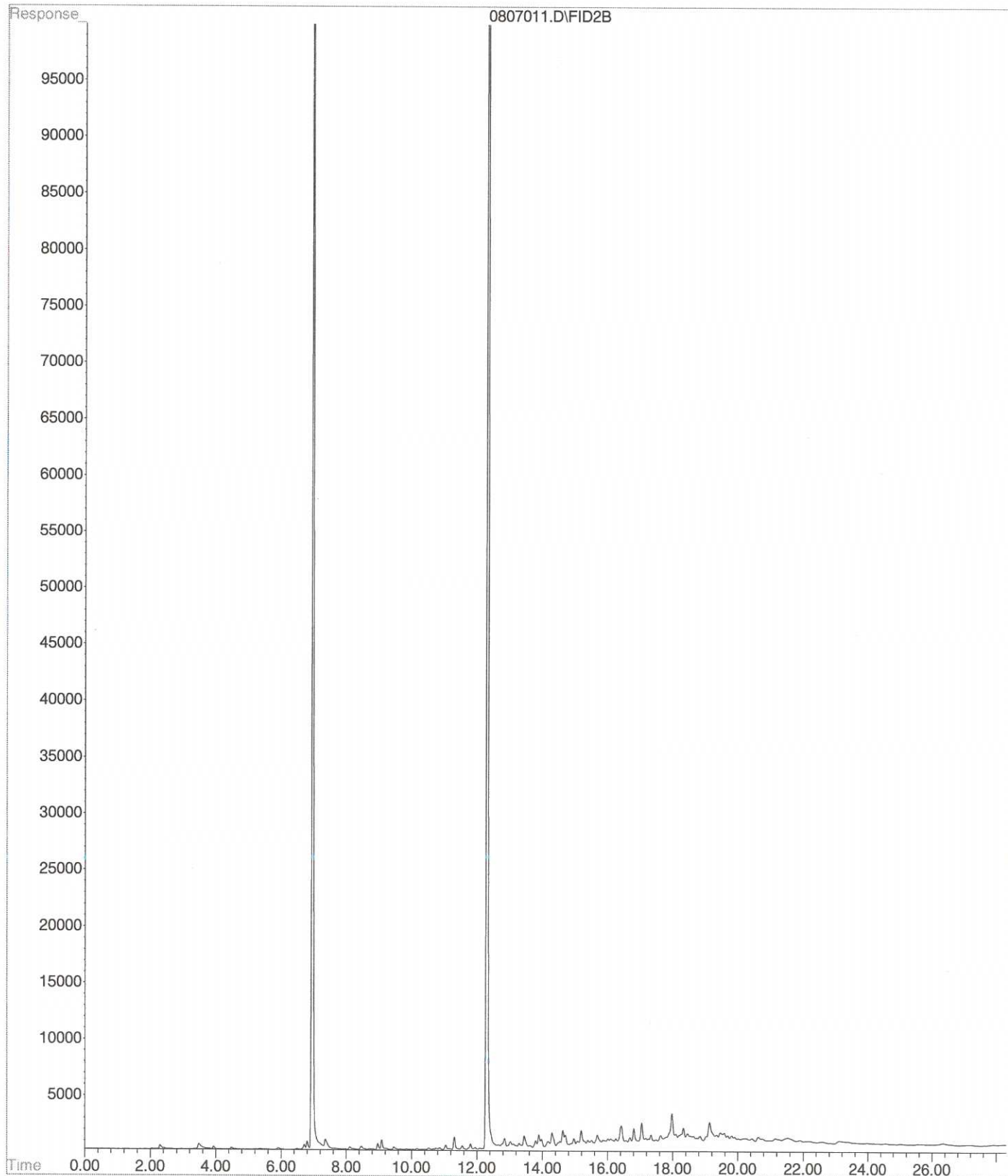


### Data Qualifiers and Abbreviations

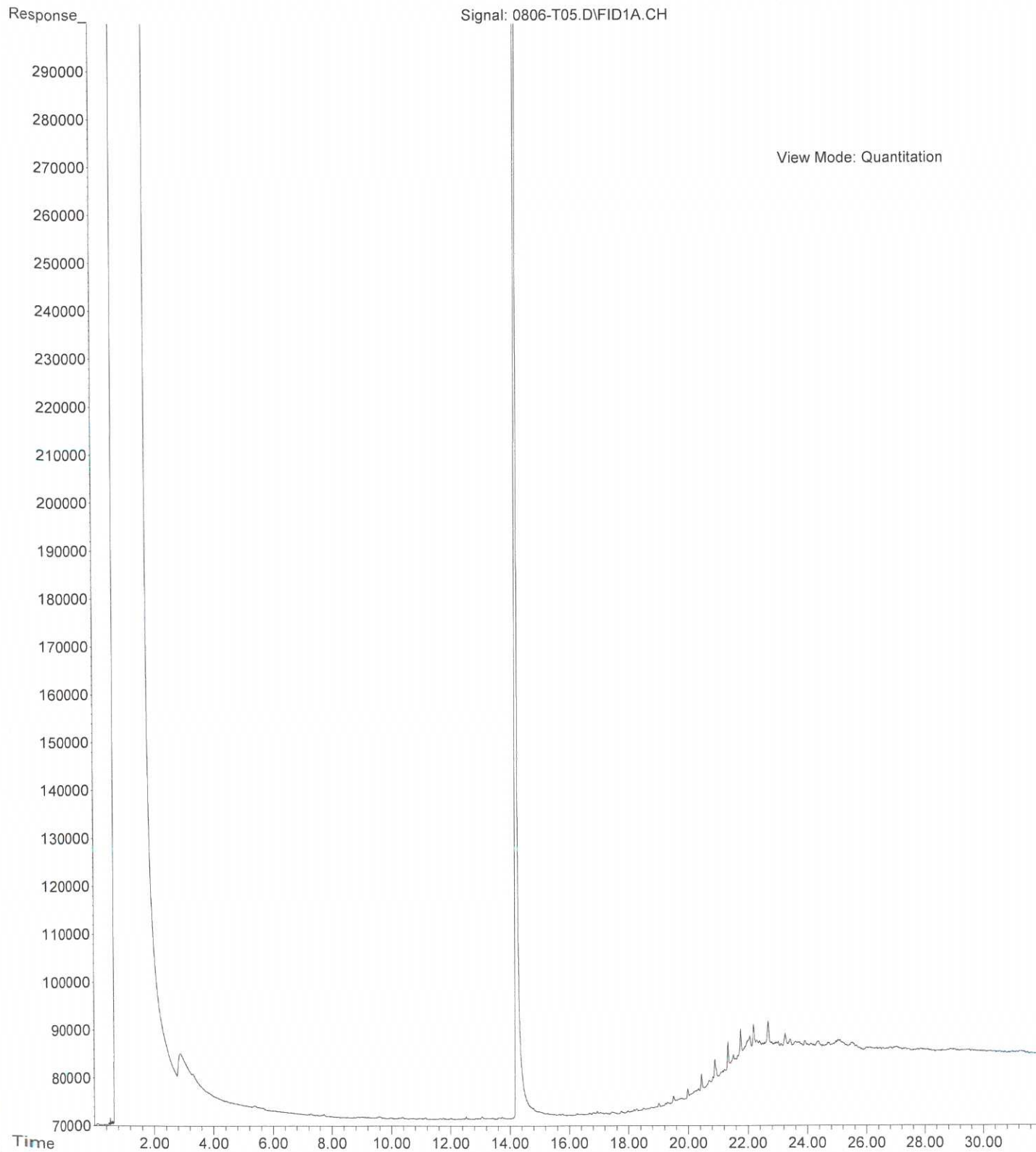
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



File : X:\BTEX\DARYL\DATA\D150807\0807011.D  
Operator :  
Acquired : 7 Aug 2015 18:19 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-031-01s  
Misc Info : V2-37-21  
Vial Number: 11



File :X:\DIESELS\TERI\DATA\T150806\0806-T05.D  
Operator : ZT  
Acquired : 06 Aug 2015 14:33 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-031-01  
Misc Info :  
Vial Number: 5





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September 2, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-289R2

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 28, 2015.

**Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.**

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: September 2, 2015  
Samples Submitted: August 28, 2015  
Laboratory Reference: 1508-289R2  
Project: 21138-001-03

### Case Narrative

Samples were collected on August 27 and 28, 2015 and received by the laboratory on August 28, 2015. 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.

#### PAHs EPA 8270D/SIM Analysis

The Spike Blank/Spike Blank Duplicate had one recovery slightly above control limits, due to a small upward bias in the instruments' calibration. No further action was taken.

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: September 2, 2015  
Samples Submitted: August 28, 2015  
Laboratory Reference: 1508-289R2  
Project: 21138-001-03

**ANALYTICAL REPORT FOR SAMPLES**

<b>Client ID</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>	<b>Notes</b>
UST2EX-W2-30.0	08-289-01	Soil	8-28-15	8-28-15	
UST2EX-S2-24.0	08-289-02	Soil	8-27-15	8-28-15	

Date of Report: September 2, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-289R2  
 Project: 21138-001-03

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-W2-30.0</b>					
Laboratory ID:	08-289-01					
Diesel Range Organics	<b>240</b>	34	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil	<b>1800</b>	68	NWTPH-Dx	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				
<b>Client ID:</b>	<b>UST2EX-S2-24.0</b>					
Laboratory ID:	08-289-02					
Diesel Range Organics	<b>56</b>	34	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil	<b>490</b>	68	NWTPH-Dx	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	76	50-150				

Date of Report: September 2, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-289R2  
 Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-W2-30.0</b>					
Laboratory ID:	08-289-01					
Naphthalene	<b>0.18</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	<b>0.89</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	<b>0.65</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	<b>0.024</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	<b>0.053</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	<b>0.088</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	<b>0.17</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	<b>0.051</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	<b>0.044</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	<b>0.12</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	<b>0.043</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	<b>0.047</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	<b>0.018</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	<b>0.015</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	<b>0.027</b>	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>77</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>67</i>	<i>31 - 116</i>				

Date of Report: September 2, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-289R2  
 Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-S2-24.0</b>					
Laboratory ID:	08-289-02					
Naphthalene	<b>0.20</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	<b>0.32</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	<b>0.21</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	<b>ND</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	<b>0.013</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	<b>0.024</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	<b>0.051</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	<b>0.018</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	<b>0.016</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	<b>0.036</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	<b>0.015</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	<b>0.015</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	<b>ND</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	<b>0.011</b>	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>48</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>45</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>56</i>	<i>31 - 116</i>				

Date of Report: September 2, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-289R2  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0831S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	110	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-287-04,09 Comp.							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			107	112	50-150			

Date of Report: September 2, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-289R2  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0831S1					
Naphthalene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>81</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>83</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>90</i>	<i>31 - 116</i>				

Date of Report: September 2, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-289R2  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
	SB	SBD	SB	SBD	SB	SBD				
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0831S1									
Naphthalene	<b>0.0711</b>	<b>0.0719</b>	0.0833	0.0833	85	86	63 - 113	1	19	
Acenaphthylene	<b>0.0748</b>	<b>0.0728</b>	0.0833	0.0833	90	87	61 - 125	3	16	
Acenaphthene	<b>0.0748</b>	<b>0.0732</b>	0.0833	0.0833	90	88	66 - 113	2	16	
Fluorene	<b>0.0753</b>	<b>0.0777</b>	0.0833	0.0833	90	93	60 - 117	3	16	
Phenanthrene	<b>0.0726</b>	<b>0.0724</b>	0.0833	0.0833	87	87	63 - 116	0	12	
Anthracene	<b>0.127</b>	<b>0.126</b>	0.0833	0.0833	152	151	66 - 146	1	19	II
Fluoranthene	<b>0.0717</b>	<b>0.0722</b>	0.0833	0.0833	86	87	60 - 125	1	13	
Pyrene	<b>0.0716</b>	<b>0.0716</b>	0.0833	0.0833	86	86	66 - 126	0	15	
Benzo[a]anthracene	<b>0.0826</b>	<b>0.0824</b>	0.0833	0.0833	99	99	60 - 128	0	15	
Chrysene	<b>0.0740</b>	<b>0.0746</b>	0.0833	0.0833	89	90	60 - 117	1	13	
Benzo[b]fluoranthene	<b>0.0711</b>	<b>0.0720</b>	0.0833	0.0833	85	86	60 - 131	1	16	
Benzo(j,k)fluoranthene	<b>0.0727</b>	<b>0.0735</b>	0.0833	0.0833	87	88	57 - 126	1	20	
Benzo[a]pyrene	<b>0.0699</b>	<b>0.0704</b>	0.0833	0.0833	84	85	62 - 136	1	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0603</b>	<b>0.0632</b>	0.0833	0.0833	72	76	60 - 127	5	19	
Dibenz[a,h]anthracene	<b>0.0592</b>	<b>0.0627</b>	0.0833	0.0833	71	75	62 - 133	6	22	
Benzo[g,h,i]perylene	<b>0.0641</b>	<b>0.0668</b>	0.0833	0.0833	77	80	63 - 129	4	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					88	87	32 - 114			
Pyrene-d10					82	83	33 - 121			
Terphenyl-d14					89	89	31 - 116			

Date of Report: September 2, 2015  
Samples Submitted: August 28, 2015  
Laboratory Reference: 1508-289R2  
Project: 21138-001-03

**% MOISTURE**

Date Analyzed: 8-31-15



Client ID	Lab ID	% Moisture
UST2EX-W2-30.0	08-289-01	27
UST2EX-S2-24.0	08-289-02	26



### 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-naphthalene) 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

Company: <b>GEOENGINEERS</b> Project Number: <b>21138-001-03</b> Project Name: <b>9th &amp; LENORA PROJECT</b> Project Manager: <b>FASIH KHAN</b> Sampled by: <b>FASIH KHAN</b>				<b>Turnaround Request (in working days)</b> (Check One) <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input checked="" type="checkbox"/> 3 Days <input type="checkbox"/> Standard (7 Days) (TPH analysis 5 Days) <input type="checkbox"/> _____ (other)		<b>Laboratory Number: 08-289</b>																	
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semi-volatiles 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	TCLP Metals	HEM (oil and grease) 1664A	% Moisture	
1	VST2 EX- <del>W1</del> <sup>W2</sup> -30.0 *	8/28/15	1320	S	2				⊗				⊗										X
2	VST2 EX-S2-24.0	8/29/15	1240	S	2				⊗				⊗										X
<b>Signature</b>		<b>Company</b>		<b>Date</b>	<b>Time</b>	<b>Comments/Special Instructions</b>																	
Relinquished 		GEP		8/28/15	1555	* HOT Sample																	
Received 		Onsite		8-28-15	1555																		
Relinquished																							
Received																							
Relinquished																							
Received																							
Reviewed/Date		Reviewed/Date		Chromatograms with final report <input type="checkbox"/>																			



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

September 1, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-288

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 28, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: September 1, 2015  
Samples Submitted: August 28, 2015  
Laboratory Reference: 1508-288  
Project: 21138-001-03

### Case Narrative

Samples were collected on August 28, 2015 and received by the laboratory on August 28, 2015. 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/BTEX 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.

#### PAHs EPA 8270D/SIM Analysis

The Spike Blank/Spike Blank Duplicate had one recovery slightly above control limits, due to a small upward bias in the instruments' calibration. No further action was taken.

**Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.**

Date of Report: September 1, 2015  
Samples Submitted: August 28, 2015  
Laboratory Reference: 1508-288  
Project: 21138-001-03

**ANALYTICAL REPORT FOR SAMPLES**

<b>Client ID</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>	<b>Notes</b>
UST2EX-S1-33.0	08-288-01	Soil	8-28-15	8-28-15	
UST2EX-S2-33.0	08-288-02	Soil	8-28-15	8-28-15	
UST2EX-W1-33.0	08-288-03	Soil	8-28-15	8-28-15	
UST2EX-W2-33.0	08-288-04	Soil	8-28-15	8-28-15	
UST2EX-B2-36.0	08-288-05	Soil	8-28-15	8-28-15	

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

### NWTPH-Gx/BTEX

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-S1-33.0</b>					
Laboratory ID:	08-288-01					
Benzene	ND	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	ND	0.060	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	ND	0.060	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	ND	0.060	EPA 8021B	8-28-15	8-28-15	
o-Xylene	ND	0.060	EPA 8021B	8-28-15	8-28-15	
Gasoline	ND	6.0	NWTPH-Gx	8-28-15	8-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	89	68-123				
<b>Client ID:</b>	<b>UST2EX-S2-33.0</b>					
Laboratory ID:	08-288-02					
Benzene	ND	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	ND	0.069	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	ND	0.069	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	ND	0.069	EPA 8021B	8-28-15	8-28-15	
o-Xylene	ND	0.069	EPA 8021B	8-28-15	8-28-15	
Gasoline	ND	6.9	NWTPH-Gx	8-28-15	8-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	86	68-123				
<b>Client ID:</b>	<b>UST2EX-W1-33.0</b>					
Laboratory ID:	08-288-03					
Benzene	ND	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	ND	0.079	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	ND	0.079	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	ND	0.079	EPA 8021B	8-28-15	8-28-15	
o-Xylene	ND	0.079	EPA 8021B	8-28-15	8-28-15	
Gasoline	ND	7.9	NWTPH-Gx	8-28-15	8-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	68-123				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UST2EX-W2-33.0</b>					
Laboratory ID:	08-288-04					
Benzene	<b>ND</b>	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	<b>ND</b>	0.067	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	<b>ND</b>	0.067	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	<b>ND</b>	0.067	EPA 8021B	8-28-15	8-28-15	
o-Xylene	<b>ND</b>	0.067	EPA 8021B	8-28-15	8-28-15	
Gasoline	<b>ND</b>	6.7	NWTPH-Gx	8-28-15	8-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	87	68-123				
<b>Client ID:</b>	<b>UST2EX-B2-36.0</b>					
Laboratory ID:	08-288-05					
Benzene	<b>ND</b>	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	<b>ND</b>	0.073	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	<b>ND</b>	0.073	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	<b>ND</b>	0.073	EPA 8021B	8-28-15	8-28-15	
o-Xylene	<b>ND</b>	0.073	EPA 8021B	8-28-15	8-28-15	
Gasoline	<b>ND</b>	7.3	NWTPH-Gx	8-28-15	8-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	68-123				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-S1-33.0</b>					
Laboratory ID:	08-288-01					
Diesel Range Organics	ND	27	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	ND	55	NWTPH-Dx	8-29-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				
<b>Client ID:</b>	<b>UST2EX-S2-33.0</b>					
Laboratory ID:	08-288-02					
Diesel Range Organics	ND	32	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	ND	63	NWTPH-Dx	8-29-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	103	50-150				
<b>Client ID:</b>	<b>UST2EX-W1-33.0</b>					
Laboratory ID:	08-288-03					
Diesel Range Organics	ND	33	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	ND	65	NWTPH-Dx	8-29-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				
<b>Client ID:</b>	<b>UST2EX-W2-33.0</b>					
Laboratory ID:	08-288-04					
Diesel Range Organics	ND	31	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	ND	62	NWTPH-Dx	8-29-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				
<b>Client ID:</b>	<b>UST2EX-B2-36.0</b>					
Laboratory ID:	08-288-05					
Diesel Range Organics	ND	32	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	ND	64	NWTPH-Dx	8-29-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-S1-33.0</b>					
Laboratory ID:	08-288-01					
Naphthalene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	ND	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>57</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>56</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>61</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-S2-33.0</b>					
Laboratory ID:	08-288-02					
Naphthalene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	ND	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>52</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>49</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>53</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-W1-33.0</b>					
Laboratory ID:	08-288-03					
Naphthalene	<b>0.040</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	<b>0.021</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	<b>0.021</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	<b>ND</b>	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>64</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>60</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>65</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-W2-33.0</b>					
Laboratory ID:	08-288-04					
Naphthalene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	ND	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>81</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>82</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>88</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST2EX-B2-36.0</b>					
Laboratory ID:	08-288-05					
Naphthalene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	ND	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>73</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0828S2					
Benzene	ND	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	ND	0.050	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	ND	0.050	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	ND	0.050	EPA 8021B	8-28-15	8-28-15	
o-Xylene	ND	0.050	EPA 8021B	8-28-15	8-28-15	
Gasoline	ND	5.0	NWTPH-Gx	8-28-15	8-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	86	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-288-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				89	88	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0828S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.870	0.951	1.00	1.00	87	95	75-117	9	13
Toluene	0.875	0.967	1.00	1.00	88	97	78-118	10	12
Ethyl Benzene	0.862	0.936	1.00	1.00	86	94	78-118	8	12
m,p-Xylene	0.878	0.964	1.00	1.00	88	96	78-121	9	13
o-Xylene	0.869	0.943	1.00	1.00	87	94	77-119	8	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					82	87	68-123		

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0829S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-29-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-247-04							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				97	92	50-150		

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0831S1					
Naphthalene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>81</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>83</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>90</i>	<i>31 - 116</i>				

Date of Report: September 1, 2015  
 Samples Submitted: August 28, 2015  
 Laboratory Reference: 1508-288  
 Project: 21138-001-03

**PAHs EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
	SB	SBD	SB	SBD	SB	SBD				
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0831S1									
Naphthalene	<b>0.0711</b>	<b>0.0719</b>	0.0833	0.0833	85	86	63 - 113	1	19	
Acenaphthylene	<b>0.0748</b>	<b>0.0728</b>	0.0833	0.0833	90	87	61 - 125	3	16	
Acenaphthene	<b>0.0748</b>	<b>0.0732</b>	0.0833	0.0833	90	88	66 - 113	2	16	
Fluorene	<b>0.0753</b>	<b>0.0777</b>	0.0833	0.0833	90	93	60 - 117	3	16	
Phenanthrene	<b>0.0726</b>	<b>0.0724</b>	0.0833	0.0833	87	87	63 - 116	0	12	
Anthracene	<b>0.127</b>	<b>0.126</b>	0.0833	0.0833	152	151	66 - 146	1	19	II
Fluoranthene	<b>0.0717</b>	<b>0.0722</b>	0.0833	0.0833	86	87	60 - 125	1	13	
Pyrene	<b>0.0716</b>	<b>0.0716</b>	0.0833	0.0833	86	86	66 - 126	0	15	
Benzo[a]anthracene	<b>0.0826</b>	<b>0.0824</b>	0.0833	0.0833	99	99	60 - 128	0	15	
Chrysene	<b>0.0740</b>	<b>0.0746</b>	0.0833	0.0833	89	90	60 - 117	1	13	
Benzo[b]fluoranthene	<b>0.0711</b>	<b>0.0720</b>	0.0833	0.0833	85	86	60 - 131	1	16	
Benzo(j,k)fluoranthene	<b>0.0727</b>	<b>0.0735</b>	0.0833	0.0833	87	88	57 - 126	1	20	
Benzo[a]pyrene	<b>0.0699</b>	<b>0.0704</b>	0.0833	0.0833	84	85	62 - 136	1	16	
Indeno(1,2,3-c,d)pyrene	<b>0.0603</b>	<b>0.0632</b>	0.0833	0.0833	72	76	60 - 127	5	19	
Dibenz[a,h]anthracene	<b>0.0592</b>	<b>0.0627</b>	0.0833	0.0833	71	75	62 - 133	6	22	
Benzo[g,h,i]perylene	<b>0.0641</b>	<b>0.0668</b>	0.0833	0.0833	77	80	63 - 129	4	22	
<i>Surrogate:</i>										
2-Fluorobiphenyl					88	87	32 - 114			
Pyrene-d10					82	83	33 - 121			
Terphenyl-d14					89	89	31 - 116			

Date of Report: September 1, 2015  
Samples Submitted: August 28, 2015  
Laboratory Reference: 1508-288  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-28-15

Client ID	Lab ID	% Moisture
UST2EX-S1-33.0	08-288-01	9
UST2EX-S2-33.0	08-288-02	21
UST2EX-W1-33.0	08-288-03	23
UST2EX-W2-33.0	08-288-04	19
UST2EX-B2-36.0	08-288-05	22



### 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-naphthalene) 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

Company: **GEOENGINEERS**  
 Project Number: **21138-001-03**  
 Project Name: **9th & LENORA PROJECT**  
 Project Manager: **FASIH KHAN**  
 Sampled by: **FASIH KHAN**

**Turnaround Request (in working days)**

(Check One)

**By 10 AM Same Day (GBEx, D, X)**  1 Day

2 Days  3 Days

Standard (7 Days) (TPH analysis 5 Days)

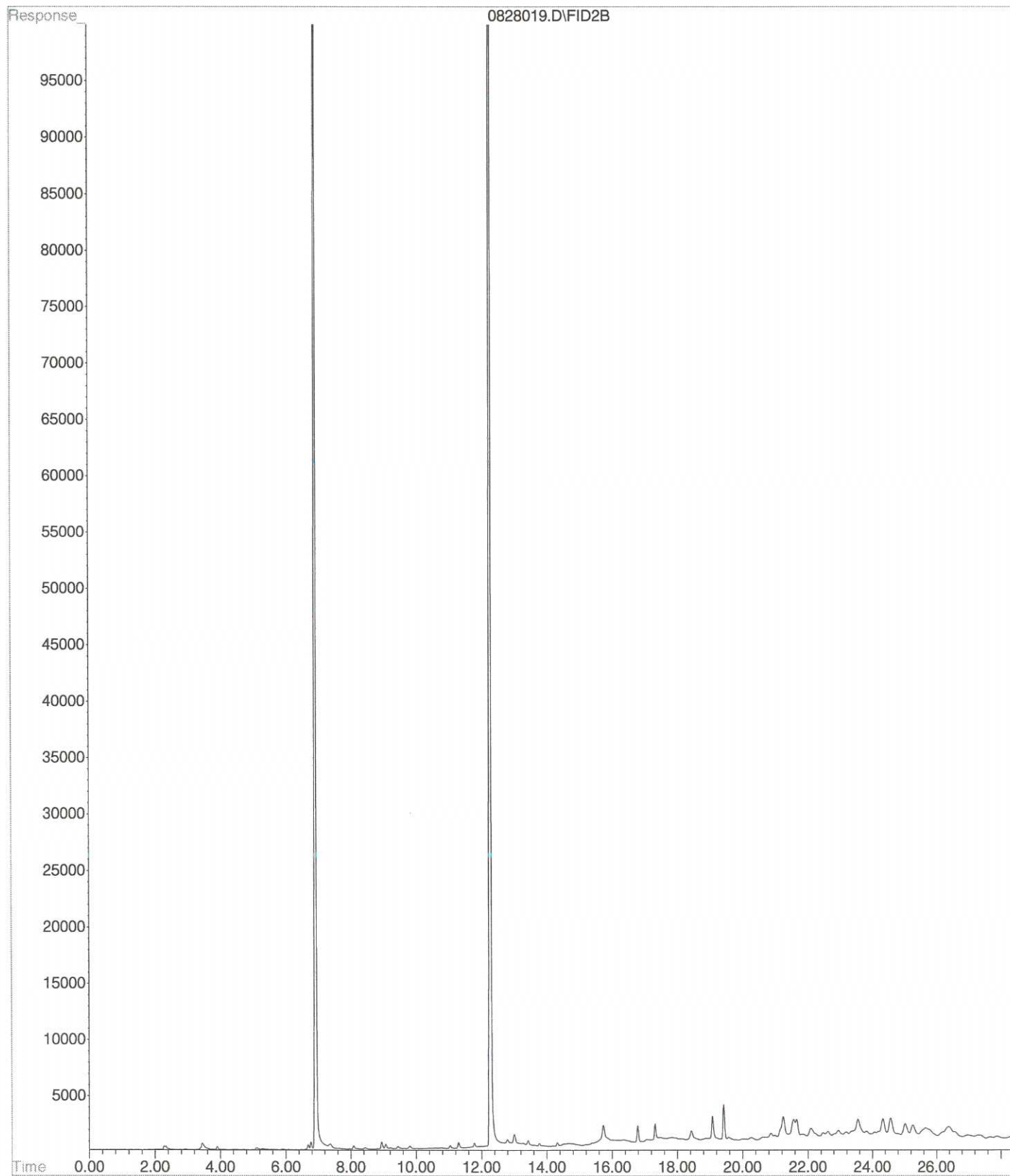
\_\_\_\_\_ (other)

Laboratory Number: **08-288**

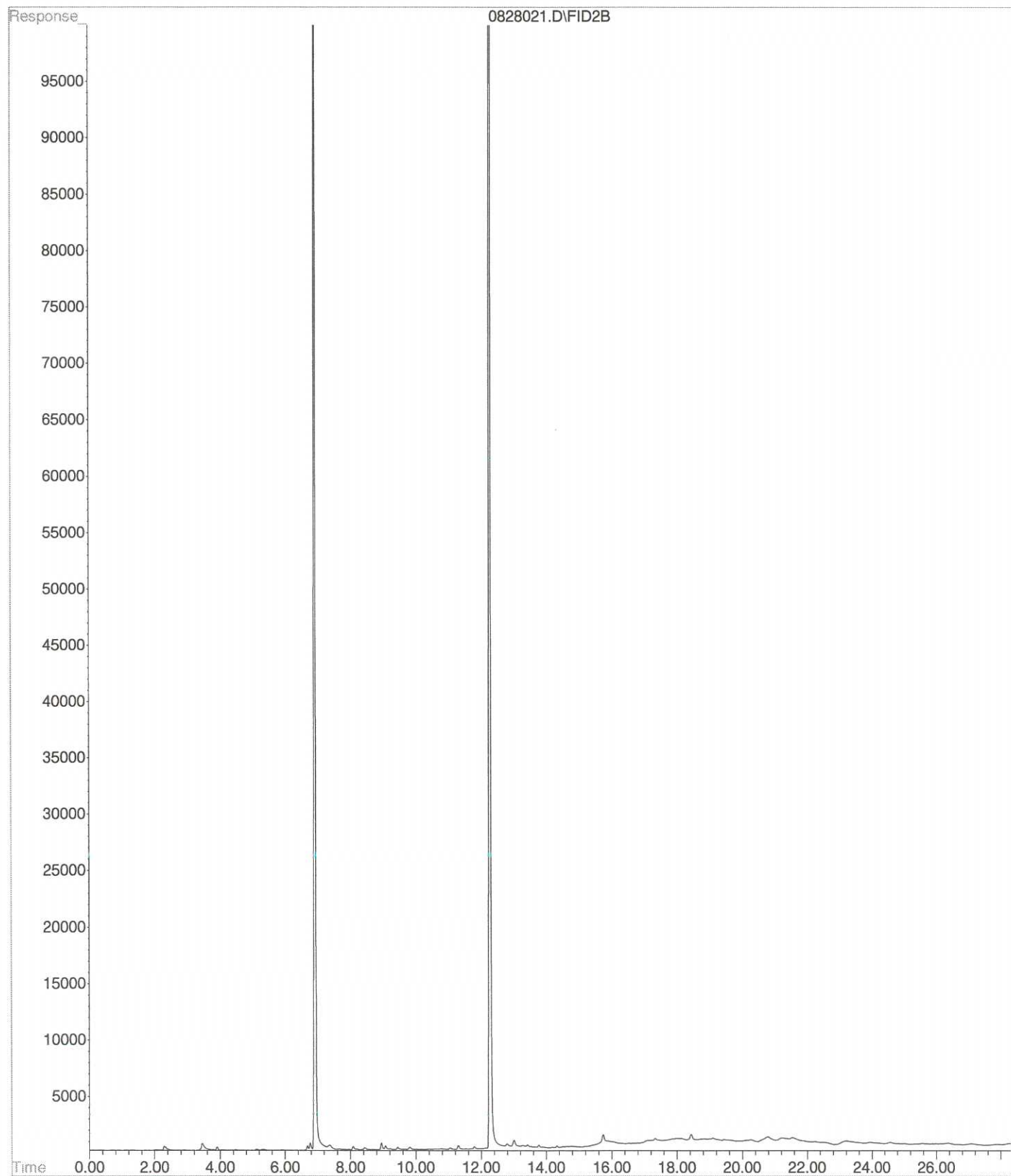
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-DX	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total FCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture	
1	UST2EX-81-33.0	8/28/15	1242	S	2		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>
2	UST2EX-82-33.0		1251				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>
3	UST2EX-W1-33.0		1010				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>
4	UST2EX-W2-33.0		1015				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>
5	UST2EX-B2-36.0		1310				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEO	8/28/15	1545	PAH 2 day, except #5 (1 day, TAT)  * This sample PAHs by Monday evening (Aug 31, 2015).
Received		Onsite	8-28-15	1545	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/>

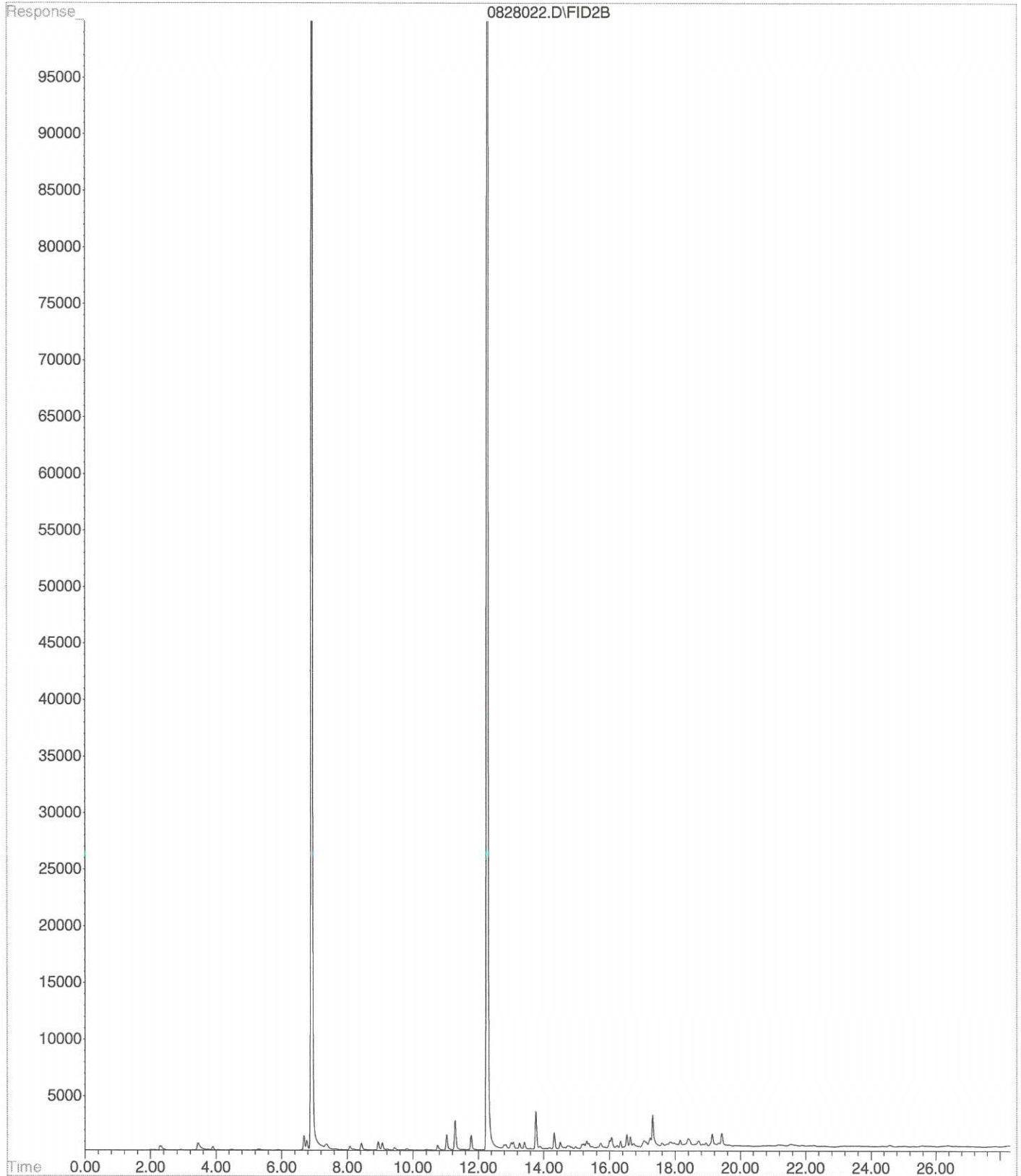
File : X:\BTEX\DARYL\DATA\D150828\0828019.D  
Operator :  
Acquired : 28 Aug 2015 23:29 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-288-01s  
Misc Info : V2-37-21  
Vial Number: 19



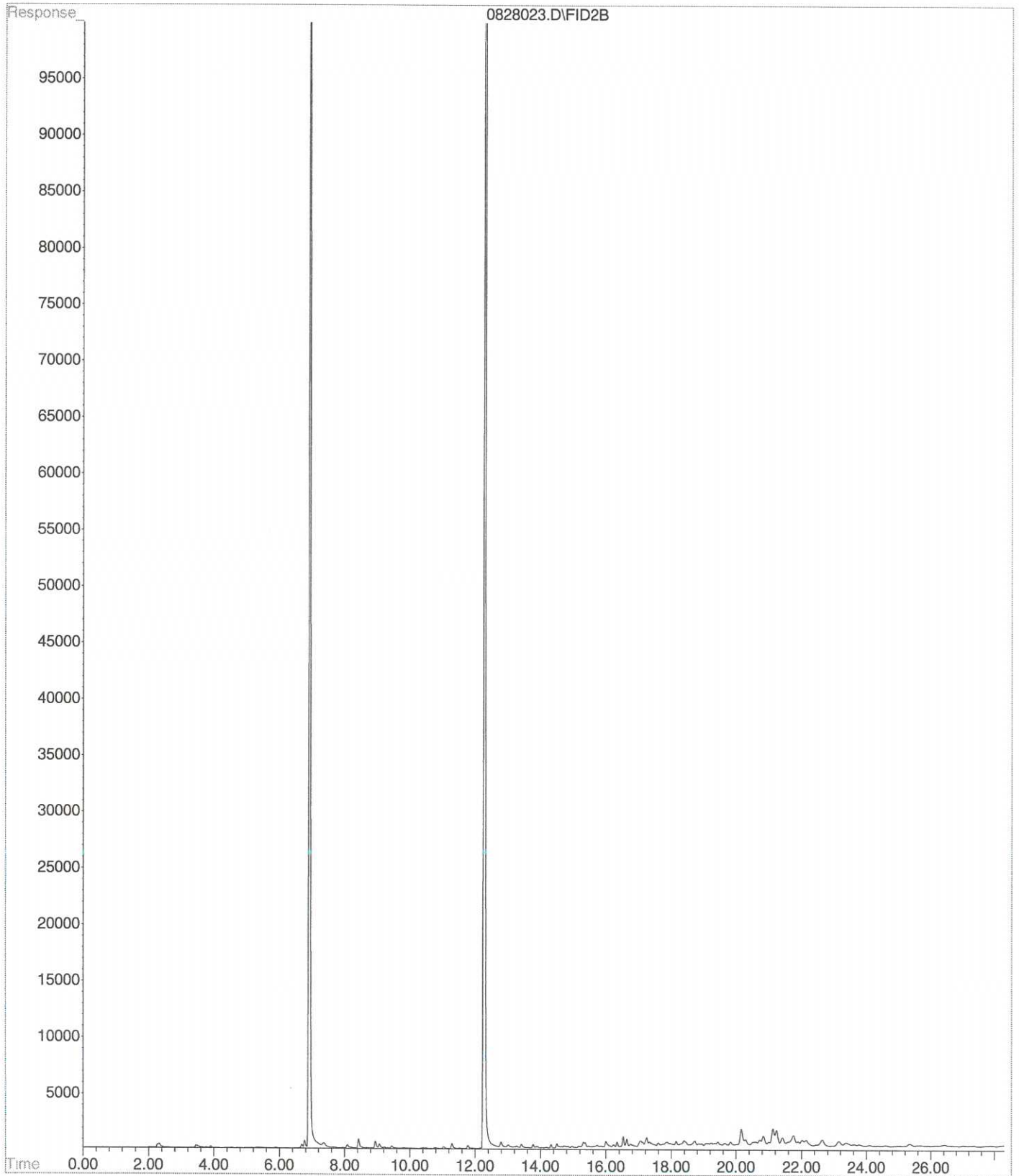
File : X:\BTEX\DARYL\DATA\D150828\0828021.D  
Operator :  
Acquired : 29 Aug 2015 00:36 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-288-02s  
Misc Info : V2-37-21  
Vial Number: 21



