#620248

Underground Storage Tank Removal, Site Characterization, and Site Cleanup Report 19804 and 19806 Aurora Avenue North Shoreline, Washington

Environmental Report Tracking System (ERTS) #660148

January 12, 2016

Prepared for

City of Shoreline
Shoreline, Washington

LANDAU ASSOCIATES

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1.0 INTRODUCTION

This underground storage tank (UST) removal, site characterization, and site cleanup report has been prepared on behalf of the City of Shoreline (City) for the Gunderson-Aurora Property located at 19804 and 19806 Aurora Avenue North in Shoreline, Washington (subject property). Work at the subject property is associated with the City's Aurora Avenue North widening project that is currently in progress. Figure 1 shows the location of the subject property. Pertinent site features, including the former UST locations, are shown on Figure 2. The UST removal, site characterization, and site cleanup activities were conducted in accordance with the scope of services submitted to the City's engineer for the project, Paul Ferrier of HDR Engineering, Inc. (HDR), on July 28, 2015. Any modifications from the original scope of work were agreed to based on subsequent conversations with HDR.

1.1 Purpose of Report

The UST removal work was conducted on behalf of the City as an independent action consistent with the requirements of the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Cleanup Regulation [Chapter 173-340 Washington Administrative Code (WAC)], and the Ecology UST regulations (Chapter 173-360 WAC, including WAC 173-360-385). The purpose of this report is to document activities associated with the removal of six USTs from the subject property, and subsequent site assessment, characterization sampling, and cleanup activities.

1.2 Site Information

The following sections provide information pertaining to the physical, geologic, and hydrogeologic setting of the subject property.

1.2.1 Physical Setting

The subject property is approximately 0.6 acres in size, and is bordered to the west by Aurora Avenue North, to the south by North 198th Street, to the east by residential properties, and to the north by a commercial property. The subject property slopes downward to the east, with the western half of the property about level with Aurora Avenue North and the eastern half of the property approximately 10 feet (ft) lower in elevation than Aurora Avenue North. Four 2,000- to 3,000-gallon gasoline USTs, one 2,800-gallon diesel UST, and one 300-gallon waste oil UST, all of which were not in use by the current property owner, were located in the western portion of the subject property, approximately 50 ft east of Aurora Avenue North. Records documenting the installation, use, or initial decommissioning of the USTs were not available. Prior to the work associated with the Aurora Avenue North widening project, the areas surrounding the USTs were covered with asphalt. The existing buildings were demolished in 2013, prior to the UST removal work. Project work in the western half of the subject property, in addition to the UST removal, has included removal of asphalt and debris from the upper 2 ft of soil.

1.2.2 Geologic and Hydrogeologic Setting

The subject property is located on the east slope of a north-south trending ridge between Puget Sound and the north end of Lake Washington. The geology at the subject property is mapped as glacial till (Minard 1983[1]) associated with the Vashon Stade of the Fraser Glaciation. During removal of the USTs, Landau Associates observed up to 10 ft of fill; the native glacial till was not observed. The fill consisted of brown, fine to coarse sand with gravel and occasional debris including brick and concrete chunks. The underlying glacial till material is typically a dense, poorly sorted mixture of clay, sand, gravel, and cobbles with occasional boulders.

Groundwater was not encountered during the UST removals. Based on topography, the general direction of shallow groundwater flow in the area of the subject property is to the east toward Echo Lake, which is located approximately 500 ft east of the subject property. Perched groundwater may also be seasonally present on top of the glacial till; as noted above, groundwater was not observed during the UST removal.

[1] Minard, J.P. 1975. *Geologic Map of the Edmonds East and Part of the Edmonds West Quadrangles, Washington.* Miscellaneous Field Studies Map MF-1541. U.S. Geological Survey.

2.0 UNDERGROUND STORAGE TANK DECOMMISSIONING AND REMOVAL

The following sections of this report describe the UST decommissioning and closure methods used at the subject property.

2.1 Site Reconnaissance

On September 1, 2015, Landau Associates, HDR (for the City), and Gary Merlino Construction (contractor) representatives conducted a reconnaissance of the subject property as part of planning for UST removal. Observed site features associated with the USTs included six concrete patches at the south end of the subject property, where at least three USTs were assumed to be present. Vertical pipes, assumed to be fill pipes, were observed in two of the concrete patches. Several inches of product (i.e., residual of the fuel previously stored in the tanks) and/or water were detected in the USTs beneath the two fill pipes. Evidence of the three additional USTs assumed to be present was not identified. Underground utilities that would prevent or affect the removal of the USTs were not observed. No evidence of a release was observed during the site reconnaissance.

2.2 Underground Storage Tank Information

The approximate locations of the six USTs prior to removal are shown on Figures 2 and 3. The USTs were located during the site reconnaissance (see above), and during asphalt removal and grading work at the site associated with the Aurora Avenue North widening project. The capacity and condition of the six USTs at the time of removal were as follows:

UST ID	Approximate Capacity (gallons)	Contents	Condition
UST-1	2,000	Gasoline	Approximately 1 inch of gasoline and 3 inches of water in the tank; tank was in good condition with no holes and no evidence of staining in surrounding soil.
UST-2	2,800	Diesel	Approximately ¼ inch of brown petroleum-like liquid and 1 inch of water in the tank; several small holes in bottom of tank and minimal brown staining on soil near holes below tank.
UST-3	2,800	Gasoline	Approximately 1 inch of water in the tank; tank was in good condition with no holes and no evidence of staining in surrounding soil.
UST-4	2,800	Gasoline	Tank filled with controlled density fill (CDF)-like material; tank was in good condition with no holes and no evidence of staining in surrounding soil.
UST-5	3,000	Gasoline	Approximately 8 inches of water in the tank (likely less, this was an estimate made after rinsing); tank was in good condition with no holes and no evidence of staining in surrounding soil
UST-6	300	Waste Oil	Approximately 2 inches of product in tank; corrosion observed at seams on the ends of tank, some dark staining of soil beneath the tank.

2.3 Notifications

Prior to removing the six USTs from the subject property, the contractor submitted a 30-Day Notice of Intent to Decommission USTs to Ecology, as required by WAC 173-360-385. A copy of this notice is provided in Appendix A.

2.4 Underground Storage Tank Closure and Removal

The City's contractor, Gary Merlino Construction Co. (Merlino), contracted with Diane's Tank Removal Services LLC (DTR) for the UST decommissioning, which included cleaning, rendering inert, and removing the USTs, removing the underground piping, and excavating and disposing of petroleum-contaminated soil (PCS), as necessary. Merlino assisted with excavation and removal of PCS, as needed.

The tank decommissioning was conducted sequentially as site demolition and grading progressed at the subject property. Landau Associates field staff, certified as UST Site Assessors, were on site during all UST decommissioning, UST removal, and follow-up excavation of PCS. UST-1, UST-2, and UST-3 were decommissioned by removal on September 28, 2015. Follow-up soil excavation and confirmation sampling associated with these USTs continued until September 30, 2015. UST-4 and UST-5 were decommissioned by removal on October 7, 2015. UST-6 was decommissioned by removal on October 16, 2015, and follow-up soil excavation and confirmation sampling continued until October 23, 2015. Piping associated with the USTs was observed and removed during the decommissioning of UST-1, -2, and -3; no additional UST piping was observed at the subject property during UST decommissioning or site demolition or grading work. No fuel dispensers were present at the subject property. Prior to removal, all of the tanks were emptied, rendered inert, cleaned, and inspected by DTR personnel. All removed materials, including the USTs, piping, and soil, were placed on plastic sheeting to prevent any residual fuel from coming into contact with the ground surface. The USTs were removed, inspected, and placed on asphalt or plastic sheeting. The tanks were removed from the subject property on the same day they were excavated. Liquids from the tanks, including residual product and water, were removed from the subject property and disposed of by DTR. Decommissioning certificates, provides by DTR, are included in Appendix B.

Field screening indicated the likely presence of PCS around the tanks during the decommissioning of UST-1, -2, -3, and -6. Characterization and confirmation sampling, discussed below, confirmed the presence of PCS and guided the follow-up cleanup/removal of the PCS.

Ecology UST Program representative Anette Ademasu visited the subject property on October 7, 2015. Ms. Ademasu observed the removal of UST-4 and UST-5, and the associated confirmation sampling. A formal notice of a release associated with UST-1, UST-2, UST-3, and UST-6 was sent by Landau Associates to Ecology on October 19, 2015. The assigned facility ID for the site is #4848, and the environmental report tracking system (ERTS) number is #660148. Follow-up conversations with Ms. Ademasu and Ecology representative Gayle Garbush indicated a site assessment, characterization, and

cleanup report submitted to Ecology within 90 days of the formal notice of release would satisfy the applicable Ecology reporting requirements and keep the subject property from being added to the Ecology Hazardous Sites List.

3.0 CHARACTERIZATION SAMPLING, SOIL CLEANUP, AND CONFIRMATION SOIL SAMPLING

The following sections describe the procedures used for characterization and confirmation sampling soil cleanup, and backfilling in the areas where the USTs were removed.

3.1 Applicable Soil Cleanup Levels

To allow for unrestricted future land use, the MTCA Method A soil cleanup levels (cleanup levels) for unrestricted land uses were used to evaluate the analytical data generated during the UST removal activities. Groundwater was not encountered during the excavation activities; therefore, a discussion of groundwater sampling and associated cleanup levels is not warranted.

3.2 UST-1, UST-2, and UST-3 Characterization Sampling, Soil Cleanup, Confirmation Sampling, and Analytical Results

The following section describes the characterization sampling, soil cleanup, confirmation sampling, and analytical results associated with the decommissioning and removal of UST-1 (gasoline), UST-2 (diesel), and UST-3 (gasoline).

3.2.1 Field Screening and Characterization Sampling

Because UST-1, UST-2, and UST-3 were located next to each other, only one excavation was needed to remove the three USTs. Soil excavated during the UST removal activities was observed by Landau Associates for physical signs of contamination and monitored for the presence of volatile organic compounds (VOCs) with a photoionization detector (PID). A PID reading of 20 parts per million (ppm) was established as the threshold to identify the excavated soil as likely PCS.

Field screening during excavation found evidence of PCS associated with the USTs in the upper 4 ft of overburden soil above the USTs. A characterization sample (S1) was collected by Landau Associates to verify the field-screening observations. Based on the former contents of the tanks in this area, which included gasoline and diesel, this characterization sample was submitted to ALS Laboratory (ALS) in Everett, Washington and analyzed for TPH-G by Method NWTPH-Gx, and TPH-D and TPH-O by Method NWTPH-Dx. Analytical results for this sample indicated TPH-G concentrations in soil greater than the cleanup levels. Analytical results for characterization sample S1 are summarized in Table 1 and on Figure 4.

3.2.2 Soil Cleanup and Confirmation Sampling

Based on the analytical results for the characterization sample, a cleanup of PCS in the UST-1, -2, and -3 excavation area was completed by soil removal. The excavation for the removal of the USTs and the surrounding soil resulted in an excavation approximately 18 ft by 30 ft, and approximately 10 ft deep. Excavated soil from above and around the three USTs was loaded directly onto trucks and removed as PCS for offsite disposal.

After the removal of the three USTs and associated excavation and removal of PCS, confirmation soil samples were collected by Landau Associates to document soil quality at the limits of the excavation, to evaluate the extent, if any, of remaining PCS, and to identify if areas existed where additional excavation would be required to remove soil with contaminant concentrations greater than the cleanup levels. Confirmation soil samples were collected directly from the sidewalls and base of the excavation, or from the center of the excavator bucket when access to the excavation was not permitted because of safety concerns. Additional confirmation samples were collected from below the UST system piping that was removed from west of the northwest corner of the excavation. Confirmation samples for VOC analysis [TPH-G and benzene, toluene, ethylbenzene, and xylenes (BTEX)] were collected using US Environmental Protection Agency (EPA) Method 5035A soil sampling procedures.

Six sidewall (SW-1, SW-2, SW-3, SW-4, SW-5, and SW-6), three base (BS-1, BS-2, and BS-3; one beneath each UST), and one piping (P-1) confirmation soil samples were collected from the excavation area following tank and piping removal. No PCS was observed or identified based on field screening beneath or around any of the removed USTs.

The extent of the excavation associated with removal of the diesel and gasoline USTs and the characterization and confirmation sample locations are shown on Figure 4.

3.2.3 Confirmation Sample Analysis and Results

Confirmation soil samples were collected by Landau Associates and analyzed by ALS. The samples were selectively analyzed for TPH-D and TPH-O using Method NWTPH-Dx, TPH-G by Method NWTPH-G, BTEX by Method 8021, and total lead by Method SW6020. The confirmation soil analytical results are summarized in Table 1 and on Figure 4. A copy of the laboratory data report is provided in Appendix C. The approximate locations of where the confirmation samples were collected are shown on Figure 4.

The analytical results for all of the confirmation samples indicated TPH-D, TPH-O, TPH-G, BTEX, and total lead concentrations less than their respective MTCA Method A soil cleanup levels.

3.3 UST-4 and UST-5 Confirmation Sampling and Analytical Results

The following section describes characterization sampling, soil cleanup, confirmation sampling, and analytical results associated with the decommissioning and removal of UST-4 (gasoline) and UST-5 (gasoline).

3.3.1 Field Screening and Confirmation Sampling

Because UST-4 and UST-5 were located next to each other, only one excavation was needed to remove the two USTs. The excavation for removal of the USTs and surrounding soil resulted in an excavation approximately 18 ft by 22 ft, and approximately 10 ft deep. Soil excavated during the UST

removal activities was observed by Landau Associates for physical signs of contamination and monitored for the presence of VOCs with a PID. A PID reading of 20 ppm was established as the threshold to identify the excavated soil as likely PCS. Excavated soil with field-screening results greater than 20 ppm or visual indications of contamination was segregated as "impacted" soil and temporarily stockpiled on the subject property. Soil with no indications of being impacted by the UST system would be temporarily stockpiled on the subject property as "non-impacted" soil for possible future use as "clean" backfill.

Field screening during excavation found no evidence of PCS associated with UST-4 and UST-5. Therefore, excavated soil from above and around the two USTs was stockpiled in a "non-impacted" stockpile to potentially be used as backfill after receipt of the stockpile confirmation sample results, discussed below.

After the removal of the two USTs, confirmation soil samples were collected by Landau Associates to document soil quality at the limits of the excavation, to evaluate the extent, if any, of PCS, and to identify if areas existed where additional excavation would be required to remove soil with contaminant concentrations greater than the cleanup levels. Confirmation soil samples were collected directly from the sidewalls and base of the excavation, or from the center of the excavator bucket when access to the excavation was not permitted because of safety concerns. Confirmation samples for VOC analysis (TPH-G and BTEX) were collected using EPA Method 5035A soil sampling procedures.

Two sidewall (SW-7 and SW-8), two base (BS-4 and BS-5; one beneath each UST), and three stockpile (SP-1, SP-2, and SP-3) confirmation soil samples were collected from the excavation following tank and soil removal. No PCS was observed or identified based on field screening beneath or around either of the removed USTs.

The extent of the excavation associated with removal of the USTs and confirmation sample locations are shown on Figure 5.

3.3.2 Confirmation Sample Analysis and Results

Confirmation soil samples were collected by Landau Associates and analyzed by ALS. The samples were selectively analyzed for TPH-D and TPH-O using Method NWTPH-Dx, TPH-G by Method NWTPH-G, BTEX by Method 8021 and total lead by Method SW6020. The confirmation soil analytical results are summarized in Table 1 and on Figure 5. A copy of the laboratory data report is provided in Appendix C. The approximate locations of where the confirmation samples were collected are shown on Figure 5.

The analytical results for all of the confirmation samples, including the stockpile samples, indicated TPH-D, TPH-O, TPH-G, BTEX, and total lead concentrations less than their respective MTCA Method A soil cleanup levels. After the receipt of the analytical data, stockpiled soil was used to backfill the UST-4 and UST-5 excavation.

3.4 UST-6 Characterization Sampling, Soil Cleanup, Confirmation Sampling, and Analytical Results

The following section describes characterization sampling, soil cleanup, confirmation sampling, and analytical results associated with the decommissioning and removal of UST-6 (waste oil).

3.4.1 Field Screening and Characterization Sampling

Soil excavated during the UST removal activities was observed by Landau Associates for physical signs of contamination and monitored for the presence of VOCs with a PID. A PID reading of 20 ppm was established as the threshold to identify the excavated soil as PCS.

Field screening during initial excavation found evidence of PCS associated with UST-6 including dark staining of soil and a heavy oil-like odor in the soil. These indications of PCS were observed below and to the south of the UST; no staining or other evidence of contamination was observed in soils to the west or north, or on the concrete wall to the east. A characterization sample (UST-6) was collected by Landau Associates to verify the field-screening observations. This characterization sample was submitted to ALS for analysis for TPH-G by Method NWTPH-Gx, TPH-D and TPH-O by Method NWTPH-Dx, BTEX by EPA Method 8021, and total lead by Method SW6020. Based on the former use of this tank for storage of waste oil, the sample was also analyzed for VOCs by EPA Methods 8260 and 8260-SIM, carcinogenic and non-carcinogenic polycyclic aromatic hydrocarbons (cPAHs and PAHs) by EPA Method 8270-SIM, and polychlorinated biphenyls (PCBs) by EPA Method 8082. Analytical results for this sample indicated concentrations of TPH-O, TPH-G, benzene, total xylenes, and total naphthalenes greater than the soil cleanup levels. VOCs and PCBs were not detected at concentrations greater than the laboratory reporting limits. Analytical results for characterization sample UST-6 are summarized in Table 1 and on Figure 6.

