AECOM

UST Site Assessment and Independent Cleanup Action Report

1001 Minor Avenue Property

Nash-Holland 1001 Minor Investors, LLC

Project Number: 60536280

February 5, 2018

Prepared for:

Nash-Holland 1001 Minor Investors, LLC
1000 Dexter Ave North Suite 201
Seattle, WA 98109

Prepared by:

AECOM
1111 Third Avenue Suite 1600
Seattle, WA 98101
aecom.com

AECOM
1111 Third Avenue
Suite 1600
Seattle, WA 98101
USA
aecom.com

February 5, 2018

Mr. Nick Hoffman
Holland Partner Group
1000 Dexter Ave North
Suite 201
Seattle, WA 98109

AECOM Project Number: 60533834

Dear Mr. Hoffman,

AECOM is pleased to present our UST Site Assessment and Independent Cleanup Action Report for the 1001 Minor Avenue Project located at 1001 Minor Avenue (1122 Madison Street) in Seattle, WA. This project was conducted as an independent cleanup action in conformance with the State of Washington's Model Toxics Control Act (MTCA, Chapter 173-340 WAC) and Underground Storage Tanks Regulations (Chapter 173-360 WAC).

On behalf of Nash-Holland 1001 Minor Investors, LLC (Nash-Holland) this report is being submitted under the Petroleum Technical Assistance Program (PTAP) of the Pollution Liability Insurance Agency (PLIA) in order to obtain a written opinion regarding the cleanup action completed during the site redevelopment. Nash-Holland will be completing the online PTAP Application Form and a copy of this report will be submitted with the application.

This report summarizes the actions taken to remove four historical underground storage tanks. The report includes the field screening and sampling methodology, field observations, laboratory analysis results, disposal documentation, and our conclusions. This cleanup action was performed in accordance with our Media Management Plan and Field Monitoring Proposal to Nash-Holland and Holland Partner Group dated February 8, 2017 and the report was prepared in conformance with WAC 173-340-840 and PLIA's Petroleum Technical Assistance Program Guidance (PLIA, 2017).

Please contact us at (206) 438-2700 if you have any questions or require additional information.

Yours sincerely,

David Raubvogel
Senior Geologist, LHG
AECOM

Laurence Brown
Staff Geologist
AECOM

Table of Contents

Tables

Figures

Appendices

List of Acronyms and Abbreviations

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene and xylenes
CDF	control density fill
COC	chain of custody
Dx	diesel-extended
Ecology	Washington Department of Ecology
ESA	Environmental Site Assessment
Gx	gasoline-extended
Hos	Hos Bros Construction
mg/kg	milligrams per killogram
MSL	mean sea level
MTCA	State of Washington Model Toxics Control Act
Nash-Holland	Nash-Holland 1001 Minor Investors, LLC
NFA	No Further Action
NWTPH	Northwest Total Petroleum Hydrocarbons
PID	photoionization detector
PLIA	Washington State Pollution Liability Insurance Program
PTAP	Petroleum Technical Assistance Program
RECs	Recognized Environmental Conditions
TEE	Terrestrial Ecological Evaluation
TPH	total petroleum hydrocarbons
UST	underground storage tank
VOC	volitile organic compounds
WAC	Washington Administrative Code

1. Introduction

On behalf of Nash-Holland 1001 Minor Investors,LLC (Nash-Holland), AECOM has prepared this report presenting the results of the UST Site Assessment and Independent Cleanup Action at the 1001 Minor Avenue property in Seattle, WA (Site). The assessment included oversight of decommissioning four underground storage tanks (UST), excavation and removal of petroleum impacted soils, and performance of confirmational soil sampling.

The UST decommissioning cleanup action, and confirmation soil sampling were conducted consistent with the applicable provisions of the State of Washington's Model Toxics Control Act (MTCA, WAC 173-340) and Underground Storage Tanks Regulations (WAC 173-360), the Washington Department of Ecology's (Ecology's) *Guidance for Remediation of Petroleum Contaminated Soils*, (Ecology, 2011) and AECOM's Media Management Plan (MMP) dated March 28, 2017.

UST decommissioning and removal was completed by FILCO Company, Inc. (FILCO) of Seattle, WA with excavation assistance by Hos Bros Construction (Hos) of Woodinville, Washington. Decommissioning activities were performed in conformance with Ecology and the City of Seattle requirements. AECOM performed site assessment activities, monitoring of the excavation and removal of the USTs, and evaluation of soils within the UST excavations. This report documents the cleanup action and associated field observations, laboratory analytical results, and soil disposal.

1.1 Site Description and Setting

1.1.1 Site Location

The Site is located at the northwestern corner of the Madison Street and Minor Avenue intersection at 1001 Minor Avenue in Seattle, King County, Washington (Figure 1). The Site is bounded to the east by Minor Avenue, to the south by Madison Street; to the west by the University Club; and to the north by the Decatur and Gainsborough Apartment buildings (Figure 2).

1.1.2 Site Description and Setting

The Site consists of a 0.35-acre parcel (Parcel No. 197820-0610) that was developed with an approximately 7,600-square-foot masonry building constructed in 1956. Paved parking was located north and west of the building that was previously occupied by a McDonald's restaurant. The property legal description is Lots 6 & 7, Blk 118, A.A. Denny's Broadway.

The Site is located in the southwest quarter of Section 32, Township 25 North, Range 4 East. The elevation of the Site ranges from approximately 335 to 334 feet above mean sea level (msl) with a slight southwesterly slope. The nearest surface water body is Elliott Bay, which is approximately 4,500 feet to the southwest.

1.1.3 Geology and Site Hydrogeology

The Site is underlain by a fill consisting of brown sand to silty sands approximately 5 feet in thickness (Terra Associates, 2015). The fill is underlain by native soils consisting of Vashon glacial recessional outwash deposits characterized by stratified sand and gravels with silty sand and silt (USGS 2005). The outwash was medium dense to dense and ranged from grey to light gray fine to medium sands. Gravel and cobble layers were evident from approximately 38 feet to 55 feet below ground surface (bgs). Groundwater was not encountered in any of the Terra Associates geotechnical borings that were completed to 61.5 feet bgs. A monitoring well installed to a depth of 75 feet bgs on the adjacent property to the east did not encounter groundwater (URS, 2014).

2. Property Development and History

2.1 Site History and Prior Environmental Investigations

A Phase I ESA was conducted for the Site as part of acquisition due diligence (URS 2014). The Phase I ESA historical research indicated that the People's National Bank occupied the property from the mid-1950's through 1970. The building was then converted into the Rainbow Ambulance Service, and building plans for this facility (see Appendix A) indicated that two USTs were installed, a 2,000-gallon gasoline and a 300-gallon waste oil. The USTs were located west and north of the building, respectively as shown on Figure 2. The gas pump was located between the 2,000-gallon UST and the building. No information was identified regarding the removal of these USTs (URS, 2014). In the early 1980's, the building was identified as the McDonald's restaurant. Adjacent properties included commercial and residential uses such as apartment buildings. The current site vicinity is shown on Figure 2. The USTs at the Site were identified as recognized environmental conditions.

AECOM performed a Phase II ESA which included a geophysical survey and soil borings in 2015 (AECOM, 2015). The geophysical survey was completed within the parking lot north and west of the McDonald's building. Anomalies were identified which were inferred to be USTs. Based on historical site information, three of the anomalies appeared to coincide with the locations of the suspect waste oil and gasoline USTs (Figure 3). An additional anomaly was identified in the southwestern portion of the Site which did not coincide with any historical features or known tank locations. A number of small GPR anomalies were identified and the nature of these apparent objects was not known.

Five Geoprobe® borings (SB-1 through SB-5 (completed to depths ranging from 4 to 18 feet) and four hollow stem auger borings (B-1 through B-3 to 61.5 feet in depth and B-4 to 16.5 feet in depth) were advanced to obtain both environmental and geotechnical information (AECOM, 2015) .The results of the geotechnical information obtained during the Phase II ESA were presented in a separate report prepared by Terra Associates (TA, 2015). Soil borings completed adjacent to the suspected UST locations (Figure 3) did not detect evidence of petroleum contamination. However, low concentrations of heavy oil range petroleum (49.7 mg/kg to 111 mg/kg) were identified in shallow soils in the general vicinity of the suspected waste oil UST. These low level detections were thought to be associated with *de minimis* releases from vehicular traffic and parking in this area. VOCs were not detected in the soil samples. Based on these results, the petroleum hydrocarbon-affected soils noted north of the McDonald's building were anticipated to fall within Ecology's Soil Category 2 for best management practices related to reuse and disposal of Petroleum Contaminated Soils (Ecology 2016).

AECOM advised that the geophysical anomalies be assessed during property redevelopment (e.g., test pits) and a Construction Contingency/Environmental Media Management Plan (EMMP) be prepared to address the management of environmental issues that could be encountered at the Site during construction earthwork.

The EMMP was subsequently prepared and included information on identification, removal, temporary storage, transportation, and disposal of contaminated media (specifically petroleum contaminated soils) encountered during the building construction earthwork. The plan also contained contingency measures to address decommissioning of any USTs discovered during the redevelopment of the Site (AECOM, 2017a).

2.2 Site Development

NASH-Holland is redeveloping the Site into a 17-story commercial/residential building with six levels of underground parking. Redevelopment activities included demolition of the existing McDonald's building and site features, mass excavation of the Site to install a permanent lot-line to lot-line soldier pile, lagging shoring system (north and east walls) including soil nail and shotcrete walls (south and west walls), and construction of the new building. The total depth of the new building foundation ranged between 53 to 45 feet bgs (approximately elevations 282 to 290 feet above MSL)

Prior to demolition of the existing McDonalds building, AECOM conducted a RBM assessment that included the interior, exterior, and roof of the building. The building was assessed for: asbestos-containing materials (ACM); assumed asbestos-containing materials; lead-containing coatings (paints); mercury-containing light tubes, switches,

and thermostats; and suspected Polychlorinated Byphenols (PCB)-containing sources (AECOM, 2017b). The building abatement and site demolition activities were performed by Rhine Demolition of Tacoma, WA in April 2017.

3. UST Decommissioning and Cleanup Actions

3.1 Cleanup Levels and Terrestrial Ecological Evaluation

The UST removals and cleanup action implemented during the construction of the 1001 Minor Avenue development were conducted in accordance with Ecology MTCA and UST regulations, Ecology's *Guidance for Remediation of Petroleum Contaminated Sites*, (Ecology, 2016) and AECOM Environmental Media Management Plan (AECOM, 2017a). Based on the nature of the contamination present and the intended future use of the property, MTCA Method A soil cleanup levels were utilized.

In accordance with MTCA regulations, a Terrestrial Ecological Evaluation (TEE) was completed and the site qualified for an exclusion from further evaluation using the criteria in WAC 173-340-7491. The completed TEE is provided in Appendix B.

3.2 Scope of UST Removal and Cleanup Actions

The UST Site Assessment and Independent Cleanup Action involved documenting the decommissioning of USTs located on the Site, and identifying and removing soils potentially impacted by releases from the USTs or other historical operations. The scope of work included:

- Filing the required Ecology tank closure notification and contacting the City of Seattle Fire Department.
- Conducting the removal and disposal of four USTs: (a) an approximately 1,700-gallon gasoline (UST-A); (b) a 300 gallon waste oil (UST-B); (c) a 800 gallon heating oil (UST-C); and (d) an approximately 2,800 Bunker C fuel UST (UST-D). These four USTs are shown on Figure 4.
- Pumping, rinsing, removal, and transportation of the USTs to a licensed disposal facility in conformance with Ecology UST regulations (WAC 173-360).
- Excavation, handling, transportation, and disposal of petroleum impacted soils at a Subtitle D landfill (Republic Services Roosevelt Regional Landfill)

AECOM was responsible for the following scope of services:

- Monitoring the removal of the USTs and performing the UST Site Assessment.
- Monitoring the contractor (Hos) during the excavation and removal of potentially impacted soils from the Site.
- Documenting the condition of soils exposed in the walls and floor of the excavation.
- Collecting post-excavation confirmation soil samples.
- Collecting of soil samples for waste characterization.
- Submitting soil samples to Fremont Analytical, an Ecology-accredited analytical laboratory, to be analyzed for gasoline and diesel range petroleum hydrocarbons by NWTPH-diesel extended (Dx), and volatile organic compounds (benzene, toluene, ethylbenzene and total xylenes (BTEX)) by EPA Method 8260C.
- Preparation of this report summarizing the field activities, analytical results, and conclusions regarding tank decommissioning.

3.3 Field Monitoring, Waste Characterization and Post Excavation Sampling Procedures

AECOM performed UST and soil removal field monitoring between May 4 and July 11, 2017. The locations of the decommissioned USTs and extent of petroleum impacted soils are shown on Figure 4. The field monitoring consisted

of screening soil for the presence of petroleum hydrocarbons and conducting post-excavation soil sampling. AECOM personnel described the subsurface materials encountered in the excavation and field screened soil samples for organic vapors using a photoionization detector (PID). Evidence of staining, discoloration, odors, or other relevant factors indicative of petroleum hydrocarbon contamination in the exposed soils were noted.

When field screening indicated that the excavation base and sidewalls did not contain petroleum contaminated soil (PCS), post-excavation soil samples were collected to confirm that the PCS had been adequately removed. The samples were collected directly from the undisturbed sidewalls and floor of the excavation using the excavator bucket. AECOM field personnel used laboratory provided disposable sampling syringes and new disposable nitrile gloves to collect soil from the bucket and transfer soil into bottle ware. A Washington State-registered UST site assessor was on-site during the tank removal. Photographs taken during the UST removal and soil excavation program are provided in Appendix C.

3.4 Sample Handling, Sample Designations and Analyses

The samples designated for analyses were placed in laboratory-supplied glassware. Samples were labeled with a unique sample number, date, and time of collection. Sealed samples were stored in an ice chest chilled to 4 degrees Celsius until delivered to the analytical laboratory. Chain-of-custody (COC) forms were used to document sample integrity. Soil samples were submitted to an Ecology-accredited laboratory, Fremont Analytical of Seattle, for analysis of diesel range petroleum hydrocarbons by NWTPH-Dx, gasoline range petroleum hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8260C. The analytical data was reviewed and validated by an AECOM project chemist and no data usability issues were identified. The laboratory analytical reports are provided in Appendix D.

4. Findings

4.1 UST Decommissioning and Post Excavation Soil Sampling Results

During the excavation of soils for the building foundation, two suspected and two previously unknown USTs were decommissioned by Filco. The City of Seattle Fire Department and a certified Marine Chemist were on site during the UST decommissioning activities. The four tanks were referred to as: UST-A (1700 gallon gasoline); UST-B (300 gallon waste oil); UST-C (800 gallon heating oil) and UST-D (2,800 gallon bunker oil) and their locations are shown on Figure 4. During the soil nail drilling performed on the west side of the site, a previously unknown heating oil UST was encountered beneath the adjacent University Club property. The UST was decommissioned in place and the decommissioning information is provided under a separate cover (AECOM, 2017c). A summary of each tank removal and soil sampling results are provided below.

UST A: Decommissioned on May 8, 2017. UST A was located near the northwest corner of the former McDonald's building. UST A was approximately 8 feet long by 6 feet in diameter (approximately 1,700 gallon capacity) and was constructed of riveted steel. Based on the historical information, this UST was suspected to have stored gasoline. The top of the UST was encountered at approximately 4 to 5 feet bgs. The UST was found to be filled with sand and had been decommissioned in place. The sand within the UST was removed to allow the tank to be removed from the ground. Sand recovered from the tank did not exhibit indications of petroleum impacts. The UST appeared to be in good condition, with no holes or punctures evident. Marine Vacuum Service (Mar-Vac) under the direction of FILCO, purged the tank using Vac truck equipment and Hos removed the UST from the excavation. No piping related to the UST was recovered during the decommissioning and tank excavation process. Contamination was not evident in soils within base or sidewalls of the UST excavation or around the piping removed. Two sidewall samples (UST A-SW1 and UST A-SW2) and one bottom (UST A-B1) confirmation soil sample were collected from the UST A excavation. The foundation excavation was completed approximately 35 feet below the base of UST A excavation area. Petroleum hydrocarbons and BTEX were not detected in the confirmation soil samples (Table 2).

UST B: Decommissioned on May 4, 2017. UST B was located along the northern property boundary of the Site. UST B was approximately 3 feet in diameter and 5 feet long (approximately 300 gallon capacity). Based on historical information, this UST likely stored waste oil. No obvious holes or punctures were identified on the UST which was constructed of steel. The UST was previously decommissioned in place, and was completely filled with pea gravel. The top of the UST was noted at approximately five feet bgs. Contamination was not evident along the base and sides of the UST excavation. Mar-Vac under the direction of FILCO, removed the pea gravel fill using Vac truck

equipment. Following removal of the pea gravel, Hos removed the tank from the excavation area. Piping related to the UST was also removed during the excavation process. Initial field screening at the time of the UST decommissioning indicated no contamination present in soils surrounding the UST or related piping and thus, no confirmation soil samples were collected at that time. On June 8th, AECOM returned to the Site when impacted soils were encountered during excavation in the area of the UST between approximately soldier piles N9 and N11 at depths of approximately 8 feet to 13 feet bgs. Grey discoloration was observed and hydrocarbon odors were noted within stockpiled soils generated from the soil removal in this area. Two composite samples SP-06082017-2 and SP-06082017-3 were collected from the stockpiled soils and analyzed for gasoline and diesel range petroleum hydrocarbons as well as BTEX constituents. Diesel-Range petroleum hydrocarbons were detected in sample SP-06082017-2 at a concentration of 77.5 mg/kg, below the MTCA cleanup level of 2,000 mg/kg (Table 1). Toluene was detected in sample SP-06082017-3 at a concentration of 0.0223 mg/kg, below the MTCA cleanup level of 7.0 mg/kg. All other constituents were not detected above laboratory reporting limits. This portion of the foundation excavation extends approximately 32 feet below the base of the petroleum impacts observed relating to UST B.

UST C: Decommissioned on May 12, 2017. UST C was located at the northeast corner of the former McDonald's building (Figure 4). UST C was approximately 8 feet long by 4 feet in diameter (800 gallon capacity) and was constructed of steel. Based on available information, UST C was used for the storage of heating oil. The top of the UST was encountered at approximately 4 feet bgs. The UST appeared to be in good condition, with no holes or punctures. This UST was previously decommissioned in place and was filled with pea gravel and sand. Approximately 50 gallons of water was observed within the tank and the water was noted to have a slight sheen. Contamination was not evident in the soils below the base or sidewalls of the UST excavation. Hos removed the tank from the excavation area. No piping related to the UST was recovered during the decommissioning. Two sidewall samples (USTC-SW1 and USTC-SW2) and one bottom (USTC-B1) confirmation soil sample were collected from the UST C excavation. Gasoline, diesel and heavy oil-range petroleum hydrocarbons, and volatile organic compounds were not detected in any of the confirmation soil samples collected (Table 2). The foundation excavation was completed approximately 37 feet of soil below the base of UST C.

UST D: Decommissioned on May 18, 2017. UST D was located in the central portion of the site and measured approximately 16 feet in length by 5.5 feet in diameter (2,800 gallon capacity). The UST was constructed of riveted steel and apparently stored Bunker C oil. The top of the UST was encountered at approximately 5 feet bgs and appeared to be in good condition, with no holes or punctures. Approximately 930 gallons of Bunker C oil was noted in the tank. Mar-Vac, under the direction of FILCO, removed the oil using a vacuum truck. Following purging, Hos removed the tank from the excavation area. No piping related to the UST was recovered during the decommissioning. Two sidewall samples (USTD-SW1 and USTD-SW2) and one bottom (USTD-B1 confirmation soil sample were collected from the UST D excavation. Gasoline and diesel-range petroleum hydrocarbons, and volatile organic compounds were not detected in any of the confirmation soils samples collected from the UST excavation (Table 2). Approximately 43 vertical feet of soil was removed below the base of UST D as part of the site mass excavation program.

A copy of the Site Check/Site Assessment Checklist for USTs discovered at the site, UST decommissioning permits and letters of certification, as well as waste disposal documentation are provided in Appendix E.

4.2 Other Petroleum Affected Soil Excavation Areas and Post Excavation Soil Sampling Results

4.2.1 Concrete Trough

On May 12, 2017, PCS was encountered during the foundation mass excavation in the northeast corner of the Site (Figure 4). The petroleum impacts appeared to be limited to soils immediately above a concrete trough (CT) structure. The PCS was noted as a grey sandy silt and gravel with a slight petroleum odor. Field screening of this soil with a PID detected organic vapors at a concentration of 1.2 ppm. A test pit was completed adjacent to the CT structure and no contamination was noted. The small volume of PCS from this area (approximately 10 cubic yards) was segregated and stockpiled on plastic sheeting. The stockpiled PCS (CT-Stockpile, Table 1) had a slight petroleum odor and PID reading of 3.5 ppm. A sample collected from the stockpiled PCS (CT-Stockpile) detected heavy oil range petroleum hydrocarbons at a concentration of 2,190 mg/kg. On May 15 the CT structure was removed and no additional field evidence of contamination was noted beneath the CT area. AECOM collected a soil

sample from the base of the CT excavation (CT-Bottom, Table 2). A concentration of heavy oil range petroleum (94.5 mg/kg) was detected in the sample, well below the MTCA Method A Cleanup Level of 2,000 mg/kg. Gasoline and diesel range petroleum and BTEX constituents were not detected in the CT-Bottom sample. The foundation excavation was extended approximately 37 feet below the bottom of the CT.

4.2.2 University Club UST

On May 30, 2017, during the installation of the foundation elements for the new Site construction, Malcolm Drilling (Malcolm), noted a void during the drilling of a tieback along the west side of the Site. The advancement of the tieback boring was immediately stopped and upon further assessment, the void was identified as a UST. The UST was located on the University Club property (UC-UST) as shown on Figures 4 and 5. After encountering the void, the tieback rods were removed from the boring and a stick was used to probe the hole in the tank. A black petroleum product was identified at the end of the stick. This material was sampled and analysis indicated it was a heating oil product. NASH-Holland subsequently notified the University Club of the situation, while AECOM notified Mr. Drew Imke of Ecology's Northwest Regional Office UST Program regarding the discovery of the tank (Initial Report) and the plan to decommission the UST in place. The earthwork contractor (Hos) exposed the east side of the UST, which was found to be approximately 5 feet in diameter. A small hole created by the tieback drill was evident several inches above the bottom of the tank (see photographs in Appendix C). Approximately 6-inches of product and water were noted in the tank. On June 6, 2017, AECOM submitted the Ecology 30-Day Notice for USTs outlining the intent to close the tank in place. Mr. Drew Imke of Ecology provided verbal approval of the in place closure plans. Soil samples were collected directly beneath the puncture in the tank (Figure 4) and were analyzed for petroleum hydrocarbons. Soil samples UC-UST#1 and UC-UST#2 (Table 2) detected diesel-range petroleum hydrocarbons at concentrations of 150 and 547 mg/kg, respectively, which are below MTCA Method A soil cleanup level of 2,000 mg/kg. Gasoline range petroleum hydrocarbons and BTEX were not detected in the soils samples.

Filco performed the in place decommissioning of this tank on June 9, 2017. The UST measured approximately 10 feet in length and 5 feet in diameter (approximately 1,000 gallon capacity) and was constructed of steel. The top of the UST was encountered at approximately 3 feet bgs. The exterior of the UST was pitted, but no corrosion holes were evident in the exposed portions of the tank. A small volume of petroleum impacted soil was noted adjacent to the puncture in the tank, and this material was removed by Hos and disposed of at a Republic Services Subtitle D Landfill. Following cleaning, the UST was filled with control density fill (CDF) and covered with soil.

On June 22, 2017, AECOM evaluated soils along the western side of the Site adjacent to University Club. (Figure 4). Petroleum odors had been noted by Hos during excavation of soils adjacent to the University Club at an elevation of approximately 327 feet msl (approximately 6 feet bgs). Hos stated that the horizontal extent of the soils exhibiting petroleum odor was approximately 10 feet x 15 feet in area. At the time of AECOM's field observations, all of the potentially impacted soils in the area of the University Club UST had been excavated and stockpiled by Hos (Appendix C). AECOM collected two samples from this stockpile (Stockpile-062217-1 and Stockpile-062217-2). Petroleum hydrocarbons and BTEX constituents were not detected in either stockpile sample above laboratory reporting limits. AECOM evaluated the base of the excavation in the area where the potentially impacted soils had been removed. No evidence of petroleum impacts were noted within the excavated area. The foundation excavation was completed another 47 feet below this area. Additional information regarding the University Club UST is provided in a separate report (AECOM, 2017c).On July 11, 2017, AECOM visited the Site to evaluate soils within the southeast corner. Hos noted petroleum like odor in soils during excavation of the southeastern corner of the Site from approximately 20 to 25 feet bgs (Figure 4). AECOM evaluated the base and sidewalls of the excavated area as well as stockpiled soil generated from the excavation. A slight petroleum odor was noted in stockpiled soils, but no evidence of petroleum impacts were noted within the excavation. Two composite samples were collected from the stockpiled soil, Stockpile-071117-1 and Stockpile-071117-2. Field screening PID measurements were below 1 ppm. Petroleum hydrocarbons and BTEX were not detected in either sample above laboratory reporting limits.
Low levels of petroleum impacted soils were identified during the Phase II Investigation (AECOM, 2015). Based on field observations and soil analytical data collected during the property redevelopment mass excavation program, all areas of petroleum impacts identified in the 2015 Phase II Investigation were limited in extent and were fully addressed during development through direct excavation and over-excavation.

All potentially impacted soils generated at the Site were managed by Hos and hauled from the Site for disposal at the Republic Services Subtitle D Roosevelt Regional landfill located in Bickleton, WA. Refer to Appendix E for soil disposal documentation.

5. Conclusions

Based on the findings of the AECOM UST Site Assessment and Independent Cleanup Action implemented at the 1001 Minor Avenue property, AECOM has reached the following conclusions:

- A total of four USTs were removed as part of Site redevelopment. Historical research during the Phase I ESA (URS, 2014) and subsequent geophysical survey (AECOM, 2016) identified two tanks (UST-A and UST-B) existing at the Site. Two unknown tanks (UST-C and UST-D) were also encountered during the foundation earthwork. Three of the tanks (UST-A, UST-B and UST-C) had been decommissioned in place and were filled with pea gravel. UST-D was the only tank found to contain petroleum product (Bunker C). All of the USTs were decommissioned by Filco, an Ecology-licensed UST decommissioning firm in accordance with State of Washington UST regulations. The USTs were removed in May 2017.

- No evidence of any historical releases were noted in the excavation base or sidewalls of USTs A, C, or D and these USTs were properly decommissioned and removed from the Site. Petroleum impacts were noted in soils in the area below UST B situated along the northern property boundary. The UST appeared to be intact and the contamination was likely associated with the former tank piping and/or overfills. Field screening indicated that the contamination extended to approximately 13 feet bgs. All impacted soils were removed, with excavation was extended approximately 32 feet below the bottom of UST B.

- A total of 852.53 tons of petroleum impacted soils were sent to the Republic Services Subtitle D Roosevelt Regional landfill for offsite disposal following excavation and removal of the four USTs from the Site. The liquid wastes were treated at Emerald Services and the USTs were sent for recycling by Filco.

- The discovery and decommissioning of the UST encountered on the University Club property (UC-UST) during the drilling of soil nails is detailed in a separate report (AECOM, 2017c). The tank was decommissioned in place by Filco in conformance with Ecology UST regulations and Seattle Fire Department requirements. The tanks was cleaned and filled with CDF. Two soil samples collected beneath the tank detected diesel range petroleum hydrocarbons below applicable the MTCA Method A cleanup level. Gasoline range petroleum hydrocarbons and BTEX were not detected in these samples. Petroleum impacted soils that appear to be related to UC-UST encountered on the Site were removed to an elevation of approximately 327 feet above MSL. Based on confirmation soil sampling data, no residual contamination above MTCA Method A Cleanup Levels remains along the western sidewall of the Site.

- The finished elevation of the mass excavation of the Site during redevelopment ranged from 43 to 55 feet bgs, well below the depths of the petroleum impacted soils, the majority of which were detected between 5 to 13 feet bgs (elevation 330 to 322 feet MSL)

- Soils potentially impacted with petroleum hydrocarbons noted during mass excavation activities within the southeast corner of the site from approximately 20 to 25 feet bgs were removed in July 2017, although no petroleum hydrocarbons were detected above laboratory detection limits in stockpile samples collected from this area (Stockpile -071117-1 and Stockpile-071117-2; Table 1).

- The concrete trough discovered in the northeastern portion of the site had a small quantity of petroleum impacts within the trough. The feature was removed and the soils adjacent to and beneath the concrete trough, which were not impacted, were then over-excavated.

