



**Subsurface Exploration  
L&E Auto Sales Property  
2101 Burwell Place  
Bremerton, WA 98312**

Prepared for: Mr. David Kessler  
Frick and Frack, LLC  
2101 Burwell Place  
Bremerton, WA 98312

Prepared by: G-Logics, Inc.  
40 2nd Avenue SE  
Issaquah, WA 98027

Telephone: (425) 391-6874  
Facsimile: (425) 313-3074

June 17, 2019

**G-Logics Project 01-1239-B  
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June 17, 2019  
G-Logics Project 01-1239-B

Mr. David Kessler  
Frick and Frack, LLC  
2101 Burwell Place  
Bremerton, WA 98312

**Subject: Subsurface Exploration  
L&E Auto Sales Property  
2101 Burwell Place  
Bremerton, WA 98312**

Dear Mr. Kessler:

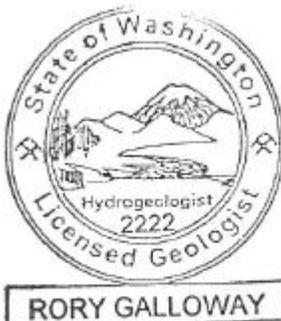
This report presents the purpose, approach, and results of G-Logics subsurface exploration performed at the above-referenced property. We trust the information presented in this report meets your needs at this time. Should you require additional information or have any questions, please contact us at your convenience. Thank you again for this opportunity to be of service.

Sincerely,  
**G-Logics, Inc.**

Rory L. Galloway, LG, LHG  
Principal

Dan Hatch  
Remediation Manager

Haley Carter  
Staff Geologist



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Appendix F: Elevation Survey

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## **ATTACHMENTS**

Attachment A: Permission and Conditions for Use and Copying

## **1.0 INTRODUCTION**

At the request of Frick and Frack, LLC (Frick & Frack), G-Logics has completed a subsurface exploration on the subject property (Property), located at 2101 Burwell Place, in Bremerton, WA (Figure 1). The scope of this exploration was based on G-Logics review of previously completed environmental-site assessments.

This subsurface exploration work was requested by Frick & Frack to obtain information needed for the request of a No Further Action (NFA) determination from the Washington Department of Ecology (Ecology). Our exploration efforts were performed in accordance with our workplan dated April 24, 2019. Additionally, this workplan was approved by Ecology in an email dated May 17, 2019 (Appendix A). The results of our site exploration are presented in this report.

## **2.0 BACKGROUND**

The Property consists of a 0.25 acre parcel in Bremerton, Washington. G-Logics understands that a taxi-cab company operated on the Property from the 1940s until 1961. Prior to the 1940s, we do not have knowledge of the Property. G-Logics also understands that a used-car lot operated on the Property until from the 1960s until 2012. After 2012, we understand that a recreational-vehicle sales and service company operated on the Property. The site is primarily covered by asphalt and currently is occupied by a flower shop. The Property slopes west towards a drainage area that ultimately leads to the Sinclair Inlet/Puget Sound.

Identified historical land-use practices or activities on the Property include three fueling dispensers, three underground storage tanks (USTs, used for gasoline storage), a used-oil UST, and an underground hydraulic hoist. Due to these identified features, DLH Environmental Consulting (DLH) conducted a subsurface assessment at the Property in 2010, which consisted of six borings around the perimeter of the Property. These efforts are presented in DLH's *Phase II Environmental Site Assessment Activities* report, dated June 17, 2010 (Appendix B).

The 2010 DLH exploration efforts identified the presence of heavy-oil at one boring location adjacent to a former shop building (in which the used-oil UST and hoist were

located). Specifically, the laboratory results reported heavy-oil at concentrations greater than the Model Toxics Control Act (MTCA) Method A Cleanup Levels (cleanup levels). The DLH 2010 report identified that the three-pump islands had been removed from the Property, but that evidence for the removal of the USTs was not found.

DLH conducted a second exploration in 2010 to look for the three USTs believed to be associated with the three dispensers. The second exploration efforts found the three USTs (understood to have been used for gasoline storage), which were subsequently excavated/removed. Additionally, the used-oil UST was removed/excavated (Figure 2). The UST removal and soil excavation efforts are presented in DLH's *Underground Storage Tank Decommissioning and Final Cleanup Report*, dated January 12, 2011 (Appendix B).