3.4.2 Soil Cleanup and Confirmation Sampling

Based on the results of the characterization sample, a cleanup of PCS in the UST-6 excavation area was completed by soil removal. The excavation resulting from the removal of UST-6 and the surrounding PCS was approximately 8 ft by 15 ft, and approximately 9 ft deep. The east sidewall of the excavation was an existing concrete wall that extended from approximately 2 ft below ground surface to the bottom of the excavation. As discussed above, field screening during the excavation found evidence of PCS associated with the UST along the south side of the removed UST-6. Therefore, the cleanup excavation to the south extended to another east-west section of concrete wall. Excavated soil from above and around the UST was loaded directly onto trucks and removed as PCS for offsite disposal.

After the removal of the USTs and PCS, confirmation soil samples were collected by Landau Associates to document soil quality at the limits of the excavation, to evaluate the extent, if any, of remaining PCS, and to identify if areas existed where additional excavation would be required to remove soil with contaminant concentrations greater than the cleanup levels. Confirmation soil samples were

collected directly from the sidewalls and base of the excavation, or from the center of the excavator bucket when access to the excavation was not permitted because of safety concerns. Confirmation samples for VOC analysis (TPH-G and BTEX) were collected using EPA Method 5035A soil sampling procedures.

Three sidewall (SW-9, SW-10, and SW-11) and one base (BS-6) confirmation soil samples were collected from the excavation following tank and soil removal. Soil from the south sidewall sample (SW-9) was collected from the south concrete wall. Field screening of soil at the SW-9 sample location indicated potential contamination but at a lesser degree than previously observed in excavated soils. No PCS was observed or identified based on field screening beneath or at the east, north, or west sidewalls of the removed UST. Based on the analytical results (discussed below), additional excavation in the area of SW-9 was completed to the south before collecting an additional sidewall confirmation sample (SW-12).

3.4.3 Confirmation Sample Analysis and Results

Confirmation soil samples were collected by Landau Associates and analyzed by ALS for TPH-D and TPH-O by Method NWTPH-Dx, TPH-G by Method NWTPH-G, BTEX by Method 8021, total lead by Method SW6020, and cPAHs by Method 8270-SIM. VOCs and PCBs were not detected at concentrations greater than the laboratory reporting limits in characterization sample UST-6; therefore, the confirmation samples were not analyzed for these chemicals. The confirmation soil analytical results are summarized in Table 1 and on Figure 6. A copy of the laboratory data report is provided in Appendix C. The approximate locations of where the confirmation samples were collected are shown on Figure 6.

The analytical results for all of the final confirmation samples (SW-10, SW-11, SW-12, and BS-6) indicated TPH-D, TPH-O, TPH-G, BTEX, total lead, PAH, and cPAH concentrations less than their respective MTCA Method A soil cleanup levels.

3.5 Waste Disposal

As referenced above, the impacted soil excavated from the UST-1, UST-2, and UST-3 excavation area and the UST-6 excavation area was loaded directly onto trucks and removed from the subject property as PCS for offsite disposal at a facility approved by the City. Soil disposal documentation is on file with Merlino, and is available upon request. The former USTs were removed from the subject property for recycling. No additional waste was generated during the UST removal activities. Wastes generated during decommissioning of the tanks, which included removed product, washwater, and removed CDF-like material from UST-4, was all disposed of at an appropriate facility approved by the City.

3.6 Washington State Department of Ecology Closure Notice and Site Assessment Checklist

Copies of the completed Ecology UST Closure and Site Assessment Notice and completed UST Site Assessment Checklist are provided in Appendices D and E, respectively.

4.0 SUMMARY AND CONCLUSIONS

This report documents the decommissioning by removal of six USTs from the subject property consistent with the requirements of WAC 173-360-385. The results of the UST system removal activities included the following:

- Six USTs (four formerly containing gasoline, one formerly containing diesel, and one formerly containing waste oil) were removed from the subject property by Merlino and DTR. Two of the USTs (UST-2 and UST-6) were in poor condition, with corrosion holes and evidence of leakage. Additional field evidence of PCS was observed in the overburden above UST-1, UST-2, and UST-3.
- Based on field-screening observations, characterization soil samples were collected from the excavation areas associated with UST-1, UST-2, and UST-3, and with UST-6. These characterization samples confirmed releases associated with the USTs and the presence of PCS during the UST removal activities.
- Soil cleanup was completed in the UST-1, -2, and -3 and the UST-6 areas by excavation and offsite disposal of the PCS.
- No contaminants were detected at concentrations greater than the MTCA Method A soil cleanup levels for unrestricted land uses in the final confirmation soil samples collected from the limits of the UST-1, UST-2 and UST-3 excavation after soil cleanup, or in the piping sample collected from under the UST-associated piping northwest of the excavation area.
- No contaminants were detected at concentrations greater than the MTCA Method A soil cleanup levels for unrestricted land uses in the final confirmation soil samples collected from the limits of the UST-4 and UST-5 excavation or in the samples collected from the stockpiled soil. Therefore, the stockpiled soil was used to backfill the UST-4 and UST-5 excavation.
- Only the initial confirmation sample collected from the south sidewall of the UST-6 area indicated a contaminant concentration (TPH-O) greater than the MTCA Method A soil cleanup level. Additional soil was subsequently excavated from the south side of the UST-6 area, and an additional soil confirmation sample was collected for laboratory analysis. The final soil confirmation sample from the south sidewall of the UST-6 area indicated that the contaminant concentrations at the sidewall of the overexcavated area were less than the MTCA Method A soil cleanup levels.
- The PCS excavated from the UST-1, UST-2, and UST-3 and the UST-6 areas was disposed of at an appropriate offsite disposal facility.

The results of the UST decommissioning/removal activities, which included site characterization, soil cleanup, and collection of confirmation soil samples, did not identify concentrations of fuel constituents greater than the MTCA Method A soil cleanup levels in the final soil confirmation samples collected at the subject property. Therefore, there is no evidence of a potential threat to human health or the environment, and the UST decommissioning and site cleanup are complete. Based on the UST decommissioning and cleanup activities, the City is requesting that Ecology issue a No Further Action determination for the subject property.

5.0 USE OF THIS REPORT

This UST Site Assessment, Characterization, and Cleanup Report has been prepared by Landau Associates for the exclusive use of the City of Shoreline (City) for specific application to the subject property, as that term is defined herein. Services for this project were conducted in accordance with the contract between the City's contractor, HDR Engineering, Inc., and Landau Associates. Landau Associates has performed these services in accordance with generally accepted engineering and consulting standards for environmental work in Washington State at the time these services were performed. The reuse of the information, conclusions, and recommendations set forth herein by the City or others in connection with any site other than the subject property without Landau Associates' written permission shall be at the sole risk of user and without liability to Landau Associates.

This document has been prepared under the supervision and direction of the following key staff.

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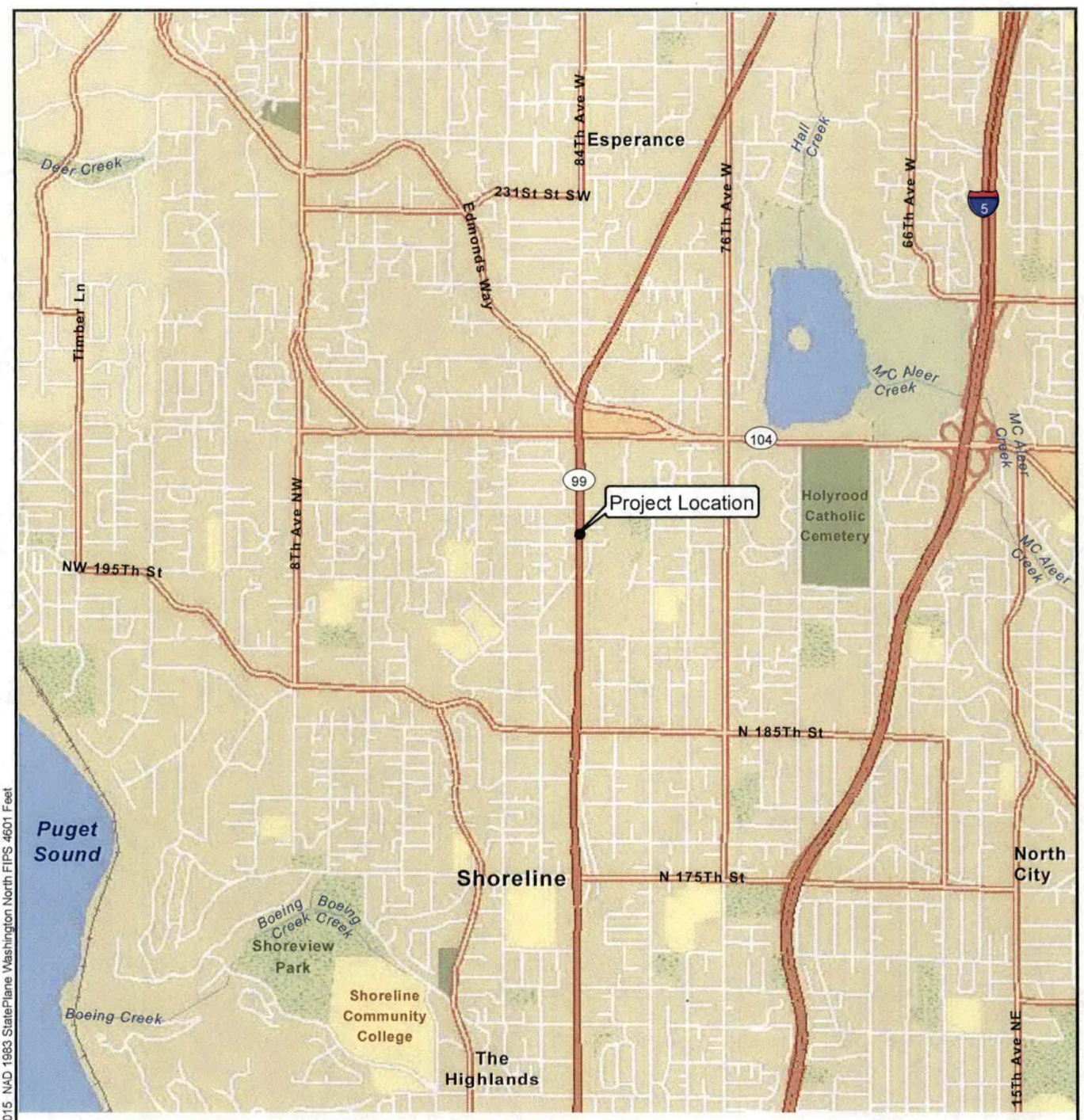

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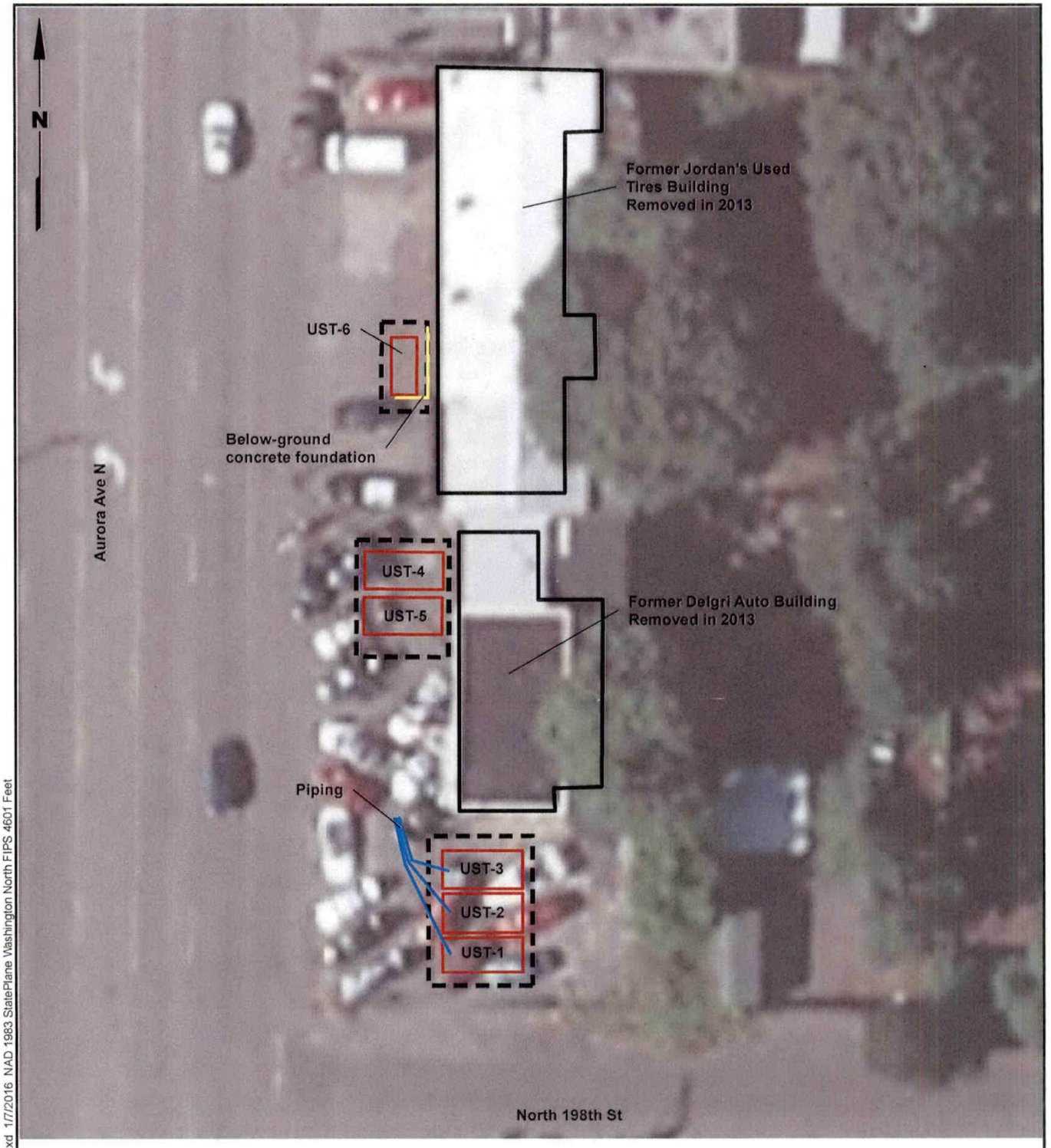
Aurora-Gunderson Property Shoreline, Washington	**Vicinity Map**	Figure 1



Legend

- Former Building
- Excavation Area
- UST

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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Scale in Feet

Data Source: Esri World Imagery

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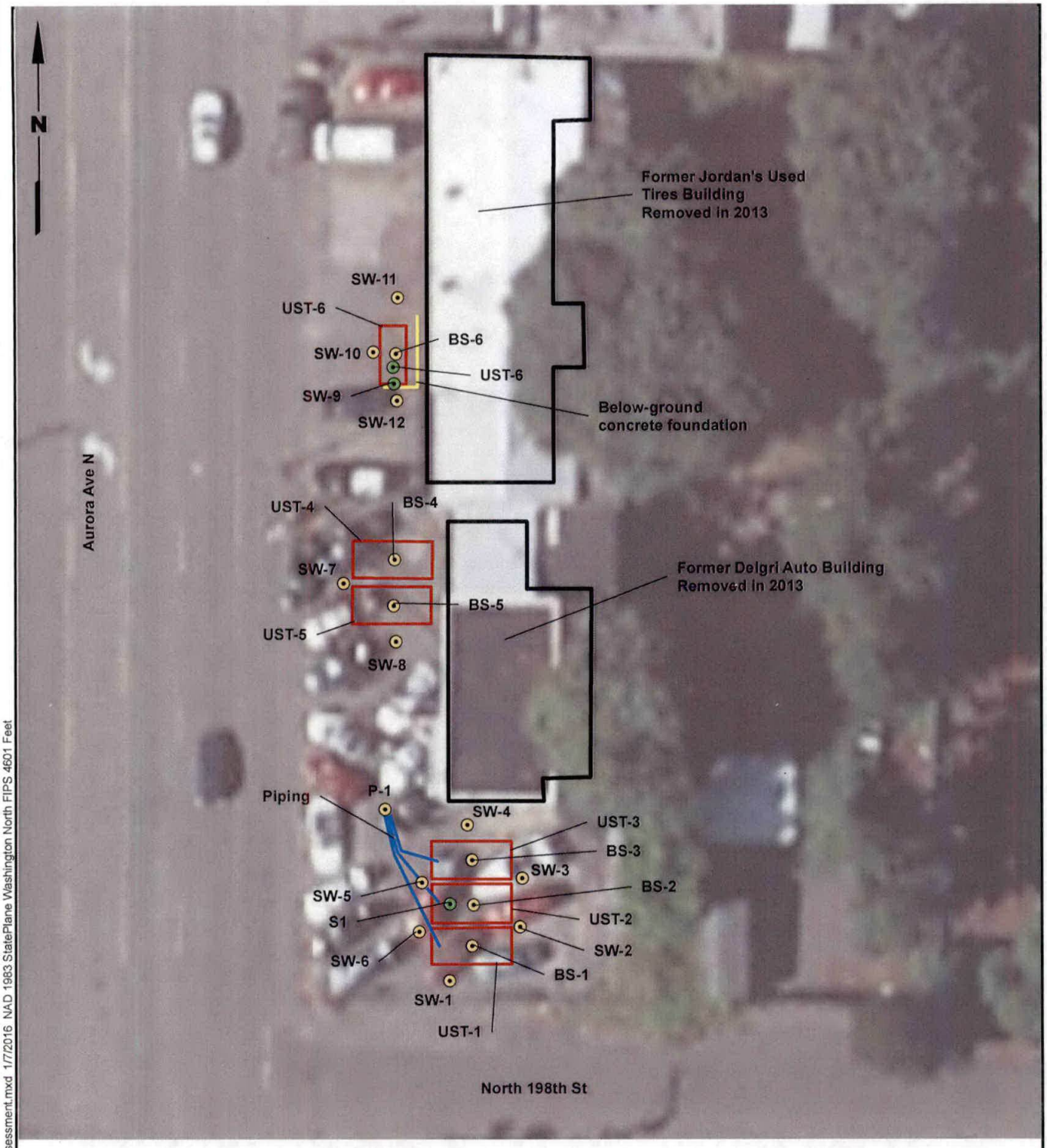
Aurora-Gunderson Property Shoreline, Washington	**Site Plan**	Figure 2