- Analytical results for confirmation soil samples collected from the excavation base and sidewalls of UST's A, C, and D were non-detect for gasoline and diesel-range petroleum hydrocarbons and BTEX. The two composite samples (SP-06082017-2 and SP-06082017-3) collected from the stockpiled soils that were removed from beneath UST B detected low concentrations of diesel-range petroleum hydrocarbons in one sample (SP-06082017-2; 77.5 mg/kg)) and low concentrations of toluene in one sample (SP-06082017-3; 0.0223 mg/kg) /kg. All other constituents were not detected above laboratory reporting limits.

- There was no indication of any contamination or impacts migrating from the Site onto adjacent properties or beneath adjacent rights-of-way. Any petroleum impacted soils beneath the University Club property related to the University Club UST represents a separate issue that is unrelated to the Site.

Based on the findings of this investigation and the performance of excavation activities during Site redevelopment, it is our opinion that no further action (NFA) is necessary at the Site. We therefore request issuance of an Unrestricted NFA for the Site.

6. References

AECOM, 2015. Phase II Environmental Site Assessment -1001 Minor Avenue Property, Seattle, WA. August 10.

_____, 2017a. Environmental Media Management Plan, 1001 Minor Avenue Property, Seattle, WA. March 28.

_____, 2017b. Regulated Building Materials Assessment Report,1001 Minor Ave Property, Seattle, WA. March 6.

_____, 2017c. UST Site Assessment Report, University Club, 1004 Boren Avenue, Seattle, WA. June 28.

PLIA, 2017. Petroleum Technical Assistance Program Guidance. Publication No. 02-2017-19.

Terra Associates, Inc., 2015. Geotechnical Report 1001 Minor; Madison Street and Minor Avenue. October 23.

Terra Associates. 2015. Geotechnical Report - 1001 Minor; Madison Street and Minor Avenue. October 23.

URS, 2014. Phase I Environmental Site Assessment, 1122 Madison Street Property, Seattle, WA. January 6.

Washington State Department of Ecology, 2016. *Guidance for Remediation of Petroleum Contaminated Sites*. Publication No. 10-09-057; revised June.

Washington State Department of Ecology, 1996. http://www.ecy.wa.gov/programs/tcp/ust-lust/1closure.pdf

Tables

Table 1
Summary of Soil Stockpile Analytical Results
Holland - 1001 Minor Ave
Seattle, Washington

Sample ID	Sample Date	TPH (mg/kg)			VOCs (mg/kg)			
		Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Toluene	Ethylbenzene	Total Xylenes
CT - Stockpile	5/15/2017	3.82 U	21.2 U	**2,190**	0.0153 U	0.0153 U	0.0229 U	0.0153 U
SP-1	6/2/2017	4.91 U	808	46.7 U	0.0197 U	0.0197 U	0.0295 U	0.0696
SP-2	6/2/2017	5.32 U	584	50.5 U	0.0213 U	0.0213 U	0.0319 U	0.0436
SP-06082017-2	6/8/2017	2.84 U	77.5 J	51.8 U	0.0114 U	0.0114 U	0.0170 U	0.0114 U
SP-06082017-3	6/8/2017	2.39 U	20.6 U	51.5 U	0.00956 U	0.0223	0.0143 U	0.00956 U
Stockpile-062217-1	6/22/2017	5.44 U	19.7 U	49.3 U	0.0217 U	0.0217 U	0.0326 U	0.0217 U
Stockpile-062217-2	6/22/2017	5.38 U	21.1 U	52.8 U	0.0215 U	0.0215 U	0.0323 U	0.0215 U
Stockpile-071117-1	7/11/2017	6.66 U	20.2 U	50.4 U	0.0266 U	0.0266 U	0.0400 U	0.0266 U
Stockpile-071117-2	7/11/2017	6.10 U	20.5 U	51.3 U	0.0244 U	0.0244 U	0.0366 U	0.0244 U
MTCA Method A Soil Cleanup Level		30 / 100 [a]	2,000	2,000	0.03	7.0	6.0	9.0

Notes:

Values in **bold** font indicate that the result reported meets or exceeds the most current MTCA level based on the Ecology website.

Model Toxics Control Act (MTCA) Cleanup Regulation, WAC 173-340. MTCA Method A values are from Ecology website CLARC tables downloaded August 2015 (https://fortress.wa.gov/ecy/clarc/CLARCDataTables.aspx).

J - estimated value

mg/kg - milligram per kilogram

TPH - total petroleum hydrocarbon

U - compound was analyzed for but not detected above the reporting limit shown.

VOC - volatile organic compounds

[a] The MTCA Method A soil screening level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The MTCA Method A screening level for all other gasoline mixtures is 30 mg/kg.

Table 2
Summary of Soil Post-excavation Analytical Results
Holland - 1001 Minor Ave
Seattle, Washington

Sample ID	Sample Date	TPH (mg/kg)			VOCs (mg/kg)			
		Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Toluene	Ethylbenzene	Total Xylenes
UST A B-1	5/8/2017	5.53 U	20.0 U	49.9 U	0.0221 U	0.0221 U	0.0332 U	0.0221 U
UST A - SW 1	5/8/2017	5.88 U	19.9 U	49.9 U	0.0235 U	0.0235 U	0.0353 U	0.0235 U
UST A - SW 2	5/8/2017	5.47 U	19.0 U	47.5 U	0.0219 U	0.0219 U	0.0328 U	0.0219 U
UST C - SW 1	5/12/2017	4.36 U	20.5 U	51.3 U	0.0174 U	0.0174 U	0.0262 U	0.0174 U
UST C - SW 2	5/12/2017	4.54 U	21.6 U	54.1 U	0.0181 U	0.0181 U	0.0272 U	0.0181 U
UST C - B1	5/12/2017	4.55 U	20.9 U	52.3 U	0.0182 U	0.0182 U	0.0273 U	0.0182 U
CT - Bottom	5/15/2017	3.85 U	22.7 U	94.5	0.0154 U	0.0154 U	0.0231 U	0.0154 U
UST D-SW1	5/18/2017	5.28 U	21.6 U	53.9 U	0.0211 U	0.0211 U	0.0317 U	0.0211 U
UST D-SW2	5/18/2017	5.19 U	20.4 U	51.1 U	0.0208 U	0.0208 U	0.0311 U	0.0208 U
UST D-B1	5/18/2017	4.37 U	20.8 U	52.1 U	0.0175 U	0.0175 U	0.0262 U	0.0175 U
UC-UST #1	6/6/2017	6.26 U	150	52.7 U	0.0250 U	0.0250 U	0.0376 U	0.0250 U
UC-UST #2	6/6/2017	6.35 UJ	547	51.3 U	0.0254 U	0.0254 U	0.0381 U	0.0254 U
MTCA Method A Soil Cleanup Level		30 / 100 [a]	2,000	2,000	0.03	7.0	6.0	9.0

Notes:

Values in **bold** font indicate that the result reported meets or exceeds the most current MTCA level based on the Ecology website.

Model Toxics Control Act (MTCA) Cleanup Regulation, WAC 173-340. MTCA Method A values are from Ecology website CLARC tables downloaded August 2015 (https://fortress.wa.gov/ecy/clarc/CLARCDataTables.aspx).

mg/kg - milligram per kilogram

TPH - total petroleum hydrocarbon

U - compound was analyzed for but not detected above the reporting limit shown.

VOC - volatile organic compounds

[a] The MTCA Method A soil screening level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture. The MTCA Method A screening level for all other gasoline mixtures is 30 mg/kg.

Figures

Source: USGS 7.5-minute topographic quadrangle, Seattle South, Washington, 2014

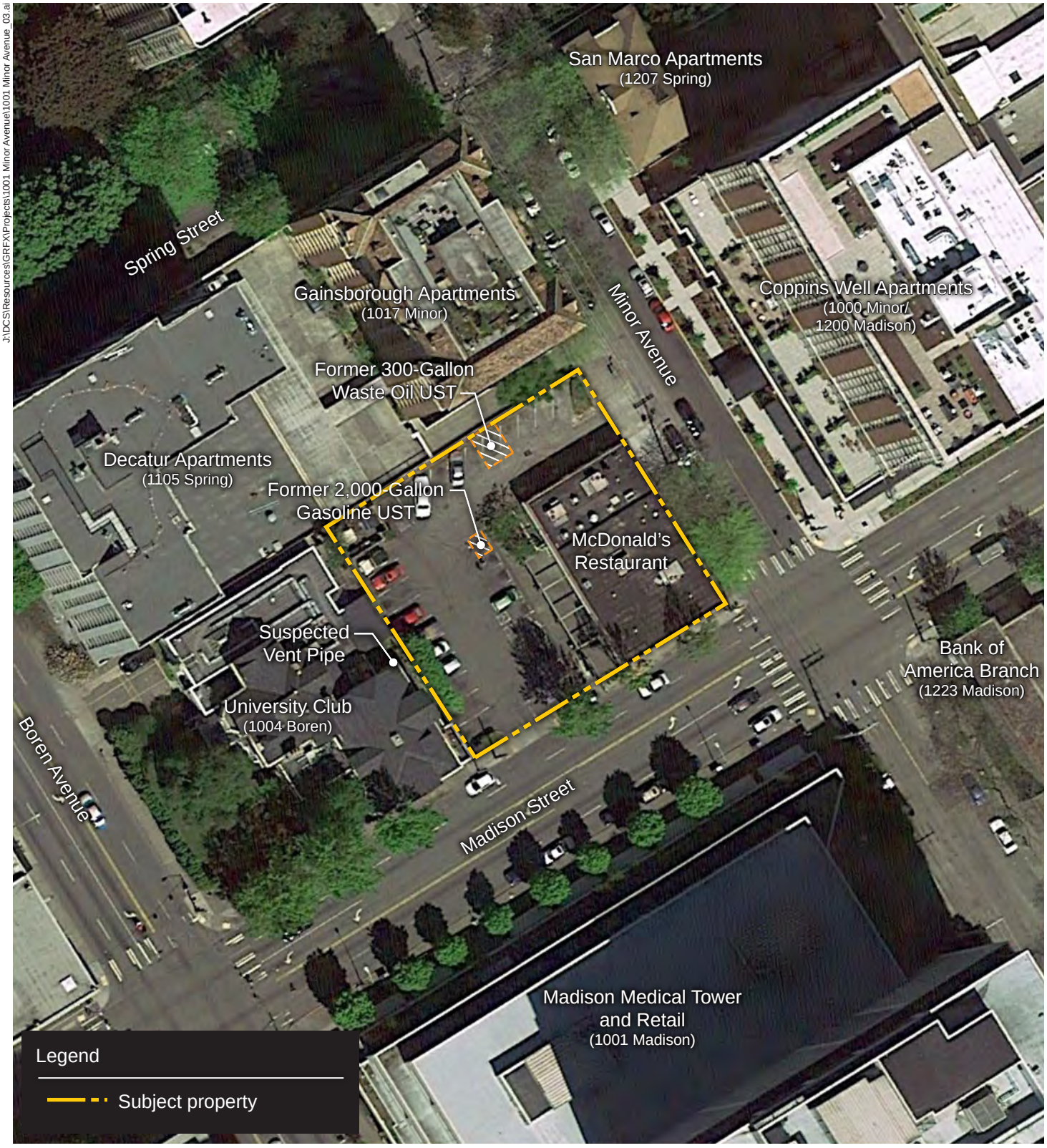
Figure 1

Site Location

AECOM

1001 Minor Avenue
Seattle, Washington

J:\DCS\Resources\GRFX\Projects\1001 Minor Avenue\1001 Minor Avenue_03.ai



Source: Google Earth Pro

0 60 120

Approximate Scale in Feet

Figure 2

Site Vicinity

AECOM

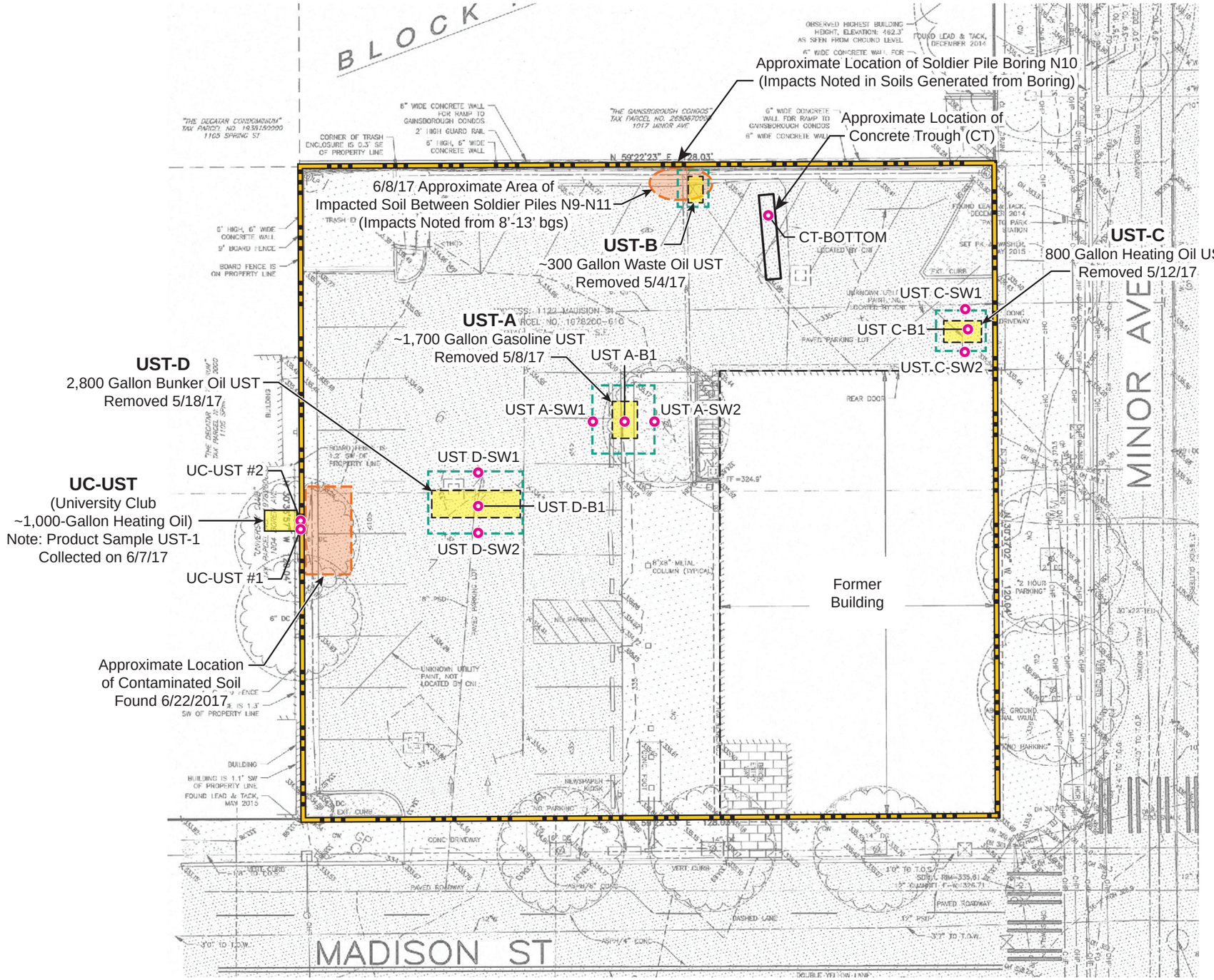
1001 Minor Avenue
Seattle, Washington

Source: Google Earth Pro

Figure 3

Phase II ESA Boring and Geophysical Survey Locations

J:\DCS\Resources\GRFX\Projects\1001 Minor Avenue\1001 Minor Avenue_04.ai



Legend

- Subject property boundary
- Approximate extent of UST excavation
- Approximate location of UST
- Approximate location of impacted soil, removed
- Approximate location of confirmation sample location

0 20 40

Scale in Feet

Source: ESM Consulting Engineers, 2015

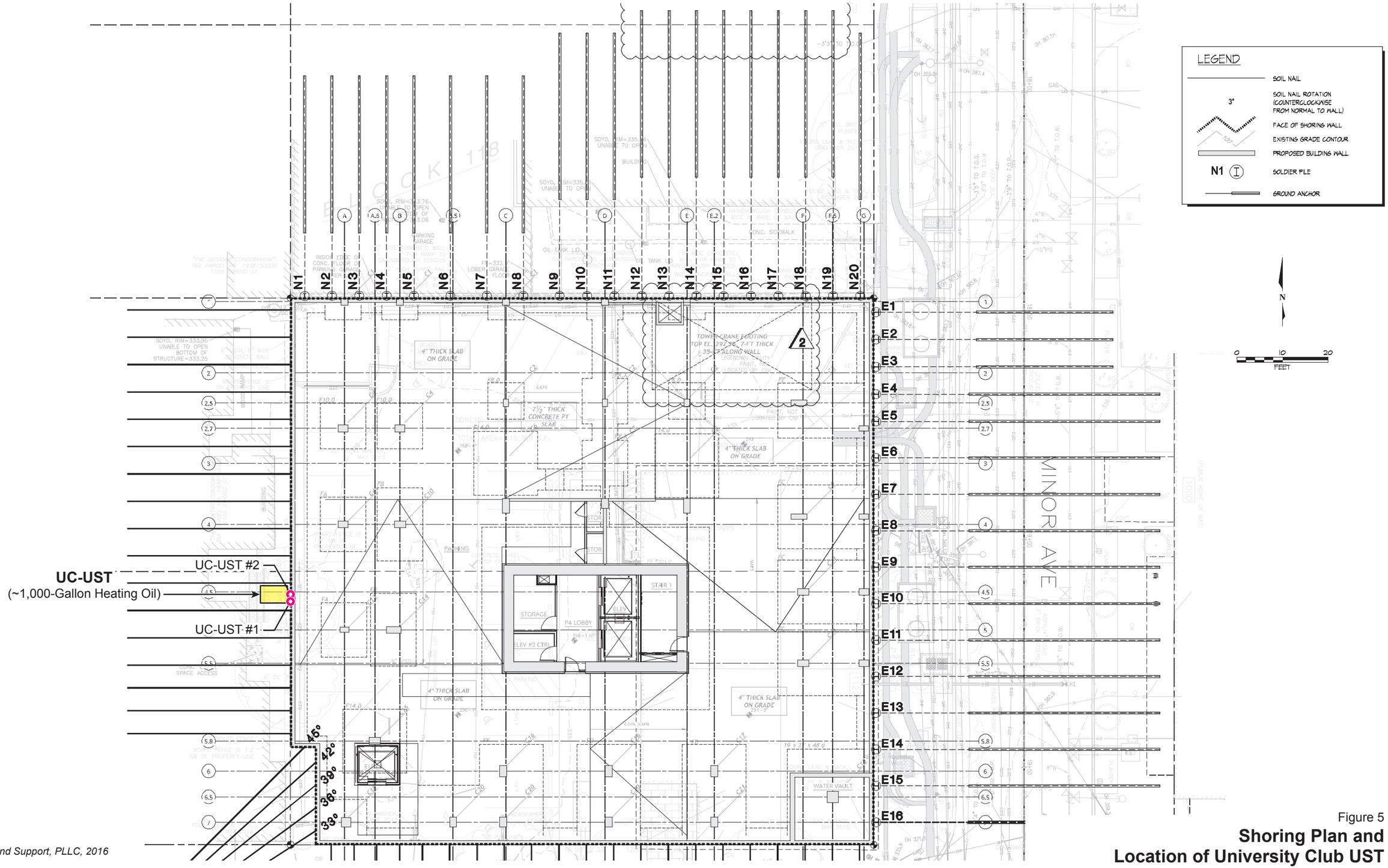
Figure 4

Site Plan

AECOM

1001 Minor Avenue
Seattle, Washington

J:\DCS\Resources\GRFX\Projects\1001 Minor Avenue\1001 Minor Avenue_06.ai



Source: Ground Support, PLLC, 2016

Figure 5

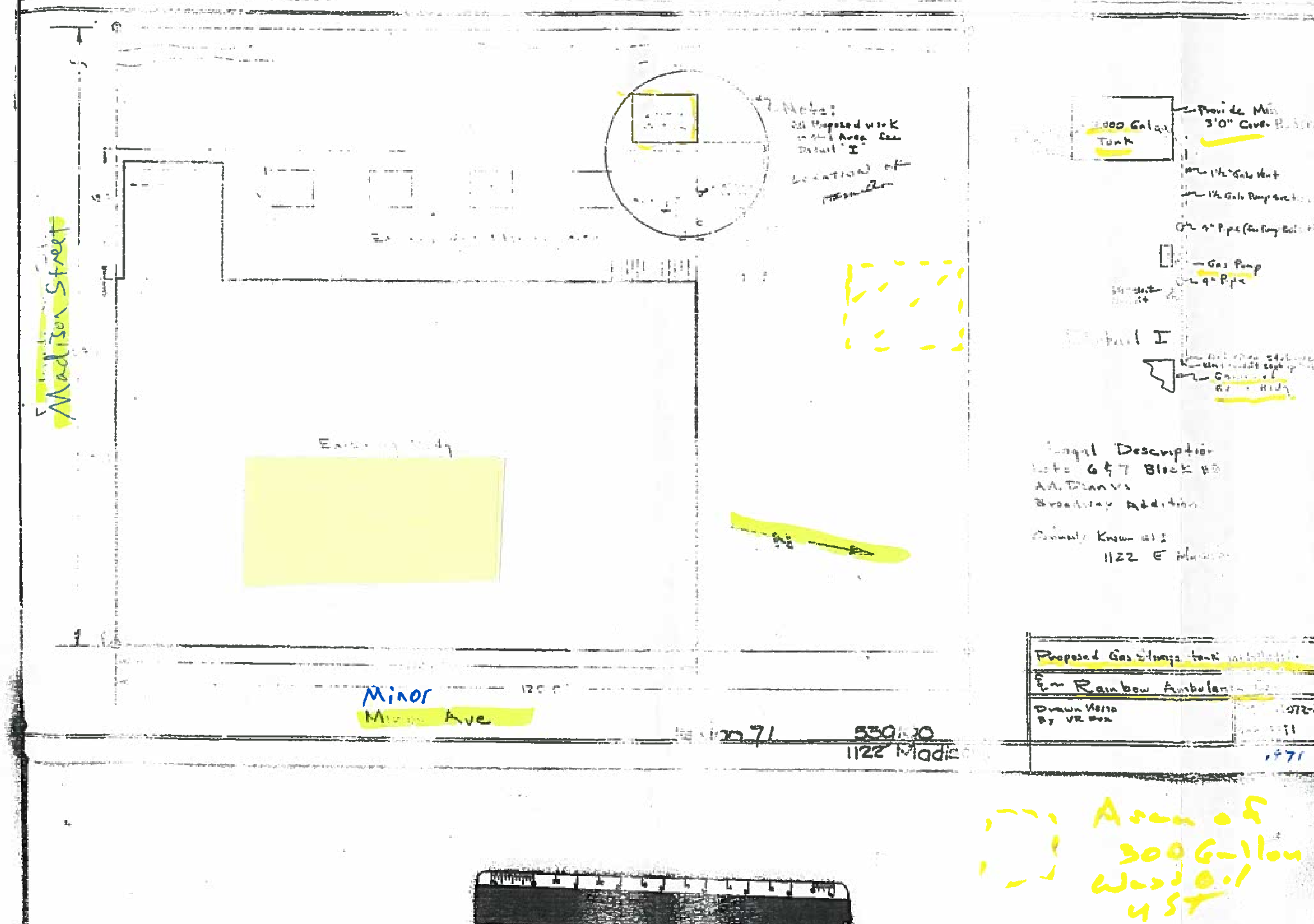
Shoring Plan and Location of University Club UST

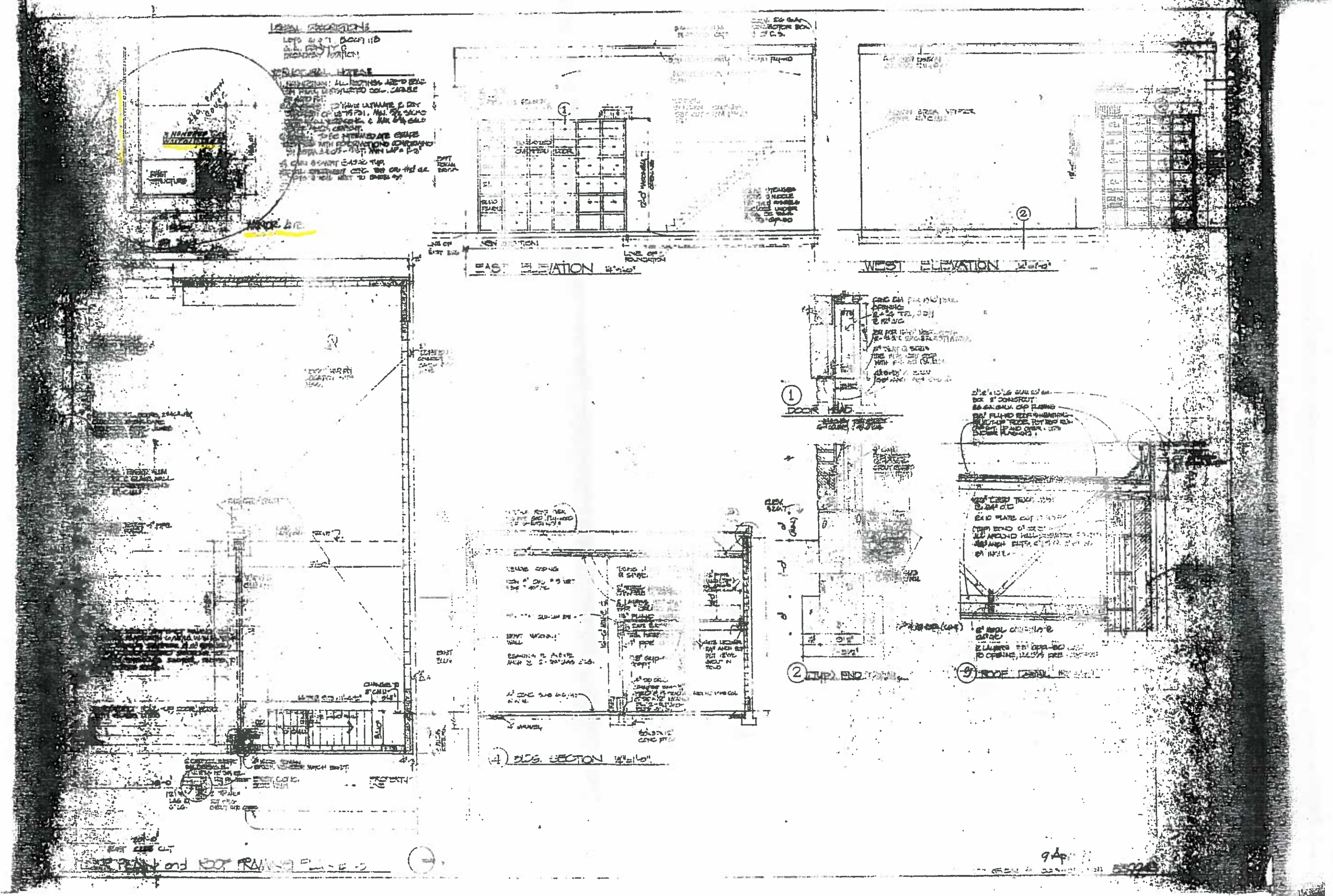
Appendix A

LOT Por. of NE¼ of Sec.32-25-4 LOR
BLK GG
ADD BC

Mushroom Supply

BUILDING PERMIT NO.	DATE	EST. COST	WORK	STO.	SIZE	CONST.	OCCUPANCY
538335	1970	1,100	Erect & maint. signs				J-3 Sign
538543	1970	800	Erect & maint. sign				J-3 Sign
539190	1971	800	Install 2,000 gal. underground gasoline storage tank				Steel tank
539222	1971	20,000	Const. addition	1	37.5x51	III-1 Hr	G - Office F-1 Garage
539948	1971	100	Install waste oil tank			Steel Tank	F-1 Tank
547026	1972	600	Alter int. exist. bldg.	1-B		III-1 Hr.	G-Office F-1 Garage
548164	1973	1000	Alt. int. exist. bldg.	1		III 1 Hr.	B-Office F-1 Garage


Madison Street
Minor
Ave
Note:
All Proposed work in this Area See Detail "I"
Tank
Provide Min 3'0" Cover
Gas Pump
Detail I
Legal Description
Lots 6 & 7 Block 83
A.A. Denny's
Broadway Addition
1122 E
Proposed Gas Storage tank
Rainbow Ambulance
1122 Madis
Area of 300 Gallon Waste Oil UST


EAST ELEVATION
WEST ELEVATION
DOOR HEAD
4 BLDG. SECTION

TRUS JOIST NORTHWEST,
formerly,

CONSTRUCTION COMPONENTS INC.