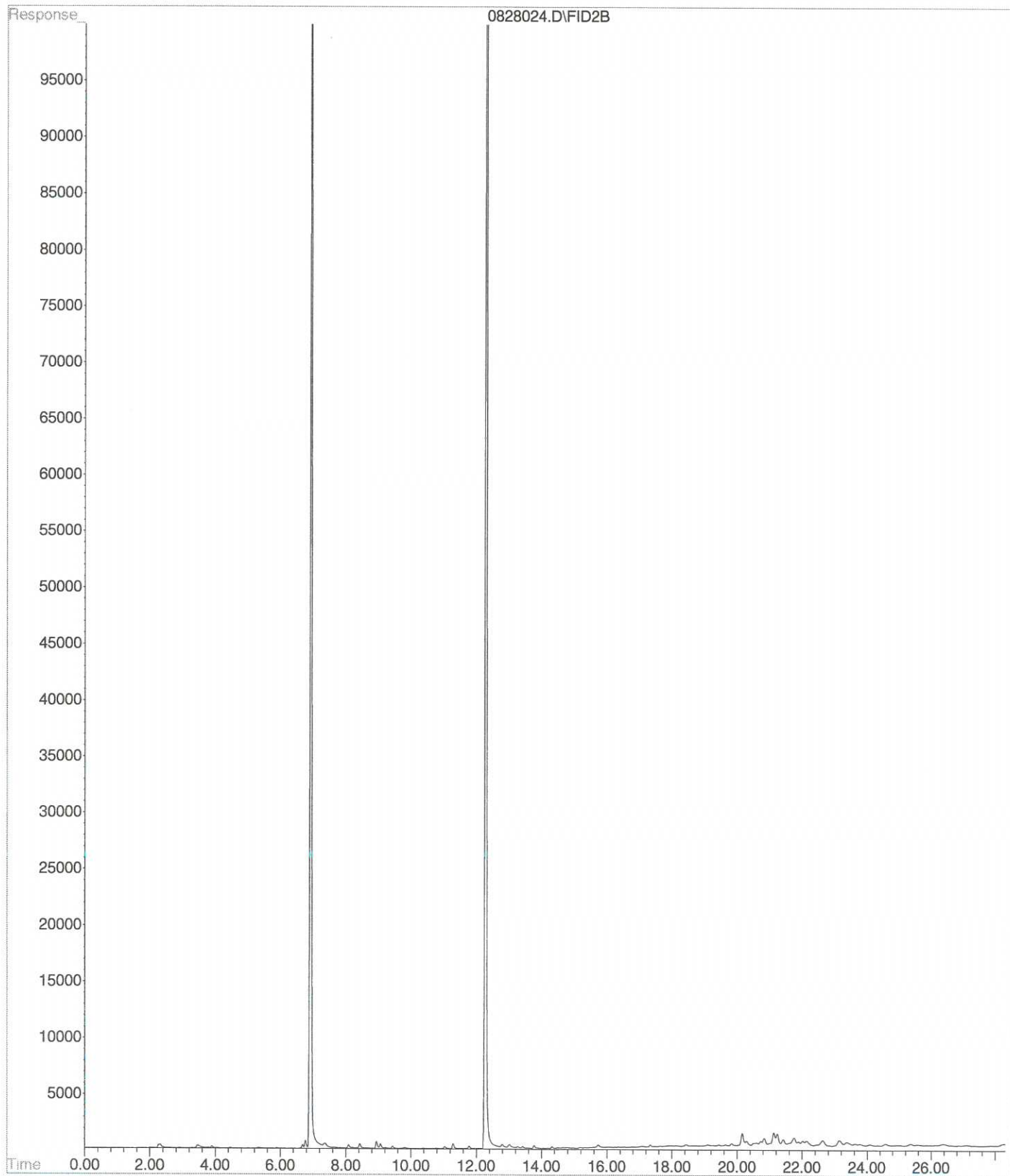
File : X:\BTEX\DARYL\DATA\D150828\0828022.D  
Operator :  
Acquired : 29 Aug 2015 1:10 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-288-03s  
Misc Info : V2-37-21  
Vial Number: 22



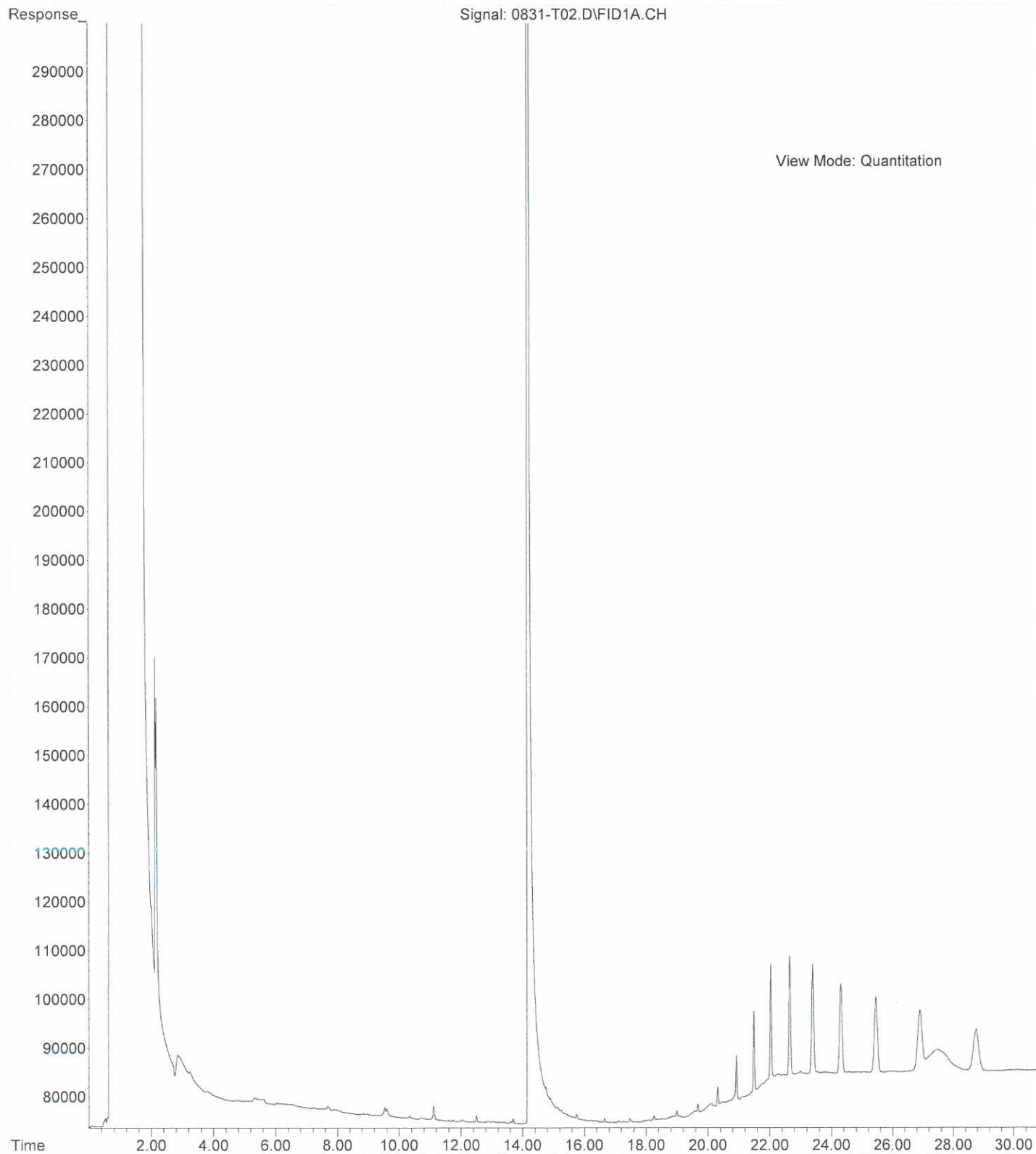
File : X:\BTEX\DARYL\DATA\D150828\0828023.D  
Operator :  
Acquired : 29 Aug 2015 1:43 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-288-04s  
Misc Info : V2-37-21  
Vial Number: 23



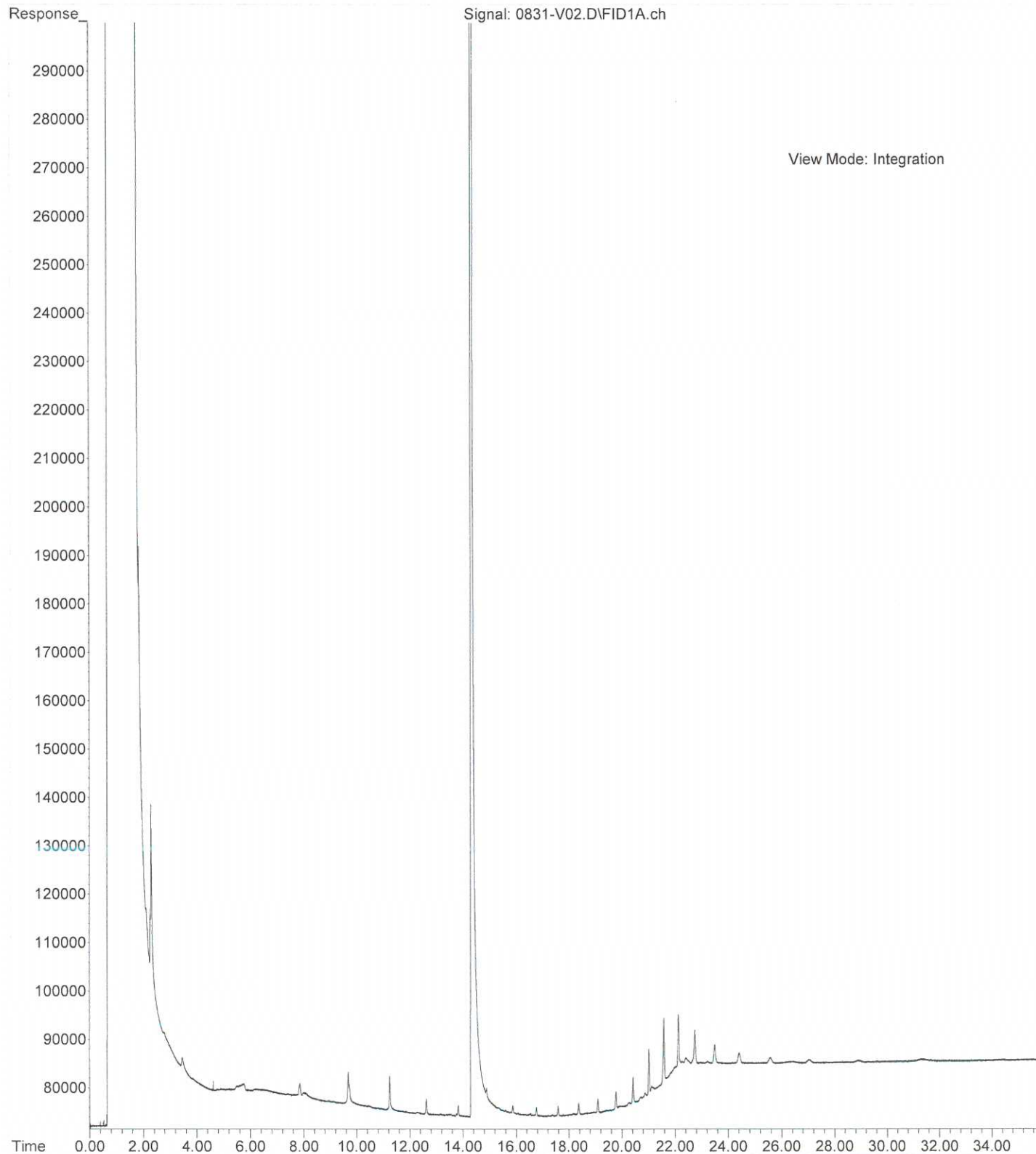
File : X:\BTEX\DARYL\DATA\D150828\0828024.D  
Operator :  
Acquired : 29 Aug 2015 2:16 using AcqMethod 150709B.M  
Instrument : Daryl  
Sample Name: 08-288-05s  
Misc Info : V2-37-21  
Vial Number: 24



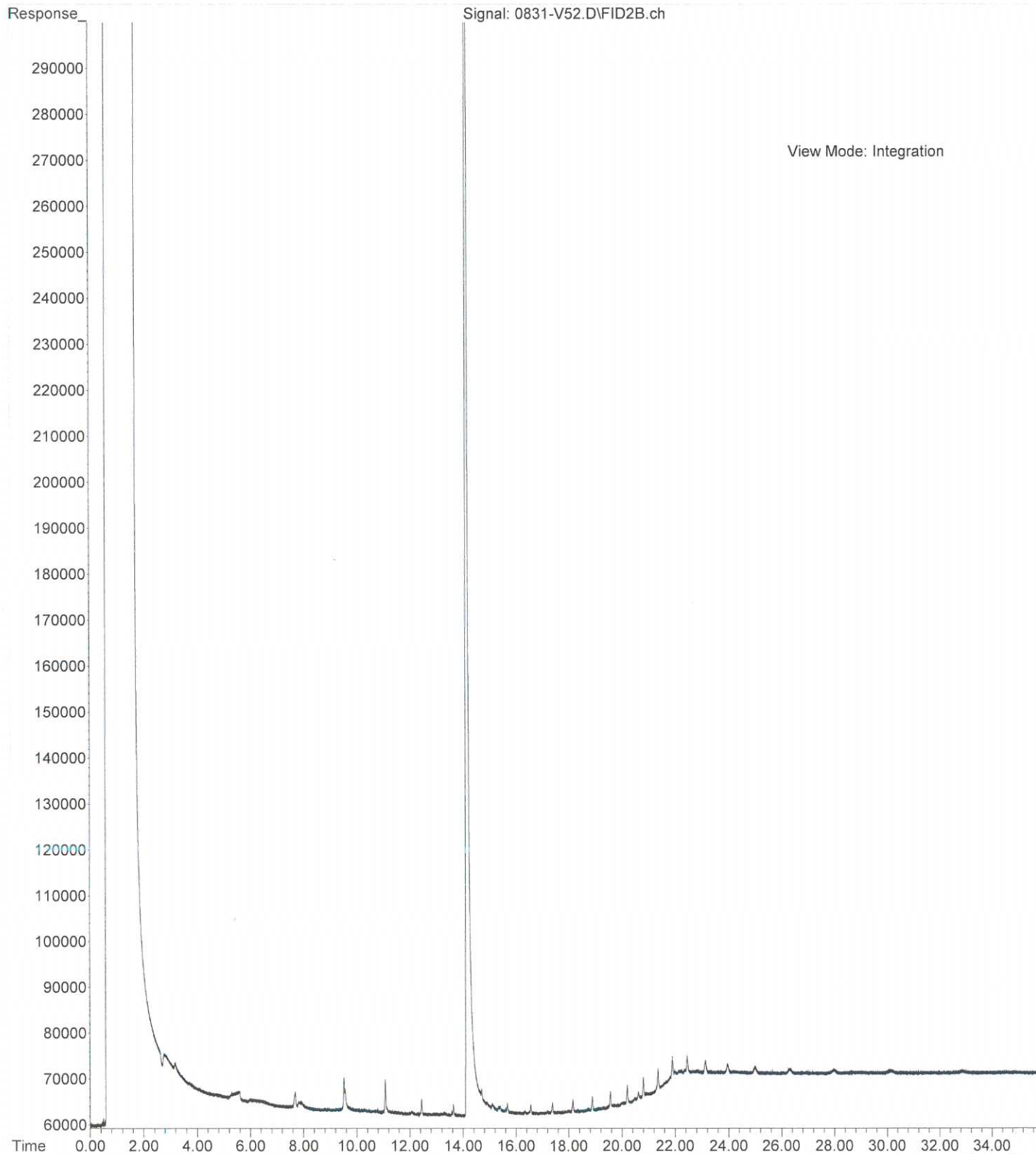
File :X:\DIESELS\TERI\DATA\T150831\0831-T02.D  
Operator : ZT  
Acquired : 31 Aug 2015 10:15 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-288-01  
Misc Info :  
Vial Number: 2



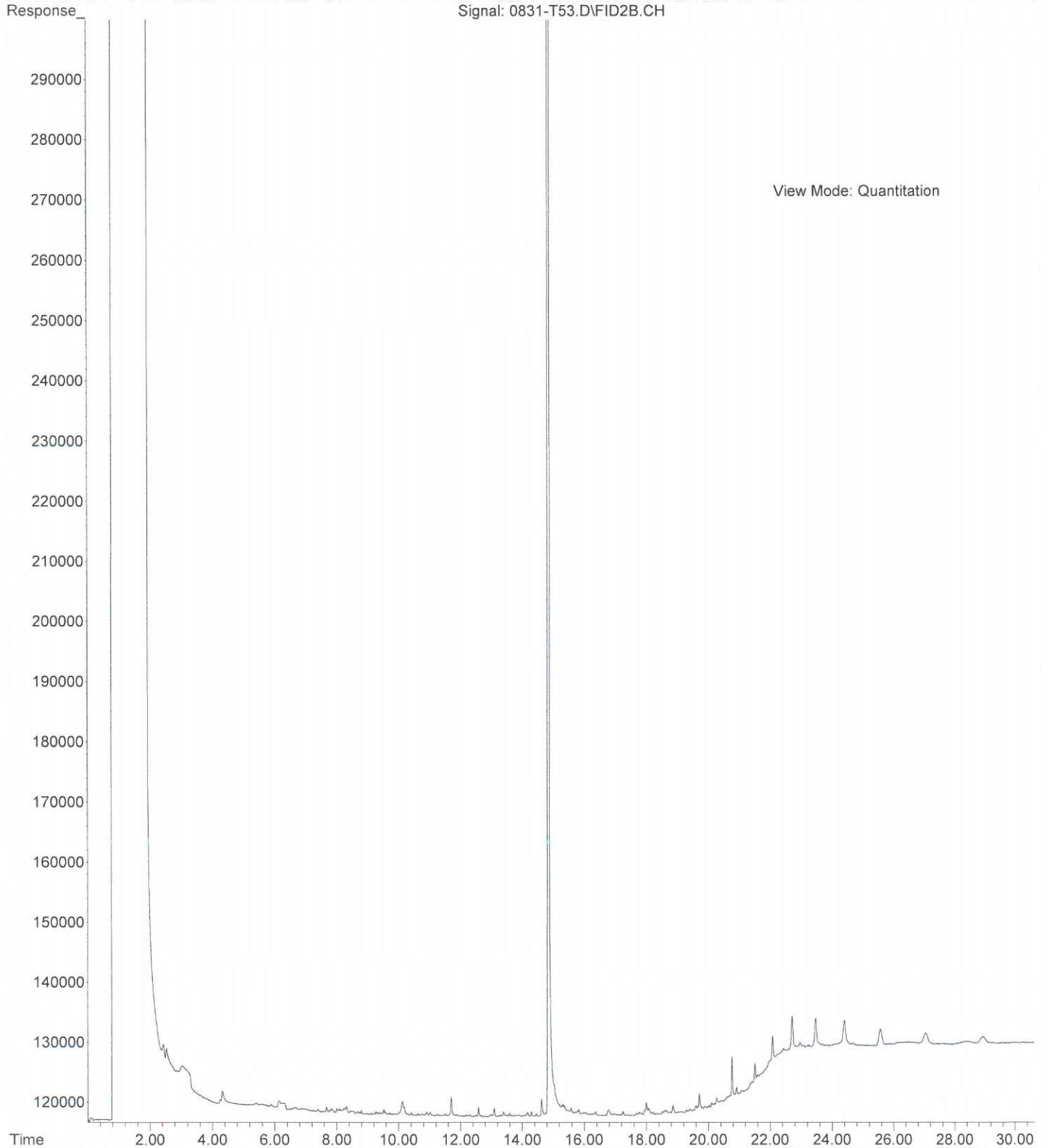
File :X:\DIESELS\VIGO\DATA\V150831\0831-V02.D  
Operator :  
Acquired : 31 Aug 2015 10:33 using AcqMethod V150507F.M  
Instrument : Vigo  
Sample Name: 08-288-02  
Misc Info :  
Vial Number: 2



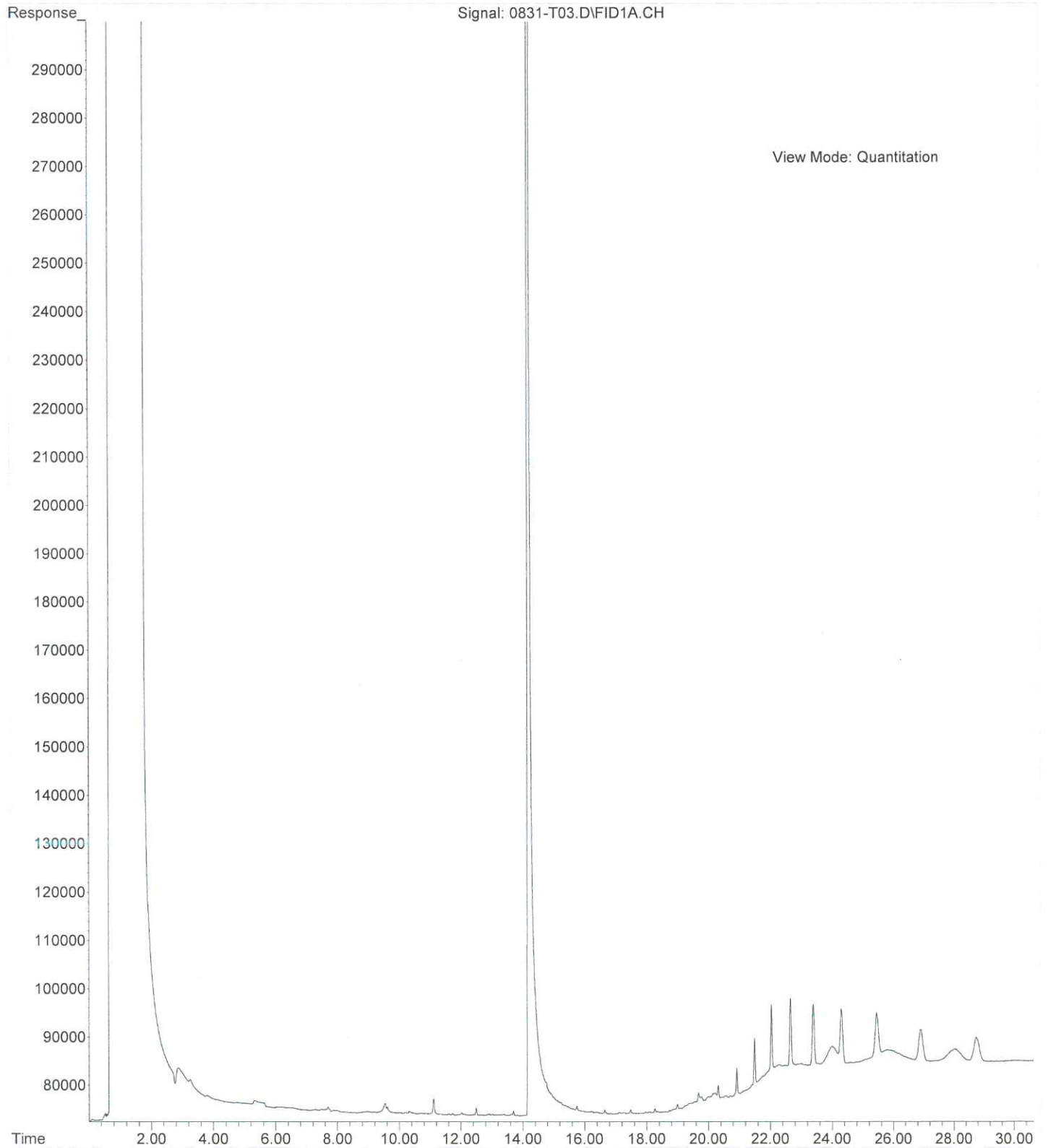
File :X:\DIESELS\VIGO\DATA\V150831.SEC\0831-V52.D  
Operator :  
Acquired : 31 Aug 2015 10:33 using AcqMethod V150507F.M  
Instrument : Vigo  
Sample Name: 08-288-03  
Misc Info :  
Vial Number: 52



File :X:\DIESELS\TERI\DATA\T150831.SEC\0831-T53.D  
Operator : ZT  
Acquired : 31 Aug 2015 10:54 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-288-04  
Misc Info :  
Vial Number: 53



File :X:\DIESELS\TERI\DATA\T150831\0831-T03.D  
Operator : ZT  
Acquired : 31 Aug 2015 10:54 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-288-05  
Misc Info :  
Vial Number: 3





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 13, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-107

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 13, 2015  
Samples Submitted: August 12, 2015  
Laboratory Reference: 1508-107  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 12, 2015 and received by the laboratory on August 12, 2015. 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.

Date of Report: August 13, 2015  
Samples Submitted: August 12, 2015  
Laboratory Reference: 1508-107  
Project: 21138-001-03

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
ELEVTR-PRODUCT	08-107-01	Product	8-12-15	8-12-15	
HOIST-PRODUCT	08-107-02	Product	8-12-15	8-12-15	

Date of Report: August 13, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-107  
 Project: 21138-001-03

### NWTPH-HCID

Matrix: Product  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>ELEVTR-PRODUCT</b>					
Laboratory ID:	08-107-01					
Gasoline Range Organics	<b>ND</b>	1400	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Range Organics	<b>Detected</b>	2500	NWTPH-HCID	8-12-15	8-12-15	N
Lube Oil	<b>Detected</b>	4900	NWTPH-HCID	8-12-15	8-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

<b>Client ID:</b>	<b>HOIST-PRODUCT</b>					
Laboratory ID:	08-107-02					
Gasoline Range Organics	<b>ND</b>	2300	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Range Organics	<b>Detected</b>	2400	NWTPH-HCID	8-12-15	8-12-15	N
Lube Oil	<b>Detected</b>	4800	NWTPH-HCID	8-12-15	8-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	97	50-150				

Date of Report: August 13, 2015  
 Samples Submitted: August 12, 2015  
 Laboratory Reference: 1508-107  
 Project: 21138-001-03

**NWTPH-HCID  
 QUALITY CONTROL**

Matrix: Product  
 Units: mg/Kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>METHOD BLANK</b>						
Laboratory ID:	MB0812P1					
Gasoline Range Organics	<b>ND</b>	1000	NWTPH-HCID	8-12-15	8-12-15	
Diesel Range Organics	<b>ND</b>	2500	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil Range Organics	<b>ND</b>	5000	NWTPH-HCID	8-12-15	8-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>85</i>	<i>50-150</i>				

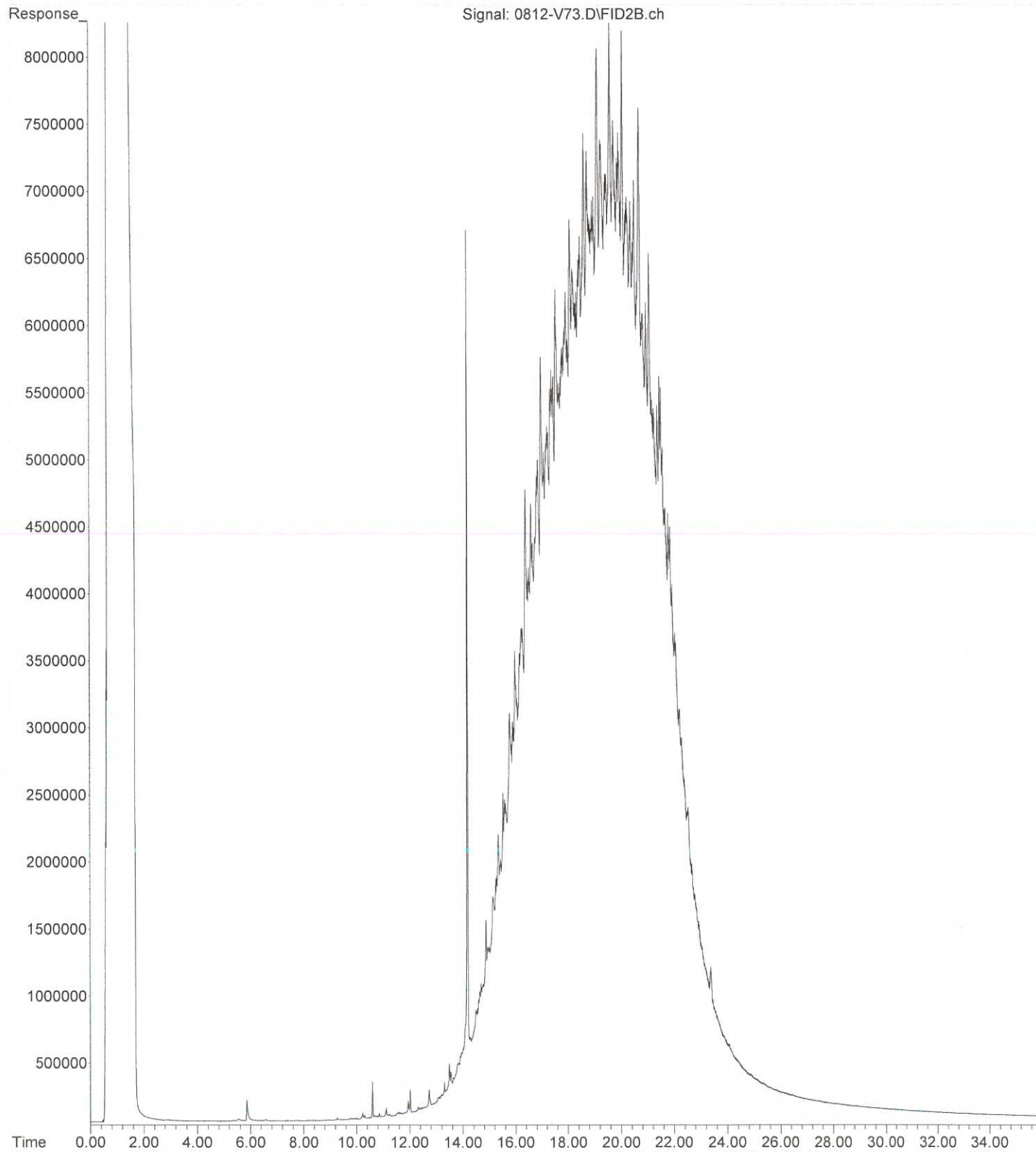


### Data Qualifiers and Abbreviations

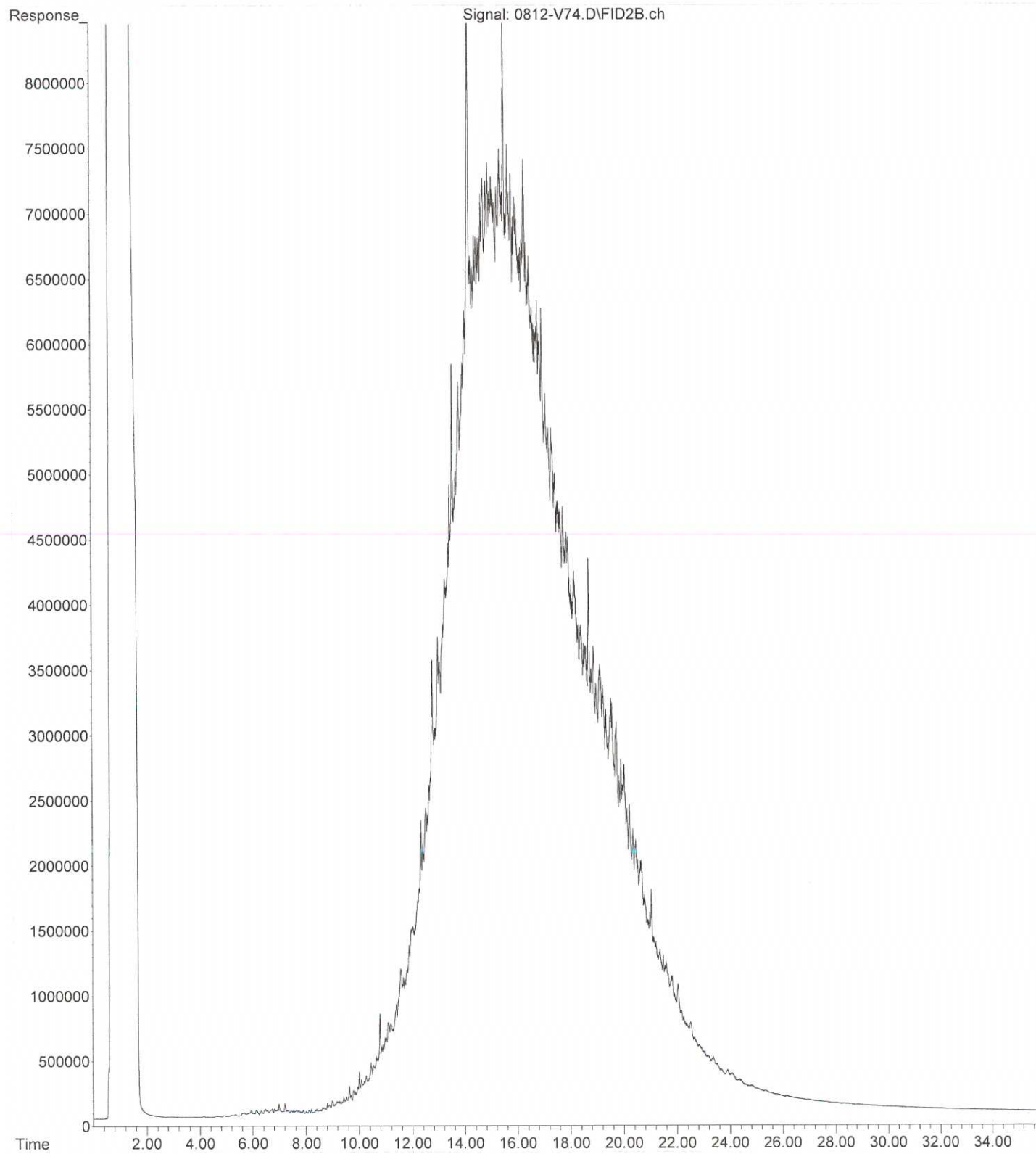
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V73.D  
Operator :  
Acquired : 13 Aug 2015 3:29 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 08-107-01  
Misc Info :  
Vial Number: 73



File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V74.D  
Operator :  
Acquired : 13 Aug 2015 4:10 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 08-107-02  
Misc Info :  
Vial Number: 74





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September 8, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1509-041

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on September 2, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: September 8, 2015  
Samples Submitted: September 2, 2015  
Laboratory Reference: 1509-041  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 24, 25, and 26, 2015 and received by the laboratory on September 2, 2015. 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.

