UST System Replacement Report
7-Eleven Store No. 21001
541 West Avenue, Arlington, WA

Facility Site ID: 38543624
UST Site ID: 8643

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Sign-off Sheet

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Stantec

Table of Contents

LIST OF FIGURES

LIST OF APPENDICES

Abbreviations

7-Eleven	7-Eleven, Inc
bgs	Below ground surface
BTEX	Benzene, toluene, ethyl benzene, and total xylenes
COC	Constituents of Concern
CUL	Cleanup Level
Ecology	Washington State Department of Ecology
EDB	1,2-Dibromoethane
EDC	1,2-Dichloroethane
EPA	Environmental Protection Agency
HASP	Health and Safety Plan
ID	Identification
LUST	Leaking Underground Storage Tank
mg/kg	Milligrams per kilograms
Mar Vac	Marine Vacuum, Inc.
MTCA	Model Toxics Control Act
PCS	Petroleum Contaminated Soils
PID	Photoionization Detector
PQLs	Practical Quantitation Limits
Qt	Vashon Till
Stantec	Stantec Consulting Services Inc.
TPH-G	Total petroleum hydrocarbons as gasoline
UST	Underground Storage Tank

1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) was retained by 7-Eleven, Inc. (7-Eleven) to provide documentation of underground storage tank (UST) system removal and replacement at 7-Eleven Store Number 21001 (Subject Property or Site). The Subject Property is located at 541 West Avenue, Arlington, Washington (***Figures 1 and 2***).

The work was conducted from September 9 through 18, 2015. UST site assessment and remedial excavation activities were conducted in accordance with the Washington State Department of Ecology (Ecology) document "Guidance for Site Checks and Site Assessments for Underground Storage Tanks" [Ecology, February 1991 (revised April 2003)]. Site assessment activities were performed by a certified Washington State Site Assessor (#8196039-U7) as required by Washington Administrative Code 173-360-610.

1.1 PURPOSE AND SCOPE OF WORK

Stantec observed the removal of three 12,000-gallon, single-wall metal USTs; two dispensers; associated product piping; and concrete dispenser island at the Subject Property. Stantec collected UST closure soil samples to assess subsurface conditions adjacent to and beneath the former USTs, fuel dispensers, and product piping. Stantec's scope of work consisted of the following tasks:

- Preparing a Site-specific Health and Safety Plan (HASP);
- Providing notification to Ecology 30 days prior to UST removal;
- Documenting dispenser island, product piping, and UST decommissioning activities;
- Inspecting USTs, dispensers, and product piping upon removal;
- Collecting confirmation soil samples from the UST excavation, stockpile, and beneath the product lines and dispensers;
- Logging subsurface conditions, field screening soil samples for organic vapors using a photoionization detector (PID), and submitting selected soil samples for laboratory analysis of benzene, toluene, ethyl benzene and total xylenes (collectively BTEX); total lead; and total petroleum hydrocarbons characterized as gasoline (TPH-G);
- Field screening and collecting samples from soil stockpiles;
- Removal and disposal of petroleum-contaminated soil (PCS);

- Collecting confirmation soil samples from the UST basin; and,
- Preparing this report documenting UST removal and replacement activities.

1.2 SUBJECT PROPERTY BACKGROUND

The Subject Property is an active 7-Eleven convenience store with retail sales of gasoline. Based on available records, diesel fuel was stored at the Site in the past. According to Ecology records, three 12,000-gallon single wall, metal USTs were installed at the Site in 1979.

Stantec conducted a geotechnical and environmental investigation on May 5, 2015 (Stantec 2015). The investigation consisted of drilling and sampling two hollow stem auger borings. The borings (SB-1 and SB-2) were advanced immediately north and south of the UST area (***Figure 3***). Soils at the Site consisted of loose to medium dense sands with gravels from ground surface to approximately 5-feet below ground surface (bgs), underlain by soft to medium dense, sandy silts with variable amounts of sand, which extended to the termination depths of the borings (36.5-feet bgs). Soil sample results from this investigation are provided in ***Table 1***. Soil analytical results were not detected above Model Toxics Control Act (MTCA) Method A Cleanup Levels (CULs) during the investigation. An area of perched water was encountered above the transition between the gravelly sands and underlying silts (approximately 5-feet bgs). Temporary wells were installed for sampling and groundwater was measured at approximately 28-feet bgs in SB-1 and 31-feet bgs in SB-2. Groundwater analytical results are presented in ***Table 2A***. Groundwater analytical results were not detected above MTCA Method A CULs.

1.3 REGULATORY STATUS

Stantec reviewed Ecology's electronic databases regarding the regulatory status of the Subject Property. As of November 9, 2015, the Site was included in the Ecology UST Site/Tank Data Summary database. The Site was not included in the leaking underground storage (LUST) or Cleanup Site lists. Ecology identification numbers (IDs) for the Site are summarized below.

- Facility Site ID: 38543624
- UST Site ID: 8643

PCS above MTCA Method A CULs was encountered in the UST basin during removal of the three 12,000-gallon single-wall, metal USTs documented in this report. The release was reported to Ecology on September 11, 2015 and Environmental Report Tracking System number 659543 was generated.

1.4 POTENTIAL CONSTITUENTS OF CONCERN

Based on past and present use of the Site and existing analytical data, potential constituents of concern (COCs) include the compounds listed in *MTCA 173-340-900 Table 830-1 Required*

Testing for Petroleum Releases (Ecology 2007). The following table presents the potential sources of contamination and the corresponding potential COCs for the Site:

Potential Source(s)	Potential COCs
Gasoline USTs and distribution system that has operated since 1979	• TPH-G • BTEX • Total lead • MTBE • Ethylene Dibromide (EDB) • 1,2-Dichloroethane (EDC) • Total Naphthalenes (naphthalene, 1-methylnaphthalene, 2-methylnaphthalene)

Records obtained from 7-Eleven and Ecology do not indicate that diesel has ever been sold at the Site during previous Site operations. 7-Eleven intends to sell gasoline and diesel fuel at the Site following installation of the new 20,000-gallon double wall fiberglass USTs (***Section 3.6***).

2.0 FACILITY DESCRIPTION

2.1 SITE LOCATION

The Subject Property is located at 541 West Ave in Arlington, Washington. The general location of the Subject Property is shown on ***Figure 2*** (Site Vicinity Map). The Site consists of one tax parcel (No. 00618100100100) with an area of approximately 18,000 square feet.

2.2 SITE DESCRIPTION

The Subject Property is a retail gasoline station occupied by 7-Eleven and located in a mixed commercial and residential area. The location of the USTs and dispensing facilities are presented on ***Figure 3***. The 7-Eleven store is a freestanding building is located in the southeast portion of the Subject Property. The fuel canopy and islands are located northwest of the 7-Eleven store and the USTs are located in parking and drive areas directly north of the building/store front and east of the canopy structure.

The Subject Property and adjacent areas are paved with asphalt and concrete and there is a gentle slope extending from the south of the Site north. Landscaped areas with local vegetation are located along the west and north margins of the Subject Property.

2.3 SURROUNDING LAND USE

The Subject Property is bordered to the north by East Division Street, to the east by the Centennial Trail, to the south by additional commercial developments, and to the west by West Avenue. The intersection of West Avenue and East Division Street directly to the northwest of the site is a traffic circle with varying landscaping along its boundaries. Approximately 0.25 miles to the north is the Stillaguamish river, where the North Fork and South Fork converge.

2.4 REGIONAL SETTING AND GEOLOGY

The Site lies within the Puget Lowland. The lowland is part of a regional north-south trending trough that extends from southwestern British Columbia to near Eugene, Oregon. North of Olympia, Washington, this lowland is glacially carved, with a depositional and erosional history including at least four separate glacial advances/retreats. The Puget Lowland is bounded to the west by the Olympic Mountains and to the east by the Cascade Range. The lowland is filled with glacial and nonglacial sediments consisting of interbedded gravel, sand, silt, till, and peat lenses.

The Geologic Map of Washington, Northwest Quadrant, indicates that the site is underlain by Vashon Glacial Till. Vashon Glacial Till (Qt) is typically characterized by an unsorted, nonstratified mixture of clay, silt, sand, gravel, cobbles and boulders in variable quantities. These materials are typically dense and relatively impermeable. The poor sorting reflects the mixing of

the materials as these sediments were overridden and incorporated by the glacial ice. Localized areas of lenses of water-bearing sands and gravels exist with these glacial till deposits and may result in a shallow and perched water table. Lateral and vertical migration of shallow groundwater may be impeded by the relatively impermeable nature of the till and by the sometimes discontinuous nature of the perched water-bearing sands and gravel. Perched and discontinuous zones of shallow groundwater may be seasonally or perennially present, depending on site-specific conditions.

The soils encountered surrounding the USTs were identified as silts with varying amounts of sand.

3.0 FIELD ACTIVITIES

3.1 GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

The Site does not have existing groundwater monitoring wells. Two groundwater samples (SB-1 and SB-2) were collected from temporary wells on May 5, 2015 during a geotechnical and environmental investigation (Stantec 2015). Groundwater analytical results from the May 2015 investigation are presented on Table 2A and summarized below. BTEX and TPH-G concentrations were not detected above laboratory practical quantitation limits.

May 5, 2015 - Groundwater results in micrograms per liter (µg/l)					
Sample ID	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**TPH-G**
SB-1	<1.00	<1.00	<1.00	<2.00	<100
SB-2	<1.00	<1.00	<1.00	<2.00	<100
MTCA Method A CULs	**5**	**1,000**	**700**	**1,000**	**800**

3.2 UST REMOVAL ACTIVITIES

7-Eleven contracted Wilkey's Construction, Inc. (Wilkeys) of Olivehurst, California to remove the three 12,000-gallon, single-wall metal USTs and ancillary equipment at the Subject Property. Stantec submitted a 30-day Notice of UST closure to Ecology on July 10, 2015 (***Appendix A***). Prior to excavation activities:

- The USTs were emptied by 7-Eleven;
- The Northwest Utility Notification Center (1-800-454-5555) and private utility locator were contacted to determine the presence and location of underground utilities; and,
- Electrical service to the dispenser island and USTs was isolated and removed by a 7-Eleven contracted certified electrician.

Stantec prepared a HASP before implementing on-Site work. The HASP identified potential physical and chemical hazards associated with the proposed field activities and established personal protection standards and mandatory safety practices. The HASP also included information on suspected chemical compounds to be encountered, a list of monitoring equipment, the required protective clothing and equipment, a map and directions to the nearest hospital, and a list of emergency telephone numbers. The HASP was kept on-Site and available at all times during the field activities. Stantec personnel and all subcontractors

working at the Subject Property were required to review, sign, and comply with the provisions set forth in the HASP.

On September 9, 2015, the remaining fuel product was removed, and the USTs were triple-rinsed. Approximately 625-gallons of residual product and rinsate water were removed from the USTs by Marine Vacuum, Inc. (Mar Vac) of Seattle, Washington, and transported to a permitted hazardous waste treatment and disposal facility. Waste disposal documentation is provided in ***Appendix B***. The three USTs were rendered inert using carbon dioxide by a certified marine chemist from Sound Testing, Inc. Testing with a portable multi-gas detector equipped with a lower-explosive limit meter confirmed that the organic vapor levels in the USTs were safe prior to their removal (***Appendix B***).

On September 11, 2015, Stantec observed removal of the three 12,000-gallon, single-walled metal USTs at the Subject Property. The southern UST was removed first and staged for inspection. Upon visual inspection, five holes were observed in the middle of the tank, located approximately halfway up from the tank bottom. The middle and eastern USTs were also removed and pitting was observed on both tanks along the middle of the tank height. The USTs were transported by Mar Vac for disposal at Pacific Iron and Metal Company. A copy of the certificate of disposal from is included in ***Appendix B***. The Permanent Closure Notice for Underground Storage Tanks and Site Check/Site Assessment Checklist for Underground Storage Tanks is included in ***Appendix A***.

3.3 SUBSURFACE CONDITIONS

During UST removal activities, Stantec encountered approximately three to four inches of asphalt underlain by sands with gravels and sandy silts. The sand and gravel mixtures extended from the base of the asphalt to the maximum depth of the excavation.

Tank-pit water was encountered during UST excavation activities. The tank-pit water was sampled and removed from the Site for proper disposal (***Section 4.2***). Analytical results are presented in ***Table 2B*** and on ***Figure 4***. Groundwater is located approximately 28-feet bgs and was not encountered during excavation activities (***Section 1.2***).

3.4 FIELD SCREENING

Field screening consisted of visual observations of potential hydrocarbon impacts and headspace analysis for volatile organic compound (VOC) vapors. Overburden material removed from the UST and dispenser island excavation was screened for organic vapors with a MiniRae, Inc., Organic Vapor Meter PID. A sample of the soil matrix was placed in a re-sealable plastic bag and allowed to equilibrate for approximately 10 minutes. The probe of the PID was used to pierce the plastic and extended into the headspace above the soil surface. The highest vapor reading obtained during the next 60 seconds was then recorded. Prior to use, the PID was

calibrated to a known concentration of isobutylene, in accordance with the manufacturer's specifications.

A hydrocarbon odor was encountered in the soil stockpile and soils removed from UST basin. PID readings from September 10 and 11, 2015 were lost during field activities. Subsequent PID readings are summarized in ***Table 1***.

3.5 SOIL SAMPLING ACTIVITIES

Sampling was conducted at locations associated with noticeable petroleum odors and elevated headspace vapor PID concentration measurements. Samples taken from the sidewalls and base of the excavation for field screening purposes were collected on an approximate 10-foot by 10-foot horizontal grid when possible. Soil samples from the UST excavation were collected from the excavator bucket due to safety concerns. Soils samples were collected using Environmental Protection Agency (EPA) Method 5035A sampling procedures.

A total of 19 soil samples were collected during the UST system removal and remedial excavation activities. Stantec personnel collected soil samples from beneath each UST (UST-MID-14', UST-South-15', UST-North-14'); the four excavation sidewalls (East-Wall-11', West-Wall-14', N-Wall-10', S-Wall-9.5'); beneath each dispenser (N-Disp-3' and S-Disp-2.5'); product lines (PL-1@3.5'); and soil stockpile (SP-1 through SP-5), in accordance with Ecology guidelines. Additional samples identified as confirmation samples (UST-MID-19', N-UST-16.5', S-UST-16.5', and W-Wall-16') were taken from the extent of the remedial excavation (***Section 4.1***).

3.5.1 Soil Analytical Methods

Samples were delivered under chain-of-custody to TestAmerica Inc. in Nashville, Tennessee for analysis of TPH-G by Method NWTPH-Gx; BTEX by EPA Method 8260B; and total lead by EPA Method 200.8. Analytical results for soil samples from the UST closure activities are summarized in ***Table 1*** and presented on ***Figure 3***.

3.5.2 Soil Analytical Results

Analytical results are summarized in ***Table 1*** and ***Figure 3***. Complete laboratory results and chain-of-custody documentation are included in ***Appendix C***.

Benzene was the only COC identified above MTCA Method A CULs during sampling activities. A total of nine soil samples exceeded Ecology MTCA Method A CULs for benzene. Benzene exceedances were observed in samples collected from the soil stockpile, beneath the USTs, and sidewalls of the excavation. COCs were not detected above MTCA Method A CULs beneath the dispensers or product lines. Eight of the nine sample locations that exceeded Ecology MTCA Method A CULs for benzene were removed from the Site (***Section 4.1***)

3.6 UST INSTALLATION ACTIVITIES

Following removal of the three 12,000-gallon, single-wall metal USTs, slide rail shoring was installed to allow for installation of two new 20,000-gallon double wall fiberglass USTs (one single compartment and one dual compartment). The dual compartment UST is designed to store 8,000 gallons of premium unleaded gasoline and 12,000 gallons of diesel fuel. The single compartment UST is designed to store 20,000 gallons of regular unleaded gasoline. The tank pit was extended approximately 20 feet to the south (towards the 7-Eleven convenience store) and to the northwest (towards the dispenser island) to accommodate the new larger 20,000-gallon tanks. The new USTs were set in place on September 22, 2015. The layout of the newly installed USTs is presented in ***Figure 5***.

3.7 SOIL BACKFILLING

All of the soil excavated from the tank pit was removed and disposed of off-Site as described in ***Section 4.1***. Upon completion of confirmation sampling and placement of the new USTs, the tank pit was backfilled with clean imported pea gravel to near the surface. Clean imported fill material was then applied and compacted in lifts to surface grade. The area above the tanks and around the dispensers was then resurfaced with concrete. Asphalt was used to resurface the remaining area.

4.0 REMEDIAL ACTIONS AND CONFIRMATION SAMPLING

4.1 REMEDIAL EXCAVATION

Following UST removal activities, PCS was identified inside the UST basin and sidewalls of the excavation at approximately 9- to 16.5-feet bgs. Approximately 1,045 tons of PCS was removed from the tank basin area and disposed of at CEMEX in Everett, Washington. The quantity of PCS removed for proper disposal is summarized in ***Appendix D***. ***Figure 3*** illustrates the lateral extents of the remedial excavation. The vertical extent of the excavation was approximately 16.5-feet bgs. The vast majority of PCS was removed from Site during over-excavation.

4.1.1 Confirmation Soil Sampling Analytical Results

Four confirmation soil samples (UST-MID-19', N-UST-16.5', S-UST-16.5', and W-Wall-16') were collected from the limits of the over-excavation. Analytical results are presented in ***Table 1*** and indicate that eight of the nine sample locations exceeding the Ecology MTCA Method A CUL for benzene were removed from the Site during remedial over-excavation. One soil sample (N-UST-16.5'), collected below the northern UST at a depth of approximately 16.5-feet, remained at the Site following over-excavation. The concentration of benzene in this sample was reported as 0.0326 milligrams per kilogram (mg/kg). It should be noted that laboratory quality control results indicated this sample was outside acceptance limits.

4.1.2 Lateral and Vertical Delineation

Soil analytical results indicate that PCS in the tank basin is laterally defined as summarized below:

Lateral Delineation

Sample Location	Sample Demonstrating Compliance	Evidence Demonstrating Compliance
Soil Boring North of USTs	SB-2	Analytical results and PID screening levels (boring log)
Soil Boring South of USTs	SB-1	Analytical results and PID screening levels (boring log)
Eastern Side Wall	East Wall@11'	Analytical Results
Western Side Wall	W-Wall-16'	Analytical Results

The majority of PCS was vertically delineated inside the UST basin as evidenced by samples collected beneath the UST's. Vertical delineation is summarized in the table below.

Vertical delineation

Sample Location	Sample Demonstrating Compliance below MTCA Method A CULs	Depth
Below Northern UST	N-UST-16.5' (Statistical Analysis)	16.5-feet bgs
Below Middle UST	UST-MID@19'	19-feet bgs
Below Southern UST	S-UST-16.5'	16.5-feet bgs

Based on analytical results from soil sample N-UST-16.5', a small amount of PCS just above MTCA Method A CULs appears to remain beneath the former northern UST at approximately 16.5-feet bgs. Based on field observations and analytical results, Stantec believes soil in the UST basin has been sufficiently delineated vertically to comply with MTCA cleanup standards. A statistical evaluation of remaining PCS concentrations is provided in ***Section 5.0***.

4.2 TANK PIT WATER DISPOSAL

During UST removal activities, a small quantity of tank pit water was encountered inside the tank pit excavation. Stantec collected two grab samples (WS-1 and Sump-1) on September 10 and 11, 2015. Mar Vac removed the water using a vacuum truck on September 11, 2015. Approximately 1,000-gallons were removed from Site for proper disposal. The waste manifest is provided in ***Appendix B***.

4.2.1 Tank Pit Water Analytical Results

Analytical results from the two tank pit water samples WS-1 and Sump-1 are presented in ***Table 2B*** and ***Figure 4***. The following COCs exceeded MTCA Method A CULs:

- Benzene;
- Total Xylenes;
- TPH-G; and ,
- Total Lead.

The practical quantitation limit for EDB and EDC exceeded the respective MTCA Method A CULs in Sump-1.

Per Section 5.8 of the Ecology document *Guidance for Site Checks and Site Assessments for Underground Storage Tanks* (Ecology 2003), "water sampled directly from inside a tank excavation is not necessarily repetitive of normal groundwater conditions and should not be evaluated as a groundwater sample". Groundwater analytical results collected on May 5, 2015 were below MTCA Method A CULs (***Table 2A***).