PORTLAND, OREGON 97225
P. O. Box 25307
Phone: 292-8828

MERCER ISLAND, WASHINGTON 98040
P. O. Box 575
Phone: 232-8815

TRANSMITTAL

TO: CITY OF SEATTLE
DEPARTMENT OF BUILDINGS
SEATTLE MUNICIPAL BUILDING
600 - 4th
SEATTLE, Washington 98104

FROM: MIKE CARR

DATE: February 9, 1971

NUMBER: TW-2394

PROJECT: RAINBOW AMBULANCE GARAGE

LOCATION: Seattle, Washington

(X) The attached 3 sets of ~~xxxx~~ detail drawings w/computer joints submitted for your:

(X) Approval

( ) Information

( ) Fabrication

( ) Please sign and return one set with any corrections marked in RED pencil. Your signature, even though it may signify that corrections are required, advises us of your acceptance of these drawings covering our interpretation of the applicable specifications, design, and other details shown thereon. NOTE: Before we can release your job to production, we must have one copy of these drawings returned to us with your signed approval. Fabrication cannot begin until signed, approved copy is received.

( ) Please sign and return to us one copy of the enclosed sales order.

( ) Please advise your desired delivery date.

( ) Others

CONSTRUCTION COMPONENTS, INC.

By MIKE CARR

CITY OF SEATTLE
DEPARTMENT OF BUILDINGS
MAR - 2 1971
Approved Subject to Errors and Omissions
By

f'_c = 2200 PSI

L2D

L3

One copy

Ambulance Garage
Madison Street
Washington

539-222
Seattle Lumber Co.

Job No. #8164

71-94

Appendix B

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 www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: 1001 Minor Avenue Property	
Facility/Site Address: 1001 Minor Avenue, Seattle, WA 98104	
Facility/Site No:	VCP Project No.:

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: David Raubvogel			Title: Senior Geologist
Organization: AECOM			
Mailing address: 1111 3rd Avenue, Suite # 1600			
City: Seattle		State: WA	Zip code: 98101
Phone: 206-438-2284	Fax:	E-mail: david.raubvogel@aecom.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 "UKNOWN,"** 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[#] undeveloped[±] 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[#] undeveloped[±] 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?

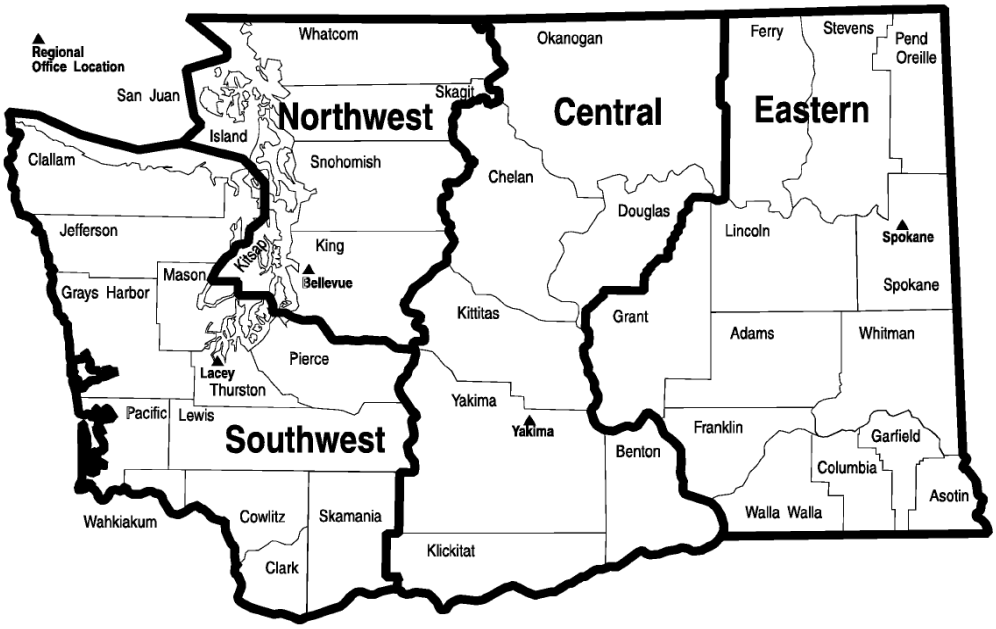
☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ 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.

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



Appendix C

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **UST-A**	**Date:** 5-4-17	
Description: Exposed top of UST - A west of building footprint. Note piping on left side of tank.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID	**Date:** 5-4-17	
Description: 300 gallon UST - B being loaded onto a truck for recycling.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **UST-B**	**Date:** 5-4-17	
Description: Location of 300 gallon UST (UST – B) following removal on the northern property boundary. Pea gravel noted in the tank in cavity.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **A**	**Date:** 5-8-17	
Description: Exposed 1,700 gallon tank (UST – A) located in central portion of Site.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **N/A**	**Date:** 5-8-17	
Description: 1,700 gallon UST (UST A) being loaded onto truck for offsite disposal		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **UST-C**	**Date:** 5-12-17	
Description: UST-C (800 gallon) being removed from the excavation. Water in pit was from surface water, not groundwater. View to the southwest.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **UST-C**	**Date:** 5-12-17	
Description: Tank cavity of the 800 gallon heating oil UST (UST-C). Contamination was not evident.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **UST-D**	**Date:** 5-18-17	
Description: Filco and MarVac pumping out bunker oil from UST – D tank location.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **UST-D**	**Date:** 5-18-17	
Description: Exposing the 2800 gallon Bunker oil tank (UST-D). View is to the southeast.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **UST-C**	**Date:** 5-18-17	
Description: Removing UST-D, note riveted tank seams. Hole in the end of tank created by tank removal contractor to access the interior of tank. View to the south (Madison St).		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **UST-D**	**Date:** 5-18-17	
Description: Base of the excavation following tank removal of UST – D.		

1001 Minor Avenue		UST Decommissioning Monitoring 1001 Minor Avenue, Seattle, Washington
Location ID **NA**	**Date:** 5-18-17	
Description: UST-D loaded on Filco truck. View to the northwest.		

1001 Minor Avenue	**UST Decommissioning Monitoring** **1001 Minor Avenue, Seattle, Washington**
Date: 6-2-17	
Description: Stockpile of impacted soil from soldier pile drilling (Soldier Pile N10). View to the West	

University Club		UST Site Assessment – University Club 1004 Boren Avenue, Seattle, Washington
Location ID UC-UST	**Date:** 6-6-17	
Description: Location of UST exposed during tieback drilling (UC-UST). Shoring box used for access to UST). View to the west, University Club building in background.		

University Club		UST Site Assessment – University Club 1004 Boren Avenue, Seattle, Washington
Location ID **UC-UST**	**Date:** 6-9-17	
Description: University Club tank being pumped out, the east end of the tank exposed in sidewall of excavation. Trench box used to shore excavation walls. View to the west.		

1001 Minor Avenue	**Soil Monitoring at 1001 Minor Ave** **1001 Minor Avenue, Seattle, Washington**
Date: 6-8-17	
Description: North wall of foundation excavation at soldier piles N9 – N11. Grey soils appeared to be associated with UST-B. View to the north.	

1001 Minor Avenue	**Soil Monitoring at 1001 Minor Ave** **1001 Minor Avenue, Seattle, Washington**
Date: 6-8-17	
Description: View looking down from the north wall of the excavation at piles N9 – N11. Note grey discoloration near base of the excavation.	

1001 Minor Avenue	**Soil Monitoring at 1001 Minor Ave** **1001 Minor Avenue, Seattle, Washington**
Date: 6-22-17	
Description: Stockpiled soil from excavation along west side of property. University Club building in background, view to the southwest. Excavator situated at the approximate location of the petroleum affected soils at an approximate elevation of 327 ft. (msl)	

1001 Minor Avenue	**Soil Monitoring at 1001 Minor Ave** **1001 Minor Avenue, Seattle, Washington**
Date: 6-22-17	
Description: View looking to the west at excavated area beneath the UC-UST at approximately 318 feet elevation, no contamination was noted in the in place soils at this elevation.	

1001 Minor Avenue	**Soil Monitoring at 1001 Minor Ave** **1001 Minor Avenue, Seattle, Washington**
Date: 7-11-17	
Description: View looking south. Lagging and shotcrete wall evident as excavation activities progress.	

1001 Minor Avenue	**Soil Monitoring at 1001 Minor** **1001 Minor Avenue, Seattle, Washington**
Date: 7-11-17	
Description: View of SE corner of Site (looking east).Stockpile of clean sandy soils removed for the foundation excavation well below the Site surface grade.	

Appendix D

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

AECOM
David Raubvogel
1111 3rd Avenue Suite 1600
Seattle, WA 98101

RE: 1001 Minor
Work Order Number: 1705089

May 11, 2017

Attention David Raubvogel:

Fremont Analytical, Inc. received 4 sample(s) on 5/8/2017 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260C

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *05/11/2017*

CLIENT: AECOM
Project: 1001 Minor
Work Order: 1705089

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1705089-001	UST A - B1	05/08/2017 10:55 AM	05/08/2017 12:55 PM
1705089-002	UST A - SW1	05/08/2017 11:00 AM	05/08/2017 12:55 PM
1705089-003	UST A - SW2	05/08/2017 11:05 AM	05/08/2017 12:55 PM
1705089-004	Trip Blank	05/03/2017 10:30 AM	05/08/2017 12:55 PM

Case Narrative

WO#: **1705089**
Date: **5/11/2017**

CLIENT: AECOM
Project: 1001 Minor

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1705089**
Date Reported: **5/11/2017**

Client: AECOM
Collection Date: 5/8/2017 10:55:00 AM
Project: 1001 Minor
Lab ID: 1705089-001
Matrix: Soil
Client Sample ID: **UST A - B1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 16993		Analyst: SB
Diesel (Fuel Oil)	ND	20.0		mg/Kg-dry	1	5/10/2017 1:15:06 AM
Heavy Oil	ND	49.9		mg/Kg-dry	1	5/10/2017 1:15:06 AM
Surr: 2-Fluorobiphenyl	108	50-150		%Rec	1	5/10/2017 1:15:06 AM
Surr: o-Terphenyl	107	50-150		%Rec	1	5/10/2017 1:15:06 AM
Gasoline by NWTPH-Gx				Batch ID: 16996		Analyst: NG
Gasoline	ND	5.53		mg/Kg-dry	1	5/9/2017 11:52:23 PM
Surr: 4-Bromofluorobenzene	104	65-135		%Rec	1	5/9/2017 11:52:23 PM
Surr: Toluene-d8	88.9	65-135		%Rec	1	5/9/2017 11:52:23 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 16996		Analyst: NG
Benzene	ND	0.0221		mg/Kg-dry	1	5/9/2017 11:52:23 PM
Toluene	ND	0.0221		mg/Kg-dry	1	5/9/2017 11:52:23 PM
Ethylbenzene	ND	0.0332		mg/Kg-dry	1	5/9/2017 11:52:23 PM
m,p-Xylene	ND	0.0221		mg/Kg-dry	1	5/9/2017 11:52:23 PM
o-Xylene	ND	0.0221		mg/Kg-dry	1	5/9/2017 11:52:23 PM
Surr: Dibromofluoromethane	105	56.5-129		%Rec	1	5/9/2017 11:52:23 PM
Surr: Toluene-d8	102	64.5-151		%Rec	1	5/9/2017 11:52:23 PM
Surr: 1-Bromo-4-fluorobenzene	115	63.1-141		%Rec	1	5/9/2017 11:52:23 PM
Sample Moisture (Percent Moisture)				Batch ID: R36007		Analyst: CG
Percent Moisture	9.41	0.500		wt%	1	5/9/2017 12:04:45 PM

Analytical Report

Work Order: **1705089**
Date Reported: **5/11/2017**

Client: AECOM
Collection Date: 5/8/2017 11:00:00 AM
Project: 1001 Minor
Lab ID: 1705089-002
Matrix: Soil
Client Sample ID: **UST A - SW1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 16993		Analyst: SB
Diesel (Fuel Oil)	ND	19.9		mg/Kg-dry	1	5/10/2017 4:24:00 AM
Heavy Oil	ND	49.9		mg/Kg-dry	1	5/10/2017 4:24:00 AM
Surr: 2-Fluorobiphenyl	110	50-150		%Rec	1	5/10/2017 4:24:00 AM
Surr: o-Terphenyl	107	50-150		%Rec	1	5/10/2017 4:24:00 AM
Gasoline by NWTPH-Gx				Batch ID: 16996		Analyst: NG
Gasoline	ND	5.88		mg/Kg-dry	1	5/10/2017 12:22:29 AM
Surr: 4-Bromofluorobenzene	105	65-135		%Rec	1	5/10/2017 12:22:29 AM
Surr: Toluene-d8	96.3	65-135		%Rec	1	5/10/2017 12:22:29 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 16996		Analyst: NG
Benzene	ND	0.0235		mg/Kg-dry	1	5/10/2017 12:22:29 AM
Toluene	ND	0.0235		mg/Kg-dry	1	5/10/2017 12:22:29 AM
Ethylbenzene	ND	0.0353		mg/Kg-dry	1	5/10/2017 12:22:29 AM
m,p-Xylene	ND	0.0235		mg/Kg-dry	1	5/10/2017 12:22:29 AM
o-Xylene	ND	0.0235		mg/Kg-dry	1	5/10/2017 12:22:29 AM
Surr: Dibromofluoromethane	102	56.5-129		%Rec	1	5/10/2017 12:22:29 AM
Surr: Toluene-d8	101	64.5-151		%Rec	1	5/10/2017 12:22:29 AM
Surr: 1-Bromo-4-fluorobenzene	115	63.1-141		%Rec	1	5/10/2017 12:22:29 AM
Sample Moisture (Percent Moisture)				Batch ID: R36007		Analyst: CG
Percent Moisture	11.4	0.500		wt%	1	5/9/2017 12:04:45 PM

Analytical Report

Work Order: **1705089**
Date Reported: **5/11/2017**

Client: AECOM
Collection Date: 5/8/2017 11:05:00 AM
Project: 1001 Minor
Lab ID: 1705089-003
Matrix: Soil
Client Sample ID: **UST A - SW2**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 16993		Analyst: SB
Diesel (Fuel Oil)	ND	19.0		mg/Kg-dry	1	5/10/2017 4:55:22 AM
Heavy Oil	ND	47.5		mg/Kg-dry	1	5/10/2017 4:55:22 AM
Surr: 2-Fluorobiphenyl	99.9	50-150		%Rec	1	5/10/2017 4:55:22 AM
Surr: o-Terphenyl	101	50-150		%Rec	1	5/10/2017 4:55:22 AM
Gasoline by NWTPH-Gx				Batch ID: 16996		Analyst: NG
Gasoline	ND	5.47		mg/Kg-dry	1	5/10/2017 12:52:31 AM
Surr: 4-Bromofluorobenzene	108	65-135		%Rec	1	5/10/2017 12:52:31 AM
Surr: Toluene-d8	92.8	65-135		%Rec	1	5/10/2017 12:52:31 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 16996		Analyst: NG
Benzene	ND	0.0219		mg/Kg-dry	1	5/10/2017 12:52:31 AM
Toluene	ND	0.0219		mg/Kg-dry	1	5/10/2017 12:52:31 AM
Ethylbenzene	ND	0.0328		mg/Kg-dry	1	5/10/2017 12:52:31 AM
m,p-Xylene	ND	0.0219		mg/Kg-dry	1	5/10/2017 12:52:31 AM
o-Xylene	ND	0.0219		mg/Kg-dry	1	5/10/2017 12:52:31 AM
Surr: Dibromofluoromethane	105	56.5-129		%Rec	1	5/10/2017 12:52:31 AM
Surr: Toluene-d8	118	64.5-151		%Rec	1	5/10/2017 12:52:31 AM
Surr: 1-Bromo-4-fluorobenzene	97.4	63.1-141		%Rec	1	5/10/2017 12:52:31 AM
Sample Moisture (Percent Moisture)				Batch ID: R36007		Analyst: CG
Percent Moisture	7.88	0.500		wt%	1	5/9/2017 12:04:45 PM

Work Order: 1705089
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **MB-16993**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **5/9/2017**	RunNo: **36017**
Client ID: **MBLKS**	Batch ID: **16993**		Analysis Date: **5/9/2017**	SeqNo: **689924**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	19.7		20.00		98.6	50	150				
Surr: o-Terphenyl	20.0		20.00		100	50	150				

Sample ID **LCS-16993**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **5/9/2017**	RunNo: **36017**
Client ID: **LCSS**	Batch ID: **16993**		Analysis Date: **5/9/2017**	SeqNo: **689923**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	497	20.0	500.0	0	99.4	65	135				
Surr: 2-Fluorobiphenyl	20.9		20.00		105	50	150				
Surr: o-Terphenyl	22.9		20.00		115	50	150				

Sample ID **1705089-001ADUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **5/9/2017**	RunNo: **36017**
Client ID: **UST A - B1**	Batch ID: **16993**		Analysis Date: **5/10/2017**	SeqNo: **690626**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.6						0		30	
Heavy Oil	ND	51.5						0		30	
Surr: 2-Fluorobiphenyl	21.2		20.61		103	50	150		0		
Surr: o-Terphenyl	20.9		20.61		101	50	150		0		

Sample ID **1705089-001AMS**	SampType: **MS**	Units: **mg/Kg-dry**	Prep Date: **5/9/2017**	RunNo: **36017**
Client ID: **UST A - B1**	Batch ID: **16993**		Analysis Date: **5/10/2017**	SeqNo: **690627**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	529	20.8	519.2	0	102	65	135				
Surr: 2-Fluorobiphenyl	22.6		20.77		109	50	150				
Surr: o-Terphenyl	24.7		20.77		119	50	150				

Work Order: 1705089
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	**1705089-001AMS**	SampType:	**MS**	Units:	**mg/Kg-dry**	Prep Date:	**5/9/2017**	RunNo:	**36017**
Client ID:	**UST A - B1**	Batch ID:	**16993**			Analysis Date:	**5/10/2017**	SeqNo:	**690627**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	**1705089-001AMSD**	SampType:	**MSD**	Units:	**mg/Kg-dry**	Prep Date:	**5/9/2017**	RunNo:	**36017**
Client ID:	**UST A - B1**	Batch ID:	**16993**			Analysis Date:	**5/10/2017**	SeqNo:	**690628**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	533	20.8	521.2	0	102	65	135	528.7	0.749	30	
Surr: 2-Fluorobiphenyl	20.5		20.85		98.3	50	150		0		
Surr: o-Terphenyl	22.8		20.85		109	50	150		0		

Sample ID	**1705097-007ADUP**	SampType:	**DUP**	Units:	**mg/Kg-dry**	Prep Date:	**5/9/2017**	RunNo:	**36017**
Client ID:	**BATCH**	Batch ID:	**16993**			Analysis Date:	**5/10/2017**	SeqNo:	**690638**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	21.0						34.97	37.1	30	
Diesel Range Organics (C12-C24)	24.0	21.0						34.97	37.1	30	
Heavy Oil	ND	52.4						0		30	
Surr: 2-Fluorobiphenyl	21.8		20.97		104	50	150		0		
Surr: o-Terphenyl	21.3		20.97		101	50	150		0		

NOTES:
DRO - Indicates the presence of unresolved compounds eluting from dodecane through tetracosane (C12-C24).

Work Order: 1705089
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID	**LCS-16996**	SampType: **LCS**		Units: **mg/Kg**		Prep Date: **5/9/2017**		RunNo: **36034**			
Client ID:	**LCSS**	Batch ID: **16996**				Analysis Date: **5/9/2017**		SeqNo: **690190**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	25.6	5.00	25.00	0	102	65	135				
Surr: Toluene-d8	1.24		1.250		99.0	65	135				
Surr: 4-Bromofluorobenzene	1.31		1.250		105	65	135				

Sample ID	**MB-16996**	SampType: **MBLK**		Units: **mg/Kg**		Prep Date: **5/9/2017**		RunNo: **36034**			
Client ID:	**MBLKS**	Batch ID: **16996**				Analysis Date: **5/9/2017**		SeqNo: **690191**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.00									
Surr: Toluene-d8	1.20		1.250		96.4	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		102	65	135				

Sample ID	**1705075-001BDUP**	SampType: **DUP**		Units: **mg/Kg-dry**		Prep Date: **5/9/2017**		RunNo: **36034**			
Client ID:	**BATCH**	Batch ID: **16996**				Analysis Date: **5/9/2017**		SeqNo: **690172**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	6.95						0		30	
Surr: Toluene-d8	1.74		1.737		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.66		1.737		95.6	65	135		0		

Sample ID	**1705089-003BDUP**	SampType: **DUP**		Units: **mg/Kg-dry**		Prep Date: **5/9/2017**		RunNo: **36034**			
Client ID:	**UST A - SW2**	Batch ID: **16996**				Analysis Date: **5/10/2017**		SeqNo: **690177**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.47						0		30	
Surr: Toluene-d8	1.41		1.366		103	65	135		0		
Surr: 4-Bromofluorobenzene	1.41		1.366		103	65	135		0		

Work Order: 1705089
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID **1705097-003BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/9/2017** RunNo: **36034**
Client ID: **BATCH** Batch ID: **16996** Analysis Date: **5/10/2017** SeqNo: **690192**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	23.3	5.13	25.65	0	90.8	65	135				
Surr: Toluene-d8	1.30		1.283		101	65	135				
Surr: 4-Bromofluorobenzene	1.32		1.283		103	65	135				

Sample ID **1705097-003BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/9/2017** RunNo: **36034**
Client ID: **BATCH** Batch ID: **16996** Analysis Date: **5/10/2017** SeqNo: **690193**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	18.4	5.13	25.65	0	71.9	65	135	23.29	23.3	30	
Surr: Toluene-d8	1.30		1.283		101	65	135		0		
Surr: 4-Bromofluorobenzene	1.32		1.283		103	65	135		0		

Work Order: 1705089
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID **1705091-001ADUP** SampType: **DUP** Units: **wt%** Prep Date: **5/9/2017** RunNo: **36007**
Client ID: **BATCH** Batch ID: **R36007** Analysis Date: **5/9/2017** SeqNo: **689792**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	21.1	0.500						21.65	2.42	20	

Work Order: 1705089
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **LCS-16996** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/9/2017** RunNo: **36033**
Client ID: **LCSS** Batch ID: **16996** Analysis Date: **5/9/2017** SeqNo: **690169**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.29	0.0200	1.000	0	129	64.3	133				
Toluene	1.05	0.0200	1.000	0	105	67.3	138				
Ethylbenzene	1.12	0.0300	1.000	0	112	74	129				
m,p-Xylene	2.05	0.0200	2.000	0	102	70	124				
o-Xylene	1.05	0.0200	1.000	0	105	68.1	139				
Surr: Dibromofluoromethane	1.39		1.250		111	56.5	129				
Surr: Toluene-d8	1.39		1.250		111	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.56		1.250		125	63.1	141				

Sample ID **MB-16996** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/9/2017** RunNo: **36033**
Client ID: **MBLKS** Batch ID: **16996** Analysis Date: **5/9/2017** SeqNo: **690170**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Surr: Dibromofluoromethane	1.26		1.250		101	56.5	129				
Surr: Toluene-d8	1.21		1.250		96.6	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.16		1.250		92.8	63.1	141				

Sample ID **1705075-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/9/2017** RunNo: **36033**
Client ID: **BATCH** Batch ID: **16996** Analysis Date: **5/9/2017** SeqNo: **690151**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0278						0		30	
Toluene	ND	0.0278						0		30	
Ethylbenzene	ND	0.0417						0		30	
m,p-Xylene	ND	0.0278						0		30	

Work Order: 1705089
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1705075-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/9/2017** RunNo: **36033**
Client ID: **BATCH** Batch ID: **16996** Analysis Date: **5/9/2017** SeqNo: **690151**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.0278						0		30	
Surr: Dibromofluoromethane	1.55		1.737		89.3	56.5	129		0		
Surr: Toluene-d8	1.70		1.737		97.7	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.65		1.737		95.0	63.1	141		0		

Sample ID **1705089-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/9/2017** RunNo: **36033**
Client ID: **UST A - SW2** Batch ID: **16996** Analysis Date: **5/10/2017** SeqNo: **690158**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0219						0		30	
Toluene	ND	0.0219						0		30	
Ethylbenzene	ND	0.0328						0		30	
m,p-Xylene	ND	0.0219						0		30	
o-Xylene	ND	0.0219						0		30	
Surr: Dibromofluoromethane	1.21		1.366		88.2	56.5	129		0		
Surr: Toluene-d8	1.27		1.366		93.2	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.39		1.366		101	63.1	141		0		

Sample ID **1705089-001BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/9/2017** RunNo: **36033**
Client ID: **UST A - B1** Batch ID: **16996** Analysis Date: **5/10/2017** SeqNo: **690154**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.17	0.0221	1.106	0	106	63.5	133				
Toluene	1.11	0.0221	1.106	0	100	63.4	132				
Ethylbenzene	1.27	0.0332	1.106	0	115	54.5	134				
m,p-Xylene	2.62	0.0221	2.212	0	118	53.1	132				
o-Xylene	1.28	0.0221	1.106	0	116	53.3	139				
Surr: Dibromofluoromethane	1.25		1.382		90.1	56.5	129				
Surr: Toluene-d8	1.43		1.382		103	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.62		1.382		118	63.1	141				

Work Order: 1705089
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1705089-001BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/9/2017** RunNo: **36033**
Client ID: **UST A - B1** Batch ID: **16996** Analysis Date: **5/10/2017** SeqNo: **690154**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID **1705089-001BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/9/2017** RunNo: **36033**
Client ID: **UST A - B1** Batch ID: **16996** Analysis Date: **5/10/2017** SeqNo: **690155**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.20	0.0221	1.106	0	109	63.5	133	1.167	2.86	30	
Toluene	1.02	0.0221	1.106	0	91.8	63.4	132	1.105	8.52	30	
Ethylbenzene	1.29	0.0332	1.106	0	117	54.5	134	1.268	1.85	30	
m,p-Xylene	2.39	0.0221	2.212	0	108	53.1	132	2.615	8.85	30	
o-Xylene	0.970	0.0221	1.106	0	87.7	53.3	139	1.285	27.9	30	
Surr: Dibromofluoromethane	1.31		1.382		94.5	56.5	129		0		
Surr: Toluene-d8	1.22		1.382		88.6	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.69		1.382		123	63.1	141		0		

Sample Log-In Check List

Client Name:	**URS**	Work Order Number:	**1705089**
Logged by:	**Clare Griggs**	Date Received:	**5/8/2017 12:55:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes	☑	No ☐	Not Present	☐
2.	How was the sample delivered?	Client				

Log In

3.	Coolers are present?	Yes	☑	No ☐	NA	☐
4.	Shipping container/cooler in good condition?	Yes	☑	No ☐		
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes	☐	No ☐	Not Required	☑
6.	Was an attempt made to cool the samples?	Yes	☑	No ☐	NA	☐
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes	☑	No ☐	NA	☐
8.	Sample(s) in proper container(s)?	Yes	☑	No ☐		
9.	Sufficient sample volume for indicated test(s)?	Yes	☑	No ☐		
10.	Are samples properly preserved?	Yes	☑	No ☐		
11.	Was preservative added to bottles?	Yes	☐	No ☑	NA	☐
12.	Is there headspace in the VOA vials?	Yes	☐	No ☐	NA	☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes	☑	No ☐		
14.	Does paperwork match bottle labels?	Yes	☑	No ☐		
15.	Are matrices correctly identified on Chain of Custody?	Yes	☑	No ☐		
16.	Is it clear what analyses were requested?	Yes	☑	No ☐		
17.	Were all holding times able to be met?	Yes	☑	No ☐		

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes	☐	No ☐	NA	☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	2.1
Sample	1.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 5-8-17 | Page: | of:

Laboratory Project No (internal): 1705089

Project Name: 1001 Minor

Special Remarks:

Client: AECOM

Project No:

Address: 1111 3rd Ave ste 1600

Collected by: Demetrio Cabrilla

City, State, Zip: Seattle, WA, 98101

Location: Seattle, WA

Telephone: 206-438-2700

Report To (PM): David Rzubogel

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email: david.rzubogel@aecom.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	UST A-B1	5-8-17	1055	S		x			x									
2	UST A-SW1	↓	1100	S		x			x									
3	UST A-SW2	↓	1105	S		x			x									
4																		
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x	5-8-17 / 1255	x	5/8/2017 1255
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☒ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day _____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

AECOM
David Raubvogel
1111 3rd Avenue Suite 1600
Seattle, WA 98101

RE: 1001 Minor
Work Order Number: 1705159

May 22, 2017

Attention David Raubvogel:

Fremont Analytical, Inc. received 5 sample(s) on 5/15/2017 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260C

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *05/22/2017*

CLIENT: AECOM
Project: 1001 Minor
Work Order: 1705159

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1705159-001	UST C - SW 1	05/12/2017 8:20 AM	05/15/2017 9:05 AM
1705159-002	UST C - SW 2	05/12/2017 9:00 AM	05/15/2017 9:05 AM
1705159-003	UST C - B 1	05/12/2017 1:30 PM	05/15/2017 9:05 AM
1705159-004	CT - Bottom	05/15/2017 8:10 AM	05/15/2017 9:05 AM
1705159-005	CT - Stockpile	05/15/2017 8:15 AM	05/15/2017 9:05 AM

Case Narrative

WO#: **1705159**

Date: **5/22/2017**

CLIENT: AECOM
Project: 1001 Minor

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1705159**
Date Reported: **5/22/2017**