Date of Report: September 8, 2015  
Samples Submitted: September 2, 2015  
Laboratory Reference: 1509-041  
Project: 21138-001-03

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
ELEVIREX-1-20.0	09-041-01	Soil	8-26-15	9-2-15	
MASSEX-4-9.0	09-041-02	Soil	8-24-15	9-2-15	
MASSEX-10-9.0	09-041-03	Soil	8-25-15	9-2-15	

Date of Report: September 8, 2015  
 Samples Submitted: September 2, 2015  
 Laboratory Reference: 1509-041  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>ELEVIREX-1-20.0</b>					
Laboratory ID:	09-041-01					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	9-3-15	9-3-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				
<b>Client ID:</b>	<b>MASSEX-4-9.0</b>					
Laboratory ID:	09-041-02					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	9-3-15	9-3-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	75	50-150				
<b>Client ID:</b>	<b>MASSEX-10-9.0</b>					
Laboratory ID:	09-041-03					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	9-3-15	9-3-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	75	50-150				

Date of Report: September 8, 2015  
 Samples Submitted: September 2, 2015  
 Laboratory Reference: 1509-041  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>ELEVIREX-1-20.0</b>					
Laboratory ID:	09-041-01					
Benzo[a]anthracene	ND	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Chrysene	ND	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[b]fluoranthene	ND	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo(j,k)fluoranthene	ND	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[a]pyrene	ND	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Dibenz[a,h]anthracene	ND	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>54</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>48</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>49</i>	<i>31 - 116</i>				

Date of Report: September 8, 2015  
 Samples Submitted: September 2, 2015  
 Laboratory Reference: 1509-041  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0903S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	9-3-15	9-3-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	09-036-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				69	79	50-150		

Date of Report: September 8, 2015  
 Samples Submitted: September 2, 2015  
 Laboratory Reference: 1509-041  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0904S1					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>89</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>82</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>81</i>	<i>31 - 116</i>				

Date of Report: September 8, 2015  
 Samples Submitted: September 2, 2015  
 Laboratory Reference: 1509-041  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent		Recovery		RPD	Limit	Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD				
<b>MATRIX SPIKES</b>												
Laboratory ID:	09-041-01											
	MS	MSD	MS	MSD		MS	MSD					
Naphthalene	<b>0.0540</b>	<b>0.0470</b>	0.0833	0.0833	ND	65	56	44 - 107	14		29	
Acenaphthylene	<b>0.0634</b>	<b>0.0545</b>	0.0833	0.0833	ND	76	65	44 - 121	15		27	
Acenaphthene	<b>0.0565</b>	<b>0.0483</b>	0.0833	0.0833	ND	68	58	47 - 109	16		26	
Fluorene	<b>0.0579</b>	<b>0.0492</b>	0.0833	0.0833	ND	70	59	49 - 115	16		28	
Phenanthrene	<b>0.0559</b>	<b>0.0484</b>	0.0833	0.0833	ND	67	58	45 - 114	14		26	
Anthracene	<b>0.0949</b>	<b>0.0793</b>	0.0833	0.0833	ND	114	95	43 - 140	18		27	
Fluoranthene	<b>0.0546</b>	<b>0.0464</b>	0.0833	0.0833	ND	66	56	44 - 126	16		27	
Pyrene	<b>0.0542</b>	<b>0.0457</b>	0.0833	0.0833	ND	65	55	43 - 125	17		27	
Benzo[a]anthracene	<b>0.0638</b>	<b>0.0542</b>	0.0833	0.0833	ND	77	65	42 - 134	16		27	
Chrysene	<b>0.0547</b>	<b>0.0468</b>	0.0833	0.0833	ND	66	56	45 - 114	16		27	
Benzo[b]fluoranthene	<b>0.0532</b>	<b>0.0424</b>	0.0833	0.0833	ND	64	51	38 - 131	23		33	
Benzo(j,k)fluoranthene	<b>0.0464</b>	<b>0.0412</b>	0.0833	0.0833	ND	56	49	44 - 114	12		34	
Benzo[a]pyrene	<b>0.0522</b>	<b>0.0443</b>	0.0833	0.0833	ND	63	53	40 - 136	16		29	
Indeno(1,2,3-c,d)pyrene	<b>0.0483</b>	<b>0.0405</b>	0.0833	0.0833	ND	58	49	45 - 126	18		30	
Dibenz[a,h]anthracene	<b>0.0501</b>	<b>0.0422</b>	0.0833	0.0833	ND	60	51	46 - 121	17		28	
Benzo[g,h,i]perylene	<b>0.0502</b>	<b>0.0421</b>	0.0833	0.0833	ND	60	51	43 - 120	18		31	
<i>Surrogate:</i>												
2-Fluorobiphenyl						67	57	32 - 114				
Pyrene-d10						59	50	33 - 121				
Terphenyl-d14						60	51	31 - 116				

Date of Report: September 8, 2015  
Samples Submitted: September 2, 2015  
Laboratory Reference: 1509-041  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 9-3-15

Client ID	Lab ID	% Moisture
ELEVIREX-1-20.0	09-041-01	10
MASSEX-4-9.0	09-041-02	11
MASSEX-10-9.0	09-041-03	10

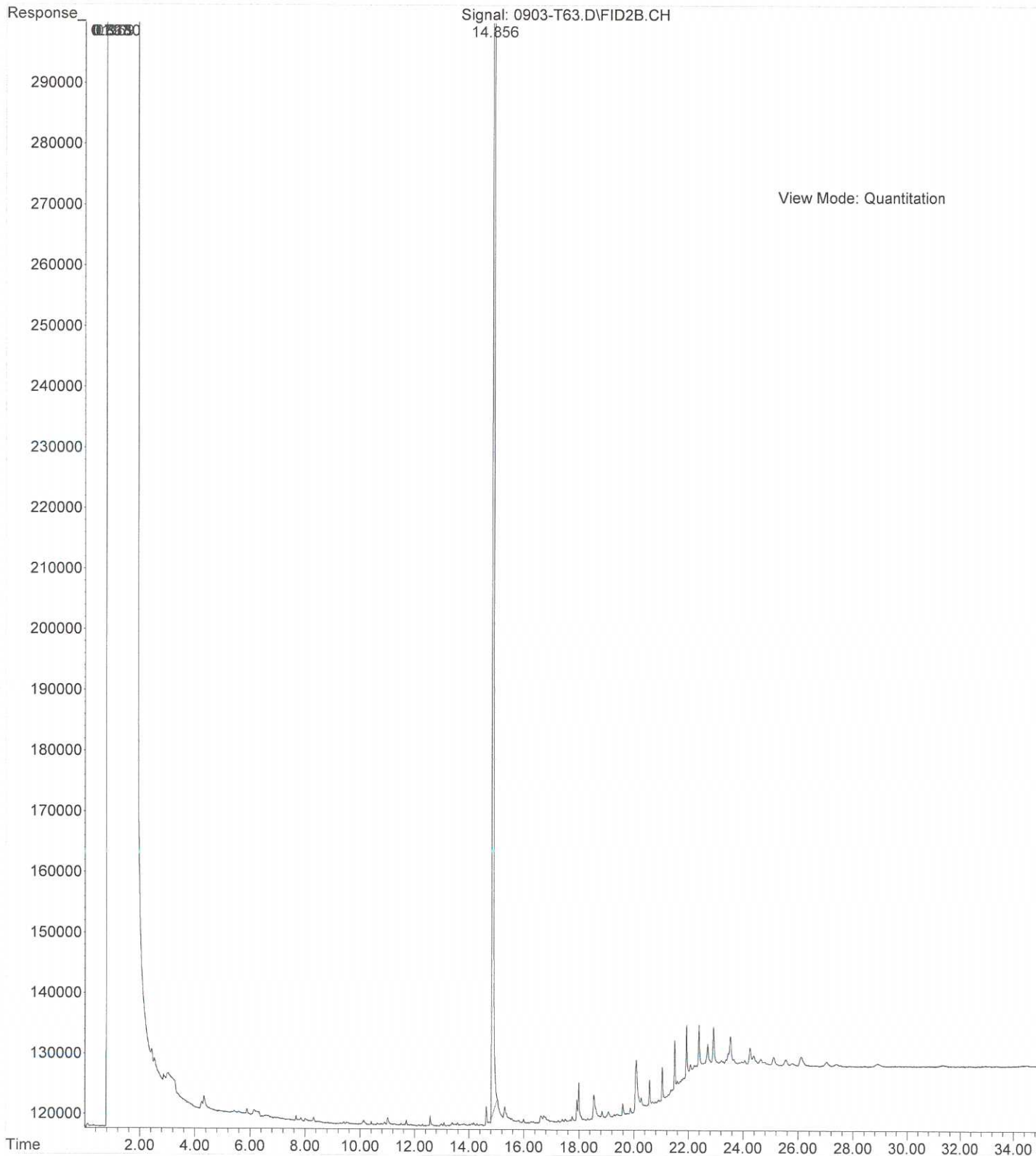


### Data Qualifiers and Abbreviations

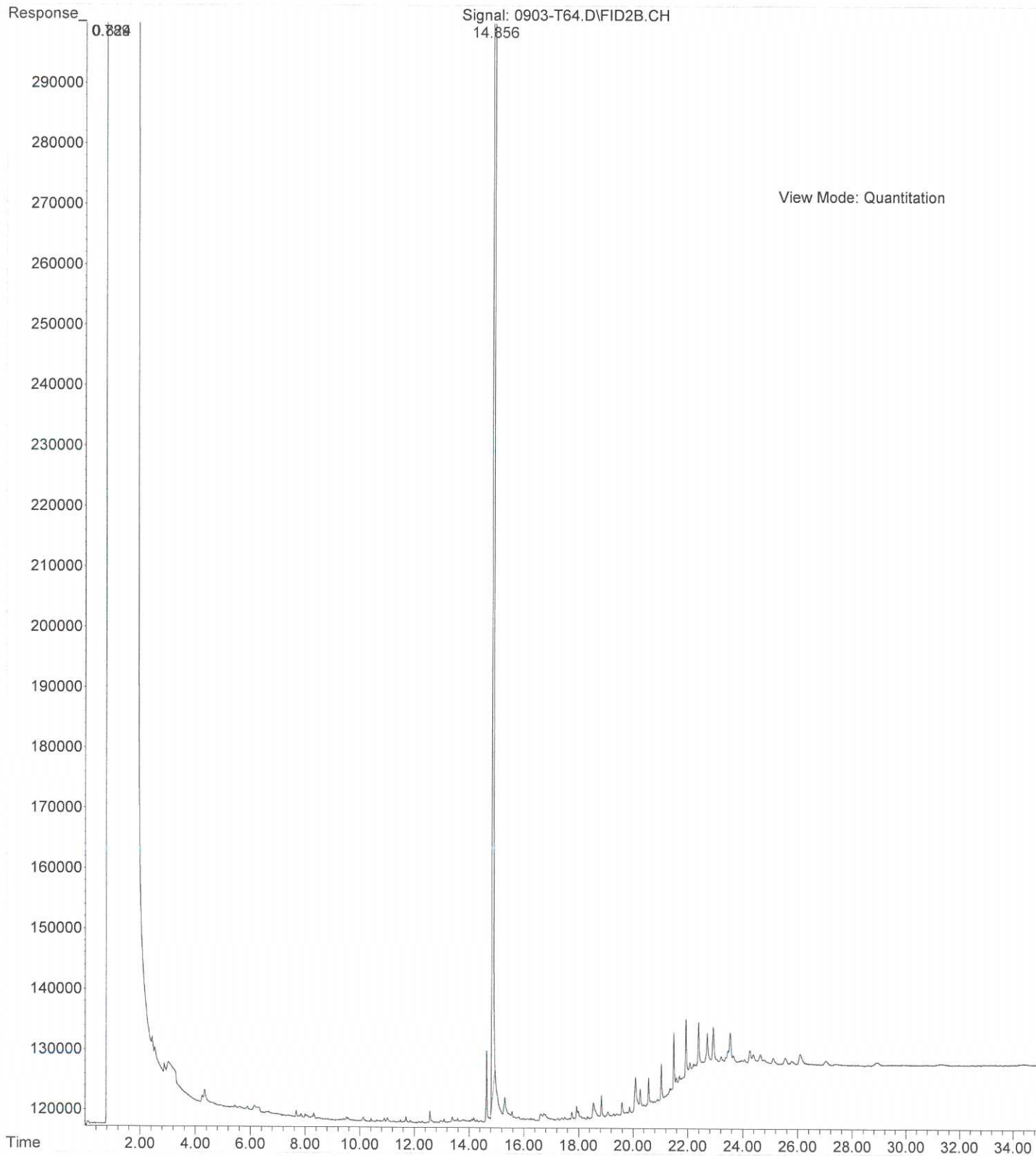
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



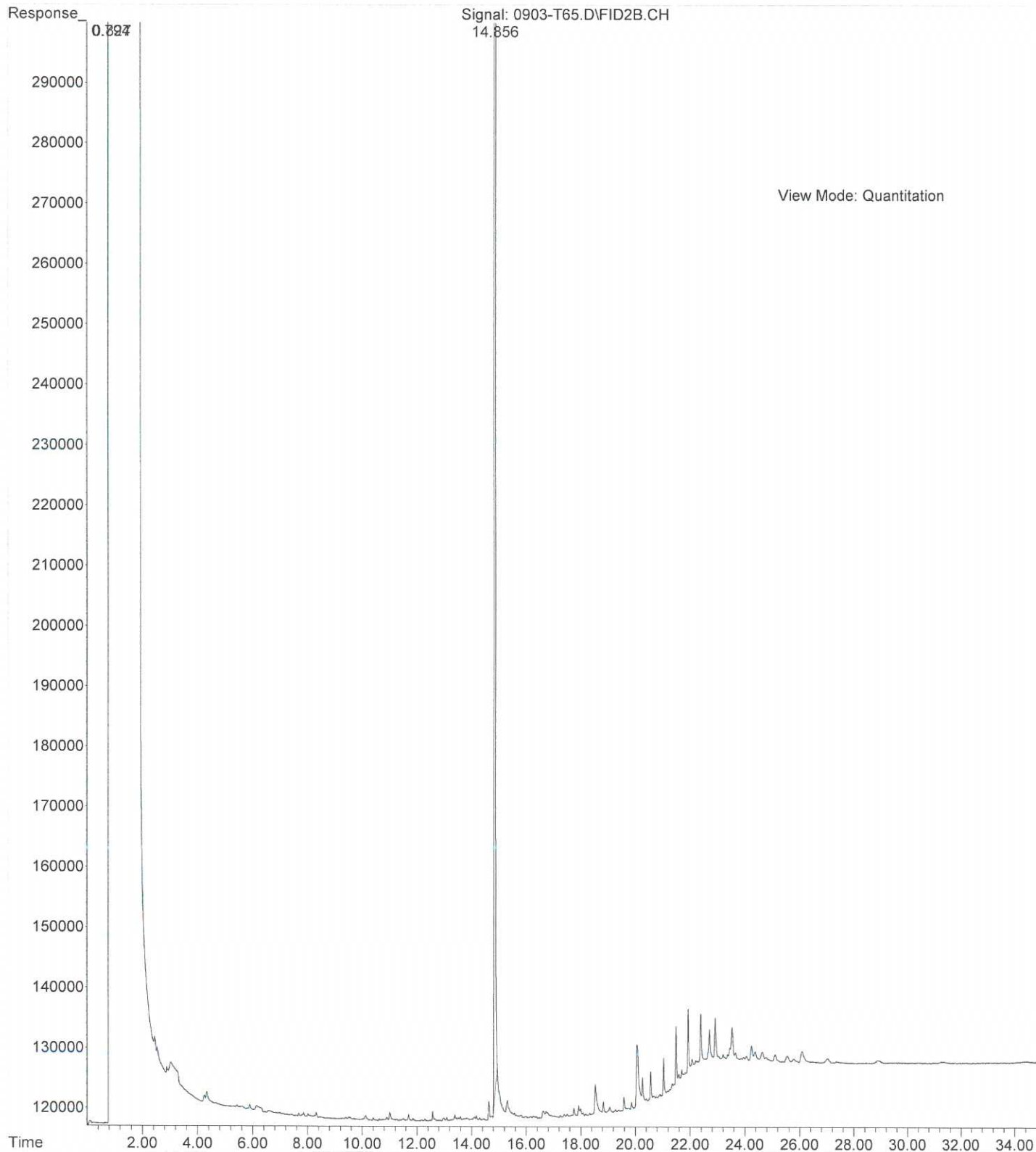
File : X:\DIESELS\TERI\DATA\T150903.SEC\0903-T63.D  
Operator : ZT  
Acquired : 03 Sep 2015 21:24 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 09-041-01  
Misc Info :  
Vial Number: 63



File :X:\DIESELS\TERI\DATA\T150903.SEC\0903-T64.D  
Operator : ZT  
Acquired : 03 Sep 2015 22:07 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 09-041-02  
Misc Info :  
Vial Number: 64



File : X:\DIESELS\TERI\DATA\T150903.SEC\0903-T65.D  
Operator : ZT  
Acquired : 03 Sep 2015 22:50 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 09-041-03  
Misc Info :  
Vial Number: 65





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 31, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-201

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 31, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-201  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 14, 15, 17, 18, and 19, 2015 and received by the laboratory on August 19, 2015. 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.

Date of Report: August 31, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-201  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MASSEX-1-10.0	08-201-01	Soil	8-14-15	8-19-15	
MASSEX-2-10.0	08-201-02	Soil	8-14-15	8-19-15	
MASSEX-3-7.0	08-201-03	Soil	8-15-15	8-19-15	
MASSEX-4-7.0	08-201-04	Soil	8-15-15	8-19-15	
MASSEX-5-7.0	08-201-05	Soil	8-17-15	8-19-15	
MASSEX-6-7.0	08-201-06	Soil	8-17-15	8-19-15	
MASSEX-7-7.0	08-201-07	Soil	8-18-15	8-19-15	
MASSEX-8-7.0	08-201-08	Soil	8-18-15	8-19-15	
MASSEX-9-8.0	08-201-09	Soil	8-19-15	8-19-15	
MASSEX-10-8.0	08-201-10	Soil	8-19-15	8-19-15	

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-1-10.0</b>					
Laboratory ID:	08-201-01					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	8-20-15	8-3-15	
Lube Oil Range Organics	<b>ND</b>	59	NWTPH-Dx	8-20-15	8-3-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-2-10.0</b>					
Laboratory ID:	08-201-02					
Diesel Range Organics	ND	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	ND	59	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				

<b>Client ID:</b>	<b>MASSEX-3-7.0</b>					
Laboratory ID:	08-201-03					
Diesel Range Organics	ND	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	ND	60	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				

<b>Client ID:</b>	<b>MASSEX-4-7.0</b>					
Laboratory ID:	08-201-04					
Diesel Range Organics	ND	29	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil	61	58	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

<b>Client ID:</b>	<b>MASSEX-5-7.0</b>					
Laboratory ID:	08-201-05					
Diesel Range Organics	ND	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	ND	61	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

<b>Client ID:</b>	<b>MASSEX-6-7.0</b>					
Laboratory ID:	08-201-06					
Diesel Range Organics	ND	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	ND	59	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				

<b>Client ID:</b>	<b>MASSEX-7-7.0</b>					
Laboratory ID:	08-201-07					
Diesel Range Organics	ND	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	ND	63	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-8-7.0</b>					
Laboratory ID:	08-201-08					
Diesel Range Organics	<b>ND</b>	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	<b>ND</b>	61	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	79	50-150				
<b>Client ID:</b>	<b>MASSEX-9-8.0</b>					
Laboratory ID:	08-201-09					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	<b>ND</b>	60	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	98	50-150				
<b>Client ID:</b>	<b>MASSEX-10-8.0</b>					
Laboratory ID:	08-201-10					
Diesel Range Organics	<b>ND</b>	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil	<b>66</b>	59	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-1-10.0</b>					
Laboratory ID:	08-201-01					
Benzo[a]anthracene	ND	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Chrysene	ND	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[a]pyrene	ND	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>71</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>66</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>80</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-2-10.0</b>					
Laboratory ID:	08-201-02					
Benzo[a]anthracene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>105</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>65</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>109</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-3-7.0</b>					
Laboratory ID:	08-201-03					
Benzo[a]anthracene	ND	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>79</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-4-7.0</b>					
Laboratory ID:	08-201-04					
Benzo[a]anthracene	ND	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	73	32 - 114				
<i>Pyrene-d10</i>	76	33 - 121				
<i>Terphenyl-d14</i>	87	31 - 116				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-5-7.0</b>					
Laboratory ID:	08-201-05					
Benzo[a]anthracene	ND	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>64</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>71</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>79</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-6-7.0</b>					
Laboratory ID:	08-201-06					
Benzo[a]anthracene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>68</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>79</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-7-7.0</b>					
Laboratory ID:	08-201-07					
Benzo[a]anthracene	ND	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	62	32 - 114				
<i>Pyrene-d10</i>	66	33 - 121				
<i>Terphenyl-d14</i>	76	31 - 116				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MASSEX-8-7.0</b>					
Laboratory ID:	08-201-08					
Benzo[a]anthracene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>60</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>63</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>70</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-9-8.0</b>					
Laboratory ID:	08-201-09					
Benzo[a]anthracene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>68</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>67</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>77</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-10-8.0</b>					
Laboratory ID:	08-201-10					
Benzo[a]anthracene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>61</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>63</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>73</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0820S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-20-15	8-3-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-20-15	8-3-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	111	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-203-04							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	
Lube Oil	<b>71.9</b>	<b>65.6</b>	NA	NA	NA	9	NA	
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			101	95	50-150			

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0826S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-26-15	8-26-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-201-04							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil	<b>52.0</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				85	93	50-150		

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0820S2					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>91</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>93</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>104</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent	Recovery	RPD		Flags
					Result	Recovery	Limits	RPD	Limit	
<b>MATRIX SPIKES</b>										
Laboratory ID:	08-201-01									
	MS	MSD	MS	MSD		MS	MSD			
Naphthalene	<b>0.0602</b>	<b>0.0620</b>	0.0833	0.0833	ND	72	74	44 - 107	3	29
Acenaphthylene	<b>0.0598</b>	<b>0.0615</b>	0.0833	0.0833	ND	72	74	44 - 121	3	27
Acenaphthene	<b>0.0607</b>	<b>0.0621</b>	0.0833	0.0833	ND	73	75	47 - 109	2	26
Fluorene	<b>0.0620</b>	<b>0.0629</b>	0.0833	0.0833	ND	74	76	49 - 115	1	28
Phenanthrene	<b>0.0597</b>	<b>0.0590</b>	0.0833	0.0833	ND	72	71	45 - 114	1	26
Anthracene	<b>0.0912</b>	<b>0.0900</b>	0.0833	0.0833	ND	109	108	43 - 140	1	27
Fluoranthene	<b>0.0557</b>	<b>0.0549</b>	0.0833	0.0833	ND	67	66	44 - 126	1	27
Pyrene	<b>0.0612</b>	<b>0.0606</b>	0.0833	0.0833	ND	73	73	43 - 125	1	27
Benzo[a]anthracene	<b>0.0694</b>	<b>0.0687</b>	0.0833	0.0833	ND	83	82	42 - 134	1	27
Chrysene	<b>0.0569</b>	<b>0.0564</b>	0.0833	0.0833	ND	68	68	45 - 114	1	27
Benzo[b]fluoranthene	<b>0.0571</b>	<b>0.0575</b>	0.0833	0.0833	ND	69	69	38 - 131	1	33
Benzo(j,k)fluoranthene	<b>0.0604</b>	<b>0.0596</b>	0.0833	0.0833	ND	73	72	44 - 114	1	34
Benzo[a]pyrene	<b>0.0609</b>	<b>0.0608</b>	0.0833	0.0833	ND	73	73	40 - 136	0	29
Indeno(1,2,3-c,d)pyrene	<b>0.0586</b>	<b>0.0586</b>	0.0833	0.0833	ND	70	70	45 - 126	0	30
Dibenz[a,h]anthracene	<b>0.0556</b>	<b>0.0558</b>	0.0833	0.0833	ND	67	67	46 - 121	0	28
Benzo[g,h,i]perylene	<b>0.0589</b>	<b>0.0594</b>	0.0833	0.0833	ND	71	71	43 - 120	1	31
<i>Surrogate:</i>										
2-Fluorobiphenyl						82	85	32 - 114		
Pyrene-d10						70	70	33 - 121		
Terphenyl-d14						87	88	31 - 116		

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0824S1					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>31 - 116</i>				

Date of Report: August 31, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-201  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Source	Percent		Recovery		RPD	Flags
	MS	MSD	MS	MSD	Result	Recovery	Limits	RPD	Limit		
<b>MATRIX SPIKES</b>											
Laboratory ID:	08-201-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	<b>0.0625</b>	<b>0.0608</b>	0.0833	0.0833	ND	75	73	44 - 107	3	29	
Acenaphthylene	<b>0.0667</b>	<b>0.0662</b>	0.0833	0.0833	ND	80	79	44 - 121	1	27	
Acenaphthene	<b>0.0666</b>	<b>0.0659</b>	0.0833	0.0833	ND	80	79	47 - 109	1	26	
Fluorene	<b>0.0710</b>	<b>0.0686</b>	0.0833	0.0833	ND	85	82	49 - 115	3	28	
Phenanthrene	<b>0.0645</b>	<b>0.0630</b>	0.0833	0.0833	ND	77	76	45 - 114	2	26	
Anthracene	<b>0.104</b>	<b>0.102</b>	0.0833	0.0833	ND	125	122	43 - 140	2	27	
Fluoranthene	<b>0.0642</b>	<b>0.0627</b>	0.0833	0.0833	ND	77	75	44 - 126	2	27	
Pyrene	<b>0.0684</b>	<b>0.0663</b>	0.0833	0.0833	ND	82	80	43 - 125	3	27	
Benzo[a]anthracene	<b>0.0810</b>	<b>0.0787</b>	0.0833	0.0833	ND	97	94	42 - 134	3	27	
Chrysene	<b>0.0609</b>	<b>0.0596</b>	0.0833	0.0833	ND	73	72	45 - 114	2	27	
Benzo[b]fluoranthene	<b>0.0721</b>	<b>0.0694</b>	0.0833	0.0833	ND	87	83	38 - 131	4	33	
Benzo(j,k)fluoranthene	<b>0.0647</b>	<b>0.0636</b>	0.0833	0.0833	ND	78	76	44 - 114	2	34	
Benzo[a]pyrene	<b>0.0735</b>	<b>0.0721</b>	0.0833	0.0833	ND	88	87	40 - 136	2	29	
Indeno(1,2,3-c,d)pyrene	<b>0.0708</b>	<b>0.0709</b>	0.0833	0.0833	ND	85	85	45 - 126	0	30	
Dibenz[a,h]anthracene	<b>0.0667</b>	<b>0.0651</b>	0.0833	0.0833	ND	80	78	46 - 121	2	28	
Benzo[g,h,i]perylene	<b>0.0680</b>	<b>0.0664</b>	0.0833	0.0833	ND	82	80	43 - 120	2	31	
<i>Surrogate:</i>											
2-Fluorobiphenyl						75	75	32 - 114			
Pyrene-d10						76	74	33 - 121			
Terphenyl-d14						87	85	31 - 116			

Date of Report: August 31, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-201  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-20&24-15

Client ID	Lab ID	% Moisture
MASSEX-1-10.0	08-201-01	15
MASSEX-2-10.0	08-201-02	15
MASSEX-3-7.0	08-201-03	17
MASSEX-4-7.0	08-201-04	14
MASSEX-5-7.0	08-201-05	18
MASSEX-6-7.0	08-201-06	15
MASSEX-7-7.0	08-201-07	20
MASSEX-8-7.0	08-201-08	18
MASSEX-9-8.0	08-201-09	16
MASSEX-10-8.0	08-201-10	16



### 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-naphthalene) 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



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

# Chain of Custody

Company: GEOENGINEERS  
 Project Number: 21138-001-03  
 Project Name: 9th & LENORA PROJECT  
 Project Manager: FASIH KHAN  
 Sampled by: FASIH KHAN

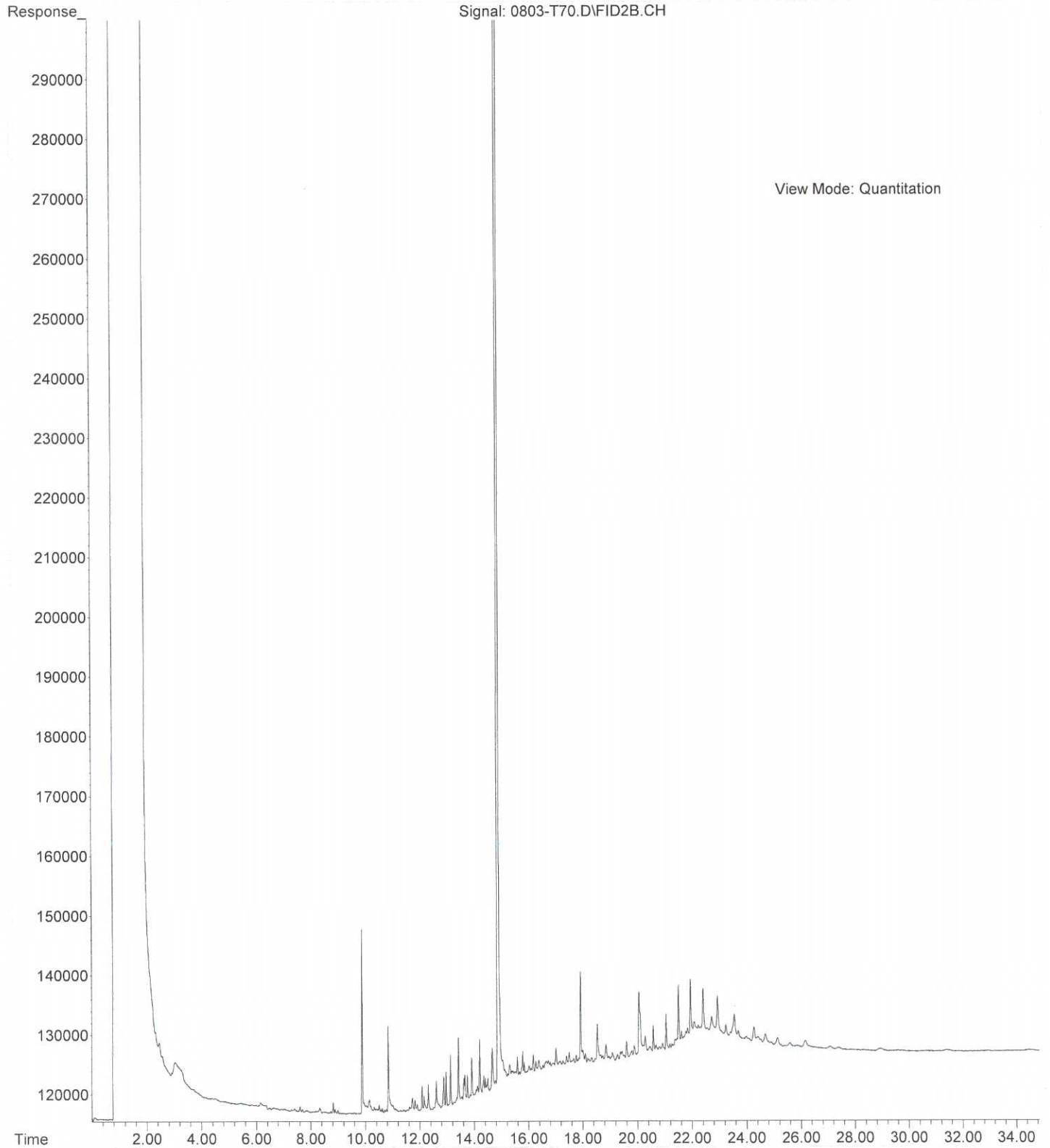
**Turnaround Request (in working days)**  
 (Check One)  
 No Same Day  1 Day  
 2 Days  3 Days  
 Standard (7 Days) (TPH analysis 5 Days)  
 \_\_\_\_\_ (other)

Laboratory Number: **08-201**

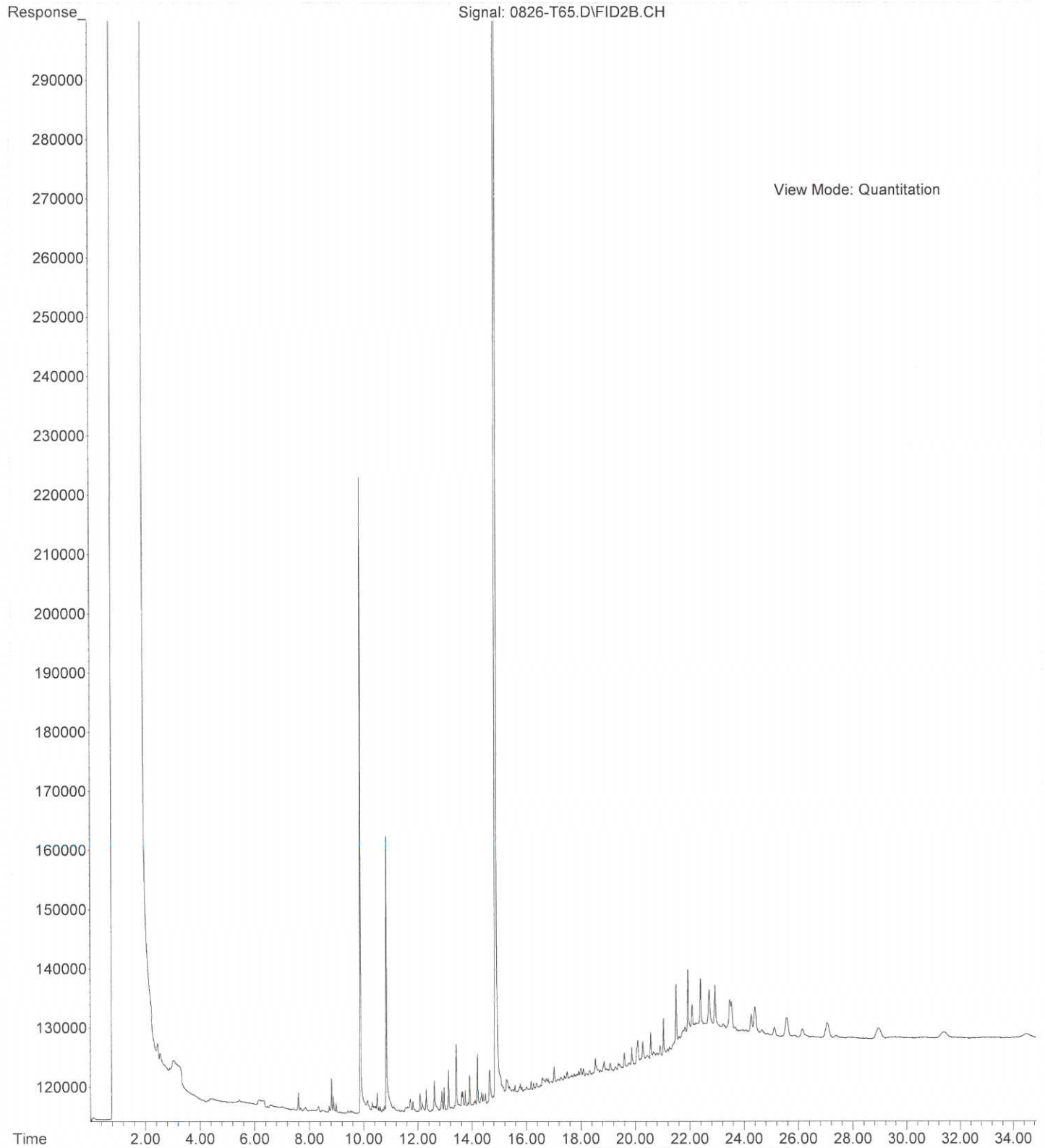
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	CPAHs	DIOI	% Moisture	
1	MASSEX-1-10.0	8/14/15	1400	S	1																				X
2	MASSEX-2-10.0	8/14/15	1420																						0
3	MASSEX-3-7.0	8/15/15	1210																						0
4	MASSEX-4-7.0	8/15/15	1220																						0
5	MASSEX-5-7.0	8/17/15	1310																						0
6	MASSEX-6-7.0	8/17/15	1335																						0
7	MASSEX-7-7.0	8/18/15	1030																						0
8	MASSEX-8-7.0	8/18/15	1045																						0
9	MASSEX-9-8.0	8/19/15	1130																						0
10	MASSEX-10-8.0	8/19/15	1150																						0

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GED	8/19/15	1640	○ Added 8/21/15. (STA)
Received		COBE	8/19/15	1640	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/>

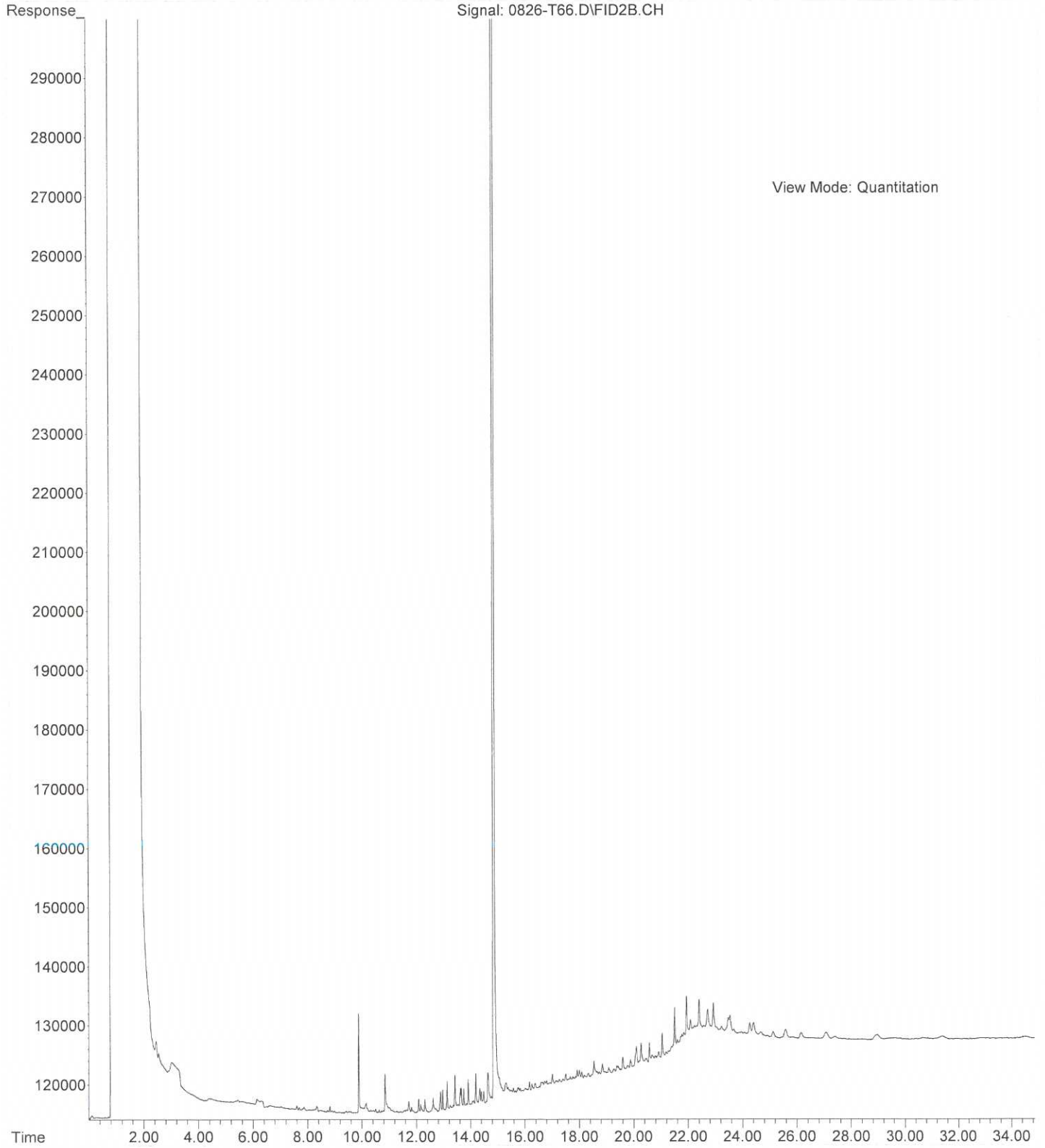
File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T70.D  
Operator : ZT  
Acquired : 21 Aug 2015 5:06 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-01  
Misc Info :  
Vial Number: 70



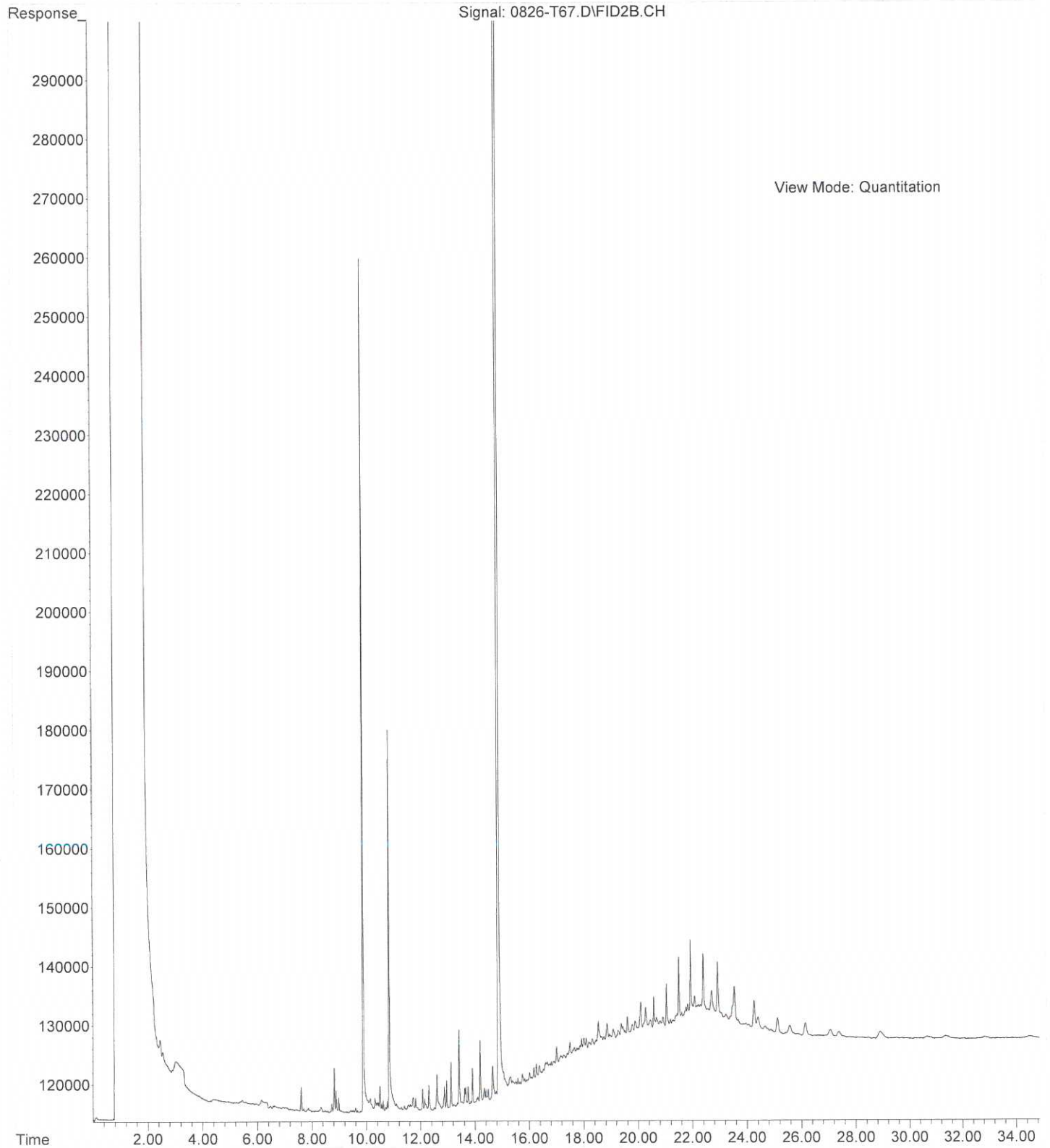
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T65.D  
Operator : ZT  
Acquired : 26 Aug 2015 21:47 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-02  
Misc Info :  
Vial Number: 65