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Legend

- Confirmation Sample Location, Contaminant Concentrations below CUL's; Final Confirmation Sample
- Confirmation Sample Location, Contaminant Concentrations above CUL's
- Former Building
- Excavation Area
- UST

Data Source: Esri World Imagery

Note

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Scale in Feet

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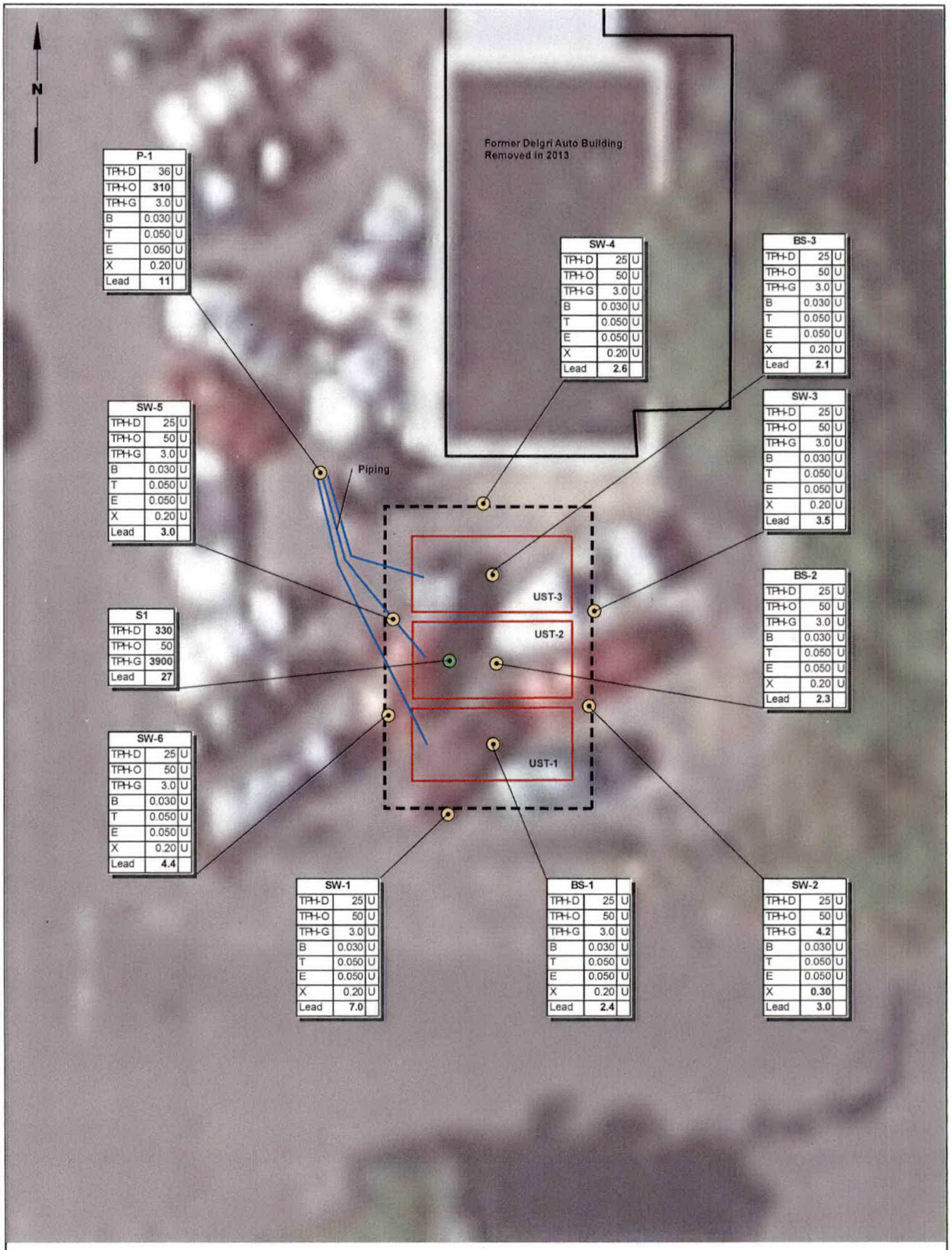
Aurora-Gunderson Property Shoreline, Washington	**UST Site Assessment Sample Locations**	Figure 3



Legend

- Confirmation Sample Location, Contaminant Concentrations below CUL's; Final Confirmation Sample
- Confirmation Sample Location, Contaminant Concentrations above CUL's
- Former Building
- Excavation Area
- UST

Note

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Scale in Feet

Data Source: Esri World Imagery

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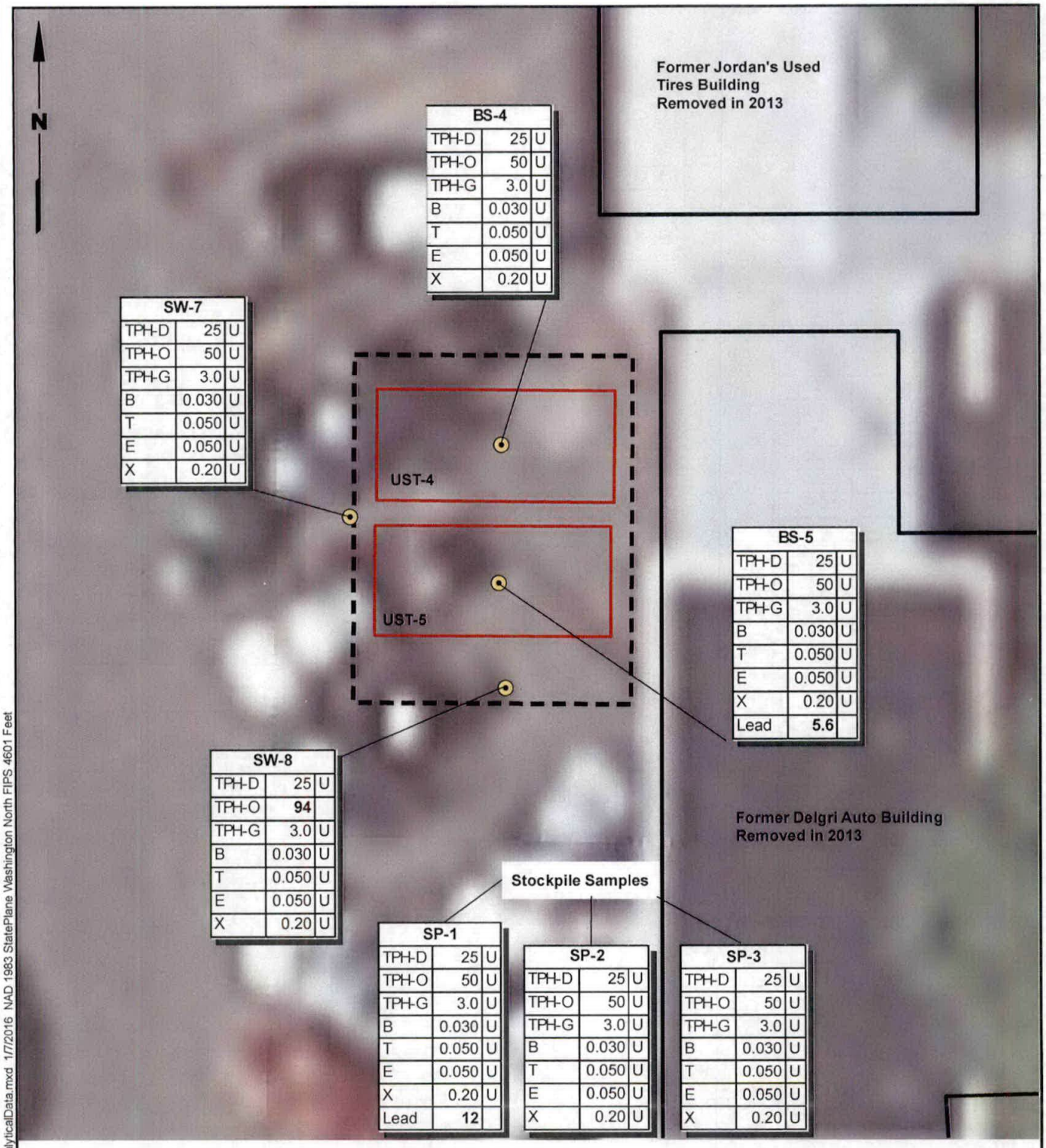
Aurora-Gunderson Property Shoreline, Washington	UST-1, UST-2 and UST-3 Analytical Data	Figure 4



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Legend

- Confirmation Sample Location, Contaminant Concentrations below CUL's; Final Confirmation Sample
- Former Building
- Excavation Area
- UST

Note

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Scale in Feet

Data Source: Esri World Imagery

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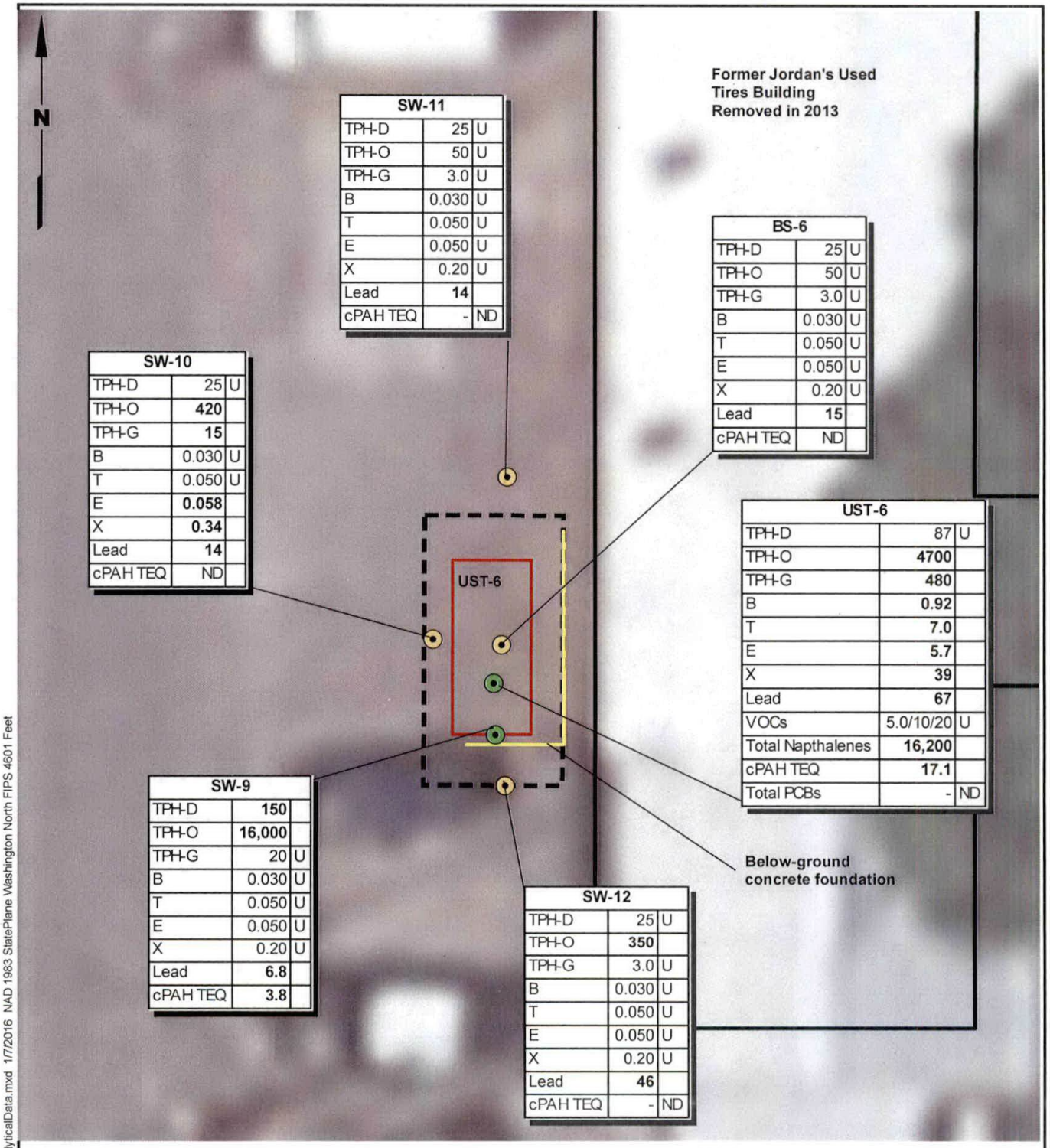
Aurora-Gunderson Property Shoreline, Washington	**UST-4 and UST-5 Analytical Data**	Figure 5



G:\Projects\122\023\070\F06\UST6AnalyticalData.mxd 1/7/2016 NAD 1983 StatePlane Washington North FIPS 4601 Feet

Legend

- Confirmation Sample Location, Contaminant Concentrations below CUL's; Final Confirmation Sample
- Confirmation Sample Location, Contaminant Concentrations above CUL's
- Former Building
- Excavation Area
- UST