5.0 STATISTICAL EVALUATION

In accordance with the *Guidance on Sampling and Data Analysis Methods* (Ecology, January 1995), a "statistical approach" was used to demonstrate soil compliance below Site cleanup levels. Based on the Ecology document *Statistical Guidance for Ecology Site Managers* (Ecology 1992), statistical procedures can be used for compliance data which indicates a low frequency of relatively small-magnitude exceedances of the cleanup standard without triggering mandatory cleanup criteria. Under MTCA, there are three required components to demonstrate compliance through a statistical evaluation:

- *The upper 95% confidence limit on the true population mean (average) must be less than the cleanup level;*
- *No sample concentration can be more than twice the cleanup level; and,*
- *Less than 10% of the samples can exceed the cleanup level.*

Calculation of Upper 95% Confidence Limit

Stantec utilized the MTCAStat Excel statistical package to evaluate remaining soil concentrations at the Site. Benzene results for all remaining sample locations (10 samples) were used to calculate the upper 95% confidence limit. For samples with benzene concentrations detected below practical quantitation limits (PQLs) limits, a conservative estimation of the benzene concentration was entered in the MTCAStat calculator by using the laboratory practical quantitation limit (not one half of the PQL). MTCAStat analysis indicated the data set did not fit a lognormal or normal distribution; therefore, the upper 95% confidence limit was calculated using the Z-parameter, as described in Section 5.2.1.3 through 5.2.1.4 of the *Statistical Guidance for Ecology Site Managers* (Ecology, 1992).

$$UCL_{95\%} = x + Z_{1-\alpha} (s/n^{\wedge 1/2})$$

Where,

UCL = Upper 95% Confidence Limit
x = sample mean
s = sample standard deviation
n = number of compliance monitoring samples
$Z_{1-\alpha}$ = value of the Z parameter from the normal distribution for a defined confidence level
(Z_{95} =1.645)

The upper 95% confidence limit was calculated to be 0.01 mg/kg, which is less than the MTCA Method A CUL for benzene (0.03 mg/kg). Therefore the first condition is consistent with a

statistical approach. A copy of the MTCAStat statistical approach with Z parameter calculation is included as ***Appendix E***.

No sample concentration can be more than twice the cleanup level

Only one confirmation soil sample (N-UST-16.5') exceeding MTCA Method A CULs for benzene remains in place at the Site following over-excavation activities. Remaining soil samples were below MTCA Method A CULs for all other Site COCs. The benzene concentration in N-UST-16.5' was 0.0326 mg/kg. This value is less than twice the MTCA Method A CUL; therefore, it satisfies the second condition for using a statistical approach.

Less than 10% of the samples can exceed the cleanup level

A total of 22 soil samples have been collected at the Site since the initial investigation in May 2015. Twelve of the soil sample locations were removed during over excavation activities. Of the ten samples representative of remaining soil concentrations, only one sample (N-UST-16.5') exceeded the MTCA Method A CUL for benzene (10%).

Most of the samples were selected using a "focused" approach. Therefore, samples were collected based on visual observation, olfactory, and field screening results indicating the likely presence of benzene impacts. Sampling results are therefore biased high. Therefore, Stantec believes the third condition is satisfied for using a statistical approach.

6.0 SUMMARY AND CONCLUSIONS

Stantec observed the removal of three 12,000-gallon, single-wall metal USTs; two dispensers; associated product piping; and concrete dispenser island at the Subject Property from September 9 through 18, 2015. Based on field observations and analytical data, Stantec concludes the following:

- Upon removal and visual inspection, five holes were observed in the southern UST and pitting was observed in the middle and northern USTs. The holes were observed along the middle of the southern UST, located approximately halfway up from the tank bottom;
- Elevated PID readings and petroleum odor were observed inside the UST tank pit;
- Groundwater was not encountered during the excavation and based on the May 2015 investigation is located approximately 27-feet bgs. A small volume of tank-pit water was encountered inside the excavation. Approximately 1,000-gallons of tank-pit water was removed via vacuum truck and hauled off-Site for proper disposal;
- A total of 22 soil samples have been collected at the Site. Three soil samples were collected prior to UST removal (May 2015) and nineteen soil samples were collected during UST replacement activities (September 2015). Twelve of these sample locations were removed from the Site for proper disposal during over-excavation activities. Only one soil sample location (N-UST-16.5') remains at the Site which exceeds MTCA Method A CULs for benzene. All other COCs are below MTCA Method A CULs;
- Statistical procedures were used to evaluate soil sample N-UST-16.5' and results are consistent with a statistical approach for evaluating compliance data. The intent of the statistical approach is consistent with Site data and indicates a low frequency of relatively small-magnitude exceedances of the cleanup standard are allowable without triggering mandatory cleanup criteria under MTCA regulation;
- The lateral extent of the remedial over-excavation is illustrated in ***Figure 3***. The vertical extent of the remedial over-excavation was approximately 16.5-feet bgs. A total of approximately 1,045 tons of PCS was removed from the Subject Property and transported off-Site for proper disposal at CEMEX disposal facility in Everett, Washington;
- Two new 20,000-gallon double wall fiberglass USTs (one single compartment and one dual compartment) were installed at the Site on September 22, 2015. 7-Eleven intends to utilize the new UST system to store and sell unleaded gasoline and diesel fuel at the Site in the future; and,

- The excavated area was backfilled with clean, imported 1.5-inch minus fill material. The fill was compacted to meet ASTM D1557 standards.

Based on the May 2015 environmental investigation, soil and groundwater results were below MTCA Method A CULs immediately north and south of the former UST basin (SB-1 and SB-2). Recent compliance and confirmation soil samples indicate that the vast majority of PCS (1,045 tons) was removed from the Site. Soil samples collected beneath the southern and middle USTs indicate that PCS vertically attenuates below laboratory detection limits at a depth of 16.5- to 19-feet bgs (S-UST-16.5', UST-MID-19'). Therefore the leaching pathway is likely incomplete based on soil and groundwater analytical data. Based on this evidence and the statistical evaluation discussed in ***Section 5.0***, Stantec requests a *No Further Action* determination.

7.0 REFERENCES

Geologic Map of Washington - Northwest Quadrant. Washington Division of Geology and Earth Resources. 2002.

Stantec Consulting Services, Inc. 2015. *Geotechnical and Environmental Investigation Report for UST Replacement*, 7-Eleven Store No. 21001, 541 West Ave, Arlington, WA. July 30, 2015.

Underground Storage Tank (UST) and Leaking Underground Storage Tank (LUST) Lists, available from: https://fortress.wa.gov/ecy/tcpwebreporting/reports.aspx [Accessed November 2015].

Washington State Department of Ecology. February 1991. (Revised April, 2003). *Guidance for Site Checks and Site Assessments for Underground Storage Tanks*. Department of Ecology Underground Storage Tank Program.

Washington State Department of Ecology. January 1995. *Guidance on Sampling and Data Analysis Methods.*

Washington State Department of Ecology. August 1992. *Statistical Guidance for Ecology Site Managers.*

TABLES

Table 1
Soil Analytical Results
7-Eleven Store No. 21001
541 West Avenue, Arlington, WA
All results and cleanup levels presented in milligrams per kilogram (mg/kg)

Sample Location	Sample Identification	Date	PID (ppm)	Depth (feet bgs)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	Total Lead
2015 Predrill Assessment										
SB-1	SB-1@10'	05/05/15	--	10	0.00209	<0.00195	<0.00195	<0.00292	<6.08	--
SB-1	SB-1@25'	05/05/15	--	25	<0.00173	<0.00173	<0.00173	<0.00260	<5.66	--
SB-2	SB-2@10'	05/05/15	--	10	<0.00200	<0.00200	<0.00200	<0.00300	<5.61	--
2015 UST Replacement										
Sidewall Samples	East-Wall-11'	09/11/15	--	11	0.00253	0.00328	<0.00207	0.00857	<6.17	12.5
	West-Wall-14'	09/11/15	--	14	**0.100**	<0.00204	<0.00204	<0.00511	<7.84	13.1
	N-Wall-10'	09/10/15	--	10	**0.0438**	0.0887	0.240	0.483	<6.38	--
	S-Wall-9.5'	09/10/15	--	9.5	**0.491**	0.271	0.405	1.01	<5.59	--
Stock Pile	SP-1	09/10/15	--	--	**<0.0361**	<0.0903	<0.0903	<0.0903	<5.99	--
	SP-2	09/10/15	--	--	**<0.032**	<0.0799	<0.0799	<0.0799	<5.50	--
	SP-3	09/11/15	--	--	**0.0960**	<0.00286	<0.00286	<0.00714	<7.22	8.28
	SP-4	09/28/15	--	--	<0.00213	<0.00213	<0.00213	<0.00638	<5.83	<1.06
	SP-5	09/28/15	--	--	<0.00202	<0.00202	<0.00202	<0.00606	<4.98	<1.08
UST	UST-MID-14'	09/11/15	--	14	0.00365	<0.00226	<0.00226	<0.00566	<5.91	10.3
	UST-South-15'	09/11/15	--	15	**7.01**	<0.00199	<0.00199	<0.00497	7.52	12.0
	UST-North-14'	09/11/15	--	14	**0.0317**	<0.00182	<0.00182	<0.00455	<5.88	11.9
Confirmation Samples	UST-MID-19'	09/11/15	4.4	19	<0.00201	<0.00201	<0.00201	<0.00503	<6.61	10.8
	N-UST-16.5'	09/18/15	--	16.5	**0.0326***	0.00342	0.00184	0.00935	7.35	10.7
	S-UST-16.5'	09/18/15	1.4	16.5	<0.00249*	<0.00249	<0.00249	<0.00748	<8.54	12.2
	W-Wall-16'	09/18/15	1.1	16	<0.00201	<0.00201	<0.00201	<0.00602	<5.92	9.93
Product Line and Dispenser Samples	PL-1 @ 3.5'	09/18/15	0.2	3.5	<0.00163	<0.00163	<0.00163	<0.00488	<4.77	5.89
	N-Disp-3'	09/18/15	1.2	3	<0.00208	0.00576	<0.00208	<0.00623	<5.80	6.94
	S-Disp-2.5'	09/18/15	1.2	2.5	0.00269	0.0173	0.00219	0.0124	<5.53	13.5
MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses					**0.03**	**7**	**6**	**9**	**30[a]**	**250**

Explanation of Abbreviations:

bgs = below ground surface
PID = photoionization detector
ppm = parts per million
TPH-G = total petroleum hydrocarbons in the gasoline range
-- = not analyzed or not measured
< = result is below practical quantitation limit
MTCA = Model Toxics Control Act
J = The result is below normal reporting limits. The value reported is an estimate.

Notes:

[a] = Gasoline mixtures without benzene and where the total of ethylbenzene, toluene, and xylene are less than 1% of the
[b] = Benzene, toluene, ethly benzene, total xylenes, by EPA Method 8260B
BOLD = Result exceed MTCA Method A Soil Cleanup Level
= The sample location was removed from the Site during remedial over-excavation.
* = Laboratory Control Sample is outside acceptance limits.

Table 2A
Groundwater Analytical Results
7-Eleven Store No. 21001
541 West Avenue, Arlington, WA
All concentrations are in micrograms per liter (µg/L)

Sample ID	Sample Location	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G
2015 Predrill Assessment							
SB-1	Boring SB-1	5/5/2015	<1.00	<1.00	<1.00	<2.00	<100
SB-2	Boring SB-2	5/5/2015	<1.00	<1.00	<1.00	<2.00	<100
MTCA Method A Cleanup Levels			**5**	**1,000**	**700**	**1,000**	**800/ 1,000[a]**

Explanation of Abbreviations:

TPH-G = total petroleum hydrocarbons as gasoline
-- = not sampled, not measured or not available
< = less than the laboratory practical quantitation limit
MTCA = Model Toxics Control Act

Notes:

[a] = The MTCA Clean up level for TPH-G is reduced from 1,000 to 800 µg/L if benzene exceeds its MTCA Clean up level.

Bold values exceed the MTCA Method A Cleanup Level

Table 2B
Tank-Pit Water Analytical Results
7-Eleven Store No. 21001
541 West Avenue, Arlington, WA
All concentrations are in micrograms per liter (µg/L)

Sample ID	Sample Location	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	MTBE	EDB	EDC	Total Lead
2015 UST Replacement											
WS-1	Tank pit grab sample [b]	9/10/2015	**143**	11.3	25.1	38.9	**844**	--	--	--	--
Sump -1	Tank pit grab sample [b]	9/11/15	**113**	583	645	**2,300**	**30,200**	<10.0	**<0.0175**	**<10.0**	**2,360**
MTCA Method A Cleanup Levels			**5**	**1,000**	**700**	**1,000**	**800/ 1,000[a]**	**20**	**0.010**	**5**	**15**

Explanation of Abbreviations:

TOC	= top of casing elevation
TPH-G	= total petroleum hydrocarbons as gasoline
EDB	= ethylene dibromide
EDC	= 1,2-dichloroethane
MTBE	= methyl tertiary-butyl ether
--	= not sampled, not measured or not available
<	= less than the laboratory practical quantitation limit
NS	= not surveyed
UST	= underground storage tank
MTCA	= Model Toxics Control Act

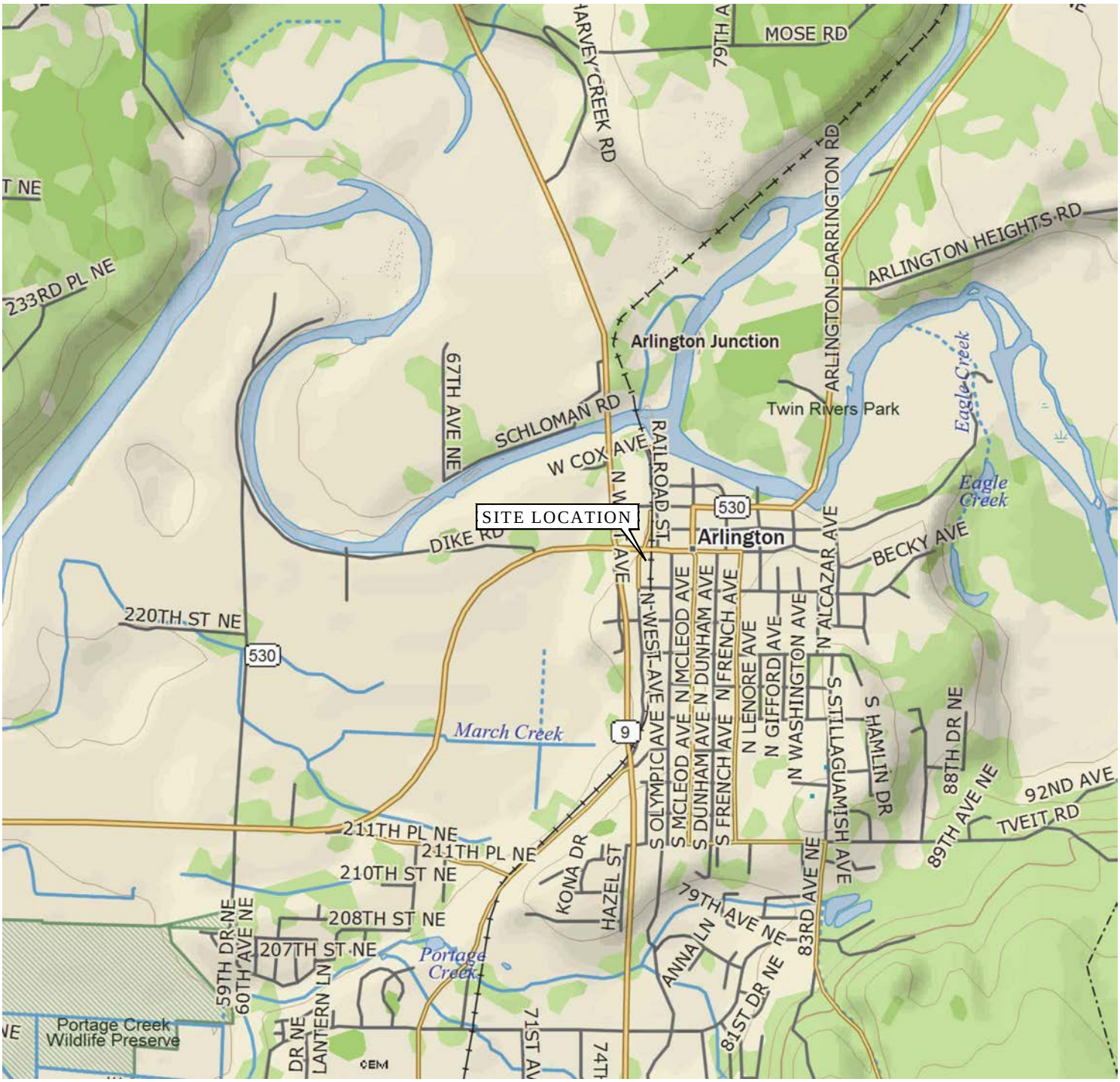
Notes:

[a] = The MTCA Clean up level for TPH-G is reduced from 1,000 to 800 µg/L if benzene exceeds its MTCA Clean up level.

[b] = Water sample collected from inside the tank basin during UST removal.

Bold values exceed the MTCA Method A Cleanup Level

FIGURES



North

WASHINGTON

1/2 0 1

SCALE (MILES)

1000 0 1000 2000 3000 4000 5000

SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, ARLINGTON WEST, WASHINGTON

Stantec

11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: 7-ELEVEN

STORE NO. 21001
541 WEST AVENUE
ARLINGTON, WASHINGTON

SITE LOCATION MAP

FIGURE: 1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750033	MDR	EH	PF	APRIL 2015

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\21001\FIG-1_SITE LOC.dwg | Layout Tab: Layout1 | Drafter: miramirez | Nov 05, 2015 at 14:16

LEGEND:

SITE BOUNDARY

0 150 300

APPROXIMATE SCALE IN FEET

Stantec

11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR: 7-ELEVEN

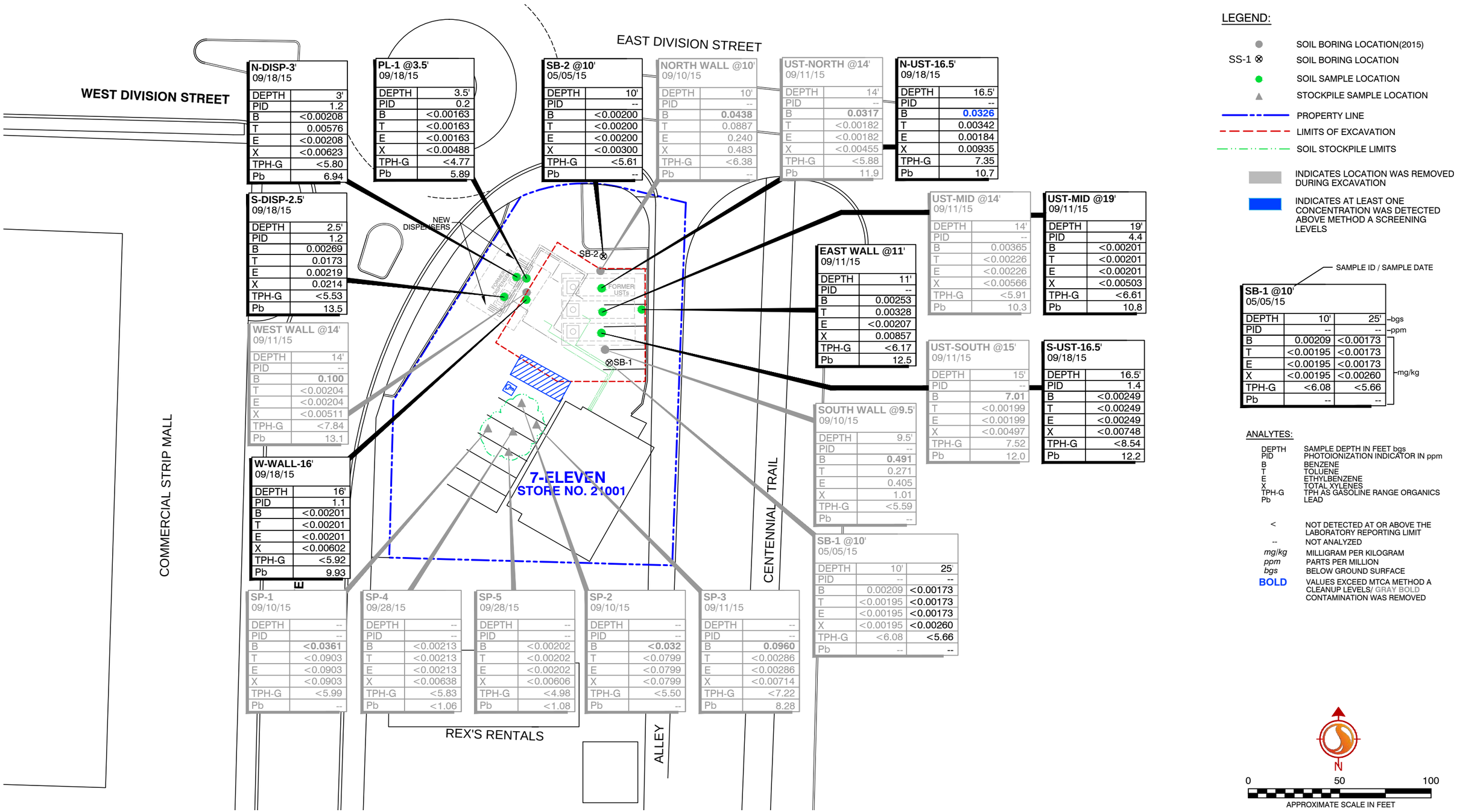
STORE NO. 21001
541 WEST AVENUE
ARLINGTON, WASHINGTON

SITE VICINITY MAP

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750033	MDR	EH	PF	APRIL 2015

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\21001\FIG-2_SITE VICINITY.dwg | Layout Tab: Layout1 | Drafter: MiRamirez | Apr 06, 2015 at 11:36



Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

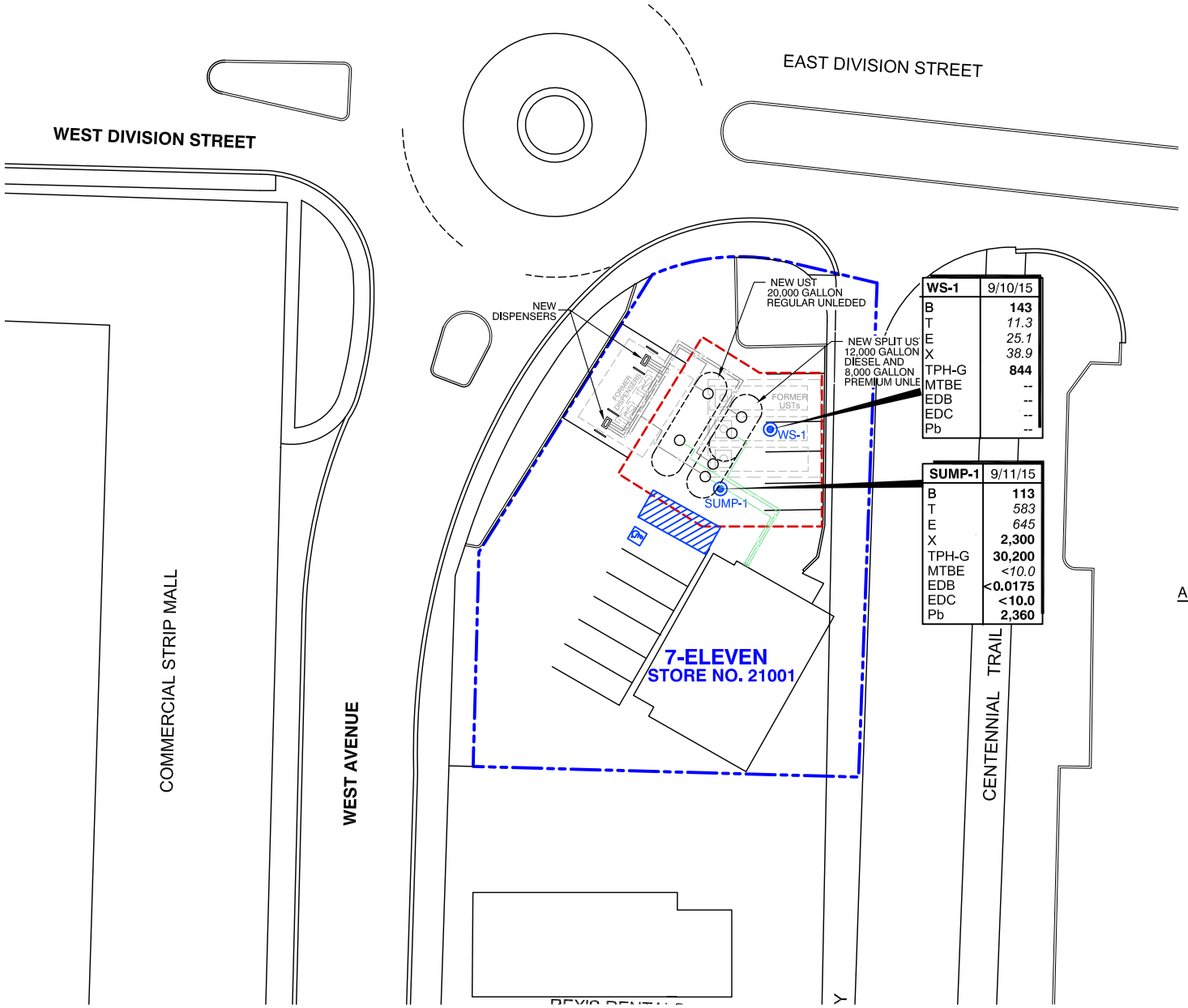
FOR: 7-ELEVEN
STORE NO. 21001
541 WEST AVENUE
ARLINGTON, WASHINGTON

SITE PLAN WITH SOIL ANALYTICAL RESULTS

FIGURE: **3**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750333	MDR	EH	PF	NOV 2015

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\21001\FIG-2_SITE PLAN-SOIL CONC.dwg | Layout Tab: FIG-3 SOIL | Drafter: miramirez | Dec 01, 2015 at 16:53



LEGEND:

- SB-1 — SOIL BORING LOCATION(2015)
- WS-1 — WATER GRAB SAMPLE LOCATION
- PROPERTY LINE
- LIMITS OF EXCAVATION

SAMPLE ID / SAMPLE DATE

ANALYTES	WS-1	9/10/15
	B	**143**
	T	*11.3*
	E	*25.1*
	X	*38.9*
	TPH-G	**844**
	MTBE	--
	EDB	--
	EDC	--
	Pb	--

µg/L

<	NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT
--	NOT ANALYZED/SAMPLED
µg/L	MICROGRAMS PER LITER
BOLD	VALUES EXCEED MTCA METHOD A CLEANUP LEVELS

ANALYTES:

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
MTBE	METHYL TERTIARY BUTYL ETHER
EDB	1,2-DIBROMOETHANE
EDC	1,2-DICHLOROETHANE
Pb	DISSOLVED LEAD

N

0 50 100

APPROXIMATE SCALE IN FEET

Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

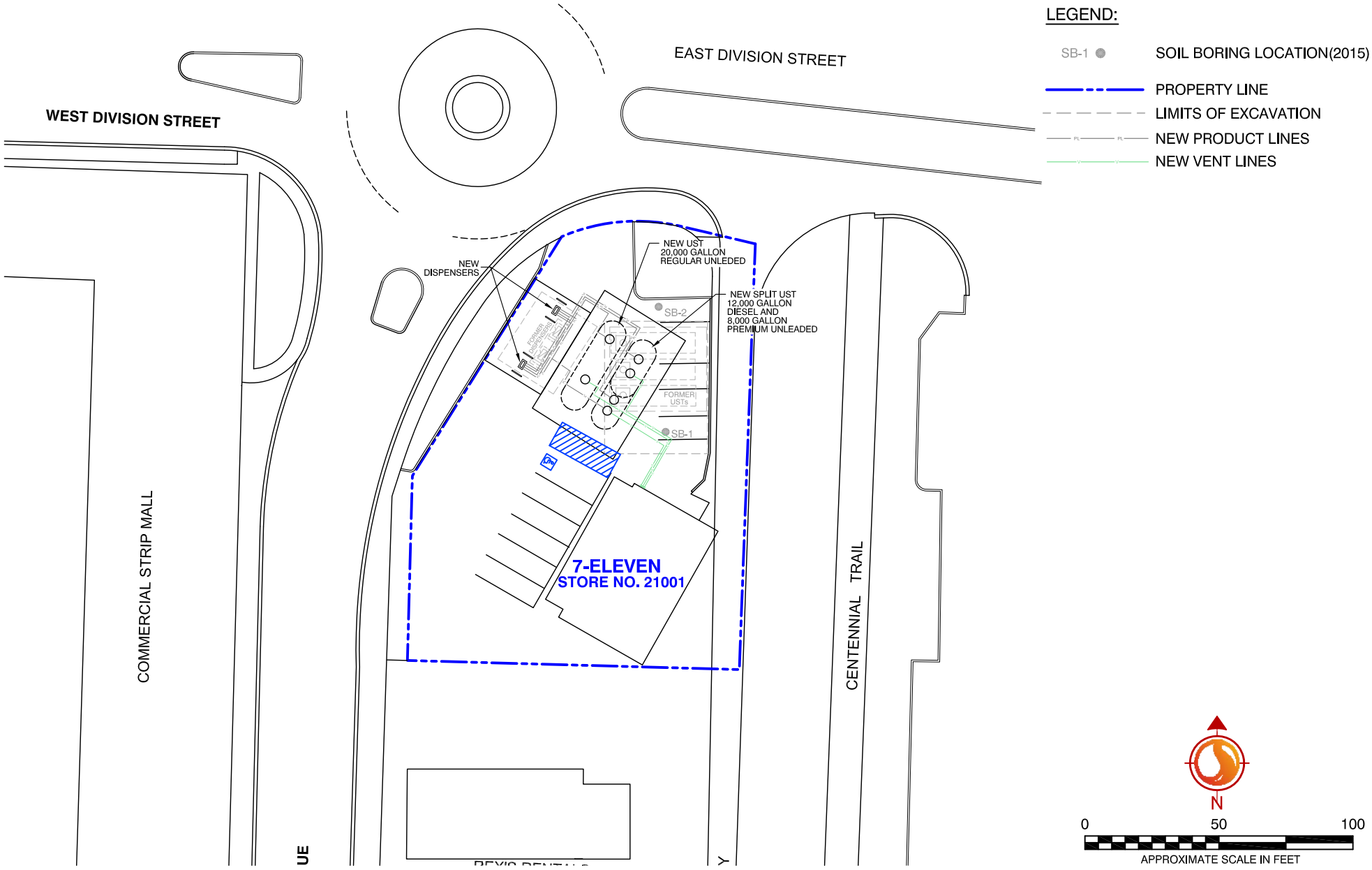
FOR: 7-ELEVEN
STORE NO. 21001
541 WEST AVENUE
ARLINGTON, WASHINGTON

SITE PLAN WITH WATER ANALYTICAL RESULTS

FIGURE: 4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750033	MDR	EH	PF	NOV 2015

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\21001\FIG-2_SITE PLAN-SOIL CONC.dwg | Layout Tab: FIG-4-WATER | Drafter: miramirez | Dec 01, 2015 at 16:54



Stantec
11130 NE 33RD PLACE, SUITE 200
BELLEVUE, WASHINGTON
PHONE: (425) 869-9448 FAX: (425) 869-1190

FOR:
STORE NO. 21001
541 WEST AVENUE
ARLINGTON, WASHINGTON

SITE PLAN WITH NEW TANK CONFIGURATION

FIGURE: **5**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750033	MDR	EH	PF	NOV 2015

FILEPATH:M:_00 OTHER OFFICES\01-REDMOND\7-11\21001\FIG-2_SITE PLAN-SOIL CONC.dwg | Layout Tab: SITE PLAN | Drafter: miramirez | Nov 05, 2015 at 13:49

Appendix A DEPARTMENT OF ECOLOGY UST NOTICES AND CHECKLIST

NW-Snohomish

DEPARTMENT OF ECOLOGY
State of Washington

UNDERGROUND STORAGE TANK (UST)
30-DAY NOTICE

(See back of form for instructions)

FOR OFFICE USE ONLY
Site ID # 8643
FS ID # VALIDATED 3854364

JUL 14 2015
Department of Ecology, HQ

Please ✓ the appropriate box: ☒ Intent to Install ☒ Intent to Close

HQ (360)407-7170 / Central (509)575-2490 / Eastern (509)329-3400 / Northwest (425)649-7000 / Southwest (360)407-6300

SITE INFORMATION

Tag #A4593 or 5780704900010026 RECEIVED
Tag or UBI number

7-Eleven 21001 JUL 14 2015
Site Name

541 West Avenue Department of Ecology Toxics Cleanup Program
Site Physical Address

Arlington 98223
City Zip Code

(360) 435-2534
Site Phone Number

OWNER INFORMATION
(this form will be returned to this address)

7-Eleven, Inc.
UST Owner/Operator

P.O. Box 711
Mailing Address/PO Box

Dallas/TX. 75221
City Zip Code

(214) 415-0146
Owner/Operator Phone Number

marc.westfall@7-11.com
Owner/Operator Email Address

TANK INFORMATION

Tank ID	Substance Stored	Capacity	Date Project is Expected to Begin	Comments:
REG	B Unleaded Gasoline	12,000	8/10/2015	Remove existing (3) 12,000-gallon single-wall steel USTs, gasoline dispenser island, and piping from site. Replace with (2) 20,000-gallon double-wall fiberglass USTs.
NOL	B Unleaded Gasoline	12,000	8/10/2015	
SNL	B Unleaded Gasoline	12,000	8/10/2015	

1) SERVICE PROVIDER INFORMATION - check the appropriate boxes

PLEASE NOTE: INDIVIDUALS PERFORMING UST SERVICES MUST BE ICC CERTIFIED OR HAVE PASSED ANOTHER QUALIFYING EXAM APPROVED BY THE DEPARTMENT OF ECOLOGY.

☒ Installer ☒ Decommissioner ☐ Site Assessor

Wilkey's Construction
Service Provider Company Name

Dale Adams
Certified Service Provider Name

5309450
ICC Certification #

Mark Wilkey
Contact Person

(916) 655-1018
Contact Phone Number

casey@wilkeysconstruction.com
Contact Email Address

2) SERVICE PROVIDER INFORMATION (REQUIRED IF USING MORE THAN ONE PROVIDER) - check the appropriate boxes

☐ Installer ☐ Decommissioner ☒ Site Assessor

Stantec Consulting Services Inc.
Service Provider Company Name

Deitrie Hanson
Certified Service Provider Name

8012337-U7
ICC Certification #

Paul Fairbairn
Contact Person

(425) 289-7343
Contact Phone Number

paul.fairbairn@stantec.com
Contact Email Address

DEPARTMENT OF ECOLOGY
State of Washington

PERMANENT CLOSURE NOTICE
FOR UNDERGROUND STORAGE TANKS

This notice certifies that permanent closure activities were performed and conducted in accordance with Chapter 173-360 WAC. Instructions are found on the back page.

UST ID #: 8643

County: Snohomish

I. UST FACILITY		II. OWNER/OPERATOR INFORMATION	
Facility Compliance Tag #:		Owner/Operator Name:	7-Eleven Inc.
UST ID #:	8643	Business Name:	7-Eleven
Site Name:	7-Eleven # 21001	Address:	P.O. Box 711
Site Address:	541 West Avenue	City:	Dallas State: TX Zip: 75221
City:	Arlington	Phone:	214-415-0416
Phone:		Email:	Marc.Westfall@7-11.com

III. CERTIFIED UST DECOMMISSIONER			
Company Name:	Wilkey's Construction	Service Provider Name:	Wilkeys Construction
Address:	4557 Skyway	Certification Type:	UST Decommissioner
City:	Olivehurst State: CA Zip: 95961	Cert. No.:	214698 Exp. Date: Not Provided
Provider Phone:	530-741-2233	Provider Email:	Erik@wilkeysconstruction.com
Provider Signature:		***Date:***	10/7/15

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	CLOSURE METHOD			CLOSURE DATE
			removal	closed-in-place	change-in-service	
NOL	12,000-Gallon	Unleaded Gasoline	☒	☐	☐	9/15/15
REG	12,000 Gallon	Unleaded Gasoline	☒	☐	☐	9/15/15
SNL	12,000 Gallon	Unleaded Gasoline	☒	☐	☐	9/15/15
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	

V. REQUIRED SIGNATURE

Signature acknowledges UST(s) comply with UST regulation WAC 173-360-380 Permanent Closure Requirements.

10/7/15	Adam Valenti' on behalf of 7-Eleven	Adam Valenti
Date	Signature of Tank Owner/Operator or Authorized Representative	Print or Type Name

UST ID #: 8643

County: Snohomish

DEPARTMENT OF ECOLOGY
State of Washington

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: 7-Eleven, Inc.
UST ID #: 8643	Business Name: 7-Eleven
Site Name: 7-Eleven No. 21001	Address: PO box 711
Site Address: 541 West Ave	City: Dallas State: TX Zip: 75221
City: Arlington, WA	Phone: 214-415-0416
Phone:	Email: Emily.harper@stantec.com

III. CERTIFIED SITE ASSESSOR			
Service Provider Name: Emily Harper		Company Name: Stantec Consulting Services	
Cell: 585-615-4922	Email: Emily.harper@stante.com	Address: 11130 NE 33rd Place Suite 200	
Certification #: U7-8196039	Exp. Date: 02/16/17	City: Bellevue	State: WA Zip: 98004

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
NOL	12,000	Unleaded Gasoline	9/15/15
REG	12,000	Unleaded Gasoline	9/15/15
SNL	12,000	Unleaded Gasoline	9/15/15

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

- [x] 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):

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.

Emily Harper		10/1/15
Print or Type Name	Signature of Certified Site Assessor	Date

Appendix B UST AND WASTE DISPOSAL DOCUMENTATION

STRAIGHT BILL OF LADING

ORIGINAL — NOT NEGOTIABLE

Shipper No. 025317

Carrier No. 204

MARINE VACUUM SERVICE, INC

(Name of carrier) (SCAC)

Page 1 of 4

Date 09-09-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee MARINE VACUUM SERVICE INC

Street 1516 S. GRAHAM ST

City SEATTLE State WA Zip Code 98108

FROM:
Shipper Wilkeys Construction

Street 541 West Ave

City Arlington State WA Zip Code

24 hr. Emergency Contact Tel. No. 800-540-7491

Route

Vehicle Number 204

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1TT		1203 Gasoline Class 3	625gls			

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.
Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER

PER X

Permanent post-office address of shipper.

CARRIER MARINE VACUUM SERVICE, INC.

PER Carl Kirschner

DATE 09-09-15

1

STRAIGHT BILL OF LADING
ORIGINAL — NOT NEGOTIABLE

Shipper No. 025319

Carrier No. 101

Page 1 of 4

MARINE VACUUM SERVICE, INC
(Name of carrier) (SCAC)

Date 09-11-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee MARINE VACUUM SERVICE INC
Street 1516 S. GRAHAM ST
City SEATTLE State WA Zip Code 98108

FROM:
Shipper Wilkeys Construction
Street 541 West Ave
City Arlington State WA Zip Code
24 hr. Emergency Contact Tel. No. 800-540-7491

Route

Vehicle Number 101

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1		Ust Safe for Transport				

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

_____ Signature

REMIT C.O.D. TO:
ADDRESS

COD Amt: $

C.O.D. FEE:
PREPAID ☐
COLLECT ☐ $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____ (Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER Wilkeys Construction
PER Tom M
x

CARRIER MARINE VACUUM SERVICE, INC.
PER Carl Kirschner
DATE 09-11-15

1

Permanent post-office address of shipper

Marine Vacuum Service, Inc.

GENERAL CONTRACTOR

CONTRACTORS LICENSE # MARINVS097JA

P0. Box 24263 Seattle, Washington 98124

Telephone (206) 762-0240

FAX (206) 763-8084

1-800-540-7491

STORAGE TANK

CERTIFICATE OF DESTRUCTION

DATE: 9/11/2015

TANK OWNER: 7-11 #21001

TANK LOCATION: 541 WEST AVE ARLINGTON, WA

TANK DESCRIPTION: (3) 10,000 GALLON UST

LAST CONTENTS HELD IN TANKS: GASOLINE

Marine Vacuum Service, Inc certifies that the tank mentioned above was pumped of all liquid materials and washed clean with a high-pressure washer and soap solution. The tank and contents therein have been disposed of according to all Local, State and Federal Regulations.

Thank you,

Marine Vacuum Service, Inc.

SOUND TESTING, INC.
P.O. BOX 16204 SEATTLE, WA 98116
(206) 932-0206 FAX (206) 937-3848
WWW.SOUNDTESTINGINC.COM

MARINE CHEMIST CERTIFICATE

SERIAL Nº 46546

*MARUAC Survey Requested by	7-11 / WILKEY'S Vessel Owner or Agent	9 SEP 15 Date
UST'S @ 7 ELEVEN Vessel	UST'S Type of Vessel	ARLINGTON, 541 WEST AVE Specific Location of Vessel
UNL GASOLINE Last Three (3) Loadings	VISUAL, O_2, [redacted] (CET) Tests Performed	1130 Time Survey Completed

3 EACH 12,000 GALLON UST'S

INERTED W/CO_2 AND SECURED ($O_2 \leq 6.0\%$)

SAFE FOR EXCAVATION

SAFE FOR TRANSPORTATION

PLEASE NOTE:

1. KEEP PIPE OPENINGS CLOSED EXCEPT FOR SHORT PERIODS WHEN REMOVING PIPES
2. ONLY REMOVE PIPES WHILE TANK IS BASICALLY LEVEL.
3. RAGS OR ABSORBENT PADS JAMBED TIGHTLY ARE ACCEPTABLE IF THREADS DAMAGED (FOR PLUGS)
4. [redacted] (CET) CALL CHEMIST FOR FURTHER INSTRUCTIONS IF WORK IS NOT COMPLETE BY CLOSE OF SHIFT FRIDAY.

In the event of changes adversely affecting conditions in the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

Qualifications: Manipulation of valves or devices tending to alter conditions in pipe lines or tanks noted above, unless specifically approved in this certificate, will require re-inspection and a new Certificate for spaces so affected. All piping, heating coils, pumps and floating roof gaskets attached to or contained within spaces listed above shall be considered "NOT SAFE" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS

(These detail the minimum conditions for Safe Entry and Hot Work.) The Marine Chemist may request additional measures if workplace conditions so dictate.

ATMOSPHERE SAFE FOR WORKERS means that in a space (a) the oxygen content is between 19.5% and 22% by volume, and (b) combustible gas is less than 10% of the Lower Explosive Limit, and (c) airborne toxic materials are within permissible concentrations as listed in OSHA's Subpart Z or in ACGIH's current list of Threshold Limit Values.

SAFE FOR HOT WORK means that (a) oxygen within the space is less than 22% by volume; and (b) the combustible gas is less than 10% of the Lower Explosive Limit; and (c) cargo residues within the space will not combust during hot work; and (d) pipes that can deliver hazardous materials to the workspace have been separated, blanked, or locked out, and nearby hazardous spaces have been evaluated and noted on the certificate.

NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot work is not permitted.

"The undersigned acknowledges receipt of this Certificate and understands conditions and limitations under which it was issued."

Signed [redacted] Wilkey's Construction Inc. 9 Sep 15
Name Company Date

POSTING

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed [redacted] #688 (CET)
Marine Chemist Certificate No.

CRAIG 206-313-6933

This Memorandum

is an acknowledgment that a Bill of Lading has been issued and is not Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper No. 026601

Carrier No. 204

MARINE VACUUM SERVICE, INC

(Name of carrier) (SCAC)

Date 9-1-15

Page 1 of 1

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee MARINE VACUUM SERVICE INC

Street 1516 S. GRAHAM ST

City SEATTLE State WA Zip Code 98108

FROM:
Shipper Stantec Consulting

Street 541 NW Ave

City Arlington State WA Zip Code

24 hr. Emergency Contact Tel. No. 800-540-7491

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1T		Waste Water	1,000	Gallons		

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
(2) Where the applicable tariff provisions specify a limitation of the carrier's liability absent a release or a value declaration by the shipper and the shipper does not release the carrier's liability or declare a value, the carrier's liability shall be limited to the extent provided by such provisions. See NMFC Item 172.
(3) Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation. See Section 2(e) of Item 360, Bills of Lading, Freight Bills and Statements of Charges and Section 1(a) of the Contract Terms and Conditions for a list of such articles.

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_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER X _____

PER _____

CARRIER MARINE VACUUM SERVICE, INC.

PER _____

DATE 9-1-15

4

Permanent post-office address of shipper.

This Shipping Order

must be legibly filled in, in Ink indelible Pencil, or in Carbon, and retained by the agent

Shipper No. 026601

Carrier No. 204

Page 1 of 1

MARINE VACUUM SERVICE, INC

(Name of carrier) (SCAC)

Date 9-1-15

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec.1.

TO:
Consignee MARINE VACUUM SERVICE INC
Street 1516 S. GRAHAM ST
City SEATTLE State WA Zip Code 98108

FROM:
Shipper Stantec Consulting
Street 541 NW Ave
City Arlington State WA Zip Code
24 hr. Emergency Contact Tel. No. 800-540-7491

Route

Vehicle Number

No. of Units & Container Type	HM	BASIC DESCRIPTION UN or NA Number, Proper Shipping Name, Hazard Class, Packing Group	TOTAL QUANTITY (Weight, Volume, Gallons, etc.)	WEIGHT (Subject to Correction)	RATE	CHARGES (For Carrier Use Only)
1 T		Waste Water	1,000	Gallons		

PLACARDS TENDERED: YES ☐ NO ☐

Note — (1) Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property, as follows: "The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____."
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_____ Signature

REMIT C.O.D. TO: ADDRESS

COD Amt: $

C.O.D. FEE: PREPAID ☐ COLLECT ☐ $

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(Signature of Consignor)

TOTAL CHARGES $

FREIGHT CHARGES
FREIGHT PREPAID except when box at right is checked ☐ Check box if charges are to be collect

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Shipper hereby certifies that he is familiar with all the lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER X

PER

CARRIER MARINE VACUUM SERVICE, INC.

PER

DATE 9-1-15

2

Permanent post-office address of shipper.

Appendix C LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-87273-1
Client Project/Site: 7-11 21001 Arlington UST

For:
Stantec Consulting Corp.
11130 NE 33rd Place
Suite 200
Bellevue, Washington 98004-1465

Attn: Paul Fairbairn

Authorized for release by:
9/16/2015 3:20:58 PM

Heather Wagner, Project Manager I
(615)301-5763
heather.wagner@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-87273-1	SUMP-1	Water	09/11/15 13:00	09/15/15 09:35
490-87273-2	EAST-WALL-11'	Solid	09/11/15 14:35	09/15/15 09:35
490-87273-3	WEST-WALL-14'	Solid	09/11/15 14:40	09/15/15 09:35
490-87273-4	SP-3	Solid	09/11/15 12:30	09/15/15 09:35
490-87273-5	UST-NORTH-14'	Solid	09/11/15 14:00	09/15/15 09:35
490-87273-6	UST-MID-14'	Solid	09/11/15 14:10	09/15/15 09:35
490-87273-7	UST-MID-19'	Solid	09/11/15 14:25	09/15/15 09:35
490-87273-8	UST-SOUTH-15'	Solid	09/11/15 14:20	09/15/15 09:35

Job ID: 490-87273-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-87273-1

Comments
No additional comments.

Receipt
The samples were received on 9/15/2015 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1º C.

GC/MS VOA
Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 490-281622 and analytical batch 490-281676 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8260B: The laboratory control sample (LCS) for batch analytical batch 490-281834 recovered outside control limits for the following analyte: 1,2-dichloroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory: SUMP-1 (490-87273-1). The sample was analyzed within the seven day holding time for unpreserved samples.

Method(s) 8260B: The following sample was diluted due to the nature of the sample matrix: SUMP-1 (490-87273-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8011: Surrogate recovery for the following samples was outside control limits: SUMP-1 (490-87273-1). Evidence of matrix interference is present; therefore, re-extraction and re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: SUMP-1
Date Collected: 09/11/15 13:00
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**113**		10.0		ug/L			09/16/15 08:54	10
Ethylbenzene	**645**		10.0		ug/L			09/16/15 08:54	10
Methyl tert-butyl ether	ND		10.0		ug/L			09/16/15 08:54	10
Toluene	**583**		10.0		ug/L			09/16/15 08:54	10
Xylenes, Total	**2300**		300		ug/L			09/16/15 09:23	100
1,2-Dichloroethane	ND	*	10.0		ug/L			09/16/15 08:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*09/16/15 08:54*	*10*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*09/16/15 09:23*	*100*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*09/16/15 08:54*	*10*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*09/16/15 09:23*	*100*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*09/16/15 08:54*	*10*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*09/16/15 09:23*	*100*
Toluene-d8 (Surr)	*95*		*70 - 130*		*09/16/15 08:54*	*10*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/16/15 09:23*	*100*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	**30200**		5000		ug/L			09/16/15 12:28	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*50 - 150*		*09/16/15 12:28*	*50*

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0175		ug/L		09/15/15 15:25	09/15/15 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*49*	*X*	*50 - 150*	*09/15/15 15:25*	*09/15/15 23:11*	*1*

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**2360**		50.0		ug/L		09/15/15 14:43	09/16/15 05:22	5

Client Sample ID: EAST-WALL-11'

Date Collected: 09/11/15 14:35
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-2

Matrix: Solid
Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00207		mg/Kg	☼	09/11/15 14:35	09/15/15 18:43	1
Benzene	**0.00253**		0.00207		mg/Kg	☼	09/11/15 14:35	09/15/15 18:43	1
Toluene	**0.00328**		0.00207		mg/Kg	☼	09/11/15 14:35	09/15/15 18:43	1
Xylenes, Total	**0.00857**		0.00518		mg/Kg	☼	09/11/15 14:35	09/15/15 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*	*09/11/15 14:35*	*09/15/15 18:43*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*09/11/15 14:35*	*09/15/15 18:43*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*	*09/11/15 14:35*	*09/15/15 18:43*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*	*09/11/15 14:35*	*09/15/15 18:43*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		6.17		mg/Kg	☼	09/11/15 14:35	09/15/15 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*83*		*50 - 150*	*09/11/15 14:35*	*09/15/15 15:30*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**12.5**		1.20		mg/Kg	☼	09/15/15 14:56	09/15/15 18:39	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**82**		0.10		%			09/15/15 12:44	1

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: WEST-WALL-14'
Date Collected: 09/11/15 14:40
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-3
Matrix: Solid
Percent Solids: 78.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00204		mg/Kg	☼	09/11/15 14:40	09/15/15 19:13	1
Benzene	**0.100**		0.00204		mg/Kg	☼	09/11/15 14:40	09/15/15 19:13	1
Toluene	ND		0.00204		mg/Kg	☼	09/11/15 14:40	09/15/15 19:13	1
Xylenes, Total	ND		0.00511		mg/Kg	☼	09/11/15 14:40	09/15/15 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*	*09/11/15 14:40*	*09/15/15 19:13*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*09/11/15 14:40*	*09/15/15 19:13*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*	*09/11/15 14:40*	*09/15/15 19:13*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*	*09/11/15 14:40*	*09/15/15 19:13*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		7.84		mg/Kg	☼	09/11/15 14:40	09/15/15 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*50 - 150*	*09/11/15 14:40*	*09/15/15 17:08*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**13.1**		1.26		mg/Kg	☼	09/15/15 14:56	09/15/15 19:10	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**78**		0.10		%			09/15/15 12:44	1

Client Sample ID: SP-3
Date Collected: 09/11/15 12:30
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-4
Matrix: Solid
Percent Solids: 73.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00286		mg/Kg	☼	09/11/15 12:30	09/15/15 19:43	1
Benzene	**0.0960**		0.00286		mg/Kg	☼	09/11/15 12:30	09/15/15 19:43	1
Toluene	ND		0.00286		mg/Kg	☼	09/11/15 12:30	09/15/15 19:43	1
Xylenes, Total	ND		0.00714		mg/Kg	☼	09/11/15 12:30	09/15/15 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*	*09/11/15 12:30*	*09/15/15 19:43*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*09/11/15 12:30*	*09/15/15 19:43*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*	*09/11/15 12:30*	*09/15/15 19:43*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*	*09/11/15 12:30*	*09/15/15 19:43*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		7.22		mg/Kg	☼	09/11/15 12:30	09/15/15 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*50 - 150*	*09/11/15 12:30*	*09/15/15 18:14*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**8.28**		1.37		mg/Kg	☼	09/15/15 14:56	09/15/15 19:14	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**73**		0.10		%			09/15/15 12:44	1

Client Sample ID: UST-NORTH-14'
Date Collected: 09/11/15 14:00
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-5
Matrix: Solid
Percent Solids: 82.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00182		mg/Kg	☼	09/11/15 14:00	09/15/15 20:13	1
Benzene	**0.0317**		0.00182		mg/Kg	☼	09/11/15 14:00	09/15/15 20:13	1
Toluene	ND		0.00182		mg/Kg	☼	09/11/15 14:00	09/15/15 20:13	1
Xylenes, Total	ND		0.00455		mg/Kg	☼	09/11/15 14:00	09/15/15 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*	*09/11/15 14:00*	*09/15/15 20:13*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*09/11/15 14:00*	*09/15/15 20:13*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*	*09/11/15 14:00*	*09/15/15 20:13*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*	*09/11/15 14:00*	*09/15/15 20:13*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.88		mg/Kg	☼	09/11/15 14:00	09/15/15 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*83*		*50 - 150*	*09/11/15 14:00*	*09/15/15 14:58*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**11.9**		1.20		mg/Kg	☼	09/15/15 14:56	09/15/15 19:18	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**83**		0.10		%			09/15/15 12:44	1

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: UST-MID-14'
Date Collected: 09/11/15 14:10
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-6
Matrix: Solid
Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00226		mg/Kg	☼	09/11/15 14:10	09/15/15 20:42	1
Benzene	**0.00365**		0.00226		mg/Kg	☼	09/11/15 14:10	09/15/15 20:42	1
Toluene	ND		0.00226		mg/Kg	☼	09/11/15 14:10	09/15/15 20:42	1
Xylenes, Total	ND		0.00566		mg/Kg	☼	09/11/15 14:10	09/15/15 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*	*09/11/15 14:10*	*09/15/15 20:42*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*09/11/15 14:10*	*09/15/15 20:42*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*	*09/11/15 14:10*	*09/15/15 20:42*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*	*09/11/15 14:10*	*09/15/15 20:42*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.91		mg/Kg	☼	09/11/15 14:10	09/15/15 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*89*		*50 - 150*	*09/11/15 14:10*	*09/15/15 17:41*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**10.3**		1.18		mg/Kg	☼	09/15/15 14:56	09/15/15 19:23	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**82**		0.10		%			09/15/15 12:44	1

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: UST-MID-19'
Date Collected: 09/11/15 14:25
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-7
Matrix: Solid
Percent Solids: 81.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00201		mg/Kg	☼	09/11/15 14:25	09/15/15 21:12	1
Benzene	ND		0.00201		mg/Kg	☼	09/11/15 14:25	09/15/15 21:12	1
Toluene	ND		0.00201		mg/Kg	☼	09/11/15 14:25	09/15/15 21:12	1
Xylenes, Total	ND		0.00503		mg/Kg	☼	09/11/15 14:25	09/15/15 21:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*	*09/11/15 14:25*	*09/15/15 21:12*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*09/11/15 14:25*	*09/15/15 21:12*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 130*	*09/11/15 14:25*	*09/15/15 21:12*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*	*09/11/15 14:25*	*09/15/15 21:12*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		6.61		mg/Kg	☼	09/11/15 14:25	09/15/15 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*50 - 150*	*09/11/15 14:25*	*09/15/15 18:46*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**10.8**		1.22		mg/Kg	☼	09/15/15 14:56	09/15/15 19:27	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**82**		0.10		%			09/15/15 12:44	1

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: UST-SOUTH-15'
Date Collected: 09/11/15 14:20
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-8
Matrix: Solid
Percent Solids: 79.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00199		mg/Kg	☼	09/11/15 14:20	09/15/15 21:42	1
Benzene	**7.01**		0.136		mg/Kg	☼	09/11/15 14:20	09/16/15 14:08	1
Toluene	ND		0.00199		mg/Kg	☼	09/11/15 14:20	09/15/15 21:42	1
Xylenes, Total	ND		0.00497		mg/Kg	☼	09/11/15 14:20	09/15/15 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*	*09/11/15 14:20*	*09/15/15 21:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*	*09/11/15 14:20*	*09/16/15 14:08*	*1*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*09/11/15 14:20*	*09/15/15 21:42*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*09/11/15 14:20*	*09/16/15 14:08*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*	*09/11/15 14:20*	*09/15/15 21:42*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*	*09/11/15 14:20*	*09/16/15 14:08*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*	*09/11/15 14:20*	*09/15/15 21:42*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*	*09/11/15 14:20*	*09/16/15 14:08*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	**7.52**		7.00		mg/Kg	☼	09/11/15 14:20	09/15/15 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*81*		*50 - 150*	*09/11/15 14:20*	*09/15/15 19:19*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**12.0**		1.22		mg/Kg	☼	09/15/15 14:56	09/15/15 19:31	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**79**		0.10		%			09/15/15 12:44	1

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

Lab Sample ID: MB 490-281676/7
Matrix: Solid
Analysis Batch: 281676

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200		mg/Kg			09/15/15 16:32	1
Ethylbenzene	ND		0.00200		mg/Kg			09/15/15 16:32	1
Toluene	ND		0.00200		mg/Kg			09/15/15 16:32	1
Xylenes, Total	ND		0.00500		mg/Kg			09/15/15 16:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*09/15/15 16:32*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*09/15/15 16:32*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*09/15/15 16:32*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*09/15/15 16:32*	*1*

Lab Sample ID: LCS 490-281676/3
Matrix: Solid
Analysis Batch: 281676

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.0500	0.05319		mg/Kg		106	75 - 127		
Ethylbenzene			0.0500	0.05243		mg/Kg		105	80 - 134		
Toluene			0.0500	0.05121		mg/Kg		102	80 - 132		
Xylenes, Total			0.100	0.1029		mg/Kg		103	80 - 137		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
Dibromofluoromethane (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 490-281676/4
Matrix: Solid
Analysis Batch: 281676

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.0500	0.05300		mg/Kg		106	75 - 127	0	50
Ethylbenzene			0.0500	0.05310		mg/Kg		106	80 - 134	1	50
Toluene			0.0500	0.05282		mg/Kg		106	80 - 132	3	50
Xylenes, Total			0.100	0.1039		mg/Kg		104	80 - 137	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 490-281834/7
Matrix: Water
Analysis Batch: 281834

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			09/16/15 01:12	1
Ethylbenzene	ND		1.00		ug/L			09/16/15 01:12	1
Methyl tert-butyl ether	ND		1.00		ug/L			09/16/15 01:12	1
Toluene	ND		1.00		ug/L			09/16/15 01:12	1
Xylenes, Total	ND		3.00		ug/L			09/16/15 01:12	1
1,2-Dichloroethane	ND		1.00		ug/L			09/16/15 01:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*09/16/15 01:12*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*09/16/15 01:12*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*09/16/15 01:12*	*1*
Toluene-d8 (Surr)	*117*		*70 - 130*		*09/16/15 01:12*	*1*

Lab Sample ID: LCS 490-281834/3
Matrix: Water
Analysis Batch: 281834

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			20.0	21.96		ug/L		110	80 - 121		
Ethylbenzene			20.0	20.83		ug/L		104	80 - 130		
Methyl tert-butyl ether			20.0	17.02		ug/L		85	72 - 133		
Toluene			20.0	23.65		ug/L		118	80 - 126		
Xylenes, Total			40.0	42.61		ug/L		107	80 - 132		
1,2-Dichloroethane			20.0	24.73	*	ug/L		124	77 - 121		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 490-281834/4
Matrix: Water
Analysis Batch: 281834

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			20.0	20.87		ug/L		104	80 - 121	5	17
Ethylbenzene			20.0	20.42		ug/L		102	80 - 130	2	15
Methyl tert-butyl ether			20.0	16.05		ug/L		80	72 - 133	6	16
Toluene			20.0	23.08		ug/L		115	80 - 126	2	15
Xylenes, Total			40.0	41.28		ug/L		103	80 - 132	3	15
1,2-Dichloroethane			20.0	23.42		ug/L		117	77 - 121	5	17

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*

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

Lab Sample ID: LCSD 490-281834/4
Matrix: Water
Analysis Batch: 281834

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	*113*		*70 - 130*

Lab Sample ID: MB 490-281944/7
Matrix: Solid
Analysis Batch: 281944

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100		mg/Kg			09/16/15 13:39	1
Ethylbenzene	ND		0.100		mg/Kg			09/16/15 13:39	1
Toluene	ND		0.100		mg/Kg			09/16/15 13:39	1
Xylenes, Total	ND		0.150		mg/Kg			09/16/15 13:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*09/16/15 13:39*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*09/16/15 13:39*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*09/16/15 13:39*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/16/15 13:39*	*1*

Lab Sample ID: LCS 490-281944/3
Matrix: Solid
Analysis Batch: 281944

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			2.50	2.276		mg/Kg		91	75 - 127		
Ethylbenzene			2.50	2.440		mg/Kg		98	80 - 134		
Toluene			2.50	2.379		mg/Kg		95	80 - 132		
Xylenes, Total			5.00	5.104		mg/Kg		102	80 - 137		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 490-281944/4
Matrix: Solid
Analysis Batch: 281944

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			2.50	2.324		mg/Kg		93	75 - 127	2	50
Ethylbenzene			2.50	2.476		mg/Kg		99	80 - 134	1	50
Toluene			2.50	2.383		mg/Kg		95	80 - 132	0	50
Xylenes, Total			5.00	5.295		mg/Kg		106	80 - 137	4	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: LCSD 490-281944/4
Matrix: Solid
Analysis Batch: 281944

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-281543/7
Matrix: Water
Analysis Batch: 281543

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/15/15 13:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		50 - 150		09/15/15 13:31	1

Lab Sample ID: MB 490-281563/8
Matrix: Solid
Analysis Batch: 281563

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.00		mg/Kg			09/15/15 13:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	86		50 - 150		09/15/15 13:27	1

Lab Sample ID: LCS 490-281563/7
Matrix: Solid
Analysis Batch: 281563

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			10.0	10.48		mg/Kg		105	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	138		50 - 150

Lab Sample ID: 490-87273-2 DU
Matrix: Solid
Analysis Batch: 281563

Client Sample ID: EAST-WALL-11'
Prep Type: Total/NA
Prep Batch: 281703

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	ND			ND		mg/Kg	☼			NC	10

Surrogate	DU %Recovery	DU Qualifier	Limits
a,a,a-Trifluorotoluene	90		50 - 150

Method: 8011 - EDB, DBCP, and 1,2,3-TCP (GC)

Lab Sample ID: MB 490-281759/2-A
Matrix: Water
Analysis Batch: 281781

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 281759

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	ND		0.0200		ug/L		09/15/15 15:25	09/15/15 18:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dichlorobenzene	*125*		*50 - 150*	*09/15/15 15:25*	*09/15/15 18:25*	*1*

Lab Sample ID: LCS 490-281759/3-A
Matrix: Water
Analysis Batch: 281781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 281759

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylene Dibromide	0.286	0.3418		ug/L		120	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,3-Dichlorobenzene	*128*		*50 - 150*

Lab Sample ID: LCSD 490-281759/4-A
Matrix: Water
Analysis Batch: 281781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 281759

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylene Dibromide	0.286	0.3658		ug/L		128	70 - 130	7	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,3-Dichlorobenzene	*131*		*50 - 150*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 490-281746/1-A
Matrix: Water
Analysis Batch: 281890

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 281746

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.00		ug/L		09/15/15 14:43	09/16/15 04:43	1

Lab Sample ID: LCS 490-281746/2-A
Matrix: Water
Analysis Batch: 281890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 281746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	100	102.2		ug/L		102	85 - 115