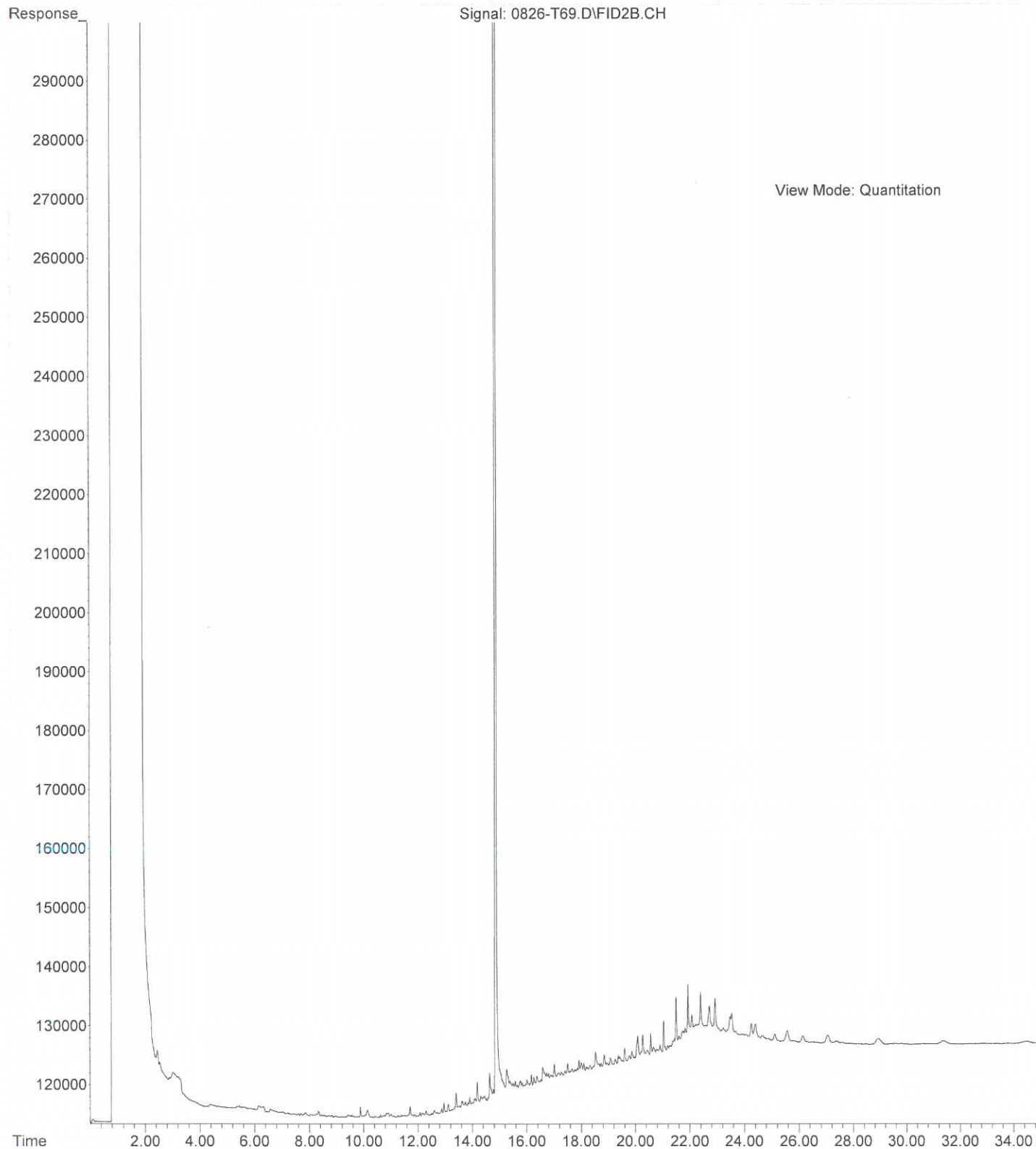
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T66.D  
Operator : ZT  
Acquired : 26 Aug 2015 22:30 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-03  
Misc Info :  
Vial Number: 66



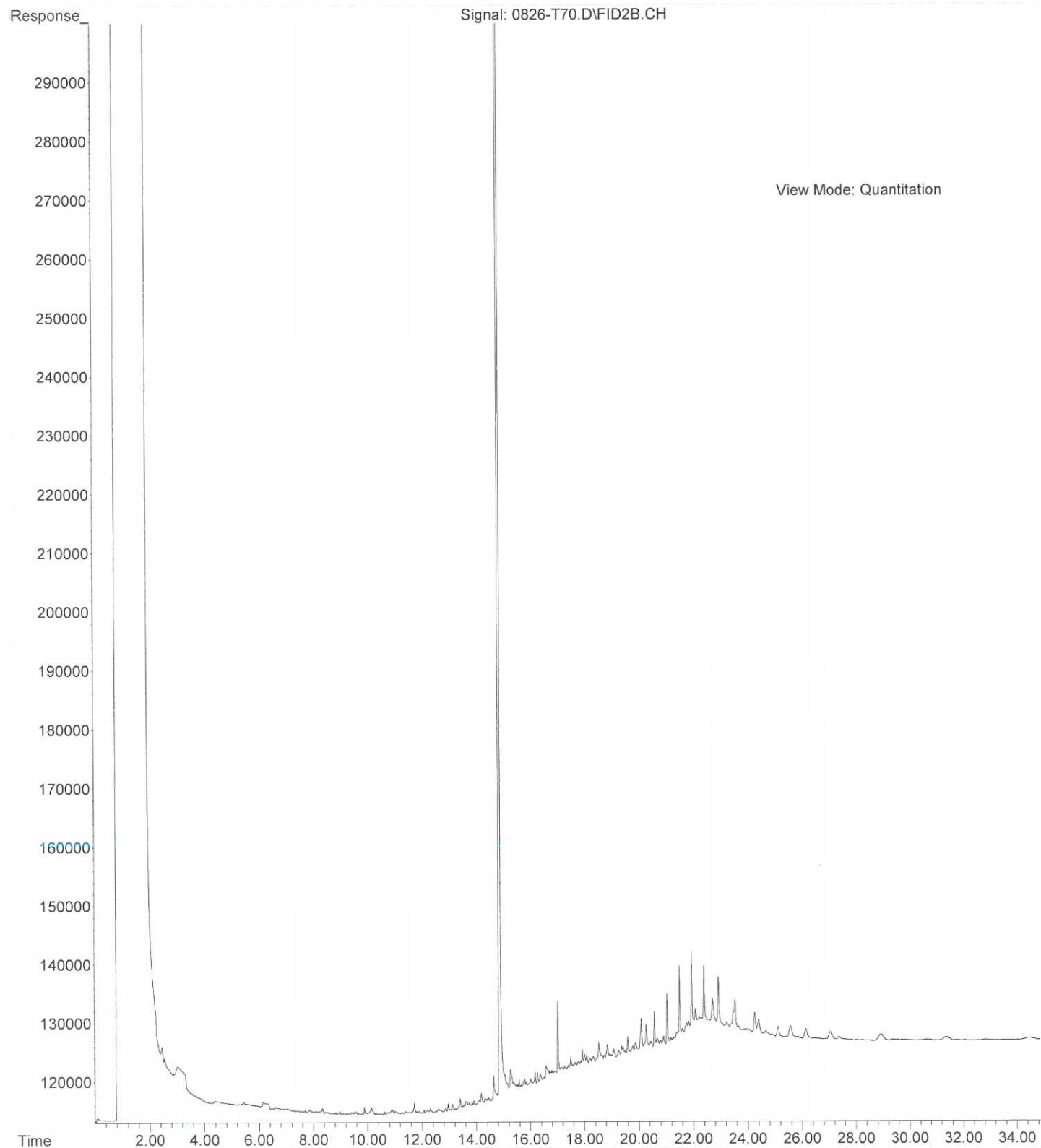
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T67.D  
Operator : ZT  
Acquired : 26 Aug 2015 23:14 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-04  
Misc Info :  
Vial Number: 67



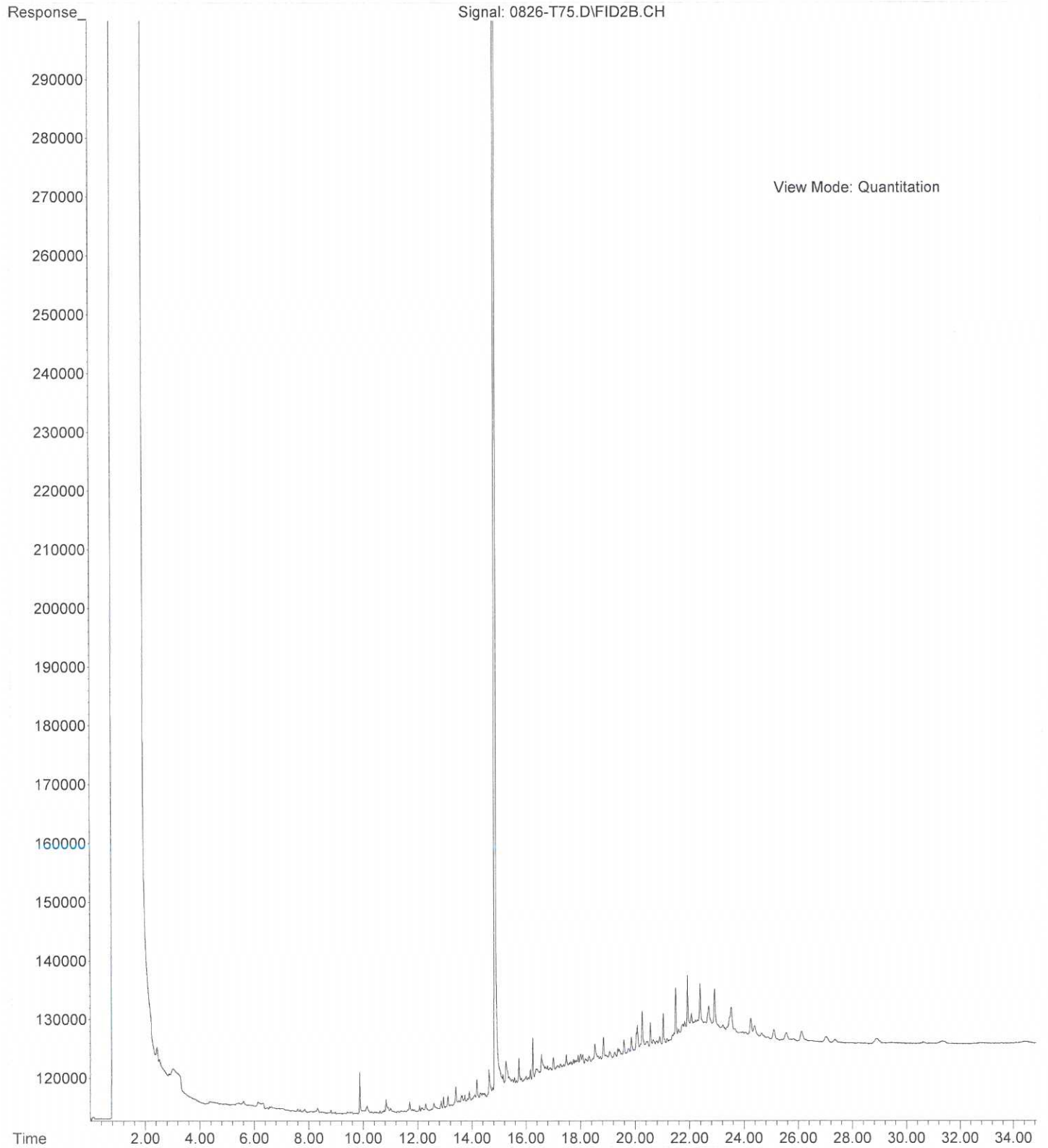
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T69.D  
Operator : ZT  
Acquired : 27 Aug 2015 0:40 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-05  
Misc Info :  
Vial Number: 69



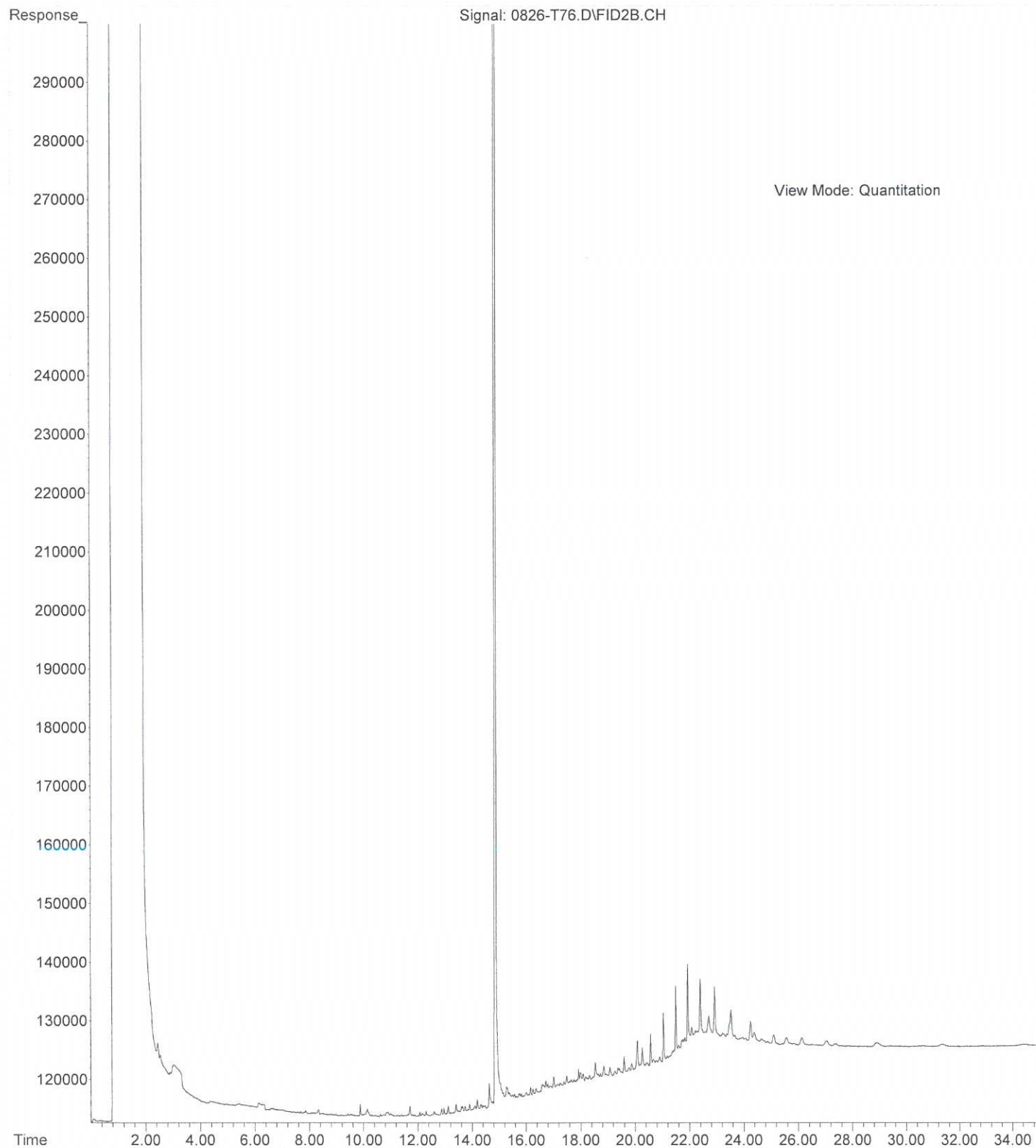
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T70.D  
Operator : ZT  
Acquired : 27 Aug 2015 1:24 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-06  
Misc Info :  
Vial Number: 70



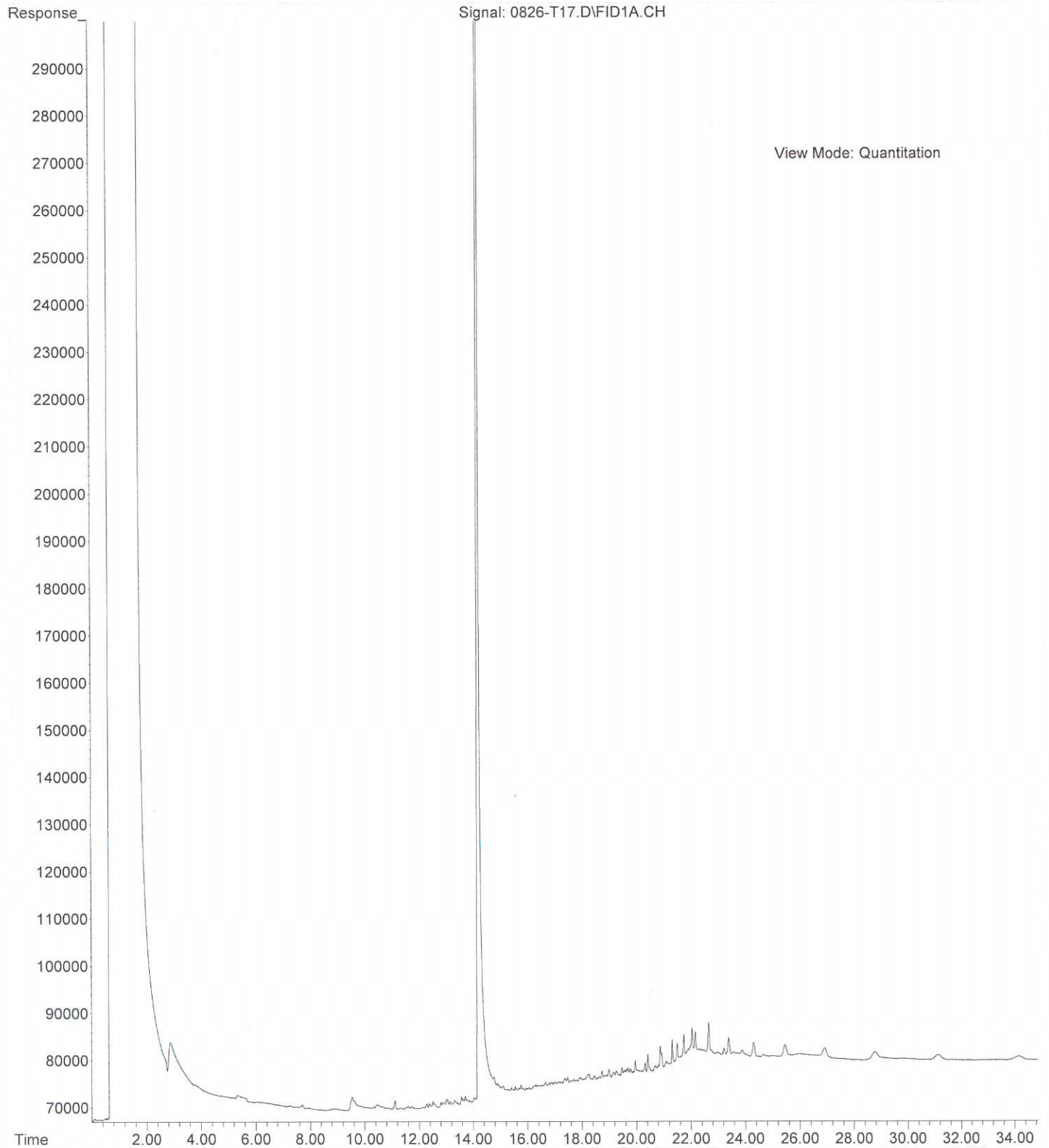
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T75.D  
Operator : ZT  
Acquired : 27 Aug 2015 4:59 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-07  
Misc Info :  
Vial Number: 75



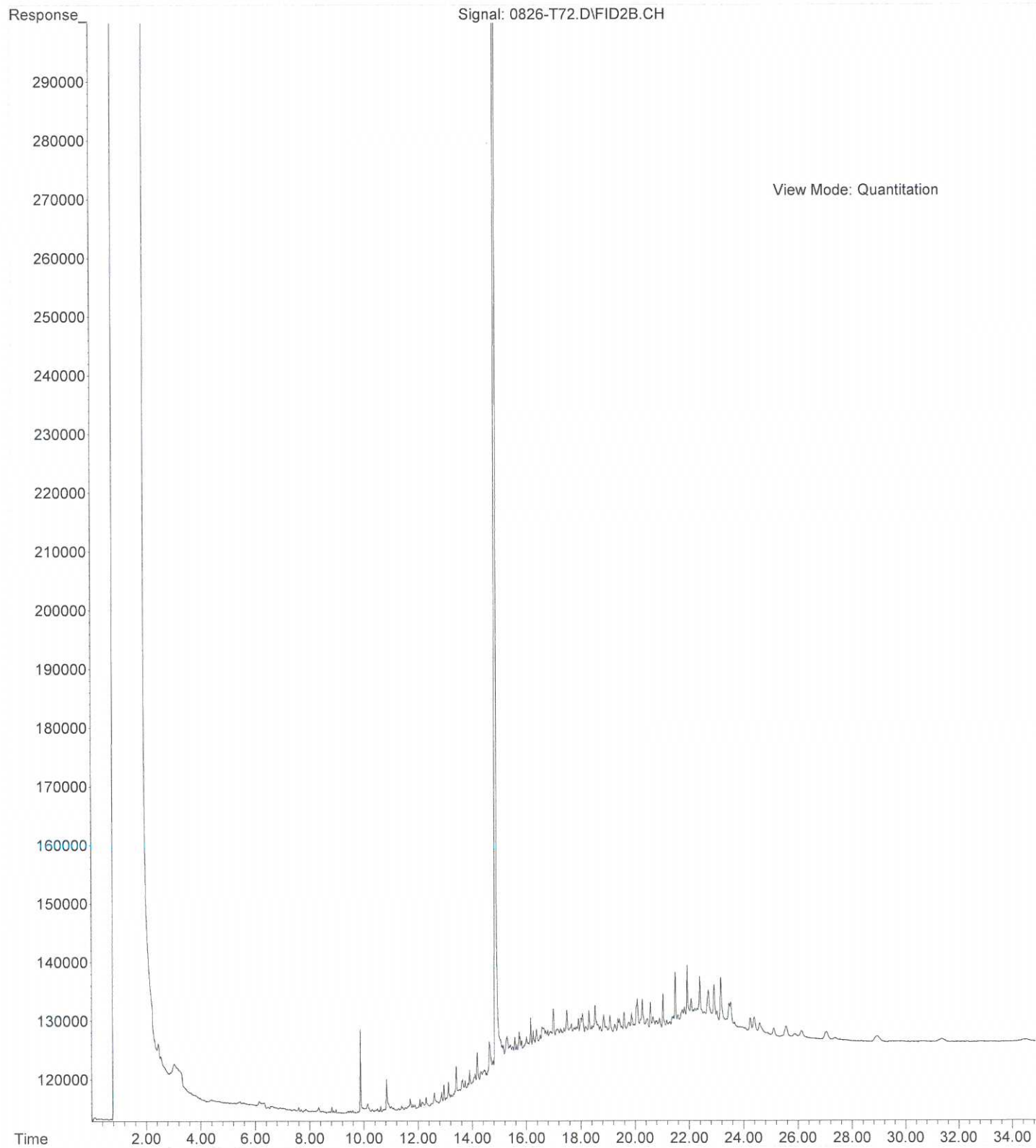
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T76.D  
Operator : ZT  
Acquired : 27 Aug 2015 5:42 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-08  
Misc Info :  
Vial Number: 76



File :X:\DIESELS\TERI\DATA\T150826\0826-T17.D  
Operator : ZT  
Acquired : 26 Aug 2015 23:14 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-09  
Misc Info :  
Vial Number: 17



File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T72.D  
Operator : ZT  
Acquired : 27 Aug 2015 2:50 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-201-10  
Misc Info :  
Vial Number: 72





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 27, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-217

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 21, 2015.

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,

A handwritten signature in black ink, appearing to read 'DB', with a long horizontal stroke extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 27, 2015  
Samples Submitted: August 21, 2015  
Laboratory Reference: 1508-217  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 20, 2015 and received by the laboratory on August 21, 2015. 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.

Date of Report: August 27, 2015  
Samples Submitted: August 21, 2015  
Laboratory Reference: 1508-217  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MASSEX-11-15.0	08-217-01	Soil	8-20-15	8-21-15	

Date of Report: August 27, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-217  
 Project: 21138-001-03

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>MASSEX-11-15.0</b>					
Laboratory ID:	08-217-01					
Diesel Range Organics	<b>ND</b>	29	NWTPH-Dx	8-25-15	8-25-15	
Lube Oil Range Organics	<b>ND</b>	57	NWTPH-Dx	8-25-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>100</i>	<i>50-150</i>				

Date of Report: August 27, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-217  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>MASSEX-11-15.0</b>					
Laboratory ID:	08-217-01					
Benzo[a]anthracene	ND	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	ND	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	ND	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	ND	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	ND	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	ND	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>64</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>66</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>74</i>	<i>31 - 116</i>				

Date of Report: August 27, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-217  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0825S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-25-15	8-25-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-25-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>116</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-230-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				<i>88</i>	<i>94</i>	<i>50-150</i>		

Date of Report: August 27, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-217  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
Laboratory ID:	MB0824S1					
Benzo[a]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	<b>ND</b>	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>86</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>94</i>	<i>31 - 116</i>				

Date of Report: August 27, 2015  
 Samples Submitted: August 21, 2015  
 Laboratory Reference: 1508-217  
 Project: 21138-001-03

**cPAHs EPA 8270D/SIM  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

<b>Analyte</b>	<b>Result</b>		<b>Spike Level</b>		<b>Source</b>	<b>Percent</b>		<b>Recovery</b>	<b>RPD</b>	<b>RPD</b>	<b>Flags</b>
					<b>Result</b>	<b>Recovery</b>	<b>Limits</b>	<b>RPD</b>	<b>Limit</b>		
<b>MATRIX SPIKES</b>											
Laboratory ID:	08-201-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	<b>0.0625</b>	<b>0.0608</b>	0.0833	0.0833	ND	75	73	44 - 107	3		29
Acenaphthylene	<b>0.0667</b>	<b>0.0662</b>	0.0833	0.0833	ND	80	79	44 - 121	1		27
Acenaphthene	<b>0.0666</b>	<b>0.0659</b>	0.0833	0.0833	ND	80	79	47 - 109	1		26
Fluorene	<b>0.0710</b>	<b>0.0686</b>	0.0833	0.0833	ND	85	82	49 - 115	3		28
Phenanthrene	<b>0.0645</b>	<b>0.0630</b>	0.0833	0.0833	ND	77	76	45 - 114	2		26
Anthracene	<b>0.104</b>	<b>0.102</b>	0.0833	0.0833	ND	125	122	43 - 140	2		27
Fluoranthene	<b>0.0642</b>	<b>0.0627</b>	0.0833	0.0833	ND	77	75	44 - 126	2		27
Pyrene	<b>0.0684</b>	<b>0.0663</b>	0.0833	0.0833	ND	82	80	43 - 125	3		27
Benzo[a]anthracene	<b>0.0810</b>	<b>0.0787</b>	0.0833	0.0833	ND	97	94	42 - 134	3		27
Chrysene	<b>0.0609</b>	<b>0.0596</b>	0.0833	0.0833	ND	73	72	45 - 114	2		27
Benzo[b]fluoranthene	<b>0.0721</b>	<b>0.0694</b>	0.0833	0.0833	ND	87	83	38 - 131	4		33
Benzo(j,k)fluoranthene	<b>0.0647</b>	<b>0.0636</b>	0.0833	0.0833	ND	78	76	44 - 114	2		34
Benzo[a]pyrene	<b>0.0735</b>	<b>0.0721</b>	0.0833	0.0833	ND	88	87	40 - 136	2		29
Indeno(1,2,3-c,d)pyrene	<b>0.0708</b>	<b>0.0709</b>	0.0833	0.0833	ND	85	85	45 - 126	0		30
Dibenz[a,h]anthracene	<b>0.0667</b>	<b>0.0651</b>	0.0833	0.0833	ND	80	78	46 - 121	2		28
Benzo[g,h,i]perylene	<b>0.0680</b>	<b>0.0664</b>	0.0833	0.0833	ND	82	80	43 - 120	2		31
<i>Surrogate:</i>											
<i>2-Fluorobiphenyl</i>						75	75	32 - 114			
<i>Pyrene-d10</i>						76	74	33 - 121			
<i>Terphenyl-d14</i>						87	85	31 - 116			

Date of Report: August 27, 2015  
Samples Submitted: August 21, 2015  
Laboratory Reference: 1508-217  
Project: 21138-001-03

**% MOISTURE**

Date Analyzed: 8-24-15

Client ID	Lab ID	% Moisture
MASSEX-11-15.0	08-217-01	12

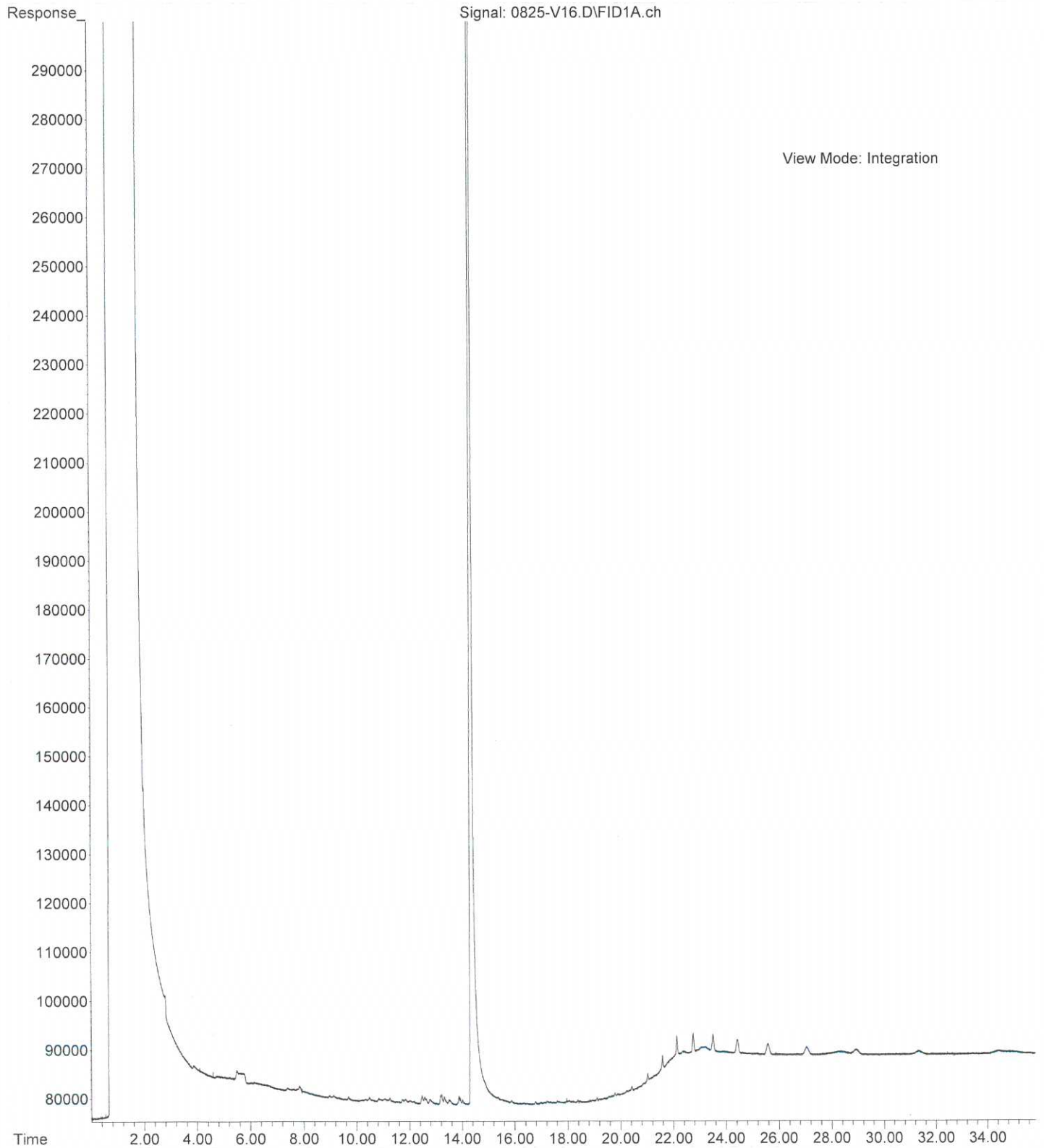


### Data Qualifiers and Abbreviations

- 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-naphthalene) 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



File :X:\DIESELS\VIGO\DATA\V150825\0825-V16.D  
Operator :  
Acquired : 25 Aug 2015 21:33 using AcqMethod V150507F.M  
Instrument : Vigo  
Sample Name: 08-217-01  
Misc Info :  
Vial Number: 16





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 17, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-0  
Laboratory Reference No. 1506-134

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on June 12, 2015.

**Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.**

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: June 17, 2015  
Samples Submitted: June 12, 2015  
Laboratory Reference: 1506-134  
Project: 21138-001-0

### **Case Narrative**

Samples were collected on June 11, 2015 and received by the laboratory on June 12, 2015. 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.

Date of Report: June 17, 2015  
Samples Submitted: June 12, 2015  
Laboratory Reference: 1506-134  
Project: 21138-001-0

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST3-N-3.0	06-134-01	Soil	6-11-15	6-12-15	
UST3-S-3.0	06-134-02	Soil	6-11-15	6-12-15	
UST3-B-7.0	06-134-03	Soil	6-11-15	6-12-15	
UST3-FL-2.0	06-134-04	Soil	6-11-15	6-12-15	

Date of Report: June 17, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-134  
 Project: 21138-001-0

**NWTPH-Dx**

Matrix: Soil  
 Units: mg/Kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>UST3-B-7.0</b>					
Laboratory ID:	06-134-03					
Diesel Fuel #2	<b>2300</b>	29	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil	<b>1400</b>	58	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Date of Report: June 17, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-134  
 Project: 21138-001-0

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST3-N-3.0</b>					
Laboratory ID:	06-134-01					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	89	50-150				
<b>Client ID:</b>	<b>UST3-S-3.0</b>					
Laboratory ID:	06-134-02					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	57	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				
<b>Client ID:</b>	<b>UST3-FL-2.0</b>					
Laboratory ID:	06-134-04					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	87	50-150				

Date of Report: June 17, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-134  
 Project: 21138-001-0

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0612S2					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	<i>101</i>	<i>50-150</i>				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-130-26							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				79	74	50-150		

Date of Report: June 17, 2015  
 Samples Submitted: June 12, 2015  
 Laboratory Reference: 1506-134  
 Project: 21138-001-0

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0612S3					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	6-12-15	6-12-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	06-124-01							
	ORIG	DUP						
Diesel Fuel #2	<b>5600</b>	<b>5390</b>	NA	NA	NA	NA	4	NA
Lube Oil	<b>1520</b>	<b>1490</b>	NA	NA	NA	NA	2	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				92	90	50-150		

Date of Report: June 17, 2015  
Samples Submitted: June 12, 2015  
Laboratory Reference: 1506-134  
Project: 21138-001-0

### % MOISTURE

Date Analyzed: 6-12&16-15

Client ID	Lab ID	% Moisture
UST3-N-3.0	06-134-01	11
UST3-S-3.0	06-134-02	12
UST3-B-7.0	06-134-03	14
UST3-FL-2.0	06-134-04	10



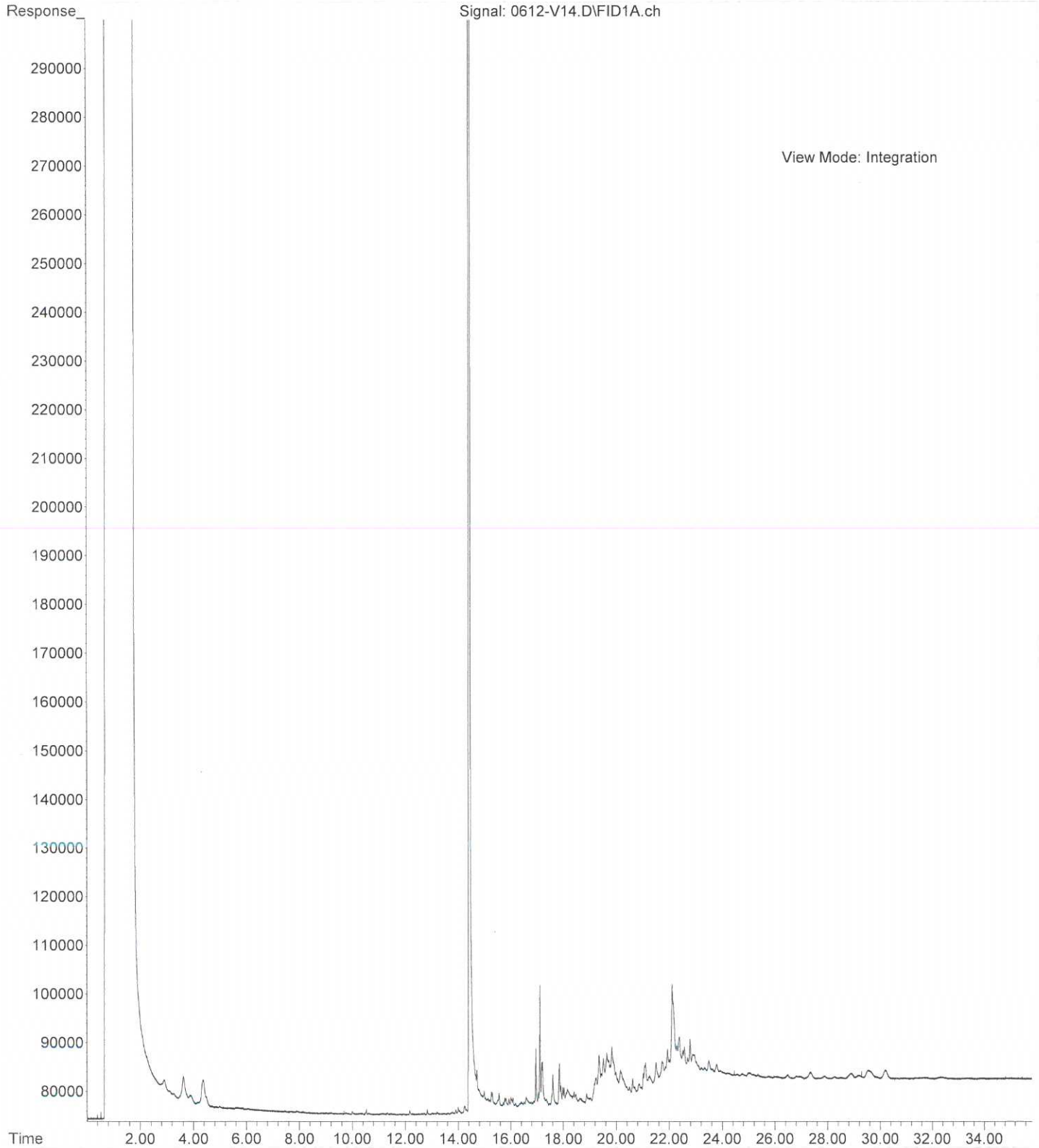
### Data Qualifiers and Abbreviations

- 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-naphthalene) 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

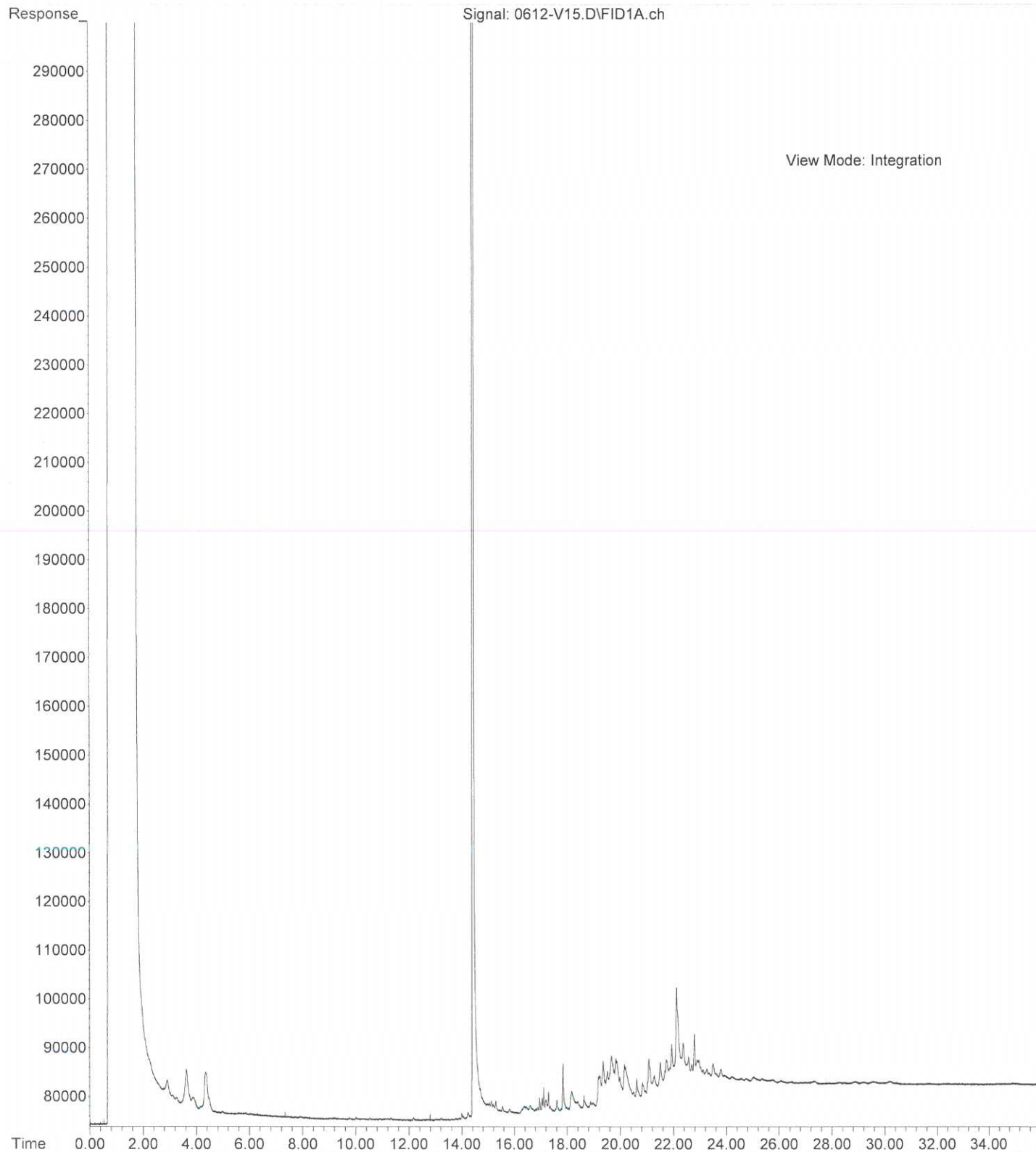
# Chain of Custody

Company: <b>GEOENGINEERS</b> Project Number: <b>21138-001-0</b> Project Name: <b>9th AND LENORA PROJECT</b> Project Manager: <b>FASIH KHAN</b> Sampled by: <b>FASIH KHAN</b>		<b>Turnaround Request (in working days)</b> (Check One) <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> Standard (7 Days) (TPH analysis 5 Days) <input type="checkbox"/> _____ (other)		<b>Laboratory Number: 06-134</b>																							
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semi-volatiles 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	TCLP Metals	HEM (oil and grease) 1664A	NONE	SATURDAY	SUNDAY	% Moisture		
1	UST <sup>3</sup> <sub>2</sub> -N-3.0	6/11/15	1400	S	2																						X
2	UST <sup>3</sup> <sub>2</sub> -S-3.0	↓	1420	↓	↓																						↓
3	UST <sup>3</sup> <sub>2</sub> -B-7.0	↓	1430	↓	↓																						↓
4	UST <sup>3</sup> <sub>2</sub> -FL-2.0	↓	1500	↓	↓																						↓
<b>Signature</b>		<b>Company</b>			<b>Date</b>	<b>Time</b>	<b>Comments/Special Instructions</b>																				
Relinquished		GEO			6/12/15	1050	Same Day for UST2-B-7.0 Sample																				
Received		GEO			6/12/15	1050	(AL) changed UST2 to UST3 6/18/15																				
Relinquished																											
Received																											
Relinquished																											
Received																											
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/>																						