Data Source: Esri World Imagery

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 10 20

Scale in Feet

LANDAU ASSOCIATES

Aurora-Gunderson Property
Shoreline, Washington

UST-6 Analytical Data

Figure 6

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	BS-1 EV15090186-01 9/29/2015	BS-2 EV15090191-01 9/30/2015	BS-3 EV15090191-02 9/30/2015	BS-4 EV15100043-01 10/07/2015	BS-5 EV15100043-02 10/07/2015	BS-6 EV15100104-02 10/16/2015	P-1 EV15090186-06 9/29/2015
TOTAL PETROLEUM HYDROCARBONS (mg/kg)								
NWTPH-DXSG								
TPH-Diesel Range	2,000	25 U	25 U	25 U	25 U	25 U	25 U	36 U
TPH-Oil Range	2,000	50 U	50 U	50 U	50 U	50 U	50 U	310
NWTPH-Gx								
TPH-Gasoline Range	100/30 (a)	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
BTEX (mg/kg)								
Method EPA-8021								
Benzene	0.03	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Toluene	7	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Ethylbenzene	6	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Xylenes	9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
TOTAL METALS (mg/kg)								
Method EPA-6020								
Lead	250	**2.4**	**2.3**	**2.1**	NA	**5.6**	**15**	**11**
VOLATILES (µg/kg)								
Method EPA-8260 SIM								
Vinyl Chloride		NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride		NA	NA	NA	NA	NA	NA	NA
Trichloroethene	30	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane		NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane		NA	NA	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane		NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane		NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene		NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	BS-1 EV15090186-01 9/29/2015	BS-2 EV15090191-01 9/30/2015	BS-3 EV15090191-02 9/30/2015	BS-4 EV15100043-01 10/07/2015	BS-5 EV15100043-02 10/07/2015	BS-6 EV15100104-02 10/16/2015	P-1 EV15090186-06 9/29/2015
VOLATILES (µg/kg)								
Method EPA-8260								
Dichlorodifluoromethane		NA	NA	NA	NA	NA	NA	NA
Chloromethane		NA	NA	NA	NA	NA	NA	NA
Bromomethane		NA	NA	NA	NA	NA	NA	NA
Chloroethane		NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	20	NA	NA	NA	NA	NA	NA	NA
Methyl T-Butyl Ether	100	NA	NA	NA	NA	NA	NA	NA
Trans-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane		NA	NA	NA	NA	NA	NA	NA
Cis-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Bromochloromethane		NA	NA	NA	NA	NA	NA	NA
Chloroform		NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	2000	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane		NA	NA	NA	NA	NA	NA	NA
Dibromomethane		NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane		NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	50	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane		NA	NA	NA	NA	NA	NA	NA
Chlorobenzene		NA	NA	NA	NA	NA	NA	NA
Bromoform		NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane		NA	NA	NA	NA	NA	NA	NA
Bromobenzene		NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene		NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene		NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo 3-Chloropropane		NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene		NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene		NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	BS-1 EV15090186-01 9/29/2015	BS-2 EV15090191-01 9/30/2015	BS-3 EV15090191-02 9/30/2015	BS-4 EV15100043-01 10/07/2015	BS-5 EV15100043-02 10/07/2015	BS-6 EV15100104-02 10/16/2015	P-1 EV15090186-06 9/29/2015
PAHs (µg/kg)								
Method EPA-8270 SIM								
Naphthalene		NA	NA	NA	NA	NA	20 U	NA
2-Methylnaphthalene		NA	NA	NA	NA	NA	20 U	NA
1-Methylnaphthalene		NA	NA	NA	NA	NA	20 U	NA
Total Naphthalenes	5000	NA	NA	NA	NA	NA	ND	NA
Benzo(a)anthracene		NA	NA	NA	NA	NA	20 U	NA
Chrysene		NA	NA	NA	NA	NA	20 U	NA
Benzo(b)fluoranthene		NA	NA	NA	NA	NA	20 U	NA
Benzo(k)fluoranthene		NA	NA	NA	NA	NA	20 U	NA
Benzo(a)pyrene		NA	NA	NA	NA	NA	20 U	NA
Indeno(1,2,3-cd(pyrene		NA	NA	NA	NA	NA	20 U	NA
Dibenz(a,h)anthracene		NA	NA	NA	NA	NA	20 U	NA
cPAH TEQ	100	NA	NA	NA	NA	NA	ND	NA
PCBs (mg/kg)								
Method EPA-8082								
PCB-1016		NA	NA	NA	NA	NA	NA	NA
PCB-1221		NA	NA	NA	NA	NA	NA	NA
PCB-1232		NA	NA	NA	NA	NA	NA	NA
PCB-1242		NA	NA	NA	NA	NA	NA	NA
PCB-1248		NA	NA	NA	NA	NA	NA	NA
PCB-1254		NA	NA	NA	NA	NA	NA	NA
PCB-1260		NA	NA	NA	NA	NA	NA	NA
PCB-1268		NA	NA	NA	NA	NA	NA	NA
Total PCBs	1	NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SP-1 EV15100043-05 10/07/2015	SP-2 EV15100043-06 10/07/2015	SP-3 EV15100043-07 10/07/2015	SW-1 EV15090186-02 9/29/2015	SW-2 EV15090186-03 9/29/2015	SW-3 EV15090186-04 9/29/2015	SW-4 EV15090186-05 9/29/2015
TOTAL PETROLEUM HYDROCARBONS (mg/kg)								
NWTPH-DXSG								
TPH-Diesel Range	2,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U
TPH-Oil Range	2,000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
NWTPH-Gx								
TPH-Gasoline Range	100/30 (a)	3.0 U	3.0 U	3.0 U	3.0 U	4.2	3.0 U	3.0 U
BTEX (mg/kg)								
Method EPA-8021								
Benzene	0.03	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Toluene	7	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Ethylbenzene	6	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Xylenes	9	0.20 U	0.20 U	0.20 U	0.20 U	0.30	0.20 U	0.20 U
TOTAL METALS (mg/kg)								
Method EPA-6020								
Lead	250	12	NA	NA	7.0	3.0	3.5	2.6
VOLATILES (µg/kg)								
Method EPA-8260 SIM								
Vinyl Chloride		NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride		NA	NA	NA	NA	NA	NA	NA
Trichloroethene	30	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane		NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane		NA	NA	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane		NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane		NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene		NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SP-1 EV15100043-05 10/07/2015	SP-2 EV15100043-06 10/07/2015	SP-3 EV15100043-07 10/07/2015	SW-1 EV15090186-02 9/29/2015	SW-2 EV15090186-03 9/29/2015	SW-3 EV15090186-04 9/29/2015	SW-4 EV15090186-05 9/29/2015
VOLATILES (µg/kg)								
Method EPA-8260								
Dichlorodifluoromethane		NA	NA	NA	NA	NA	NA	NA
Chloromethane		NA	NA	NA	NA	NA	NA	NA
Bromomethane		NA	NA	NA	NA	NA	NA	NA
Chloroethane		NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	20	NA	NA	NA	NA	NA	NA	NA
Methyl T-Butyl Ether	100	NA	NA	NA	NA	NA	NA	NA
Trans-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane		NA	NA	NA	NA	NA	NA	NA
Cis-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Bromochloromethane		NA	NA	NA	NA	NA	NA	NA
Chloroform		NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	2000	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane		NA	NA	NA	NA	NA	NA	NA
Dibromomethane		NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane		NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	50	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane		NA	NA	NA	NA	NA	NA	NA
Chlorobenzene		NA	NA	NA	NA	NA	NA	NA
Bromoform		NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane		NA	NA	NA	NA	NA	NA	NA
Bromobenzene		NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene		NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene		NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo 3-Chloropropane		NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene		NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene		NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SP-1 EV15100043-05 10/07/2015	SP-2 EV15100043-06 10/07/2015	SP-3 EV15100043-07 10/07/2015	SW-1 EV15090186-02 9/29/2015	SW-2 EV15090186-03 9/29/2015	SW-3 EV15090186-04 9/29/2015	SW-4 EV15090186-05 9/29/2015
PAHs (µg/kg)								
Method EPA-8270 SIM								
Naphthalene		NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene		NA	NA	NA	NA	NA	NA	NA
1-Methylnaphthalene		NA	NA	NA	NA	NA	NA	NA
Total Naphthalenes	5000	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene		NA	NA	NA	NA	NA	NA	NA
Chrysene		NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene		NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene		NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene		NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd(pyrene		NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene		NA	NA	NA	NA	NA	NA	NA
cPAH TEQ	100	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)								
Method EPA-8082								
PCB-1016		NA	NA	NA	NA	NA	NA	NA
PCB-1221		NA	NA	NA	NA	NA	NA	NA
PCB-1232		NA	NA	NA	NA	NA	NA	NA
PCB-1242		NA	NA	NA	NA	NA	NA	NA
PCB-1248		NA	NA	NA	NA	NA	NA	NA
PCB-1254		NA	NA	NA	NA	NA	NA	NA
PCB-1260		NA	NA	NA	NA	NA	NA	NA
PCB-1268		NA	NA	NA	NA	NA	NA	NA
Total PCBs	1	NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SW-5 EV15090186-07 9/29/2015	SW-6 EV15090191-03 9/30/2015	SW-7 EV15100043-03 10/7/2015	SW-8 EV15100043-04 10/7/2015	SW-9 EV15100104-01 10/16/2015	SW-10 EV15100104-03 10/16/2015	SW-11 EV15100104-04 10/16/2015
TOTAL PETROLEUM HYDROCARBONS (mg/kg)								
NWTPH-DXSG								
TPH-Diesel Range	2,000	25 U	25 U	25 U	25 U	150	25 U	25 U
TPH-Oil Range	2,000	50 U	50 U	50 U	94	16,000	420	50 U
NWTPH-Gx								
TPH-Gasoline Range	100/30 (a)	3.0 U	3.0 U	3.0 U	3.0 U	20 U	15	3.0 U
BTEX (mg/kg)								
Method EPA-8021								
Benzene	0.03	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Toluene	7	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Ethylbenzene	6	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.058	0.050 U
Xylenes	9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.34	0.20 U
TOTAL METALS (mg/kg)								
Method EPA-6020								
Lead	250	3.0	4.4	NA	NA	6.8	14	14
VOLATILES (µg/kg)								
Method EPA-8260 SIM								
Vinyl Chloride		NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride		NA	NA	NA	NA	NA	NA	NA
Trichloroethene	30	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Trans-1,3-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane		NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane		NA	NA	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane		NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane		NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene		NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SW-5 EV15090186-07 9/29/2015	SW-6 EV15090191-03 9/30/2015	SW-7 EV15100043-03 10/7/2015	SW-8 EV15100043-04 10/7/2015	SW-9 EV15100104-01 10/16/2015	SW-10 EV15100104-03 10/16/2015	SW-11 EV15100104-04 10/16/2015
VOLATILES (µg/kg)								
Method EPA-8260								
Dichlorodifluoromethane		NA	NA	NA	NA	NA	NA	NA
Chloromethane		NA	NA	NA	NA	NA	NA	NA
Bromomethane		NA	NA	NA	NA	NA	NA	NA
Chloroethane		NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	20	NA	NA	NA	NA	NA	NA	NA
Methyl T-Butyl Ether	100	NA	NA	NA	NA	NA	NA	NA
Trans-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane		NA	NA	NA	NA	NA	NA	NA
Cis-1,2-Dichloroethene		NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Bromochloromethane		NA	NA	NA	NA	NA	NA	NA
Chloroform		NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	2000	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane		NA	NA	NA	NA	NA	NA	NA
Dibromomethane		NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane		NA	NA	NA	NA	NA	NA	NA
Cis-1,3-Dichloropropene		NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane		NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	50	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane		NA	NA	NA	NA	NA	NA	NA
Chlorobenzene		NA	NA	NA	NA	NA	NA	NA
Bromoform		NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane		NA	NA	NA	NA	NA	NA	NA
Bromobenzene		NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene		NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene		NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene		NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo 3-Chloropropane		NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene		NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene		NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SW-5 EV15090186-07 9/29/2015	SW-6 EV15090191-03 9/30/2015	SW-7 EV15100043-03 10/7/2015	SW-8 EV15100043-04 10/7/2015	SW-9 EV15100104-01 10/16/2015	SW-10 EV15100104-03 10/16/2015	SW-11 EV15100104-04 10/16/2015
PAHs (µg/kg)								
Method EPA-8270 SIM								
Naphthalene		NA	NA	NA	NA	51	33	20 U
2-Methylnaphthalene		NA	NA	NA	NA	81	64	20 U
1-Methylnaphthalene		NA	NA	NA	NA	99	44	20 U
Total Naphthalenes	5000	NA	NA	NA	NA	231	141	ND
Benzo(a)anthracene		NA	NA	NA	NA	29	20 U	20 U
Chrysene		NA	NA	NA	NA	88	20 U	20 U
Benzo(b)fluoranthene		NA	NA	NA	NA	20 U	20 U	20 U
Benzo(k)fluoranthene		NA	NA	NA	NA	20 U	20 U	20 U
Benzo(a)pyrene		NA	NA	NA	NA	20 U	20 U	20 U
Indeno(1,2,3-cd(pyrene		NA	NA	NA	NA	20 U	20 U	20 U
Dibenz(a,h)anthracene		NA	NA	NA	NA	20 U	20 U	20 U
cPAH TEQ	100	NA	NA	NA	NA	3.8	ND	ND
PCBs (mg/kg)								
Method EPA-8082								
PCB-1016		NA	NA	NA	NA	NA	NA	NA
PCB-1221		NA	NA	NA	NA	NA	NA	NA
PCB-1232		NA	NA	NA	NA	NA	NA	NA
PCB-1242		NA	NA	NA	NA	NA	NA	NA
PCB-1248		NA	NA	NA	NA	NA	NA	NA
PCB-1254		NA	NA	NA	NA	NA	NA	NA
PCB-1260		NA	NA	NA	NA	NA	NA	NA
PCB-1268		NA	NA	NA	NA	NA	NA	NA
Total PCBs	1	NA	NA	NA	NA	NA	NA	NA

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SW-12 EV15100140-01 10/23/2015	UST-6 EV15100066-01 10/9/2015
TOTAL PETROLEUM HYDROCARBONS (mg/kg)			
NWTPH-DXSG			
TPH-Diesel Range	2,000	25 U	87 U
TPH-Oil Range	2,000	350	4,700
NWTPH-Gx			
TPH-Gasoline Range	100/30 (a)	3.0 U	480
BTEX (mg/kg) Method EPA-8021			
Benzene	0.03	0.030 U	0.92
Toluene	7	0.050 U	7.0
Ethylbenzene	6	0.050 U	5.7
Xylenes	9	0.20 U	39
TOTAL METALS (mg/kg) Method EPA-6020			
Lead	250	46	67
VOLATILES (µg/kg) Method EPA-8260 SIM			
Vinyl Chloride		NA	10 U
Carbon Tetrachloride		NA	10 U
Trichloroethene	30	NA	10 U
1,2-Dichloropropane		NA	10 U
Trans-1,3-Dichloropropene		NA	10 U
1,1,2-Trichloroethane		NA	10 U
Dibromochloromethane		NA	10 U
1,1,1,2-Tetrachloroethane		NA	10 U
1,1,2,2-Tetrachloroethane		NA	10 U
1,2,4-Trichlorobenzene		NA	10 U

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SW-12 EV15100140-01 10/23/2015	UST-6 EV15100066-01 10/9/2015
VOLATILES (µg/kg)			
Method EPA-8260			
Dichlorodifluoromethane		NA	10 U
Chloromethane		NA	10 U
Bromomethane		NA	10 U
Chloroethane		NA	10 U
Trichlorofluoromethane		NA	10 U
1,1-Dichloroethene		NA	10 U
Methylene Chloride	20	NA	20 U
Methyl T-Butyl Ether	100	NA	10 U
Trans-1,2-Dichloroethene		NA	10 U
1,1-Dichloroethane		NA	10 U
Cis-1,2-Dichloroethene		NA	10 U
2,2-Dichloropropane		NA	10 U
Bromochloromethane		NA	10 U
Chloroform		NA	10 U
1,1,1-Trichloroethane	2000	NA	10 U
1,1-Dichloropropene		NA	10 U
1,2-Dichloroethane		NA	10 U
Dibromomethane		NA	10 U
Bromodichloromethane		NA	10 U
Cis-1,3-Dichloropropene		NA	10 U
1,3-Dichloropropane		NA	10 U
Tetrachloroethene	50	NA	10 U
1,2-Dibromoethane		NA	5.0 U
Chlorobenzene		NA	10 U
Bromoform		NA	10 U
1,2,3-Trichloropropane		NA	10 U
Bromobenzene		NA	10 U
2-Chlorotoluene		NA	10 U
4-Chlorotoluene		NA	10 U
1,3-Dichlorobenzene		NA	10 U
1,4-Dichlorobenzene		NA	10 U
1,2-Dichlorobenzene		NA	10 U
1,2-Dibromo 3-Chloropropane		NA	50 U
Hexachlorobutadiene		NA	10 U
1,2,3-Trichlorobenzene		NA	10 U

TABLE 1
SOIL ANALYTICAL RESULTS
AURORA-GUNDERSON PROPERTY
SHORELINE, WASHINGTON

	MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses	SW-12 EV15100140-01 10/23/2015	UST-6 EV15100066-01 10/9/2015
PAHs (µg/kg)			
Method EPA-8270 SIM			
Naphthalene		20 U	**4,600**
2-Methylnaphthalene		20 U	**6,700**
1-Methylnaphthalene		20 U	**4,900**
Total Naphthalenes	5000	ND	**16,200**
Benzo(a)anthracene		20 U	**160**
Chrysene		20 U	**110**
Benzo(b)fluoranthene		20 U	20 U
Benzo(k)fluoranthene		20 U	20 U
Benzo(a)pyrene		20 U	20 U
Indeno(1,2,3-cd(pyrene		20 U	20 U
Dibenz(a,h)anthracene		20 U	20 U
cPAH TEQ	100	ND	**17.1**
PCBs (mg/kg)			
Method EPA-8082			
PCB-1016		NA	0.10 U
PCB-1221		NA	0.10 U
PCB-1232		NA	0.10 U
PCB-1242		NA	0.10 U
PCB-1248		NA	0.10 U
PCB-1254		NA	0.10 U
PCB-1260		NA	0.10 U
PCB-1268		NA	0.10 U
Total PCBs	1	NA	ND

(a) Cleanup level is 100 mg/kg when benzene is not present; otherwise 30 mg/kg.
U = The compound was not detected at the reported concentration.
Bold = Detected compound.
Box = Exceedance of cleanup level.
NA = Not analyzed.

APPENDIX A

30-Day Notice to Washington State Department of Ecology of Intent to Decommission

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 # _____
FS ID # _____

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

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

SITE INFORMATION

Tag or UBI number

Site Name: 19806-19804 Aurora Ave N.
Site Physical Address

Shoreline WA 98133
City Zip Code

Ken Kettel, PE # 425-455-9720
Site Phone Number Cell # 206-423-1408

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

City of Shoreline
UST Owner/Operator

17500 Midvale Ave N
Mailing Address/PO Box

Shoreline WA 98133
City Zip Code

* NYTASHA SOWERS / 206-801-2483
Owner/Operator Phone Number

* NSOWERS@SHORELINEWA.GOV
Owner/Operator Email Address

TANK INFORMATION

Tank ID	Substance Stored	Capacity	Date Project is Expected to Begin	Comments:
1	Waste oil	3,000 gal	August 2015	Total of 6 USTs. Abandoned
2	Waste Oil	3,000 gal		
3	Diesel	3,000 gal		
4	Diesel	3,000 gal		
5 & 6 - Diesel		3,000 gal + 3,000 gallon		

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

DIANE'S TANK REMOVAL
Service Provider Company Name

Certified Service Provider Name

ICC Certification # 8057526-U2 + U7

Diane Kamacho
Contact Person

206-510-9497
Contact Phone Number

DianesTank@hotmail.com
Contact Email Address

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

☐ Installer ☐ Decommissioner ☐ Site Assessor

Service Provider Company Name

ertified Service Provider Name

ICC Certification #

Contact Person

Contact Phone Number

Contact Email Address

APPENDIX B

Underground Storage Tank Decommissioning Certificates

2

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNDERGROUND STORAGE TANK
Closure and Site Assessment Notice

See back of form for instructions

FOR OFFICE USE ONLY
Site ID #:
Facility Site ID #:

Please ✓ the appropriate box(es)
☐ Temporary Tank Closure ☐ Change-In-Service ☑ Permanent Tank Closure ☑ Site Check/Site Assessment

Site Information

Site ID Number (Available from Ecology if the tanks are registered)
Site/Business Name Gunderson Property
Site Address 19806 - 19804 Aurora Ave N.
City/State Shoreline WA
Zip Code 98133 Telephone (425) 455-9720
Owners Signature (Nymasha Sowers)

Owner Information

UST Owner/Operator City of Shoreline
Mailing Address 17500 Midvale Ave N (Street)
P.O. Box
City/State Shoreline WA 98133
Zip Code Telephone (206) 801-2482

Tank Closure/Change-In-Service Company

Service Company Diane's Tank Removal Services LLC
Certified Supervisor Diane Kamada Decommissioning Certification No. 2005726-UZ
Supervisor's Signature Diane Kamada Date 10-20-2015
Address 18720 Sound View Pl (Street) P.O. Box 77738 Seattle WA 98177 (P.O. Box)
Edmonds WA 98020 (City / State / Zip Code) Telephone (206) 546-9497

Site Check/Site Assessor

Certified Site Assessor Landau & Associates Dillan Frazer
Address (Street) (P.O. Box)
(City / State / Zip Code) Telephone ( )

Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
1	9/28/15	Removal	3,000	Gasoline
2	"	"	3,000	Diesel
3	"	"	3,000	Gasoline
4	10/7/15	"	3,000	Unknown (Concrete)
5	"	"	3,000	Gasoline
6	10/9/15	Removal	300	Waste Oil

Contamination Present at the Time of Closure

☑ Yes ☐ No ☐ Unknown
Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

☑ Yes ☐ No
If contamination is present, has the release been reported to the appropriate regional office?