Client: AECOM
Collection Date: 5/12/2017 8:20:00 AM
Project: 1001 Minor
Lab ID: 1705159-001
Matrix: Soil
Client Sample ID: **UST C - SW 1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17044		Analyst: SB
Diesel (Fuel Oil)	ND	20.5		mg/Kg-dry	1	5/15/2017 10:41:23 PM
Heavy Oil	ND	51.3		mg/Kg-dry	1	5/15/2017 10:41:23 PM
Surr: 2-Fluorobiphenyl	77.8	50-150		%Rec	1	5/15/2017 10:41:23 PM
Surr: o-Terphenyl	76.8	50-150		%Rec	1	5/15/2017 10:41:23 PM
Gasoline by NWTPH-Gx				Batch ID: 17085		Analyst: NG
Gasoline	ND	4.36		mg/Kg-dry	1	5/18/2017 5:07:31 PM
Surr: 4-Bromofluorobenzene	99.5	65-135		%Rec	1	5/18/2017 5:07:31 PM
Surr: Toluene-d8	101	65-135		%Rec	1	5/18/2017 5:07:31 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17085		Analyst: NG
Benzene	ND	0.0174		mg/Kg-dry	1	5/18/2017 5:07:31 PM
Toluene	ND	0.0174		mg/Kg-dry	1	5/18/2017 5:07:31 PM
Ethylbenzene	ND	0.0262		mg/Kg-dry	1	5/18/2017 5:07:31 PM
m,p-Xylene	ND	0.0174		mg/Kg-dry	1	5/18/2017 5:07:31 PM
o-Xylene	ND	0.0174		mg/Kg-dry	1	5/18/2017 5:07:31 PM
Surr: Dibromofluoromethane	92.3	56.5-129		%Rec	1	5/18/2017 5:07:31 PM
Surr: Toluene-d8	97.3	64.5-151		%Rec	1	5/18/2017 5:07:31 PM
Surr: 1-Bromo-4-fluorobenzene	95.9	63.1-141		%Rec	1	5/18/2017 5:07:31 PM
Sample Moisture (Percent Moisture)				Batch ID: R36134		Analyst: BB
Percent Moisture	11.7	0.500		wt%	1	5/15/2017 12:03:59 PM

Analytical Report

Work Order: **1705159**
Date Reported: **5/22/2017**

Client: AECOM
Collection Date: 5/12/2017 9:00:00 AM
Project: 1001 Minor
Lab ID: 1705159-002
Matrix: Soil
Client Sample ID: **UST C - SW 2**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17044		Analyst: SB
Diesel (Fuel Oil)	ND	21.6		mg/Kg-dry	1	5/15/2017 11:12:50 PM
Heavy Oil	ND	54.1		mg/Kg-dry	1	5/15/2017 11:12:50 PM
Surr: 2-Fluorobiphenyl	99.1	50-150		%Rec	1	5/15/2017 11:12:50 PM
Surr: o-Terphenyl	96.6	50-150		%Rec	1	5/15/2017 11:12:50 PM
Gasoline by NWTPH-Gx				Batch ID: 17085		Analyst: NG
Gasoline	ND	4.54		mg/Kg-dry	1	5/18/2017 8:04:04 AM
Surr: 4-Bromofluorobenzene	97.4	65-135		%Rec	1	5/18/2017 8:04:04 AM
Surr: Toluene-d8	101	65-135		%Rec	1	5/18/2017 8:04:04 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17085		Analyst: NG
Benzene	ND	0.0181		mg/Kg-dry	1	5/18/2017 8:04:04 AM
Toluene	ND	0.0181		mg/Kg-dry	1	5/18/2017 8:04:04 AM
Ethylbenzene	ND	0.0272		mg/Kg-dry	1	5/18/2017 8:04:04 AM
m,p-Xylene	ND	0.0181		mg/Kg-dry	1	5/18/2017 8:04:04 AM
o-Xylene	ND	0.0181		mg/Kg-dry	1	5/18/2017 8:04:04 AM
Surr: Dibromofluoromethane	89.2	56.5-129		%Rec	1	5/18/2017 8:04:04 AM
Surr: Toluene-d8	97.9	64.5-151		%Rec	1	5/18/2017 8:04:04 AM
Surr: 1-Bromo-4-fluorobenzene	93.9	63.1-141		%Rec	1	5/18/2017 8:04:04 AM
Sample Moisture (Percent Moisture)				Batch ID: R36134		Analyst: BB
Percent Moisture	12.9	0.500		wt%	1	5/15/2017 12:03:59 PM

Analytical Report

Work Order: **1705159**
Date Reported: **5/22/2017**

Client: AECOM
Collection Date: 5/12/2017 1:30:00 PM
Project: 1001 Minor
Lab ID: 1705159-003
Matrix: Soil
Client Sample ID: **UST C - B 1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17044		Analyst: SB
Diesel (Fuel Oil)	ND	20.9		mg/Kg-dry	1	5/15/2017 11:44:17 PM
Heavy Oil	ND	52.3		mg/Kg-dry	1	5/15/2017 11:44:17 PM
Surr: 2-Fluorobiphenyl	91.0	50-150		%Rec	1	5/15/2017 11:44:17 PM
Surr: o-Terphenyl	90.0	50-150		%Rec	1	5/15/2017 11:44:17 PM
Gasoline by NWTPH-Gx				Batch ID: 17085		Analyst: NG
Gasoline	ND	4.55		mg/Kg-dry	1	5/18/2017 5:36:17 PM
Surr: 4-Bromofluorobenzene	98.7	65-135		%Rec	1	5/18/2017 5:36:17 PM
Surr: Toluene-d8	102	65-135		%Rec	1	5/18/2017 5:36:17 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17085		Analyst: NG
Benzene	ND	0.0182		mg/Kg-dry	1	5/18/2017 5:36:17 PM
Toluene	ND	0.0182		mg/Kg-dry	1	5/18/2017 5:36:17 PM
Ethylbenzene	ND	0.0273		mg/Kg-dry	1	5/18/2017 5:36:17 PM
m,p-Xylene	ND	0.0182		mg/Kg-dry	1	5/18/2017 5:36:17 PM
o-Xylene	ND	0.0182		mg/Kg-dry	1	5/18/2017 5:36:17 PM
Surr: Dibromofluoromethane	90.9	56.5-129		%Rec	1	5/18/2017 5:36:17 PM
Surr: Toluene-d8	97.5	64.5-151		%Rec	1	5/18/2017 5:36:17 PM
Surr: 1-Bromo-4-fluorobenzene	95.2	63.1-141		%Rec	1	5/18/2017 5:36:17 PM
Sample Moisture (Percent Moisture)				Batch ID: R36134		Analyst: BB
Percent Moisture	10.2	0.500		wt%	1	5/15/2017 12:03:59 PM

Analytical Report

Work Order: **1705159**
Date Reported: **5/22/2017**

Client: AECOM
Collection Date: 5/15/2017 8:10:00 AM
Project: 1001 Minor
Lab ID: 1705159-004
Matrix: Soil
Client Sample ID: **CT - Bottom**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17044		Analyst: SB
Diesel (Fuel Oil)	ND	22.7		mg/Kg-dry	1	5/16/2017 12:15:46 AM
Heavy Oil	95.4	56.8		mg/Kg-dry	1	5/16/2017 12:15:46 AM
Surr: 2-Fluorobiphenyl	85.9	50-150		%Rec	1	5/16/2017 12:15:46 AM
Surr: o-Terphenyl	80.7	50-150		%Rec	1	5/16/2017 12:15:46 AM
Gasoline by NWTPH-Gx				Batch ID: 17047		Analyst: NG
Gasoline	ND	3.85		mg/Kg-dry	1	5/16/2017 11:42:39 AM
Surr: 4-Bromofluorobenzene	104	65-135		%Rec	1	5/16/2017 11:42:39 AM
Surr: Toluene-d8	95.5	65-135		%Rec	1	5/16/2017 11:42:39 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17047		Analyst: NG
Benzene	ND	0.0154		mg/Kg-dry	1	5/16/2017 11:42:39 AM
Toluene	ND	0.0154		mg/Kg-dry	1	5/16/2017 11:42:39 AM
Ethylbenzene	ND	0.0231		mg/Kg-dry	1	5/16/2017 11:42:39 AM
m,p-Xylene	ND	0.0154		mg/Kg-dry	1	5/16/2017 11:42:39 AM
o-Xylene	ND	0.0154		mg/Kg-dry	1	5/16/2017 11:42:39 AM
Surr: Dibromofluoromethane	96.0	56.5-129		%Rec	1	5/16/2017 11:42:39 AM
Surr: Toluene-d8	100	64.5-151		%Rec	1	5/16/2017 11:42:39 AM
Surr: 1-Bromo-4-fluorobenzene	116	63.1-141		%Rec	1	5/16/2017 11:42:39 AM
Sample Moisture (Percent Moisture)				Batch ID: R36134		Analyst: BB
Percent Moisture	14.5	0.500		wt%	1	5/15/2017 12:03:59 PM

Analytical Report

Work Order: **1705159**
Date Reported: **5/22/2017**

Client: AECOM
Collection Date: 5/15/2017 8:15:00 AM
Project: 1001 Minor
Lab ID: 1705159-005
Matrix: Soil
Client Sample ID: **CT - Stockpile**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17044		Analyst: SB
Diesel (Fuel Oil)	ND	21.2		mg/Kg-dry	1	5/16/2017 12:47:09 AM
Heavy Oil	2,190	106	D	mg/Kg-dry	2	5/16/2017 8:37:07 AM
Surr: 2-Fluorobiphenyl	89.3	50-150		%Rec	1	5/16/2017 12:47:09 AM
Surr: o-Terphenyl	90.8	50-150		%Rec	1	5/16/2017 12:47:09 AM
Gasoline by NWTPH-Gx				Batch ID: 17047		Analyst: NG
Gasoline	ND	3.82		mg/Kg-dry	1	5/16/2017 12:12:51 PM
Surr: 4-Bromofluorobenzene	97.4	65-135		%Rec	1	5/16/2017 12:12:51 PM
Surr: Toluene-d8	103	65-135		%Rec	1	5/16/2017 12:12:51 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17047		Analyst: NG
Benzene	ND	0.0153		mg/Kg-dry	1	5/16/2017 12:12:51 PM
Toluene	ND	0.0153		mg/Kg-dry	1	5/16/2017 12:12:51 PM
Ethylbenzene	ND	0.0229		mg/Kg-dry	1	5/16/2017 12:12:51 PM
m,p-Xylene	ND	0.0153		mg/Kg-dry	1	5/16/2017 12:12:51 PM
o-Xylene	ND	0.0153		mg/Kg-dry	1	5/16/2017 12:12:51 PM
Surr: Dibromofluoromethane	88.0	56.5-129		%Rec	1	5/16/2017 12:12:51 PM
Surr: Toluene-d8	99.5	64.5-151		%Rec	1	5/16/2017 12:12:51 PM
Surr: 1-Bromo-4-fluorobenzene	96.2	63.1-141		%Rec	1	5/16/2017 12:12:51 PM
Sample Moisture (Percent Moisture)				Batch ID: R36134		Analyst: BB
Percent Moisture	16.6	0.500		wt%	1	5/15/2017 12:03:59 PM

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **MB-17044**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **5/15/2017**	RunNo: **36145**
Client ID: **MBLKS**	Batch ID: **17044**		Analysis Date: **5/15/2017**	SeqNo: **692326**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.2		20.00		91.0	50	150				
Surr: o-Terphenyl	17.4		20.00		87.0	50	150				

Sample ID **LCS-17044**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **5/15/2017**	RunNo: **36145**
Client ID: **LCSS**	Batch ID: **17044**		Analysis Date: **5/15/2017**	SeqNo: **692325**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	502	20.0	500.0	0	100	65	135				
Surr: 2-Fluorobiphenyl	19.4		20.00		97.1	50	150				
Surr: o-Terphenyl	21.8		20.00		109	50	150				

Sample ID **1705119-004ADUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **5/15/2017**	RunNo: **36145**
Client ID: **BATCH**	Batch ID: **17044**		Analysis Date: **5/16/2017**	SeqNo: **692313**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	34.0						0		30	
Diesel Range Organics (C12-C24)	ND	34.0						97.38	101	30	R
Heavy Oil	141	85.0						219.4	43.4	30	
Surr: 2-Fluorobiphenyl	37.5		34.00		110	50	150		0		
Surr: o-Terphenyl	38.8		34.00		114	50	150		0		

NOTES:
R - High RPD observed. The method is in control as indicated by the LCS.
DRO - Indicates the presence of unresolved compounds eluting from dodecane through tetracosane (C12-C24).

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **1705119-004AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36145**
Client ID: **BATCH** Batch ID: **17044** Analysis Date: **5/16/2017** SeqNo: **692314**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	1,220	33.9	846.6	97.38	133	65	135				
Surr: 2-Fluorobiphenyl	47.9		33.87		141	50	150				
Surr: o-Terphenyl	53.0		33.87		156	50	150				S

NOTES:
S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID **1705119-004AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36145**
Client ID: **BATCH** Batch ID: **17044** Analysis Date: **5/16/2017** SeqNo: **692315**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	1,270	33.9	848.3	97.38	139	65	135	1,224	3.91	30	S
Surr: 2-Fluorobiphenyl	42.7		33.93		126	50	150		0		
Surr: o-Terphenyl	46.4		33.93		137	50	150		0		

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID **1705140-007ADUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36145**
Client ID: **BATCH** Batch ID: **17044** Analysis Date: **5/17/2017** SeqNo: **692963**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	21.7						0		30	
Heavy Oil	ND	54.3						0		30	
Surr: 2-Fluorobiphenyl	21.1		21.70		97.3	50	150		0		
Surr: o-Terphenyl	21.4		21.70		98.4	50	150		0		

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID	**LCS-17085**	SampType: **LCS**		Units: **mg/Kg**		Prep Date: **5/17/2017**		RunNo: **36284**			
Client ID:	**LCSS**	Batch ID: **17085**				Analysis Date: **5/18/2017**		SeqNo: **695433**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	29.6	5.00	25.00	0	119	65	135				
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.23		1.250		98.7	65	135				

Sample ID	**MB-17085**	SampType: **MBLK**		Units: **mg/Kg**		Prep Date: **5/17/2017**		RunNo: **36284**			
Client ID:	**MBLKS**	Batch ID: **17085**				Analysis Date: **5/18/2017**		SeqNo: **695434**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.00									
Surr: Toluene-d8	1.28		1.250		102	65	135				
Surr: 4-Bromofluorobenzene	1.19		1.250		95.3	65	135				

Sample ID	**1705165-006BDUP**	SampType: **DUP**		Units: **mg/Kg-dry**		Prep Date: **5/17/2017**		RunNo: **36284**			
Client ID:	**BATCH**	Batch ID: **17085**				Analysis Date: **5/18/2017**		SeqNo: **695419**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.43						0		30	
Surr: Toluene-d8	1.39		1.357		103	65	135		0		
Surr: 4-Bromofluorobenzene	1.31		1.357		96.8	65	135		0		

Sample ID	**1705173-014ADUP**	SampType: **DUP**		Units: **mg/Kg**		Prep Date: **5/17/2017**		RunNo: **36284**			
Client ID:	**BATCH**	Batch ID: **17085**				Analysis Date: **5/18/2017**		SeqNo: **695429**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	7.37	3.34						7.450	1.09	30	
Surr: Toluene-d8	0.852		0.8353		102	65	135		0		
Surr: 4-Bromofluorobenzene	0.832		0.8353		99.6	65	135		0		

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID	**1705173-004AMS**	SampType:	**MS**	Units:	**mg/Kg**	Prep Date:	**5/17/2017**	RunNo:	**36284**
Client ID:	**BATCH**	Batch ID:	**17085**			Analysis Date:	**5/18/2017**	SeqNo:	**695423**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	10.5	2.51	12.54	0	83.5	65	135				
Surr: Toluene-d8	0.644		0.6270		103	65	135				
Surr: 4-Bromofluorobenzene	0.625		0.6270		99.6	65	135				

Sample ID	**1705173-004AMSD**	SampType:	**MSD**	Units:	**mg/Kg**	Prep Date:	**5/17/2017**	RunNo:	**36284**
Client ID:	**BATCH**	Batch ID:	**17085**			Analysis Date:	**5/18/2017**	SeqNo:	**695424**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	10.4	2.51	12.54	0	83.1	65	135	10.47	0.445	30	
Surr: Toluene-d8	0.636		0.6270		101	65	135		0		
Surr: 4-Bromofluorobenzene	0.619		0.6270		98.8	65	135		0		

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID	LCS-17047	SampType:	LCS	Units:	mg/Kg	Prep Date:	5/15/2017	RunNo:	36153
Client ID:	LCSS	Batch ID:	17047			Analysis Date:	5/15/2017	SeqNo:	692550

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	27.6	5.00	25.00	0	110	65	135				
Surr: Toluene-d8	1.18		1.250		94.8	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		102	65	135				

Sample ID	MB-17047	SampType:	MBLK	Units:	mg/Kg	Prep Date:	5/15/2017	RunNo:	36153
Client ID:	MBLKS	Batch ID:	17047			Analysis Date:	5/15/2017	SeqNo:	692551

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.00									
Surr: Toluene-d8	1.17		1.250		93.6	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		101	65	135				

Sample ID	1705151-004BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	5/15/2017	RunNo:	36153
Client ID:	BATCH	Batch ID:	17047			Analysis Date:	5/16/2017	SeqNo:	692539

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	6.78						0		30	
Surr: Toluene-d8	1.45		1.695		85.6	65	135		0		
Surr: 4-Bromofluorobenzene	1.87		1.695		110	65	135		0		

Sample ID	1705151-013BMS	SampType:	MS	Units:	mg/Kg-dry	Prep Date:	5/15/2017	RunNo:	36153
Client ID:	BATCH	Batch ID:	17047			Analysis Date:	5/16/2017	SeqNo:	692545

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	215	5.71	28.55	207.3	25.4	65	135				SE
Surr: Toluene-d8	1.29		1.427		90.4	65	135				
Surr: 4-Bromofluorobenzene	1.93		1.427		135	65	135				S

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID **1705151-013BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36153**
Client ID: **BATCH** Batch ID: **17047** Analysis Date: **5/16/2017** SeqNo: **692545**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
S - Analyte concentration was too high for accurate spike recovery(ies).
S - Outlying surrogate recovery attributed to TPH interference. The method is in control as indicated by the Method Blank (MB) & Laboratory Control Sample (LCS).
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID **1705151-013BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36153**
Client ID: **BATCH** Batch ID: **17047** Analysis Date: **5/16/2017** SeqNo: **692546**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	243	5.71	28.55	207.3	127	65	135	214.6	12.6	30	E
Surr: Toluene-d8	1.41		1.427		99.0	65	135		0		
Surr: 4-Bromofluorobenzene	1.95		1.427		136	65	135		0		S

NOTES:
S - Outlying surrogate recovery attributed to TPH interference. The method is in control as indicated by the Method Blank (MB) & Laboratory Control Sample (LCS).
E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID **1705143-001ADUP**	SampType: **DUP**			Units: **wt%**		Prep Date: **5/15/2017**		RunNo: **36134**		
Client ID: **BATCH**	Batch ID: **R36134**					Analysis Date: **5/15/2017**		SeqNo: **691982**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	11.3	0.500						10.82	4.68	20	

Sample ID **1705150-004ADUP**	SampType: **DUP**			Units: **wt%**		Prep Date: **5/15/2017**		RunNo: **36134**		
Client ID: **BATCH**	Batch ID: **R36134**					Analysis Date: **5/15/2017**		SeqNo: **691997**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	15.5	0.500						15.53	0.430	20	

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **LCS-17085** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/17/2017** RunNo: **36283**
Client ID: **LCSS** Batch ID: **17085** Analysis Date: **5/18/2017** SeqNo: **695334**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.07	0.0200	1.000	0	107	64.3	133				
Toluene	1.06	0.0200	1.000	0	106	67.3	138				
Ethylbenzene	1.06	0.0300	1.000	0	106	74	129				
m,p-Xylene	2.12	0.0200	2.000	0	106	70	124				
o-Xylene	1.06	0.0200	1.000	0	106	68.1	139				
Surr: Dibromofluoromethane	1.07		1.250		85.3	56.5	129				
Surr: Toluene-d8	1.27		1.250		101	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.32		1.250		106	63.1	141				

Sample ID **MB-17085** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/17/2017** RunNo: **36283**
Client ID: **MBLKS** Batch ID: **17085** Analysis Date: **5/18/2017** SeqNo: **695335**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Surr: Dibromofluoromethane	1.03		1.250		82.8	56.5	129				
Surr: Toluene-d8	1.23		1.250		98.3	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.15		1.250		92.2	63.1	141				

Sample ID **1705159-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/17/2017** RunNo: **36283**
Client ID: **UST C - SW 2** Batch ID: **17085** Analysis Date: **5/18/2017** SeqNo: **695313**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.916	0.0181	0.9070	0	101	63.5	133				
Toluene	0.894	0.0181	0.9070	0	98.6	63.4	132				
Ethylbenzene	0.896	0.0272	0.9070	0	98.7	54.5	134				
m,p-Xylene	1.80	0.0181	1.814	0	99.1	53.1	132				

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1705159-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/17/2017** RunNo: **36283**
Client ID: **UST C - SW 2** Batch ID: **17085** Analysis Date: **5/18/2017** SeqNo: **695313**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	0.896	0.0181	0.9070	0	98.8	53.3	139				
Surr: Dibromofluoromethane	1.13		1.134		100	56.5	129				
Surr: Toluene-d8	1.16		1.134		103	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.19		1.134		105	63.1	141				

Sample ID **1705159-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/17/2017** RunNo: **36283**
Client ID: **UST C - SW 2** Batch ID: **17085** Analysis Date: **5/18/2017** SeqNo: **695314**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.927	0.0181	0.9070	0	102	63.5	133	0.9163	1.16	30	
Toluene	0.912	0.0181	0.9070	0	101	63.4	132	0.8945	1.92	30	
Ethylbenzene	0.930	0.0272	0.9070	0	103	54.5	134	0.8955	3.77	30	
m,p-Xylene	1.85	0.0181	1.814	0	102	53.1	132	1.798	2.96	30	
o-Xylene	0.929	0.0181	0.9070	0	102	53.3	139	0.8961	3.55	30	
Surr: Dibromofluoromethane	1.10		1.134		97.2	56.5	129		0		
Surr: Toluene-d8	1.15		1.134		101	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.20		1.134		106	63.1	141		0		

Sample ID **1705165-006BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/17/2017** RunNo: **36283**
Client ID: **BATCH** Batch ID: **17085** Analysis Date: **5/18/2017** SeqNo: **695319**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0217						0		30	
Toluene	ND	0.0217						0		30	
Ethylbenzene	ND	0.0326						0		30	
m,p-Xylene	ND	0.0217						0		30	
o-Xylene	ND	0.0217						0		30	
Surr: Dibromofluoromethane	1.24		1.357		91.1	56.5	129		0		
Surr: Toluene-d8	1.32		1.357		97.6	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.27		1.357		93.4	63.1	141		0		

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1705165-006BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/17/2017** RunNo: **36283**
Client ID: **BATCH** Batch ID: **17085** Analysis Date: **5/18/2017** SeqNo: **695319**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID **1705173-014ADUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **5/17/2017** RunNo: **36283**
Client ID: **BATCH** Batch ID: **17085** Analysis Date: **5/18/2017** SeqNo: **695329**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0495	0.0134						0.04734	4.46	30	
Toluene	ND	0.0134						0		30	
Ethylbenzene	ND	0.0200						0		30	
m,p-Xylene	0.0350	0.0134						0.03561	1.76	30	
o-Xylene	ND	0.0134						0		30	
Surr: Dibromofluoromethane	0.762		0.8353		91.2	56.5	129		0		
Surr: Toluene-d8	0.843		0.8353		101	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	0.790		0.8353		94.5	63.1	141		0		

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **LCS-17047** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/15/2017** RunNo: **36152**
Client ID: **LCSS** Batch ID: **17047** Analysis Date: **5/15/2017** SeqNo: **692466**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.20	0.0200	1.000	0	120	64.3	133				
Toluene	1.17	0.0200	1.000	0	117	67.3	138				
Ethylbenzene	1.03	0.0300	1.000	0	103	74	129				
m,p-Xylene	2.01	0.0200	2.000	0	100	70	124				
o-Xylene	0.999	0.0200	1.000	0	99.9	68.1	139				
Surr: Dibromofluoromethane	1.39		1.250		111	56.5	129				
Surr: Toluene-d8	1.50		1.250		120	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.38		1.250		110	63.1	141				

Sample ID **MB-17047** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/15/2017** RunNo: **36152**
Client ID: **MBLKS** Batch ID: **17047** Analysis Date: **5/15/2017** SeqNo: **692467**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Surr: Dibromofluoromethane	1.32		1.250		105	56.5	129				
Surr: Toluene-d8	1.43		1.250		114	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.28		1.250		102	63.1	141				

Sample ID **1705134-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36152**
Client ID: **BATCH** Batch ID: **17047** Analysis Date: **5/15/2017** SeqNo: **692448**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0110						0		30	
Toluene	ND	0.0110						0		30	
Ethylbenzene	ND	0.0165						0		30	
m,p-Xylene	ND	0.0110						0		30	

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1705134-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36152**
Client ID: **BATCH** Batch ID: **17047** Analysis Date: **5/15/2017** SeqNo: **692448**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.0110						0		30	
Surr: Dibromofluoromethane	0.662		0.6879		96.3	56.5	129		0		
Surr: Toluene-d8	0.588		0.6879		85.4	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	0.740		0.6879		108	63.1	141		0		

Sample ID **1705151-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36152**
Client ID: **BATCH** Batch ID: **17047** Analysis Date: **5/16/2017** SeqNo: **692457**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0271						0		30	
Toluene	ND	0.0271						0		30	
Ethylbenzene	ND	0.0407						0		30	
m,p-Xylene	ND	0.0271						0		30	
o-Xylene	ND	0.0271						0		30	
Surr: Dibromofluoromethane	1.66		1.695		97.8	56.5	129		0		
Surr: Toluene-d8	1.68		1.695		98.9	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.64		1.695		96.6	63.1	141		0		

Sample ID **1705150-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36152**
Client ID: **BATCH** Batch ID: **17047** Analysis Date: **5/16/2017** SeqNo: **692901**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.933	0.0205	1.026	0	90.9	63.5	133				
Toluene	0.953	0.0205	1.026	0	92.8	63.4	132				
Ethylbenzene	0.972	0.0308	1.026	0	94.7	54.5	134				
m,p-Xylene	1.99	0.0205	2.052	0	97.0	53.1	132				
o-Xylene	0.973	0.0205	1.026	0	94.8	53.3	139				
Surr: Dibromofluoromethane	1.15		1.283		89.9	56.5	129				
Surr: Toluene-d8	1.37		1.283		107	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.42		1.283		111	63.1	141				

Work Order: 1705159
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1705150-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36152**
Client ID: **BATCH** Batch ID: **17047** Analysis Date: **5/16/2017** SeqNo: **692901**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID **1705150-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/15/2017** RunNo: **36152**
Client ID: **BATCH** Batch ID: **17047** Analysis Date: **5/16/2017** SeqNo: **692902**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.08	0.0205	1.026	0	105	63.5	133	0.9328	14.3	30	
Toluene	1.04	0.0205	1.026	0	101	63.4	132	0.9527	8.68	30	
Ethylbenzene	0.923	0.0308	1.026	0	89.9	54.5	134	0.9724	5.25	30	
m,p-Xylene	1.77	0.0205	2.052	0	86.1	53.1	132	1.992	11.9	30	
o-Xylene	0.838	0.0205	1.026	0	81.6	53.3	139	0.9728	14.9	30	
Surr: Dibromofluoromethane	1.33		1.283		104	56.5	129		0		
Surr: Toluene-d8	1.37		1.283		107	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.36		1.283		106	63.1	141		0		

Sample Log-In Check List

Client Name:	**URS**	Work Order Number:	**1705159**
Logged by:	**Erica Silva**	Date Received:	**5/15/2017 9:05:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes	☑	No ☐	Not Present	☐
2.	How was the sample delivered?	Client				

Log In

3.	Coolers are present?	Yes	☑	No ☐	NA	☐
4.	Shipping container/cooler in good condition?	Yes	☑	No ☐		
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes	☐	No ☐	Not Required	☑
6.	Was an attempt made to cool the samples?	Yes	☑	No ☐	NA	☐
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes	☑	No ☐	NA	☐
8.	Sample(s) in proper container(s)?	Yes	☑	No ☐		
9.	Sufficient sample volume for indicated test(s)?	Yes	☑	No ☐		
10.	Are samples properly preserved?	Yes	☑	No ☐		
11.	Was preservative added to bottles?	Yes	☐	No ☑	NA	☐
12.	Is there headspace in the VOA vials?	Yes	☐	No ☐	NA	☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes	☑	No ☐		
14.	Does paperwork match bottle labels?	Yes	☑	No ☐		
15.	Are matrices correctly identified on Chain of Custody?	Yes	☑	No ☐		
16.	Is it clear what analyses were requested?	Yes	☑	No ☐		
17.	Were all holding times able to be met?	Yes	☑	No ☐		