According to the DLH January 12, 2011 report, approximately 76 tons of petroleum-contaminated soils (PCS) were excavated and disposed from the UST excavations (Figure 2). Soil sampling conducted by DLH in the northeast (gasoline) UST excavation area demonstrated that gasoline and benzene, toluene, ethylbenzene, and xylenes (BTEX) contaminants remained in the soils at concentrations greater than the cleanup levels. Additionally, soil sampling conducted by DLH in the west (used-oil) UST excavation area reported that diesel and heavy-oil contaminants remained in the soils at concentrations greater than cleanup levels. Additional efforts to remove the contaminated soils was not discussed in the DLH reports.

In 2013 EnviroSound Consulting (ESC) conducted additional testpit sampling in the gasoline and used-oil UST excavation areas that were previously identified by DLH as containing residual PCS. Reportedly, EnviroSound did not observe conditions that indicated PCS was present. Accordingly, ESC concluded that additional remedial efforts were not required in their *Final Cleanup Report*, dated July 21, 2013 (Appendix B). ESC submitted their July 21, 2013 report to Ecology with a request for NFA determination.

In response to the NFA request by ESC, Ecology issued two opinion letters (dated November 27, 2013 and March 9, 2018). Both Ecology opinion letters determined that additional site characterization and remediation was required at the Property to meet Washington State cleanup standards. Additionally, Ecology expressed that insufficient documentation was presented (in the 2013 ESC cleanup report) to support a NFA request.

At the request of Frick & Frack, G-Logics completed a review of the DLH and ESC reports, along with documents available on Ecology's website. G-Logics presented a summary of our findings and opinions in our memo *Data Review and Summary*, dated April 8, 2019. Based on our review, several data gaps were identified regarding soil contamination in both the gasoline and the used-oil excavation areas.

## **2.1 Regulatory Background**

The rules that guide the cleanup process at sites within Washington are known as the Model Toxics Control Act (MTCA) Cleanup Regulation, which is administered by the Washington State Department of Ecology (Ecology). MTCA "establishes administrative processes and standards to identify, investigate, and cleanup facilities where hazardous substances have come to be located" (WAC 173-340-100). Soil Cleanup Levels established under MTCA are often used as standards for deciding when additional investigation or cleanup is appropriate. For this project, we have compared analytical laboratory results to published MTCA Method A cleanup levels for soil.

## **3.0 SITE EXPLORATION ACTIVITIES**

To provide additional information regarding contaminant conditions in the subsurface, G-Logics completed 13 exploratory soil borings on the Property (Figure 2). Our drilling subcontractor (ESN Northwest) used truck-mounted probe equipment (direct-push) to complete the soil borings. A G-Logics geologist was present during the exploration to observe and document site conditions.

Our completed exploration work is discussed below. A description of our site-exploration methods is presented in Appendix C. The boring logs are presented in Appendix D. Each boring log presents soil types/field descriptions, sample-screening results, and general observations.

### **3.1 Soil Borings**

On May 21, 2019, 13 direct-push borings were drilled to the approximate depths of 15 to 25 feet below the ground surface. Boring locations and analytical analysis were selected based on the findings of G-Logics review of past explorations and discussions with Ecology.

During drilling, soil samples were collected for soil identification and chemical analysis. A photoionization detector (PID) was used during drilling to screen for volatile organic compounds (VOCs) in collected soil samples, with the results measured in parts per million by volume (ppmv) and noted on the boring logs. Selected soil samples were submitted to the analytical laboratory and analyzed for the following: gasoline-range organics (GRO), diesel-range organics (DRO), heavy-oil range organics (ORO), and/or BTEX. Soil conditions encountered during drilling are further described in Section 4.1 below. Results of these analyses are presented in Sections 4.1.1 and 4.1.2 of this report.

### **3.2 Quality Assurance/Quality Control**

Quality Assurance/Quality Control (QA/QC) included generally-accepted procedures for sample collection, storage, tracking, documentation, and analysis. Appropriate chain-of-custody documentation also was completed.