To receive this document in an alternative format, contact the Toxics Cleanup Program at 360-407-7170 (voice) or 1-800-833-6388 OR 711 (TTY)

TANK DECOMMISSIONING CERTIFICATE

RE: DECOMMISSION UNDERGROUND FUEL STORAGE TANK AT: *19804 & 19806 Aurora Ave North, Shoreline, Washington (Gunderson Property)*

This is to certify that Diane's Tank Removal Services, LLC, decommissioned one 300 gallon underground waste oil storage tank on October 9, 2015. The waste oil underground storage tank was pumped, rinsed and removed. The tank was properly decommissioned, pursuant to the codes, rules and guidelines established by local and state law.

Dated: October 20, 2015

Diane Kamacho

Diane M Kamacho – ICC# 8057526-U2
P.O. Box 77738
Seattle, WA 98177 206-510-9497

TANK DECOMMISSIONING CERTIFICATE

RE: DECOMMISSION UNDERGROUND FUEL STORAGE TANKS AT: *19804 & 19806 Aurora Ave North, Shoreline, Washington (Gunderson Property)*

This is to certify that Diane's Tank Removal Services, LLC, decommissioned one 3,000 gallon underground fuel storage tank (previously filled with concrete) and one 3,000 gallon underground gasoline storage tank, on October 7, 2015. The gasoline underground storage tank was pumped, rinsed and removed. The concrete filled underground storage tank was also removed. The tanks were properly decommissioned, pursuant to the codes, rules and guidelines established by local and state law.

Dated: October 20, 2015

Diane Kamacho

Diane M Kamacho – ICC# 8057526-U2
P.O. Box 77738
Seattle, WA 98177 206-510-9497

TANK DECOMMISSIONING CERTIFICATE

RE: DECOMMISSION UNDERGROUND FUEL STORAGE TANKS AT: *19804 & 19806 Aurora Ave North, Shoreline, Washington (Gunderson Property)*

This is to certify that Diane's Tank Removal Services, LLC, decommissioned one 3,000 gallon underground diesel fuel storage tank and two 3,000 gallon underground gasoline storage tanks on September 28, 2015. The tanks were pumped, rinsed and removed. The tanks were properly decommissioned, pursuant to the codes, rules and guidelines established by local and state law.

Dated: October 20, 2015

Diane Kamacho

Diane M Kamacho – ICC# 8057526-U2
P.O. Box 77738
Seattle, WA 98177 206-510-9497

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 46597

DIANE'S TANK REMOVAL Survey Requested by	DIANE'S TANK Vessel Owner or Agent	14 OCT 15 Date
UST'S Vessel	UST Type of Vessel	LYNNWOOD YARD Specific Location of Vessel
UNL GASOLINE X3 Last Three (3) Loadings	VISUAL, OXYGEN Tests Performed	1621 HRS Time Survey Completed

1500 HRS

4 TANKS

INERTED WITH CO_2 AND SECURED (CO_2 = 5.0%)

SAFE FOR LIMITED HOT WORK

LIMITATIONS:

1. CHEMIST WILL MONITOR
2. HOT WORK COMPLETE AT 1601 HRS

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."

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		DIANE'S	14 OCT 15	Signed		#688
	Name	Company	Date		Marine Chemist	Certificate No

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 46580

DIANE'S TANK REMOVAL Survey Requested by	Vessel Owner or Agent	SEPTEMBER 28, 2015 Date
VST Vessel	VST Type of Vessel	1980 AURORA Specific Location of Vessel
GASOLINE X3, DIESEL X3 Last Three (3) Loadings	O_2. Tests Performed	9:15 AM Time Survey Completed

TANK Nº 1 ~3,000 g EX-GAS — SAFE FOR ~~HOT~~ EXCAVATION

TANK Nº 2 ~3,000 g EX-DIESEL

TANK Nº3 ~3,000 g EX-GAS — SAFE FOR TRANSPORTATION

KEEP HOLES/VENTS & PIPES CLOSED/PLUGGED TO PREVENT CO_2 FROM ESCAPING

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 [signature] DIANE'S TANK Company — 9/28/15 Date

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

Signed [signature] Marine Chemist — Nº 706 Certificate No.

APPENDIX C

Laboratory Analytical Reports

September 22, 2015

Mr. Dylan Frazer
Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

Dear Mr. Frazer,

On September 21st, 1 sample was received by our laboratory and assigned our laboratory project number EV15090127. The project was identified as your Gunderson UST / 122023.070.071. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE:	9/22/2015
		ALS JOB#:	EV15090127
		ALS SAMPLE#:	EV15090127-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/21/2015
CLIENT PROJECT:	Gunderson UST / 122023.070.071	COLLECTION DATE:	9/21/2015 8:25:00 AM
CLIENT SAMPLE ID	S1-092115	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	**3900**	300	100	MG/KG	09/21/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	**330**	25	1	MG/KG	09/21/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/21/2015	EBS
Lead	EPA-6020	**27**	0.50	5	MG/KG	09/22/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 100X Dilution	NWTPH-GX	**3360 GS2**	09/21/2015	PAB
C25	NWTPH-DX w/ SGA	**94.3**	09/21/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
GS2 - Surrogate outside of control limits due to dilution.
Chromatogram indicates that it is likely that sample contains weathered gasoline and weathered diesel.
Diesel range product results biased high due to gasoline range product overlap.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	9/22/2015 EV15090127 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / 122023.070.071		

LABORATORY BLANK RESULTS

MBG-091715S2 - Batch 97181 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U		MG/KG	3.0	09/17/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091715S - Batch 97179 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U		MG/KG	25	09/17/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX	U		MG/KG	50	09/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092115S - Batch 97322 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	09/22/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	9/22/2015 EV15090127 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / 122023.070.071		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 97181 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12) - BS	NWTPH-GX	88.4			09/17/2015	PAB
TPH-Volatile Range (C7-C12) - BSD	NWTPH-GX	85.0	4		09/17/2015	PAB

ALS Test Batch ID: 97179 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	106			09/17/2015	EBS
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	96.2	10		09/17/2015	EBS

ALS Test Batch ID: 97322 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	95.9			09/22/2015	RAL
Lead - BSD	EPA-6020	97.5	2		09/22/2015	RAL

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp
www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV1509027

Project: Gunderson UST / 122023.070.07/

Received Date: 9/21/15 Received Time: 11:30a By: [illegible]

Type of shipping container: Cooler X Box ___ Other ___

Shipped via: FedEx Ground ___ UPS ___ Mail ___ Courier X Hand Delivered ___
FedEx Express ___ Patrick

	Yes	No	N/A
Were custody seals on outside of sample?	X		
If yes, how many? 1 Where? outside top cooler			
Custody seal date: 9/21/15 Seal name: Landau			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X		
Did all bottles have labels?	X		
Did all bottle labels and tags agree with Chain of Custody?	X		
Were samples received within hold time?	X		
Did all bottles arrive in good condition (unbroken, etc.)?	X		
Was sufficient amount of sample sent for the tests indicated?	X		
Was correct preservation added to samples?	X		

If no, Sample Control added preservative to the following:

Sample Number	Reagent	Analyte

Received per 5035 high kit.

Were VOA vials checked for absence of air bubbles?			X
Bubbles present in sample #: ___			

Temperature of cooler upon receipt: 10.2°C on ice (Cold) Cool Ambient N/A

Explain any discrepancies: ___

Was client contacted? ___ Who was called? ___ By whom? ___ Date: ___

Outcome of call: ___

EV1509012 7

LANDAU ASSOCIATES

- [x] **Seattle/Edmonds** (425) 778-0907
- [ ] **Tacoma** (253) 926-2493
- [ ] **Spokane** (509) 327-9737
- [ ] **Portland** (503) 542-1080
- [ ] _____

Chain-of-Custody Record

Date 9/21/15

Page 1 of 1

Project Name Gunderson UST Project No. 122073.070.071

Project Location/Event Shoreline, WA / Characterization Samples

Sampler's Name Celene Blair

Project Contact Dylan Frazer

Send Results To Dylan Frazer, Tim Syverson, Kristi Shultz

Turnaround Time
- [ ] Standard
- [x] Accelerated ASAP

Sample I.D.	Date	Time	Matrix	No. of Containers	Testing Parameters: NWTPH-Gx	NWTPH-Dx	Pb (EPA 6010)	Observations/Comments
SI-092115	9/21/15	0825	Soil	2	X	X	X	

- [x] Allow water samples to settle, collect aliquot from clear portion
- [x] NWTPH-Dx - run acid wash silica gel cleanup
- [ ] Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):
- [ ] non-preserved
- [ ] preserved w/methanol
- [ ] preserved w/sodium bisulfate
- [ ] Freeze upon receipt
- [ ] Dissolved metal water samples field filtered

Other _____

Special Shipment/Handling or Storage Requirements: on ice

Method of Shipment: pick up

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Celene Blair	Printed Name Shawn Robinson	Printed Name	Printed Name
Company Landau Associates	Company ALS	Company	Company
Date 9/21/15 Time 0905	Date 9/21/15 Time 11:30am	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

12/2014

September 30, 2015

Mr. Dylan Frazer
Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

Dear Mr. Frazer,

On September 29th, 7 samples were received by our laboratory and assigned our laboratory project number EV15090186. The project was identified as your Gunderson USTs / 122023.070.071. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2015 EV15090186 EV15090186-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/29/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/29/2015 12:20:00 PM
CLIENT SAMPLE ID	BS-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**2.4**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**77.2**	09/30/2015	PAB
TFT	EPA-8021	**85.1**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**93.1**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2015 EV15090186 EV15090186-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/29/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/29/2015 12:30:00 PM
CLIENT SAMPLE ID	SW-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**7.0**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**78.9**	09/30/2015	PAB
TFT	EPA-8021	**85.1**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**97.9**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2015 EV15090186 EV15090186-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/29/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/29/2015 12:50:00 PM
CLIENT SAMPLE ID	SW-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	**4.2**	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	**0.30**	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**3.0**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**84.6**	09/30/2015	PAB
TFT	EPA-8021	**90.5**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**89.7**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2015 EV15090186 EV15090186-04
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/29/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/29/2015 1:00:00 PM
CLIENT SAMPLE ID	SW-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**3.5**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**87.5**	09/30/2015	PAB
TFT	EPA-8021	**94.9**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**92.3**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2015 EV15090186 EV15090186-05
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/29/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/29/2015 1:20:00 PM
CLIENT SAMPLE ID	SW-4	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**2.6**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**92.2**	09/30/2015	PAB
TFT	EPA-8021	**93.0**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**101**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2015 EV15090186 EV15090186-06
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/29/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/29/2015 1:30:00 PM
CLIENT SAMPLE ID	P-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	36	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	**310**	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**11**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**95.8**	09/30/2015	PAB
TFT	EPA-8021	**95.6**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**101**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.
Diesel range product reporting limits raised due to motor oil range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	9/30/2015 EV15090186 EV15090186-07
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/29/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/29/2015 2:30:00 PM
CLIENT SAMPLE ID	SW-5	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**3.0**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**85.3**	09/30/2015	PAB
TFT	EPA-8021	**90.2**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**104**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	9/30/2015 EV15090186 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson USTs / 122023.070.071		

LABORATORY BLANK RESULTS

MBG-092815S - Batch 97527 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U		MG/KG	3.0	09/29/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092815S - Batch 97527 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		MG/KG	0.030	09/29/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	09/29/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	09/29/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	09/29/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092915S - Batch 97605 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U		MG/KG	25	09/29/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX	U		MG/KG	50	09/29/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-093015S - Batch 97619 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	09/30/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	9/30/2015 EV15090186 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson USTs / 122023.070.071		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 97527 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12) - BS	NWTPH-GX	98.8			09/29/2015	PAB
TPH-Volatile Range (C7-C12) - BSD	NWTPH-GX	97.2	2		09/29/2015	PAB

ALS Test Batch ID: 97527 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	84.5			09/29/2015	PAB
Benzene - BSD	EPA-8021	82.0	3		09/29/2015	PAB
Toluene - BS	EPA-8021	87.7			09/29/2015	PAB
Toluene - BSD	EPA-8021	85.7	2		09/29/2015	PAB
Ethylbenzene - BS	EPA-8021	96.3			09/29/2015	PAB
Ethylbenzene - BSD	EPA-8021	93.1	3		09/29/2015	PAB
Xylenes - BS	EPA-8021	95.2			09/29/2015	PAB
Xylenes - BSD	EPA-8021	91.6	4		09/29/2015	PAB

ALS Test Batch ID: 97605 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	109			09/30/2015	EBS
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	108	1		09/30/2015	EBS

ALS Test Batch ID: 97619 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	100			09/30/2015	RAL
Lead - BSD	EPA-6020	101	0		09/30/2015	RAL

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV1509018G

Project: Gunderson USTs

Received Date: 9/29/15 Received Time: 4:00 By: RB

Type of shipping container: Cooler X Box ___ Other ___

Shipped via: FedEx Ground ___ UPS ___ Mail ___ Courier ALS Hand Delivered ___
FedEx Express ___

	Yes	No	N/A
Were custody seals on outside of sample?	X		
If yes, how many? 1 Where? Top			
Custody seal date: 9/29/15 Seal name: Landau Associates			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X		
Did all bottles have labels?	X		
Did all bottle labels and tags agree with Chain of Custody?	X		
Were samples received within hold time?	X		
Did all bottles arrive in good condition (unbroken, etc.)?	X		
Was sufficient amount of sample sent for the tests indicated?	+		
Was correct preservation added to samples?	X		

If no, Sample Control added preservative to the following: per 5035 low kits

Sample Number	Reagent	Analyte

Were VOA vials checked for absence of air bubbles?			X
Bubbles present in sample #: ___			

Temperature of cooler upon receipt: 5.9°C on ice (Cold) Cool Ambient N/A

Explain any discrepancies: ___

Was client contacted? ___ Who was called? ___ By whom? ___ Date: ___

Outcome of call: ___

EV15090186

LANDAU ASSOCIATES

- [X] Seattle/Edmonds (425) 778-0907
- [ ] Tacoma (253) 926-2493
- [ ] Spokane (509) 327-9737
- [ ] Portland (503) 542-1080
- [ ] _____

Chain-of-Custody Record

Date 9/29/15

Page 1 of 1

Project Name Gunderson USTs Project No. 122023.070.071

Project Location/Event Shoreline, WA / Confirmation Sampling

Sampler's Name Celene Blair

Project Contact Dylan Frazer

Send Results To Dylan Frazer, Tim Syverson, Anne Halverson

Turnaround Time
- [ ] Standard
- [ ] Accelerated
- [X] ASAP

	Sample I.D.	Date	Time	Matrix	No. of Containers	NWTPH-Dx	NWTPH-Gx	Pb (EPA 6010)	BTEX	Observations/Comments
1	BS-1	9/29/15	1220	Soil	4	X	X	X	X	
2	SW-1		1230		4	X	X	X	X	
3	SW-2		1250		4	X	X	X	X	
4	SW-3		1300		4	X	X	X	X	
5	SW-4		1320		4	X	X	X	X	
6	D-1		1330		4	X	X	X	X	
7	SW-5		1430		4	X	X	X	X	

Observations/Comments:

- [X] Allow water samples to settle, collect aliquot from clear portion
- [X] NWTPH-Dx - run acid wash silica gel cleanup
- [ ] Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):
- [ ] non-preserved
- [X] preserved w/methanol
- [ ] preserved w/sodium bisulfate
- [ ] Freeze upon receipt
- [ ] Dissolved metal water samples field filtered

Other _____

Special Shipment/Handling or Storage Requirements: on ice

Method of Shipment: Pick-up

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Celene Blair	Printed Name Rick Bage	Printed Name	Printed Name
Company Landau Associates	Company ALS	Company	Company
Date 9/29/15 Time 1455	Date 9/29/15 Time 4:00	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

12/2014

October 1, 2015

Mr. Dylan Frazer
Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

Dear Mr. Frazer,

On September 30th, 3 samples were received by our laboratory and assigned our laboratory project number EV15090191. The project was identified as your Gunderson USTs / 122023.070.071. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE:	10/1/2015
		ALS JOB#:	EV15090191
		ALS SAMPLE#:	EV15090191-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/30/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/30/2015 8:30:00 AM
CLIENT SAMPLE ID	BS-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**2.3**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**102**	09/30/2015	PAB
TFT	EPA-8021	**103**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**88.3**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/1/2015 EV15090191 EV15090191-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/30/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/30/2015 9:15:00 AM
CLIENT SAMPLE ID	BS-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**2.1**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	09/30/2015	PAB
TFT	EPA-8021	**99.6**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**96.2**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/1/2015 EV15090191 EV15090191-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	09/30/2015
CLIENT PROJECT:	Gunderson USTs / 122023.070.071	COLLECTION DATE:	9/30/2015 9:30:00 AM
CLIENT SAMPLE ID	SW-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	09/30/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/30/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/30/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/30/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	09/30/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	09/30/2015	EBS
Lead	EPA-6020	**4.4**	0.50	5	MG/KG	09/30/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**104**	09/30/2015	PAB
TFT	EPA-8021	**98.9**	09/30/2015	PAB
C25	NWTPH-DX w/ SGA	**82.3**	09/30/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/1/2015 EV15090191 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson USTs / 122023.070.071		