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes	☐	No ☐	NA	☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	5.3
Sample	6.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 5-12-17 | Page: | of:

Laboratory Project No (internal): 1705159

Project Name: 1001 Minor

Special Remarks:

Client: AECOM

Project No:

Address: 1111 3rd Ave Ste 1600

Collected by: Demetrio Cabanillas

City, State, Zip: Seattle, WA, 98101

Location: Seattle, WA

Telephone: 206-438-2700

Report To (PM): David Rabuzzel

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email: david.rabuzzel@AECOM.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)	Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	UST C-SW1	5-12-17	820	S		X				X									standard
2	UST C-SW2	↓	900	S		X				X									↓
3	UST C-B1	↓	1330	S		X				X									24-hr
4	CT-Bottom	5-15-17	810	S		X				X									↓
5	CT-Stockpile	5-15-17	815	S		X				X									
6																			
7																			
8																			
9																			
10																			

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

- ☒ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day _____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x	5-15-17 / 905	x	5/15/17 0905
Relinquished	Date/Time	Received	Date/Time
x		x	

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

AECOM
David Raubvogel
1111 3rd Avenue Suite 1600
Seattle, WA 98101

RE: 1001 Minor
Work Order Number: 1705228

May 25, 2017

Attention David Raubvogel:

Fremont Analytical, Inc. received 3 sample(s) on 5/18/2017 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260C

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *05/25/2017*

CLIENT: AECOM
Project: 1001 Minor
Work Order: 1705228

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1705228-001	USTD-SW1	05/18/2017 11:10 AM	05/18/2017 12:47 PM
1705228-002	USTD-SW2	05/18/2017 11:25 AM	05/18/2017 12:47 PM
1705228-003	USTD-B1	05/18/2017 11:45 AM	05/18/2017 12:47 PM

Case Narrative

WO#: **1705228**
Date: **5/25/2017**

CLIENT: AECOM
Project: 1001 Minor

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1705228**
Date Reported: **5/25/2017**

Client: AECOM
Collection Date: 5/18/2017 11:10:00 AM
Project: 1001 Minor
Lab ID: 1705228-001
Matrix: Soil
Client Sample ID: **USTD-SW1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17103		Analyst: SB
Diesel (Fuel Oil)	ND	21.6		mg/Kg-dry	1	5/24/2017 2:50:15 PM
Heavy Oil	ND	53.9		mg/Kg-dry	1	5/24/2017 2:50:15 PM
Surr: 2-Fluorobiphenyl	75.1	50-150		%Rec	1	5/24/2017 2:50:15 PM
Surr: o-Terphenyl	96.5	50-150		%Rec	1	5/24/2017 2:50:15 PM
Gasoline by NWTPH-Gx				Batch ID: 17149		Analyst: NG
Gasoline	ND	5.28		mg/Kg-dry	1	5/24/2017 3:01:47 PM
Surr: 4-Bromofluorobenzene	92.8	65-135		%Rec	1	5/24/2017 3:01:47 PM
Surr: Toluene-d8	96.9	65-135		%Rec	1	5/24/2017 3:01:47 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17149		Analyst: NG
Benzene	ND	0.0211		mg/Kg-dry	1	5/24/2017 3:01:47 PM
Toluene	ND	0.0211		mg/Kg-dry	1	5/24/2017 3:01:47 PM
Ethylbenzene	ND	0.0317		mg/Kg-dry	1	5/24/2017 3:01:47 PM
m,p-Xylene	ND	0.0211		mg/Kg-dry	1	5/24/2017 3:01:47 PM
o-Xylene	ND	0.0211		mg/Kg-dry	1	5/24/2017 3:01:47 PM
Surr: Dibromofluoromethane	97.7	56.5-129		%Rec	1	5/24/2017 3:01:47 PM
Surr: Toluene-d8	101	64.5-151		%Rec	1	5/24/2017 3:01:47 PM
Surr: 1-Bromo-4-fluorobenzene	87.0	63.1-141		%Rec	1	5/24/2017 3:01:47 PM
Sample Moisture (Percent Moisture)				Batch ID: R36266		Analyst: BB
Percent Moisture	8.30	0.500		wt%	1	5/19/2017 11:03:47 AM

Analytical Report

Work Order: **1705228**
Date Reported: **5/25/2017**

Client: AECOM
Collection Date: 5/18/2017 11:25:00 AM
Project: 1001 Minor
Lab ID: 1705228-002
Matrix: Soil
Client Sample ID: **USTD-SW2**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17103		Analyst: SB
Diesel (Fuel Oil)	ND	20.4		mg/Kg-dry	1	5/24/2017 3:22:09 PM
Heavy Oil	ND	51.1		mg/Kg-dry	1	5/24/2017 3:22:09 PM
Surr: 2-Fluorobiphenyl	77.0	50-150		%Rec	1	5/24/2017 3:22:09 PM
Surr: o-Terphenyl	97.6	50-150		%Rec	1	5/24/2017 3:22:09 PM
Gasoline by NWTPH-Gx				Batch ID: 17149		Analyst: NG
Gasoline	ND	5.19		mg/Kg-dry	1	5/24/2017 3:31:43 PM
Surr: 4-Bromofluorobenzene	95.1	65-135		%Rec	1	5/24/2017 3:31:43 PM
Surr: Toluene-d8	98.2	65-135		%Rec	1	5/24/2017 3:31:43 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17149		Analyst: NG
Benzene	ND	0.0208		mg/Kg-dry	1	5/24/2017 3:31:43 PM
Toluene	ND	0.0208		mg/Kg-dry	1	5/24/2017 3:31:43 PM
Ethylbenzene	ND	0.0311		mg/Kg-dry	1	5/24/2017 3:31:43 PM
m,p-Xylene	ND	0.0208		mg/Kg-dry	1	5/24/2017 3:31:43 PM
o-Xylene	ND	0.0208		mg/Kg-dry	1	5/24/2017 3:31:43 PM
Surr: Dibromofluoromethane	98.5	56.5-129		%Rec	1	5/24/2017 3:31:43 PM
Surr: Toluene-d8	101	64.5-151		%Rec	1	5/24/2017 3:31:43 PM
Surr: 1-Bromo-4-fluorobenzene	89.3	63.1-141		%Rec	1	5/24/2017 3:31:43 PM
Sample Moisture (Percent Moisture)				Batch ID: R36266		Analyst: BB
Percent Moisture	17.8	0.500		wt%	1	5/19/2017 11:03:47 AM

Analytical Report

Work Order: **1705228**
Date Reported: **5/25/2017**

Client: AECOM
Collection Date: 5/18/2017 11:45:00 AM
Project: 1001 Minor
Lab ID: 1705228-003
Matrix: Soil
Client Sample ID: **USTD-B1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17103		Analyst: SB
Diesel (Fuel Oil)	ND	20.8		mg/Kg-dry	1	5/24/2017 3:54:08 PM
Heavy Oil	ND	52.1		mg/Kg-dry	1	5/24/2017 3:54:08 PM
Surr: 2-Fluorobiphenyl	77.1	50-150		%Rec	1	5/24/2017 3:54:08 PM
Surr: o-Terphenyl	96.5	50-150		%Rec	1	5/24/2017 3:54:08 PM
Gasoline by NWTPH-Gx				Batch ID: 17149		Analyst: NG
Gasoline	ND	4.37		mg/Kg-dry	1	5/24/2017 4:01:40 PM
Surr: 4-Bromofluorobenzene	93.0	65-135		%Rec	1	5/24/2017 4:01:40 PM
Surr: Toluene-d8	95.5	65-135		%Rec	1	5/24/2017 4:01:40 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17149		Analyst: NG
Benzene	ND	0.0175		mg/Kg-dry	1	5/24/2017 4:01:40 PM
Toluene	ND	0.0175		mg/Kg-dry	1	5/24/2017 4:01:40 PM
Ethylbenzene	ND	0.0262		mg/Kg-dry	1	5/24/2017 4:01:40 PM
m,p-Xylene	ND	0.0175		mg/Kg-dry	1	5/24/2017 4:01:40 PM
o-Xylene	ND	0.0175		mg/Kg-dry	1	5/24/2017 4:01:40 PM
Surr: Dibromofluoromethane	97.8	56.5-129		%Rec	1	5/24/2017 4:01:40 PM
Surr: Toluene-d8	101	64.5-151		%Rec	1	5/24/2017 4:01:40 PM
Surr: 1-Bromo-4-fluorobenzene	86.9	63.1-141		%Rec	1	5/24/2017 4:01:40 PM
Sample Moisture (Percent Moisture)				Batch ID: R36266		Analyst: BB
Percent Moisture	11.0	0.500		wt%	1	5/19/2017 11:03:47 AM

Work Order: 1705228
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **MB-17103**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **5/18/2017**	RunNo: **36270**
Client ID: **MBLKS**	Batch ID: **17103**		Analysis Date: **5/19/2017**	SeqNo: **695064**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.4		20.00		92.2	50	150				
Surr: o-Terphenyl	20.3		20.00		102	50	150				

Sample ID **LCS-17103**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **5/18/2017**	RunNo: **36270**
Client ID: **LCSS**	Batch ID: **17103**		Analysis Date: **5/19/2017**	SeqNo: **695063**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	505	20.0	500.0	0	101	65	135				
Surr: 2-Fluorobiphenyl	19.3		20.00		96.7	50	150				
Surr: o-Terphenyl	21.9		20.00		110	50	150				

Sample ID **1705234-001ADUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **5/18/2017**	RunNo: **36270**
Client ID: **BATCH**	Batch ID: **17103**		Analysis Date: **5/19/2017**	SeqNo: **695048**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.5						0		30	
Heavy Oil	113	51.3						49.43	78.2	30	R
Surr: 2-Fluorobiphenyl	18.4		20.51		89.5	50	150		0		
Surr: o-Terphenyl	20.3		20.51		98.8	50	150		0		

NOTES:
R - High RPD due to suspected sample inhomogeneity. The method is in control as indicated by the Laboratory Control Sample (LCS).

Sample ID **1705234-001AMS**	SampType: **MS**	Units: **mg/Kg-dry**	Prep Date: **5/18/2017**	RunNo: **36270**
Client ID: **BATCH**	Batch ID: **17103**		Analysis Date: **5/19/2017**	SeqNo: **695049**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	450	20.5	512.3	0	87.8	65	135				
Surr: 2-Fluorobiphenyl	18.5		20.49		90.4	50	150				

Work Order: 1705228
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **1705234-001AMS**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **5/18/2017**		RunNo: **36270**		
Client ID: **BATCH**	Batch ID: **17103**					Analysis Date: **5/19/2017**		SeqNo: **695049**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	23.0		20.49		112	50	150				

Sample ID **1705234-001AMSD**	SampType: **MSD**			Units: **mg/Kg-dry**		Prep Date: **5/18/2017**		RunNo: **36270**		
Client ID: **BATCH**	Batch ID: **17103**					Analysis Date: **5/19/2017**		SeqNo: **695050**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	436	20.7	518.3	0	84.1	65	135	449.6	3.13	30	
Surr: 2-Fluorobiphenyl	19.1		20.73		92.4	50	150		0		
Surr: o-Terphenyl	22.5		20.73		109	50	150		0		

Sample ID **1705228-001ADUP**	SampType: **DUP**			Units: **mg/Kg-dry**		Prep Date: **5/18/2017**		RunNo: **36270**		
Client ID: **USTD-SW1**	Batch ID: **17103**					Analysis Date: **5/24/2017**		SeqNo: **697737**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	18.7						0		30	
Heavy Oil	ND	46.6						0		30	
Surr: 2-Fluorobiphenyl	14.2		18.66		76.2	50	150		0		
Surr: o-Terphenyl	20.3		18.66		109	50	150		0		

Work Order: 1705228
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID	**LCS-17149**	SampType: **LCS**		Units: **mg/Kg**		Prep Date: **5/23/2017**		RunNo: **36371**			
Client ID:	**LCSS**	Batch ID: **17149**				Analysis Date: **5/24/2017**		SeqNo: **697397**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	25.8	5.00	25.00	0	103	65	135				
Surr: Toluene-d8	1.15		1.250		91.7	65	135				
Surr: 4-Bromofluorobenzene	1.23		1.250		98.6	65	135				

Sample ID	**MB-17149**	SampType: **MBLK**		Units: **mg/Kg**		Prep Date: **5/23/2017**		RunNo: **36371**			
Client ID:	**MBLKS**	Batch ID: **17149**				Analysis Date: **5/24/2017**		SeqNo: **697398**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.00									
Surr: Toluene-d8	1.17		1.250		93.6	65	135				
Surr: 4-Bromofluorobenzene	1.09		1.250		87.2	65	135				

Sample ID	**1705202-001BDUP**	SampType: **DUP**		Units: **mg/Kg-dry**		Prep Date: **5/23/2017**		RunNo: **36371**			
Client ID:	**BATCH**	Batch ID: **17149**				Analysis Date: **5/24/2017**		SeqNo: **697381**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	7.96						0		30	
Surr: Toluene-d8	1.91		1.989		96.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.82		1.989		91.4	65	135		0		

Sample ID	**1705202-023BMS**	SampType: **MSD**		Units: **mg/Kg-dry**		Prep Date: **5/23/2017**		RunNo: **36371**			
Client ID:	**BATCH**	Batch ID: **17149**				Analysis Date: **5/24/2017**		SeqNo: **697391**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	20.2	6.22	31.08	0	65.1	65	135				
Surr: Toluene-d8	1.50		1.554		96.7	65	135				
Surr: 4-Bromofluorobenzene	1.56		1.554		101	65	135				

Work Order: 1705228
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID	**1705202-023BMSD**	SampType:	**MSD**	Units:	**mg/Kg-dry**	Prep Date:	**5/23/2017**	RunNo:	**36371**
Client ID:	**BATCH**	Batch ID:	**17149**			Analysis Date:	**5/24/2017**	SeqNo:	**697392**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	9.80	6.22	31.08	0	31.5	65	135				SI
Surr: Toluene-d8	1.52		1.554		97.5	65	135				I
Surr: 4-Bromofluorobenzene	1.65		1.554		106	65	135				I

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.
I - Indicates an analyte with an internal standard that does not meet established acceptance criteria. A duplicate analysis was performed and recovered within range.

Sample ID	**1705202-026BDUP**	SampType:	**DUP**	Units:	**mg/Kg-dry**	Prep Date:	**5/23/2017**	RunNo:	**36371**
Client ID:	**BATCH**	Batch ID:	**17149**			Analysis Date:	**5/24/2017**	SeqNo:	**697394**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	7.95						0		30	
Surr: Toluene-d8	1.92		1.988		96.6	65	135		0		
Surr: 4-Bromofluorobenzene	1.86		1.988		93.8	65	135		0		

Work Order: 1705228
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID **1705228-003ADUP**	SampType: **DUP**			Units: **wt%**			Prep Date: **5/19/2017**		RunNo: **36266**	
Client ID: **USTD-B1**	Batch ID: **R36266**						Analysis Date: **5/19/2017**		SeqNo: **694981**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	11.3	0.500						11.04	2.47	20	

Sample ID **1705230-047ADUP**	SampType: **DUP**			Units: **wt%**			Prep Date: **5/19/2017**		RunNo: **36266**	
Client ID: **BATCH**	Batch ID: **R36266**						Analysis Date: **5/19/2017**		SeqNo: **694991**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	16.4	0.500						18.38	11.6	20	

Work Order: 1705228
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **LCS-17149** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/23/2017** RunNo: **36370**
Client ID: **LCSS** Batch ID: **17149** Analysis Date: **5/24/2017** SeqNo: **697320**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.02	0.0200	1.000	0	102	64.3	133				
Toluene	1.10	0.0200	1.000	0	110	67.3	138				
Ethylbenzene	1.06	0.0300	1.000	0	106	74	129				
m,p-Xylene	2.24	0.0200	2.000	0	112	70	124				
o-Xylene	1.14	0.0200	1.000	0	114	68.1	139				
Surr: Dibromofluoromethane	1.27		1.250		102	56.5	129				
Surr: Toluene-d8	1.25		1.250		100	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.35		1.250		108	63.1	141				

Sample ID **MB-17149** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/23/2017** RunNo: **36370**
Client ID: **MBLKS** Batch ID: **17149** Analysis Date: **5/24/2017** SeqNo: **697321**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Surr: Dibromofluoromethane	1.26		1.250		101	56.5	129				
Surr: Toluene-d8	1.16		1.250		93.2	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.03		1.250		82.2	63.1	141				

Sample ID **1705202-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/23/2017** RunNo: **36370**
Client ID: **BATCH** Batch ID: **17149** Analysis Date: **5/24/2017** SeqNo: **697303**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0318						0		30	
Toluene	ND	0.0318						0		30	
Ethylbenzene	ND	0.0477						0		30	
m,p-Xylene	ND	0.0318						0		30	

Work Order: 1705228
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1705202-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/23/2017** RunNo: **36370**
Client ID: **BATCH** Batch ID: **17149** Analysis Date: **5/24/2017** SeqNo: **697303**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.0318						0		30	
Surr: Dibromofluoromethane	1.95		1.989		98.0	56.5	129		0		
Surr: Toluene-d8	2.04		1.989		103	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.71		1.989		85.8	63.1	141		0		

Sample ID **1705202-020BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/23/2017** RunNo: **36370**
Client ID: **BATCH** Batch ID: **17149** Analysis Date: **5/24/2017** SeqNo: **697312**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.912	0.0197	0.9827	0	92.8	63.5	133				
Toluene	0.958	0.0197	0.9827	0	97.5	63.4	132				
Ethylbenzene	0.944	0.0295	0.9827	0	96.1	54.5	134				
m,p-Xylene	1.90	0.0197	1.965	0	96.8	53.1	132				
o-Xylene	0.895	0.0197	0.9827	0	91.1	53.3	139				
Surr: Dibromofluoromethane	1.23		1.228		100	56.5	129				
Surr: Toluene-d8	1.34		1.228		109	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.31		1.228		107	63.1	141				

Sample ID **1705202-020BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/23/2017** RunNo: **36370**
Client ID: **BATCH** Batch ID: **17149** Analysis Date: **5/24/2017** SeqNo: **697313**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.859	0.0197	0.9827	0	87.4	63.5	133	0.9122	6.06	30	
Toluene	0.869	0.0197	0.9827	0	88.5	63.4	132	0.9577	9.65	30	
Ethylbenzene	0.857	0.0295	0.9827	0	87.3	54.5	134	0.9443	9.65	30	
m,p-Xylene	1.73	0.0197	1.965	0	87.8	53.1	132	1.903	9.75	30	
o-Xylene	0.838	0.0197	0.9827	0	85.3	53.3	139	0.8953	6.58	30	
Surr: Dibromofluoromethane	1.21		1.228		98.6	56.5	129		0		
Surr: Toluene-d8	1.33		1.228		108	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.31		1.228		106	63.1	141		0		

Work Order: 1705228
CLIENT: AECOM
Project: 1001 Minor

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1705202-020BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/23/2017** RunNo: **36370**
Client ID: **BATCH** Batch ID: **17149** Analysis Date: **5/24/2017** SeqNo: **697313**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID **1705202-026BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/23/2017** RunNo: **36370**
Client ID: **BATCH** Batch ID: **17149** Analysis Date: **5/24/2017** SeqNo: **697316**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0318						0		30	
Toluene	ND	0.0318						0		30	
Ethylbenzene	ND	0.0477						0		30	
m,p-Xylene	ND	0.0318						0		30	
o-Xylene	ND	0.0318						0		30	
Surr: Dibromofluoromethane	1.96		1.988		98.4	56.5	129		0		
Surr: Toluene-d8	2.01		1.988		101	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.75		1.988		88.0	63.1	141		0		

Sample Log-In Check List

Client Name:	**URS**	Work Order Number:	**1705228**
Logged by:	**Chelsea Ward**	Date Received:	**5/18/2017 12:47:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	5.0
Sample	5.9
Temp Blank	4.6

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 5-18-17 | Page: of:

Laboratory Project No (internal): 1705228

Project Name: 1001 Minor

Special Remarks:

Client: AECOM

Project No:

Address: 1111 3rd Ave Ste 1600

Collected by: Demetrio Celaya/JS

City, State, Zip: Seattle, WA, 98101

Location: Seattle, WA

Telephone: 206-438-2700

Report To (PM): David Rzubrogel

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email: david.rzubrogel@aecom.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	UST D-SW1	5-18-17	1110	S		X				X								
2	UST D-SW2	↓	1125	S		X				X								
3	UST D-B1	↓	1145	S		X				X								
4																		
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished x _____ Date/Time 5-18-17 1250

Relinquished x _____ Date/Time

Received x _____ Date/Time 5/18/17 12:47

Received x _____ Date/Time

Turn-around Time:

- ☒ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day _____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

AECOM
David Raubvogel
1111 3rd Avenue Suite 1600
Seattle, WA 98101

RE: 1001 Minor Ave
Work Order Number: 1706036

June 12, 2017

Attention David Raubvogel:

Fremont Analytical, Inc. received 2 sample(s) on 6/5/2017 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260C

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *06/12/2017*

CLIENT: AECOM
Project: 1001 Minor Ave
Work Order: 1706036

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1706036-001	SP-1	06/02/2017 2:10 PM	06/05/2017 12:39 PM
1706036-002	SP-2	06/02/2017 2:00 PM	06/05/2017 12:39 PM

Case Narrative

WO#: **1706036**
Date: **6/12/2017**

CLIENT: AECOM
Project: 1001 Minor Ave

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1706036**
Date Reported: **6/12/2017**

Client: AECOM
Collection Date: 6/2/2017 2:10:00 PM
Project: 1001 Minor Ave
Lab ID: 1706036-001
Matrix: Soil
Client Sample ID: **SP-1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17273		Analyst: SB
Diesel (Fuel Oil)	808	18.7		mg/Kg-dry	1	6/7/2017 12:45:08 PM
Heavy Oil	ND	46.7		mg/Kg-dry	1	6/7/2017 12:45:08 PM
Surr: 2-Fluorobiphenyl	105	50-150		%Rec	1	6/7/2017 12:45:08 PM
Surr: o-Terphenyl	111	50-150		%Rec	1	6/7/2017 12:45:08 PM
Gasoline by NWTPH-Gx				Batch ID: 17265		Analyst: NG
Gasoline	ND	4.91		mg/Kg-dry	1	6/6/2017 9:45:11 AM
Surr: 4-Bromofluorobenzene	113	65-135		%Rec	1	6/6/2017 9:45:11 AM
Surr: Toluene-d8	93.3	65-135		%Rec	1	6/6/2017 9:45:11 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17265		Analyst: NG
Benzene	ND	0.0197		mg/Kg-dry	1	6/6/2017 9:45:11 AM
Toluene	ND	0.0197		mg/Kg-dry	1	6/6/2017 9:45:11 AM
Ethylbenzene	ND	0.0295		mg/Kg-dry	1	6/6/2017 9:45:11 AM
m,p-Xylene	0.0696	0.0197		mg/Kg-dry	1	6/6/2017 9:45:11 AM
o-Xylene	ND	0.0197		mg/Kg-dry	1	6/6/2017 9:45:11 AM
Surr: Dibromofluoromethane	87.2	56.5-129		%Rec	1	6/6/2017 9:45:11 AM
Surr: Toluene-d8	105	64.5-151		%Rec	1	6/6/2017 9:45:11 AM
Surr: 1-Bromo-4-fluorobenzene	103	63.1-141		%Rec	1	6/6/2017 9:45:11 AM
Sample Moisture (Percent Moisture)				Batch ID: R36616		Analyst: BB
Percent Moisture	9.56	0.500		wt%	1	6/6/2017 10:49:18 AM

Analytical Report

Work Order: **1706036**
Date Reported: **6/12/2017**

Client: AECOM
Collection Date: 6/2/2017 2:00:00 PM
Project: 1001 Minor Ave
Lab ID: 1706036-002
Matrix: Soil
Client Sample ID: **SP-2**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17273		Analyst: SB
Diesel (Fuel Oil)	584	20.2		mg/Kg-dry	1	6/7/2017 1:15:00 PM
Heavy Oil	ND	50.5		mg/Kg-dry	1	6/7/2017 1:15:00 PM
Surr: 2-Fluorobiphenyl	110	50-150		%Rec	1	6/7/2017 1:15:00 PM
Surr: o-Terphenyl	116	50-150		%Rec	1	6/7/2017 1:15:00 PM
Gasoline by NWTPH-Gx				Batch ID: 17265		Analyst: NG
Gasoline	ND	5.32		mg/Kg-dry	1	6/6/2017 10:13:50 AM
Surr: 4-Bromofluorobenzene	114	65-135		%Rec	1	6/6/2017 10:13:50 AM
Surr: Toluene-d8	96.1	65-135		%Rec	1	6/6/2017 10:13:50 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17265		Analyst: NG
Benzene	ND	0.0213		mg/Kg-dry	1	6/6/2017 10:13:50 AM
Toluene	ND	0.0213		mg/Kg-dry	1	6/6/2017 10:13:50 AM
Ethylbenzene	ND	0.0319		mg/Kg-dry	1	6/6/2017 10:13:50 AM
m,p-Xylene	0.0436	0.0213		mg/Kg-dry	1	6/6/2017 10:13:50 AM
o-Xylene	ND	0.0213		mg/Kg-dry	1	6/6/2017 10:13:50 AM
Surr: Dibromofluoromethane	86.7	56.5-129		%Rec	1	6/6/2017 10:13:50 AM
Surr: Toluene-d8	137	64.5-151		%Rec	1	6/6/2017 10:13:50 AM
Surr: 1-Bromo-4-fluorobenzene	103	63.1-141		%Rec	1	6/6/2017 10:13:50 AM
Sample Moisture (Percent Moisture)				Batch ID: R36616		Analyst: BB
Percent Moisture	8.24	0.500		wt%	1	6/6/2017 10:49:18 AM

Work Order: 1706036
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	**MB-17273**	SampType:	**MBLK**	Units:	**mg/Kg**	Prep Date:	**6/6/2017**	RunNo:	**36645**
Client ID:	**MBLKS**	Batch ID:	**17273**			Analysis Date:	**6/7/2017**	SeqNo:	**703436**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	22.2		20.00		111	50	150				
Surr: o-Terphenyl	22.4		20.00		112	50	150				

Sample ID	**LCS-17273**	SampType:	**LCS**	Units:	**mg/Kg**	Prep Date:	**6/6/2017**	RunNo:	**36645**
Client ID:	**LCSS**	Batch ID:	**17273**			Analysis Date:	**6/7/2017**	SeqNo:	**703437**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	556	20.0	500.0	0	111	65	135				
Surr: 2-Fluorobiphenyl	21.2		20.00		106	50	150				
Surr: o-Terphenyl	24.0		20.00		120	50	150				

Sample ID	**1706026-018ADUP**	SampType:	**DUP**	Units:	**mg/Kg-dry**	Prep Date:	**6/6/2017**	RunNo:	**36645**
Client ID:	**BATCH**	Batch ID:	**17273**			Analysis Date:	**6/7/2017**	SeqNo:	**703439**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	29.2						0		30	
Diesel Range Organics (C12-C24)	235	29.2						209.3	11.6	30	
Heavy Oil	2,490	72.9						2,160	14.3	30	
Surr: 2-Fluorobiphenyl	27.8		29.15		95.5	50	150		0		
Surr: o-Terphenyl	31.0		29.15		106	50	150		0		

NOTES:
DRO - Indicates the presence of unresolved compounds eluting from dodecane through tetracosane (C12-C24).