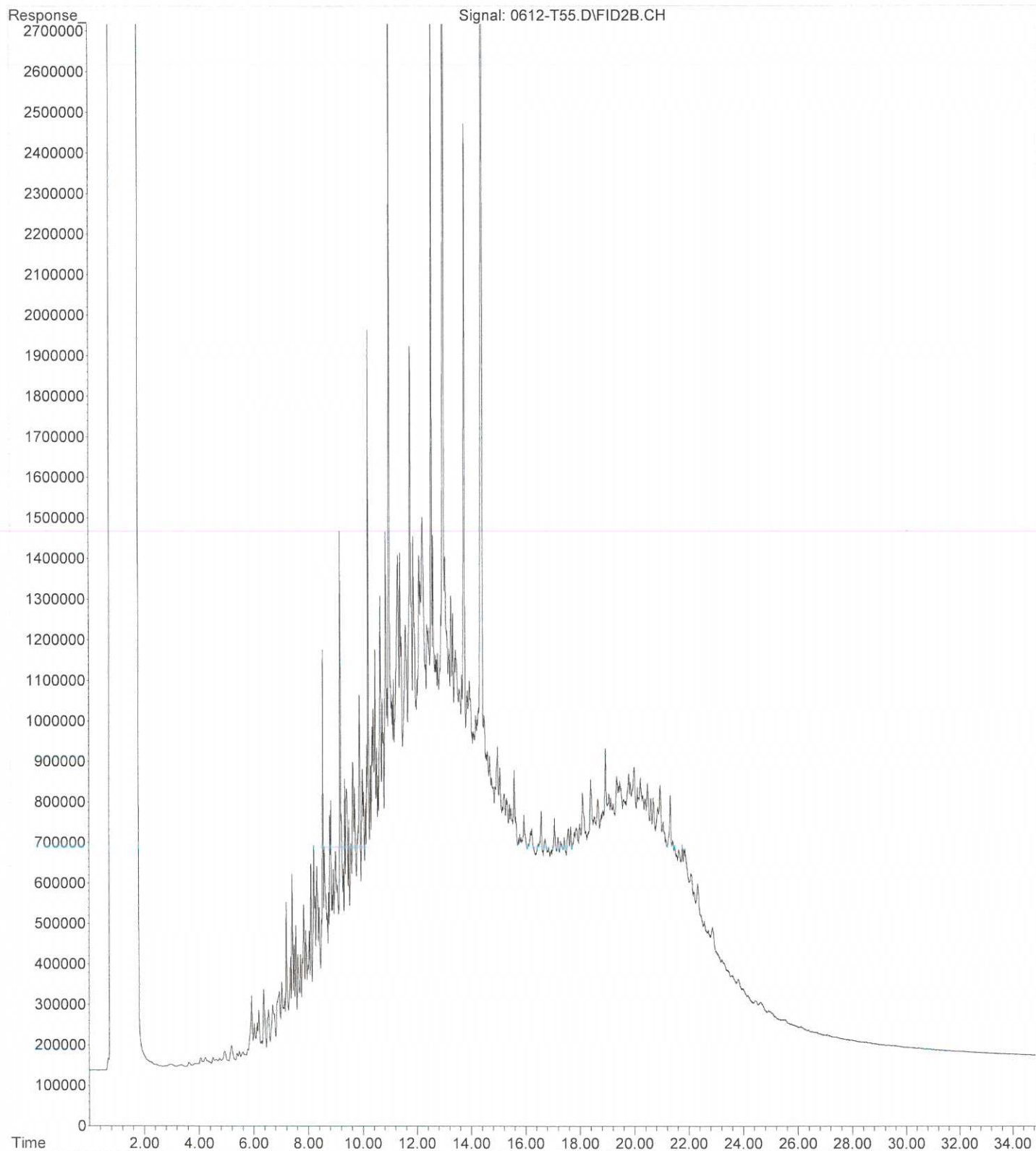
File :X:\DIESELS\VIGO\DATA\V150612\0612-V14.D  
Operator :  
Acquired : 12 Jun 2015 19:05 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 06-134-01  
Misc Info :  
Vial Number: 14



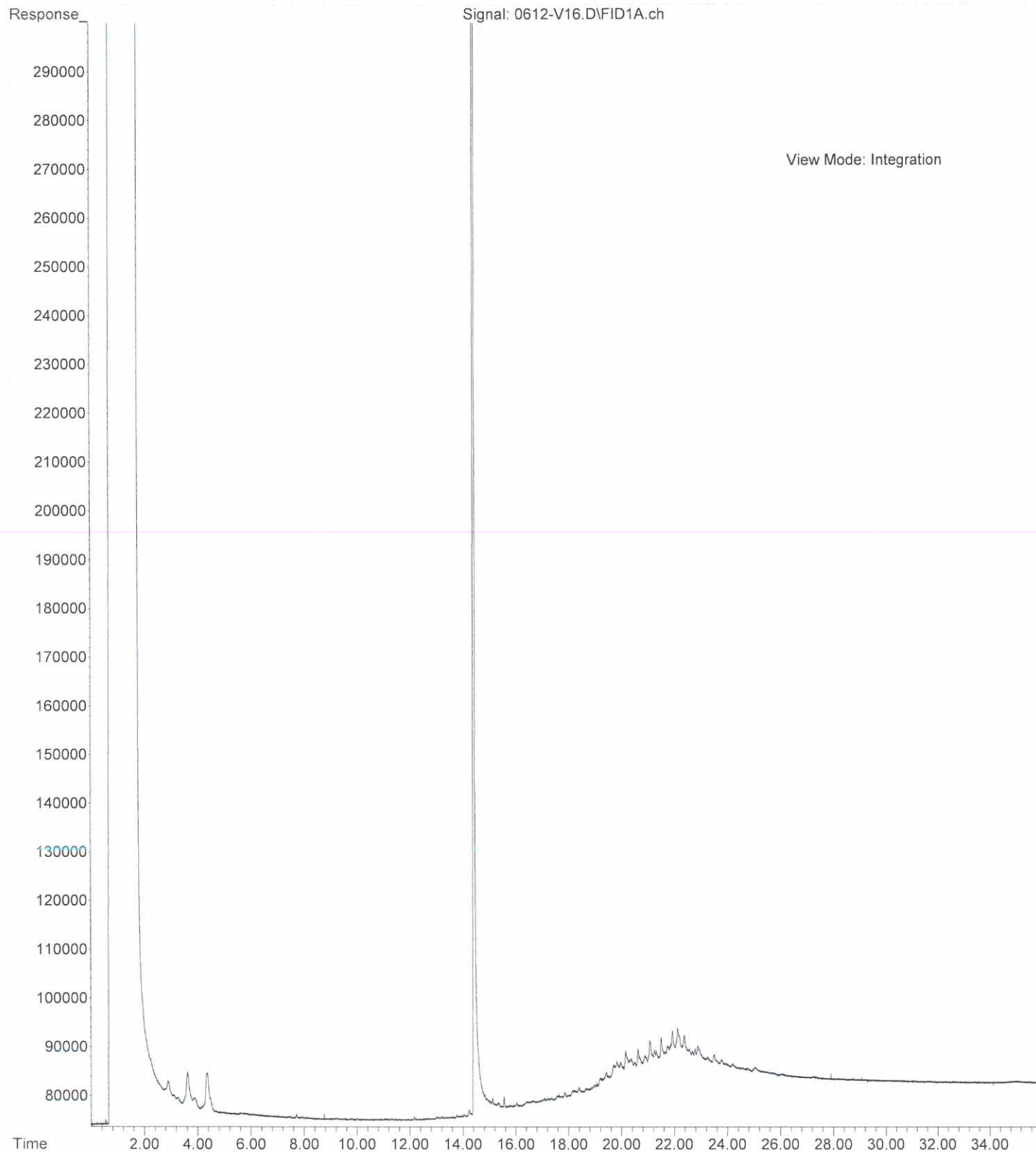
File :X:\DIESELS\VIGO\DATA\V150612\0612-V15.D  
Operator :  
Acquired : 12 Jun 2015 19:47 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 06-134-02  
Misc Info :  
Vial Number: 15



File :C:\msdchem\1\DATA\T150612.SEC\0612-T55.D  
Operator : ZT  
Acquired : 12 Jun 2015 12:57 using AcqMethod T150310F.M  
Instrument : Teri  
Sample Name: 06-134-03  
Misc Info :  
Vial Number: 55



File :X:\DIESELS\VIGO\DATA\V150612\0612-V16.D  
Operator :  
Acquired : 12 Jun 2015 20:28 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 06-134-04  
Misc Info :  
Vial Number: 16





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

August 24, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1508-198

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: August 24, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-198  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on August 3, 2015 and received by the laboratory on August 3, 2015. 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.

Date of Report: August 24, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-198  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST3EX-N-10.0	08-198-01	Soil	8-17-15	8-19-15	
UST3EX-S-10.0	08-198-02	Soil	8-17-15	8-19-15	
UST3EX-E-10.0	08-198-03	Soil	8-17-15	8-19-15	
UST3EX-W-10.0	08-198-04	Soil	8-17-15	8-19-15	
UST3EX-B-15.0	08-198-05	Soil	8-17-15	8-19-15	

Date of Report: August 24, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-198  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>UST3EX-N-10.0</b>					
Laboratory ID:	08-198-01					
Diesel Range Organics	ND	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	ND	62	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				
<b>Client ID:</b>	<b>UST3EX-S-10.0</b>					
Laboratory ID:	08-198-02					
Diesel Range Organics	ND	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	ND	61	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	77	50-150				
<b>Client ID:</b>	<b>UST3EX-E-10.0</b>					
Laboratory ID:	08-198-03					
Diesel Range Organics	ND	33	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	ND	67	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	73	50-150				
<b>Client ID:</b>	<b>UST3EX-W-10.0</b>					
Laboratory ID:	08-198-04					
Diesel Range Organics	ND	32	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	ND	63	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	88	50-150				
<b>Client ID:</b>	<b>UST3EX-B-15.0</b>					
Laboratory ID:	08-198-05					
Diesel Range Organics	ND	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	ND	63	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	78	50-150				

Date of Report: August 24, 2015  
 Samples Submitted: August 19, 2015  
 Laboratory Reference: 1508-198  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0820S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	8-20-15	8-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	111	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	08-203-04							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil	<b>71.9</b>	<b>65.6</b>	NA	NA	NA	9	NA	
<i>Surrogate:</i>								
<i>o-Terphenyl</i>			101	95	50-150			

Date of Report: August 24, 2015  
Samples Submitted: August 19, 2015  
Laboratory Reference: 1508-198  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 8-20-15

Client ID	Lab ID	% Moisture
UST3EX-N-10.0	08-198-01	19
UST3EX-S-10.0	08-198-02	19
UST3EX-E-10.0	08-198-03	25
UST3EX-W-10.0	08-198-04	21
UST3EX-B-15.0	08-198-05	20

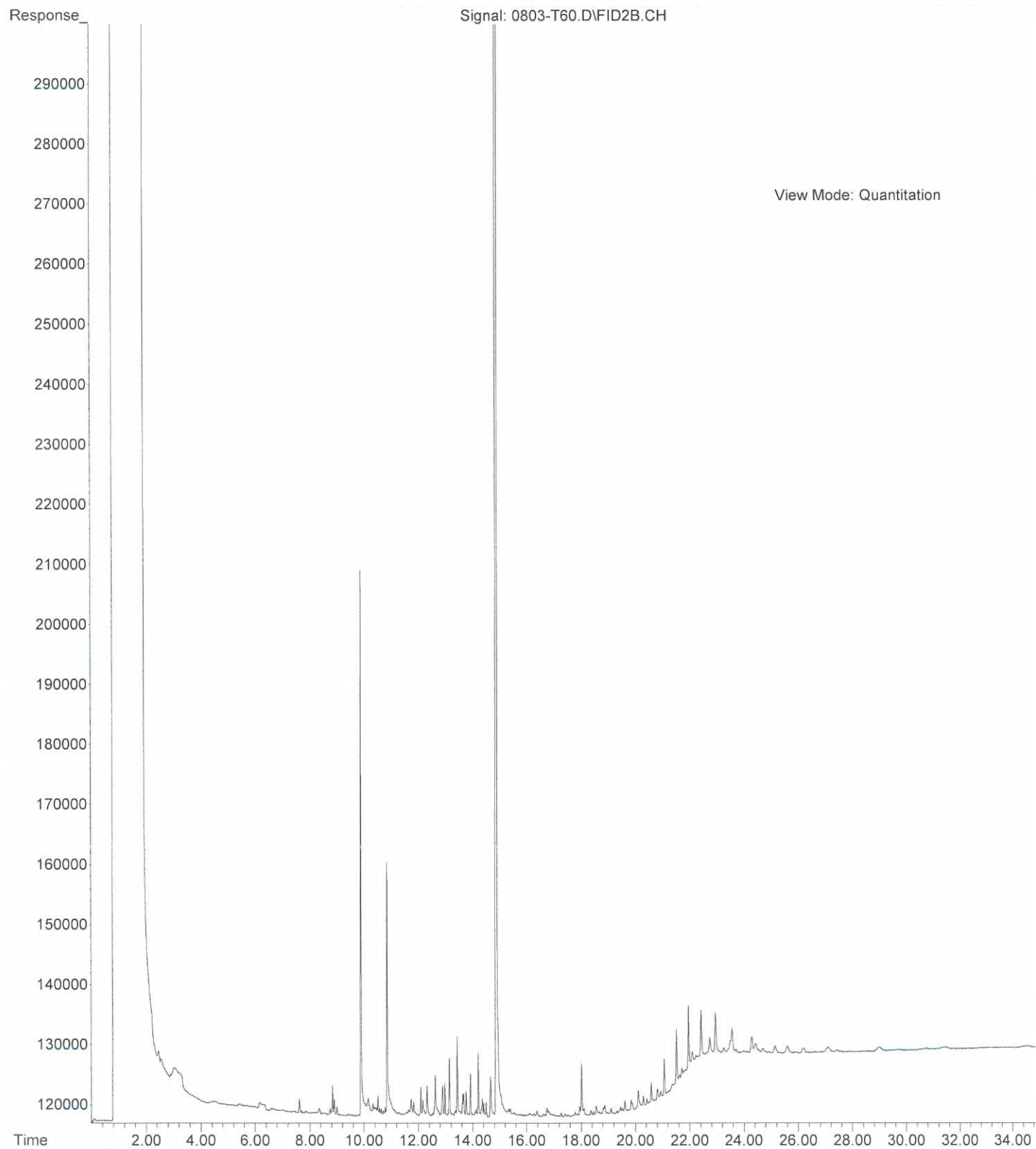


### Data Qualifiers and Abbreviations

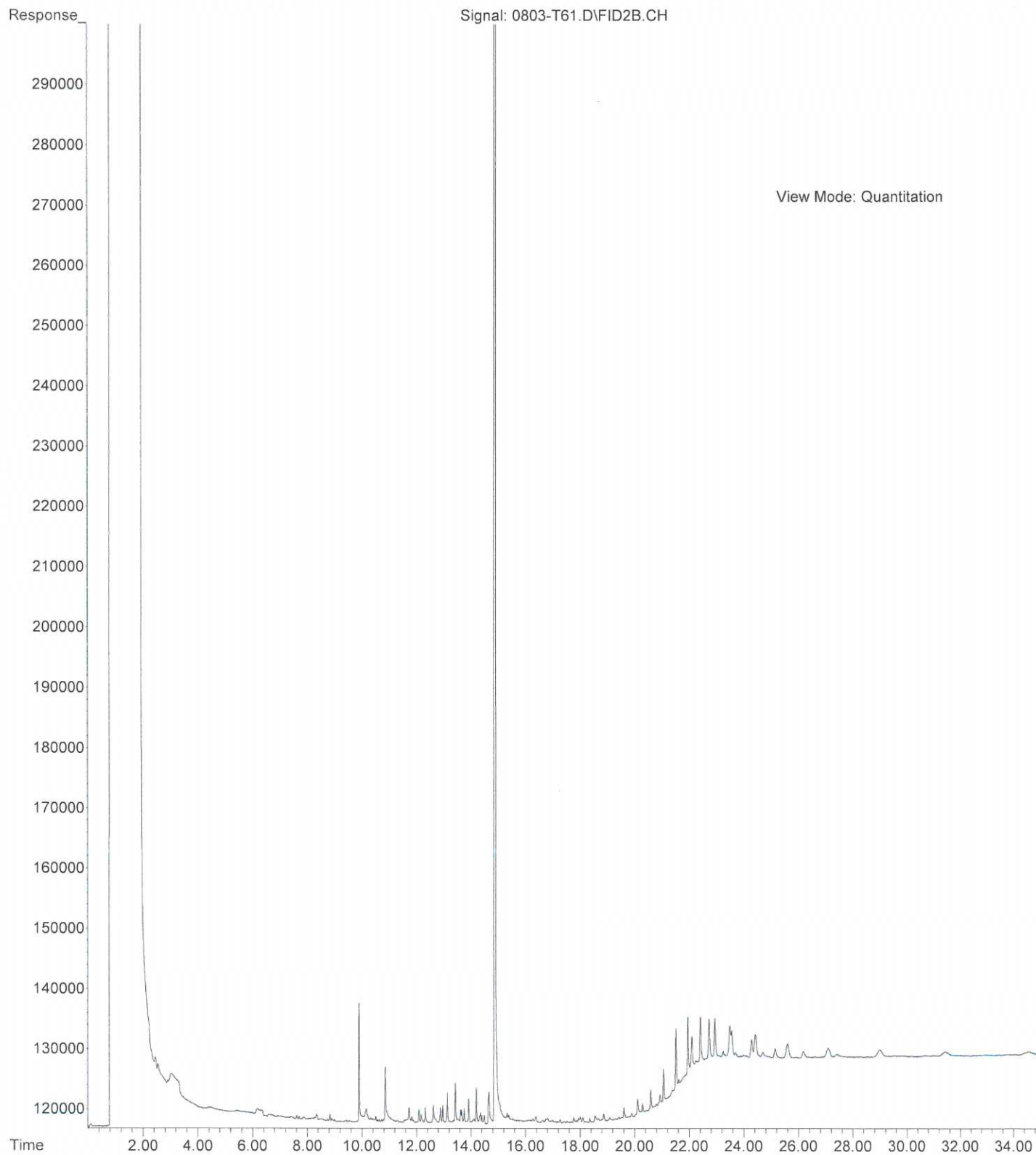
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



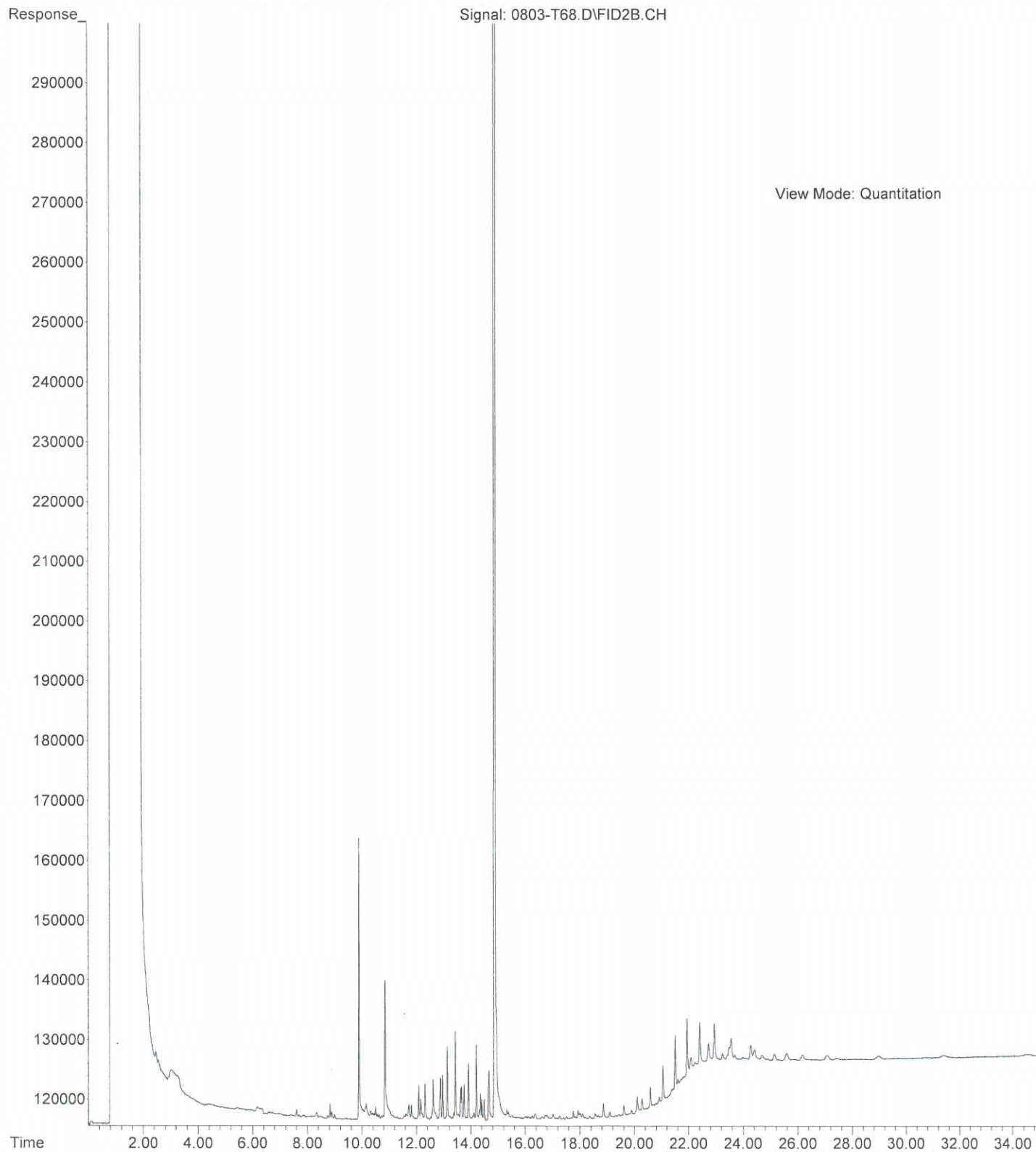
File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T60.D  
Operator : ZT  
Acquired : 20 Aug 2015 21:54 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-198-01  
Misc Info :  
Vial Number: 60



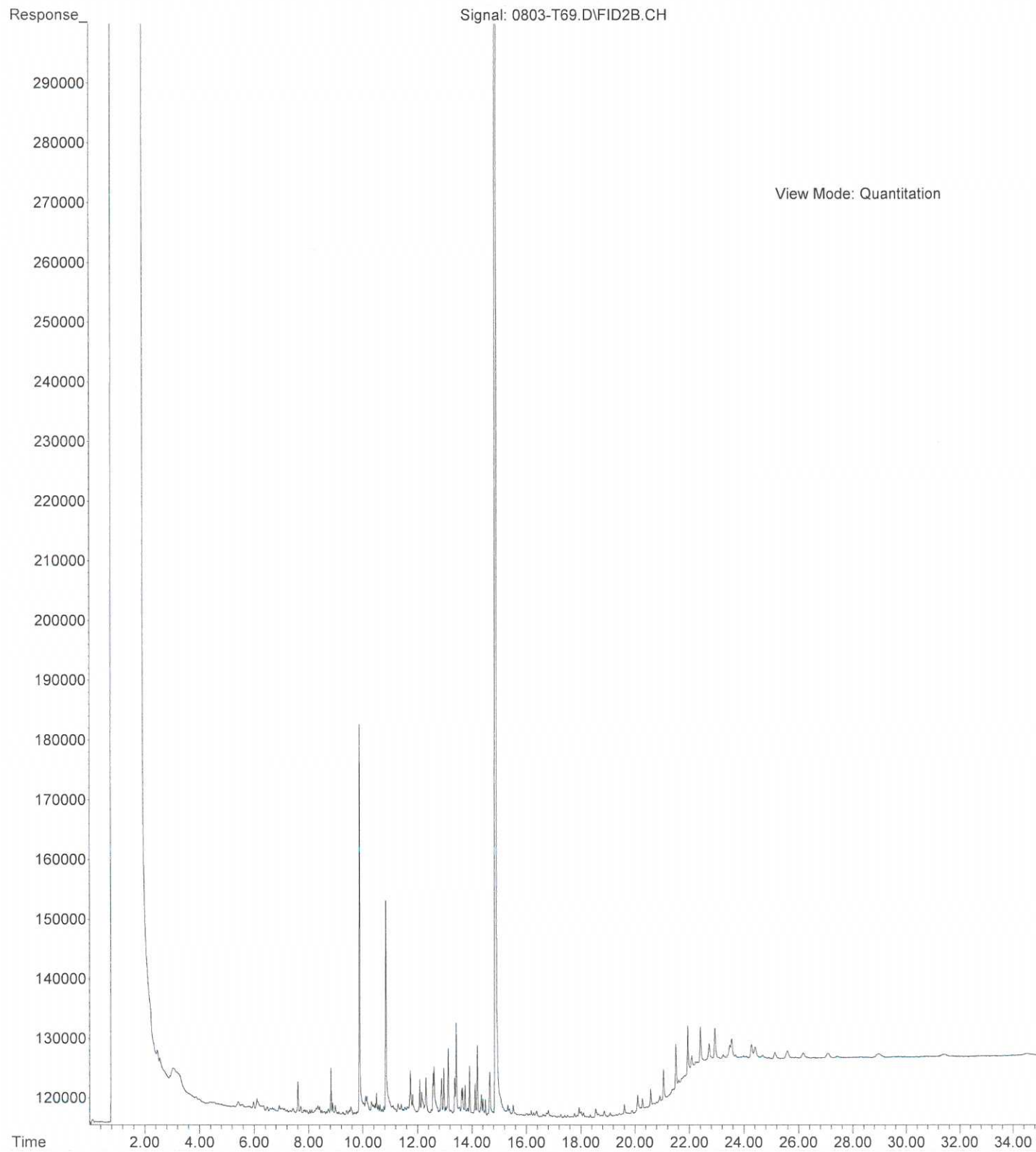
File : X:\DIESELS\TERI\DATA\T150820.SEC\0803-T61.D  
Operator : ZT  
Acquired : 20 Aug 2015 22:37 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-198-02  
Misc Info :  
Vial Number: 61



File : X:\DIESELS\TERI\DATA\T150820.SEC\0803-T68.D  
Operator : ZT  
Acquired : 21 Aug 2015 3:40 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-198-04  
Misc Info :  
Vial Number: 68



File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T69.D  
Operator : ZT  
Acquired : 21 Aug 2015 4:23 using AcqMethod T150713F.M  
Instrument : Teri  
Sample Name: 08-198-05  
Misc Info :  
Vial Number: 69





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 13, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1507-037

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 7, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: July 13, 2015  
Samples Submitted: July 7, 2015  
Laboratory Reference: 1507-037  
Project: 21138-001-03

### Case Narrative

Samples were collected on July 6, 2015 and received by the laboratory on July 7, 2015. 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/BTEX 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: July 13, 2015  
Samples Submitted: July 7, 2015  
Laboratory Reference: 1507-037  
Project: 21138-001-03

#### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
DUCT-1-8.0	07-037-01	Soil	7-6-15	7-7-15	
DUCT-2-15.0	07-037-02	Soil	7-6-15	7-7-15	
DUCT-3-20.0	07-037-03	Soil	7-6-15	7-7-15	
EX-1-6.0	07-037-04	Soil	7-6-15	7-7-15	

Date of Report: July 13, 2015  
 Samples Submitted: July 7, 2015  
 Laboratory Reference: 1507-037  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>DUCT-1-8.0</b>					
Laboratory ID:	07-037-01					
Benzene	ND	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	ND	0.053	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	ND	0.053	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	ND	0.053	EPA 8021B	7-9-15	7-9-15	
o-Xylene	ND	0.053	EPA 8021B	7-9-15	7-9-15	
Gasoline	ND	5.3	NWTPH-Gx	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	98	68-123				
<b>Client ID:</b>	<b>DUCT-2-15.0</b>					
Laboratory ID:	07-037-02					
Benzene	ND	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	ND	0.063	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	ND	0.063	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	ND	0.063	EPA 8021B	7-9-15	7-9-15	
o-Xylene	ND	0.063	EPA 8021B	7-9-15	7-9-15	
Gasoline	ND	6.3	NWTPH-Gx	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	96	68-123				
<b>Client ID:</b>	<b>DUCT-3-20.0</b>					
Laboratory ID:	07-037-03					
Benzene	ND	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	ND	0.065	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	ND	0.065	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	ND	0.065	EPA 8021B	7-9-15	7-9-15	
o-Xylene	ND	0.065	EPA 8021B	7-9-15	7-9-15	
Gasoline	ND	6.5	NWTPH-Gx	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	68-123				

Date of Report: July 13, 2015  
 Samples Submitted: July 7, 2015  
 Laboratory Reference: 1507-037  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>EX-1-6.0</b>					
Laboratory ID:	07-037-04					
Benzene	<b>ND</b>	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	<b>ND</b>	0.051	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	<b>ND</b>	0.051	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	<b>ND</b>	0.051	EPA 8021B	7-9-15	7-9-15	
o-Xylene	<b>ND</b>	0.051	EPA 8021B	7-9-15	7-9-15	
Gasoline	<b>ND</b>	5.1	NWTPH-Gx	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	97	68-123				

Date of Report: July 13, 2015  
 Samples Submitted: July 7, 2015  
 Laboratory Reference: 1507-037  
 Project: 21138-001-03

### NWTPH-Dx

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>DUCT-1-8.0</b>					
Laboratory ID:	07-037-01					
Diesel Range Organics	<b>ND</b>	27	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	<b>ND</b>	54	NWTPH-Dx	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	80	50-150				
<b>Client ID:</b>	<b>DUCT-2-15.0</b>					
Laboratory ID:	07-037-02					
Diesel Range Organics	<b>ND</b>	28	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	<b>ND</b>	56	NWTPH-Dx	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				
<b>Client ID:</b>	<b>DUCT-3-20.0</b>					
Laboratory ID:	07-037-03					
Diesel Range Organics	<b>ND</b>	27	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	<b>ND</b>	53	NWTPH-Dx	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				

Date of Report: July 13, 2015  
 Samples Submitted: July 7, 2015  
 Laboratory Reference: 1507-037  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0709S2					
Benzene	ND	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	ND	0.050	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	ND	0.050	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	ND	0.050	EPA 8021B	7-9-15	7-9-15	
o-Xylene	ND	0.050	EPA 8021B	7-9-15	7-9-15	
Gasoline	ND	5.0	NWTPH-Gx	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-037-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				98	93	68-123		

**SPIKE BLANKS**

Laboratory ID:	SB0709S1								
	SB	SBD	SB	SBD	SB	SBD			
Benzene	0.983	1.02	1.00	1.00	98	102	75-117	4	13
Toluene	0.945	0.993	1.00	1.00	95	99	78-118	5	12
Ethyl Benzene	0.946	0.978	1.00	1.00	95	98	78-118	3	12
m,p-Xylene	0.945	0.985	1.00	1.00	95	99	78-121	4	13
o-Xylene	0.945	0.974	1.00	1.00	95	97	77-119	3	13
<i>Surrogate:</i>									
<i>Fluorobenzene</i>					90	94	68-123		

Date of Report: July 13, 2015  
 Samples Submitted: July 7, 2015  
 Laboratory Reference: 1507-037  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0709S1					
Diesel Range Organics	<b>ND</b>	25	NWTPH-Dx	7-9-15	7-10-15	
Lube Oil Range Organics	<b>ND</b>	50	NWTPH-Dx	7-9-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-037-01							
	ORIG	DUP						
Diesel Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA	NA	NA	NA	NA
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				80	90	50-150		

Date of Report: July 13, 2015  
Samples Submitted: July 7, 2015  
Laboratory Reference: 1507-037  
Project: 21138-001-03

### % MOISTURE

Date Analyzed: 7-9-15

Client ID	Lab ID	% Moisture
DUCT-1-8.0	07-037-01	7
DUCT-2-15.0	07-037-02	10
DUCT-3-20.0	07-037-03	6
EX-1-6.0	07-037-04	4

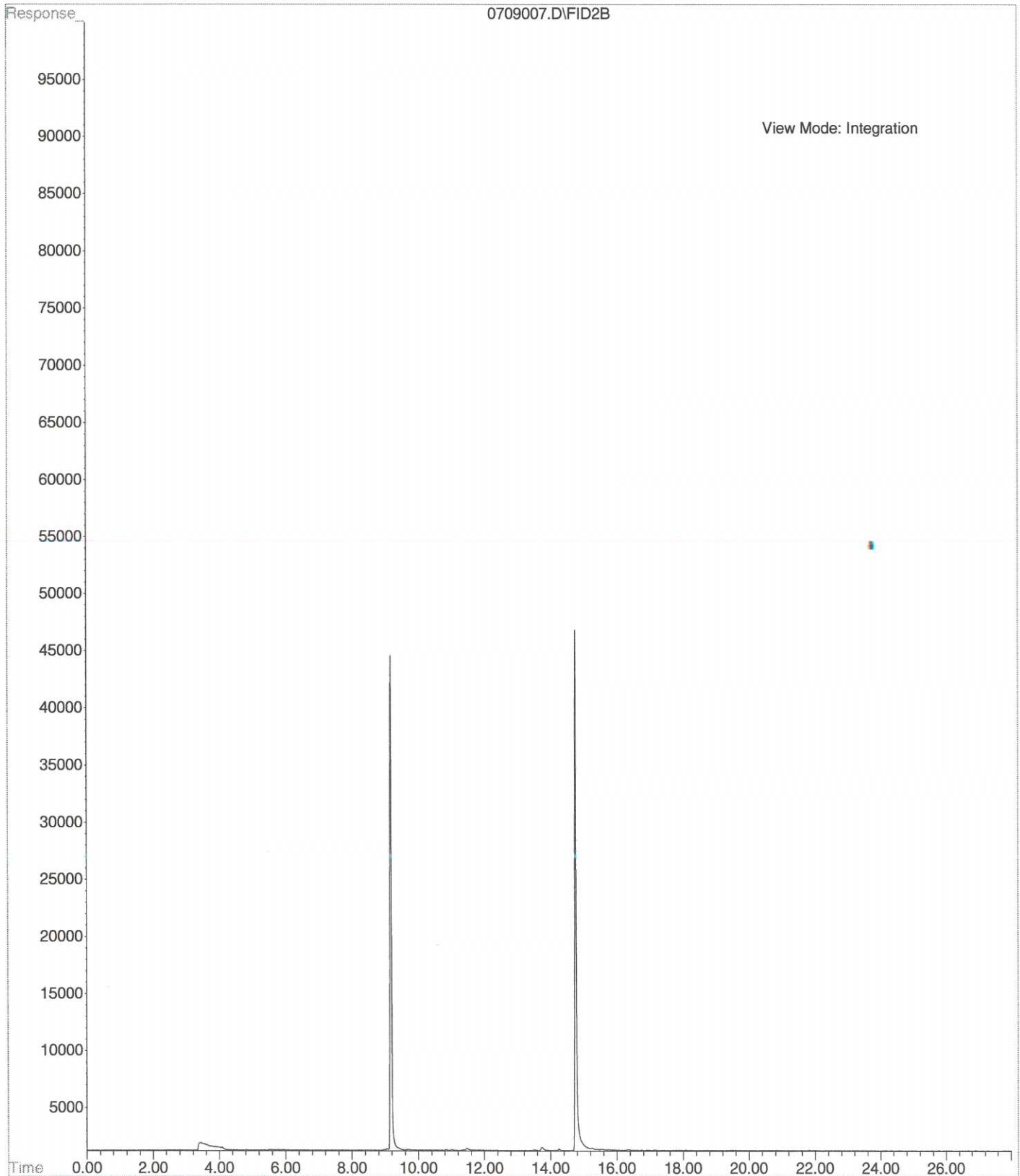


### Data Qualifiers and Abbreviations

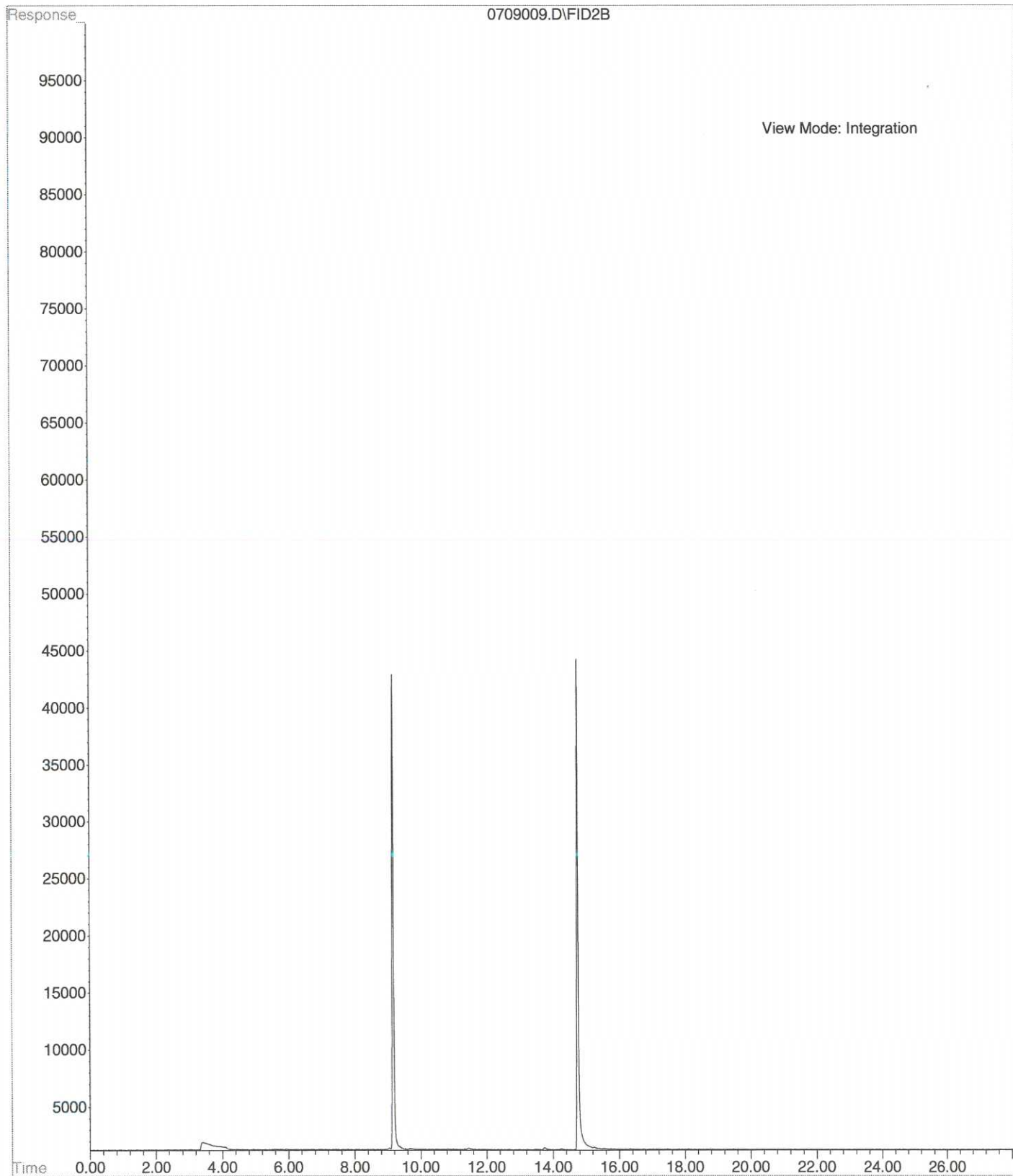
- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
  - B - The analyte indicated was also found in the blank sample.
  - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within 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-naphthalene) 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