LABORATORY BLANK RESULTS

MBG-092815S - Batch 97527 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U		MG/KG	3.0	09/29/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092815S - Batch 97527 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		MG/KG	0.030	09/29/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	09/29/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	09/29/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	09/29/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-092915S - Batch 97605 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U		MG/KG	25	09/29/2015	EBS
TPH-Oil Range (C24-C40)	NWTPH-DX	U		MG/KG	50	09/29/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-093015S - Batch 97619 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	09/30/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/1/2015 EV15090191 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson USTs / 122023.070.071		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 97527 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12) - BS	NWTPH-GX	98.8			09/29/2015	PAB
TPH-Volatile Range (C7-C12) - BSD	NWTPH-GX	97.2	2		09/29/2015	PAB

ALS Test Batch ID: 97527 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	84.5			09/29/2015	PAB
Benzene - BSD	EPA-8021	82.0	3		09/29/2015	PAB
Toluene - BS	EPA-8021	87.7			09/29/2015	PAB
Toluene - BSD	EPA-8021	85.7	2		09/29/2015	PAB
Ethylbenzene - BS	EPA-8021	96.3			09/29/2015	PAB
Ethylbenzene - BSD	EPA-8021	93.1	3		09/29/2015	PAB
Xylenes - BS	EPA-8021	95.2			09/29/2015	PAB
Xylenes - BSD	EPA-8021	91.6	4		09/29/2015	PAB

ALS Test Batch ID: 97605 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	109			09/30/2015	EBS
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	108	1		09/30/2015	EBS

ALS Test Batch ID: 97619 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	100			09/30/2015	RAL
Lead - BSD	EPA-6020	101	0		09/30/2015	RAL

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
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LANDAU ASSOCIATES

☒ Seattle/Edmonds (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (503) 542-1080
☐ _____

Chain-of-Custody Record

EV1509191

Date 9/30/15

Page 1 of 1

Project Name Gundersen USTs Project No. 122023.070.091

Project Location/Event Shoreline, WA / Confirmation sampling

Sampler's Name Celene Blair

Project Contact Dylan Frazer

Send Results To Dylan Frazer, Tim Syverson, Anne Halvorson

Turnaround Time
☐ Standard
☐ Accelerated
☒ ASAP

	Sample I.D.	Date	Time	Matrix	No. of Containers	NWTPH-Dx	NWTPH-Gx	Pb (EPA 6010)	BTEX	Observations/Comments
1	BS-2	9/30/15	0830	Soil	4	X	X	X	X	
2	BS-3	9/30/15	0915	Soil	4	X	X	X	X	
3	SW-6	9/30/15	0930	Soil	4	X	X	X	X	

Testing Parameters

X Allow water samples to settle, collect aliquot from clear portion

X NWTPH-Dx - run acid wash silica gel cleanup

__ Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):

__ non-preserved

X preserved w/methanol

__ preserved w/sodium bisulfate

__ Freeze upon receipt

__ Dissolved metal water samples field filtered

Other _____

Special Shipment/Handling or Storage Requirements: on ice

Method of Shipment

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name: Celene Blair	Printed Name: Carl Mott	Printed Name	Printed Name
Company: Landau Associates	Company: ALS	Company	Company
Date: 9/30/15 Time: 0945	Date: 9/30/15 Time: 1210	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

12/2014

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Cardno ALS Job #: EV1509019

Project: Gunderson USTs 122023.070.071

Received Date: 9/30 Received Time: 945 1210 By: RAS CCN

Type of shipping container: Cooler ✓ Box ____ Other ____

Shipped via: FedEx Ground ____ UPS ____ Mail ____ Courier ✓ Hand Delivered ____
FedEx Express ____

	Yes	No	N/A
Were custody seals on outside of sample? If yes, how many? 1 Where? cooler Custody seal date: 9/30 Seal name: Celere Blue	✓		
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	✓		
Did all bottles have labels?	✓		
Did all bottle labels and tags agree with Chain of Custody?	✓		
Were samples received within hold time?	✓		
Did all bottles arrive in good condition (unbroken, etc.)?	CN ✗	✓ *	
Was sufficient amount of sample sent for the tests indicated?	✓		
Was correct preservation added to samples?	✓		

If no, Sample Control added preservative to the following:

Sample Number	Reagent	Analyte

3+ 5035A low VOCs

Were VOA vials checked for absence of air bubbles? ____ ____ ____
Bubbles present in sample #: ____

Temperature of cooler upon receipt: 2.7 C Cold Cool Ambient N/A

Explain any discrepancies: * BS-2. MeOH vial not fully sealed, MeOH leaked out. New MeOH vial prepped.

Was client contacted? No Who was called? ____ By whom? ____ Date: ____

Outcome of call: ____

October 9, 2015

Mr. Dylan Frazer
Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

Dear Mr. Frazer,

On October 7th, 8 samples were received by our laboratory and assigned our laboratory project number EV15100043. The project was identified as your Gunderson UST - 122023.070. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/9/2015 EV15100043 EV15100043-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/07/2015
CLIENT PROJECT:	Gunderson UST - 122023.070	COLLECTION DATE:	10/7/2015 1:00:00 PM
CLIENT SAMPLE ID	BS-4	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	10/08/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	10/08/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	10/08/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	10/08/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	10/08/2015	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**83.7**	10/08/2015	PAB
TFT	EPA-8021	**95.4**	10/08/2015	PAB
C25	NWTPH-DX w/ SGA	**97.6**	10/08/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/9/2015 EV15100043 EV15100043-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/07/2015
CLIENT PROJECT:	Gunderson UST - 122023.070	COLLECTION DATE:	10/7/2015 1:10:00 PM
CLIENT SAMPLE ID	BS-5	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	10/08/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	10/08/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	10/08/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	10/08/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	10/08/2015	DLC
Lead	EPA-6020	**5.6**	0.50	5	MG/KG	10/08/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**78.0**	10/08/2015	PAB
TFT	EPA-8021	**86.0**	10/08/2015	PAB
C25	NWTPH-DX w/ SGA	**93.4**	10/08/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/9/2015 EV15100043 EV15100043-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/07/2015
CLIENT PROJECT:	Gunderson UST - 122023.070	COLLECTION DATE:	10/7/2015 1:20:00 PM
CLIENT SAMPLE ID	SW-7	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	10/08/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	10/08/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	10/08/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	10/08/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	10/08/2015	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**78.3**	10/08/2015	PAB
TFT	EPA-8021	**83.6**	10/08/2015	PAB
C25	NWTPH-DX w/ SGA	**90.5**	10/08/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/9/2015 EV15100043 EV15100043-04
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/07/2015
CLIENT PROJECT:	Gunderson UST - 122023.070	COLLECTION DATE:	10/7/2015 1:30:00 PM
CLIENT SAMPLE ID	SW-8	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	10/08/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	10/08/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	10/08/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	10/08/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	**94**	50	1	MG/KG	10/08/2015	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**111**	10/08/2015	PAB
TFT	EPA-8021	**118**	10/08/2015	PAB
C25	NWTPH-DX w/ SGA	**103**	10/08/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/9/2015 EV15100043 EV15100043-05
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/07/2015
CLIENT PROJECT:	Gunderson UST - 122023.070	COLLECTION DATE:	10/7/2015 1:40:00 PM
CLIENT SAMPLE ID	SP-1	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	10/08/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	10/08/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	10/08/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	10/08/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	10/08/2015	DLC
Lead	EPA-6020	**12**	0.50	5	MG/KG	10/08/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**102**	10/08/2015	PAB
TFT	EPA-8021	**110**	10/08/2015	PAB
C25	NWTPH-DX w/ SGA	**111**	10/08/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/9/2015 EV15100043 EV15100043-06
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/07/2015
CLIENT PROJECT:	Gunderson UST - 122023.070	COLLECTION DATE:	10/7/2015 1:50:00 PM
CLIENT SAMPLE ID	SP-2	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	10/08/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	10/08/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	10/08/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	10/08/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	10/08/2015	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	10/08/2015	PAB
TFT	EPA-8021	**97.9**	10/08/2015	PAB
C25	NWTPH-DX w/ SGA	**99.8**	10/08/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/9/2015 EV15100043 EV15100043-07
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/07/2015
CLIENT PROJECT:	Gunderson UST - 122023.070	COLLECTION DATE:	10/7/2015 2:00:00 PM
CLIENT SAMPLE ID	SP-3	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U	3.0	1	MG/KG	10/08/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	10/08/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	10/08/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	10/08/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	25	1	MG/KG	10/08/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	10/08/2015	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**113**	10/08/2015	PAB
TFT	EPA-8021	**109**	10/08/2015	PAB
C25	NWTPH-DX w/ SGA	**93.2**	10/08/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/9/2015 EV15100043 EV15100043-08
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/07/2015
CLIENT PROJECT:	Gunderson UST - 122023.070	COLLECTION DATE:	10/7/2015 12:50:00 PM
CLIENT SAMPLE ID	UST-4	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	**2300**	300	100	MG/KG	10/08/2015	PAB
Benzene	EPA-8021	U	3.0	100	MG/KG	10/08/2015	PAB
Toluene	EPA-8021	U	5.0	100	MG/KG	10/08/2015	PAB
Ethylbenzene	EPA-8021	U	5.0	100	MG/KG	10/08/2015	PAB
Xylenes	EPA-8021	**31**	20	100	MG/KG	10/08/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	U	110	1	MG/KG	10/08/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	U	50	1	MG/KG	10/08/2015	DLC
Lead	EPA-6020	**26**	0.50	5	MG/KG	10/08/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 100X Dilution	NWTPH-GX	**541 GS2**	10/08/2015	PAB
TFT 100X Dilution	EPA-8021	**74.0**	10/08/2015	PAB
C25	NWTPH-DX w/ SGA	**102**	10/08/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.
GS2 - Surrogate outside of control limits due to dilution.
Chromatogram indicates that it is likely that sample contains extremely weathered gasoline.
Diesel range product reporting limits raised due to volatile range product overlap.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/9/2015 EV15100043 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST - 122023.070		

LABORATORY BLANK RESULTS

MB-100615S3 - Batch 97831 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U		MG/KG	3.0	10/06/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100615S3 - Batch 97831 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		MG/KG	0.030	10/06/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	10/06/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	10/06/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	10/06/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100615S - Batch 97790 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U		MG/KG	25	10/06/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX	U		MG/KG	50	10/06/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100815S - Batch 97882 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	10/08/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

CLIENT CONTACT: Dylan Frazer
CLIENT PROJECT: Gunderson UST - 122023.070

DATE: 10/9/2015
ALS SDG#: EV15100043
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 97831 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12) - BS	NWTPH-GX	81.6			10/06/2015	PAB
TPH-Volatile Range (C7-C12) - BSD	NWTPH-GX	83.0	2		10/06/2015	PAB

ALS Test Batch ID: 97831 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	77.6			10/06/2015	PAB
Benzene - BSD	EPA-8021	82.0	6		10/06/2015	PAB
Toluene - BS	EPA-8021	80.3			10/06/2015	PAB
Toluene - BSD	EPA-8021	83.0	3		10/06/2015	PAB
Ethylbenzene - BS	EPA-8021	78.7			10/06/2015	PAB
Ethylbenzene - BSD	EPA-8021	82.0	4		10/06/2015	PAB
Xylenes - BS	EPA-8021	77.7			10/06/2015	PAB
Xylenes - BSD	EPA-8021	80.8	4		10/06/2015	PAB

ALS Test Batch ID: 97790 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	105			10/06/2015	DLC
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	101	4		10/06/2015	DLC

ALS Test Batch ID: 97882 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	94.1			10/08/2015	RAL
Lead - BSD	EPA-6020	98.0	4		10/08/2015	RAL

APPROVED BY

Laboratory Director

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ALS Group USA, Corp
www.alsglobal.com

EV15100043

LANDAU ASSOCIATES

☒ **Seattle/Edmonds** (425) 778-0907
☐ **Tacoma** (253) 926-2493
☐ **Spokane** (509) 327-9737
☐ **Portland** (503) 542-1080
☐ _____

Chain-of-Custody Record

Date 10/7/15

Page 1 of 1

Project Name Gudmundson UST Project No. 12023.070

Project Location/Event Shoreline, WA / Confirmation Sampling

Sampler's Name Dylan Farrar

Project Contact Dylan Farrar, ~~Anne Halvorsen~~

Send Results To Dylan Farrar, Anne Halvorsen

Turnaround Time
☐ Standard
☐ Accelerated
☒ ASAP

	Sample I.D.	Date	Time	Matrix	No. of Containers	NWTPH-Dx	NWTPH-Gx	Lead	BTEX	Observations/Comments
1	BS-~~4~~	10/7/15	1300	SOIL	4	X	X		X	
2	BS-5		1310			X	X	X	X	
3	SW-7		1320			X	X		X	
4	SW-~~6~~ 8		1330			X	X		X	
5	SP-1		1340			X	X	X	X	
6	SP-2		1350			X	X		X	
7	SP-3		1400			X	X		X	
8	UST-4		~~1350~~	COMPOSITE		X	X	X	X	
DUP	D-1		1410							

Testing Parameters

Observations/Comments

X Allow water samples to settle, collect aliquot from clear portion

X NWTPH-Dx - run acid wash silica gel cleanup

___ Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):
X non-preserved
X preserved w/methanol
___ preserved w/sodium bisulfate
___ Freeze upon receipt
___ Dissolved metal water samples field filtered

Other SAVE UNUSED SAMPLE FOR POTENTIAL FOLLOW UP

ELEVATED PID READINGS ON "UST-4" SAMPLE

UST-4 - USED CRUSHED MATERIAL FILL, CLOSER IN LAB IF ADDITIONAL MATERIAL IS NEEDED

Special Shipment/Handling or Storage Requirements 1 COOLER ON ICE

Method of Shipment ALS P/U

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Dylan Farrar	Printed Name Rick Bagan	Printed Name	Printed Name
Company LANDAU	Company ALS	Company	Company
Date 10/7/15 Time 1650	Date 10-7-15 Time 16:30	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

12/2014

October 13, 2015

Mr. Dylan Frazer
Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

Dear Mr. Frazer,

On October 12th, 1 sample was received by our laboratory and assigned our laboratory project number EV15100066. The project was identified as your Gunderson UST / 122023.070.071. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE:	10/13/2015
		ALS JOB#:	EV15100066
		ALS SAMPLE#:	EV15100066-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/12/2015
CLIENT PROJECT:	Gunderson UST / 122023.070.071	COLLECTION DATE:	10/9/2015 3:45:00 PM
CLIENT SAMPLE ID	UST-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	**480**	30	10	MG/KG	10/12/2015	PAB
Benzene	EPA-8021	**0.92**	0.30	10	MG/KG	10/12/2015	PAB
Toluene	EPA-8021	**7.0**	0.50	10	MG/KG	10/12/2015	PAB
Ethylbenzene	EPA-8021	**5.7**	0.50	10	MG/KG	10/12/2015	PAB
Xylenes	EPA-8021	**39**	2.0	10	MG/KG	10/12/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	ND	87	1	MG/KG	10/12/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	**4700**	500	10	MG/KG	10/12/2015	DLC
Dichlorodifluoromethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Chloromethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Vinyl Chloride	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Bromomethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Chloroethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Carbon Tetrachloride	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Trichlorofluoromethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,1-Dichloroethene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Methylene Chloride	EPA-8260	ND	20	1	UG/KG	10/12/2015	DLC
Methyl T-Butyl Ether	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Trans-1,2-Dichloroethene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,1-Dichloroethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Cis-1,2-Dichloroethene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
2,2-Dichloropropane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Bromochloromethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Chloroform	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,1,1-Trichloroethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,1-Dichloropropene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,2-Dichloroethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Trichloroethene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,2-Dichloropropane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Dibromomethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Bromodichloromethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Trans-1,3-Dichloropropene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Cis-1,3-Dichloropropene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,1,2-Trichloroethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,3-Dichloropropane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Tetrachloroethylene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Dibromochloromethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,2-Dibromoethane	EPA-8260	ND	5.0	1	UG/KG	10/12/2015	DLC
Chlorobenzene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/13/2015 EV15100066 EV15100066-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/12/2015
CLIENT PROJECT:	Gunderson UST / 122023.070.071	COLLECTION DATE:	10/9/2015 3:45:00 PM
CLIENT SAMPLE ID	UST-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
1,1,1,2-Tetrachloroethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Bromoform	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,2,3-Trichloropropane	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Bromobenzene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
2-Chlorotoluene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
4-Chlorotoluene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,3-Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,4-Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,2-Dichlorobenzene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	50	1	UG/KG	10/12/2015	DLC
1,2,4-Trichlorobenzene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Hexachlorobutadiene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
1,2,3-Trichlorobenzene	EPA-8260	ND	10	1	UG/KG	10/12/2015	DLC
Naphthalene	EPA-8270 SIM	**4600**	1000	50	UG/KG	10/13/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	**6700**	1000	50	UG/KG	10/13/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	**4900**	1000	50	UG/KG	10/13/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	**160**	20	1	UG/KG	10/12/2015	GAP
Chrysene	EPA-8270 SIM	**110**	20	1	UG/KG	10/12/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/12/2015	GAP
Benzo[K]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/12/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/12/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/12/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/12/2015	GAP
PCB-1016	EPA-8082	ND	0.10	1	MG/KG	10/12/2015	GAP
PCB-1221	EPA-8082	ND	0.10	1	MG/KG	10/12/2015	GAP
PCB-1232	EPA-8082	ND	0.10	1	MG/KG	10/12/2015	GAP
PCB-1242	EPA-8082	ND	0.10	1	MG/KG	10/12/2015	GAP
PCB-1248	EPA-8082	ND	0.10	1	MG/KG	10/12/2015	GAP
PCB-1254	EPA-8082	ND	0.10	1	MG/KG	10/12/2015	GAP
PCB-1260	EPA-8082	ND	0.10	1	MG/KG	10/12/2015	GAP
PCB-1268	EPA-8082	ND	0.10	1	MG/KG	10/12/2015	GAP
Lead	EPA-6020	**67**	0.50	5	MG/KG	10/12/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 10X Dilution	NWTPH-GX	**130**	10/12/2015	PAB
TFT 10X Dilution	EPA-8021	**101**	10/12/2015	PAB
C25	NWTPH-DX w/ SGA	**123**	10/12/2015	DLC