Sample ID	**1706026-018AMS**	SampType:	**MS**	Units:	**mg/Kg-dry**	Prep Date:	**6/6/2017**	RunNo:	**36645**
Client ID:	**BATCH**	Batch ID:	**17273**			Analysis Date:	**6/7/2017**	SeqNo:	**703440**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	929	30.6	764.9	209.3	94.1	65	135				

Work Order: 1706036
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **1706026-018AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/6/2017** RunNo: **36645**
Client ID: **BATCH** Batch ID: **17273** Analysis Date: **6/7/2017** SeqNo: **703440**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	31.4		30.60		103	50	150				
Surr: o-Terphenyl	37.3		30.60		122	50	150				

Sample ID **1706026-018AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/6/2017** RunNo: **36645**
Client ID: **BATCH** Batch ID: **17273** Analysis Date: **6/7/2017** SeqNo: **703441**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	852	28.5	711.3	209.3	90.3	65	135	929.5	8.73	30	
Surr: 2-Fluorobiphenyl	26.8		28.45		94.3	50	150		0		
Surr: o-Terphenyl	31.2		28.45		110	50	150		0		

Sample ID **1706037-008ADUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/6/2017** RunNo: **36645**
Client ID: **BATCH** Batch ID: **17273** Analysis Date: **6/7/2017** SeqNo: **704513**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.8						0		30	
Heavy Oil	ND	52.1						0		30	
Surr: 2-Fluorobiphenyl	20.7		20.84		99.5	50	150		0		
Surr: o-Terphenyl	22.7		20.84		109	50	150		0		

Work Order: 1706036
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID **LCS-17265** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/5/2017** RunNo: **36618**
Client ID: **LCSS** Batch ID: **17265** Analysis Date: **6/5/2017** SeqNo: **702888**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	28.1	5.00	25.00	0	112	65	135				
Surr: Toluene-d8	1.23		1.250		98.8	65	135				
Surr: 4-Bromofluorobenzene	1.28		1.250		102	65	135				

Sample ID **MB-17265** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/5/2017** RunNo: **36618**
Client ID: **MBLKS** Batch ID: **17265** Analysis Date: **6/5/2017** SeqNo: **702889**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.00									
Surr: Toluene-d8	1.25		1.250		100	65	135				
Surr: 4-Bromofluorobenzene	1.21		1.250		97.2	65	135				

Sample ID **1706026-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36618**
Client ID: **BATCH** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **702877**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.80						0		30	
Surr: Toluene-d8	1.44		1.449		99.6	65	135		0		
Surr: 4-Bromofluorobenzene	1.46		1.449		101	65	135		0		

Sample ID **1706036-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36618**
Client ID: **SP-2** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **703123**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	167	5.32	26.59	207.7	-153	65	135				SE
Surr: Toluene-d8	1.30		1.329		97.4	65	135				
Surr: 4-Bromofluorobenzene	1.52		1.329		114	65	135				

NOTES:
S - Outlying spike recovery attributed to TPH interference. The method is in control as indicated by the Method Blank (MB) & Laboratory Control Sample (LCS).

Work Order: 1706036
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID **1706036-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36618**
Client ID: **SP-2** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **703124**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	255	5.32	26.59	207.7	177	65	135	167.0	41.6	30	RSE
Surr: Toluene-d8	1.28		1.329		95.9	65	135		0		
Surr: 4-Bromofluorobenzene	1.53		1.329		115	65	135		0		

NOTES:
S - Outlying spike recovery attributed to TPH interference. The method is in control as indicated by the Method Blank (MB) & Laboratory Control Sample (LCS).
R - High RPD due to high analyte concentration. In this range, high RPD's may be expected.

Work Order: 1706036
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	**1706050-001ADUP**	SampType: **DUP**			Units: **wt%**		Prep Date: **6/6/2017**		RunNo: **36616**	
Client ID:	**BATCH**	Batch ID: **R36616**					Analysis Date: **6/6/2017**		SeqNo: **702824**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	12.3	0.500						13.01	5.41	20	

Sample ID	**1706037-008ADUP**	SampType: **DUP**			Units: **wt%**		Prep Date: **6/6/2017**		RunNo: **36616**	
Client ID:	**BATCH**	Batch ID: **R36616**					Analysis Date: **6/6/2017**		SeqNo: **702848**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	8.50	0.500						8.691	2.18	20	

Work Order: 1706036
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **LCS-17265** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/5/2017** RunNo: **36617**
Client ID: **LCSS** Batch ID: **17265** Analysis Date: **6/5/2017** SeqNo: **702872**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.948	0.0200	1.000	0	94.8	64.3	133				
Toluene	0.796	0.0200	1.000	0	79.6	67.3	138				
Ethylbenzene	0.989	0.0300	1.000	0	98.9	74	129				
m,p-Xylene	2.00	0.0200	2.000	0	100	70	124				
o-Xylene	1.01	0.0200	1.000	0	101	68.1	139				
Surr: Dibromofluoromethane	1.21		1.250		96.9	56.5	129				
Surr: Toluene-d8	1.02		1.250		81.9	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.39		1.250		111	63.1	141				

Sample ID **MB-17265** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/5/2017** RunNo: **36617**
Client ID: **MBLKS** Batch ID: **17265** Analysis Date: **6/5/2017** SeqNo: **702873**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Surr: Dibromofluoromethane	1.09		1.250		87.0	56.5	129				
Surr: Toluene-d8	1.22		1.250		97.6	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.14		1.250		91.5	63.1	141				

Sample ID **1706026-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36617**
Client ID: **BATCH** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **702852**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0232						0		30	
Toluene	ND	0.0232						0		30	
Ethylbenzene	ND	0.0348						0		30	
m,p-Xylene	ND	0.0232						0		30	

Work Order: 1706036
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1706026-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36617**
Client ID: **BATCH** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **702852**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.0232						0		30	
Surr: Dibromofluoromethane	1.31		1.449		90.2	56.5	129		0		
Surr: Toluene-d8	1.41		1.449		97.3	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.37		1.449		94.5	63.1	141		0		

Sample ID **1706026-012BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36617**
Client ID: **BATCH** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **702856**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.14	0.0242	1.209	0	94.2	63.5	133				
Toluene	1.04	0.0242	1.209	0	86.4	63.4	132				
Ethylbenzene	1.13	0.0363	1.209	0	93.3	54.5	134				
m,p-Xylene	2.25	0.0242	2.418	0	93.0	53.1	132				
o-Xylene	1.13	0.0242	1.209	0	93.3	53.3	139				
Surr: Dibromofluoromethane	1.39		1.511		92.0	56.5	129				
Surr: Toluene-d8	1.45		1.511		95.9	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.57		1.511		104	63.1	141				

Sample ID **1706026-012BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36617**
Client ID: **BATCH** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **702857**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.20	0.0242	1.209	0	99.6	63.5	133	1.139	5.54	30	
Toluene	1.18	0.0242	1.209	0	97.8	63.4	132	1.045	12.3	30	
Ethylbenzene	1.22	0.0363	1.209	0	101	54.5	134	1.127	8.05	30	
m,p-Xylene	2.44	0.0242	2.418	0	101	53.1	132	2.249	8.14	30	
o-Xylene	1.20	0.0242	1.209	0	99.4	53.3	139	1.128	6.35	30	
Surr: Dibromofluoromethane	1.46		1.511		96.7	56.5	129		0		
Surr: Toluene-d8	1.52		1.511		101	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.55		1.511		103	63.1	141		0		

Work Order: 1706036
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1706026-012BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36617**
Client ID: **BATCH** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **702857**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID **1706027-002BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/5/2017** RunNo: **36617**
Client ID: **BATCH** Batch ID: **17265** Analysis Date: **6/6/2017** SeqNo: **703117**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0224						0		30	
Toluene	ND	0.0224						0		30	
Ethylbenzene	ND	0.0336						0		30	
m,p-Xylene	0.0477	0.0224						0.04443	7.01	30	
o-Xylene	0.0267	0.0224						0.02264	16.6	30	
Surr: Dibromofluoromethane	1.25		1.402		89.4	56.5	129		0		
Surr: Toluene-d8	1.49		1.402		106	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.46		1.402		104	63.1	141		0		

Sample Log-In Check List

Client Name:	**URS**	Work Order Number:	**1706036**
Logged by:	**Clare Griggs**	Date Received:	**6/5/2017 12:39:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☑	No ☐	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	8.2
Sample	4.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: Page: of:

Laboratory Project No (internal): 1706036

Project Name: 1001 MINOR AVE.

Special Remarks: 5 DAY TAT

Project No: 60536280.1

Client: AECOM

Collected by: DAVE LEWIS

Address: 1111 3rd ave #1600

Location: 1001 MINOR AVE/SEATTLE

City, State, Zip: SEATTLE 98101

Report To (PM): DAVID RAUBVOGEL

Telephone: 206-438-2700

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

PM Email: david.raubvogel@aecom.com

Fax:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	NWTPH-Dx				Comments
1	SP-1	6-2-17	1410	S		X										X					
2	SP-2	6-2-17	1400	S		X										X					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished x Dave Lewis Date/Time 6/5/17 0830

Received x Date/Time 6/5/17 1239

Relinquished x Date/Time

Received x Date/Time

Turn-around Time: 5 DAY

☐ Standard ☐ 3 Day ☐ 2 Day ☐ Next Day

Same Day _____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

AECOM
David Raubvogel
1111 3rd Avenue Suite 1600
Seattle, WA 98101

RE: 1001 Minor Ave
Work Order Number: 1706112

June 16, 2017

Attention David Raubvogel:

Fremont Analytical, Inc. received 3 sample(s) on 6/9/2017 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260C

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *06/16/2017*

CLIENT: AECOM
Project: 1001 Minor Ave
Work Order: 1706112

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1706112-001	SP-06082017-1	06/08/2017 11:22 AM	06/09/2017 11:54 AM
1706112-002	SP-06082017-2	06/08/2017 11:36 AM	06/09/2017 11:54 AM
1706112-003	SP-06082017-3	06/08/2017 11:55 AM	06/09/2017 11:54 AM

Case Narrative

WO#: **1706112**

Date: **6/16/2017**

CLIENT: AECOM

Project: 1001 Minor Ave

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1706112**
Date Reported: **6/16/2017**

Client: AECOM
Collection Date: 6/8/2017 11:36:00 AM
Project: 1001 Minor Ave
Lab ID: 1706112-002
Matrix: Soil
Client Sample ID: **SP-06082017-2**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17323		Analyst: SG
Diesel (Fuel Oil)	77.5	20.7		mg/Kg-dry	1	6/10/2017 8:44:39 PM
Heavy Oil	ND	51.8		mg/Kg-dry	1	6/10/2017 8:44:39 PM
Surr: 2-Fluorobiphenyl	109	50-150		%Rec	1	6/10/2017 8:44:39 PM
Surr: o-Terphenyl	114	50-150		%Rec	1	6/10/2017 8:44:39 PM
Gasoline by NWTPH-Gx				Batch ID: 17345		Analyst: NG
Gasoline	ND	2.84		mg/Kg-dry	1	6/13/2017 9:03:01 AM
Surr: 4-Bromofluorobenzene	101	65-135		%Rec	1	6/13/2017 9:03:01 AM
Surr: Toluene-d8	98.8	65-135		%Rec	1	6/13/2017 9:03:01 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17345		Analyst: NG
Benzene	ND	0.0114		mg/Kg-dry	1	6/13/2017 9:03:01 AM
Toluene	ND	0.0114		mg/Kg-dry	1	6/13/2017 9:03:01 AM
Ethylbenzene	ND	0.0170		mg/Kg-dry	1	6/13/2017 9:03:01 AM
m,p-Xylene	ND	0.0114		mg/Kg-dry	1	6/13/2017 9:03:01 AM
o-Xylene	ND	0.0114		mg/Kg-dry	1	6/13/2017 9:03:01 AM
Surr: Dibromofluoromethane	87.4	56.5-129		%Rec	1	6/13/2017 9:03:01 AM
Surr: Toluene-d8	90.2	64.5-151		%Rec	1	6/13/2017 9:03:01 AM
Surr: 1-Bromo-4-fluorobenzene	98.1	63.1-141		%Rec	1	6/13/2017 9:03:01 AM
Sample Moisture (Percent Moisture)				Batch ID: R36729		Analyst: CG
Percent Moisture	10.4	0.500		wt%	1	6/12/2017 8:20:12 AM

Analytical Report

Work Order: **1706112**
Date Reported: **6/16/2017**

Client: AECOM
Collection Date: 6/8/2017 11:55:00 AM
Project: 1001 Minor Ave
Lab ID: 1706112-003
Matrix: Soil
Client Sample ID: **SP-06082017-3**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17323		Analyst: SG
Diesel (Fuel Oil)	ND	20.6		mg/Kg-dry	1	6/10/2017 10:42:17 PM
Heavy Oil	ND	51.5		mg/Kg-dry	1	6/10/2017 10:42:17 PM
Surr: 2-Fluorobiphenyl	107	50-150		%Rec	1	6/10/2017 10:42:17 PM
Surr: o-Terphenyl	113	50-150		%Rec	1	6/10/2017 10:42:17 PM
Gasoline by NWTPH-Gx				Batch ID: 17345		Analyst: NG
Gasoline	ND	2.39		mg/Kg-dry	1	6/13/2017 11:26:00 AM
Surr: 4-Bromofluorobenzene	98.4	65-135		%Rec	1	6/13/2017 11:26:00 AM
Surr: Toluene-d8	99.1	65-135		%Rec	1	6/13/2017 11:26:00 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17345		Analyst: NG
Benzene	ND	0.00956		mg/Kg-dry	1	6/13/2017 11:26:00 AM
Toluene	0.0223	0.00956		mg/Kg-dry	1	6/13/2017 11:26:00 AM
Ethylbenzene	ND	0.0143		mg/Kg-dry	1	6/13/2017 11:26:00 AM
m,p-Xylene	ND	0.00956		mg/Kg-dry	1	6/13/2017 11:26:00 AM
o-Xylene	ND	0.00956		mg/Kg-dry	1	6/13/2017 11:26:00 AM
Surr: Dibromofluoromethane	90.4	56.5-129		%Rec	1	6/13/2017 11:26:00 AM
Surr: Toluene-d8	93.3	64.5-151		%Rec	1	6/13/2017 11:26:00 AM
Surr: 1-Bromo-4-fluorobenzene	95.2	63.1-141		%Rec	1	6/13/2017 11:26:00 AM
Sample Moisture (Percent Moisture)				Batch ID: R36796		Analyst: BB
Percent Moisture	7.28	0.500		wt%	1	6/14/2017 8:32:25 AM

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: **MB-17323** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/9/2017** RunNo: **36733**
Client ID: **MBLKS** Batch ID: **17323** Analysis Date: **6/10/2017** SeqNo: **704974**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	23.1		20.00		116	50	150				
Surr: o-Terphenyl	23.4		20.00		117	50	150				

Sample ID: **LCS-17323** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/9/2017** RunNo: **36733**
Client ID: **LCSS** Batch ID: **17323** Analysis Date: **6/10/2017** SeqNo: **704975**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	533	20.0	500.0	0	107	65	135				
Surr: 2-Fluorobiphenyl	22.6		20.00		113	50	150				
Surr: o-Terphenyl	24.5		20.00		122	50	150				

Sample ID: **1706112-002ADUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/9/2017** RunNo: **36733**
Client ID: **SP-06082017-2** Batch ID: **17323** Analysis Date: **6/10/2017** SeqNo: **704977**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	124	19.3						77.46	46.5	30	R
Heavy Oil	ND	48.3						0		30	
Surr: 2-Fluorobiphenyl	21.5		19.30		111	50	150		0		
Surr: o-Terphenyl	22.0		19.30		114	50	150		0		

NOTES:
R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID: **1706112-002AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/9/2017** RunNo: **36733**
Client ID: **SP-06082017-2** Batch ID: **17323** Analysis Date: **6/10/2017** SeqNo: **704978**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	788	21.2	531.2	77.46	134	65	135				
Surr: 2-Fluorobiphenyl	23.5		21.25		111	50	150				

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: **1706112-002AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/9/2017** RunNo: **36733**
Client ID: **SP-06082017-2** Batch ID: **17323** Analysis Date: **6/10/2017** SeqNo: **704978**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	25.8		21.25		121	50	150				

Sample ID: **1706112-002AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/9/2017** RunNo: **36733**
Client ID: **SP-06082017-2** Batch ID: **17323** Analysis Date: **6/10/2017** SeqNo: **704979**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	768	20.5	513.1	77.46	135	65	135	788.0	2.62	30	
Surr: 2-Fluorobiphenyl	22.9		20.52		111	50	150		0		
Surr: o-Terphenyl	25.3		20.52		123	50	150		0		

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: **MB-17345** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/12/2017** RunNo: **36783**
Client ID: **MBLKS** Batch ID: **17345** Analysis Date: **6/12/2017** SeqNo: **705994**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.00									
Surr: Toluene-d8	1.25		1.250		100	65	135				
Surr: 4-Bromofluorobenzene	1.18		1.250		94.6	65	135				

Sample ID: **LCS-17345** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/12/2017** RunNo: **36783**
Client ID: **LCSS** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **705993**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	25.1	5.00	25.00	0	100	65	135				
Surr: Toluene-d8	1.27		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.22		1.250		97.8	65	135				

Sample ID: **1706112-002BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36783**
Client ID: **SP-06082017-2** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **705988**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.84						0		30	
Surr: Toluene-d8	0.706		0.7102		99.5	65	135		0		
Surr: 4-Bromofluorobenzene	0.723		0.7102		102	65	135		0		

Sample ID: **1706132-016BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36783**
Client ID: **BATCH** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **706325**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	27.9	5.78	28.91	0	96.6	65	135				
Surr: Toluene-d8	1.44		1.446		99.6	65	135				
Surr: 4-Bromofluorobenzene	1.46		1.446		101	65	135				

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: **1706132-016BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36783**
Client ID: **BATCH** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **706326**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	27.1	5.78	28.91	0	93.8	65	135	27.93	2.96	30	
Surr: Toluene-d8	1.43		1.446		98.8	65	135		0		
Surr: 4-Bromofluorobenzene	1.45		1.446		101	65	135		0		

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID: **1706150-013ADUP** SampType: **DUP** Units: **wt%** Prep Date: **6/14/2017** RunNo: **36796**
Client ID: **BATCH** Batch ID: **R36796** Analysis Date: **6/14/2017** SeqNo: **706499**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	8.35	0.500						9.225	9.97	20	

Sample ID: **1706120-006ADUP** SampType: **DUP** Units: **wt%** Prep Date: **6/14/2017** RunNo: **36796**
Client ID: **BATCH** Batch ID: **R36796** Analysis Date: **6/14/2017** SeqNo: **706508**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	14.6	0.500						14.19	2.74	20	

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID: **1706112-002ADUP** SampType: **DUP** Units: **wt%** Prep Date: **6/12/2017** RunNo: **36729**
Client ID: **SP-06082017-2** Batch ID: **R36729** Analysis Date: **6/12/2017** SeqNo: **704882**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	9.96	0.500						10.44	4.63	20	

Sample ID: **1706124-001ADUP** SampType: **DUP** Units: **wt%** Prep Date: **6/12/2017** RunNo: **36729**
Client ID: **BATCH** Batch ID: **R36729** Analysis Date: **6/12/2017** SeqNo: **705030**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	16.3	0.500						17.32	6.00	20	

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID: **MB-17345** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/12/2017** RunNo: **36782**
Client ID: **MBLKS** Batch ID: **17345** Analysis Date: **6/12/2017** SeqNo: **706013**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Surr: Dibromofluoromethane	1.25		1.250		99.9	56.5	129				
Surr: Toluene-d8	1.45		1.250		116	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		95.8	63.1	141				

Sample ID: **LCS-17345** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/12/2017** RunNo: **36782**
Client ID: **LCSS** Batch ID: **17345** Analysis Date: **6/12/2017** SeqNo: **706012**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.00	0.0200	1.000	0	100	64.3	133				
Toluene	1.13	0.0200	1.000	0	113	67.3	138				
Ethylbenzene	1.00	0.0300	1.000	0	100	74	129				
m,p-Xylene	2.01	0.0200	2.000	0	101	70	124				
o-Xylene	1.01	0.0200	1.000	0	101	68.1	139				
Surr: Dibromofluoromethane	1.36		1.250		109	56.5	129				
Surr: Toluene-d8	1.52		1.250		122	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.31		1.250		104	63.1	141				

Sample ID: **1706132-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36782**
Client ID: **BATCH** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **706002**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0229						0		30	
Toluene	ND	0.0229						0		30	
Ethylbenzene	ND	0.0343						0		30	
m,p-Xylene	ND	0.0229						0		30	

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID: **1706132-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36782**
Client ID: **BATCH** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **706002**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.0229						0		30	
Surr: Dibromofluoromethane	1.47		1.430		103	56.5	129		0		
Surr: Toluene-d8	1.64		1.430		115	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.35		1.430		94.8	63.1	141		0		

Sample ID: **1706132-010BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36782**
Client ID: **BATCH** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **706006**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.14	0.0242	1.211	0	94.1	63.5	133				
Toluene	1.31	0.0242	1.211	0	108	63.4	132				
Ethylbenzene	1.13	0.0363	1.211	0	93.6	54.5	134				
m,p-Xylene	2.27	0.0242	2.422	0	93.8	53.1	132				
o-Xylene	1.17	0.0242	1.211	0	96.8	53.3	139				
Surr: Dibromofluoromethane	1.51		1.514		99.6	56.5	129				
Surr: Toluene-d8	1.80		1.514		119	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.59		1.514		105	63.1	141				

Sample ID: **1706132-010BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36782**
Client ID: **BATCH** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **706007**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.18	0.0242	1.211	0	97.8	63.5	133	1.140	3.89	30	
Toluene	1.34	0.0242	1.211	0	111	63.4	132	1.310	2.45	30	
Ethylbenzene	1.19	0.0363	1.211	0	98.1	54.5	134	1.134	4.63	30	
m,p-Xylene	2.37	0.0242	2.422	0	97.9	53.1	132	2.272	4.27	30	
o-Xylene	1.20	0.0242	1.211	0	99.1	53.3	139	1.172	2.37	30	
Surr: Dibromofluoromethane	1.49		1.514		98.7	56.5	129		0		
Surr: Toluene-d8	1.80		1.514		119	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.58		1.514		104	63.1	141		0		

Work Order: 1706112
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID: **1706132-010BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36782**
Client ID: **BATCH** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **706007**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.
R - High RPD observed, spike recoveries are within range.

Sample ID: **1706112-002BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/12/2017** RunNo: **36782**
Client ID: **SP-06082017-2** Batch ID: **17345** Analysis Date: **6/13/2017** SeqNo: **705998**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0114						0		30	
Toluene	ND	0.0114						0		30	
Ethylbenzene	ND	0.0170						0		30	
m,p-Xylene	ND	0.0114						0		30	
o-Xylene	ND	0.0114						0		30	
Surr: Dibromofluoromethane	0.617		0.7102		86.9	56.5	129		0		
Surr: Toluene-d8	0.658		0.7102		92.7	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	0.699		0.7102		98.5	63.1	141		0		

Sample Log-In Check List

Client Name:	**URS**	Work Order Number:	**1706112**
Logged by:	**Erica Silva**	Date Received:	**6/9/2017 11:54:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☑	No ☐	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	0.8
Sample	1.3
Temp Blank	0.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/8/17 | Page: 1 of: 1

Laboratory Project No (internal): 1706112

Special Remarks: Please dispose of excess soils in ziplock bags

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Client: AECOM

Address: 1111 3rd Ave, ~~Suite~~ #1600

City, State, Zip: Seattle, WA, 98101

Telephone: 206-438-2700

Fax: 206-438-2699

Project Name: 1001 Minor Ave

Project No: 60536290

Collected by: SH

Location: 1001 Minor Ave, Seattle WA

Report To (PM): David Raubvogel

PM Email: david.raubvogel@aecom.com

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	SP-06082017-1	6/8/17	1122	Soil		X				X								
2	SP-06082017-2	6/8/17	1136	Soil		X				X								HOLD
3	SP-06082017-3	6/8/17	1155	Soil		X				X								
4																		
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
[signature]	6/9/17 11:13	[signature]	6/9/2017 1113
[signature]	6/9/17 1154	[signature]	6/9/17 11:54

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

AECOM
David Raubvogel
1111 3rd Avenue Suite 1600
Seattle, WA 98101

RE: 1001 Minor Ave
Work Order Number: 1706279

June 26, 2017

Attention David Raubvogel:

Fremont Analytical, Inc. received 2 sample(s) on 6/23/2017 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260C

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *06/26/2017*

CLIENT: AECOM
Project: 1001 Minor Ave
Work Order: 1706279

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1706279-001	Stockpile-062217-1	06/22/2017 2:50 PM	06/23/2017 10:38 AM
1706279-002	Stockpile-062217-2	06/22/2017 3:00 PM	06/23/2017 10:38 AM

Case Narrative

WO#: **1706279**
Date: **6/26/2017**

CLIENT: AECOM
Project: 1001 Minor Ave

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1706279**
Date Reported: **6/26/2017**

Client: AECOM
Collection Date: 6/22/2017 2:50:00 PM
Project: 1001 Minor Ave
Lab ID: 1706279-001
Matrix: Soil
Client Sample ID: **Stockpile-062217-1**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17452		Analyst: SG
Diesel (Fuel Oil)	ND	19.7		mg/Kg-dry	1	6/24/2017 6:08:30 AM
Heavy Oil	ND	49.3		mg/Kg-dry	1	6/24/2017 6:08:30 AM
Surr: 2-Fluorobiphenyl	105	50-150		%Rec	1	6/24/2017 6:08:30 AM
Surr: o-Terphenyl	94.9	50-150		%Rec	1	6/24/2017 6:08:30 AM
Gasoline by NWTPH-Gx				Batch ID: 17454		Analyst: MW
Gasoline	ND	5.44		mg/Kg-dry	1	6/23/2017 7:36:48 PM
Surr: 4-Bromofluorobenzene	97.7	65-135		%Rec	1	6/23/2017 7:36:48 PM
Surr: Toluene-d8	99.0	65-135		%Rec	1	6/23/2017 7:36:48 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17454		Analyst: MW
Benzene	ND	0.0217		mg/Kg-dry	1	6/23/2017 7:36:48 PM
Toluene	ND	0.0217		mg/Kg-dry	1	6/23/2017 7:36:48 PM
Ethylbenzene	ND	0.0326		mg/Kg-dry	1	6/23/2017 7:36:48 PM
m,p-Xylene	ND	0.0217		mg/Kg-dry	1	6/23/2017 7:36:48 PM
o-Xylene	ND	0.0217		mg/Kg-dry	1	6/23/2017 7:36:48 PM
Surr: Dibromofluoromethane	89.7	56.5-129		%Rec	1	6/23/2017 7:36:48 PM
Surr: Toluene-d8	108	64.5-151		%Rec	1	6/23/2017 7:36:48 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	63.1-141		%Rec	1	6/23/2017 7:36:48 PM
Sample Moisture (Percent Moisture)				Batch ID: R37001		Analyst: BB
Percent Moisture	13.6	0.500		wt%	1	6/23/2017 10:46:06 AM

Analytical Report

Work Order: **1706279**
Date Reported: **6/26/2017**

Client: AECOM
Collection Date: 6/22/2017 3:00:00 PM
Project: 1001 Minor Ave
Lab ID: 1706279-002
Matrix: Soil
Client Sample ID: **Stockpile-062217-2**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17452		Analyst: SG
Diesel (Fuel Oil)	ND	21.1		mg/Kg-dry	1	6/24/2017 6:37:53 AM
Heavy Oil	ND	52.8		mg/Kg-dry	1	6/24/2017 6:37:53 AM
Surr: 2-Fluorobiphenyl	116	50-150		%Rec	1	6/24/2017 6:37:53 AM
Surr: o-Terphenyl	105	50-150		%Rec	1	6/24/2017 6:37:53 AM
Gasoline by NWTPH-Gx				Batch ID: 17454		Analyst: MW
Gasoline	ND	5.38		mg/Kg-dry	1	6/23/2017 8:06:24 PM
Surr: 4-Bromofluorobenzene	101	65-135		%Rec	1	6/23/2017 8:06:24 PM
Surr: Toluene-d8	98.1	65-135		%Rec	1	6/23/2017 8:06:24 PM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17454		Analyst: MW
Benzene	ND	0.0215		mg/Kg-dry	1	6/23/2017 8:06:24 PM
Toluene	ND	0.0215		mg/Kg-dry	1	6/23/2017 8:06:24 PM
Ethylbenzene	ND	0.0323		mg/Kg-dry	1	6/23/2017 8:06:24 PM
m,p-Xylene	ND	0.0215		mg/Kg-dry	1	6/23/2017 8:06:24 PM
o-Xylene	ND	0.0215		mg/Kg-dry	1	6/23/2017 8:06:24 PM
Surr: Dibromofluoromethane	90.4	56.5-129		%Rec	1	6/23/2017 8:06:24 PM
Surr: Toluene-d8	107	64.5-151		%Rec	1	6/23/2017 8:06:24 PM
Surr: 1-Bromo-4-fluorobenzene	100	63.1-141		%Rec	1	6/23/2017 8:06:24 PM
Sample Moisture (Percent Moisture)				Batch ID: R37001		Analyst: BB
Percent Moisture	13.2	0.500		wt%	1	6/23/2017 10:46:06 AM

Work Order: 1706279
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **MB-17452**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **6/23/2017**	RunNo: **37006**
Client ID: **MBLKS**	Batch ID: **17452**		Analysis Date: **6/23/2017**	SeqNo: **710687**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	21.0		20.00		105	50	150				
Surr: o-Terphenyl	19.4		20.00		97.2	50	150				

Sample ID **LCS-17452**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **6/23/2017**	RunNo: **37006**
Client ID: **LCSS**	Batch ID: **17452**		Analysis Date: **6/23/2017**	SeqNo: **710688**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	551	20.0	500.0	0	110	65	135				
Surr: 2-Fluorobiphenyl	21.4		20.00		107	50	150				
Surr: o-Terphenyl	21.9		20.00		109	50	150				