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 490-281751/1-A
Matrix: Solid
Analysis Batch: 281868

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 281751

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.984		mg/Kg		09/15/15 14:56	09/15/15 18:26	1

Lab Sample ID: LCS 490-281751/2-A
Matrix: Solid
Analysis Batch: 281868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 281751

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			19.6	20.37		mg/Kg		104	80 - 120		

Lab Sample ID: 490-87273-2 MS
Matrix: Solid
Analysis Batch: 281868

Client Sample ID: EAST-WALL-11'
Prep Type: Total/NA
Prep Batch: 281751

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	12.5		23.3	33.74		mg/Kg	☼	91	75 - 125		

Lab Sample ID: 490-87273-2 MSD
Matrix: Solid
Analysis Batch: 281868

Client Sample ID: EAST-WALL-11'
Prep Type: Total/NA
Prep Batch: 281751

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	12.5		23.9	34.38		mg/Kg	☼	92	75 - 125	2	20

Method: Moisture - Percent Moisture

Lab Sample ID: 490-87273-2 DU
Matrix: Solid
Analysis Batch: 281699

Client Sample ID: EAST-WALL-11'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	82			80		%				2	20

GC/MS VOA

Analysis Batch: 281676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-2	EAST-WALL-11'	Total/NA	Solid	8260B	281705
490-87273-3	WEST-WALL-14'	Total/NA	Solid	8260B	281705
490-87273-4	SP-3	Total/NA	Solid	8260B	281705
490-87273-5	UST-NORTH-14'	Total/NA	Solid	8260B	281705
490-87273-6	UST-MID-14'	Total/NA	Solid	8260B	281705
490-87273-7	UST-MID-19'	Total/NA	Solid	8260B	281705
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	8260B	281705
LCS 490-281676/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-281676/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-281676/7	Method Blank	Total/NA	Solid	8260B	

Prep Batch: 281703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	5035	

Prep Batch: 281705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-2	EAST-WALL-11'	Total/NA	Solid	5035	
490-87273-3	WEST-WALL-14'	Total/NA	Solid	5035	
490-87273-4	SP-3	Total/NA	Solid	5035	
490-87273-5	UST-NORTH-14'	Total/NA	Solid	5035	
490-87273-6	UST-MID-14'	Total/NA	Solid	5035	
490-87273-7	UST-MID-19'	Total/NA	Solid	5035	
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	5035	

Analysis Batch: 281834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-1	SUMP-1	Total/NA	Water	8260B	
490-87273-1	SUMP-1	Total/NA	Water	8260B	
LCS 490-281834/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-281834/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-281834/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 281944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	8260B	281703
LCS 490-281944/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-281944/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-281944/7	Method Blank	Total/NA	Solid	8260B	

GC VOA

Analysis Batch: 281543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-1	SUMP-1	Total/NA	Water	NWTPH-Gx	
MB 490-281543/7	Method Blank	Total/NA	Water	NWTPH-Gx	

Analysis Batch: 281563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-2	EAST-WALL-11'	Total/NA	Solid	NWTPH-Gx	281703

GC VOA (Continued)

Analysis Batch: 281563 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-2 DU	EAST-WALL-11'	Total/NA	Solid	NWTPH-Gx	281703
490-87273-3	WEST-WALL-14'	Total/NA	Solid	NWTPH-Gx	281703
490-87273-4	SP-3	Total/NA	Solid	NWTPH-Gx	281703
490-87273-5	UST-NORTH-14'	Total/NA	Solid	NWTPH-Gx	281703
490-87273-6	UST-MID-14'	Total/NA	Solid	NWTPH-Gx	281703
490-87273-7	UST-MID-19'	Total/NA	Solid	NWTPH-Gx	281703
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	NWTPH-Gx	281703
LCS 490-281563/7	Lab Control Sample	Total/NA	Solid	NWTPH-Gx	
MB 490-281563/8	Method Blank	Total/NA	Solid	NWTPH-Gx	

Prep Batch: 281703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-2	EAST-WALL-11'	Total/NA	Solid	5035	
490-87273-2 DU	EAST-WALL-11'	Total/NA	Solid	5035	
490-87273-3	WEST-WALL-14'	Total/NA	Solid	5035	
490-87273-4	SP-3	Total/NA	Solid	5035	
490-87273-5	UST-NORTH-14'	Total/NA	Solid	5035	
490-87273-6	UST-MID-14'	Total/NA	Solid	5035	
490-87273-7	UST-MID-19'	Total/NA	Solid	5035	
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 281759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-1	SUMP-1	Total/NA	Water	8011	
LCS 490-281759/3-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 490-281759/4-A	Lab Control Sample Dup	Total/NA	Water	8011	
MB 490-281759/2-A	Method Blank	Total/NA	Water	8011	

Analysis Batch: 281781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-1	SUMP-1	Total/NA	Water	8011	281759
LCS 490-281759/3-A	Lab Control Sample	Total/NA	Water	8011	281759
LCSD 490-281759/4-A	Lab Control Sample Dup	Total/NA	Water	8011	281759
MB 490-281759/2-A	Method Blank	Total/NA	Water	8011	281759

Metals

Prep Batch: 281746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-1	SUMP-1	Total/NA	Water	200.8	
LCS 490-281746/2-A	Lab Control Sample	Total/NA	Water	200.8	
MB 490-281746/1-A	Method Blank	Total/NA	Water	200.8	

Prep Batch: 281751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-2	EAST-WALL-11'	Total/NA	Solid	3051A	
490-87273-2 MS	EAST-WALL-11'	Total/NA	Solid	3051A	
490-87273-2 MSD	EAST-WALL-11'	Total/NA	Solid	3051A	

Metals (Continued)

Prep Batch: 281751 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-3	WEST-WALL-14'	Total/NA	Solid	3051A	
490-87273-4	SP-3	Total/NA	Solid	3051A	
490-87273-5	UST-NORTH-14'	Total/NA	Solid	3051A	
490-87273-6	UST-MID-14'	Total/NA	Solid	3051A	
490-87273-7	UST-MID-19'	Total/NA	Solid	3051A	
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	3051A	
LCS 490-281751/2-A	Lab Control Sample	Total/NA	Solid	3051A	
MB 490-281751/1-A	Method Blank	Total/NA	Solid	3051A	

Analysis Batch: 281868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-2	EAST-WALL-11'	Total/NA	Solid	6010C	281751
490-87273-2 MS	EAST-WALL-11'	Total/NA	Solid	6010C	281751
490-87273-2 MSD	EAST-WALL-11'	Total/NA	Solid	6010C	281751
490-87273-3	WEST-WALL-14'	Total/NA	Solid	6010C	281751
490-87273-4	SP-3	Total/NA	Solid	6010C	281751
490-87273-5	UST-NORTH-14'	Total/NA	Solid	6010C	281751
490-87273-6	UST-MID-14'	Total/NA	Solid	6010C	281751
490-87273-7	UST-MID-19'	Total/NA	Solid	6010C	281751
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	6010C	281751
LCS 490-281751/2-A	Lab Control Sample	Total/NA	Solid	6010C	281751
MB 490-281751/1-A	Method Blank	Total/NA	Solid	6010C	281751

Analysis Batch: 281890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-1	SUMP-1	Total/NA	Water	200.8	281746
LCS 490-281746/2-A	Lab Control Sample	Total/NA	Water	200.8	281746
MB 490-281746/1-A	Method Blank	Total/NA	Water	200.8	281746

General Chemistry

Analysis Batch: 281699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87273-2	EAST-WALL-11'	Total/NA	Solid	Moisture	
490-87273-2 DU	EAST-WALL-11'	Total/NA	Solid	Moisture	
490-87273-3	WEST-WALL-14'	Total/NA	Solid	Moisture	
490-87273-4	SP-3	Total/NA	Solid	Moisture	
490-87273-5	UST-NORTH-14'	Total/NA	Solid	Moisture	
490-87273-6	UST-MID-14'	Total/NA	Solid	Moisture	
490-87273-7	UST-MID-19'	Total/NA	Solid	Moisture	
490-87273-8	UST-SOUTH-15'	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: SUMP-1
Date Collected: 09/11/15 13:00
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	281834	09/16/15 08:54	JJR	TAL NSH
Total/NA	Analysis	8260B		100	5 mL	5 mL	281834	09/16/15 09:23	JJR	TAL NSH
Total/NA	Analysis	NWTPH-Gx		50	5 mL	5 mL	281543	09/16/15 12:28	FKG	TAL NSH
Total/NA	Prep	8011			40 mL	2 mL	281759	09/15/15 15:25	MWT	TAL NSH
Total/NA	Analysis	8011		1	40 mL	2 mL	281781	09/15/15 23:11	MWT	TAL NSH
Total/NA	Prep	200.8			10 mL	50 mL	281746	09/15/15 14:43	ZLN	TAL NSH
Total/NA	Analysis	200.8		5	10 mL	50 mL	281890	09/16/15 05:22	CME	TAL NSH

Client Sample ID: EAST-WALL-11'
Date Collected: 09/11/15 14:35
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			281699	09/15/15 12:44	MNM	TAL NSH

Client Sample ID: EAST-WALL-11'
Date Collected: 09/11/15 14:35
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-2
Matrix: Solid
Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.88 g	5.0 mL	281705	09/11/15 14:35	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.88 g	5.0 mL	281676	09/15/15 18:43	NC	TAL NSH
Total/NA	Prep	5035			5.996 g	5.0 mL	281703	09/11/15 14:35	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5.996 g	5.0 mL	281563	09/15/15 15:30	AMC	TAL NSH
Total/NA	Prep	3051A			0.506 g	100 mL	281751	09/15/15 14:56	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.506 g	100 mL	281868	09/15/15 18:39	NJB	TAL NSH

Client Sample ID: WEST-WALL-14'
Date Collected: 09/11/15 14:40
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			281699	09/15/15 12:44	MNM	TAL NSH

Client Sample ID: WEST-WALL-14'
Date Collected: 09/11/15 14:40
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-3
Matrix: Solid
Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.24 g	5.0 mL	281705	09/11/15 14:40	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.24 g	5.0 mL	281676	09/15/15 19:13	NC	TAL NSH
Total/NA	Prep	5035			4.926 g	5.0 mL	281703	09/11/15 14:40	JLP	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: WEST-WALL-14'

Lab Sample ID: 490-87273-3
Date Collected: 09/11/15 14:40
Matrix: Solid
Date Received: 09/15/15 09:35
Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	4.926 g	5.0 mL	281563	09/15/15 17:08	AMC	TAL NSH
Total/NA	Prep	3051A			0.507 g	100 mL	281751	09/15/15 14:56	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.507 g	100 mL	281868	09/15/15 19:10	NJB	TAL NSH

Client Sample ID: SP-3

Lab Sample ID: 490-87273-4
Date Collected: 09/11/15 12:30
Matrix: Solid
Date Received: 09/15/15 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			281699	09/15/15 12:44	MNM	TAL NSH

Client Sample ID: SP-3

Lab Sample ID: 490-87273-4
Date Collected: 09/11/15 12:30
Matrix: Solid
Date Received: 09/15/15 09:35
Percent Solids: 73.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.797 g	5.0 mL	281705	09/11/15 12:30	JLP	TAL NSH
Total/NA	Analysis	8260B		1	4.797 g	5.0 mL	281676	09/15/15 19:43	NC	TAL NSH
Total/NA	Prep	5035			6.371 g	5.0 mL	281703	09/11/15 12:30	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	6.371 g	5.0 mL	281563	09/15/15 18:14	AMC	TAL NSH
Total/NA	Prep	3051A			0.501 g	100 mL	281751	09/15/15 14:56	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.501 g	100 mL	281868	09/15/15 19:14	NJB	TAL NSH

Client Sample ID: UST-NORTH-14'

Lab Sample ID: 490-87273-5
Date Collected: 09/11/15 14:00
Matrix: Solid
Date Received: 09/15/15 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			281699	09/15/15 12:44	MNM	TAL NSH

Client Sample ID: UST-NORTH-14'

Lab Sample ID: 490-87273-5
Date Collected: 09/11/15 14:00
Matrix: Solid
Date Received: 09/15/15 09:35
Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.634 g	5.0 mL	281705	09/11/15 14:00	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.634 g	5.0 mL	281676	09/15/15 20:13	NC	TAL NSH
Total/NA	Prep	5035			6.232 g	5.0 mL	281703	09/11/15 14:00	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	6.232 g	5.0 mL	281563	09/15/15 14:58	AMC	TAL NSH
Total/NA	Prep	3051A			0.504 g	100 mL	281751	09/15/15 14:56	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.504 g	100 mL	281868	09/15/15 19:18	NJB	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: UST-MID-14'

Lab Sample ID: 490-87273-6
Date Collected: 09/11/15 14:10
Matrix: Solid
Date Received: 09/15/15 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			281699	09/15/15 12:44	MNM	TAL NSH

Client Sample ID: UST-MID-14'

Lab Sample ID: 490-87273-6
Date Collected: 09/11/15 14:10
Matrix: Solid
Date Received: 09/15/15 09:35
Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.394 g	5.0 mL	281705	09/11/15 14:10	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.394 g	5.0 mL	281676	09/15/15 20:42	NC	TAL NSH
Total/NA	Prep	5035			6.349 g	5.0 mL	281703	09/11/15 14:10	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	6.349 g	5.0 mL	281563	09/15/15 17:41	AMC	TAL NSH
Total/NA	Prep	3051A			0.515 g	100 mL	281751	09/15/15 14:56	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.515 g	100 mL	281868	09/15/15 19:23	NJB	TAL NSH

Client Sample ID: UST-MID-19'

Lab Sample ID: 490-87273-7
Date Collected: 09/11/15 14:25
Matrix: Solid
Date Received: 09/15/15 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			281699	09/15/15 12:44	MNM	TAL NSH

Client Sample ID: UST-MID-19'

Lab Sample ID: 490-87273-7
Date Collected: 09/11/15 14:25
Matrix: Solid
Date Received: 09/15/15 09:35
Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.081 g	5.0 mL	281705	09/11/15 14:25	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.081 g	5.0 mL	281676	09/15/15 21:12	NC	TAL NSH
Total/NA	Prep	5035			5.563 g	5.0 mL	281703	09/11/15 14:25	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5.563 g	5.0 mL	281563	09/15/15 18:46	AMC	TAL NSH
Total/NA	Prep	3051A			0.502 g	100 mL	281751	09/15/15 14:56	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.502 g	100 mL	281868	09/15/15 19:27	NJB	TAL NSH

Client Sample ID: UST-SOUTH-15'

Lab Sample ID: 490-87273-8
Date Collected: 09/11/15 14:20
Matrix: Solid
Date Received: 09/15/15 09:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			281699	09/15/15 12:44	MNM	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Client Sample ID: UST-SOUTH-15'

Date Collected: 09/11/15 14:20
Date Received: 09/15/15 09:35

Lab Sample ID: 490-87273-8

Matrix: Solid
Percent Solids: 79.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.738 g	5.0 mL	281703	09/11/15 14:20	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.738 g	5.0 mL	281944	09/16/15 14:08	MJH	TAL NSH
Total/NA	Prep	5035			6.354 g	5.0 mL	281705	09/11/15 14:20	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.354 g	5.0 mL	281676	09/15/15 21:42	NC	TAL NSH
Total/NA	Prep	5035			5.545 g	5.0 mL	281703	09/11/15 14:20	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5.545 g	5.0 mL	281563	09/15/15 19:19	AMC	TAL NSH
Total/NA	Prep	3051A			0.517 g	100 mL	281751	09/15/15 14:56	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.517 g	100 mL	281868	09/15/15 19:31	NJB	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
8011	EDB, DBCP, and 1,2,3-TCP (GC)	SW846	TAL NSH
200.8	Metals (ICP/MS)	EPA	TAL NSH
6010C	Metals (ICP)	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-87273-1

Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Solids

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-87273 Chain of Custody

Cooler Received/Opened On 9/15/2015 @ 9:35

1. Tracking # 4620 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 17610176

2. Temperature of rep. sample or temp blank when opened: 5.1 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES..NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) AJH

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES..NO...NA

12. Did all container labels and tags agree with custody papers? YES..NO...NA

13a. Were VOA vials received? YES..NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES..NO..NA If multiple coolers, sequence # _____

I certify that I unloaded the cooler and answered questions 7-14 (intial) AJH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES..NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) AJH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES..NO...NA

20. Was sufficient amount of sample sent in each container? YES..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) AJH

I certify that I attached a label with the unique LIMS number to each container (intial) AJH

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES...NO..#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 11/28/12

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: EMILY HARPER	Lab PM: Wagner, Heather	Carrier Tracking No(s):	COC No:
Client Contact: Paul Fairbairn	Phone: 425-869-9948	E-Mail: heather.wagner@testamericainc.com		Page:
Company: Stantec Consulting Corp.				Job #: 185750333
Address: 11130 NE 33rd Place Suite 200	Due Date Requested:	Analysis Requested		
City: Bellevue	TAT Requested (days): ~~STANDARD~~ 24 TAT IN TENNESSEE			
State, Zip: WA, 98004-1465				
Phone: 425-298-1000(Tel)	PO #: Purchase Order Requested			
Email: paul.fairbairn@stantec.com	WO #:			
Project Name: 21001 ARLINGTON UST	Project #:			
Site: 21001 ARLINGTON	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Preservation Code:	Total Number of containers	Special Instructions/Note:
							F N N N N F		
SUMP - 1	9/11/15	1300		W			X X X X X X		
EAST-WALL- 11'		1435		S			X X X		
WEST-WALL- 14'		1440					X X X		
SP-3		1230					X X X		
UST-NORTH- 14'		1400					X X X		
UST-MID- 14'		1410					X X X		
UST-MID-19'		1425					X X X		
UST-SOUTH-15'	↓	1420		↓			X X X		

Loc: 490
87273

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		9/14/15 13:20	STANTEC		9/14/15 1320	TASEA
2		9/14/15 1635			9/15/15 9:35	TAN
3						

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 5.1

9/16/2015

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 490-87273-1
SDG Number:

Login Number: 87273
List Number: 1
Creator: Huskey, Adam

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Headspace larger than 1/4".
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-88272-1
TestAmerica SDG: 541 West Avenue, Arlington, WA
Client Project/Site: 7-Eleven 21001 Arlington

For:
Stantec Consulting Corp.
11130 NE 33rd Place
Suite 200
Bellevue, Washington 98004-1465

Attn: Paul Fairbairn

Authorized for release by:
10/5/2015 4:43:24 PM

Heather Wagner, Project Manager I
(615)301-5763
heather.wagner@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-88272-1	N-UST-16.5'	Solid	09/18/15 11:40	09/26/15 10:15
490-88272-2	S-UST-16.5'	Solid	09/18/15 11:45	09/26/15 10:15
490-88272-3	W-Wall-16'	Solid	09/18/15 11:50	09/26/15 10:15
490-88272-4	N-Disp-3'	Solid	09/18/15 13:00	09/26/15 10:15
490-88272-5	PL-1@3.5'	Solid	09/18/15 13:10	09/26/15 10:15
490-88272-6	S-Disp.-2.5'	Solid	09/18/15 13:20	09/26/15 10:15

Job ID: 490-88272-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-88272-1

Comments
No additional comments.

Receipt
The samples were received on 9/26/2015 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6º C.

GC/MS VOA
Method(s) 8260B: Internal standard responses were outside of acceptance limits for the following samples: W-Wall-16' (490-88272-3), N-Disp-3' (490-88272-4) and S-Disp.-2.5' (490-88272-6). The sample(s) shows evidence of matrix interference.