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/13/2015 EV15100066 EV15100066-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/12/2015
CLIENT PROJECT:	Gunderson UST / 122023.070.071	COLLECTION DATE:	10/9/2015 3:45:00 PM
CLIENT SAMPLE ID	UST-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25 10X Dilution	NWTPH-DX w/ SGA	**138 DS2**	10/12/2015	DLC
1,2-Dichloroethane-d4	EPA-8260	**106**	10/12/2015	DLC
4-Bromofluorobenzene	EPA-8260	**103**	10/12/2015	DLC
Terphenyl-d14	EPA-8270 SIM	**107**	10/12/2015	GAP
Terphenyl-d14 50X Dilution	EPA-8270 SIM	**112**	10/13/2015	GAP
TCMX	EPA-8082	**60.8**	10/12/2015	GAP
DCB	EPA-8082	**61.3**	10/12/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.
DS2 - Due to high dilution factor surrogate results should be considered uncontrolled.
Chromatogram indicates that it is likely that sample contains weathered gasoline and lube oil.
Diesel range reporting limit raised due to volatile and motor oil range product overlap.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020
CLIENT CONTACT: Dylan Frazer
CLIENT PROJECT: Gunderson UST / 122023.070.071

DATE: 10/13/2015
ALS SDG#: EV15100066
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-100915S - Batch 97930 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U		MG/KG	3.0	10/09/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100915S - Batch 97930 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		MG/KG	0.030	10/09/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	10/09/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	10/09/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	10/09/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100915S - Batch 97952 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U		MG/KG	87	10/09/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX	U		MG/KG	50	10/09/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-101215S - Batch 97977 - Soil by EPA-8260

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Chloromethane	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Vinyl Chloride	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Bromomethane	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Chloroethane	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Carbon Tetrachloride	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Trichlorofluoromethane	EPA-8260	U		UG/KG	10	10/12/2015	DLC
1,1-Dichloroethene	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Methylene Chloride	EPA-8260	U		UG/KG	20	10/12/2015	DLC
Methyl T-Butyl Ether	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Trans-1,2-Dichloroethene	EPA-8260	U		UG/KG	10	10/12/2015	DLC
1,1-Dichloroethane	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Cis-1,2-Dichloroethene	EPA-8260	U		UG/KG	10	10/12/2015	DLC
2,2-Dichloropropane	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Bromochloromethane	EPA-8260	U		UG/KG	10	10/12/2015	DLC
Chloroform	EPA-8260	U		UG/KG	10	10/12/2015	DLC

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

DATE: 10/13/2015
ALS SDG#: EV15100066
WDOE ACCREDITATION: C601

CLIENT CONTACT: Dylan Frazer
CLIENT PROJECT: Gunderson UST / 122023.070.071

LABORATORY BLANK RESULTS

MB-101215S - Batch 97977 - Soil by EPA-8260

1,1,1-Trichloroethane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,1-Dichloropropene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,2-Dichloroethane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Trichloroethene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,2-Dichloropropane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Dibromomethane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Bromodichloromethane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Trans-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Toluene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Cis-1,3-Dichloropropene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,1,2-Trichloroethane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,3-Dichloropropane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Tetrachloroethylene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Dibromochloromethane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,2-Dibromoethane	EPA-8260	U	UG/KG	5.0	10/12/2015	DLC
Chlorobenzene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,1,1,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Bromoform	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,1,2,2-Tetrachloroethane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,2,3-Trichloropropane	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Bromobenzene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
2-Chlorotoluene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
4-Chlorotoluene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,3-Dichlorobenzene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,4-Dichlorobenzene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,2-Dichlorobenzene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,2-Dibromo 3-Chloropropane	EPA-8260	U	UG/KG	50	10/12/2015	DLC
1,2,4-Trichlorobenzene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
Hexachlorobutadiene	EPA-8260	U	UG/KG	10	10/12/2015	DLC
1,2,3-Trichlorobenzene	EPA-8260	U	UG/KG	10	10/12/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100915S - Batch 97998 - Soil by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U		UG/KG	20	10/12/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	U		UG/KG	20	10/12/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	U		UG/KG	20	10/12/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	U		UG/KG	20	10/12/2015	GAP
Chrysene	EPA-8270 SIM	U		UG/KG	20	10/12/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U		UG/KG	20	10/12/2015	GAP

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/13/2015 EV15100066 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / 122023.070.071		

LABORATORY BLANK RESULTS

MB-100915S - Batch 97998 - Soil by EPA-8270 SIM

Benzo[K]Fluoranthene	EPA-8270 SIM	U	UG/KG	20	10/12/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	U	UG/KG	20	10/12/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U	UG/KG	20	10/12/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U	UG/KG	20	10/12/2015	GAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U	UG/KG	20	10/12/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

MBLK-262978 - Batch R262978 - Soil by EPA-8082

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
PCB-1016	EPA-8082	U		MG/KG	0.10	10/12/2015	GAP
PCB-1221	EPA-8082	U		MG/KG	0.10	10/12/2015	GAP
PCB-1232	EPA-8082	U		MG/KG	0.10	10/12/2015	GAP
PCB-1242	EPA-8082	U		MG/KG	0.10	10/12/2015	GAP
PCB-1248	EPA-8082	U		MG/KG	0.10	10/12/2015	GAP
PCB-1254	EPA-8082	U		MG/KG	0.10	10/12/2015	GAP
PCB-1260	EPA-8082	U		MG/KG	0.10	10/12/2015	GAP
PCB-1268	EPA-8082	U		MG/KG	0.10	10/12/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

MB-101215S - Batch 97964 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	10/12/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/13/2015 EV15100066 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / 122023.070.071		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 97930 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12) - BS	NWTPH-GX	87.3			10/09/2015	PAB
TPH-Volatile Range (C7-C12) - BSD	NWTPH-GX	87.8	1		10/09/2015	PAB

ALS Test Batch ID: 97930 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	80.5			10/09/2015	PAB
Benzene - BSD	EPA-8021	81.0	1		10/09/2015	PAB
Toluene - BS	EPA-8021	85.4			10/09/2015	PAB
Toluene - BSD	EPA-8021	86.0	1		10/09/2015	PAB
Ethylbenzene - BS	EPA-8021	85.3			10/09/2015	PAB
Ethylbenzene - BSD	EPA-8021	86.2	1		10/09/2015	PAB
Xylenes - BS	EPA-8021	85.2			10/09/2015	PAB
Xylenes - BSD	EPA-8021	86.1	1		10/09/2015	PAB

ALS Test Batch ID: 97952 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	105			10/09/2015	DLC
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	115	9		10/09/2015	DLC

ALS Test Batch ID: 97977 - Soil by EPA-8260

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
1,1-Dichloroethene - BS	EPA-8260	105			10/12/2015	DLC
1,1-Dichloroethene - BSD	EPA-8260	101	4		10/12/2015	DLC
Trichloroethene - BS	EPA-8260	102			10/12/2015	DLC
Trichloroethene - BSD	EPA-8260	100	2		10/12/2015	DLC
Toluene - BS	EPA-8260	96.1			10/12/2015	DLC
Toluene - BSD	EPA-8260	93.3	3		10/12/2015	DLC
Chlorobenzene - BS	EPA-8260	91.4			10/12/2015	DLC
Chlorobenzene - BSD	EPA-8260	93.2	2		10/12/2015	DLC

ALS Test Batch ID: 97998 - Soil by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Naphthalene - BS	EPA-8270 SIM	105			10/12/2015	GAP
Naphthalene - BSD	EPA-8270 SIM	75.9	32		10/12/2015	GAP
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	129			10/12/2015	GAP

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/13/2015 EV15100066 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / 122023.070.071		

LABORATORY CONTROL SAMPLE RESULTS

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	**92.0**	**34**		10/12/2015	GAP

ALS Test Batch ID: R262978 - Soil by EPA-8082

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
PCB-1016 - BS	EPA-8082	**132**			10/12/2015	GAP
PCB-1016 - BSD	EPA-8082	**132**	**0**		10/12/2015	GAP
PCB-1260 - BS	EPA-8082	**158**		SQ1	10/12/2015	GAP
PCB-1260 - BSD	EPA-8082	**158**	**0**	SQ1	10/12/2015	GAP

SQ1 - Spike outside of control limits with a high bias. Associated compounds non-detect. No corrective action taken.

ALS Test Batch ID: 97964 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	**102**			10/12/2015	RAL
Lead - BSD	EPA-6020	**104**	**2**		10/12/2015	RAL

APPROVED BY

Laboratory Director

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ALS Group USA, Corp

EV1510066

LANDAU ASSOCIATES

☒ Seattle/Edmonds (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (503) 542-1080
☐ _____

Chain-of-Custody Record

Date 10/09/2015

Page 1 of 1

Project Name GUNDERSON UST Project No. 122023.070.071

Project Location/Event SHORELINE, WA / CHARACTERIZATION SAMPLES

Sampler's Name MATT MORONEY

Project Contact DYLAN FRAZER

Send Results To DYLAN FRAZER, TIM SYVERSON, KRISTI SHULTZ

Turnaround Time
☐ Standard
☐ Accelerated
☒ ASAP

Sample I.D.	Date	Time	Matrix	No. of Containers	BTEX	TPH-D	TPH-O	TPH-G	EDB/EDC/MTBE	Pb	cPAHs	Naphthalenes	PCBs	HAVOCs	Observations/Comments
UST-6	10/09/15	1545	SOIL	4	X	X	X	X	X	X	X	X	X	X	

Testing Parameters

X Allow water samples to settle, collect aliquot from clear portion

X NWTPH-Dx - run acid wash silica gel cleanup

__ Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):

__ non-preserved

__ preserved w/methanol

__ preserved w/sodium bisulfate

__ Freeze upon receipt

__ Dissolved metal water samples field filtered

Other _____

Special Shipment/Handling or Storage Requirements

Method of Shipment Pick up

Relinquished by	Received by	Relinquished by	Received by
Signature MM	Signature	Signature	Signature
Printed Name MATT MORONEY	Printed Name Rick Bagan	Printed Name	Printed Name
Company LANDAU ASSOCIATES, INC	Company NLS	Company	Company
Date 10/09/2015 Time 1615	Date 10-10-15 Time 9:55 AM	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

12/2014

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV1510066

Project: Gunderson UST

Received Date: 10/10/15 Received Time: 9:55 AM By: RB

Type of shipping container: Cooler X Box ___ Other ___

Shipped via: FedEx Ground ___ UPS ___ Mail ___ Courier ALS Hand Delivered ___
FedEx Express ___

	Yes	No	N/A
Were custody seals on outside of sample?	X		
If yes, how many? 1 Where? Top/Side			
Custody seal date: 10/9/15 Seal name: Landau			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X		
Did all bottles have labels?	X		
Did all bottle labels and tags agree with Chain of Custody?	X		
Were samples received within hold time?	X		
Did all bottles arrive in good condition (unbroken, etc.)?	X		
Was sufficient amount of sample sent for the tests indicated?	X		
Was correct preservation added to samples?	X		

If no, Sample Control added preservative to the following: Per 5035 Low Kit

Sample Number	Reagent	Analyte

Were VOA vials checked for absence of air bubbles? ___ ___ X

Bubbles present in sample #: ___

Temperature of cooler upon receipt: 5.4°C on Ice (Cold) Cool Ambient N/A

Explain any discrepancies: ___

Was client contacted? ___ Who was called? ___ By whom? ___ Date: ___

Outcome of call: ___

October 22, 2015

Mr. Dylan Frazer
Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

Dear Mr. Frazer,

On October 16th, 4 samples were received by our laboratory and assigned our laboratory project number EV15100104. The project was identified as your Gunderson UST / #122023.070.071. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/22/2015 EV15100104 EV15100104-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/16/2015
CLIENT PROJECT:	Gunderson UST / #122023.070.071	COLLECTION DATE:	10/16/2015 12:20:00 PM
CLIENT SAMPLE ID	SW-9	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	ND	20	1	MG/KG	10/19/2015	PAB
Benzene	EPA-8021	ND	0.030	1	MG/KG	10/19/2015	PAB
Toluene	EPA-8021	ND	0.050	1	MG/KG	10/19/2015	PAB
Ethylbenzene	EPA-8021	ND	0.050	1	MG/KG	10/19/2015	PAB
Xylenes	EPA-8021	ND	0.20	1	MG/KG	10/19/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	**150**	25	1	MG/KG	10/16/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	**16000**	1000	20	MG/KG	10/19/2015	DLC
Naphthalene	EPA-8270 SIM	**51**	20	1	UG/KG	10/19/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	**81**	20	1	UG/KG	10/19/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	**99**	20	1	UG/KG	10/19/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	**29**	20	1	UG/KG	10/19/2015	GAP
Chrysene	EPA-8270 SIM	**88**	20	1	UG/KG	10/19/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[K]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Lead	EPA-6020	**6.8**	0.50	5	MG/KG	10/22/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**77.4**	10/19/2015	PAB
TFT	EPA-8021	**70.6**	10/19/2015	PAB
C25	NWTPH-DX w/ SGA	**119**	10/16/2015	DLC
C25 20X Dilution	NWTPH-DX w/ SGA	**174 GS2**	10/19/2015	DLC
Terphenyl-d14	EPA-8270 SIM	**99.6**	10/19/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.
GS2 - Surrogate outside of control limits due to dilution.
Chromatogram indicates that it is likely that sample contains weathered diesel 1 and lube oil.
Gasoline range reporting limit raised due to semivolatile range product overlap.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/22/2015 EV15100104 EV15100104-02
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/16/2015
CLIENT PROJECT:	Gunderson UST / #122023.070.071	COLLECTION DATE:	10/16/2015 12:40:00 PM
CLIENT SAMPLE ID	BS-6	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	ND	3.0	1	MG/KG	10/16/2015	PAB
Benzene	EPA-8021	ND	0.030	1	MG/KG	10/16/2015	PAB
Toluene	EPA-8021	ND	0.050	1	MG/KG	10/16/2015	PAB
Ethylbenzene	EPA-8021	ND	0.050	1	MG/KG	10/16/2015	PAB
Xylenes	EPA-8021	ND	0.20	1	MG/KG	10/16/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	ND	25	1	MG/KG	10/16/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	ND	50	1	MG/KG	10/16/2015	DLC
Naphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Chrysene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[K]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Lead	EPA-6020	**15**	0.50	5	MG/KG	10/22/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**104**	10/16/2015	PAB
TFT	EPA-8021	**95.1**	10/16/2015	PAB
C25	NWTPH-DX w/ SGA	**121**	10/16/2015	DLC
Terphenyl-d14	EPA-8270 SIM	**99.9**	10/19/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/22/2015 EV15100104 EV15100104-03
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/16/2015
CLIENT PROJECT:	Gunderson UST / #122023.070.071	COLLECTION DATE:	10/16/2015 1:00:00 PM
CLIENT SAMPLE ID	SW-10	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	**15**	3.0	1	MG/KG	10/16/2015	PAB
Benzene	EPA-8021	ND	0.030	1	MG/KG	10/16/2015	PAB
Toluene	EPA-8021	ND	0.050	1	MG/KG	10/16/2015	PAB
Ethylbenzene	EPA-8021	**0.058**	0.050	1	MG/KG	10/16/2015	PAB
Xylenes	EPA-8021	**0.34**	0.20	1	MG/KG	10/16/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	ND	25	1	MG/KG	10/16/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	**420**	50	1	MG/KG	10/16/2015	DLC
Naphthalene	EPA-8270 SIM	**33**	20	1	UG/KG	10/19/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	**64**	20	1	UG/KG	10/19/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	**44**	20	1	UG/KG	10/19/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Chrysene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[K]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Lead	EPA-6020	**14**	0.50	5	MG/KG	10/22/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**102**	10/16/2015	PAB
TFT	EPA-8021	**96.1**	10/16/2015	PAB
C25	NWTPH-DX w/ SGA	**132**	10/16/2015	DLC
Terphenyl-d14	EPA-8270 SIM	**101**	10/19/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline and lube oil.