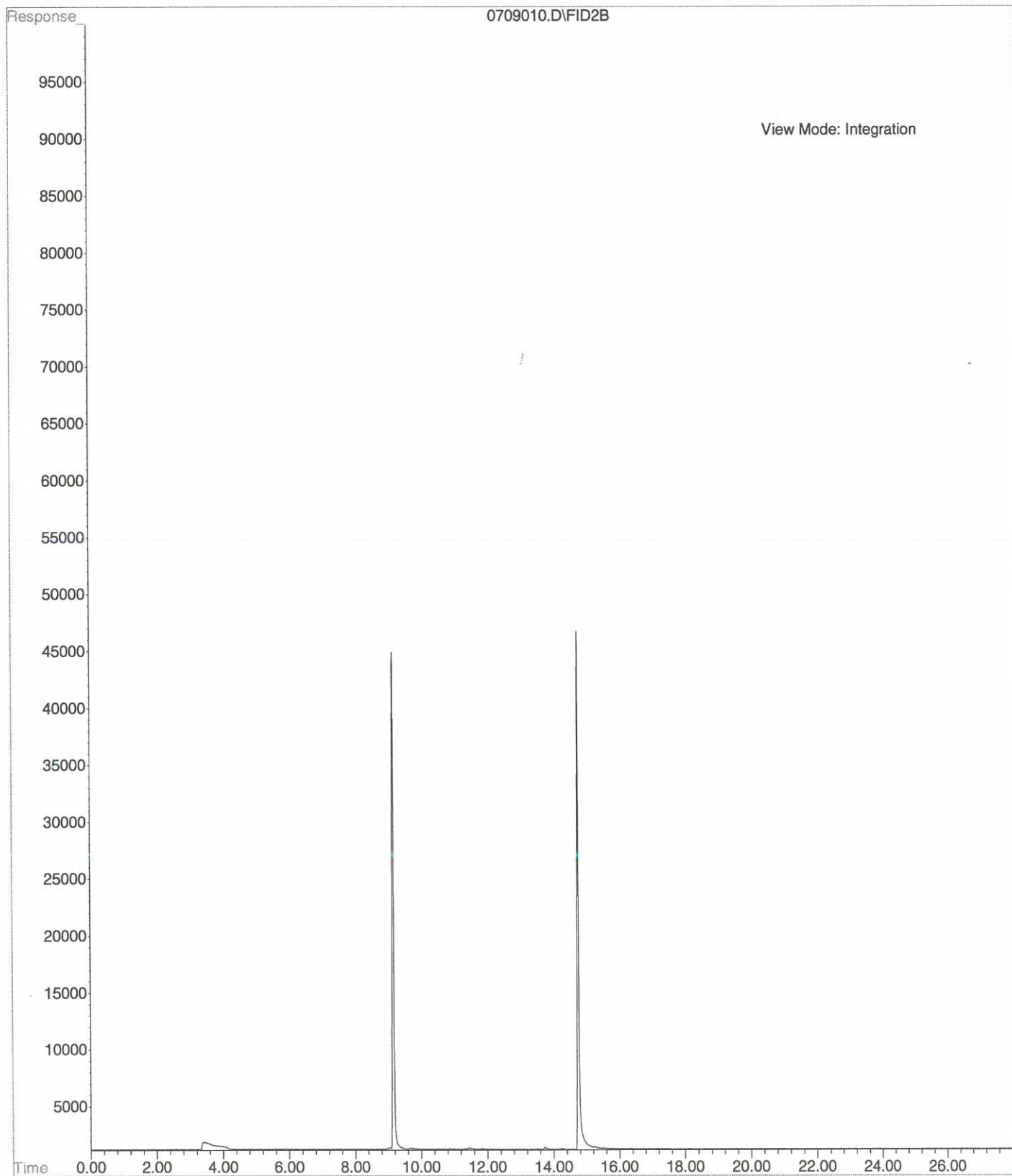
File : X:\BTEX\HOPE\DATA\H150709\0709007.D  
Operator :  
Acquired : 9 Jul 2015 20:15 using AcqMethod 150701B.M  
Instrument : Hope  
Sample Name: 07-037-01s  
Misc Info : V2-37-21  
Vial Number: 7



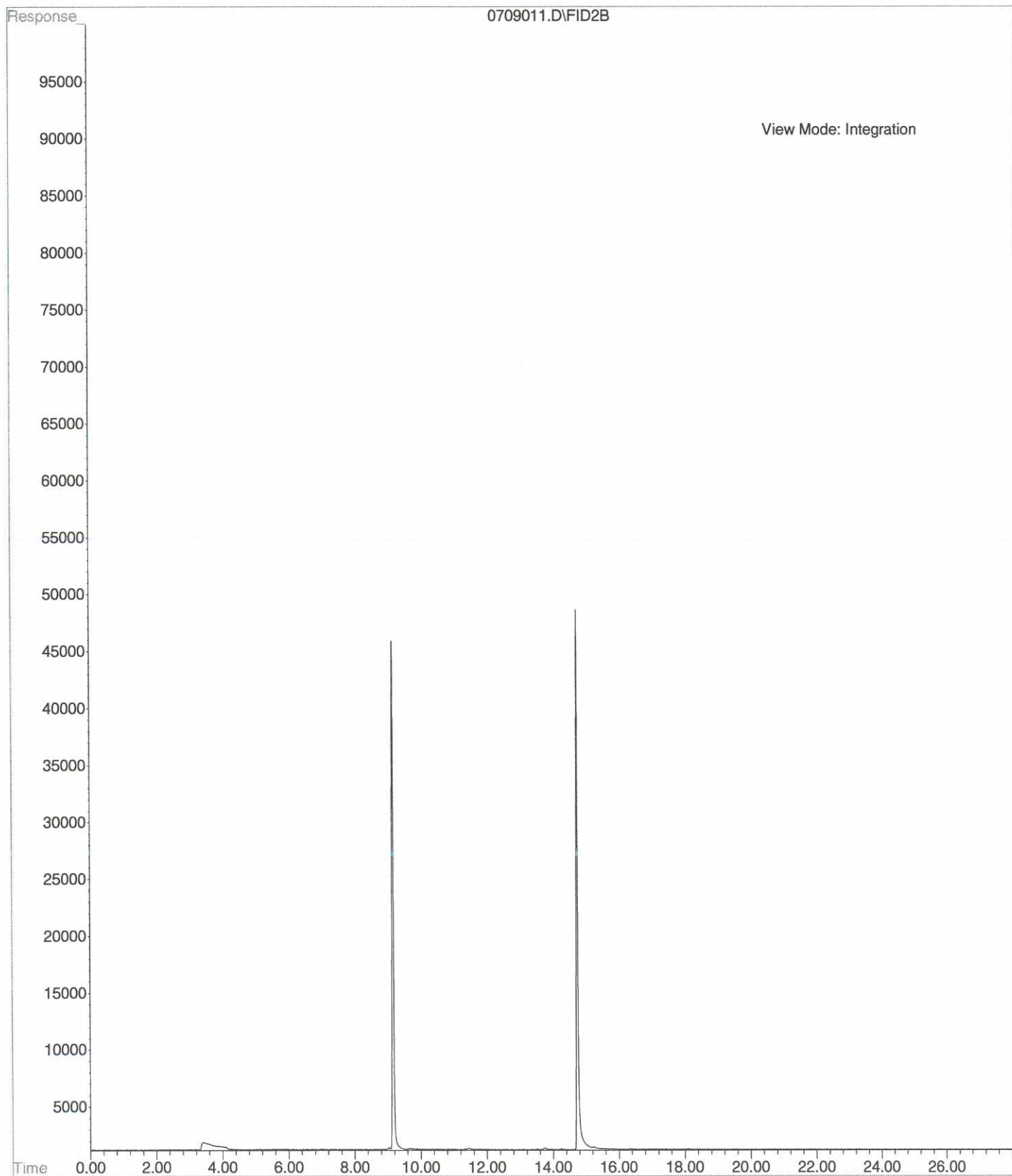
File : X:\BTEX\HOPE\DATA\H150709\0709009.D  
Operator :  
Acquired : 9 Jul 2015 21:25 using AcqMethod 150701B.M  
Instrument : Hope  
Sample Name: 07-037-02s  
Misc Info : V2-37-21  
Vial Number: 9



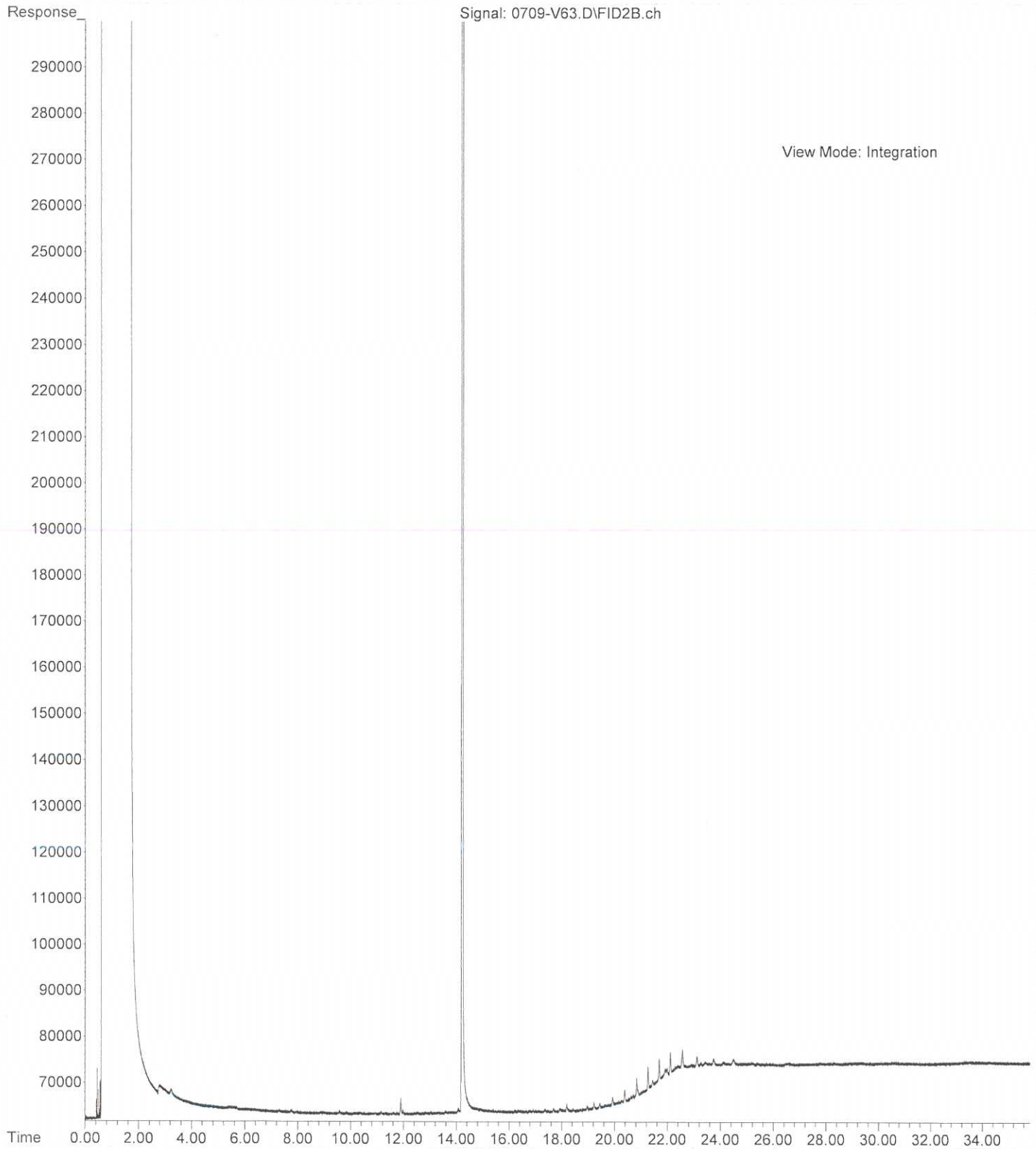
File : X:\BTEX\HOPE\DATA\H150709\0709010.D  
Operator :  
Acquired : 9 Jul 2015 21:59 using AcqMethod 150701B.M  
Instrument : Hope  
Sample Name: 07-037-03s  
Misc Info : V2-37-21  
Vial Number: 10



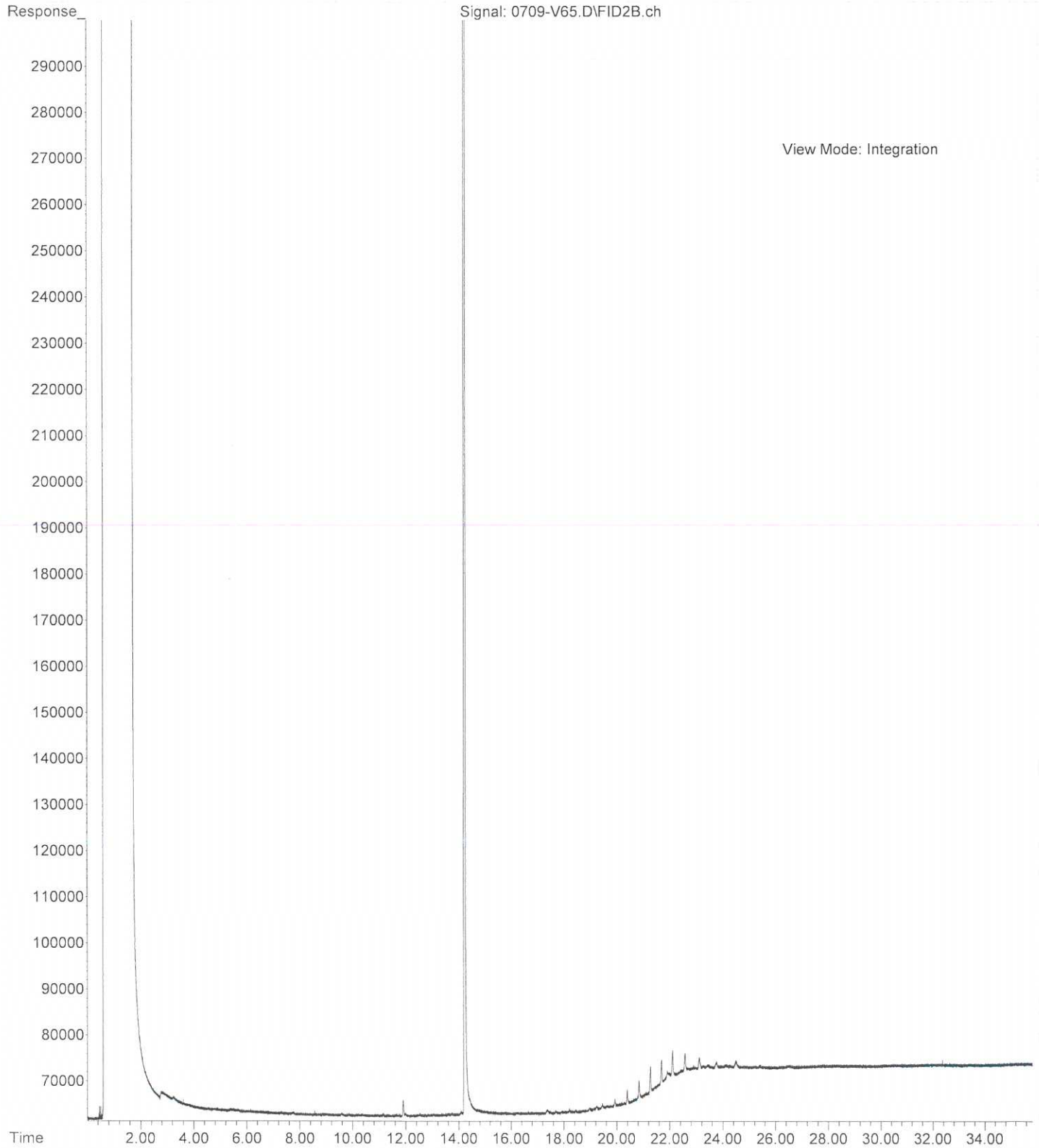
File : X:\BTEX\HOPE\DATA\H150709\0709011.D  
Operator :  
Acquired : 9 Jul 2015 22:34 using AcqMethod 150701B.M  
Instrument : Hope  
Sample Name: 07-037-04s  
Misc Info : V2-37-21  
Vial Number: 11



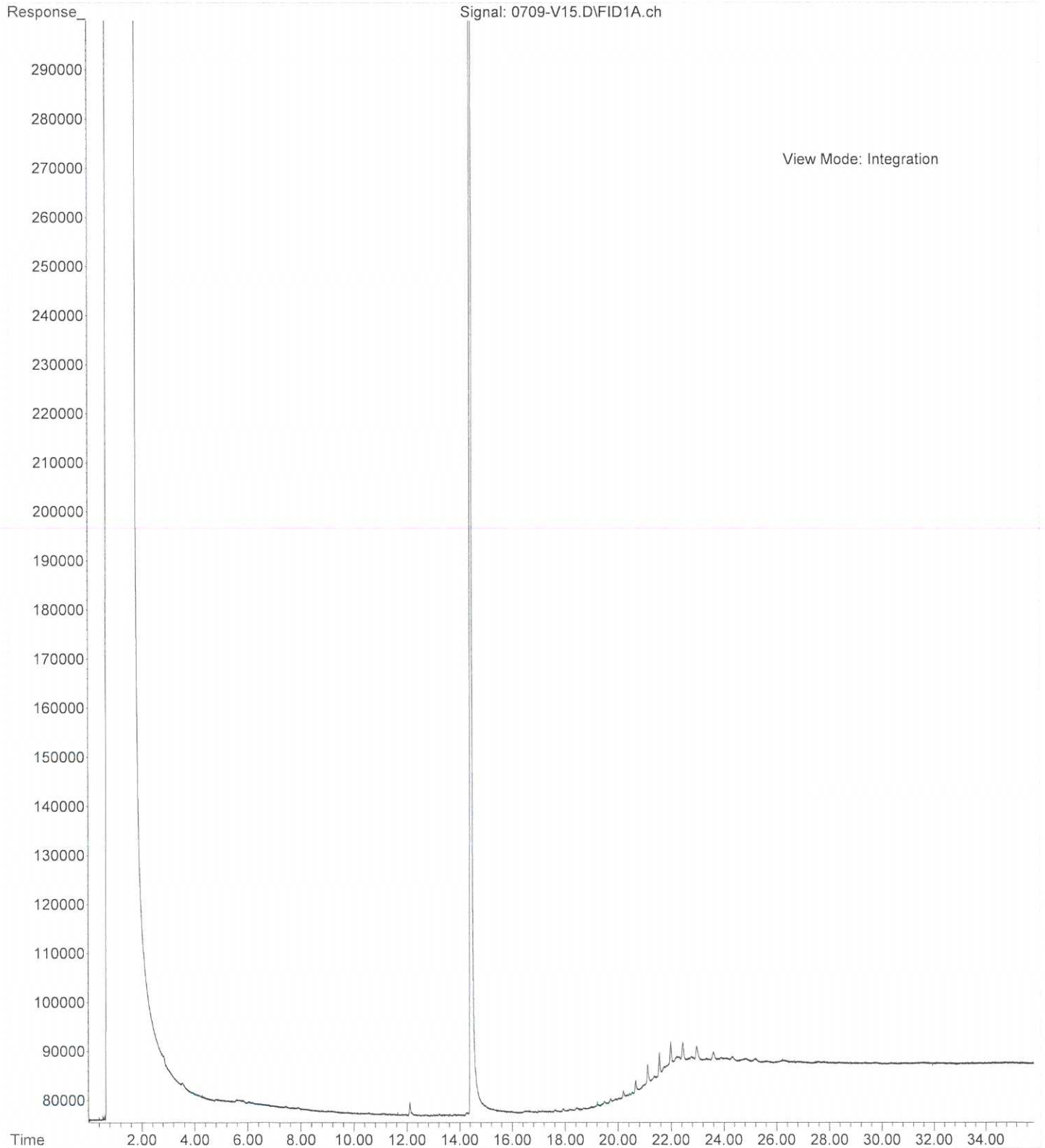
File :X:\DIESELS\VIGO\DATA\V150709.SEC\0709-V63.D  
Operator :  
Acquired : 9 Jul 2015 19:05 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 07-037-01  
Misc Info :  
Vial Number: 63



File :X:\DIESELS\VIGO\DATA\V150709.SEC\0709-V65.D  
Operator :  
Acquired : 9 Jul 2015 20:28 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 07-037-02  
Misc Info :  
Vial Number: 65



File :X:\DIESELS\VIGO\DATA\V150709\0709-V15.D  
Operator :  
Acquired : 9 Jul 2015 20:28 using AcqMethod V150209F.M  
Instrument : Vigo  
Sample Name: 07-037-03  
Misc Info :  
Vial Number: 15





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

July 24, 2015

Fasih Khan  
GeoEngineers, Inc.  
600 Stewart, Suite 1700  
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03  
Laboratory Reference No. 1507-147

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 17, 2015.

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,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister  
Project Manager

Enclosures

Date of Report: July 24, 2015  
Samples Submitted: July 17, 2015  
Laboratory Reference: 1507-147  
Project: 21138-001-03

### **Case Narrative**

Samples were collected on July 17, 2015 and received by the laboratory on July 17, 2015. 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.

Date of Report: July 24, 2015  
Samples Submitted: July 17, 2015  
Laboratory Reference: 1507-147  
Project: 21138-001-03

### ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
G-1-W-071715	07-147-01	Water	7-17-15	7-17-15	

Date of Report: July 24, 2015  
 Samples Submitted: July 17, 2015  
 Laboratory Reference: 1507-147  
 Project: 21138-001-03

**NWTPH-Gx/BTEX**

Matrix: Water  
 Units: ug/L (ppb)

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>G-1-W-071715</b>					
Laboratory ID:	07-147-01					
Benzene	<b>ND</b>	1.0	EPA 8021B	7-20-15	7-20-15	
Toluene	<b>ND</b>	1.0	EPA 8021B	7-20-15	7-20-15	
Ethyl Benzene	<b>ND</b>	1.0	EPA 8021B	7-20-15	7-20-15	
m,p-Xylene	<b>ND</b>	1.0	EPA 8021B	7-20-15	7-20-15	
o-Xylene	<b>ND</b>	1.0	EPA 8021B	7-20-15	7-20-15	
Gasoline	<b>ND</b>	100	NWTPH-Gx	7-20-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	95	71-113				

Date of Report: July 24, 2015  
 Samples Submitted: July 17, 2015  
 Laboratory Reference: 1507-147  
 Project: 21138-001-03

**NWTPH-Dx**

Matrix: Water  
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>G-1-W-071715</b>					
Laboratory ID:	07-147-01					
Diesel Range Organics	<b>ND</b>	0.26	NWTPH-Dx	7-22-15	7-22-15	
Lube Oil Range Organics	<b>ND</b>	0.41	NWTPH-Dx	7-22-15	7-22-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Date of Report: July 24, 2015  
 Samples Submitted: July 17, 2015  
 Laboratory Reference: 1507-147  
 Project: 21138-001-03

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Water  
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0720W1					
Benzene	ND	1.0	EPA 8021B	7-20-15	7-20-15	
Toluene	ND	1.0	EPA 8021B	7-20-15	7-20-15	
Ethyl Benzene	ND	1.0	EPA 8021B	7-20-15	7-20-15	
m,p-Xylene	ND	1.0	EPA 8021B	7-20-15	7-20-15	
o-Xylene	ND	1.0	EPA 8021B	7-20-15	7-20-15	
Gasoline	ND	100	NWTPH-Gx	7-20-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	07-147-01							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
<i>Surrogate:</i>								
<i>Fluorobenzene</i>				95	89	71-113		

**MATRIX SPIKES**

Laboratory ID:	07-147-01									
	MS	MSD	MS	MSD		MS	MSD			
Benzene	55.5	55.8	50.0	50.0	ND	111	112	82-120	1	14
Toluene	53.9	54.2	50.0	50.0	ND	108	108	83-120	1	14
Ethyl Benzene	53.9	54.0	50.0	50.0	ND	108	108	83-120	0	15
m,p-Xylene	53.5	54.1	50.0	50.0	ND	107	108	81-123	1	15
o-Xylene	53.1	53.3	50.0	50.0	ND	106	107	80-120	0	16
<i>Surrogate:</i>										
<i>Fluorobenzene</i>						97	96	71-113		

Date of Report: July 24, 2015  
 Samples Submitted: July 17, 2015  
 Laboratory Reference: 1507-147  
 Project: 21138-001-03

**NWTPH-Dx  
 QUALITY CONTROL**

Matrix: Water  
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0722W1					
Diesel Range Organics	<b>ND</b>	0.25	NWTPH-Dx	7-22-15	7-22-15	
Lube Oil Range Organics	<b>ND</b>	0.40	NWTPH-Dx	7-22-15	7-22-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>										
Laboratory ID:	07-141-02									
	ORIG	DUP								
Diesel Range Organics	<b>1.55</b>	<b>1.34</b>	NA	NA		NA	NA	15	NA	M
Lube Oil Range	<b>ND</b>	<b>ND</b>	NA	NA		NA	NA	NA	NA	
<i>Surrogate:</i>										
<i>o-Terphenyl</i>						87	82	50-150		



### 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-naphthalene) 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



## **APPENDIX F**

### **UST2 and UST3 Removal Documents**



# FILCO COMPANY INC.

P.O. Box 31228 • Seattle, WA 98103 • Ph: (206) 547-8347 • Fax: (206) 548-9352  
[www.FilcoEnviro.com](http://www.FilcoEnviro.com) • Lic# FILCOCIO8ØRU

## LETTER OF CERTIFICATION

August 14<sup>th</sup>, 2015

City Transfer, Inc.  
PO Box 88670  
Seattle, Washington 98138

RE: Commercial Underground Heating Oil Tank at 2101 9<sup>th</sup> Avenue  
Seattle, Washington 98121

This is to certify that Filco Company, Inc. has removed one approximate 1,000 gallon underground commercial heating oil tank from the above named property. The tank and its contents were disposed of according to the codes and guidelines set forth by the Washington State Department of Ecology and local Fire Department regulations and the decommissioned tank meets these standards.

*Phil Suetens*

Phil Suetens  
President Filco Co., Inc.

Fri 8/14/15 @ 10AM AD

PERMITS@SEATTLE.GOV

RECEIVED

AUG 11 2015

PERMIT SE



Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 Commercial Tank Removal/Decommissioning

Permit Fee: \$218.00

Date Issued: 8/15/15

Tank(s) must be removed from site on the same day as permit is issued!

TO BE COMPLETED BY PERMIT APPLICANT

FIRM NAME	Filco Company, Inc.		
MAILING ADDRESS	PO Box 31228	SUITE	
CITY	Seattle	STATE	WA ZIP 98103
JOBSITE ADDRESS	2101 2014 9th Ave		
CONTACT PERSON	Nate Montgomery	PHONE NUMBER	(206) 423-1791
Number of Tank(s):	one	Tank Size(s):	1,000
Product(s) Previously Contained:	heating oil		<input type="checkbox"/> Aboveground tank
			<input checked="" type="checkbox"/> Underground tank
<input checked="" type="checkbox"/>	Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)		
<input type="checkbox"/>	Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)		
Hot work being conducted:	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (If yes, a separate hot work permit is required)	

Permit applications may be submitted in person weekdays from 8:00 a.m. to 5:00 p.m., or mailed to:

Seattle Fire Department  
Fire Marshal's Office - Permits  
220 Third Ave S, 2nd Floor  
Seattle, WA 98104-2608

To pay with a Visa or Master Card: Fax or email this application  
THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT  
Tel: (206) 386-1450 / Fax: (206) 386-1348  
E-mail: [permits@seattle.gov](mailto:permits@seattle.gov)

Call 386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.  
TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION  
NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!

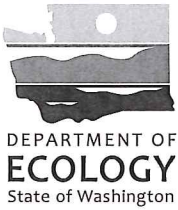
Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, federal, state and local regulations. THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED

Special permit conditions: Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)

SAFE FOR EXCAVATION FOR MARINE CHEMIST.

FMO USE:	APPROVED BY:
Check No.: 5-250161	Inspector: Mike Farley SFD ID# 1388
Receipt No.: 5156081115	Name of Marine Chemist: Amy Sly Certificate # 706
Application ID#: 102123	Date: 8/15/15





## SITE CHECK/SITE ASSESSMENT CHECKLIST FOR UNDERGROUND STORAGE TANKS

UST ID #: \_\_\_\_\_

County: \_\_\_\_\_

*This checklist certifies that site check or site assessment activities were performed in accordance with Chapter 173-360 WAC. Instructions are found on the last page.*

I. UST FACILITY		II. OWNER/OPERATOR INFORMATION	
Facility Compliance Tag #:	NOT REGISTERED	Owner/Operator Name:	NINTH & LENORA LLC
UST ID #:	NOT REGISTERED	Business Name:	NINTH & LENORA LLC
Site Name:	9th & LENORA PROJECT	Address:	2118 WESTLAKE AVENUE
Site Address:	2118 WESTLAKE AVENUE	City:	SEATTLE
City:	SEATTLE	State:	WA
Phone:	NONE	Zip:	98121
		Phone:	206-682-7770 (SELLEN CONST.)
		Email:	NONE
III. CERTIFIED SITE ASSESSOR			
Service Provider Name:	FASIHULLAH KHAN	Company Name:	GEOENGINEERS, INC.
Cell Phone:	206.713.2138	Email:	FKHAN@GEOENGINEERS.COM
		Address:	600 STEWART ST, # 1700
Certification #:	8057 532	Exp. Date:	7/10/2015
		City:	SEATTLE
		State:	WA
		Zip:	98101
IV. TANK INFORMATION			
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST 3	1,750 GALLONS	DIESEL FUEL#2 (HEATING OIL)	6/11/2015
V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)			
<input checked="" type="checkbox"/> Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).			
<input type="checkbox"/> Release investigation following a failed tank and/or line tightness test.			
<input type="checkbox"/> Release investigation following discovery of contaminated soil and/or groundwater.			
<input type="checkbox"/> Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.			
<input type="checkbox"/> UST system is undergoing a "change-in-service", which is changing from storing a regulated substance (e.g. gasoline) to storing a non-regulated substance (e.g. water).			
<input type="checkbox"/> Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.			
<input type="checkbox"/> Other (describe):			

## VI. CHECKLIST

**The site assessor must check each of the following items and include it in the report.  
Sections referenced below can be found in the Ecology publication  
*Guidance for Site Checks and Site Assessments for Underground Storage Tanks.***

		YES	NO
1. The location of the UST site is shown on a vicinity map.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. A summary of UST system data is provided (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. The soils characteristics at the UST site are described. (Section 5.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is there any apparent groundwater in the tank excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. A brief description of the surrounding land use is provided. (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. The name and address of the laboratory used to perform analyses is provided. The methods used to collect and analyze the samples, including the number and types of samples collected, are also documented in the report. The data from the laboratory is appended to the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. The following items are provided in one or more sketches:			
• Location and ID number for all field samples collected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• If applicable, groundwater samples are distinguished from soil samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Location of samples collected from stockpiled excavated soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Tank and piping locations and limits of excavation pit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Adjacent structures and streets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
• Approximate locations of any on-site and nearby utilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. If sampling procedures are different from those specified in the guidance, has justification for using these alternative sampling procedures been provided? (Section 3.4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method, and detection limit for that method. Any sample exceeding MTCA Method A cleanup standards are highlighted or bolded.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Any factors that may have compromised the quality of the data or validity of the results are described.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. The requirements for reporting confirmed releases can be found in WAC 173-360-372.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

## VII. REQUIRED SIGNATURES

*Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360-360 through -395.*

**FASIHULLAH KHAN**

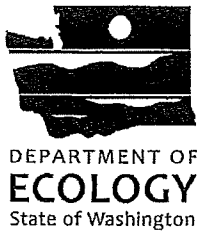
Print or Type Name



Signature of Certified Site Assessor

**6/11/2015**

Date



# UNDERGROUND STORAGE TANK (UST) 30-DAY NOTICE

(See back of form for instructions)

**CALLED IN**

FOR OFFICE USE ONLY

Site ID # \_\_\_\_\_

FS ID # \_\_\_\_\_

Please ✓ the appropriate box:  Intent to Install  Intent to Close

HQ (360)407-7170 / Central (509)575-2490 / Eastern (509)329-3400 / Northwest (425)649-7000 / Southwest (360)407-6300

SITE INFORMATION	OWNER INFORMATION (this form will be returned to this address)
Not registered	UST Owner/Operator
Tag or UBI number	Mailing Address/PO Box
Not registered	City
Site Name	Zip Code
9th & Lenora Project	2101 9th Avenue, Seattle, Wa 98121
Site Physical Address	Owner/Operator Phone Number
2101 9th Avenue, Seattle, Wa 98121	Owner/Operator Email Address
City	
206 682-7770 (Sellen Construction)	
Site Phone Number	

TANK INFORMATION				
Tank ID	Substance Stored	Capacity	Date Project is Expected to Begin	Comments:
1	Diesel fuel	2,000 g	6-11-2015	Reportedly, the 30-day tank decommissioning notice was called in prior to by contractor or other consultant prior to this notice being filled out.

### 1) SERVICE PROVIDER INFORMATION - check the appropriate boxes

PLEASE NOTE: INDIVIDUALS PERFORMING UST SERVICES MUST BE ICC CERTIFIED OR HAVE PASSED ANOTHER QUALIFYING EXAM APPROVED BY THE DEPARTMENT OF ECOLOGY.

Installer  Decommissioner  Site Assessor

Cert. #0878867-U2 and #0878867-U7

Service Provider Company Name: galloway Environmental, Inc. Contact Person: Gary Galloway

Certified Service Provider Name: Gary Galloway, Contact Phone Number: 425 688 8852. gallowaye@comcast.net

ICC Certification # \_\_\_\_\_ Contact Email Address \_\_\_\_\_

### 2) SERVICE PROVIDER INFORMATION (REQUIRED IF USING MORE THAN ONE PROVIDER) - check the appropriate boxes

Installer  Decommissioner  Site Assessor

Service Provider Company Name \_\_\_\_\_ Contact Person \_\_\_\_\_

Certified Service Provider Name \_\_\_\_\_ Contact Phone Number \_\_\_\_\_

ICC Certification # \_\_\_\_\_ Contact Email Address \_\_\_\_\_



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

## PERMANENT CLOSURE NOTICE FOR UNDERGROUND STORAGE TANKS

UST ID #:   ?  

County:   King  

*This notice certifies that permanent closure activities were performed and conducted in accordance with Chapter 173-360 WAC. Instructions are found on the back page.*

I. UST FACILITY			II. OWNER/OPERATOR INFORMATION			
Facility Compliance Tag #:			Owner/Operator Name:			
UST ID #: <b>not registered</b>			Business Name: <b>9th &amp; Lenora Project</b>			
Site Name: <b>9th &amp; Lenora Project</b>			Address: <b>2101 9th Avenue</b>			
Site Address: <b>2101 9th Avenue</b>			City: <b>Seattle</b>		State: <b>WA</b>	Zip: <b>98121</b>
City: <b>Seattle</b>			Phone: <b>206-682-7770 (Sellen Construction)</b>			
Phone: <b>none</b>			Email:			
III. CERTIFIED UST DECOMMISSIONER						
Company Name: <b>Galloway Environmental, Inc.</b>			Service Provider Name: <b>Gary Galloway</b>			
Address: <b>3102 220th PL SE</b>			Certification Type: <b>IFCI UST Decommissioning</b>			
City: <b>Sammamish</b>		State: <b>WA</b>		Zip: <b>98075</b>	Cert. No.: <b>0878867-U2</b>	Exp. Date: <b>6/4/2017</b>
Provider Phone: <b>425-688-8852</b>			Provider Email: <b>gary@gallowayenvironmental.com</b>			
Provider Signature:			Date: <b>June 26, 2015</b>			
IV. TANK INFORMATION						
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	CLOSURE METHOD			CLOSURE DATE
			removal	closed-in-place	change-in-service	
<b>1</b>	<b>2,000 gallons</b>	<b>diesel</b>	x <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>6/11/2015</b>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
V. REQUIRED SIGNATURE						
<i>Signature acknowledges UST(s) comply with UST regulation WAC 173-360-380 Temporary Closure Requirements.</i>						
Date	Signature of Tank Owner/Operator or Authorized Representative			Print or Type Name		

**MARINE VACUUM SERVICE, INC.**

**UNDERGROUND STORAGE TANK TRIPLE RINSE CERTIFICATE**

Tank Size: 6000 GALLONS

Tank Location: 2101 9<sup>th</sup> Ave  
SEATTLE

Marine Vacuum Service, Inc. certifies that the above mentioned tank(s) have been triple rinsed in accordance with the industry standard and that all rinsate has been disposed of in accordance with Federal, State and Local regulations.

Tank Owner: 9<sup>th</sup> AND LINDORA LLC

Sub-Contractor: AMEC FOSTER WHEELER

M.V.S. Representative: Sakha

Date: 6-11-15

Notes:

Survey Requested by MARVAC

Vessel Owner or Agent 9th & Lenora LLC

Date 11 JUN 15

Vessel UST

Type of Vessel UST

Specific Location of Vessel 9th & Lenora

Last Three (3) Loadings Diesel X 3

Tests Performed VISUAL O<sub>2</sub>

Time Survey Completed 1030

~ 2000 GAL ~~DIESEL~~ DIESEL UST

Inerted with CO<sub>2</sub>  
(O<sub>2</sub> < 6.0%)

SAFE FOR LIMITED HOT WORK  
LIMITATIONS:

- ① POST FIRE WATCH
- ② MAY USE ABRASIVE SAW TO REMOVE 4 INCH RILL PIPE
- ③ MAY RIP OR ABRASIVE SAW OUT THE SMALLER VENT & PRODUCT LINES FROM THE TANK

[MPTED: DCU S/N SK102-00546/CAC0630-11JUN15]

In the event of physical or atmospheric changes affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, this certificate is voided; spaces not listed on the Certificate are not to be entered unless authorized on another Certificate and/or maintained in accordance with OSHA 29 CFR 1915; or if in any doubt, immediately stop all work and contact the Undersigned Marine Chemist. Unless otherwise stated on the Certificate, all spaces and affected adjacent spaces are to be reinspected daily or more often as necessary by the competent person in support of work prior to entry or recommencement of work.