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for analytical batch 490-286490 recovered outside control limits for the following analytes: Benzene. These analytes were biased marginally high in the LCSD; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
Method(s) NWTPH-Gx: The laboratory control sample (LCS) for analytical batch 490-285405 analyzed high for the a,a,a-trifluorotoluene surrogate. As the target TPH GRO range recovered within expected limits for the NWTPH Gx method, the associated samples were not impacted.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	ISTD response or retention time outside acceptable limits

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: N-UST-16.5'

Date Collected: 09/18/15 11:40
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-1

Matrix: Solid
Percent Solids: 79.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.00184		0.00170		mg/Kg	☼	09/18/15 11:40	10/02/15 22:34	1
Benzene	0.0326	*	0.00170		mg/Kg	☼	09/18/15 11:40	10/02/15 22:34	1
Toluene	0.00342		0.00170		mg/Kg	☼	09/18/15 11:40	10/02/15 22:34	1
Xylenes, Total	0.00935		0.00510		mg/Kg	☼	09/18/15 11:40	10/02/15 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*	*09/18/15 11:40*	*10/02/15 22:34*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*09/18/15 11:40*	*10/02/15 22:34*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*	*09/18/15 11:40*	*10/02/15 22:34*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*	*09/18/15 11:40*	*10/02/15 22:34*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	7.35		5.97		mg/Kg	☼	09/18/15 11:40	09/29/15 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*50 - 150*	*09/18/15 11:40*	*09/29/15 19:25*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	10.7		1.23		mg/Kg	☼	09/28/15 08:10	09/28/15 16:59	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			09/29/15 10:25	1

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Client Sample ID: S-UST-16.5'
Date Collected: 09/18/15 11:45
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-2
Matrix: Solid
Percent Solids: 78.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00249		mg/Kg	☼	09/18/15 11:45	10/02/15 23:01	1
Benzene	ND	*	0.00249		mg/Kg	☼	09/18/15 11:45	10/02/15 23:01	1
Toluene	ND		0.00249		mg/Kg	☼	09/18/15 11:45	10/02/15 23:01	1
Xylenes, Total	ND		0.00748		mg/Kg	☼	09/18/15 11:45	10/02/15 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*	*09/18/15 11:45*	*10/02/15 23:01*	*1*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*09/18/15 11:45*	*10/02/15 23:01*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*	*09/18/15 11:45*	*10/02/15 23:01*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*	*09/18/15 11:45*	*10/02/15 23:01*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		8.54		mg/Kg	☼	09/18/15 11:45	09/29/15 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*95*		*50 - 150*	*09/18/15 11:45*	*09/29/15 19:57*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**12.2**		1.23		mg/Kg	☼	09/28/15 08:10	09/28/15 17:04	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**78**		0.10		%			09/29/15 10:25	1

Client Sample ID: W-Wall-16'

Date Collected: 09/18/15 11:50
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-3

Matrix: Solid
Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00201		mg/Kg	☼	09/18/15 11:50	10/02/15 20:30	1
Benzene	ND		0.00201		mg/Kg	☼	09/18/15 11:50	10/02/15 20:30	1
Toluene	ND		0.00201		mg/Kg	☼	09/18/15 11:50	10/02/15 20:30	1
Xylenes, Total	ND		0.00602		mg/Kg	☼	09/18/15 11:50	10/02/15 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 130*	*09/18/15 11:50*	*10/02/15 20:30*	*1*
4-Bromofluorobenzene (Surr)	*114*	*	*70 - 130*	*09/18/15 11:50*	*10/02/15 20:30*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*	*09/18/15 11:50*	*10/02/15 20:30*	*1*
Toluene-d8 (Surr)	*124*		*70 - 130*	*09/18/15 11:50*	*10/02/15 20:30*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.92		mg/Kg	☼	09/18/15 11:50	09/29/15 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*96*		*50 - 150*	*09/18/15 11:50*	*09/29/15 20:30*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**9.93**		1.22		mg/Kg	☼	09/28/15 08:10	09/28/15 17:18	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**81**		0.10		%			09/29/15 10:25	1

Client Sample ID: N-Disp-3'

Date Collected: 09/18/15 13:00
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-4

Matrix: Solid
Percent Solids: 90.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00208		mg/Kg	☼	09/18/15 13:00	10/02/15 21:00	1
Benzene	ND		0.00208		mg/Kg	☼	09/18/15 13:00	10/02/15 21:00	1
Toluene	**0.00576**		0.00208		mg/Kg	☼	09/18/15 13:00	10/02/15 21:00	1
Xylenes, Total	ND		0.00623		mg/Kg	☼	09/18/15 13:00	10/02/15 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*	*09/18/15 13:00*	*10/02/15 21:00*	*1*
4-Bromofluorobenzene (Surr)	*109*	*	*70 - 130*	*09/18/15 13:00*	*10/02/15 21:00*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*	*09/18/15 13:00*	*10/02/15 21:00*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*	*09/18/15 13:00*	*10/02/15 21:00*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.80		mg/Kg	☼	09/18/15 13:00	09/29/15 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*50 - 150*	*09/18/15 13:00*	*09/29/15 21:03*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**6.94**		1.05		mg/Kg	☼	09/28/15 08:10	09/28/15 17:23	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**91**		0.10		%			09/29/15 10:25	1

Client Sample ID: PL-1@3.5'

Date Collected: 09/18/15 13:10
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-5

Matrix: Solid
Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00163		mg/Kg	☼	09/18/15 13:10	10/02/15 21:30	1
Benzene	ND		0.00163		mg/Kg	☼	09/18/15 13:10	10/02/15 21:30	1
Toluene	ND		0.00163		mg/Kg	☼	09/18/15 13:10	10/02/15 21:30	1
Xylenes, Total	ND		0.00488		mg/Kg	☼	09/18/15 13:10	10/02/15 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*	*09/18/15 13:10*	*10/02/15 21:30*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*09/18/15 13:10*	*10/02/15 21:30*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*	*09/18/15 13:10*	*10/02/15 21:30*	*1*
Toluene-d8 (Surr)	*109*		*70 - 130*	*09/18/15 13:10*	*10/02/15 21:30*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		4.77		mg/Kg	☼	09/18/15 13:10	09/29/15 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*50 - 150*	*09/18/15 13:10*	*09/29/15 21:36*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.89**		1.04		mg/Kg	☼	09/28/15 08:10	09/28/15 17:27	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**94**		0.10		%			09/29/15 10:25	1

Client Sample ID: S-Disp.-2.5'

Date Collected: 09/18/15 13:20
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-6

Matrix: Solid
Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.00219		0.00191		mg/Kg	☼	09/18/15 13:20	10/02/15 22:00	1
Benzene	0.00269		0.00191		mg/Kg	☼	09/18/15 13:20	10/02/15 22:00	1
Toluene	0.0173		0.00191		mg/Kg	☼	09/18/15 13:20	10/02/15 22:00	1
Xylenes, Total	0.0124		0.00574		mg/Kg	☼	09/18/15 13:20	10/02/15 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*	*09/18/15 13:20*	*10/02/15 22:00*	*1*
4-Bromofluorobenzene (Surr)	*107*	*	*70 - 130*	*09/18/15 13:20*	*10/02/15 22:00*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 130*	*09/18/15 13:20*	*10/02/15 22:00*	*1*
Toluene-d8 (Surr)	*113*		*70 - 130*	*09/18/15 13:20*	*10/02/15 22:00*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.53		mg/Kg	☼	09/18/15 13:20	09/29/15 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*96*		*50 - 150*	*09/18/15 13:20*	*09/29/15 22:08*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13.5		1.07		mg/Kg	☼	09/28/15 08:10	09/28/15 17:31	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	92		0.10		%			09/29/15 10:25	1

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

Lab Sample ID: MB 490-286453/7
Matrix: Solid
Analysis Batch: 286453

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00200		mg/Kg			10/02/15 18:18	1
Benzene	ND		0.00200		mg/Kg			10/02/15 18:18	1
Toluene	ND		0.00200		mg/Kg			10/02/15 18:18	1
Xylenes, Total	ND		0.00600		mg/Kg			10/02/15 18:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*10/02/15 18:18*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*		*10/02/15 18:18*	*1*
Dibromofluoromethane (Surr)	*117*		*70 - 130*		*10/02/15 18:18*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*10/02/15 18:18*	*1*

Lab Sample ID: LCS 490-286453/3
Matrix: Solid
Analysis Batch: 286453

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			0.0500	0.05644		mg/Kg		113	80 - 134		
Benzene			0.0500	0.06057		mg/Kg		121	75 - 127		
Toluene			0.0500	0.05940		mg/Kg		119	80 - 132		
Xylenes, Total			0.100	0.1144		mg/Kg		114	80 - 137		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*82*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 490-286453/4
Matrix: Solid
Analysis Batch: 286453

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			0.0500	0.05548		mg/Kg		111	80 - 134	2	50
Benzene			0.0500	0.05912		mg/Kg		118	75 - 127	2	50
Toluene			0.0500	0.05963		mg/Kg		119	80 - 132	0	50
Xylenes, Total			0.100	0.1161		mg/Kg		116	80 - 137	1	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*81*		*70 - 130*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 490-286490/8
Matrix: Solid
Analysis Batch: 286490

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.00200		mg/Kg			10/02/15 20:17	1
Benzene	ND		0.00200		mg/Kg			10/02/15 20:17	1
Toluene	ND		0.00200		mg/Kg			10/02/15 20:17	1
Xylenes, Total	ND		0.00600		mg/Kg			10/02/15 20:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*10/02/15 20:17*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*10/02/15 20:17*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*10/02/15 20:17*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*10/02/15 20:17*	*1*

Lab Sample ID: LCS 490-286490/4
Matrix: Solid
Analysis Batch: 286490

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			0.0500	0.04395		mg/Kg		88	80 - 134		
Benzene			0.0500	0.05813		mg/Kg		116	75 - 127		
Toluene			0.0500	0.04779		mg/Kg		96	80 - 132		
Xylenes, Total			0.100	0.08717		mg/Kg		87	80 - 137		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
Dibromofluoromethane (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*88*		*70 - 130*

Lab Sample ID: LCSD 490-286490/5
Matrix: Solid
Analysis Batch: 286490

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			0.0500	0.04777		mg/Kg		96	80 - 134	8	50
Benzene			0.0500	0.06413	*	mg/Kg		128	75 - 127	10	50
Toluene			0.0500	0.05207		mg/Kg		104	80 - 132	9	50
Xylenes, Total			0.100	0.09380		mg/Kg		94	80 - 137	7	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*88*		*70 - 130*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-285405/6
Matrix: Solid
Analysis Batch: 285405

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.00		mg/Kg			09/29/15 16:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*86*		*50 - 150*		*09/29/15 16:49*	*1*

Lab Sample ID: LCS 490-285405/5
Matrix: Solid
Analysis Batch: 285405

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			10.0	8.534		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*196*	*X*	*50 - 150*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 490-284884/1-A
Matrix: Solid
Analysis Batch: 285159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 284884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.975		mg/Kg		09/28/15 08:10	09/28/15 16:10	1

Lab Sample ID: LCS 490-284884/2-A
Matrix: Solid
Analysis Batch: 285159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 284884

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			20.0	20.36		mg/Kg		102	80 - 120		

Method: Moisture - Percent Moisture

Lab Sample ID: 490-88272-1 DU
Matrix: Solid
Analysis Batch: 285215

Client Sample ID: N-UST-16.5'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	79			81		%				2	20

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

GC/MS VOA

Prep Batch: 285402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-88272-1	N-UST-16.5'	Total/NA	Solid	5035	
490-88272-2	S-UST-16.5'	Total/NA	Solid	5035	
490-88272-3	W-Wall-16'	Total/NA	Solid	5035	
490-88272-4	N-Disp-3'	Total/NA	Solid	5035	
490-88272-5	PL-1@3.5'	Total/NA	Solid	5035	
490-88272-6	S-Disp.-2.5'	Total/NA	Solid	5035	

Analysis Batch: 286453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-88272-3	W-Wall-16'	Total/NA	Solid	8260B	285402
490-88272-4	N-Disp-3'	Total/NA	Solid	8260B	285402
490-88272-5	PL-1@3.5'	Total/NA	Solid	8260B	285402
490-88272-6	S-Disp.-2.5'	Total/NA	Solid	8260B	285402
LCS 490-286453/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-286453/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-286453/7	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 286490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-88272-1	N-UST-16.5'	Total/NA	Solid	8260B	285402
490-88272-2	S-UST-16.5'	Total/NA	Solid	8260B	285402
LCS 490-286490/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-286490/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-286490/8	Method Blank	Total/NA	Solid	8260B	

GC VOA

Prep Batch: 285283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-88272-1	N-UST-16.5'	Total/NA	Solid	5035	
490-88272-2	S-UST-16.5'	Total/NA	Solid	5035	
490-88272-3	W-Wall-16'	Total/NA	Solid	5035	
490-88272-4	N-Disp-3'	Total/NA	Solid	5035	
490-88272-5	PL-1@3.5'	Total/NA	Solid	5035	
490-88272-6	S-Disp.-2.5'	Total/NA	Solid	5035	

Analysis Batch: 285405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-88272-1	N-UST-16.5'	Total/NA	Solid	NWTPH-Gx	285283
490-88272-2	S-UST-16.5'	Total/NA	Solid	NWTPH-Gx	285283
490-88272-3	W-Wall-16'	Total/NA	Solid	NWTPH-Gx	285283
490-88272-4	N-Disp-3'	Total/NA	Solid	NWTPH-Gx	285283
490-88272-5	PL-1@3.5'	Total/NA	Solid	NWTPH-Gx	285283
490-88272-6	S-Disp.-2.5'	Total/NA	Solid	NWTPH-Gx	285283
LCS 490-285405/5	Lab Control Sample	Total/NA	Solid	NWTPH-Gx	
MB 490-285405/6	Method Blank	Total/NA	Solid	NWTPH-Gx	

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Metals

Prep Batch: 284884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-88272-1	N-UST-16.5'	Total/NA	Solid	3051A	
490-88272-2	S-UST-16.5'	Total/NA	Solid	3051A	
490-88272-3	W-Wall-16'	Total/NA	Solid	3051A	
490-88272-4	N-Disp-3'	Total/NA	Solid	3051A	
490-88272-5	PL-1@3.5'	Total/NA	Solid	3051A	
490-88272-6	S-Disp.-2.5'	Total/NA	Solid	3051A	
LCS 490-284884/2-A	Lab Control Sample	Total/NA	Solid	3051A	
MB 490-284884/1-A	Method Blank	Total/NA	Solid	3051A	

Analysis Batch: 285159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-88272-1	N-UST-16.5'	Total/NA	Solid	6010C	284884
490-88272-2	S-UST-16.5'	Total/NA	Solid	6010C	284884
490-88272-3	W-Wall-16'	Total/NA	Solid	6010C	284884
490-88272-4	N-Disp-3'	Total/NA	Solid	6010C	284884
490-88272-5	PL-1@3.5'	Total/NA	Solid	6010C	284884
490-88272-6	S-Disp.-2.5'	Total/NA	Solid	6010C	284884
LCS 490-284884/2-A	Lab Control Sample	Total/NA	Solid	6010C	284884
MB 490-284884/1-A	Method Blank	Total/NA	Solid	6010C	284884

General Chemistry

Analysis Batch: 285215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-88272-1	N-UST-16.5'	Total/NA	Solid	Moisture	
490-88272-1 DU	N-UST-16.5'	Total/NA	Solid	Moisture	
490-88272-2	S-UST-16.5'	Total/NA	Solid	Moisture	
490-88272-3	W-Wall-16'	Total/NA	Solid	Moisture	
490-88272-4	N-Disp-3'	Total/NA	Solid	Moisture	
490-88272-5	PL-1@3.5'	Total/NA	Solid	Moisture	
490-88272-6	S-Disp.-2.5'	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Client Sample ID: N-UST-16.5'
Date Collected: 09/18/15 11:40
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			285215	09/29/15 10:25	MNM	TAL NSH

Client Sample ID: N-UST-16.5'
Date Collected: 09/18/15 11:40
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-1
Matrix: Solid
Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7.432 g	5.0 mL	285402	09/18/15 11:40	JLP	TAL NSH
Total/NA	Analysis	8260B		1	7.432 g	5.0 mL	286490	10/02/15 22:34	KS	TAL NSH
Total/NA	Prep	5035			6.791 g	5.0 mL	285283	09/18/15 11:40	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	6.791 g	5.0 mL	285405	09/29/15 19:25	AMC	TAL NSH
Total/NA	Prep	3051A			0.513 g	100 mL	284884	09/28/15 08:10	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.513 g	100 mL	285159	09/28/15 16:59	TSC	TAL NSH

Client Sample ID: S-UST-16.5'
Date Collected: 09/18/15 11:45
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			285215	09/29/15 10:25	MNM	TAL NSH

Client Sample ID: S-UST-16.5'
Date Collected: 09/18/15 11:45
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-2
Matrix: Solid
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.147 g	5.0 mL	285402	09/18/15 11:45	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.147 g	5.0 mL	286490	10/02/15 23:01	KS	TAL NSH
Total/NA	Prep	5035			4.498 g	5.0 mL	285283	09/18/15 11:45	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	4.498 g	5.0 mL	285405	09/29/15 19:57	AMC	TAL NSH
Total/NA	Prep	3051A			0.520 g	100 mL	284884	09/28/15 08:10	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.520 g	100 mL	285159	09/28/15 17:04	TSC	TAL NSH

Client Sample ID: W-Wall-16'
Date Collected: 09/18/15 11:50
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			285215	09/29/15 10:25	MNM	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Client Sample ID: W-Wall-16'

Lab Sample ID: 490-88272-3
Date Collected: 09/18/15 11:50
Matrix: Solid
Date Received: 09/26/15 10:15
Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.184 g	5.0 mL	285402	09/18/15 11:50	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.184 g	5.0 mL	286453	10/02/15 20:30	KS	TAL NSH
Total/NA	Prep	5035			6.583 g	5.0 mL	285283	09/18/15 11:50	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	6.583 g	5.0 mL	285405	09/29/15 20:30	AMC	TAL NSH
Total/NA	Prep	3051A			0.510 g	100 mL	284884	09/28/15 08:10	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.510 g	100 mL	285159	09/28/15 17:18	TSC	TAL NSH

Client Sample ID: N-Disp-3'

Lab Sample ID: 490-88272-4
Date Collected: 09/18/15 13:00
Matrix: Solid
Date Received: 09/26/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			285215	09/29/15 10:25	MNM	TAL NSH

Client Sample ID: N-Disp-3'

Lab Sample ID: 490-88272-4
Date Collected: 09/18/15 13:00
Matrix: Solid
Date Received: 09/26/15 10:15
Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.307 g	5.0 mL	285402	09/18/15 13:00	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.307 g	5.0 mL	286453	10/02/15 21:00	KS	TAL NSH
Total/NA	Prep	5035			5.213 g	5.0 mL	285283	09/18/15 13:00	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5.213 g	5.0 mL	285405	09/29/15 21:03	AMC	TAL NSH
Total/NA	Prep	3051A			0.524 g	100 mL	284884	09/28/15 08:10	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.524 g	100 mL	285159	09/28/15 17:23	TSC	TAL NSH

Client Sample ID: PL-1@3.5'

Lab Sample ID: 490-88272-5
Date Collected: 09/18/15 13:10
Matrix: Solid
Date Received: 09/26/15 10:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			285215	09/29/15 10:25	MNM	TAL NSH

Client Sample ID: PL-1@3.5'

Lab Sample ID: 490-88272-5
Date Collected: 09/18/15 13:10
Matrix: Solid
Date Received: 09/26/15 10:15
Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.527 g	5.0 mL	285402	09/18/15 13:10	JLP	TAL NSH
Total/NA	Analysis	8260B		1	6.527 g	5.0 mL	286453	10/02/15 21:30	KS	TAL NSH
Total/NA	Prep	5035			5.936 g	5.0 mL	285283	09/18/15 13:10	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5.936 g	5.0 mL	285405	09/29/15 21:36	AMC	TAL NSH
Total/NA	Prep	3051A			0.510 g	100 mL	284884	09/28/15 08:10	KMS	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Client Sample ID: PL-1@3.5'

Date Collected: 09/18/15 13:10
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-5

Matrix: Solid
Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	0.510 g	100 mL	285159	09/28/15 17:27	TSC	TAL NSH

Client Sample ID: S-Disp.-2.5'

Date Collected: 09/18/15 13:20
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			285215	09/29/15 10:25	MNM	TAL NSH

Client Sample ID: S-Disp.-2.5'

Date Collected: 09/18/15 13:20
Date Received: 09/26/15 10:15

Lab Sample ID: 490-88272-6

Matrix: Solid
Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.661 g	5.0 mL	285402	09/18/15 13:20	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.661 g	5.0 mL	286453	10/02/15 22:00	KS	TAL NSH
Total/NA	Prep	5035			5.306 g	5.0 mL	285283	09/18/15 13:20	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5.306 g	5.0 mL	285405	09/29/15 22:08	AMC	TAL NSH
Total/NA	Prep	3051A			0.508 g	100 mL	284884	09/28/15 08:10	KMS	TAL NSH
Total/NA	Analysis	6010C		1	0.508 g	100 mL	285159	09/28/15 17:31	TSC	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
6010C	Metals (ICP)	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven 21001 Arlington

TestAmerica Job ID: 490-88272-1
SDG: 541 West Avenue, Arlington, WA

Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Solids

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Nashville, TN

COOLER RECEIPT FORM

490-88272 Chain of Custody

Cooler Received/Opened On 9/25/2015 @ 10:15

1. Tracking # 2684 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 17610176

2. Temperature of rep. sample or temp blank when opened: 5.6 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) AOH

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) AOH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) AOH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) AOH

I certify that I attached a label with the unique LIMS number to each container (intial) AOH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 11/28/12

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
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Client Information	Sampler: Adam Valenti	Lab PM: Wagner, Heather	Carrier Tracking No(s):	COC No:
Client Contact: Paul Fairbairn	Phone: 425-786-5616	E-Mail: heather.wagner@testamericainc.com		Page: 1
Company: Stantec Consulting Corp.				Job #:
Address: 11130 NE 33rd Place Suite 200	Due Date Requested:			
City: Bellevue	TAT Requested (days): Standard			
State, Zip: WA, 98004-1465				
Phone: 425-298-1000(Tel)	PO #: Purchase Order Requested			
Email: paul.fairbairn@stantec.com	WO #:			
Project Name: 7-Eleven 21001 Arlington	Project #:			
Site: 541 West Avenue, Arlington WA	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1 TPH-G	8 BTEX	Total Lead				Total Number of containers	Special Instructions/Note:
			Preservation Code				F	N	N	N	N	F		
N-UST-16.5'	9/18/15	1140	G	S	N	Y	X	X	X					PID=4.4 ppm
S-UST-16.5'	9/18/15	1145	G	S	N	Y	X	X	X					PID=1.4 ppm
W-Wall-16'	9/18/15	1150	G	S	N	Y	X	X	X					PID=1.1 ppm
N-Disp.-3'	9/18/15	1300	G	S	N	Y	X	X	X					PID=1.2 ppm
PL-1@3.5'	9/18/15	1310	G	S	N	Y	X	X	X					PID=0.2 ppm
S-Disp.-2.5'	9/18/15	1320	G	S	N	Y	X	X	X					PID=1.2 ppm

Loc: 490
88272

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company		Date/Time:	Company
Relinquished by: Adam Valenti	9/18/15 1614	Stantec	Received by:	9/22/15 1325	TA-SEA
Relinquished by: Tom Blankenship	9/23/15	TA-Sea	Received by:	9/25/15 10:15	TAN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 5.4

10/5/2015

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 490-88272-1
SDG Number: 541 West Avenue, Arlington, WA

Login Number: 88272
List Number: 1
Creator: Huskey, Adam

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-78331-1
Client Project/Site: 21001 Subsurface Assessement

For:
Stantec Consulting Corp.
11130 NE 33rd Place
Suite 200
Bellevue, Washington 98004-1465

Attn: Paul Fairbairn

Authorized for release by:
5/20/2015 12:37:05 PM

Heather Wagner, Project Manager I
(615)301-5763
heather.wagner@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 21001 Subsurface Assessement

TestAmerica Job ID: 490-78331-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-78331-1	SB-1	Water	05/05/15 10:30	05/13/15 08:30
490-78331-2	SB-2	Water	05/05/15 13:00	05/13/15 08:30

Job ID: 490-78331-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-78331-1

Comments
No additional comments.