Sample ID **1706265-003ADUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **6/23/2017**	RunNo: **37006**
Client ID: **BATCH**	Batch ID: **17452**		Analysis Date: **6/23/2017**	SeqNo: **710965**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	21.7						0		30	
Heavy Oil	ND	54.3						0		30	
Surr: 2-Fluorobiphenyl	24.2		21.72		111	50	150		0		
Surr: o-Terphenyl	22.4		21.72		103	50	150		0		

Sample ID **1706265-003AMS**	SampType: **MS**	Units: **mg/Kg-dry**	Prep Date: **6/23/2017**	RunNo: **37006**
Client ID: **BATCH**	Batch ID: **17452**		Analysis Date: **6/23/2017**	SeqNo: **710966**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	552	19.8	493.9	4.668	111	65	135				
Surr: 2-Fluorobiphenyl	18.4		19.76		93.1	50	150				
Surr: o-Terphenyl	19.1		19.76		96.9	50	150				

Work Order: 1706279
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **1706265-003AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/23/2017** RunNo: **37006**
Client ID: **BATCH** Batch ID: **17452** Analysis Date: **6/23/2017** SeqNo: **710966**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID **1706265-003AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/23/2017** RunNo: **37006**
Client ID: **BATCH** Batch ID: **17452** Analysis Date: **6/23/2017** SeqNo: **710967**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	499	20.9	522.1	4.668	94.7	65	135	551.9	10.0	30	
Surr: 2-Fluorobiphenyl	18.7		20.88		89.7	50	150		0		
Surr: o-Terphenyl	19.1		20.88		91.3	50	150		0		

Sample ID **1706285-001ADUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/23/2017** RunNo: **37006**
Client ID: **BATCH** Batch ID: **17452** Analysis Date: **6/24/2017** SeqNo: **710983**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	19.4						0		30	
Heavy Oil	ND	48.4						0		30	
Surr: 2-Fluorobiphenyl	22.5		19.38		116	50	150		0		
Surr: o-Terphenyl	20.1		19.38		104	50	150		0		

Work Order: 1706279
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID **1706277-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/23/2017** RunNo: **37012**
Client ID: **BATCH** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710629**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	4.69						0		30	
Surr: Toluene-d8	1.16		1.171		98.8	65	135		0		
Surr: 4-Bromofluorobenzene	1.18		1.171		101	65	135		0		

Sample ID **LCS-17454** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/23/2017** RunNo: **37012**
Client ID: **LCSS** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710632**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	27.6	5.00	25.00	0	111	65	135				
Surr: Toluene-d8	1.24		1.250		99.2	65	135				
Surr: 4-Bromofluorobenzene	1.23		1.250		98.3	65	135				

Sample ID **LCSD-17454** SampType: **LCSD** Units: **mg/Kg** Prep Date: **6/23/2017** RunNo: **37012**
Client ID: **LCSS02** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710631**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	27.5	5.00	25.00	0	110	65	135	27.63	0.330	20	
Surr: Toluene-d8	1.23		1.250		98.8	65	135		0		
Surr: 4-Bromofluorobenzene	1.24		1.250		99.0	65	135		0		

Sample ID **MB-17454** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/23/2017** RunNo: **37012**
Client ID: **MBLKS** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710633**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.00									
Surr: Toluene-d8	1.27		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		99.6	65	135				

Work Order: 1706279
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID **1706252-005ADUP** SampType: **DUP** Units: **wt%** Prep Date: **6/23/2017** RunNo: **37001**
Client ID: **BATCH** Batch ID: **R37001** Analysis Date: **6/23/2017** SeqNo: **710433**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	29.5	0.500						29.26	0.930	20	

Work Order: 1706279
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1706277-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/23/2017** RunNo: **37011**
Client ID: **BATCH** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710622**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0187						0		30	
Toluene	ND	0.0187						0		30	
Ethylbenzene	ND	0.0281						0		30	
m,p-Xylene	ND	0.0187						0		30	
o-Xylene	ND	0.0187						0		30	
Surr: Dibromofluoromethane	1.05		1.171		89.3	56.5	129		0		
Surr: Toluene-d8	1.23		1.171		105	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.17		1.171		100	63.1	141		0		

Sample ID **LCS-17454** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/23/2017** RunNo: **37011**
Client ID: **LCSS** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710625**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.04	0.0200	1.000	0	104	64.3	133				
Toluene	1.11	0.0200	1.000	0	111	67.3	138				
Ethylbenzene	1.10	0.0300	1.000	0	110	74	129				
m,p-Xylene	2.29	0.0200	2.000	0	115	70	124				
o-Xylene	1.10	0.0200	1.000	0	110	68.1	139				
Surr: Dibromofluoromethane	1.21		1.250		96.5	56.5	129				
Surr: Toluene-d8	1.33		1.250		107	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.7	63.1	141				

Sample ID **LCSD-17454** SampType: **LCSD** Units: **mg/Kg** Prep Date: **6/23/2017** RunNo: **37011**
Client ID: **LCSS02** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710624**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.02	0.0200	1.000	0	102	74.6	124	1.038	2.04	20	
Toluene	1.07	0.0200	1.000	0	107	67.3	138	1.107	3.80	20	
Ethylbenzene	1.09	0.0300	1.000	0	109	74	129	1.100	0.826	20	
m,p-Xylene	2.29	0.0200	2.000	0	115	70	124	2.295	0.0141	20	

Work Order: 1706279
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **LCSD-17454** SampType: **LCSD** Units: **mg/Kg** Prep Date: **6/23/2017** RunNo: **37011**
Client ID: **LCSS02** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710624**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	1.10	0.0200	1.000	0	110	68.1	139	1.097	0.663	20	
Surr: Dibromofluoromethane	1.16		1.250		92.9	56.5	129		0		
Surr: Toluene-d8	1.30		1.250		104	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.28		1.250		103	63.1	141		0		

Sample ID **MB-17454** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/23/2017** RunNo: **37011**
Client ID: **MBLKS** Batch ID: **17454** Analysis Date: **6/23/2017** SeqNo: **710626**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0300									
m,p-Xylene	ND	0.0200									
o-Xylene	ND	0.0200									
Surr: Dibromofluoromethane	1.08		1.250		86.4	56.5	129				
Surr: Toluene-d8	1.28		1.250		102	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.24		1.250		99.0	63.1	141				

Sample Log-In Check List

Client Name:	**URS**	Work Order Number:	**1706279**
Logged by:	**Clare Griggs**	Date Received:	**6/23/2017 10:38:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Courier		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☑	No ☐	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☑	No ☐	NA ☐ MeOH
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	4.8
Sample	1.0
Temp Blank	3.6

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/22/17 Page: 1 of: 1

Laboratory Project No (internal): 1706279

Project Name: 1001 Minor Ave

Special Remarks: COC signed and sealed in cooler overnight

Project No:

Client: AECOM

Collected by: SH

Address: 1111 3rd Ave, Suite 1600

Location: 1001 Minor Ave, Seattle, WA

City, State, Zip: Seattle, WA 98101

Report To (PM): David Raubvogel

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Telephone: 206-438-2700

PM Email: david.raubvogel@aecom.com

Fax: 206-438-2699

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	Stockpile-062217-1	6/22/17	1450	Soil		X				X								
2	Stockpile-062217-2	6/22/17	1500	Soil		X				X								
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished x Stuart Kahn Date/Time 6/22/2017 17:15

Relinquished x Date/Time

Received x Date/Time 6/23/17 1038

Received x Date/Time

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day By Monday 6/26/17
- ☐ Next Day
- Same Day _____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

AECOM
David Raubvogel
1111 3rd Avenue Suite 1600
Seattle, WA 98101

RE: 1001 Minor Ave
Work Order Number: 1707071

July 12, 2017

Attention David Raubvogel:

Fremont Analytical, Inc. received 3 sample(s) on 7/11/2017 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260C

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

Date: *07/12/2017*

CLIENT: AECOM
Project: 1001 Minor Ave
Work Order: 1707071

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1707071-001	SP-071117-1	07/11/2017 9:00 AM	07/11/2017 10:06 AM
1707071-002	SP-071117-2	07/11/2017 9:15 AM	07/11/2017 10:06 AM
1707071-003	Trip Blank	07/10/2017 2:31 PM	07/11/2017 10:06 AM

Case Narrative

WO#: **1707071**
Date: **7/12/2017**

CLIENT: AECOM
Project: 1001 Minor Ave

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1707071**
Date Reported: **7/12/2017**

Client: AECOM
Collection Date: 7/11/2017 9:00:00 AM
Project: 1001 Minor Ave
Lab ID: 1707071-001
Matrix: Soil
Client Sample ID: **SP-071117-1**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17599		Analyst: SB
Diesel (Fuel Oil)	ND	20.2		mg/Kg-dry	1	7/11/2017 1:33:04 PM
Heavy Oil	ND	50.4		mg/Kg-dry	1	7/11/2017 1:33:04 PM
Surr: 2-Fluorobiphenyl	109	50 - 150		%Rec	1	7/11/2017 1:33:04 PM
Surr: o-Terphenyl	112	50 - 150		%Rec	1	7/11/2017 1:33:04 PM
Gasoline by NWTPH-Gx				Batch ID: 17601		Analyst: NG
Gasoline	ND	6.66		mg/Kg-dry	1	7/12/2017 10:33:12 AM
Surr: 4-Bromofluorobenzene	104	65 - 135		%Rec	1	7/12/2017 10:33:12 AM
Surr: Toluene-d8	97.2	65 - 135		%Rec	1	7/12/2017 10:33:12 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17601		Analyst: NG
Benzene	ND	0.0266		mg/Kg-dry	1	7/12/2017 10:33:12 AM
Toluene	ND	0.0266		mg/Kg-dry	1	7/12/2017 10:33:12 AM
Ethylbenzene	ND	0.0400		mg/Kg-dry	1	7/12/2017 10:33:12 AM
m,p-Xylene	ND	0.0266		mg/Kg-dry	1	7/12/2017 10:33:12 AM
o-Xylene	ND	0.0266		mg/Kg-dry	1	7/12/2017 10:33:12 AM
Surr: Dibromofluoromethane	99.6	56.5 - 129		%Rec	1	7/12/2017 10:33:12 AM
Surr: Toluene-d8	103	64.5 - 151		%Rec	1	7/12/2017 10:33:12 AM
Surr: 1-Bromo-4-fluorobenzene	102	63.1 - 141		%Rec	1	7/12/2017 10:33:12 AM
Sample Moisture (Percent Moisture)				Batch ID: R37306		Analyst: CG
Percent Moisture	7.52	0.500		wt%	1	7/11/2017 12:05:26 PM

Analytical Report

Work Order: **1707071**
Date Reported: **7/12/2017**

Client: AECOM
Project: 1001 Minor Ave
Lab ID: 1707071-002
Client Sample ID: **SP-071117-2**

Collection Date: 7/11/2017 9:15:00 AM
Matrix: Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 17599		Analyst: SB
Diesel (Fuel Oil)	ND	20.5		mg/Kg-dry	1	7/11/2017 3:43:02 PM
Heavy Oil	ND	51.3		mg/Kg-dry	1	7/11/2017 3:43:02 PM
Surr: 2-Fluorobiphenyl	113	50 - 150		%Rec	1	7/11/2017 3:43:02 PM
Surr: o-Terphenyl	116	50 - 150		%Rec	1	7/11/2017 3:43:02 PM
Gasoline by NWTPH-Gx				Batch ID: 17601		Analyst: NG
Gasoline	ND	6.10		mg/Kg-dry	1	7/12/2017 11:02:43 AM
Surr: 4-Bromofluorobenzene	105	65 - 135		%Rec	1	7/12/2017 11:02:43 AM
Surr: Toluene-d8	96.7	65 - 135		%Rec	1	7/12/2017 11:02:43 AM
Volatile Organic Compounds by EPA Method 8260C				Batch ID: 17601		Analyst: NG
Benzene	ND	0.0244		mg/Kg-dry	1	7/12/2017 11:02:43 AM
Toluene	ND	0.0244		mg/Kg-dry	1	7/12/2017 11:02:43 AM
Ethylbenzene	ND	0.0366		mg/Kg-dry	1	7/12/2017 11:02:43 AM
m,p-Xylene	ND	0.0244		mg/Kg-dry	1	7/12/2017 11:02:43 AM
o-Xylene	ND	0.0244		mg/Kg-dry	1	7/12/2017 11:02:43 AM
Surr: Dibromofluoromethane	100	56.5 - 129		%Rec	1	7/12/2017 11:02:43 AM
Surr: Toluene-d8	104	64.5 - 151		%Rec	1	7/12/2017 11:02:43 AM
Surr: 1-Bromo-4-fluorobenzene	102	63.1 - 141		%Rec	1	7/12/2017 11:02:43 AM
Sample Moisture (Percent Moisture)				Batch ID: R37306		Analyst: CG
Percent Moisture	6.87	0.500		wt%	1	7/11/2017 12:05:26 PM

Work Order: 1707071
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **MB-17599** SampType: **MBLK** Units: **mg/Kg** Prep Date: **7/11/2017** RunNo: **37319**
Client ID: **MBLKS** Batch ID: **17599** Analysis Date: **7/11/2017** SeqNo: **717154**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	21.8		20.00		109	50	150				
Surr: o-Terphenyl	21.3		20.00		106	50	150				

Sample ID **LCS-17599** SampType: **LCS** Units: **mg/Kg** Prep Date: **7/11/2017** RunNo: **37319**
Client ID: **LCSS** Batch ID: **17599** Analysis Date: **7/11/2017** SeqNo: **717153**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	486	20.0	500.0	0	97.2	65	135				
Surr: 2-Fluorobiphenyl	22.7		20.00		114	50	150				
Surr: o-Terphenyl	24.8		20.00		124	50	150				

Sample ID **1707071-001ADUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **7/11/2017** RunNo: **37319**
Client ID: **SP-071117-1** Batch ID: **17599** Analysis Date: **7/11/2017** SeqNo: **717143**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	20.8						0		30	
Heavy Oil	ND	52.0						0		30	
Surr: 2-Fluorobiphenyl	23.6		20.79		113	50	150		0		
Surr: o-Terphenyl	23.8		20.79		115	50	150		0		

Sample ID **1707071-001AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **7/11/2017** RunNo: **37319**
Client ID: **SP-071117-1** Batch ID: **17599** Analysis Date: **7/11/2017** SeqNo: **717144**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	455	20.2	506.2	0	89.9	65	135				
Surr: 2-Fluorobiphenyl	21.0		20.25		104	50	150				
Surr: o-Terphenyl	24.3		20.25		120	50	150				

Work Order: 1707071
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID **1707071-001AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **7/11/2017** RunNo: **37319**
Client ID: **SP-071117-1** Batch ID: **17599** Analysis Date: **7/11/2017** SeqNo: **717144**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID **1707071-001AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **7/11/2017** RunNo: **37319**
Client ID: **SP-071117-1** Batch ID: **17599** Analysis Date: **7/11/2017** SeqNo: **717145**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	469	20.6	515.4	0	91.0	65	135	454.9	3.03	30	
Surr: 2-Fluorobiphenyl	24.2		20.62		117	50	150		0		
Surr: o-Terphenyl	26.5		20.62		129	50	150		0		

Work Order: 1707071
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID	**LCS-17601**	SampType: **LCS**		Units: **mg/Kg**		Prep Date: **7/11/2017**		RunNo: **37330**			
Client ID:	**LCSS**	Batch ID: **17601**				Analysis Date: **7/12/2017**		SeqNo: **717321**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	25.5	5.00	25.00	0	102	65	135				
Surr: Toluene-d8	1.22		1.250		97.9	65	135				
Surr: 4-Bromofluorobenzene	1.25		1.250		99.9	65	135				

Sample ID	**MB-17601**	SampType: **MBLK**		Units: **mg/Kg**		Prep Date: **7/11/2017**		RunNo: **37330**			
Client ID:	**MBLKS**	Batch ID: **17601**				Analysis Date: **7/12/2017**		SeqNo: **717322**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.00									
Surr: Toluene-d8	1.22		1.250		97.3	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		98.9	65	135				

Sample ID	**1707071-001BDUP**	SampType: **DUP**		Units: **mg/Kg-dry**		Prep Date: **7/11/2017**		RunNo: **37330**			
Client ID:	**SP-071117-1**	Batch ID: **17601**				Analysis Date: **7/12/2017**		SeqNo: **717318**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	6.66						0		30	
Surr: Toluene-d8	1.60		1.665		95.9	65	135		0		
Surr: 4-Bromofluorobenzene	1.76		1.665		106	65	135		0		

Work Order: 1707071
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID **1707071-002ADUP** SampType: **DUP** Units: **wt%** Prep Date: **7/11/2017** RunNo: **37306**
Client ID: **SP-071117-2** Batch ID: **R37306** Analysis Date: **7/11/2017** SeqNo: **716791**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	7.30	0.500						6.870	6.13	20	

Work Order: 1707071
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **LCS-17601** SampType: **LCS** Units: **mg/Kg** Prep Date: **7/11/2017** RunNo: **37329**
Client ID: **LCSS** Batch ID: **17601** Analysis Date: **7/12/2017** SeqNo: **717326**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.05	0.0200	1.000	0	105	64.3	133				
Toluene	1.06	0.0200	1.000	0	106	67.3	138				
Ethylbenzene	1.04	0.0250	1.000	0	104	74	129				
m,p-Xylene	2.04	0.0500	2.000	0	102	70	124				
o-Xylene	1.01	0.0250	1.000	0	101	68.1	139				
Surr: Dibromofluoromethane	1.29		1.250		103	56.5	129				
Surr: Toluene-d8	1.33		1.250		106	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.28		1.250		103	63.1	141				

Sample ID **MB-17601** SampType: **MBLK** Units: **mg/Kg** Prep Date: **7/11/2017** RunNo: **37329**
Client ID: **MBLKS** Batch ID: **17601** Analysis Date: **7/12/2017** SeqNo: **717327**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.29		1.250		103	56.5	129				
Surr: Toluene-d8	1.25		1.250		99.7	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		96.7	63.1	141				

Sample ID **1707071-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **7/11/2017** RunNo: **37329**
Client ID: **SP-071117-1** Batch ID: **17601** Analysis Date: **7/12/2017** SeqNo: **717323**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0266						0		30	
Toluene	ND	0.0266						0		30	
Ethylbenzene	ND	0.0333						0		30	
m,p-Xylene	ND	0.0666						0		30	

Work Order: 1707071
CLIENT: AECOM
Project: 1001 Minor Ave

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260C

Sample ID **1707071-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **7/11/2017** RunNo: **37329**
Client ID: **SP-071117-1** Batch ID: **17601** Analysis Date: **7/12/2017** SeqNo: **717323**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.0333						0		30	
Surr: Dibromofluoromethane	1.67		1.665		100	56.5	129		0		
Surr: Toluene-d8	1.80		1.665		108	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.72		1.665		104	63.1	141		0		

Sample Log-In Check List

Client Name:	**URS**	Work Order Number:	**1707071**
Logged by:	**Clare Griggs**	Date Received:	**7/11/2017 10:06:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
	Samples received straight from field.			
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes ☐	No ☐	NA ☑
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	16.6
Sample	16.8
Temp Blank	17.8

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 7/11/17 Page: 1 of: 1

Laboratory Project No (internal): 1707071

Special Remarks: Results same time tomorrow

Project Name: 1001 Miner Ave.

Project No:

Client: AECOM

Address: 1111 3rd Ave, Suite 1600

City, State, Zip: Seattle, WA 98112

Telephone: 206-438-2700

Fax:

Collected by: S. Holmes and L. Brown

Location: 1001 Miner Ave, Seattle WA

Report To (PM): David Raubvogel

PM Email: david.raubvogel@aecom.com

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)	Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 SP-071117-1	7/11/17	0900	Soil		X				X									
2 SP-071117-2	7/11/17	0915	Soil		X				X									
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day _____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x Steve Holmes	7/11/17 1006	x	7/11/2017 1006
Relinquished	Date/Time	Received	Date/Time
x		x	

Appendix E

DEPARTMENT OF ECOLOGY
State of Washington

UST ID #: _____

County: ___King___

SITE CHECK/SITE ASSESSMENT CHECKLIST

FOR UNDERGROUND STORAGE TANKS

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 #:	Owner/Operator Name: Nash-Holland 1001 Minor Investors, LLC
UST ID #:	Business Name: NA
Site Name: 1001 Minor Avenue Property	Address: 1000 Dexter Avenue North, Suite 201
Site Address: 1001 Minor Avenue/1122 Madison Street	City: Seattle State: WA Zip: 98109
City: Seattle	Phone: 206-707-4604
Phone: 206-707-4604	Email: nhoffman@hollandpartnergroup.com

III. CERTIFIED SITE ASSESSOR

Service Provider Name: Laurence Brown		Company Name: AECOM	
Cell Phone: 206-300-2893	Email: larry.a.brown@aecom.com	Address: 1111 3rd Avenue, Suite #1600	
Certification #: 8708205	Exp. Date: 12/13/2018	City: Seattle	State: WA Zip: 98101

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST A	~1,700 Gallons	Gasoline	5/8/2017
UST B	~300 Gallons	Waste Oil	5/4/2017
UST C	~800 Gallons	Heating Oil	5/12/2017
UST D	~2,800	Bunker Oil	5/15/2017

V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)

☐ Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).

☐ Release investigation following a failed tank and/or line tightness test.

☐ Release investigation following discovery of contaminated soil and/or groundwater.

☐ Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.

☐ 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).

☐ Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.

☒ Other (describe): UST decommissioning/removal as a result of property redevelopment/excavation.

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.	☒	☐
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	☒	☐
3. A summary of UST system data is provided (Section 3.1)	☒	☐
4. The soils characteristics at the UST site are described. (Section 5.2)	☒	☐
5. Is there any apparent groundwater in the tank excavation?	☐	☒
6. A brief description of the surrounding land use is provided. (Section 3.1)	☒	☐
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.	☒	☐
8. The following items are provided in one or more sketches:		
· Location and ID number for all field samples collected	☒	☐
· If applicable, groundwater samples are distinguished from soil samples	☒	☐
· Location of samples collected from stockpiled excavated soil	☒	☐
· Tank and piping locations and limits of excavation pit	☒	☐
· Adjacent structures and streets	☒	☐
· Approximate locations of any on-site and nearby utilities	☐	☒
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)	☒	☐
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.	☒	☐
11. Any factors that may have compromised the quality of the data or validity of the results are described.	☒	☐
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.	☒	☐

VII. REQUIRED SIGNATURES

Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360-360 through -395.

Laurence Brown		6/2/2017
Print or Type Name	Signature of Certified Site Assessor	Date

SITE CHECK/SITE ASSESSMENT CHECKLIST
FOR UNDERGROUND STORAGE TANKS

INSTRUCTIONS

This checklist must accompany the results of a Site Check Report, which is performed if a release of petroleum or other regulated substance is suspected. It is also required to accompany a Site Assessment Report, which is required following the permanent closure or "change-in-service" of an underground storage tank system. This form is required to be filled out whether or not contamination is found. This checklist is to be completed by the Site Assessor and submitted **within thirty days of completing** these activities to the following address:

Dept. of Ecology
UST Section
PO Box 47655
Olympia, WA 98504-7655

I./II. UST Facility and Owner/Operator Information: Fill out these sections completely. If you do not know your UST ID number, include the facility compliance tag number.

III. Service Provider Information: It is the responsibility of the ICC-certified Site Assessor to ensure that sampling and documentation procedures are completed in accordance with Ecology's *Guidance for Site Checks and Site Assessment for Underground Storage Tanks*.

IV. Tank Information: Use the same Tank identification numbers listed on the facility's Business License which is based on the most recent UST Addendum on file with Ecology. List the last substance stored in each tank, the tank sizes and the date the site check or site assessment was completed.

V. Required Signature: The Site Assessor signature certifies these procedures were followed.

All confirmed releases must be reported to Ecology by the owner within 24 hours and by service providers within 72 hours of discovery. A Site Characterization Report must be submitted to Ecology within 90 days after confirming a release.

Further questions? *Please contact your regional office below and ask for a tank inspector to assist you.*

Regional Office	Counties Served
Central (509) 575-2490	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima
Eastern (509) 329-3400	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman
HQ (360) 407-7170	Federal facilities in Western Washington
Northwest (425) 649-7000	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom
Southwest (360) 407-6300	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, Wahkiakum

or find a complete list of UST inspectors at:
www.ecy.wa.gov/programs/tcp/ust-lust/people.html

FILCO COMPANY INC.
P.O. Box 31228 • Seattle, WA 98103 • Ph: (206) 547-8347 • Fax: (206) 548-9352
www.FilcoEnviro.com • Lic# FILCOCI080RU

LETTER OF CERTIFICATION

May 4th, 2017

Hos Brothers Construction, Inc.
733 West Bostian Road
Woodinville, Washington 98072

RE: Commercial Underground Heating Oil Tank at 1001 Minor Avenue
Seattle, Washington 98104

This is to certify that Filco Company, Inc. has removed one approximate 300 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.

THUR 05/04/17
10AM SK

RECEIVED
MAY 01 2017
PERMIT SECTION

Your
Seattle
Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 **Commercial Tank Removal/Decommissioning**

Permit Fee: $255.00 **Date Issued:** 5-4-17

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	1001 Minor Ave
CONTACT PERSON	Josh Hilton PHONE NUMBER (206) 423-1092

Number of Tank(s): Two Tank Size(s): ~~2000~~ and 300 ☐ Aboveground tank

Product(s) Previously Contained: ~~Gasoline (2000)~~ and Waste Oil (300) ☑ Underground tank

☑ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ☑ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 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

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)*

FMO USE:
Check No.: 93910501 17
Receipt No.: 5-27463
Application ID#: 108869

APPROVED BY:
Inspector: Jerry Hamrick SFD ID# 1310
Name of Marine Chemist _____ Certificate # 46878
Date: 5-4-17

(01/17)

FILCO COMPANY INC.
P.O. Box 31228 • Seattle, WA 98103 • Ph: (206) 547-8347 • Fax: (206) 548-9352
www.FilcoEnviro.com • Lic# FILCOCI080RU

LETTER OF CERTIFICATION

May 8th, 2017

Hos Brothers Construction, Inc.
733 West Bostian Road
Woodinville, Washington 98072

RE: Commercial Underground Heating Oil Tank at 1001 Minor Avenue
Seattle, Washington 98104

This is to certify that Filco Company, Inc. has removed one approximate 2,000 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.

RECEIVED
MAY 05 2017
PERMIT SECTION

Mon 5/8/17 @ 9AM - JG

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 . Commercial Tank Removal/Decommissioning

Permit Fee: $255.00

Date Issued: 5/08/17

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 1001 Minor Ave		
CONTACT PERSON Josh Hilton	PHONE NUMBER (206) 423-1092	

Number of Tank(s): ~~Two~~ One Tank Size(s): 2000 ☐ Aboveground tank

Product(s) Previously Contained: Gasoline ☑ Underground tank

☑ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ☑ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 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

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)*

FMO USE:
Check No.: 9441050517
Receipt No.: 5-274892
Application ID#: 108941

APPROVED BY:
Inspector: J. WILLIAMS SFD ID# 1481
Name of Marine Chemist DON SLU-598 Certificate # 46857
Date: 5/08/17

(01/17)

FILCO COMPANY INC.

PO BOX 31228
SEATTLE, WA 98103
(206) 547-8347

Invoice

DATE	INVOICE #
5/10/2017	37243

PAID 07/20/2017

BILL TO	JOB LOCATION
HOS BROTHERS CONSTRUCTION PO BOX 1788 WOODINVILLE, WA 98072-1788	1001 MINOR AVE SEATTLE, WA 98104

JOB NUMBER	TERMS
26539	DUE ON RECEIPT

ITEM	DESCRIPTION	AMOUNT
R/SR	PUMP OUT, HAUL AWAY AND PROPERLY DISPOSE OF ONE 300 GALLON AND ONE 2,000 GALLON OIL TANK	8,650.00
R/RQ	DISPOSAL OF 100 GALLONS OF WATER FROM 300 GALLON UST @ $1/GALLON	100.00
R/RQ	DISPOSAL OF 200 GALLONS OF PEA GRAVEL FROM 300 GALLON UST @ $2/GALLON	400.00
R/RQ	DISPOSAL OF 675 GALLONS OF WATER FROM 2,000 GALLON TANK @ $1/GALLON	675.00
	SUBTOTAL OF CHARGES	9,825.00

RESALE

CERTIFICATE OF DECOMMISSIONING AND PERMIT (IF APPLICABLE) WILL BE SENT UPON RECEIPT OF PAYMENT.

If you would like to pay with a credit card, please call us and we can take the information over the phone!