QUALIFICATIONS: Transfer of ballast, cargo, fuel, or manipulation of valves or closure equipment tending to alter conditions in pipelines, tanks, or compartments subject to gas accumulation, unless specifically approved on this Certificate, requires inspection and a new Certificate for spaces so affected. All lines, vents, heating coils, valves, and similar enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated. Movement of the vessel from its specific location voids the Certificate unless shifting of the vessel within the facility has been specifically authorized on this Certificate.

STANDARD SAFETY DESIGNATIONS: (partial list, paraphrased from NFPA 306, Subsections 4.3.1 through 4.3.6).  
ATMOSPHERE SAFE FOR WORKERS: In the compartment or space so designated (a) the oxygen content of the atmosphere is at least 19.5 percent and not greater than 22 percent by volume; (b) the concentration of flammable materials is below 10 percent of the lower explosive limit; (c) any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, inerting mediums, or fumigants are within permissible concentrations at the time of the inspection.

NOT SAFE FOR WORKERS: In the compartment or space so designated, entry is not permitted.

ENTER WITH RESTRICTIONS: In the compartment or space so designated, entry for work is permitted only if conditions of proper protective equipment, or clothing, or time, or all of the aforementioned, as appropriate, are as specified.

SAFE FOR HOT WORK: In the compartment or space so designated (a) the oxygen content of the atmosphere is not greater than 22 percent by volume; (b) the concentration of flammable materials in the atmosphere is less than 10 percent of the lower explosive limit; (c) the residues, scale, or preservative coatings are cleaned sufficiently to prevent the spread of fire and are not capable of producing a higher concentration than permitted by (a) or (b); (d) all adjacent spaces, containing or having contained flammable or combustible materials shall be sufficiently cleaned of residues, scale, or preservative coatings to prevent the spread of fire, or they are inerted. Ship's fuel tanks, tube tanks, or engine room or fire room bilges, or other machinery spaces, are treated in accordance with the Marine Chemist's requirements.

SAFE FOR LIMITED HOT WORK: In the compartment or space so designated (a) portions of the space meet the requirements for Safe for Hot Work and Partial Cleaning, as applicable, or (b) the space is inerted, adjacent spaces meet the requirements for Safe for Hot Work, and hot work is restricted to specific locations; (c) portions of the space shall meet the requirements for Safe for Hot Work, as applicable, and the nature or type of hot work is limited or restricted.

NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot work is not permitted.

CHEMISTS ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under NFPA 306 and understands conditions and limitations under which it was issued, and the requirements for maintaining its validity."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed [Signature] GALLAGHER ENV. Date 11 JUN 15

Signed [Signature] #688  
MARINE CHEMIST  
SOUND TESTING, INC. Certificate No.

POSTING COPY CRAIG 206-313-6833

THUR 06/11/15  
1PM JK

RECEIVED  
JUN 10 2015  
PERMIT SECTION



Your  
Seattle  
Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 Commercial Tank Removal/Decommissioning

Permit Fee: \$208.00 \$218-

Date Issued: 6/11/2015

Tank(s) must be removed from site on the same day as permit is issued!

TO BE COMPLETED BY PERMIT APPLICANT

FIRM NAME	MARINE VACUUM SERVICE, INC.		
MAILING ADDRESS	P. O. BOX 24263	SUITE	
CITY	SEATTLE	STATE	WA ZIP 98124
JOB SITE ADDRESS	2121 9TH AVENUE SEATTLE, WA 98121		
CONTACT PERSON	MIKE SCHIRMER	PHONE NUMBER	(206) 255-8174
Number of Tank(s):	1	Tank Size(s):	1,000
Product(s) Previously Contained:	HEATING OIL		
<input type="checkbox"/> Aboveground tank <input checked="" type="checkbox"/> Underground tank			
<input checked="" type="checkbox"/> Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)			
<input type="checkbox"/> Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)			
Hot work being conducted: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, a separate hot work permit is required)			

Permit applications may be submitted in person weekdays from 8:00 a.m. to 5:00 p.m., or mailed to:

Seattle Fire Department  
Fire Marshal's Office - Permits  
220 Third Ave S, 2<sup>nd</sup> Floor  
Seattle, WA 98104-2608

To pay with a Visa or Master Card: Fax or email this application  
**THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT**  
Tel: (206) 386-1450 / Fax: (206) 386-1348  
E-mail: [permits@seattle.gov](mailto:permits@seattle.gov)

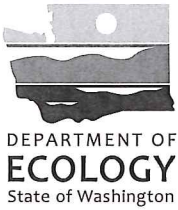
Call 386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.  
**TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION**  
**NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!**

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, federal, state and local regulations. **THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED**

Special permit conditions: Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)

OK FOR TANK REMOVAL

FMO USE:	APPROVED BY:	SFD ID#
Check No.: 4716061015	Inspector: JOAN LAUDORBACK	1077
Receipt No.: 5-247538	Name of Marine/Chemist: CRAIG	Certificate # 608
Application ID#: 101426	Date: 6/11/2015	



## SITE CHECK/SITE ASSESSMENT CHECKLIST FOR UNDERGROUND STORAGE TANKS

UST ID #: \_\_\_\_\_

County: \_\_\_\_\_

*This checklist certifies that site check or site assessment activities were performed in accordance with Chapter 173-360 WAC. Instructions are found on the last page.*

I. UST FACILITY		II. OWNER/OPERATOR INFORMATION	
Facility Compliance Tag #:	NOT REGISTERED	Owner/Operator Name:	NINTH & LENORA LLC
UST ID #:	NOT REGISTERED	Business Name:	NINTH & LENORA LLC
Site Name:	9th & LENORA PROJECT	Address:	2118 WESTLAKE AVENUE
Site Address:	2118 WESTLAKE AVENUE	City:	SEATTLE
City:	SEATTLE	State:	WA
Phone:	NONE	Zip:	98121
		Phone:	206-682-7770 (SELLEN CONST.)
		Email:	NONE
III. CERTIFIED SITE ASSESSOR			
Service Provider Name:	FASIHULLAH KHAN	Company Name:	GEOENGINEERS, INC.
Cell Phone:	206.713.2138	Email:	FKHAN@GEOENGINEERS.COM
		Address:	600 STEWART ST, # 1700
Certification #:	8057 532	Exp. Date:	7/10/2015
		City:	SEATTLE
		State:	WA
		Zip:	98101
IV. TANK INFORMATION			
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST 3	1,750 GALLONS	DIESEL FUEL#2 (HEATING OIL)	6/11/2015
V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)			
<input checked="" type="checkbox"/> Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).			
<input type="checkbox"/> Release investigation following a failed tank and/or line tightness test.			
<input type="checkbox"/> Release investigation following discovery of contaminated soil and/or groundwater.			
<input type="checkbox"/> Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.			
<input type="checkbox"/> UST system is undergoing a "change-in-service", which is changing from storing a regulated substance (e.g. gasoline) to storing a non-regulated substance (e.g. water).			
<input type="checkbox"/> Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.			
<input type="checkbox"/> Other (describe):			

## VI. CHECKLIST

**The site assessor must check each of the following items and include it in the report.  
Sections referenced below can be found in the Ecology publication  
*Guidance for Site Checks and Site Assessments for Underground Storage Tanks.***

	YES	NO
1. The location of the UST site is shown on a vicinity map.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. A summary of UST system data is provided (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. The soils characteristics at the UST site are described. (Section 5.2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Is there any apparent groundwater in the tank excavation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. A brief description of the surrounding land use is provided. (Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. The name and address of the laboratory used to perform analyses is provided. The methods used to collect and analyze the samples, including the number and types of samples collected, are also documented in the report. The data from the laboratory is appended to the report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. The following items are provided in one or more sketches:		
• Location and ID number for all field samples collected	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• If applicable, groundwater samples are distinguished from soil samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Location of samples collected from stockpiled excavated soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Tank and piping locations and limits of excavation pit	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Adjacent structures and streets	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Approximate locations of any on-site and nearby utilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. If sampling procedures are different from those specified in the guidance, has justification for using these alternative sampling procedures been provided? (Section 3.4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method, and detection limit for that method. Any sample exceeding MTCA Method A cleanup standards are highlighted or bolded.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Any factors that may have compromised the quality of the data or validity of the results are described.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. The requirements for reporting confirmed releases can be found in WAC 173-360-372.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## VII. REQUIRED SIGNATURES

*Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360-360 through -395.*

**FASIHULLAH KHAN**

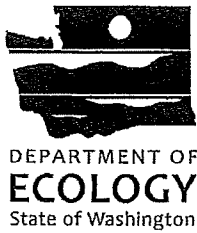
Print or Type Name



Signature of Certified Site Assessor

**6/11/2015**

Date



# UNDERGROUND STORAGE TANK (UST) 30-DAY NOTICE

(See back of form for instructions)

**CALLED IN**

FOR OFFICE USE ONLY

Site ID # \_\_\_\_\_

FS ID # \_\_\_\_\_

Please ✓ the appropriate box:  Intent to Install  Intent to Close

HQ (360)407-7170 / Central (509)575-2490 / Eastern (509)329-3400 / Northwest (425)649-7000 / Southwest (360)407-6300

SITE INFORMATION	OWNER INFORMATION (this form will be returned to this address)
Not registered	UST Owner/Operator
Tag or UBI number	Mailing Address/PO Box
Not registered	City
Site Name	Zip Code
9th & Lenora Project	2101 9th Avenue, Seattle, Wa 98121
Site Physical Address	Owner/Operator Phone Number
2101 9th Avenue, Seattle, Wa 98121	Owner/Operator Email Address
City	
206 682-7770 (Sellen Construction)	
Site Phone Number	

TANK INFORMATION				
Tank ID	Substance Stored	Capacity	Date Project is Expected to Begin	Comments:
1	Diesel fuel	2,000 g	6-11-2015	Reportedly, the 30-day tank decommissioning notice was called in prior to by contractor or other consultant prior to this notice being filled out.

### 1) SERVICE PROVIDER INFORMATION - check the appropriate boxes

PLEASE NOTE: INDIVIDUALS PERFORMING UST SERVICES MUST BE ICC CERTIFIED OR HAVE PASSED ANOTHER QUALIFYING EXAM APPROVED BY THE DEPARTMENT OF ECOLOGY.

Installer  Decommissioner  Site Assessor

Cert. #0878867-U2 and #0878867-U7

Service Provider Company Name: galloway Environmental, Inc. Contact Person: Gary Galloway

Certified Service Provider Name: Gary Galloway, Contact Phone Number: 425 688 8852. gallowaye@comcast.net

ICC Certification # \_\_\_\_\_ Contact Email Address \_\_\_\_\_

### 2) SERVICE PROVIDER INFORMATION (REQUIRED IF USING MORE THAN ONE PROVIDER) - check the appropriate boxes

Installer  Decommissioner  Site Assessor

Service Provider Company Name \_\_\_\_\_ Contact Person \_\_\_\_\_

Certified Service Provider Name \_\_\_\_\_ Contact Phone Number \_\_\_\_\_

ICC Certification # \_\_\_\_\_ Contact Email Address \_\_\_\_\_



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

## PERMANENT CLOSURE NOTICE FOR UNDERGROUND STORAGE TANKS

UST ID #:   ?  

County:   King  

*This notice certifies that permanent closure activities were performed and conducted in accordance with Chapter 173-360 WAC. Instructions are found on the back page.*

I. UST FACILITY			II. OWNER/OPERATOR INFORMATION			
Facility Compliance Tag #:			Owner/Operator Name:			
UST ID #: <b>not registered</b>			Business Name: <b>9th &amp; Lenora Project</b>			
Site Name: <b>9th &amp; Lenora Project</b>			Address: <b>2101 9th Avenue</b>			
Site Address: <b>2101 9th Avenue</b>			City: <b>Seattle</b>		State: <b>WA</b>	Zip: <b>98121</b>
City: <b>Seattle</b>			Phone: <b>206-682-7770 (Sellen Construction)</b>			
Phone: <b>none</b>			Email:			
III. CERTIFIED UST DECOMMISSIONER						
Company Name: <b>Galloway Environmental, Inc.</b>			Service Provider Name: <b>Gary Galloway</b>			
Address: <b>3102 220th PL SE</b>			Certification Type: <b>IFCI UST Decommissioning</b>			
City: <b>Sammamish</b>		State: <b>WA</b>		Zip: <b>98075</b>		Exp. Date: <b>6/4/2017</b>
Provider Phone: <b>425-688-8852</b>			Provider Email: <b>gary@gallowayenvironmental.com</b>			
Provider Signature:			Date: <b>June 26, 2015</b>			
IV. TANK INFORMATION						
TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	CLOSURE METHOD			CLOSURE DATE
			removal	closed-in-place	change-in-service	
1	2,000 gallons	diesel	x <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6/11/2015
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
V. REQUIRED SIGNATURE						
<i>Signature acknowledges UST(s) comply with UST regulation WAC 173-360-380 Temporary Closure Requirements.</i>						
Date	Signature of Tank Owner/Operator or Authorized Representative			Print or Type Name		

**MARINE VACUUM SERVICE, INC.**

**UNDERGROUND STORAGE TANK TRIPLE RINSE CERTIFICATE**

Tank Size: 6000 GALLONS

Tank Location: 2101 9<sup>th</sup> Ave  
SEATTLE

Marine Vacuum Service, Inc. certifies that the above mentioned tank(s) have been triple rinsed in accordance with the industry standard and that all rinsate has been disposed of in accordance with Federal, State and Local regulations.

Tank Owner: 9<sup>th</sup> AND LINDORA LLC

Sub-Contractor: AMEC FOSTER WHEELER

M.V.S. Representative: Sakha

Date: 6-11-15

Notes:

Survey Requested by MARVAC Vessel Owner or Agent 9th & Lenora LLC Date 11 JUN 15  
 Vessel UST Type of Vessel UST Specific Location of Vessel 9th & Lenora  
 Last Three (3) Loadings Diesel X 3 Tests Performed VISUAL O2 Time Survey Completed 1030

~ 2000 GAL ~~DIESEL~~ DIESEL UST

Inerted with CO2  
(O2 < 6.0%)

- SAFE FOR LIMITED HOT WORK  
LIMITATIONS:
- ① POST FIRE WATCH
  - ② MAY USE ABRASIVE SAW TO REMOVE 4 INCH FULL PIPE
  - ③ MAY RIP OR ABRASIVE SAW OUT THE SMALLER VENT & PRODUCT LINES FROM THE TANK

[MPTED: DCU S/N SK102-005146/CAC0630-11JUN15]

In the event of physical or atmospheric changes affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, this certificate is voided; spaces not listed on the Certificate are not to be entered unless authorized on another Certificate and/or maintained in accordance with OSHA 29 CFR 1915; or if in any doubt, immediately stop all work and contact the Undersigned Marine Chemist. Unless otherwise stated on the Certificate, all spaces and affected adjacent spaces are to be reinspected daily or more often as necessary by the competent person in support of work prior to entry or recommencement of work.

QUALIFICATIONS: Transfer of ballast, cargo, fuel, or manipulation of valves or closure equipment tending to alter conditions in pipelines, tanks, or compartments subject to gas accumulation, unless specifically approved on this Certificate, requires inspection and a new Certificate for spaces so affected. All lines, vents, heating coils, valves, and similar enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated. Movement of the vessel from its specific location voids the Certificate unless shifting of the vessel within the facility has been specifically authorized on this Certificate.

STANDARD SAFETY DESIGNATIONS: (partial list, paraphrased from NFPA 306, Subsections 4.3.1 through 4.3.6).  
 ATMOSPHERE SAFE FOR WORKERS: In the compartment or space so designated (a) the oxygen content of the atmosphere is at least 19.5 percent and not greater than 22 percent by volume; (b) the concentration of flammable materials is below 10 percent of the lower explosive limit; (c) any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, inerting mediums, or fumigants are within permissible concentrations at the time of the inspection.

NOT SAFE FOR WORKERS: In the compartment or space so designated, entry is not permitted.  
 ENTER WITH RESTRICTIONS: In the compartment or space so designated, entry for work is permitted only if conditions of proper protective equipment, or clothing, or time, or all of the aforementioned, as appropriate, are as specified.

SAFE FOR HOT WORK: In the compartment or space so designated (a) the oxygen content of the atmosphere is not greater than 22 percent by volume; (b) the concentration of flammable materials in the atmosphere is less than 10 percent of the lower explosive limit; (c) the residues, scale, or preservative coatings are cleaned sufficiently to prevent the spread of fire and are not capable of producing a higher concentration than permitted by (a) or (b); (d) all adjacent spaces, containing or having contained flammable or combustible materials shall be sufficiently cleaned of residues, scale, or preservative coatings to prevent the spread of fire, or they are inerted. Ship's fuel tanks, tube tanks, or engine room or fire room bilges, or other machinery spaces, are treated in accordance with the Marine Chemist's requirements.

SAFE FOR LIMITED HOT WORK: In the compartment or space so designated (a) portions of the space meet the requirements for Safe for Hot Work and Partial Cleaning, as applicable, or (b) the space is inerted, adjacent spaces meet the requirements for Safe for Hot Work, and hot work is restricted to specific locations; (c) portions of the space shall meet the requirements for Safe for Hot Work, as applicable, and the nature or type of hot work is limited or restricted.  
 NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot work is not permitted.

CHEMISTS ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under NFPA 306 and understands conditions and limitations under which it was issued, and the requirements for maintaining its validity."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed [Signature] Company GALLAGHER ENV. Date 11 JUN 15 Signed [Signature] #688  
 Marine Chemist SOUND TESTING, INC. Certificate No. [Stamp]

POSTING COPY CRAIG 206-313-6833

THUR 06/11/15  
1PM JK

RECEIVED  
JUN 10 2015  
PERMIT SECTION



Your  
Seattle  
Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908

Commercial Tank Removal/Decommissioning

Permit Fee: \$208.00 \$218-

Date Issued: 6/11/2015

Tank(s) must be removed from site on the same day as permit is issued!

TO BE COMPLETED BY PERMIT APPLICANT

FIRM NAME	MARINE VACUUM SERVICE, INC.		
MAILING ADDRESS	P. O. BOX 24263	SUITE	
CITY	SEATTLE	STATE	WA ZIP 98124
JOBSITE ADDRESS	2121 9TH AVENUE SEATTLE, WA 98121		
CONTACT PERSON	MIKE SCHIRMER	PHONE NUMBER	(206) 255-8174
Number of Tank(s):	1	Tank Size(s):	1,000
Product(s) Previously Contained:	HEATING OIL		
<input type="checkbox"/> Aboveground tank <input checked="" type="checkbox"/> Underground tank			
<input checked="" type="checkbox"/> Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)			
<input type="checkbox"/> Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)			
Hot work being conducted: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, a separate hot work permit is required)			

Permit applications may be submitted in person weekdays from 8:00 a.m. to 5:00 p.m., or mailed to:

Seattle Fire Department  
Fire Marshal's Office - Permits  
220 Third Ave S, 2nd Floor  
Seattle, WA 98104-2608

To pay with a Visa or Master Card: Fax or email this application  
**THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT**  
Tel: (206) 386-1450 / Fax: (206) 386-1348  
E-mail: [permits@seattle.gov](mailto:permits@seattle.gov)

Call 386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.  
**TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION**  
**NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!**

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, federal, state and local regulations. **THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED**

Special permit conditions: Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)

OK FOR TANK REMOVAL

FMO USE:	4716061015	APPROVED BY:	JOHN LAUDORBACK	SFD ID#	1077
Check No.:	5-247538	Inspector:	CRAIG	Certificate #	608
Receipt No.:	101426	Name of Marine/Chemist:		Date:	6/11/2015
Application ID#:					

## **APPENDIX G**

### **Contaminated Soil Tonnage Summaries**

REGIONAL DISPOSAL COMPANY INTERMODA  
 PO BOX 51057  
 LOS ANGELES, CA 90074-1057  
 (206) 332-7731

# INVOICE

TO:

Gary Merlino  
 9125 10th Ave. S.  
 Seattle, WA 98108

Contaminated soils removed from  
 deep side sewer work on 9th Avenue.

INVOICE NO. 0000048605  
 PAGE 1  
 DATE Apr-30-15  
 CUSTOMER NO. 11105 LW-15110  
 SITE NO.  
 REFERENCE NO.

SERVICE DATE	CODE	DESCRIPTION	REFERENCE	QTY.	AMOUNT
		Balance forward :			\$23,491.16
		Payments :			\$9,292.82
		Adjustments :			\$0.00
		Invoices :			\$0.00
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922746 ✓	16.15 TN	\$726.75
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922748 ✓	17.02 TN	\$765.90
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922752 ✓	16.98 TN	\$764.10
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922763 ✓	15.97 TN	\$718.65
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922764 ✓	14.50 TN	\$652.50
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922776 ✓	16.27 TN	\$732.15
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922777 ✓	16.85 TN	\$758.25

## Account Status

CURRENT      31 - 60 DAYS      61 - 90 DAYS      OVER 90 DAYS

Payment due upon receipt of this invoice. 1.5% per month (18% per annum) late charge on balances over 30 days from date of invoice.  
 Payments received after invoice date are not reflected.  
 To ensure proper credit, please include your account number on your check and include the bottom portion of this invoice. When making payment on multiple accounts, please include the account numbers and the amounts of payment.

**TOTAL THIS INVOICE**

**PLEASE PAY THIS AMOUNT**

We reserve the right to suspend service without notice on any past due account.

Please remit to:

INVOICE NO.  
 PAGE  
 DATE  
 CUSTOMER NO.  
 SITE NO.  
 REFERENCE NO.

AMOUNT OF REMITTANCE

PLEASE RETURN THIS PORTION WITH REMITTANCE

REMARKS

REGIONAL DISPOSAL COMPANY INTERMODA  
 PO BOX 51057  
 LOS ANGELES, CA 90074-1057  
 (206) 332-7731

# INVOICE

TO:

Gary Merlino  
 9125 10th Ave. S.  
 Seattle, WA 98108

INVOICE NO. 0000048647  
 PAGE 2  
 DATE May-15-15  
 CUSTOMER NO. 11105  
 LW-15110  
 SITE NO.  
 REFERENCE NO.

SERVICE DATE	CCDE	DESCRIPTION	REFERENCE	QTY.	AMOUNT
		<u>Material Summary</u>			
	VH	SW-CONT SOIL W/FUEL		102.95 TN	

15-407  
 14-520  
 JOB # LL1  
 COST CODE # 10-091-0030  
 COST CATEGORY (CIRCLE ONE)  
 MAT MIX MTU EQB EQR OTM  
 PM TW DATE 5-29-15

### Account Status

Payment due upon receipt of this invoice. 1.5% per month (18% per annum) late charge on balances over 30 days from date of invoice. Payments received after invoice date are not reflected. To ensure proper credit, please include your account number on your check and include the bottom portion of this invoice. When making payment on multiple accounts, please include the account numbers and the amounts of payment.

CURRENT	31 - 60 DAYS	61 - 90 DAYS	OVER 90 DAYS
\$ 13,324.95	\$ 0.00	\$ 0.00	\$ 3,802.26

TOTAL THIS INVOICE \$4,632.75

**PLEASE PAY THIS AMOUNT \$17,127.21**

We reserve the right to suspend service without notice on any past due account.

Please remit to:

INVOICE NO. 0000048647  
 PAGE 2  
 DATE May-15-15  
 CUSTOMER NO. 11105  
 SITE NO.  
 REFERENCE NO.

REGIONAL DISPOSAL COMPANY INTERMODA  
 PO BOX 51057  
 LOS ANGELES, CA 90074-1057  
 (206) 332-7731

AMOUNT OF REMITTANCE

PLEASE RETURN THIS PORTION WITH REMITTANCE

REMARKS

\*\*\* Please reference your invoice number on each check stub \*\*\*  
 For Billing Inquiries: Call (206)332-7731 or email: chartje@republicservices.com

REGIONAL DISPOSAL COMPANY INTERMODA  
 PO BOX 51057  
 LOS ANGELES, CA 90074-1057  
 (206) 332-7731

# INVOICE

TO:  
  
 Gary Merlino  
 9125 10th Ave. S.  
 Seattle, WA 98108

INVOICE NO. 0000048647  
 PAGE 1  
 DATE May-15-15  
 11105  
 CUSTOMER NO. LW-15110  
 SITE NO.  
 REFERENCE NO.

SERVICE DATE	CODE	DESCRIPTION	REFERENCE	QTY.	AMOUNT
		Balance forward :			\$22,890.54
		Payments :			\$10,396.08
		Adjustments :			\$0.00
		Invoices :			\$0.00
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922808	16.19 TN	\$728.55
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922810	14.57 TN	\$655.65
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922816	13.77 TN	\$619.65
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922817	13.67 TN	\$615.15
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922824	14.87 TN	\$669.15
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922825	15.92 TN	\$716.40
04 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	\$45.00 01-922868	13.96 TN	\$628.20

Payment due upon receipt of this invoice. 1.5% per month (18% per annum) late charge on balances over 30 days from date of invoice.  
 Payments received after invoice date are not reflected.  
 To ensure proper credit, please include your account number on your check and include the bottom portion of this invoice. When making payment on multiple accounts, please include the account numbers and the amounts of payment.

## Account Status

CURRENT      31 - 60 DAYS      61 - 90 DAYS      OVER 90 DAYS

**TOTAL THIS INVOICE**

**PLEASE PAY THIS AMOUNT**

We reserve the right to suspend service without notice on any past due account.

Please remit to:

INVOICE NO.  
 PAGE  
 DATE  
 CUSTOMER NO.  
 SITE NO.  
 REFERENCE NO.

AMOUNT OF REMITTANCE

PLEASE RETURN THIS PORTION WITH REMITTANCE

REMARKS

(206) 332-7731

TO:

Gary Merlino  
9125 10th Ave. S.  
Seattle, WA 98108

INVOICE NO. 000048605  
PAGE 2  
DATE Apr-30-15  
CUSTOMER NO. 11105 LW-15110  
SITE NO.  
REFERENCE NO.

SERVICE DATE	CODE	DESCRIPTION	REFERENCE	QTY.	AMOUNT
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	01-922785 ✓	15.15 TN	\$681.75
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	01-922788 ✓	15.08 TN	\$678.60
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	01-922791 ✓	16.21 TN	\$729.45
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	01-922797	16.58 TN	\$746.10
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	01-922799 ✓	16.40 TN	\$738.00
	VH	<u>Material Summary</u> SW-CONT SOIL W/FUEL		193.16 TN	

2015-407  
 COST CODE # 10-041-0030  
 COST CATEGORY (CIRCLE ONE)  
 MAT MIX MTU SUB EQR **OTH**  
 PM TU DATE 5-7-15

Account Status

Payment due upon receipt of this invoice. 1.5% per month (18% per annum) late charge on balances over 30 days from date of invoice.  
Payments received after invoice date are not reflected.  
To ensure proper credit, please include your account number on your check and include the bottom portion of this invoice. When making payment on multiple accounts, please include the account numbers and the amounts of payment.

CURRENT	31 - 60 DAYS	61 - 90 DAYS	OVER 90 DAYS
\$ 8,851.20	\$ 0.00	\$ 14,039.34	\$ 0.00

**TOTAL THIS INVOICE** \$8,692.20  
~~**PLEASE PAY THIS AMOUNT** \$22,890.54~~

We reserve the right to suspend service without notice on any past due account.

Please remit to:

INVOICE NO. 000048605  
PAGE 2  
DATE Apr-30-15  
CUSTOMER NO. 11105  
SITE NO.  
REFERENCE NO.

REGIONAL DISPOSAL COMPANY INTERMODA  
PO BOX 51057  
LOS ANGELES, CA 90074-1057  
(206) 332-7731

AMOUNT OF REMITTANCE

PLEASE RETURN THIS PORTION WITH REMITTANCE

REMARKS

\*\*\* Please reference your invoice number on each check stub \*\*\*  
For Billing Inquiries: Call (206)332-7731 or email: chartje@republicservices.com

**9th & Lenora**

CTI Contaminated Soil Tracking

Thru Friday, 8/28

Load Count:

**Tonnage:**

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104695	372	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104727	372	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104763	372	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104693	375	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104725	375	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104765	375	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106076	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106087	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106100	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106110	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106115	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106074	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106082	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106091	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106097	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106106	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106113	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106117	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106147	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106159	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106167	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106178	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106140	411	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106156	411	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106165	411	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106177	411	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106190	417	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106201	417	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106215	417	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106225	417	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106188	410	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106200	410	CTI

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106214	410	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106223	410	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106304	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106311	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106316	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106323	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106330	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106303	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106309	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106315	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106322	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106327	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106332	420	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106401	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106415	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106424	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106435	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106450	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106459	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106398	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106412	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106423	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106434	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106447	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106456	422	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106493	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106498	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106502	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106508	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106517	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106520	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106525	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106534	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106503	417	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106513	417	CTI

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106518	417	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106523	417	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106529	417	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106550	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106564	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106586	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106596	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106603	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106614	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106621	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106557	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106574	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106589	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106598	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106607	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106617	419	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106627	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106631	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106635	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106639	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106646	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106657	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106661	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106624	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106629	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106633	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106637	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106644	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106654	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106658	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106662	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106638	419	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106645	419	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106655	419	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106660	419	CTI

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2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106720	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106740	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106757	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106772	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106782	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106793	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106731	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106751	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106767	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106781	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106791	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106728	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106749	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106766	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106779	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106790	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106723	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106742	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106760	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106775	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106786	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106796	26	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106815	28	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106829	28	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106851	28	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106824	26	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106849	26	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106812	10	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106826	10	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106847	10	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106861	10	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106819	9	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106840	9	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106585	9	RINO
2015	July	7/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106900	3201	SS

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2015	July	7/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106896	991	MCCANN
2015	July	7/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106925	991	MCCANN
2015	July	7/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106951	991	MCCANN
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107102	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107118	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107129	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107141	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107147	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107155	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107169	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107176	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107104	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107119	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107132	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107150	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107164	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107172	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107109	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107125	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107137	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107151	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107166	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107174	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107110	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107126	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107138	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107146	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107154	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107170	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107106	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107124	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107134	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107144	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107149	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107157	DT04	CTI

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2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107171	DT04	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107179	424	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107187	424	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107194	424	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107198	424	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107180	419	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107188	419	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107181	411	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107189	411	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107182	410	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107190	410	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107183	425	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107298	426	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107308	426	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107320	426	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107300	422	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107309	422	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107322	422	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107301	412	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107310	412	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107323	412	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107302	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107313	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107326	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107331	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107338	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107342	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107305	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107316	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107327	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107333	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107339	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107347	364	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107605	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107617	424	CTI

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2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107634	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107647	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107661	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107673	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107606	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107620	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107633	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107645	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107660	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107671	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107684	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107607	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107621	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107635	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107648	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107662	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107674	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107608	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107623	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107637	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107652	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107665	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107675	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107610	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107625	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107639	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107653	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107667	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107676	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107612	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107627	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107640	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107657	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107669	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107682	425	CTI

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2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107614	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107628	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107642	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107659	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107670	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107683	426	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107692	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107706	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107716	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107732	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107742	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107691	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107705	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107715	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107730	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107741	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107694	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107707	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107718	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107733	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107743	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107690	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107702	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107714	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107727	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107738	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107688	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107701	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107712	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107723	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107737	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107695	425	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107709	425	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107721	425	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107736	425	CTI

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107747	425	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107765	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107782	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107800	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107816	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107831	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107764	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107779	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107798	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107815	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107828	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107849	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107861	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107771	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107794	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107814	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107823	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107842	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107857	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107770	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107793	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107813	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107825	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107846	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107860	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107767	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107785	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107804	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107817	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107833	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107852	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107769	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107787	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107809	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107819	SS171	SS

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2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107840	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107859	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107774	SS43	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107802	SS43	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107818	SS43	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107838	SS43	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107856	SS43	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107875	341	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107869	410	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107893	410	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107868	411	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107891	411	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107871	417	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107867	419	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107874	420	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107873	425	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107906	EH7T	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107907	NL60T	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107901	SS100	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107897	SS127	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107892	SS129	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107898	SS97	SS
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107935	425	CTI
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107937	SS169	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107939	SS31	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107941	SS108	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107943	SS129	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107945	SS127	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107947	SS97	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107949	SS100	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107955	356	CTI
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107968	356	CTI
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107969	SS169	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107972	SS31	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107973	SS108	

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2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107974	SS37	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107975	SS129	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107976	SS127	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107977	SS97	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107979	SS100	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107981	SS169	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107984	425	CTI
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107987	SS109	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107988	SS37	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107989	SS129	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107990	SS127	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107991	SS97	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107993	SS100	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107994	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108005	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108006	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108007	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108008	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108009	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108011	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108013	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108014	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108015	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108017	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108019	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108021	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108023	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108027	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108028	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108032	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108034	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108035	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108036	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108038	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108041	SS109	

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2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108043	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108045	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108046	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108047	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108049	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108050	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108052	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108055	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108057	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108058	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108059	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108061	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108067	SS31	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108068	SS127	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108069	SS108	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108070	356	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108071	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108073	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108075	SS109	SS
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108087	SS169	SS
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108088	SS109	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108092	SS117	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108094	SS127	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108096	SS31	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108099	SS37	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108103	SS169	SS
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108105	356	CTI
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108107	SS109	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108110	SS117	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108113	SS127	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108116	SS31	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108140	356	CTI
2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108242	SS169	
2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108243	SS31	
2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108249	SS37	

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2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108251	419	CTI
2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108253	SS127	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108307	SS169	SS
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108308	SS127	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108311	SS31	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108313	SS129	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108315	SS37	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108317	410	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108409	SS169	SS
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108410	SS127	SS
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108413	410	CTI
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108418	SS31	SS
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108425	SS169	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108426	SS31	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108428	SS37	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108430		
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108432		
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108433		
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108441	SS169	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108443	SS31	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108445	SS37	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108448		
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108456	SS169	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108458	SS37	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108462	SS31	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108469	SS169	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108472	SS37	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108497	SS31	SS
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108687		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108688		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108689		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108709		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108714		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108718		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108734		

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2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108740		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108742		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108755		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108858		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108859		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108862		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108863		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108865		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108867		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108897		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108898		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108900		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108902		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108905		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108906		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108908		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108909		

469.00  
**14,245.26**

**Subtotal: 836,909.03**

Quantity	Units	Rate	Billable Value
15.08	Tons	58.75	885.95
16.47	Tons	58.75	967.61
14.64	Tons	58.75	860.10
13.87	Tons	58.75	814.86
16.43	Tons	58.75	965.26
14.14	Tons	58.75	830.73
30.15	Tons	58.75	1,771.31
31.11	Tons	58.75	1,827.71
29.51	Tons	58.75	1,733.71
30.31	Tons	58.75	1,780.71
30.18	Tons	58.75	1,773.08
32.74	Tons	58.75	1,923.48
30.98	Tons	58.75	1,820.08
28.92	Tons	58.75	1,699.05
27.43	Tons	58.75	1,611.51
32.27	Tons	58.75	1,895.86
30.99	Tons	58.75	1,820.66
32.29	Tons	58.75	1,897.04
31.72	Tons	58.75	1,863.55
30.62	Tons	58.75	1,798.93
32.87	Tons	58.75	1,931.11
25.36	Tons	58.75	1,489.90
32.80	Tons	58.75	1,927.00
30.38	Tons	58.75	1,784.83
31.79	Tons	58.75	1,867.66
29.16	Tons	58.75	1,713.15
29.31	Tons	58.75	1,721.96
28.40	Tons	58.75	1,668.50
25.96	Tons	58.75	1,525.15
32.17	Tons	58.75	1,889.99
28.25	Tons	58.75	1,659.69
27.77	Tons	58.75	1,631.49

Quantity	Units	Rate	Billable Value
28.40	Tons	58.75	1,668.50
32.04	Tons	58.75	1,882.35
33.46	Tons	58.75	1,965.78
32.34	Tons	58.75	1,899.98
29.39	Tons	58.75	1,726.66
31.41	Tons	58.75	1,845.34
30.31	Tons	58.75	1,780.71
32.94	Tons	58.75	1,935.23
28.42	Tons	58.75	1,669.68
30.64	Tons	58.75	1,800.10
28.95	Tons	58.75	1,700.81
29.91	Tons	58.75	1,757.21
33.44	Tons	58.75	1,964.60
31.38	Tons	58.75	1,843.58
34.69	Tons	58.75	2,038.04
32.45	Tons	58.75	1,906.44
34.04	Tons	58.75	1,999.85
33.01	Tons	58.75	1,939.34
32.40	Tons	58.75	1,903.50
32.06	Tons	58.75	1,883.53
31.31	Tons	58.75	1,839.46
31.78	Tons	58.75	1,867.08
30.11	Tons	58.75	1,768.96
32.85	Tons	58.75	1,929.94
31.49	Tons	58.75	1,850.04
34.06	Tons	58.75	2,001.03
33.89	Tons	58.75	1,991.04
30.52	Tons	58.75	1,793.05
30.34	Tons	58.75	1,782.48
32.15	Tons	58.75	1,888.81
31.07	Tons	58.75	1,825.36
31.89	Tons	58.75	1,873.54
33.03	Tons	58.75	1,940.51
33.39	Tons	58.75	1,961.66
29.83	Tons	58.75	1,752.51

Quantity	Units	Rate	Billable Value
29.25	Tons	58.75	1,718.44
30.41	Tons	58.75	1,786.59
30.23	Tons	58.75	1,776.01
33.88	Tons	58.75	1,990.45
29.42	Tons	58.75	1,728.43
31.61	Tons	58.75	1,857.09
27.68	Tons	58.75	1,626.20
30.32	Tons	58.75	1,781.30
30.94	Tons	58.75	1,817.73
30.39	Tons	58.75	1,785.41
31.81	Tons	58.75	1,868.84
31.26	Tons	58.75	1,836.53
33.93	Tons	58.75	1,993.39
28.25	Tons	58.75	1,659.69
29.07	Tons	58.75	1,707.86
31.63	Tons	58.75	1,858.26
31.62	Tons	58.75	1,857.68
32.83	Tons	58.75	1,928.76
32.95	Tons	58.75	1,935.81
29.92	Tons	58.75	1,757.80
29.50	Tons	58.75	1,733.13
31.20	Tons	58.75	1,833.00
31.53	Tons	58.75	1,852.39
29.39	Tons	58.75	1,726.66
31.16	Tons	58.75	1,830.65
30.15	Tons	58.75	1,771.31
26.90	Tons	58.75	1,580.38
30.66	Tons	58.75	1,801.28
29.57	Tons	58.75	1,737.24
28.93	Tons	58.75	1,699.64
28.99	Tons	58.75	1,703.16
28.90	Tons	58.75	1,697.88
30.25	Tons	58.75	1,777.19
29.19	Tons	58.75	1,714.91
29.74	Tons	58.75	1,747.23

Quantity	Units	Rate	Billable Value
30.33	Tons	58.75	1,781.89
26.31	Tons	58.75	1,545.71
28.48	Tons	58.75	1,673.20
27.77	Tons	58.75	1,631.49
28.47	Tons	58.75	1,672.61
28.30	Tons	58.75	1,662.63
28.45	Tons	58.75	1,671.44
30.83	Tons	58.75	1,811.26
31.61	Tons	58.75	1,857.09
33.64	Tons	58.75	1,976.35
30.96	Tons	58.75	1,818.90
28.14	Tons	58.75	1,653.23
31.03	Tons	58.75	1,823.01
31.08	Tons	58.75	1,825.95
31.06	Tons	58.75	1,824.78
32.11	Tons	58.75	1,886.46
28.46	Tons	58.75	1,672.03
29.25	Tons	58.75	1,718.44
29.77	Tons	58.75	1,748.99
29.28	Tons	58.75	1,720.20
29.73	Tons	58.75	1,746.64
30.49	Tons	58.75	1,791.29
28.86	Tons	58.75	1,695.53
26.43	Tons	58.75	1,552.76
29.86	Tons	58.75	1,754.28
30.57	Tons	58.75	1,795.99
32.27	Tons	58.75	1,895.86
32.02	Tons	58.75	1,881.18
29.01	Tons	58.75	1,704.34
33.01	Tons	58.75	1,939.34
33.14	Tons	58.75	1,946.98
30.93	Tons	58.75	1,817.14
30.60	Tons	58.75	1,797.75
32.23	Tons	58.75	1,893.51
31.24	Tons	58.75	1,835.35