Receipt
The samples were received on 5/13/2015 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0º C.

GC/MS VOA
Method(s) 8260B: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory: SB-2 (490-78331-2). The sample was not analyzed withing the seven day holding time for unpreserved samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
Method(s) NWTPH-Gx: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory: SB-2 (490-78331-2). The sample was not analyzed withing the seven day holding time for unpreserved samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Stantec Consulting Corp.
Project/Site: 21001 Subsurface Assessement

TestAmerica Job ID: 490-78331-1

Client Sample ID: SB-1
Date Collected: 05/05/15 10:30
Date Received: 05/13/15 08:30

Lab Sample ID: 490-78331-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			05/15/15 20:29	1
Ethylbenzene	ND		1.00		ug/L			05/15/15 20:29	1
Xylenes, Total	ND		2.00		ug/L			05/15/15 20:29	1
Toluene	ND		1.00		ug/L			05/15/15 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*05/15/15 20:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*05/15/15 20:29*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/15/15 20:29*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*05/15/15 20:29*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			05/15/15 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*94*		*50 - 150*		*05/15/15 15:18*	*1*

Client Sample ID: SB-2

Date Collected: 05/05/15 13:00
Date Received: 05/13/15 08:30

Lab Sample ID: 490-78331-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			05/15/15 20:55	1
Ethylbenzene	ND		1.00		ug/L			05/15/15 20:55	1
Xylenes, Total	ND		2.00		ug/L			05/15/15 20:55	1
Toluene	ND		1.00		ug/L			05/15/15 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*05/15/15 20:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*05/15/15 20:55*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*05/15/15 20:55*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*		*05/15/15 20:55*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			05/15/15 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*94*		*50 - 150*		*05/15/15 15:52*	*1*

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

Lab Sample ID: MB 490-248523/6
Matrix: Water
Analysis Batch: 248523

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			05/15/15 12:32	1
Ethylbenzene	ND		1.00		ug/L			05/15/15 12:32	1
Xylenes, Total	ND		2.00		ug/L			05/15/15 12:32	1
Toluene	ND		1.00		ug/L			05/15/15 12:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*		*05/15/15 12:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*05/15/15 12:32*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*05/15/15 12:32*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*05/15/15 12:32*	*1*

Lab Sample ID: LCS 490-248523/3
Matrix: Water
Analysis Batch: 248523

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	54.32		ug/L		109	80 - 121		
Ethylbenzene			50.0	53.57		ug/L		107	80 - 130		
Xylenes, Total			150	154.6		ug/L		103	80 - 132		
Toluene			50.0	53.84		ug/L		108	80 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 490-248523/4
Matrix: Water
Analysis Batch: 248523

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			50.0	54.25		ug/L		108	80 - 121	0	17
Ethylbenzene			50.0	52.54		ug/L		105	80 - 130	2	15
Xylenes, Total			150	154.0		ug/L		103	80 - 132	0	15
Toluene			50.0	53.22		ug/L		106	80 - 126	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*99*		*70 - 130*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-248500/6
Matrix: Water
Analysis Batch: 248500

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			05/15/15 11:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*50 - 150*		*05/15/15 11:42*	*1*

Lab Sample ID: MB 490-248500/9
Matrix: Water
Analysis Batch: 248500

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			05/15/15 13:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*102*		*50 - 150*		*05/15/15 13:38*	*1*

Lab Sample ID: LCS 490-248500/4
Matrix: Water
Analysis Batch: 248500

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	952.8		ug/L		95	39 - 143		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*102*		*50 - 150*

Lab Sample ID: LCSD 490-248500/5
Matrix: Water
Analysis Batch: 248500

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			1000	941.2		ug/L		94	39 - 143	1	18

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*103*		*50 - 150*

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: 21001 Subsurface Assessement

TestAmerica Job ID: 490-78331-1

GC/MS VOA

Analysis Batch: 248523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-78331-1	SB-1	Total/NA	Water	8260B	
490-78331-2	SB-2	Total/NA	Water	8260B	
LCS 490-248523/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-248523/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-248523/6	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 248500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-78331-1	SB-1	Total/NA	Water	NWTPH-Gx	
490-78331-2	SB-2	Total/NA	Water	NWTPH-Gx	
LCS 490-248500/4	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-248500/5	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 490-248500/6	Method Blank	Total/NA	Water	NWTPH-Gx	
MB 490-248500/9	Method Blank	Total/NA	Water	NWTPH-Gx	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 21001 Subsurface Assessement

TestAmerica Job ID: 490-78331-1

Client Sample ID: SB-1

Lab Sample ID: 490-78331-1

Date Collected: 05/05/15 10:30

Matrix: Water

Date Received: 05/13/15 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	248523	05/15/15 20:29	SLM	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	248500	05/15/15 15:18	GWM	TAL NSH

Client Sample ID: SB-2

Lab Sample ID: 490-78331-2

Date Collected: 05/05/15 13:00

Matrix: Water

Date Received: 05/13/15 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	248523	05/15/15 20:55	SLM	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	248500	05/15/15 15:52	GWM	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 21001 Subsurface Assessement

TestAmerica Job ID: 490-78331-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 21001 Subsurface Assessement

TestAmerica Job ID: 490-78331-1

Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-15

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-78331 Chain of Custody

Cooler Received/Opened On 5/13/2015 @ 0830

1. Tracking # 8600 (last 4 digits, FedEx)

Courier: Fed Ex IR Gun ID 17960357

2. Temperature of rep. sample or temp blank when opened: 1.0 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO..NA

4. Were custody seals on outside of cooler? YES..NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO..NA

Were these signed and dated correctly? YES...NO..NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO..NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES..NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES..NO..#_____

BIS = Broken in shipment

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

Loc: 490
78331

COOLER RECEIPT FORM

Cooler Received/Opened On 5/13/2015 @ 8:30

1. Tracking # 8595 (last 4 digits, FedEx)

Courier: Fed-ex IR Gun ID 96210146

2. Temperature of rep. sample or temp blank when opened: 0.8 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO (NA)

4. Were custody seals on outside of cooler? (YES)...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? (YES)...NO...NA

6. Were custody papers inside cooler? (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) ELA

7. Were custody seals on containers: YES (NO) and Intact YES...NO...(NA)

Were these signed and dated correctly? YES...NO...(NA)

8. Packing mat'l used? (Bubblewrap) Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)...NO...NA

13a. Were VOA vials received? YES...(NO)...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...(NA)

14. Was there a Trip Blank in this cooler? YES...(NO)...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)...NO...NA

16. Was residual chlorine present? YES...(NO)...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)...NO...NA

19. Were correct containers used for the analysis requested? (YES)...NO...NA

20. Was sufficient amount of sample sent in each container? (YES)...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...(NO) Was a PIPE generated? YES...(NO)...#_____

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: EMILY HARPER	Lab PM: Wagner, Heather	Carrier Tracking No(s):	COC No:
Client Contact: Paul Fairbairn	Phone: 425-869-9448	E-Mail: heather.wagner@testamericainc.com		Page:
Company: Stantec Consulting Corp.				Job #:
Address: 11130 NE 33rd Place Suite 200	Due Date Requested:			
City: Bellevue	TAT Requested (days): STANDARD			
State, Zip: WA, 98004-1465				
Phone: 425-298-1000(Tel)	PO #: Purchase Order Requested			
Email: paul.fairbairn@stantec.com	WO #:			
Project Name: 21001 SUBSURFACE ASSESSMENT	Project #: 185750333			
Site: 21001 ARLINGTON	SSOW#:			

Analysis Requested

Loc: 490
78331

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	BTEX 8260	NWTPHGx	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SB-1	5/5/15	10:30		W			X	X		HOLD EXTRA BOTTLES FOR POSSIBLE FURTHER ANALYSIS
SB-2	5/5/15	1300		W			X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		5/11/15 1150	STANTEC		5/11/15 1150	TMSEA
2		5/12/15 0920			5/13/15 0830	TMW
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 1.0°C

5/20/2015

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 490-78331-1

Login Number: 78331
List Number: 1
Creator: Huckaba, Jimmy

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-86986-1
Client Project/Site: 7-11 21001 Arlington UST

For:
Stantec Consulting Corp.
11130 NE 33rd Place
Suite 200
Bellevue, Washington 98004-1465

Attn: Paul Fairbairn

Authorized for release by:
9/14/2015 1:04:17 PM

Heather Wagner, Project Manager I
(615)301-5763
heather.wagner@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-86986-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-86986-1	WS-1	Water	09/10/15 09:15	09/10/15 13:20
490-86986-2	N-WALL-10	Solid	09/10/15 08:30	09/10/15 13:20
490-86986-3	S-WALL-9.5	Solid	09/10/15 09:15	09/10/15 13:20
490-86986-4	SP-1	Solid	09/10/15 06:45	09/10/15 13:20
490-86986-5	SP-2	Solid	09/10/15 07:45	09/10/15 13:20

Job ID: 490-86986-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-86986-1

Comments
No additional comments.

Receipt
The samples were received on 9/10/2015 1:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice.

GC/MS VOA
Method(s) 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: WS-1 (490-86986-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: AB: 200532
8260B: Surrogate Dibromofluoromethane recovery for the following sample was outside lower control limits recovering at 83% below the 85-115% control criteria: WS-1 (490-86986-1). Evidence of matrix interference is present; the 10X analysis recovered with passing surrogate recoveries indicating a matrix interference in the straight analysis. Both analysis of the sample contained comparable results therefore the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-86986-1

Client Sample ID: WS-1

Date Collected: 09/10/15 09:15
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	11.3		2.00		ug/L			09/11/15 23:09	1
Ethylbenzene	25.1		3.00		ug/L			09/11/15 23:09	1
Xylenes, Total	38.9		3.00		ug/L			09/11/15 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*85 - 120*		*09/11/15 23:09*	*1*
Trifluorotoluene (Surr)	*98*		*70 - 136*		*09/11/15 23:09*	*1*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*09/11/15 23:09*	*1*
Dibromofluoromethane (Surr)	*83*	*X*	*85 - 115*		*09/11/15 23:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 120*		*09/11/15 23:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	143		20.0		ug/L			09/11/15 22:42	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*85 - 120*		*09/11/15 22:42*	*10*
Trifluorotoluene (Surr)	*96*		*70 - 136*		*09/11/15 22:42*	*10*
4-Bromofluorobenzene (Surr)	*109*		*75 - 120*		*09/11/15 22:42*	*10*
Dibromofluoromethane (Surr)	*100*		*85 - 115*		*09/11/15 22:42*	*10*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 120*		*09/11/15 22:42*	*10*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	844		100		ug/L			09/11/15 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*100*		*50 - 150*		*09/11/15 13:32*	*1*

Client Sample ID: N-WALL-10

Date Collected: 09/10/15 08:30
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-2

Matrix: Solid
Percent Solids: 79.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	43.8		34.5		ug/Kg	☼	09/11/15 17:16	09/11/15 17:52	1
Toluene	88.7		86.2		ug/Kg	☼	09/11/15 17:16	09/11/15 17:52	1
Ethylbenzene	240		86.2		ug/Kg	☼	09/11/15 17:16	09/11/15 17:52	1
Xylenes, Total	483		86.2		ug/Kg	☼	09/11/15 17:16	09/11/15 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 120*	*09/11/15 17:16*	*09/11/15 17:52*	*1*
Trifluorotoluene (Surr)	*105*		*65 - 140*	*09/11/15 17:16*	*09/11/15 17:52*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 120*	*09/11/15 17:16*	*09/11/15 17:52*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 132*	*09/11/15 17:16*	*09/11/15 17:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*71 - 136*	*09/11/15 17:16*	*09/11/15 17:52*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		6.38		mg/Kg	☼	09/10/15 08:30	09/11/15 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*59*		*50 - 150*	*09/10/15 08:30*	*09/11/15 13:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10		%			09/11/15 18:33	1

Client Sample ID: S-WALL-9.5

Date Collected: 09/10/15 09:15
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-3

Matrix: Solid
Percent Solids: 81.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**491**		34.6		ug/Kg	☼	09/11/15 17:16	09/11/15 19:13	1
Toluene	**271**		86.5		ug/Kg	☼	09/11/15 17:16	09/11/15 19:13	1
Ethylbenzene	**405**		86.5		ug/Kg	☼	09/11/15 17:16	09/11/15 19:13	1
Xylenes, Total	**1010**		86.5		ug/Kg	☼	09/11/15 17:16	09/11/15 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*	*09/11/15 17:16*	*09/11/15 19:13*	*1*
Trifluorotoluene (Surr)	*99*		*65 - 140*	*09/11/15 17:16*	*09/11/15 19:13*	*1*
4-Bromofluorobenzene (Surr)	*102*		*70 - 120*	*09/11/15 17:16*	*09/11/15 19:13*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 132*	*09/11/15 17:16*	*09/11/15 19:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*71 - 136*	*09/11/15 17:16*	*09/11/15 19:13*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.59		mg/Kg	☼	09/10/15 09:15	09/11/15 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*58*		*50 - 150*	*09/10/15 09:15*	*09/11/15 13:45*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**81**		0.10		%			09/11/15 18:33	1

Client Sample ID: SP-1

Date Collected: 09/10/15 06:45
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-4

Matrix: Solid
Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		36.1		ug/Kg	☼	09/11/15 17:16	09/11/15 19:39	1
Toluene	ND		90.3		ug/Kg	☼	09/11/15 17:16	09/11/15 19:39	1
Ethylbenzene	ND		90.3		ug/Kg	☼	09/11/15 17:16	09/11/15 19:39	1
Xylenes, Total	ND		90.3		ug/Kg	☼	09/11/15 17:16	09/11/15 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*80 - 120*	*09/11/15 17:16*	*09/11/15 19:39*	*1*
Trifluorotoluene (Surr)	*101*		*65 - 140*	*09/11/15 17:16*	*09/11/15 19:39*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 120*	*09/11/15 17:16*	*09/11/15 19:39*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 132*	*09/11/15 17:16*	*09/11/15 19:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*71 - 136*	*09/11/15 17:16*	*09/11/15 19:39*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.99		mg/Kg	☼	09/10/15 06:45	09/11/15 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*56*		*50 - 150*	*09/10/15 06:45*	*09/11/15 14:14*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**85**		0.10		%			09/11/15 18:33	1

Client Sample ID: SP-2
Date Collected: 09/10/15 07:45
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-5
Matrix: Solid
Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		32.0		ug/Kg	☼	09/11/15 17:16	09/11/15 20:06	1
Toluene	ND		79.9		ug/Kg	☼	09/11/15 17:16	09/11/15 20:06	1
Ethylbenzene	ND		79.9		ug/Kg	☼	09/11/15 17:16	09/11/15 20:06	1
Xylenes, Total	ND		79.9		ug/Kg	☼	09/11/15 17:16	09/11/15 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*	*09/11/15 17:16*	*09/11/15 20:06*	*1*
Trifluorotoluene (Surr)	*99*		*65 - 140*	*09/11/15 17:16*	*09/11/15 20:06*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 120*	*09/11/15 17:16*	*09/11/15 20:06*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 132*	*09/11/15 17:16*	*09/11/15 20:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*71 - 136*	*09/11/15 17:16*	*09/11/15 20:06*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.50		mg/Kg	☼	09/10/15 07:45	09/11/15 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*57*		*50 - 150*	*09/10/15 07:45*	*09/11/15 14:43*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**80**		0.10		%			09/11/15 18:33	1

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

Lab Sample ID: MB 580-200532/5
Matrix: Water
Analysis Batch: 200532

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.00		ug/L			09/11/15 15:30	1
Toluene	ND		2.00		ug/L			09/11/15 15:30	1
Ethylbenzene	ND		3.00		ug/L			09/11/15 15:30	1
Xylenes, Total	ND		3.00		ug/L			09/11/15 15:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*85 - 120*		*09/11/15 15:30*	*1*
Trifluorotoluene (Surr)	*98*		*70 - 136*		*09/11/15 15:30*	*1*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*		*09/11/15 15:30*	*1*
Dibromofluoromethane (Surr)	*93*		*85 - 115*		*09/11/15 15:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 120*		*09/11/15 15:30*	*1*

Lab Sample ID: LCS 580-200532/6
Matrix: Water
Analysis Batch: 200532

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			20.1	22.97		ug/L		114	80 - 120		
Toluene			20.0	23.63		ug/L		118	75 - 120		
Ethylbenzene			20.1	22.19		ug/L		111	75 - 125		
Xylenes, Total			40.1	47.14		ug/L		118	75 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*85 - 120*
Trifluorotoluene (Surr)	*98*		*70 - 136*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*
Dibromofluoromethane (Surr)	*100*		*85 - 115*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 120*

Lab Sample ID: LCSD 580-200532/7
Matrix: Water
Analysis Batch: 200532

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			20.1	22.06		ug/L		110	80 - 120	4	30
Toluene			20.0	21.83		ug/L		109	75 - 120	8	30
Ethylbenzene			20.1	21.64		ug/L		108	75 - 125	3	30
Xylenes, Total			40.1	45.76		ug/L		114	75 - 125	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*93*		*85 - 120*
Trifluorotoluene (Surr)	*98*		*70 - 136*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*
Dibromofluoromethane (Surr)	*95*		*85 - 115*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 120*

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

Lab Sample ID: MB 580-200561/1-A
Matrix: Solid
Analysis Batch: 200487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200561

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		16.0		ug/Kg		09/11/15 14:00	09/11/15 15:07	1
Toluene	ND		40.0		ug/Kg		09/11/15 14:00	09/11/15 15:07	1
Ethylbenzene	ND		40.0		ug/Kg		09/11/15 14:00	09/11/15 15:07	1
Xylenes, Total	ND		40.0		ug/Kg		09/11/15 14:00	09/11/15 15:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*	*09/11/15 14:00*	*09/11/15 15:07*	*1*
Trifluorotoluene (Surr)	*101*		*65 - 140*	*09/11/15 14:00*	*09/11/15 15:07*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 120*	*09/11/15 14:00*	*09/11/15 15:07*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 132*	*09/11/15 14:00*	*09/11/15 15:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*71 - 136*	*09/11/15 14:00*	*09/11/15 15:07*	*1*

Lab Sample ID: LCS 580-200561/2-A
Matrix: Solid
Analysis Batch: 200487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200561

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			800	665.6		ug/Kg		83	70 - 128		
Toluene			800	642.3		ug/Kg		80	75 - 126		
Ethylbenzene			800	654.0		ug/Kg		82	78 - 126		
Xylenes, Total			1600	1291		ug/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 120*
Trifluorotoluene (Surr)	*101*		*65 - 140*
4-Bromofluorobenzene (Surr)	*99*		*70 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 132*
1,2-Dichloroethane-d4 (Surr)	*100*		*71 - 136*

Lab Sample ID: LCSD 580-200561/3-A
Matrix: Solid
Analysis Batch: 200487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 200561

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			800	699.8		ug/Kg		87	70 - 128	5	19
Toluene			800	665.4		ug/Kg		83	75 - 126	4	19
Ethylbenzene			800	684.9		ug/Kg		86	78 - 126	5	23
Xylenes, Total			1600	1343		ug/Kg		84	70 - 130	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*80 - 120*
Trifluorotoluene (Surr)	*102*		*65 - 140*
4-Bromofluorobenzene (Surr)	*102*		*70 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 132*
1,2-Dichloroethane-d4 (Surr)	*101*		*71 - 136*

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

Lab Sample ID: 490-86986-2 MS
Matrix: Solid
Analysis Batch: 200487

Client Sample ID: N-WALL-10
Prep Type: Total/NA
Prep Batch: 200561

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	43.8		1730	1684		ug/Kg	☼	95	75 - 125
Toluene	88.7		1730	1678		ug/Kg	☼	92	70 - 125
Ethylbenzene	240		1730	1861		ug/Kg	☼	94	75 - 125
Xylenes, Total	483		3450	3667		ug/Kg	☼	92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*99*		*80 - 120*
Trifluorotoluene (Surr)	*102*		*65 - 140*
4-Bromofluorobenzene (Surr)	*98*		*70 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 132*
1,2-Dichloroethane-d4 (Surr)	*100*		*71 - 136*