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS JOB#: ALS SAMPLE#:	10/22/2015 EV15100104 EV15100104-04
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/16/2015
CLIENT PROJECT:	Gunderson UST / #122023.070.071	COLLECTION DATE:	10/16/2015 1:10:00 PM
CLIENT SAMPLE ID	SW-11	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	ND	3.0	1	MG/KG	10/16/2015	PAB
Benzene	EPA-8021	ND	0.030	1	MG/KG	10/16/2015	PAB
Toluene	EPA-8021	ND	0.050	1	MG/KG	10/16/2015	PAB
Ethylbenzene	EPA-8021	ND	0.050	1	MG/KG	10/16/2015	PAB
Xylenes	EPA-8021	ND	0.20	1	MG/KG	10/16/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	ND	25	1	MG/KG	10/16/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	ND	50	1	MG/KG	10/16/2015	DLC
Naphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Chrysene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[K]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/19/2015	GAP
Lead	EPA-6020	**14**	0.50	5	MG/KG	10/22/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**101**	10/16/2015	PAB
TFT	EPA-8021	**93.9**	10/16/2015	PAB
C25	NWTPH-DX w/ SGA	**140**	10/16/2015	DLC
Terphenyl-d14	EPA-8270 SIM	**121**	10/19/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/22/2015 EV15100104 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / #122023.070.071		

LABORATORY BLANK RESULTS

MBG-100915S - Batch 97930 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U		MG/KG	3.0	10/09/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-100915S - Batch 97930 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		MG/KG	0.030	10/09/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	10/09/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	10/09/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	10/09/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-101415S - Batch 98074 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U		MG/KG	25	10/14/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX	U		MG/KG	50	10/14/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-101915S - Batch 98167 - Soil by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Chrysene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/22/2015 EV15100104 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / #122023.070.071		

LABORATORY BLANK RESULTS

MB-101915S - Batch 98198 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	10/22/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/22/2015 EV15100104 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / #122023.070.071		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 97930 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12) - BS	NWTPH-GX	87.3			10/09/2015	PAB
TPH-Volatile Range (C7-C12) - BSD	NWTPH-GX	87.8	1		10/09/2015	PAB

ALS Test Batch ID: 97930 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	80.5			10/09/2015	PAB
Benzene - BSD	EPA-8021	81.0	1		10/09/2015	PAB
Toluene - BS	EPA-8021	85.4			10/09/2015	PAB
Toluene - BSD	EPA-8021	86.0	1		10/09/2015	PAB
Ethylbenzene - BS	EPA-8021	85.3			10/09/2015	PAB
Ethylbenzene - BSD	EPA-8021	86.2	1		10/09/2015	PAB
Xylenes - BS	EPA-8021	85.2			10/09/2015	PAB
Xylenes - BSD	EPA-8021	86.1	1		10/09/2015	PAB

ALS Test Batch ID: 98074 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	92.4			10/14/2015	DLC
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	98.2	6		10/14/2015	DLC

ALS Test Batch ID: 98167 - Soil by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Naphthalene - BS	EPA-8270 SIM	127			10/19/2015	GAP
Naphthalene - BSD	EPA-8270 SIM	81.5	44		10/19/2015	GAP
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	107			10/19/2015	GAP
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	77.7	32		10/19/2015	GAP

ALS Test Batch ID: 98198 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	101			10/22/2015	RAL
Lead - BSD	EPA-6020	102	1		10/22/2015	RAL

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CERTIFICATE OF ANALYSIS

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

EV1510104

LANDAU ASSOCIATES

- ☐ Seattle/Edmonds (425) 778-0907
- ☐ Tacoma (253) 926-2493
- ☐ Spokane (509) 327-9737
- ☐ Portland (503) 542-1080
- ☐ _____

Chain-of-Custody Record

Date 10/16/15

Page 1 of 1

Project Name GUNDERSON UST Project No. 122023.070.071

Project Location/Event SHORELINE, WA / CONFIRMATION SAMPLES

Sampler's Name MATT MORONEY

Project Contact DYLAN FRAZER

Send Results To D. FRAZER, T. SYVERSON, K. SHULTZ

Turnaround Time
- ☐ Standard
- ☒ Accelerated
- ☐ _____

Sample I.D.	Date	Time	Matrix	No. of Containers	BTEX	TPH-D	TPH-O	TPH-G	Pb	cPAHs	NAPTHALENES	Observations/Comments
SW-9	10/16/15	1220	SOIL	4	X	X	X	X	X	X	X	
BS-6	10/16/15	1240	SOIL	4	X	X	X	X	X	X	X	
SW-10	10/16/15	1300	SOIL	4	X	X	X	X	X	X	X	
SW-11	10/16/15	1310	SOIL	4	X	X	X	X	X	X	X	

Testing Parameters

X Allow water samples to settle, collect aliquot from clear portion

X NWTPH-Dx - run acid wash silica gel cleanup

___ Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):

___ non-preserved

___ preserved w/methanol

___ preserved w/sodium bisulfate

___ Freeze upon receipt

___ Dissolved metal water samples field filtered

Other _____

Special Shipment/Handling or Storage Requirements

Method of Shipment

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name M. McRONEY	Printed Name R. de Bey	Printed Name	Printed Name
Company LANDAU ASSOCIATES, INC	Company ALS	Company	Company
Date 10/16/15 Time 1400	Date 10/16/15 Time 250	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

12/2014

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV1510010-4

Project: Gunderson

Received Date: 10/16/15 Received Time: 2:50 By: RB

Type of shipping container: Cooler X Box ___ Other ___

Shipped via: FedEx Ground ___ UPS ___ Mail ___ Courier ALS Hand Delivered ___
FedEx Express ___

	Yes	No	N/A
Were custody seals on outside of sample?	___	X	___
If yes, how many? ___ Where? ___			
Custody seal date: ___ Seal name: ___			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X	___	___
Did all bottles have labels?	X	___	___
Did all bottle labels and tags agree with Chain of Custody?	X	___	___
Were samples received within hold time?	X	___	___
Did all bottles arrive in good condition (unbroken, etc.)?	X	___	___
Was sufficient amount of sample sent for the tests indicated?	X	___	___
Was correct preservation added to samples?	X	___	___

If no, Sample Control added preservative to the following: Per 5035 low kit

Sample Number	Reagent	Analyte

Were VOA vials checked for absence of air bubbles? ___ ___ X

Bubbles present in sample #: ___

Temperature of cooler upon receipt: 13.5 °C on Ice Cold (Cool) Ambient N/A

Explain any discrepancies: ___

Was client contacted? ___ Who was called? ___ By whom? ___ Date: ___

Outcome of call: ___

October 27, 2015

Mr. Dylan Frazer
Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

Dear Mr. Frazer,

On October 23rd, 1 sample was received by our laboratory and assigned our laboratory project number EV15100140. The project was identified as your Gunderson UST / #122023.070.071. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE:	10/27/2015
		ALS JOB#:	EV15100140
		ALS SAMPLE#:	EV15100140-01
CLIENT CONTACT:	Dylan Frazer	DATE RECEIVED:	10/23/2015
CLIENT PROJECT:	Gunderson UST / #122023.070.071	COLLECTION DATE:	10/23/2015 8:15:00 AM
CLIENT SAMPLE ID	SW-12	WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	ND	3.0	1	MG/KG	10/23/2015	PAB
Benzene	EPA-8021	ND	0.030	1	MG/KG	10/23/2015	PAB
Toluene	EPA-8021	ND	0.050	1	MG/KG	10/23/2015	PAB
Ethylbenzene	EPA-8021	ND	0.050	1	MG/KG	10/23/2015	PAB
Xylenes	EPA-8021	ND	0.20	1	MG/KG	10/23/2015	PAB
TPH-Diesel Range (C12-C24)	NWTPH-DX w/ SGA	ND	25	1	MG/KG	10/23/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX w/ SGA	**350**	50	1	MG/KG	10/23/2015	DLC
Naphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
Chrysene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
Benzo[K]Fluoranthene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	20	1	UG/KG	10/23/2015	GAP
Lead	EPA-6020	**46**	0.50	5	MG/KG	10/26/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	**117**	10/23/2015	PAB
TFT	EPA-8021	**122**	10/23/2015	PAB
C25	NWTPH-DX w/ SGA	**99.5**	10/23/2015	DLC
Terphenyl-d14	EPA-8270 SIM	**114**	10/23/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/27/2015 EV15100140 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / #122023.070.071		

LABORATORY BLANK RESULTS

MBG-101915S - Batch 98173 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12)	NWTPH-GX	U		MG/KG	3.0	10/19/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-101915S - Batch 98173 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		MG/KG	0.030	10/19/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	10/19/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	10/19/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	10/19/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-102215S - Batch 98303 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24)	NWTPH-DX	U		MG/KG	25	10/22/2015	DLC
TPH-Oil Range (C24-C40)	NWTPH-DX	U		MG/KG	50	10/22/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-101915S - Batch 98167 - Soil by EPA-8270 SIM

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
2-Methylnaphthalene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
1-Methylnaphthalene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[A]Anthracene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Chrysene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[B]Fluoranthene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[K]Fluoranthene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[A]Pyrene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Dibenz[A,H]Anthracene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP
Benzo[G,H,I]Perylene	EPA-8270 SIM	U		UG/KG	20	10/19/2015	GAP

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp
Environmental www.alsglobal.com
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CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/27/2015 EV15100140 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / #122023.070.071		

LABORATORY BLANK RESULTS

MB-102615S - Batch 98371 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	10/26/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

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ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

CLIENT:	Landau Associates, Inc. 130 - 2nd Ave. S. Edmonds, WA 98020	DATE: ALS SDG#: WDOE ACCREDITATION:	10/27/2015 EV15100140 C601
CLIENT CONTACT:	Dylan Frazer		
CLIENT PROJECT:	Gunderson UST / #122023.070.071		

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 98173 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range (C7-C12) - BS	NWTPH-GX	86.7			10/19/2015	PAB
TPH-Volatile Range (C7-C12) - BSD	NWTPH-GX	86.7	0		10/19/2015	PAB

ALS Test Batch ID: 98173 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	89.3			10/19/2015	PAB
Benzene - BSD	EPA-8021	89.2	0		10/19/2015	PAB
Toluene - BS	EPA-8021	91.8			10/19/2015	PAB
Toluene - BSD	EPA-8021	91.6	0		10/19/2015	PAB
Ethylbenzene - BS	EPA-8021	101			10/19/2015	PAB
Ethylbenzene - BSD	EPA-8021	100	1		10/19/2015	PAB
Xylenes - BS	EPA-8021	98.8			10/19/2015	PAB
Xylenes - BSD	EPA-8021	98.3	1		10/19/2015	PAB

ALS Test Batch ID: 98303 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range (C12-C24) - BS	NWTPH-DX	99.3			10/22/2015	DLC
TPH-Diesel Range (C12-C24) - BSD	NWTPH-DX	100	1		10/22/2015	DLC

ALS Test Batch ID: 98167 - Soil by EPA-8270 SIM

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Naphthalene - BS	EPA-8270 SIM	127			10/19/2015	GAP
Naphthalene - BSD	EPA-8270 SIM	81.5	44		10/19/2015	GAP
Benzo[G,H,I]Perylene - BS	EPA-8270 SIM	107			10/19/2015	GAP
Benzo[G,H,I]Perylene - BSD	EPA-8270 SIM	77.7	32		10/19/2015	GAP

ALS Test Batch ID: 98371 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	98.4			10/26/2015	RAL
Lead - BSD	EPA-6020	2.01	2		10/26/2015	RAL

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS Environmental

CERTIFICATE OF ANALYSIS

APPROVED BY

Laboratory Director

ADDRESS 8620 Holly Drive, Suite 100, Everett, WA 98208 | PHONE 425-356-2600 | FAX 425-356-2626
ALS Group USA, Corp

ALS ENVIRONMENTAL

Sample Receiving Checklist

Client: Landau Associates ALS Job #: EV15100140

Project: Gunderson

Received Date: 10/23/15 Received Time: 11:20 By: RB

Type of shipping container: Cooler X Box ___ Other ___

Shipped via: FedEx Ground ___ UPS ___ Mail ___ Courier ALS Hand Delivered ___
FedEx Express ___

	Yes	No	N/A
Were custody seals on outside of sample?	X		
If yes, how many? 1 Where? Top			
Custody seal date: 10/23/15 Seal name: Landau Associates			
Was Chain of Custody properly filled out (ink, signed, dated, etc.)?	X		
Did all bottles have labels?	X		
Did all bottle labels and tags agree with Chain of Custody?	X		
Were samples received within hold time?	X		
Did all bottles arrive in good condition (unbroken, etc.)?	X		
Was sufficient amount of sample sent for the tests indicated?	X		
Was correct preservation added to samples?	X		

If no, Sample Control added preservative to the following: Per 5035 low kit

Sample Number	Reagent	Analyte

Were VOA vials checked for absence of air bubbles?			X
Bubbles present in sample #: ___			

Temperature of cooler upon receipt: 8.6° C on Ice (Cold) Cool Ambient N/A

Explain any discrepancies: ___

Was client contacted? ___ Who was called? ___ By whom? ___ Date: ___

Outcome of call: ___

EVIS100140

LANDAU ASSOCIATES

- [x] Seattle/Edmonds (425) 778-0907
- [ ] Tacoma (253) 926-2493
- [ ] Spokane (509) 327-9737
- [ ] Portland (503) 542-1080
- [ ] _____

Chain-of-Custody Record

Date 10/23/15

Page 1 of 1

Project Name Gunderson UST Project No. 122023.070.071

Project Location/Event Shoreline, WA / Confirmation Samples

Sampler's Name Celene Blair

Project Contact Dylan Frazer

Send Results To D. Frazer, T. Swierson, K. Shultz, Anne Halverson

Turnaround Time
- [ ] Standard
- [ ] Accelerated
- [x] ASAP

Sample I.D.	Date	Time	Matrix	No. of Containers	BTEX	TPH-D	TPH-O	TPH-G	Pb	cPAHs	Naphthalenes	Observations/Comments
SW-12	10/23/15	0815	Soil	4	X	X	X	X	X	X	X	

Testing Parameters

X Allow water samples to settle, collect aliquot from clear portion

X NWTPH-Dx - run acid wash silica gel cleanup

__ Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):
- __ non-preserved
- __ preserved w/methanol
- __ preserved w/sodium bisulfate
- __ Freeze upon receipt
- __ Dissolved metal water samples field filtered

Other _____

Special Shipment/Handling or Storage Requirements: on ice

Method of Shipment: pick up

Relinquished by	Received by	Relinquished by	Received by
Signature	Signature	Signature	Signature
Printed Name Celene Blair	Printed Name Rick Bagan	Printed Name	Printed Name
Company Landau Associates	Company AGS	Company	Company
Date 10/23/15 Time 0845	Date 10/23/15 Time 11:20	Date Time	Date Time

WHITE COPY - Project File YELLOW COPY - Laboratory PINK COPY - Client Representative

12/2014

Washington State Department of Ecology Underground Storage Tank Closure and Site Assessment Notice

2

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNDERGROUND STORAGE TANK
Closure and Site Assessment Notice

See back of form for instructions

FOR OFFICE USE ONLY
Site ID #: _____
Facility Site ID #: _____

Please ✓ the appropriate box(es)
☐ Temporary Tank Closure ☐ Change-In-Service ☐ Permanent Tank Closure ☐ Site Check/Site Assessment

Site Information

Site ID Number _____
(Available from Ecology if the tanks are registered)
Site/Business Name Gunderson Property
Site Address 19806 - 19804 Aurora Ave N.
City/State Shoreline WA
Zip Code 98133 Telephone (425) 455-9720
Owners Signature [signature]

Owner Information

UST Owner/Operator City of Shoreline
Mailing Address 17500 Midvale Ave N
P.O. Box _____
City/State Shoreline WA 98133
Zip Code _____ Telephone (206) 801-2482
(NYTASHA SOWERS)

Tank Closure/Change-In-Service Company

Service Company Diane's Tank Removal Services LLC
Certified Supervisor Diane Kamacho Decommissioning Certification No. 8057526-UZ
Supervisor's Signature [signature] Date 10-20-2015
Address 18720 Sound View Pl P.O. Box 77738 Seattle WA 98177
Edmonds WA 98020 Telephone (206) 510-9497

Site Check/Site Assessor

Certified Site Assessor Landau & Associates Dilla Frazer
Address _____
_____ Telephone (___) _____

Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
1	9/28/15	Removal	3,000	Gasoline
2	"	"	3,000	Diesel
3	"	"	3,000	Gasoline
4	10/7/15	"	3,000	unknown (Concrete)
5	"	"	3,000	Gasoline
6	10/9/15	Removal	300	Waste Oil

Contamination Present at the Time of Closure

☑ Yes ☐ No ☐ Unknown
Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

☑ Yes ☐ No
If contamination is present, has the release been reported to the appropriate regional office?

To receive this document in an alternative format, contact the Toxics Cleanup Program at 360-407-7170 (voice) or 1-800-833-6388 OR 711 (TTY)

ECY 020-94 (Rev. 2-06)

Washington State Department of Ecology Underground Storage Tank Site Assessment Checklist

UST ID #: _____

County: _____

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.

State of Washington

I. UST FACILITY	II. OWNER/OPERATOR INFORMATION
Facility Compliance Tag #: n/a	Owner/Operator Name: City of Shoreline
UST ID #: n/a	Business Name: n/a
Site Name: Aurora Gunderson Property	Address: 17500 Midvale Avenue N
Site Address: 19804 and 19806 Aurora Avenue N	City: Shoreline State: WA Zip: 98133
City: Shoreline	Phone: 206-801-2482
Phone: n/a	Email:

III. CERTIFIED SITE ASSESSOR

Service Provider Name: Dylan Frazer		Company Name: Landau Associates	
Cell Phone: n/a	Email: dfrazer@landauinc.com	Address: 130 2nd Avenue South	
Certification #: 8036209	Exp. Date: 10/13/17	City: Edmonds	State: WA Zip: 98020

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST-1	2,000	Gasoline	9/28/15
UST-2	2,800	Diesel	9/28/15
UST-3	2,800	Gasoline	9/28/15
UST-4	2,800	Gasoline	10/7/15
UST-5	3,000	Gasoline	10/7/15
UST-6	300	Waste Oil	10/9/15

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

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

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

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

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

☐ UST system is undergoing a "change-in-service", which is changing from storing a regulated substance (e.g. gasoline) to storing a non-regulated substance (e.g. water).

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

☐ Other (describe):

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.

Dylan Frazer	Dylan	12/18/15
Print or Type Name	Signature of Certified Site Assessor	Date

SITE CHECK/SITE ASSESSMENT CHECKLIST

FOR UNDERGROUND STORAGE TANKS

INSTRUCTIONS

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

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

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

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

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

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

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

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

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

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