Subtotal	$9,825.00
Sales Tax (10.1%)	$0.00
Total	$9,825.00
Payments/Credits	-$9,825.00
Balance Due	$0.00

FILCO COMPANY INC.
P.O. Box 31228 • Seattle, WA 98103 • Ph: (206) 547-8347 • Fax: (206) 548-9352
www.FilcoEnviro.com • Lic# FILCOCI088RU

LETTER OF CERTIFICATION

May 12th, 2017

Hos Brothers Construction, Inc.
733 West Bostian Road
Woodinville, Washington 98072

RE: Commercial Underground Heating Oil Tank at 1001 Minor Avenue
Seattle, Washington 98104

This is to certify that Filco Company, Inc. has removed one approximate 675 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 5/12/17 @ 4pm

Your
Seattle
Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 — **Commercial Tank Removal/Decommissioning**

Permit Fee: $255.00

Date Issued: 5-12-17

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	1001 Minor Ave	
CONTACT PERSON	Josh Hilton	PHONE NUMBER (206) 423-1092

Number of Tank(s): one Tank Size(s): 1200 ☐ Aboveground tank

Product(s) Previously Contained: Heating Oil ☑ Underground tank

☑ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ☑ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 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

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)*

FMO USE:
Check No.: 9490051117
Receipt No.: 5-275082
Application ID#: 108999

APPROVED BY:
Inspector: Jerry Lewis SFD ID# 1310
Name of Marine Chemist _____ Certificate # 46867
Date: 5-12-17

(01/17)

NOTICE TO OWNER
IMPORTANT: READ BOTH SIDES OF THIS NOTICE CAREFULLY
PROTECT YOURSELF FROM PAYING TWICE.

Date: July 27, 2017

To: GEORGETOWN CROSSROADS, LLC C/O PROLOGIS, 4545 AIRPORT WAY, DENVER, CO 80239
GEORGETOWN CROSSROADS, LLC C/O PROLOGIS, 12720 GATEWAY DR #110, TUKWILA, WA 98168

From: GRANITE PRECASTING & CONCRETE, INC.

RE: PROJECT SOUNDER, 4TH AVE S & S FRONT ST, SEATTLE, WASHINGTON

AT THE REQUEST OF (Materials/services ordered by): HOS BROTHERS
PO BOX 1788, WOODINVILLE, WA 98072

THIS IS NOT A LIEN: this is sent to you to tell you who is providing professional services, materials, or equipment for the improvement of your property and to advise you of the rights of these persons and your responsibilities. Also take note that laborers on your project may claim a lien without sending you a notice.

OWNER/OCCUPIER OF EXISTING RESIDENTIAL PROPERTY

Under Washington law, those who furnish labor, professional services, materials or equipment for the repair, remodel, or alteration of your owner-occupied principal residence and who are not paid, have the right to enforce their claim for payment against your property. This claim is known as a construction lien.

The law limits the amount that a lien claimant can claim against your property for Professional Services, Materials and Equipment. Claims may only be made against that portion of the contract price you have not paid to your prime contractor as of the time this notice was given to you or three days after this notice was mailed to you. Review the back of this notice for more information and ways to avoid lien claims.

COMMERCIAL AND/OR NEW RESIDENTIAL PROPERTY

We have or will be providing professional services, materials or equipment for the improvement of your commercial or new residential project. In the event you or your contractor fail to pay us, we may file a lien against your property. A lien may be claimed for all professional services, materials or equipment furnished after a date that is sixty days before this notice was mailed to you, unless the improvement to your property is the construction of a new single-family residence, then ten days before this notice was mailed to you.

Sender: **GRANITE PRECASTING & CONCRETE, INC.**
Address: **4116 BAKERVIEW RD.**
BELLINGHAM, WA 98226
Phone: **(360) 671-2251**

Brief description of professional services, materials or equipment provided or to be provided: UNDERGROUND PRECAST CONCRETE STRUCTURES

**** IMPORTANT INFORMATION ON REVERSE SIDE ****

CC: HOS BROTHERS SIERRA CONSTRUCTION CO., INC.

Order #17-071440, dated July 25, 2017

BK

FILCO COMPANY INC.
PO BOX 31228
SEATTLE, WA 98103
(206) 547-8347

Invoice

DATE	INVOICE NO.
5/16/2017	37262

PAID 07/20/2017

BILL TO	JOB LOCATION
HOS BROTHERS CONSTRUCTION PO BOX 1788 WOODINVILLE, WA 98072-1788	1001 MINOR AVE SEATTLE, WA 98104

TERMS	JOB NUMBER
DUE ON RECEIPT	26539

ITEM	DESCRIPTION	AMOUNT
R/SR	PUMP OUT, HAUL AWAY AND PROPERLY DISPOSE OF 675 GALLON OIL TANK	4,500.00
R/RQ	DISPOSE OF 500 GALLON OF PEA GRAVE @ $2/GALLON	1,000.00
	SUBTOTAL OF CHARGES	5,500.00

RESALE

Total	$5,500.00
Payments/Credits	-$5,500.00
Balance Due	**$0.00**

FILCO COMPANY INC.
P.O. Box 31228 • Seattle, WA 98103 • Ph: (206) 547-8347 • Fax: (206) 548-9352
www.FilcoEnviro.com • Lic# FILCOCI088RU

LETTER OF CERTIFICATION

May 18th, 2017

Hos Brothers Construction, Inc.
733 West Bostian Road
Woodinville, Washington 98072

RE: Commercial Underground Heating Oil Tank at 1001 Minor Avenue
Seattle, Washington 98104

This is to certify that Filco Company, Inc. has removed one approximate 2,800 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.

FILCO COMPANY INC.

PO BOX 31228
SEATTLE, WA 98103
(206) 547-8347

Invoice

DATE	INVOICE #
5/24/2017	37287

PAID 07/20/2017

BILL TO	JOB LOCATION
HOS BROTHERS CONSTRUCTION PO BOX 1788 WOODINVILLE, WA 98072-1788	1001 MINOR AVE SEATTLE, WA 98104

JOB NUMBER	TERMS
26539	DUE ON RECEIPT

ITEM	DESCRIPTION	AMOUNT
R/SR	PUMP OUT, HAUL AWAY AND PROPERLY DISPOSE OF 2,800 GALLON OIL TANK	5,350.00
	SUBTOTAL OF CHARGES	5,350.00

RESALE

CERTIFICATE OF DECOMMISSIONING AND PERMIT (IF APPLICABLE) WILL BE SENT UPON RECEIPT OF PAYMENT.

If you would like to pay with a credit card, please call us and we can take the information over the phone!

Subtotal	$5,350.00
Sales Tax (10.1%)	$0.00
Total	$5,350.00
Payments/Credits	-$5,350.00
Balance Due	$0.00

Runs 5/18/17 @ 11AM

RECEIVED
MAY 16 2017
PERMIT SECTION

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 **Commercial Tank Removal/Decommissioning**

Permit Fee: $255.00 **Date Issued:** 5/18/17

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 1001 Minor Ave		
CONTACT PERSON Josh Hilton	PHONE NUMBER (206) 423-1092	

Number of Tank(s): one Tank Size(s): 1500 ☐ Aboveground tank

Product(s) Previously Contained: Heating Oil ☑ Underground tank

☑ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ☑ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 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

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)*

FMO USE:
Check No.: 95405 5/16/17
Receipt No.: 5-275276
Application ID#: 1090168

APPROVED BY:
Inspector: ALDevitt SFD ID# 1321
Name of Marine Chemist Gary Lo Certificate # 7104
Date: 5/17/17

(01/17)

FILCO COMPANY INC.
P.O. Box 31228 • Seattle, WA 98103 • Ph: (206) 547-8347 • Fax: (206) 548-9352
www.FilcoEnviro.com • Lic# FILCOCI08ØRU

LETTER OF CERTIFICATION

June 9th, 2017

Hos Brothers Construction
733 West Bostian Road
Woodinville, Washington 98072

RE: Residential Underground Heating Oil Tank at 1001 Minor Avenue
Seattle, Washington 98104

This is to certify that Filco Company, Inc. has pumped, triple rinsed, and filled with cement slurry, one 1,000 gallon underground commercial heating oil tank from the above named property. All work was done, and 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 6/9/17 @ 11 AM - JG

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 — **Commercial Tank Removal/Decommissioning**

Permit Fee: $255.00

Date Issued: 6-9-17

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

CITY Seattle SUITE

STATE WA ZIP 98103

JOBSITE ADDRESS 1004 Boren Ave

CONTACT PERSON Josh Hilton PHONE NUMBER (206) 423-1092

Number of Tank(s): one Tank Size(s): 1000

Product(s) Previously Contained: Heating Oil

☐ Aboveground tank

☑ Underground tank

☐ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☑ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ☑ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted **in** person weekdays from 8:00 a.m. to 4:30 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

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)*

FMO USE:

Check No.: CC 0009715060717

Receipt No.: 5-2761167

Application ID#: 1091327

APPROVED BY:

Inspector: Jerry Isaacson SFD ID# 1310

Name of Marine Chemist

Date: 6-9-17 Certificate # 8028604

(01/17)

COMMERCIAL TANK REMOVAL/DECOMMISSIONING PERMIT CONDITIONS

1. Two (2) portable fire extinguishers each having a minimum rating of 40 BC shall be on site within 50 feet of the operation. Fire extinguishers shall be inspected, approved and certified annually.

2. Rope or ribbon barricades located at least 10 feet from the tank shall surround every outdoor storage tank removal or decommissioning operation or the operation shall be enclosed in a fenced yard.

3. "No Smoking" signs shall be posted in readily visible locations.

4. No hot work is allowed on a tank system prior to issuance of this permit and the tank is certified "Safe for Hot Work" by a Certified Marine Chemist. Hot work means any activities involving riveting, welding, burning, brazing, soldering, heating, chopping, grinding, ripping, drilling, cutting with a chop saw or "Sawzall", abrasive blasting, use of powder-actuated tools or similar spark-producing operations, crushing or mechanically shearing to facilitate opening for cleaning, disposal, scrapping for recycling purposes.

5. A separate temporary Seattle Fire Department permit (Code 4913) or a validation number assigned in conjunction with an annual hot work permit (Code 4911 or 4912) is required prior to any hot work operations.

6. Permits may cover multiple tanks located at the same address. If additional tanks are to be removed or abandoned at later dates, separate permits shall be obtained. Each address location requires a separate permit application regardless of whether multiple address locations are physically next to one another.

7. Additional fees will be charged if inspectors are required to work other than normal business hours. (Normal business hours are Monday through Friday, 8:00 a.m. to 4:30 p.m.)

8. No excavation of an underground tank is permitted prior to inspection by the Seattle Fire Marshal's Office.
   Exception: Removal of the top layer of asphalt or concrete only with no removal of dirt, pea gravel or soil over the underground storage tank. Further excavation may be allowed by a Seattle Fire Department Special Hazards Unit Inspector prior to the initial inspection depending on conditions and if the tank has been inerted by a Marine Chemist who is present on site. The name of the inspector and the time permission was given shall be made available at time of inspection.

9. Prior to inspection, to ensure tanks and connected piping are completely free of all flammable or combustible liquids, a receipt or certificate must be on site indicating the tanks have been pumped and rinsed by an approved company. Product and rinse water must be disposed of in an approved manner.

10. For tanks being decommissioned in place that previously contained Class I liquids, a Certified Marine Chemist certificate must be issued and available on site for inspection certifying that the tank has been properly inerted prior to filling.

11. No tank shall be filled prior to an inspection by the Seattle Fire Marshal's Office.

12. Tanks being decommissioned in place must be filled with a lean concrete mixture. Filling with foam is prohibited.

13. A Marine Chemist's certificate verifying the tank has been properly inerted or is otherwise certified "Safe for Hot Work" shall be issued and available on site for inspection for each underground and aboveground tank being removed regardless of the product previously contained.

14. If tanks are being removed, the tanks' atmosphere must be inert using one of the following approved methods:
    - Dry ice (pellets or chunks of solid CO_2). Minimum 40 lbs per 1000 gallons of tank capacity is recommended.
    - Compressed CO_2 gas in cylinders (Note: This method may only be performed by a Certified Marine Chemist).
    - Purging with air (gas-freeing) using Venturi tube apparatus, with proper bonding and grounding and after the tank has been pumped and rinsed by an approved company.

15. A maximum reading of less than 6% of oxygen must be obtained prior to the removal of the tanks if CO_2 or another inert gas, as approved by the Marine Chemist, is used to inert the tank or, a reading of 0% LEL must be obtained prior to removal of the tank if the air-purging (Venturi air moving devices) method is used.

16. All local, state and federal regulations for confined space entry shall be complied with prior to entering an underground storage tank.

17. Tanks with baffles to prevent movement of liquid must be certified gas-freed or inerted by a Certified Marine Chemist or a Petroleum Industry Safety Engineer regularly engaged in that business prior to removal.

18. Tanks being removed must be removed from the site and relocated to a remote, approved facility on the same day that the permit is issued.

19. During the hot work operations, digging, excavating, hauling or transport of petroleum storage tanks that have not been cleaned and gas-freed, tanks must be inerted to less than 6% oxygen. All openings are to be cap closed and secured except for one 1/8" hole drilled through a cap. These tanks are to be sprayed painted with "INERTED, DO NOT ENTER" or "INERTED WITH CO_2, NOT SAFE FOR WORKERS".

FILCO COMPANY INC.

PO BOX 31228
SEATTLE, WA 98103
(206) 547-8347

Invoice

DATE	INVOICE #
6/13/2017	37362

PAID 08/22/2017

BILL TO	JOB LOCATION
HOS BROTHERS CONSTRUCTION PO BOX 1788 WOODINVILLE, WA 98072-1788	1001 MINOR AVE SEATTLE, WA 98104

JOB NUMBER	TERMS
26539	DUE ON RECEIPT

ITEM	DESCRIPTION	AMOUNT
R/RQ	FILL 1,000 GALLON OIL TANK WITH CEMENT SLURRY	4,500.00
	SUBTOTAL OF CHARGES	4,500.00

RESALE

CERTIFICATE OF DECOMMISSIONING AND PERMIT (IF APPLICABLE) WILL BE SENT UPON RECEIPT OF PAYMENT.

If you would like to pay with a credit card, please call us and we can take the information over the phone!

Subtotal	$4,500.00
Sales Tax (10.1%)	$0.00
Total	$4,500.00
Payments/Credits	-$4,500.00
Balance Due	$0.00

REPUBLIC SERVICES **SPECIAL WASTE PROFILE**

PRINT

Requested Disposal Facility: 4178 Roosevelt Regional MSW LF WA

Waste Profile #

Sales Rep #:

Saveable fill-in form. Restricted printing until all required (yellow) fields are completed

I. Generator Information

Generator Name: NASH-Holland 1001 Minor Investors, LLC.			
Generator Site Address: 1001 Minor Ave			
City: Seattle	County: King	State: WA	Zip: 98104
State ID/Reg No:	State Approval/Waste Code: (if applicable)		NAICS #:
Generator Mailing Address (if different): 1000 Dexter Ave N., Suite 201			
City: Seattle	County: King	State: WA	Zip: 98109
Generator Contact Name: Tom Parsons		Email: Tparsons@hollandpartnergroup.com	
Phone Number: 206.430.5974	Ext:	Fax Number:	

II. Billing Information

Bill To: Hos Bros. Construction Inc		Contact Name: David Martin	
Billing Address: P.O. Box 1788		Email: davem@hosbros.com	
City: Woodinville	State: WA	Zip: 98072	Phone: 425-481-9569

III. Waste Stream Information

Name of Waste:	Petroleum Contaminated Soil (PCS)
Process Generating Waste:	Soil excavated adjacent during the removal of heating oil underground storage tanks (UST)
Type of Waste:	☐ INDUSTRIAL PROCESS WASTE ☑ POLLUTION CONTROL WASTE
Physical State:	☑ SOLID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID
Method of Shipment:	☐ BULK ☐ DRUM ☐ BAGGED ☑ OTHER: Truck & Pup
Estimated Annual Volume:	250 Tons
Frequency:	☐ ONE TIME ☑ ONGOING
Disposal Consideration:	☑ LANDFILL ☐ SOLIDIFICATION ☐ BIOREMEDIATION

IV. Representative Sample Certification

☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☑ YES or ☐ NO
Type of Sample: ☑ COMPOSITE SAMPLE ☐ GRAB SAMPLE	
Sample Date: May 15. 2017	
Sample ID Numbers: CT- Stockpile	

REPUBLIC SERVICES **SPECIAL WASTE PROFILE**

PRINT

Waste Profile #

V. Physical Characteristics of Waste

Characteristic Components	% by Weight (range)
1. Soil (silty sand to sand with some gravel)	99.5
2. Heavy oil-range petroleum	<0.5
3.	
4.	
5.	

Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
Brown	Slight Petroleum	YES or NO	100	7 - 8	>140 °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☑ No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☑ No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☑ No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☑ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this waste a reactive or heat generating waste?	☐ Yes or ☑ No
Does the waste contain sulfur or sulfur by-products?	☐ Yes or ☑ No
Is this waste generated at a Federal Superfund Clean Up Site?	☐ Yes or ☑ No
Is this waste from a TSD facility, TSD like facility or consolidator?	☐ Yes or ☑ No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

Thomas Parsons - Exec Mgr Dirctr	Holland Partner Group
Authorized Representative Name And Title (Type or Print)	Company Name
Authorized Representative Signature	5/23/2017
	Date

HOS BROS. CONSTRUCTION, INC. 369414

7733 W. Bostian Road • P.O. Box 1788 • Woodinville, WA 98072-1788 (425) 481.5569 Fax (425) 485.6634

TEAMSTER TIME TICKET

Date: 6-7-2017
S M T W TH F S

Driver's Name (Please print) Bruce Teel

Emp.# 255

Start 6:30 AM PM

Truck No. 5035

Trailer No. 5035

Finished 4:25 AM PM

During the time period covered on this time card, I (check one)
☐ Did ☒ Did Not

1/2 Hour lunch Yes ☐ No ☒

Experience a job-related injury Bruce Teel
Signature

Driver's Time _____

Equip. Time _____

Remarks _____

Please print firmly - 5 part form

Start/ Load Time	Truck Size	Description/Materials Hauled	Materials Loaded From	Materials Delivered To	Time Unloaded	Office Use		
6:30		Travel	1896	1899	7:00			
7:00	8A/4	xport	1899	1896	737	:37	.62	
820		xport 1	1895	1862	906			
953		2			1045			
1128		3			12:13			
1250		4			130			
305	8A/4	xport	1895	390	3:05			
305	8A/4	P.t Run	390	1896	4:25			
			6:30					

FORM HB 631 12/13

OFFICE COPY

HOS BROS. CONSTRUCTION, INC. 379762

7733 W. Bostian Road • P.O. Box 1788 • Woodinville, WA 98072-1788 (425) 481.5569 Fax (425) 485.6634

TEAMSTER TIME TICKET

Date: 6-16-17
S M T W TH (F) S

Driver's Name (Please print) STEVE HAUMAN Emp.# 2006

Start 7:20 (AM) PM

Truck No. 5064 Trailer No. 5064

Finished 12:50 AM (PM)

During the time period covered on this time card, I (check one)
☐ Did ☒ Did Not

1/2 Hour lunch Yes ☐ No ☐

Experience a job-related injury _____ Signature

Driver's Time _____

Equip. Time _____

Remarks 37760
37627

Please print firmly - 5 part form

Start/ Load Time	Truck Size	Description/Materials Hauled	Materials Loaded From	Materials Delivered To	Time Unloaded	Office Use		
7:20	8AXLE	TRAVEL	399	1899	8:21			
8:25	"	EXPORT	1899	BDZ	9:17			
~~—~~	~~"~~	~~EXPORT~~	~~1899~~	~~BDZ~~	~~—~~			
10:16	"	EXPORT	1899	1896	10:44			
10:44	"	EXPORT contaminated	1899	REGIONAL DISPOSAL	11:50			
11:50	"	TRAVEL	1896	399	12:50			
		4.5 HRS	1 LD	BDZ				
			1 LD	1896				
			1 LD	CONTAMINATED TO REGIONAL DISPOSAL				

REGIONAL WAS CLOSED! Hos Yard in Woodinville

~~DUMP FEE~~

HOS BROS. CONSTRUCTION, INC. 379763

7733 W. Bostian Road • P.O. Box 1788 • Woodinville, WA 98072-1788 (425) 481.5569 Fax (425) 485.6634

TEAMSTER TIME TICKET

Date: 6-19-17
S (M) T W TH F S

Start 6:30 (AM) PM

Finished 4:20 AM (PM)

1/2 Hour lunch Yes ☒ No ☐

Driver's Time _____

Equip. Time _____

STEVE HAUMAN
Driver's Name (Please print)

2006
Emp.#

Truck No. 5064

Trailer No. 5064

During the time period covered on this time card, I (check one)
☐ Did ☒ Did Not

Experience a job-related injury _____
Signature

Remarks 38024
37791

Please print firmly - 5 part form

Start/ Load Time	Truck Size	Description/Materials Hauled	Materials Loaded From	Materials Delivered To	Time Unloaded	Office Use		
6:30	8 AXLE	PRETRIP		1899	6:38			
6:38	"	EXPORT ~~Contaminated~~ SOIL	899	~~REPORT~~ DISPOSAL	7:33			
9:28	"	1" SCREENINGS	399	~~1899~~	9:13			
9:14	"	EXPORT STRIPPINGS	1904	PACIFIC TOPSOILS	9:48			
9:49	"	3 WAY TOPSOIL	PACIFIC TOPSOILS	1805	10:17			
10:31	"	EXPORT STRIPPINGS	1904	PACIFIC TOPSOILS	11:13			
11:14	"	3 WAY TOPSOIL	PACIFIC TOPSOILS	1805	12:14			
12:31	"	EXPORT STRIPPINGS	1904	PACIFIC TOPSOILS	1:07			
1:07	"	3 WAY TOPSOIL	PACIFIC TOPSOILS	1805	1:37			
1:52	"	EXPORT STRIPPINGS	1904	PACIFIC TOPSOILS	2:33			
2:34	"	3 WAY TOPSOIL	PACIFIC TOPSOILS	1805	3:07			
4:04	"	Preload 1" screenings	399		4:11			
4:11		POST TRIP		399	4:20			
		EXPORT CONTAMINATED	1.05 HRS	1D	CONTAMINATED.			

631 12/13

OFFICE COPY

Detail Contract Activity Report

All Ticket Types
History and Waiting
* - Confirmed Qty Applied to Billing

December 01, 2016 to November 13, 2017
Specific Contract(s) : 'LW-8216'

All Facilities

LW-8216

Ticket Date	Facility & Ticket Number	Customer	Truck	Material	Contract Rate		Billing Quantity		Ordered Quantity	Minimum Quantity	Maximum Quantity	Material Total	Tax Total	Total
06/19/2017 I	01 951444	011255 - Hos Brothers	5064 HOS	SW-CONT SOIL W/FUE	45.00	F	29.85	TN	0.00	$0.00	$0.00	$1,343.25	$0.00	$1,343.25
06/19/2017 I	01 951451	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	26.93	TN	0.00	$0.00	$0.00	$1,211.85	$0.00	$1,211.85
06/19/2017 I	01 951452	011255 - Hos Brothers	6082 HOS	SW-CONT SOIL W/FUE	45.00	F	27.12	TN	0.00	$0.00	$0.00	$1,220.40	$0.00	$1,220.40
06/19/2017 I	01 951453	011255 - Hos Brothers	1838 HOS	SW-CONT SOIL W/FUE	45.00	F	27.63	TN	0.00	$0.00	$0.00	$1,243.35	$0.00	$1,243.35
06/19/2017 I	01 951454	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	34.05	TN	0.00	$0.00	$0.00	$1,532.25	$0.00	$1,532.25
06/19/2017 I	01 951455	011255 - Hos Brothers	6082 HOS	SW-CONT SOIL W/FUE	45.00	F	33.14	TN	0.00	$0.00	$0.00	$1,491.30	$0.00	$1,491.30
06/19/2017 I	01 951456	011255 - Hos Brothers	1838 HOS	SW-CONT SOIL W/FUE	45.00	F	33.46	TN	0.00	$0.00	$0.00	$1,505.70	$0.00	$1,505.70
06/19/2017 I	01 951457	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	30.91	TN	0.00	$0.00	$0.00	$1,390.95	$0.00	$1,390.95
06/28/2017 I	01 951804	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	28.67	TN	0.00	$0.00	$0.00	$1,290.15	$0.00	$1,290.15
06/28/2017 I	01 951811	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	31.77	TN	0.00	$0.00	$0.00	$1,429.65	$0.00	$1,429.65
06/28/2017 I	01 951817	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	28.73	TN	0.00	$0.00	$0.00	$1,292.85	$0.00	$1,292.85
06/28/2017 I	01 951822	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	28.86	TN	0.00	$0.00	$0.00	$1,298.70	$0.00	$1,298.70
06/28/2017 I	01 951829	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	29.66	TN	0.00	$0.00	$0.00	$1,334.70	$0.00	$1,334.70
06/28/2017 I	01 951833	011255 - Hos Brothers	1830 HOS	SW-CONT SOIL W/FUE	45.00	F	32.54	TN	0.00	$0.00	$0.00	$1,464.30	$0.00	$1,464.30
06/29/2017 I	01 951841	011255 - Hos Brothers	5034 HOS	SW-CONT SOIL W/FUE	45.00	F	28.09	TN	0.00	$0.00	$0.00	$1,264.05	$0.00	$1,264.05
06/29/2017 I	01 951842	011255 - Hos Brothers	6080 HOS	SW-CONT SOIL W/FUE	45.00	F	28.78	TN	0.00	$0.00	$0.00	$1,295.10	$0.00	$1,295.10
06/29/2017 I	01 951843	011255 - Hos Brothers	5001 HOS	SW-CONT SOIL W/FUE	45.00	F	29.49	TN	0.00	$0.00	$0.00	$1,327.05	$0.00	$1,327.05
07/10/2017 I	01 952186	011255 - Hos Brothers	5063 HOS	SW-CONT SOIL W/FUE	45.00	F	27.51	TN	0.00	$0.00	$0.00	$1,237.95	$0.00	$1,237.95
07/14/2017 I	01 952374	011255 - Hos Brothers	5007 HOS	SW-CONT SOIL W/FUE	45.00	F	27.49	TN	0.00	$0.00	$0.00	$1,237.05	$0.00	$1,237.05
07/14/2017 I	01 952381	011255 - Hos Brothers	1821 HOS	SW-CONT SOIL W/FUE	45.00	F	27.09	TN	0.00	$0.00	$0.00	$1,219.05	$0.00	$1,219.05
07/14/2017 I	01 952383	011255 - Hos Brothers	1817 HOS	SW-CONT SOIL W/FUE	45.00	F	26.53	TN	0.00	$0.00	$0.00	$1,193.85	$0.00	$1,193.85
07/14/2017 I	01 952384	011255 - Hos Brothers	5062 HOS	SW-CONT SOIL W/FUE	45.00	F	28.72	TN	0.00	$0.00	$0.00	$1,292.40	$0.00	$1,292.40
07/14/2017 I	01 952385	011255 - Hos Brothers	5061 HOS	SW-CONT SOIL W/FUE	45.00	F	28.52	TN	0.00	$0.00	$0.00	$1,283.40	$0.00	$1,283.40
07/14/2017 I	01 952386	011255 - Hos Brothers	5008 HOS	SW-CONT SOIL W/FUE	45.00	F	30.59	TN	0.00	$0.00	$0.00	$1,376.55	$0.00	$1,376.55
07/14/2017 I	01 952387	011255 - Hos Brothers	5007 HOS	SW-CONT SOIL W/FUE	45.00	F	30.15	TN	0.00	$0.00	$0.00	$1,356.75	$0.00	$1,356.75
07/14/2017 I	01 952389	011255 - Hos Brothers	1503 HOS	SW-CONT SOIL W/FUE	45.00	F	28.78	TN	0.00	$0.00	$0.00	$1,295.10	$0.00	$1,295.10
07/14/2017 I	01 952390	011255 - Hos Brothers	1815 HOS	SW-CONT SOIL W/FUE	45.00	F	27.12	TN	0.00	$0.00	$0.00	$1,220.40	$0.00	$1,220.40
07/14/2017 I	01 952391	011255 - Hos Brothers	6087 HOS	SW-CONT SOIL W/FUE	45.00	F	30.37	TN	0.00	$0.00	$0.00	$1,366.65	$0.00	$1,366.65
07/14/2017 I	01 952392	011255 - Hos Brothers	6082 HOS	SW-CONT SOIL W/FUE	45.00	F	29.98	TN	0.00	$0.00	$0.00	$1,349.10	$0.00	$1,349.10

Tickets Reported: 29 Items Reported: 29 Contract Totals: $38,363.85 $0.00 $38,363.85

Detail Contract Activity Report

All Ticket Types
History and Waiting
* - Confirmed Qty Applied to Billing

December 01, 2016 to November 13, 2017
Specific Contract(s) : 'LW-8216'

All Facilities

Material Summary	Weight Inbound	Weight Outbound		Volume Inbound	Volume Outbound		Count Inbound	Count Outbound	Billing Quantity	Material Total	Tax Total	Total
VH - SW-CONT SOIL W/FUEL	852.53	0.00	TN	0.00	0.00	YD	0.00	0.00	852.53 TN	$38,363.85	$0.00	$38,363.85

Cash Totals:	$0.00	$0.00	$0.00
Invoice Totals:	$38,363.85	$0.00	$38,363.85
Report Totals:	$38,363.85	$0.00	$38,363.85

Tickets Reported: 29 Items Reported: 29