Lab Sample ID: 490-86986-2 MSD
Matrix: Solid
Analysis Batch: 200487

Client Sample ID: N-WALL-10
Prep Type: Total/NA
Prep Batch: 200561

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	43.8		1730	1631		ug/Kg	☼	92	75 - 125	3	30
Toluene	88.7		1730	1578		ug/Kg	☼	86	70 - 125	6	30
Ethylbenzene	240		1730	1775		ug/Kg	☼	89	75 - 125	5	30
Xylenes, Total	483		3450	3450		ug/Kg	☼	86	70 - 130	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*95*		*80 - 120*
Trifluorotoluene (Surr)	*101*		*65 - 140*
4-Bromofluorobenzene (Surr)	*102*		*70 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 132*
1,2-Dichloroethane-d4 (Surr)	*102*		*71 - 136*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-280761/1-A
Matrix: Solid
Analysis Batch: 280772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 280761

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		5.00		mg/Kg		09/11/15 08:08	09/11/15 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*57*		*50 - 150*	*09/11/15 08:08*	*09/11/15 10:55*	*1*

Lab Sample ID: LCS 490-280761/2-A
Matrix: Solid
Analysis Batch: 280772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 280761

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	10.0	11.02		mg/Kg		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	72		50 - 150

Lab Sample ID: MB 490-280762/65
Matrix: Water
Analysis Batch: 280762

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/11/15 11:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		50 - 150		09/11/15 11:58	1

Lab Sample ID: MB 490-280762/75
Matrix: Water
Analysis Batch: 280762

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			09/11/15 17:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		50 - 150		09/11/15 17:15	1

Lab Sample ID: LCS 490-280762/72
Matrix: Water
Analysis Batch: 280762

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	1138		ug/L		114	39 - 143		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	132		50 - 150

Lab Sample ID: 490-86986-1 DU
Matrix: Water
Analysis Batch: 280762

Client Sample ID: WS-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	844			865.6		ug/L				3	18

Surrogate	DU %Recovery	DU Qualifier	Limits
a,a,a-Trifluorotoluene	100		50 - 150

GC/MS VOA

Analysis Batch: 200487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86986-2	N-WALL-10	Total/NA	Solid	8260B	200561
490-86986-2 MS	N-WALL-10	Total/NA	Solid	8260B	200561
490-86986-2 MSD	N-WALL-10	Total/NA	Solid	8260B	200561
490-86986-3	S-WALL-9.5	Total/NA	Solid	8260B	200561
490-86986-4	SP-1	Total/NA	Solid	8260B	200561
490-86986-5	SP-2	Total/NA	Solid	8260B	200561
LCS 580-200561/2-A	Lab Control Sample	Total/NA	Solid	8260B	200561
LCSD 580-200561/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	200561
MB 580-200561/1-A	Method Blank	Total/NA	Solid	8260B	200561

Analysis Batch: 200532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86986-1 - DL	WS-1	Total/NA	Water	8260B	
490-86986-1	WS-1	Total/NA	Water	8260B	
LCS 580-200532/6	Lab Control Sample	Total/NA	Water	8260B	
LCSD 580-200532/7	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 580-200532/5	Method Blank	Total/NA	Water	8260B	

Prep Batch: 200561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86986-2	N-WALL-10	Total/NA	Solid	5035	
490-86986-2 MS	N-WALL-10	Total/NA	Solid	5035	
490-86986-2 MSD	N-WALL-10	Total/NA	Solid	5035	
490-86986-3	S-WALL-9.5	Total/NA	Solid	5035	
490-86986-4	SP-1	Total/NA	Solid	5035	
490-86986-5	SP-2	Total/NA	Solid	5035	
LCS 580-200561/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 580-200561/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 580-200561/1-A	Method Blank	Total/NA	Solid	5035	

GC VOA

Prep Batch: 280761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 490-280761/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 490-280761/1-A	Method Blank	Total/NA	Solid	5030B	

Analysis Batch: 280762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86986-1	WS-1	Total/NA	Water	NWTPH-Gx	
490-86986-1 DU	WS-1	Total/NA	Water	NWTPH-Gx	
LCS 490-280762/72	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
MB 490-280762/65	Method Blank	Total/NA	Water	NWTPH-Gx	
MB 490-280762/75	Method Blank	Total/NA	Water	NWTPH-Gx	

Analysis Batch: 280772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86986-2	N-WALL-10	Total/NA	Solid	NWTPH-Gx	280899
490-86986-3	S-WALL-9.5	Total/NA	Solid	NWTPH-Gx	280899
490-86986-4	SP-1	Total/NA	Solid	NWTPH-Gx	280899

GC VOA (Continued)

Analysis Batch: 280772 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86986-5	SP-2	Total/NA	Solid	NWTPH-Gx	280899
LCS 490-280761/2-A	Lab Control Sample	Total/NA	Solid	NWTPH-Gx	280761
MB 490-280761/1-A	Method Blank	Total/NA	Solid	NWTPH-Gx	280761

Prep Batch: 280899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86986-2	N-WALL-10	Total/NA	Solid	5035	
490-86986-3	S-WALL-9.5	Total/NA	Solid	5035	
490-86986-4	SP-1	Total/NA	Solid	5035	
490-86986-5	SP-2	Total/NA	Solid	5035	

General Chemistry

Analysis Batch: 200571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-86986-2	N-WALL-10	Total/NA	Solid	D 2216	
490-86986-3	S-WALL-9.5	Total/NA	Solid	D 2216	
490-86986-4	SP-1	Total/NA	Solid	D 2216	
490-86986-5	SP-2	Total/NA	Solid	D 2216	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-86986-1

Client Sample ID: WS-1
Lab Sample ID: 490-86986-1
Date Collected: 09/10/15 09:15
Matrix: Water
Date Received: 09/10/15 13:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	10 mL	10 mL	200532	09/11/15 22:42	TL1	TAL SEA
Total/NA	Analysis	8260B		1	10 mL	10 mL	200532	09/11/15 23:09	TL1	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	280762	09/11/15 13:32	GWM	TAL NSH

Client Sample ID: N-WALL-10
Lab Sample ID: 490-86986-2
Date Collected: 09/10/15 08:30
Matrix: Solid
Date Received: 09/10/15 13:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			200571	09/11/15 18:33	PAB	TAL SEA

Client Sample ID: N-WALL-10
Lab Sample ID: 490-86986-2
Date Collected: 09/10/15 08:30
Matrix: Solid
Date Received: 09/10/15 13:20
Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.699 g	10 mL	200561	09/11/15 17:16	JMB	TAL SEA
Total/NA	Analysis	8260B		1	6.699 g	10 mL	200487	09/11/15 17:52	STA	TAL SEA
Total/NA	Prep	5035			6.266 g	5.0 mL	280899	09/10/15 08:30	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	6.266 g	5.0 mL	280772	09/11/15 13:15	AMC	TAL NSH

Client Sample ID: S-WALL-9.5
Lab Sample ID: 490-86986-3
Date Collected: 09/10/15 09:15
Matrix: Solid
Date Received: 09/10/15 13:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			200571	09/11/15 18:33	PAB	TAL SEA

Client Sample ID: S-WALL-9.5
Lab Sample ID: 490-86986-3
Date Collected: 09/10/15 09:15
Matrix: Solid
Date Received: 09/10/15 13:20
Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6.375 g	10 mL	200561	09/11/15 17:16	JMB	TAL SEA
Total/NA	Analysis	8260B		1	6.375 g	10 mL	200487	09/11/15 19:13	STA	TAL SEA
Total/NA	Prep	5035			6.946 g	5.0 mL	280899	09/10/15 09:15	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	6.946 g	5.0 mL	280772	09/11/15 13:45	AMC	TAL NSH

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-86986-1

Client Sample ID: SP-1
Date Collected: 09/10/15 06:45
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			200571	09/11/15 18:33	PAB	TAL SEA

Client Sample ID: SP-1
Date Collected: 09/10/15 06:45
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-4
Matrix: Solid
Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.615 g	10 mL	200561	09/11/15 17:16	JMB	TAL SEA
Total/NA	Analysis	8260B		1	5.615 g	10 mL	200487	09/11/15 19:39	STA	TAL SEA
Total/NA	Prep	5035			5.708 g	5.0 mL	280899	09/10/15 06:45	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	5.708 g	5.0 mL	280772	09/11/15 14:14	AMC	TAL NSH

Client Sample ID: SP-2
Date Collected: 09/10/15 07:45
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1			200571	09/11/15 18:33	PAB	TAL SEA

Client Sample ID: SP-2
Date Collected: 09/10/15 07:45
Date Received: 09/10/15 13:20

Lab Sample ID: 490-86986-5
Matrix: Solid
Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7.165 g	10 mL	200561	09/11/15 17:16	JMB	TAL SEA
Total/NA	Analysis	8260B		1	7.165 g	10 mL	200487	09/11/15 20:06	STA	TAL SEA
Total/NA	Prep	5035			7.376 g	5.0 mL	280899	09/10/15 07:45	JLP	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	7.376 g	5.0 mL	280772	09/11/15 14:43	AMC	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-86986-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SEA
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
D 2216	Percent Moisture	ASTM	TAL SEA

Protocol References:

ASTM = ASTM International

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Stantec Consulting Corp.
Project/Site: 7-11 21001 Arlington UST

TestAmerica Job ID: 490-86986-1

Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-16

Analysis Method	Prep Method	Matrix	Analyte

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-86986 Chain of Custody

Cooler Received/Opened On 9/11/2015 @ 10:00

1. Tracking # 1600 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 17610176

2. Temperature of rep. sample or temp blank when opened: 1.6 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO (NA)

4. Were custody seals on outside of cooler? (YES)..NO...NA

If yes, how many and where: 1 Front

5. Were the seals intact, signed, and dated correctly? (YES)..NO...NA

6. Were custody papers inside cooler? (YES)...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) AOH

7. Were custody seals on containers: YES (NO) and Intact YES...NO..(NA)

Were these signed and dated correctly? YES...NO..(NA)

8. Packing mat'l used? (Bubblewrap) (Plastic bag) Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? (YES)..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? (YES)...NO...NA

12. Did all container labels and tags agree with custody papers? (YES)..NO...NA

13a. Were VOA vials received? (YES)..NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO..(NA)

14. Was there a Trip Blank in this cooler? YES...(NO)...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) AOH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..(NA)

b. Did the bottle labels indicate that the correct preservatives were used (YES)..NO...NA

16. Was residual chlorine present? YES...NO..(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) AOH

17. Were custody papers properly filled out (ink, signed, etc)? (YES)..NO...NA

18. Did you sign the custody papers in the appropriate place? (YES)..NO...NA

19. Were correct containers used for the analysis requested? (YES)..NO...NA

20. Was sufficient amount of sample sent in each container? (YES)..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) AOH

I certify that I attached a label with the unique LIMS number to each container (intial) AOH

21. Were there Non-Conformance issues at login? YES..(NO) Was a NCM generated? YES..(NO)...#_____

BIS = Broken in shipment

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☐ Short Hold
490-86986

Chain of Custody Record

Client	STANTEC
Client Contact	Paul fairbairn → x142
Date	9/10/15
Chain of Custody Number	30130
Address	11130 NE 33rd Pl Ste 200
Telephone Number (Area Code)/Fax Number	425-869-9448 x162
Lab Number	
Page	1 of 1
City	Bellevue, WA
State	
Zip Code	98004
Sampler	EMILY HARPER
Lab Contact	
Project Name and Location (State)	21001 ARLINGTON UST
Billing Contact	
Contract/Purchase Order/Quote No.	

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: BTEX	NWTPHG	Special Instructions/Conditions of Receipt
WS-1	9/10/15	9:15		X			X						X	X	
N-WALL-10'	↓	8:30				X							X	X	
S-WALL-9.5'	↓	9:15				X							X	X	
SP-1	↓	6:45				X							X	X	RUSH 1st
SP-2	↓	7:45				X							X	X	RUSH 1st

Cooler/TB Dig/IR cor 4.0 unc 4.4 #1
Cooler Dsc [illegible] @Lab —
Wet/Packs Packing bubble
w/o client dropoff

Loc: 490
86986
490-8

Cooler: ☒ Yes ☐ No Cooler Temp: ____

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☒ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☒ Other ASAP

QC Requirements (Specify):

Relinquished By (Sign/Print)	Date	Time	Received By (Sign/Print)	Date	Time
1. EMILY Harper	9/10/15	11:20	1. Cathy Gamble	9/10/15	11:20
2. Cathy Gamble	9/10/15	14:20	2. [illegible]	9/11/15	1000
3.			3.		

Comments: * Attention Heather Wagner 1.8°C

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 490-86986-1

Login Number: 86986
List Number: 1
Creator: Wagner, Heather

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time.		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 490-86986-1

Login Number: 86986
List Number: 2
Creator: Bogatay, Jeff M

List Source: TestAmerica Seattle
List Creation: 09/11/15 05:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 490-86986-1

Login Number: 86986
List Number: 3
Creator: Bogatay, Jeff M

List Source: TestAmerica Seattle
List Creation: 09/11/15 05:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix D SOIL DISPOSAL SUMMARY

Ticket List By Customer\Order\Product

Date From 09/07/2015 **To** 09/21/2015
Location(s) 1876
Order: 41033816

Date	TicketNo	Delivery Address	Vehicle	TimeIn	TicketTime	Qty	Unit	Ship	Cash	Void
Scale Tickets										
WYSER CONSTRUCTION INC										
41033816										
1192508										
9/16/15	1876083459	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	8:23:00	30.80	TON			
9/16/15	1876083460	P:76: 7-11 #21001 ARLNGTN	LL4T,L&L TRANSPORT	0:00:00	8:31:00	31.92	TON			
9/16/15	1876083464	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	10:05:00	32.05	TON			
9/16/15	1876083468	P:76: 7-11 #21001 ARLNGTN	LL4T,L&L TRANSPORT	0:00:00	10:15:00	31.70	TON			
9/16/15	1876083478	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	11:42:00	30.54	TON			
9/16/15	1876083479	P:76: 7-11 #21001 ARLNGTN	LL4T,L&L TRANSPORT	0:00:00	11:48:00	31.77	TON			
9/16/15	1876083500	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	13:15:00	35.84	TON	R		
9/16/15	1876083501	P:76: 7-11 #21001 ARLNGTN	LL4T,L&L TRANSPORT	0:00:00	13:28:00	33.73	TON			
9/16/15	1876083522	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	15:04:00	29.77	TON			
9/16/15	1876083526	P:76: 7-11 #21001 ARLNGTN	LL4T,L&L TRANSPORT	0:00:00	15:17:00	27.14	TON			
9/17/15	1876083538	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	7:52:00	30.55	TON			
9/17/15	1876083545	P:76: 7-11 #21001 ARLNGTN	1876-4,EVERETT SOIL GENERIC	0:00:00	8:10:00	30.05	TON			
9/17/15	1876083549	P:76: 7-11 #21001 ARLNGTN	1876-6,EVERETT SOIL GENERIC	8:17:00	8:38:00	35.61	TON	R		
9/17/15	1876083550	P:76: 7-11 #21001 ARLNGTN	WC30T,WYSER CONSTRUCTION	0:00:00	8:39:00	38.19	TON	R		
9/17/15	1876083551	P:76: 7-11 #21001 ARLNGTN	1876-7,EVERETT SOIL GENERIC	8:30:00	8:52:00	36.05	TON	R		
9/17/15	1876083555	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	9:34:00	34.92	TON	R		
9/17/15	1876083557	P:76: 7-11 #21001 ARLNGTN	1876-4,EVERETT SOIL GENERIC	0:00:00	9:55:00	35.63	TON	R		
9/17/15	1876083560	P:76: 7-11 #21001 ARLNGTN	1876-6,EVERETT SOIL GENERIC	0:00:00	10:09:00	33.63	TON			
9/17/15	1876083564	P:76: 7-11 #21001 ARLNGTN	1876-7,EVERETT SOIL GENERIC	0:00:00	10:17:00	32.73	TON	R		

Date	TicketNo	Delivery Address	Vehicle	TimeIn	TicketTime	Qty	Unit	Ship	Cash	Void
9/17/15	1876083572	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	11:15:00	28.85	TON			
9/17/15	1876083576	P:76: 7-11 #21001 ARLNGTN	1876-4,EVERETT SOIL GENERIC	0:00:00	11:34:00	27.43	TON			
9/17/15	1876083579	P:76: 7-11 #21001 ARLNGTN	1876-6,EVERETT SOIL GENERIC	0:00:00	11:48:00	31.51	TON			
9/17/15	1876083581	P:76: 7-11 #21001 ARLNGTN	1876-7,EVERETT SOIL GENERIC	0:00:00	11:58:00	31.98	TON			
9/17/15	1876083587	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	12:56:00	28.99	TON			
9/17/15	1876083591	P:76: 7-11 #21001 ARLNGTN	1876-4,EVERETT SOIL GENERIC	0:00:00	13:14:00	30.21	TON			
9/17/15	1876083594	P:76: 7-11 #21001 ARLNGTN	1876-6,EVERETT SOIL GENERIC	0:00:00	13:32:00	28.88	TON			
9/17/15	1876083615	P:76: 7-11 #21001 ARLNGTN	1876-7,EVERETT SOIL GENERIC	0:00:00	14:23:00	30.56	TON			
9/17/15	1876083618	P:76: 7-11 #21001 ARLNGTN	Z&S7,Z&S TRUCKING	0:00:00	14:33:00	30.59	TON			
9/17/15	1876083620	P:76: 7-11 #21001 ARLNGTN	1876-4,EVERETT SOIL GENERIC	0:00:00	14:57:00	29.28	TON			
9/18/15	1876083626	P:76: 7-11 #21001 ARLNGTN	1876-3,EVERETT SOIL GENERIC	0:00:00	8:16:00	0.00	TON			V
9/18/15	1876083629	P:76: 7-11 #21001 ARLNGTN	1876-3,EVERETT SOIL GENERIC	0:00:00	8:37:00	32.89	TON			
9/18/15	1876083644	P:76: 7-11 #21001 ARLNGTN	1876-3,EVERETT SOIL GENERIC	0:00:00	10:20:00	32.44	TON			
9/18/15	1876083677	P:76: 7-11 #21001 ARLNGTN	1876-3,EVERETT SOIL GENERIC	0:00:00	12:27:00	28.54	TON			
9/18/15	1876083699	P:76: 7-11 #21001 ARLNGTN	1876-3,EVERETT SOIL GENERIC	0:00:00	14:53:00	29.78	TON			
Product Totals	**34**				**Qty**	**1,044.55**	**TON**			
Order Totals	**34**				**Qty**	**1,044.55**	**TON**			
Customer Totals	**34**				**Qty**	**1,044.55**	**TON**			
Grand Total		**34**			**Qty**	**1,044.55**	**TON**			

Appendix E MTCA STAT CALCULATOR

0.002	SB-2
0.00253	E-Wall-11
0.00201	UST-MID-19
0.0326	N-UST-16.5'
0.00249	S-UST-16.5
0.00201	W-Wall-16
0.00163	PL-3.5
0.00208	N-Disp-3
0.00269	S-Disp-2.5
0.00173	SB-1

7-Eleven 21001 MTCA STAT

Number of samples		Uncensored values		
Uncensored	10	Mean	0.01	
Censored		Lognormal mean	0.00	
Detection limit or PQL		Std. devn.	0.00964158	
Method detection limit		Median	0.002045	
TOTAL	10	Min.	0.00163	
		Max.	0.0326	

Lognormal distribution?		Normal distribution?	
r-squared is:	0.507	r-squared is:	

Recommendations:

Reject BOTH lognormal and normal distributions. See Statistics Guidance.
Unable to analyze probability plot for normal case.

UCL (Land's method) is 0.0094725796043713

UCL (based on Z-statistic) is 0.01

Appendix F PHOTOGRAPHIC LOG

STANTEC CONSULTING SERVICES INC. PHOTOGRAPHIC RECORD	
Client: 7-Eleven, Inc.	**Job Number:** 185750333
Site Name: 7-Eleven, Inc. Store No. 21001	**Photographer:** Emily Harper/Adam Valenti

PHOTO No. 1

Picture looking northwest. View of western side wall.

PHOTO No. 2

Removal of middle 12,000-gallon gasoline tank.

STANTEC CONSULTING SERVICES INC. PHOTOGRAPHIC RECORD	
Client: 7-Eleven, Inc.	**Job Number:** 185750333
Site Name: 7-Eleven, Inc. Store No. 21001	**Photographer:** Emily Harper/Adam Valenti

PHOTO No. 3

Hole in southern metal UST

PHOTO No. 4

Picture looking east. Tank Basin following removal of three USTs

STANTEC CONSULTING SERVICES INC. PHOTOGRAPHIC RECORD	
Client: 7-Eleven, Inc.	**Job Number:** 185750333
Site Name: 7-Eleven, Inc. Store No. 21001	**Photographer:** E. Harper

PHOTO No. 5

Remedial over-excavation

PHOTO No. 6

View of slide rail shoring