Quantity	Units	Rate	Billable Value
26.83	Tons	58.75	1,576.26
25.48	Tons	58.75	1,496.95
26.27	Tons	58.75	1,543.36
31.09	Tons	58.75	1,826.54
28.70	Tons	58.75	1,686.13
29.29	Tons	58.75	1,720.79
30.53	Tons	58.75	1,793.64
31.48	Tons	58.75	1,849.45
28.00	Tons	58.75	1,645.00
30.43	Tons	58.75	1,787.76
31.63	Tons	58.75	1,858.26
31.35	Tons	58.75	1,841.81
31.06	Tons	58.75	1,824.78
29.64	Tons	58.75	1,741.35
32.51	Tons	58.75	1,909.96
30.35	Tons	58.75	1,783.06
29.61	Tons	58.75	1,739.59
29.76	Tons	58.75	1,748.40
29.06	Tons	58.75	1,707.28
30.01	Tons	58.75	1,763.09
32.78	Tons	58.75	1,925.83
31.09	Tons	58.75	1,826.54
30.43	Tons	58.75	1,787.76
31.58	Tons	58.75	1,855.33
31.65	Tons	58.75	1,859.44
32.60	Tons	58.75	1,915.25
30.91	Tons	58.75	1,815.96
29.04	Tons	58.75	1,706.10
31.09	Tons	58.75	1,826.54
30.64	Tons	58.75	1,800.10
30.92	Tons	58.75	1,816.55
31.72	Tons	58.75	1,863.55
31.26	Tons	58.75	1,836.53
33.43	Tons	58.75	1,964.01
31.56	Tons	58.75	1,854.15

Quantity	Units	Rate	Billable Value
32.81	Tons	58.75	1,927.59
32.14	Tons	58.75	1,888.23
33.00	Tons	58.75	1,938.75
31.45	Tons	58.75	1,847.69
31.47	Tons	58.75	1,848.86
32.91	Tons	58.75	1,933.46
32.68	Tons	58.75	1,919.95
32.82	Tons	58.75	1,928.18
30.83	Tons	58.75	1,811.26
32.50	Tons	58.75	1,909.38
32.85	Tons	58.75	1,929.94
31.47	Tons	58.75	1,848.86
31.65	Tons	58.75	1,859.44
31.49	Tons	58.75	1,850.04
29.02	Tons	58.75	1,704.93
29.50	Tons	58.75	1,733.13
31.19	Tons	58.75	1,832.41
32.58	Tons	58.75	1,914.08
30.24	Tons	58.75	1,776.60
30.51	Tons	58.75	1,792.46
32.43	Tons	58.75	1,905.26
30.43	Tons	58.75	1,787.76
31.30	Tons	58.75	1,838.88
30.45	Tons	58.75	1,788.94
31.23	Tons	58.75	1,834.76
30.15	Tons	58.75	1,771.31
30.74	Tons	58.75	1,805.98
30.27	Tons	58.75	1,778.36
30.73	Tons	58.75	1,805.39
31.38	Tons	58.75	1,843.58
31.81	Tons	58.75	1,868.84
31.19	Tons	58.75	1,832.41
29.13	Tons	58.75	1,711.39
29.88	Tons	58.75	1,755.45
28.95	Tons	58.75	1,700.81

Quantity	Units	Rate	Billable Value
29.36	Tons	58.75	1,724.90
32.79	Tons	58.75	1,926.41
31.61	Tons	58.75	1,857.09
29.94	Tons	58.75	1,758.98
30.51	Tons	58.75	1,792.46
30.85	Tons	58.75	1,812.44
30.31	Tons	58.75	1,780.71
33.73	Tons	58.75	1,981.64
32.09	Tons	58.75	1,885.29
31.79	Tons	58.75	1,867.66
30.80	Tons	58.75	1,809.50
32.18	Tons	58.75	1,890.58
30.18	Tons	58.75	1,773.08
31.13	Tons	58.75	1,828.89
31.37	Tons	58.75	1,842.99
31.77	Tons	58.75	1,866.49
28.12	Tons	58.75	1,652.05
31.96	Tons	58.75	1,877.65
29.94	Tons	58.75	1,758.98
32.13	Tons	58.75	1,887.64
32.08	Tons	58.75	1,884.70
35.05	Tons	58.75	2,059.19
33.13	Tons	58.75	1,946.39
29.57	Tons	58.75	1,737.24
29.81	Tons	58.75	1,751.34
31.22	Tons	58.75	1,834.18
31.55	Tons	58.75	1,853.56
28.59	Tons	58.75	1,679.66
26.76	Tons	58.75	1,572.15
33.46	Tons	58.75	1,965.78
29.94	Tons	58.75	1,758.98
29.77	Tons	58.75	1,748.99
30.99	Tons	58.75	1,820.66
31.65	Tons	58.75	1,859.44
29.03	Tons	58.75	1,705.51

Quantity	Units	Rate	Billable Value
29.90	Tons	58.75	1,756.63
29.40	Tons	58.75	1,727.25
32.41	Tons	58.75	1,904.09
32.74	Tons	58.75	1,923.48
30.51	Tons	58.75	1,792.46
31.33	Tons	58.75	1,840.64
26.84	Tons	58.75	1,576.85
30.15	Tons	58.75	1,771.31
30.45	Tons	58.75	1,788.94
31.58	Tons	58.75	1,855.33
32.05	Tons	58.75	1,882.94
30.48	Tons	58.75	1,790.70
28.61	Tons	58.75	1,680.84
27.77	Tons	58.75	1,631.49
34.48	Tons	58.75	2,025.70
32.18	Tons	58.75	1,890.58
27.92	Tons	58.75	1,640.30
27.81	Tons	58.75	1,633.84
28.83	Tons	58.75	1,693.76
31.81	Tons	58.75	1,868.84
31.42	Tons	58.75	1,845.93
29.94	Tons	58.75	1,758.98
29.11	Tons	58.75	1,710.21
28.91	Tons	58.75	1,698.46
33.36	Tons	58.75	1,959.90
33.05	Tons	58.75	1,941.69
30.94	Tons	58.75	1,817.73
27.02	Tons	58.75	1,587.43
28.93	Tons	58.75	1,699.64
33.39	Tons	58.75	1,961.66
32.14	Tons	58.75	1,888.23
27.64	Tons	58.75	1,623.85
27.02	Tons	58.75	1,587.43
30.47	Tons	58.75	1,790.11
33.73	Tons	58.75	1,981.64

Quantity	Units	Rate	Billable Value
32.18	Tons	58.75	1,890.58
31.05	Tons	58.75	1,824.19
31.69	Tons	58.75	1,861.79
31.16	Tons	58.75	1,830.65
30.21	Tons	58.75	1,774.84
31.75	Tons	58.75	1,865.31
27.16	Tons	58.75	1,595.65
33.20	Tons	58.75	1,950.50
30.42	Tons	58.75	1,787.18
30.51	Tons	58.75	1,792.46
30.87	Tons	58.75	1,813.61
33.84	Tons	58.75	1,988.10
31.81	Tons	58.75	1,868.84
27.14	Tons	58.75	1,594.48
29.01	Tons	58.75	1,704.34
28.68	Tons	58.75	1,684.95
30.10	Tons	58.75	1,768.38
29.14	Tons	58.75	1,711.98
31.13	Tons	58.75	1,828.89
29.89	Tons	58.75	1,756.04
30.77	Tons	58.75	1,807.74
30.35	Tons	58.75	1,783.06
29.24	Tons	58.75	1,717.85
31.15	Tons	58.75	1,830.06
32.74	Tons	58.75	1,923.48
31.85	Tons	58.75	1,871.19
32.16	Tons	58.75	1,889.40
30.65	Tons	58.75	1,800.69
28.70	Tons	58.75	1,686.13
32.36	Tons	58.75	1,901.15
32.32	Tons	58.75	1,898.80
30.83	Tons	58.75	1,811.26
32.39	Tons	58.75	1,902.91
29.46	Tons	58.75	1,730.78
30.33	Tons	58.75	1,781.89

Quantity	Units	Rate	Billable Value
32.00	Tons	58.75	1,880.00
31.49	Tons	58.75	1,850.04
30.26	Tons	58.75	1,777.78
30.22	Tons	58.75	1,775.43
30.55	Tons	58.75	1,794.81
32.59	Tons	58.75	1,914.66
31.05	Tons	58.75	1,824.19
23.46	Tons	58.75	1,378.28
31.37	Tons	58.75	1,842.99
31.01	Tons	58.75	1,821.84
31.56	Tons	58.75	1,854.15
30.43	Tons	58.75	1,787.76
30.24	Tons	58.75	1,776.60
32.63	Tons	58.75	1,917.01
30.61	Tons	58.75	1,798.34
30.60	Tons	58.75	1,797.75
30.05	Tons	58.75	1,765.44
30.01	Tons	58.75	1,763.09
30.46	Tons	58.75	1,789.53
29.55	Tons	58.75	1,736.06
30.78	Tons	58.75	1,808.33
30.69	Tons	58.75	1,803.04
32.69	Tons	58.75	1,920.54
31.93	Tons	58.75	1,875.89
30.93	Tons	58.75	1,817.14
31.51	Tons	58.75	1,851.21
34.02	Tons	58.75	1,998.68
31.1	Tons	58.75	1,827.13
29.69	Tons	58.75	1,744.29
30.64	Tons	58.75	1,800.10
6.65	Tons	58.75	390.69
10.27	Tons	58.75	603.36
32.15	Tons	58.75	1,888.81
30.76	Tons	58.75	1,807.15
29.92	Tons	58.75	1,757.80

Quantity	Units	Rate	Billable Value
30.28	Tons	58.75	1,778.95
32.29	Tons	58.75	1,897.04
29.58	Tons	58.75	1,737.83
30.53	Tons	58.75	1,793.64
30.73	Tons	58.75	1,805.39
29.96	Tons	58.75	1,760.15
29.73	Tons	58.75	1,746.64
30.48	Tons	58.75	1,790.70
29.79	Tons	58.75	1,750.16
31.76	Tons	58.75	1,865.90
28.78	Tons	58.75	1,690.83
29.05	Tons	58.75	1,706.69
30.97	Tons	58.75	1,819.49
29.52	Tons	58.75	1,734.30
29.6	Tons	58.75	1,739.00
30.1	Tons	58.75	1,768.38
29.7	Tons	58.75	1,744.88
29.64	Tons	58.75	1,741.35
29.42	Tons	58.75	1,728.43
29.61	Tons	58.75	1,739.59
29.82	Tons	58.75	1,751.93
31.68	Tons	58.75	1,861.20
32.51	Tons	58.75	1,909.96
30.49	Tons	58.75	1,791.29
30.47	Tons	58.75	1,790.11
31.13	Tons	58.75	1,828.89
31.97	Tons	58.75	1,878.24
32.16	Tons	58.75	1,889.40
31.6	Tons	58.75	1,856.50
30.11	Tons	58.75	1,768.96
31.17	Tons	58.75	1,831.24
32.15	Tons	58.75	1,888.81
31.97	Tons	58.75	1,878.24
31.29	Tons	58.75	1,838.29
32.14	Tons	58.75	1,888.23

Quantity	Units	Rate	Billable Value
30.99	Tons	58.75	1,820.66
31.72	Tons	58.75	1,863.55
30.44	Tons	58.75	1,788.35
30.48	Tons	58.75	1,790.70
30.46	Tons	58.75	1,789.53
31.72	Tons	58.75	1,863.55
30.93	Tons	58.75	1,817.14
30.98	Tons	58.75	1,820.08
31.19	Tons	58.75	1,832.41
31.55	Tons	58.75	1,853.56
30.64	Tons	58.75	1,800.10
31.23	Tons	58.75	1,834.76
30.98	Tons	58.75	1,820.08
31.94	Tons	58.75	1,876.48
31.02	Tons	58.75	1,822.43
10.81	Tons	58.75	635.09
30.18	Tons	58.75	1,773.08
32.78	Tons	58.75	1,925.83
30.13	Tons	58.75	1,770.14
31.46	Tons	58.75	1,848.28
31.52	Tons	58.75	1,851.80
32.46	Tons	58.75	1,907.03
32.05	Tons	58.75	1,882.94
30.21	Tons	58.75	1,774.84
30.55	Tons	58.75	1,794.81
32.1	Tons	58.75	1,885.88
9.51	Tons	58.75	558.71
31.35	Tons	58.75	1,841.81
31.49	Tons	58.75	1,850.04
30.65	Tons	58.75	1,800.69
29.46	Tons	58.75	1,730.78
9.89	Tons	58.75	581.04
32.04	Tons	58.75	1,882.35
30.9	Tons	58.75	1,815.38
31.85	Tons	58.75	1,871.19

Quantity	Units	Rate	Billable Value
31.2	Tons	58.75	1,833.00
31.79	Tons	58.75	1,867.66
31.63	Tons	58.75	1,858.26
31.24	Tons	58.75	1,835.35
30.18	Tons	58.75	1,773.08
31.44	Tons	58.75	1,847.10
31.24	Tons	58.75	1,835.35
32.22	Tons	58.75	1,892.93
31.11	Tons	58.75	1,827.71
31.32	Tons	58.75	1,840.05
31.93	Tons	58.75	1,875.89
30.52	Tons	58.75	1,793.05
31.16	Tons	58.75	1,830.65
30.53	Tons	58.75	1,793.64
31.46	Tons	58.75	1,848.28
31.64	Tons	58.75	1,858.85
32.57	Tons	58.75	1,913.49
32.99	Tons	58.75	1,938.16
31.67	Tons	58.75	1,860.61
33.20	Tons	58.75	1,950.50
33.00	Tons	58.75	1,938.75
32.12	Tons	58.75	1,887.05
32.95	Tons	58.75	1,935.81
32.33	Tons	58.75	1,899.39
31.34	Tons	58.75	1,841.23
31.88	Tons	58.75	1,872.95
32.73	Tons	58.75	1,922.89
32.40	Tons	58.75	1,903.50
32.08	Tons	58.75	1,884.70
33.48	Tons	58.75	1,966.95
29.02	Tons	58.75	1,704.93
27.99	Tons	58.75	1,644.41
32.20	Tons	58.75	1,891.75
27.87	Tons	58.75	1,637.36
29.21	Tons	58.75	1,716.09

Quantity	Units	Rate	Billable Value
28.60	Tons	58.75	1,680.25
28.17	Tons	58.75	1,654.99
29.86	Tons	58.75	1,754.28
31.02	Tons	58.75	1,822.43
29.48	Tons	58.75	1,731.95
27.57	Tons	58.75	1,619.74
29.89	Tons	58.75	1,756.04
28.98	Tons	58.75	1,702.58
29.53	Tons	58.75	1,734.89
30.39	Tons	58.75	1,785.41
34.21	Tons	58.75	2,009.84
31.13	Tons	58.75	1,828.89
33.40	Tons	58.75	1,962.25
31.25	Tons	58.75	1,835.94
33.50	Tons	58.75	1,968.13
33.77	Tons	58.75	1,983.99
33.84	Tons	58.75	1,988.10

## Tonnage by Day by Location

Year	2015
Mth	(All)
Destination	WASTE MANAGEMENT

Year	2015
Mth	June
Destination	(blank)

Sum of Quantity Row Labels	Column Labels Tons
6/16/2015	90.63
7/8/2015	366.88
7/9/2015	244.70
7/10/2015	232.30
7/13/2015	341.21
7/15/2015	387.57
7/17/2015	410.06
7/20/2015	400.19
7/21/2015	573.38
7/23/2015	655.55
7/24/2015	368.93
7/27/2015	109.82
7/29/2015	1,018.01
7/30/2015	354.12
8/4/2015	647.42
8/11/2015	1,330.28
8/12/2015	910.21
8/13/2015	1,262.22
8/14/2015	453.45
8/17/2015	785.71
8/18/2015	1,218.90
8/19/2015	362.70
8/20/2015	157.78
8/21/2015	312.83
8/24/2015	513.97
8/26/2015	298.48
8/27/2015	176.47
8/28/2015	261.49
<b>Grand Total</b>	<b>14,245.26</b>

Sum of Quantity Row Labels	Column Labels
<b>Grand Total</b>	

## **APPENDIX H**

### **Exploration Logs by Others**

## SOIL CLASSIFICATION CHART

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

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

### Sampler Symbol Descriptions

	2.4-inch I.D. split barrel
	Standard Penetration Test (SPT)
	Shelby tube
	Piston
	Direct-Push
	Bulk or grab

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.

## ADDITIONAL MATERIAL SYMBOLS

SYMBOLS		TYPICAL DESCRIPTIONS
GRAPH	LETTER	
	<b>AC</b>	Asphalt Concrete
	<b>CC</b>	Cement Concrete
	<b>CR</b>	Crushed Rock/ Quarry Spalls
	<b>TS</b>	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 or geologic units



Approximate location of soil strata change within a geologic soil unit

### Material Description Contact



Distinct contact between soil strata or geologic units



Approximate location of soil strata change within a geologic soil unit

### Laboratory / Field Tests

%F	Percent fines
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

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	32	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 24
Datum/ System					

Depth feet	SAMPLES				Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
	Interval	Testing	Recovered (in)	Blows/foot							
0						CC	6 inches concrete				
1						SP-SM	Gray fine to medium sand with silt (medium dense, moist)	NS	<100		
2								NS	<100		
3								NS	<100		
4						SM	Gray silty fine sand (medium dense, moist)	NS	<100		
5								NS	<100		
6								NS	<100		
7								NS	<100		
8						ML	Gray silt with trace fine sand (stiff, moist)	NS	<100		
9								NS	<100		
10								SS	<100		
11								SS	<100		
12								SS	<100		
13								SS	<100		
14								SS	<100		
15								MS	<100		
16								SS	<100		
17								SS	<100		
18								SS	<100		
19						SM	Gray silty fine sand with occasional gravel (very dense, moist)	SS	<100		
20								SS	<100		
21								SS	<100		
22						SP-SM	Gray fine to medium sand with silt and occasional wood pieces (dense, moist)	SS	<100		
23								SS	<100		
24						ML	Gray silt (stiff, moist)	SS	<100		
25								SS	<100		
26						SP-SM	Gray fine to medium sand with silt (medium dense, wet)	SS	<100		
27						ML	Gray silt (stiff, moist)	SS	<100		
28								NS	<100		
29								NS	<100		
30								NS	<100		
31								NS	<100		
32								NS	<100		

Note: See Figure 3 for explanation of symbols

### LOG OF BORING B-1



Project: Cornish College, 9th & Lenora  
 Project Location: Seattle, Washington  
 Project Number: 8022-004-00

Figure: 10  
 Sheet 1 of 1

8022-004-00 GEI ENVBORING 2.1.0 W:\SEATTLE\PROJECTS\121\2360003\01\FINAL\802200400.GPJ\_GEIV2 2.GDT 8/27/07

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	33	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 22
Datum/ System					

Depth feet	SAMPLES				Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
	Interval	Testing	Recovered (in)	Blows/foot							
0						CC	6 inches concrete				
1						SM	Brown gray fine to medium sand with trace silt (medium dense, moist)	NS	<100		
2								NS	<100		
3								NS	<100		
4								NS	<100		
5						ML	Gray silt with fine to medium sand (stiff, moist)	SS	<100		
6								SS	<100		
7								SS	<100		
8						SP	Brown fine to medium sand with trace silt (medium dense, moist)	NS	<100		
9								NS	<100		
10								SS	<100		
11								NS	<100		
12								SS	<100		
13								NS	<100		
14						SM	Gray silty fine sand (dense, moist)	NS	<100		
15								NS	<100		
16								NS	<100		
17						SM	Gray brown silty fine to medium sand (medium dense, moist)	NS	<100		
18								NS	<100		
19								SS	<100		
20						SP-SM	Gray fine to medium sand with silt (dense, moist)	HS	400		
21								HS	200		
22								HS	200		
23						ML	Gray green mottled silt (very stiff, moist)	SS	<100		
24								SS	<100		
25								MS	<100		
26								SS	<100		
27								SS	<100		
28								SS	<100		
29								SS	<100		
30								SS	<100		
31								SS	<100		
32								SS	<100		
33								SS	<100		

Note: See Figure 3 for explanation of symbols

8022-004-00 GEI ENBORING 2.1.0 W:\SEATTLE\PROJECTS\1212360003\01\FINALS\802200400.GPJ\_GEIV2\_2.GDT\_8/27/07

### LOG OF BORING B-2



Project: Cornish College, 9th & Lenora  
 Project Location: Seattle, Washington  
 Project Number: 8022-004-00

Figure: 11  
 Sheet 1 of 1

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	24	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 7
Datum/ System					

Depth feet	SAMPLES				Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
	Interval	Testing	Recovered (in)	Blows/foot							
0						CC	8 inches concrete				
1						SM	Brown gray silty fine to medium sand with occasional gravel and pieces of wood (medium dense, moist)	SS	<100		
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											

Note: See Figure 3 for explanation of symbols

### LOG OF BORING B-3



Project: Cornish College, 9th & Lenora  
 Project Location: Seattle, Washington  
 Project Number: 8022-004-00

Figure: 12  
 Sheet 1 of 1

8022-004-00 GEI ENVBORING 2.1.0 W:\SEATTLE\PROJECTS\12112360003\01\FINALS\802200400.GPJ GEIV2 2.GDT 8/27/07



Drilled	Start 9/2/2014	End 9/2/2014	Total Depth (ft)	20	Logged By Checked By	FK DAC	Driller	Cascade Drilling, LP	Drilling Method	Continuous
Surface Elevation (ft) Vertical Datum			69 NAVD 88		Hammer Data		Drilling Equipment GeoProbe 6600			
Easting (X) Northing (Y)					System Datum		Groundwater Date Measured		Depth to Water (ft)	Elevation (ft)
Notes:							Not encountered			

Elevation (feet)	FIELD DATA						Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval Recovered (in)	Blows/foot	Collected sample	Sample Name Testing	Water Level	Graphic Log					
0	48						CC SM	4-inches concrete Brown-gray silty fine to medium sand with occasional gravel, wood, organics, and brick debris	SS	<1	
5	60		1	CA			ML	Gray silt (stiff, moist)	SS	<1	Petroleum odor
10	48		2	CA			SM	Gray silty fine to medium sand (medium dense, moist)	SS	<1	Petroleum odor
15	36		3	CA			SM	Gray-brown silty fine to medium sand (medium dense, moist)	MS	<1	Petroleum odor
20			4	CA			SM		MS	<1	Petroleum odor
			5						NS	<1	
			6						NS	<1	
			7						NS	<1	
			8						NS	<1	

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

### Log of Boring DP-2



Project: GID 9th and Lenora Development  
 Project Location: Seattle, Washington  
 Project Number: 21138-001-01

Figure A-3  
 Sheet 1 of 1

Seattle, Date: 9/11/14 Path: \\SEA\PROJECTS\21138001\GINT\21138001-01.GPJ DBT\template\lib\template\GEOENGINEERS.GDT\GEB\ ENVIRONMENTAL STANDARD

Drilled	Start 9/2/2014	End 9/2/2014	Total Depth (ft)	30	Logged By Checked By	FK DAC	Driller	Cascade Drilling, LP	Drilling Method	Continuous	
Surface Elevation (ft) Vertical Datum	85 NAVD 88			Hammer Data				Drilling Equipment	GeoProbe 6600		
Easting (X) Northing (Y)				System Datum				Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)	
Notes:								See remarks			

Elevation (feet)	FIELD DATA							MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level				
0		0						AC CC			
5		0									
10		46			1			SM		NS	<1
					2						
15		56									
					3			SM		NS	<1
					4						
20		52			CA			SM		NS	<1
										NS	<1
											Perched groundwater observed at 22 feet
25		58			CA					NS	<1
30					CA					NS	<1

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

### Log of Boring DP-3



Project: GID 9th and Lenora Development  
 Project Location: Seattle, Washington  
 Project Number: 21138-001-01

Figure A-4  
 Sheet 1 of 1

Seattle, Date: 9/11/14 Path: \\SEA\PROJECTS\21138001\GINT\21138001-01.GPJ DBT\template\lib\template\GEOENGINEERS\B.GDT\GEB ENVIRONMENTAL STANDARD

Drilled	Start 9/2/2014	End 9/2/2014	Total Depth (ft)	30	Logged By Checked By	FK DAC	Driller	Cascade Drilling, LP	Drilling Method	Continuous
Surface Elevation (ft) Vertical Datum	86 NAVD 88			Hammer Data	Drilling Equipment			GeoProbe 6600		
Easting (X) Northing (Y)	System Datum			Groundwater Date Measured			Depth to Water (ft)	Elevation (ft)		
Notes:						See remarks				

Elevation (feet)	FIELD DATA						Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS	
	Interval	Depth (feet)	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						Water Level
0		44						AC CC SM	2-inches asphalt concrete 4-inches concrete Brown silty fine to medium sand (loose, moist) (fill)	NS	<1	
5		26			2 CA				No recovery	NS	<1	
10		40			3			SM	Gray-brown silty fine to medium sand with occasional gravel (medium dense, moist)	NS	<1	
15		52			4				Trace wood chips	NS	<1	
20		56			5					NS	<1	
25		58			6 CA			SM	Gray silt with fine to medium sand, occasional gravel and organics (dense, wet)	NS	<1	Perched groundwater observed at 23 feet
30					7 CA				Grades to moist	NS	<1	
					8 CA					NS	<1	
					9 CA					NS	<1	
					10 CA					NS	<1	

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

### Log of Boring DP-4



Project: GID 9th and Lenora Development  
 Project Location: Seattle, Washington  
 Project Number: 21138-001-01

Figure A-5  
 Sheet 1 of 1

Seattle: Date: 9/11/14 Path: \\SEA\PROJECTS\21138001\GINT\21138001-01.GPJ\_DB\_Template\lib\_Template\GEOENGINEERS\GDT\GEB\ENVIRONMENTAL\_STANDARD

Drilled	Start 9/2/2014	End 9/2/2014	Total Depth (ft)	30	Logged By Checked By	FK DAC	Driller	Cascade Drilling, LP	Drilling Method	Continuous
Surface Elevation (ft) Vertical Datum	86 NAVD 88			Hammer Data				Drilling Equipment	GeoProbe 6600	
Easting (X) Northing (Y)				System Datum				Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
Notes:								See remarks		

Elevation (feet)	FIELD DATA						Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level					
0	20						AC CC SM	2-inches asphalt concrete 4-inches concrete Brown silty fine to medium sand (loose, moist) (fill)	NS	<1	
5	42			1 CA				No recovery			
10	23			2			SM	Brown silty fine to medium sand with occasional gravel (very loose, moist)	NS	<1	
15	48			3					NS	<1	
20	56			4					NS	<1	
25	60			5				Grades to loose with wood chips	NS	<1	
				6 CA			SM	Gray silty fine to medium sand with organics (loose, wet)	NS	<1	
				7 CA			ML	Gray silt with fine to medium sand with occasional gravel (dense, moist)	NS	<1	Perched groundwater observed at 24 feet
				8 CA					NS	<1	
				9					NS	<1	

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

### Log of Boring DP-5

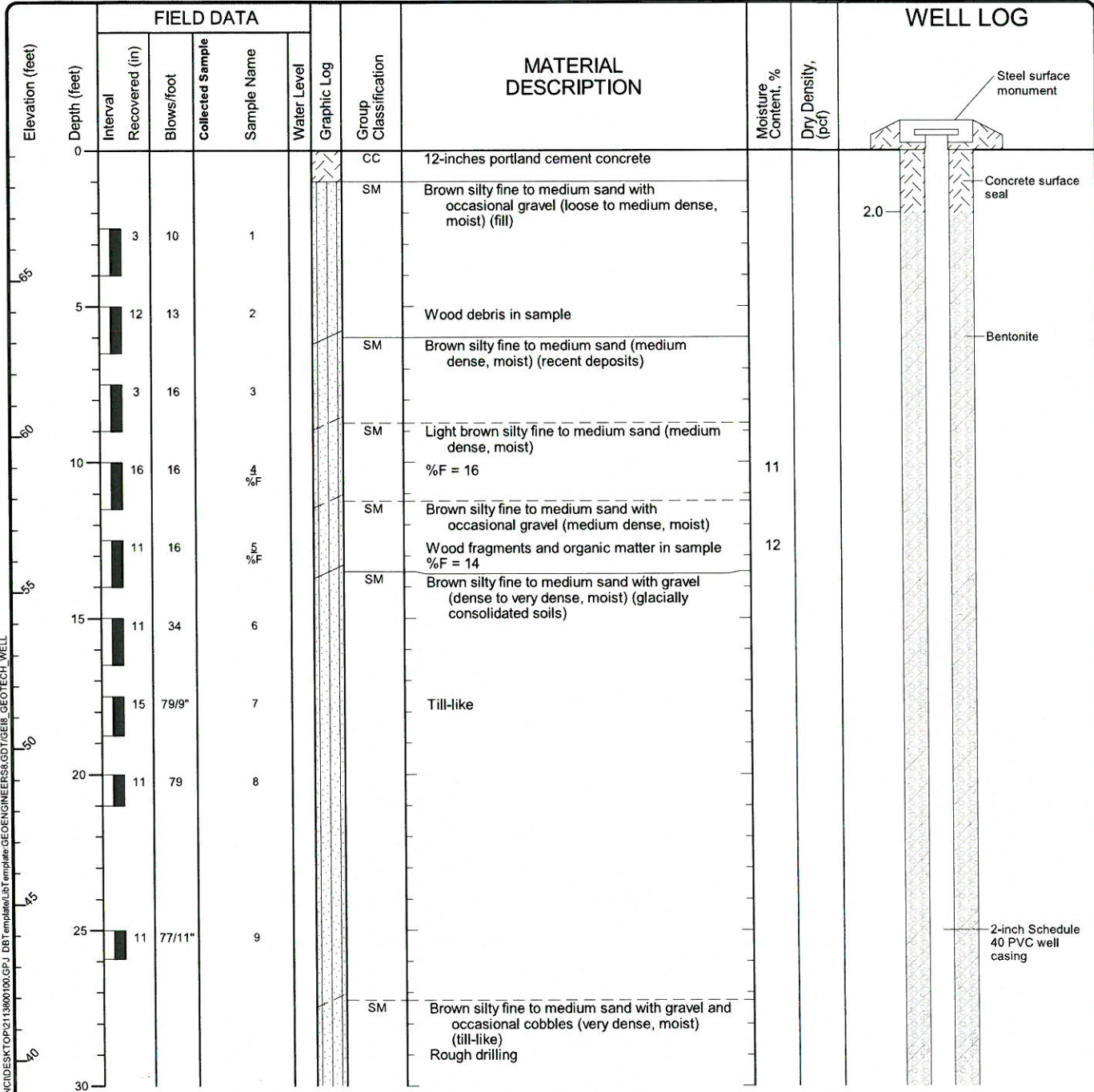


Project:                   GID 9th and Lenora Development  
Project Location:       Seattle, Washington  
Project Number:       21138-001-01

Figure A-6  
Sheet 1 of 1

Seattle: Date: 9/11/14 Path: SEA\PROJECTS\21138001\GINT\2113800101.GPJ DBT\template\1BT\template\GEOENGINEERS\GDT\GEB\ENVIRONMENTAL\_STANDARD

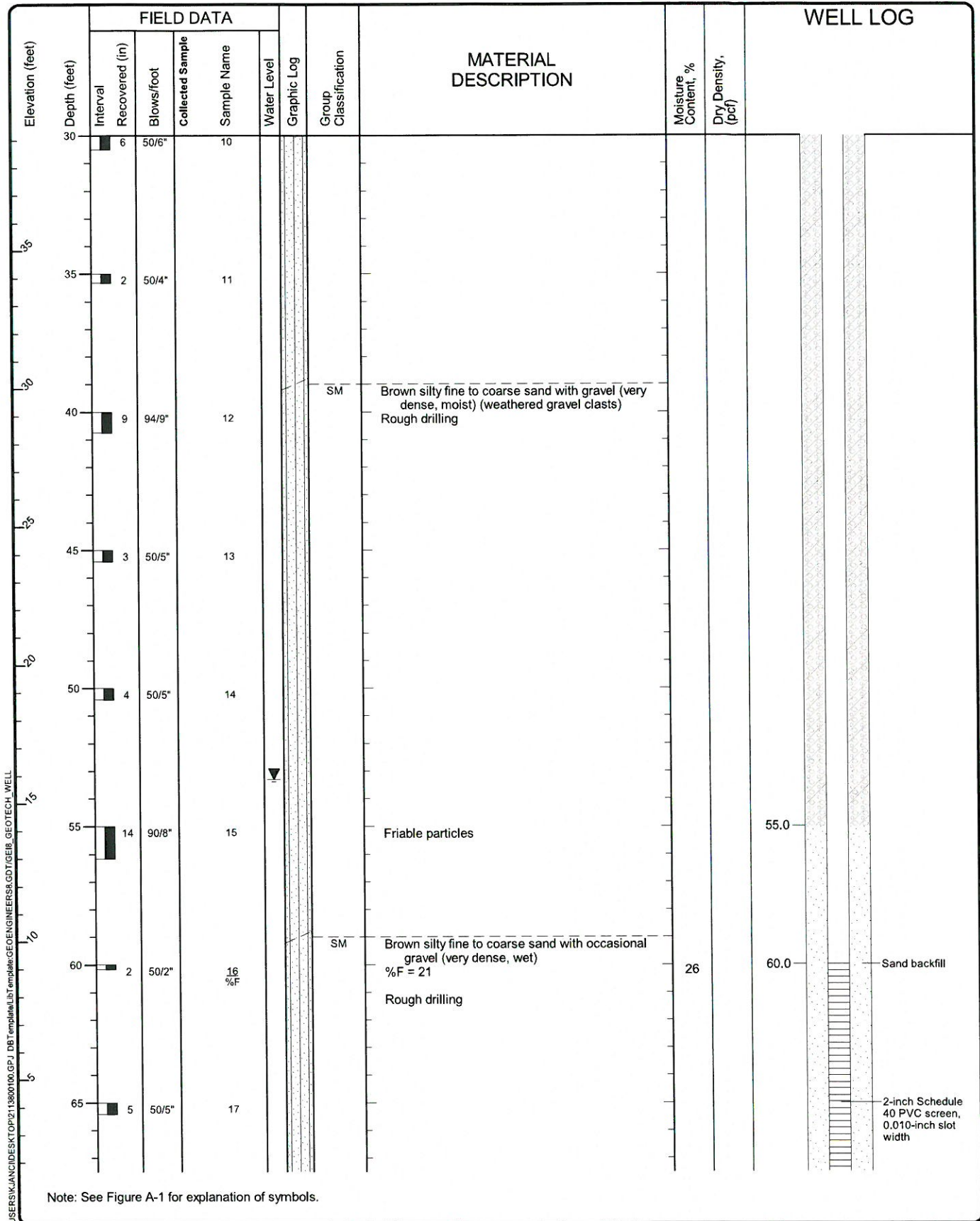
Start Drilled 12/19/2013	End 12/19/2013	Total Depth (ft)	80.5	Logged By CEW	Checked By MWS	Driller Boretac, Inc.	Drilling Method	Hollow-Stem Auger
Hammer Data		Rope & Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment		EC55 Track-Mounted Drill Rig		DOE Well I.D.: BHZ-904 A 2 (in) well was installed on 12/19/2013 to a depth of 80 (ft).
Surface Elevation (ft) Vertical Datum		69.17		Top of Casing Elevation (ft)		68.87		<u>Groundwater</u> Date Measured 12/27/2013
Easting (X) Northing (Y)				Horizontal Datum				Depth to Water (ft) 53.3
								Elevation (ft) 15.9
Notes:								



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

<b>Log of Boring G-1</b>	
	Project: 9th and Lenora Development Project Location: Seattle, Washington Project Number: 21138-001-00
Figure A-2 Sheet 1 of 3	

Redmond: Date: 7/11/14 Path: C:\USERS\SJK\ANCI\DES\KTOP2113800100\GPJ\_DBT\template\lbt\template\GEOENGINEERS\8\GD\T\GEIB\_GEDOTECH\_WELL



### Log of Boring G-1 (continued)



Project: 9th and Lenora Development  
 Project Location: Seattle, Washington  
 Project Number: 21138-001-00

Figure A-2  
 Sheet 2 of 3

Redmond: Date: 7/1/14 Path: C:\USER\SJK\ANCI\DESIGN\TOP\2113800100.GPJ DBT\template\LT\template\GEOENGINEERS\GDT\GEB\_GDOTECH\_WELL

Redmond: Date: 7/1/14 P: sht: C:\USERS\KJ\ANCI\DESKTOP\2113800100.GPJ DBT Template\Lib Template GEOENGINEERS.GDT\GEB\_GEOTECH\_WELL

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	WELL LOG
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level				
70	4	50/4"		18 %F			With gravel (very dense, wet)  Rough drilling  %F = 17	18		
75	4	50/4"		19		With occasional brown silt lenses				
80	4	50/4"		20						

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

**Log of Boring G-1 (continued)**



Project: 9th and Lenora Development  
 Project Location: Seattle, Washington  
 Project Number: 21138-001-00



## **APPENDIX I**

### **Report Limitations and Guidelines for Use**

# REPORT LIMITATIONS AND USE GUIDELINES

## Reliance Conditions for Third Parties

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This report was prepared for the exclusive use of the Client. No other party may rely on this report or the product of our services without the express written consent of Aspect Consulting, LLC (Aspect). This limitation is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual conditions or limitations and guidelines governing their use of the report. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and recognized standards of professionals in the same locality and involving similar conditions.

## Services for Specific Purposes, Persons and Projects

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Aspect has performed the services in general accordance with the scope and limitations of our Agreement. This report has been prepared for the exclusive use of the Client and their authorized third parties, approved in writing by Aspect. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

This report is not, and should not, be construed as a warranty or guarantee regarding the presence or absence of hazardous substances or petroleum products that may affect the subject property. The report is not intended to make any representation concerning title or ownership to the subject property. If real property records were reviewed, they were reviewed for the sole purpose of determining the subject property's historical uses. All findings, conclusions, and recommendations stated in this report are based on the data and information provided to Aspect, current use of the subject property, and observations and conditions that existed on the date and time of the report.

Aspect structures its services to meet the specific needs of our clients. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and subject property. This report should not be applied for any purpose or project except the purpose described in the Agreement.

## This Report Is Project-Specific

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Aspect considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

## **Geoscience Interpretations**

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The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Aspect.

## **Discipline-Specific Reports Are Not Interchangeable**

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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 address 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 the subject property.

## **Environmental Regulations Are Not Static**

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Some hazardous substances or petroleum products may be present near the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or petroleum products or do not otherwise present potential liability. Changes may occur in the standards for appropriate inquiry or regulatory definitions of hazardous substance and petroleum products; therefore, this report has a limited useful life.

## **Property Conditions Change Over Time**

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This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time (for example, Phase I ESA reports are applicable for 180 days), by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope failure or groundwater fluctuations. If more than six months have passed since issuance of our report, or if any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

## **Phase I ESAs – Uncertainty Remains After Completion**

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Aspect has performed the services in general accordance with the scope and limitations of our Agreement and the current version of the “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process”, ASTM E1527, and U.S. Environmental Protection Agency (EPA)'s Federal Standard 40 CFR Part 312 "Innocent Landowners, Standards for Conducting All Appropriate Inquiries".

No ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with subject property. Performance of an ESA study is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions affecting the subject property. There is always a potential that areas with contamination that were not identified during this ESA exist at the subject property or in the study area. Further evaluation of such potential would require additional research, subsurface exploration, sampling and/or testing.

## **Historical Information Provided by Others**

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Aspect has relied upon information provided by others in our description of historical conditions and in our review of regulatory databases and files. The available data does not provide definitive information with regard to all past uses, operations or incidents affecting the subject property or adjacent properties. Aspect makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.

## **Exclusion of Mold, Fungus, Radon, Lead, and HBM**

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Aspect's services do not include the investigation, detection, prevention or assessment of the presence of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detection, assessment, prevention or abatement of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Aspect's services also do not include the investigation or assessment of hazardous building materials (HBM) such as asbestos, polychlorinated biphenyls (PCBs) in light ballasts, lead based paint, asbestos-containing building materials, urea-formaldehyde insulation in on-site structures or debris or any other HBMs. Aspect's services do not include an evaluation of radon or lead in drinking water, unless specifically requested.