### **3.3 Site Elevation Survey**

Per Ecology's request, G-Logics hired a licensed surveyor (Team 4 Engineering) to complete an elevation survey of the Property in reference to the North American Vertical Datum of 1988 (NAVD88). G-Logics understands that Ecology requested this elevation information for the comparison of soil-sample elevation (on Property) to documented groundwater elevations in this area.

Specifically, Ecology provided G-Logics with groundwater information from a nearby site (a site located two blocks to the north). This nearby site was formerly in the Voluntary Cleanup Program (VCP), VCP number NW2735, ARCO 5810. At this site, the surface elevation is approximately 105 feet above mean-sea level and groundwater is understood to be at an approximate depth of 70 feet (or an approximate elevation of 35 feet, see Appendix E).

The Team 4 survey identified the ground surface at the subject Property to be at an average elevation of 97 feet (mean-sea level using NAVD88). Based on the Team 4 survey, elevations of soil samples collected by G-Logics are presented in Table 1 (and presented on the cross section Figures 4 and 5, see Appendix F).

## **4.0 SITE EXPLORATION OBSERVATIONS AND FINDINGS**

A summary of the analytical results obtained during this exploration are described below. The analytical laboratory reports for the analyzed soil samples are attached as Appendix G of this report. Chain-of custody forms are also included in Appendix G.

### **4.1 Soil Boring Findings**

The borings generally encountered light brown silty sands and silt to the explored depths (15 to 25 feet). Petroleum odors and/or staining were noted in 3 of the 13 borings (GLB-2, GLB-4, and GLB-13). Please see Figure 3, 4, and 5 for soil samples locations, and Figures 4 and 5 for cross-sections presenting approximate soil sample depths. Analytical results for the collected soil samples are described below and summarized in Table 1.

#### ***4.1.1 Analytical Results, Petroleum Hydrocarbons***

Four of the analyzed soil samples contained detectable concentrations of GRO (GLB-1-20, GLB-2-15, GLB-2-20, and GLB-5-20, see Figures 3 and 4), but all at concentrations below cleanup levels. DRO and ORO were not detected at concentrations above the laboratory detection limits in any of the analyzed samples.

#### ***4.1.2 Analytical Results, BTEX***

BTEX compounds were not detected at concentrations above the laboratory detection limits in any of the analyzed samples.

### **4.2 Groundwater Discussion**

Groundwater was not encountered during our site exploration. Based on Ecology files for the ACRO 5810 site (Appendix E), groundwater beneath the ACRO property is understood to be at an approximate depth of 70 feet.

## 5.0 CONCLUSIONS

Information regarding the exploration findings and our conclusions concerning the presence of petroleum contamination on the Property is presented below.

- The completed borings generally encountered silty sands to the explored depths (15 to 25 feet).
- Evidence of immiscible petroleum product, sheens, or odors were noted in three of the G-Logics borings.
- GRO was detected in four of the analyzed soil samples, but at concentrations below the cleanup level.
- HRO, DRO, and BTEX compounds were not detected in the analyzed soil samples above the laboratory detection limits.
- Groundwater was not encountered during our site exploration to a depth of 25 feet.
- Groundwater is understood to be at depths greater than 70 feet below the ground surface (based on ACRO 5810 VCP site).
- Historically, the deepest PCS found on the Property was recorded at a depth of 14 feet (GRO, sample 101110-W-14).
- Deeper soil samples collected by G-Logics in the gasoline UST excavation area did not indicate the presences of petroleum contamination (Figure 4).
- Deeper soil samples collected by G-Logics in the used-oil UST excavation area did not indicate the presences of petroleum contamination (Figure 5).

## 6.0 OPINIONS AND RECOMMENDATIONS

Based on the observed field conditions and the analytical results of soil samples collected during our exploration efforts, further site characterization or site-remediation work for petroleum contaminants does not appear to be necessary. Specifically, this opinion is supported by the following information.

- Based on the analytical results from our recent exploration, it appears that significant petroleum contamination in soil does not remain on the Property.
- The understood vertical separation of the previously found petroleum contaminated soil and expected groundwater at the Property is approximately 56 feet (70 minus 14). Accordingly, the soil to groundwater contamination pathway should be considered incomplete.
- The soil gas to vapor-intrusion pathway also should be considered incomplete due to the documented lack of petroleum contamination in soil and absence of groundwater.

G-Logics recommends that this report be submitted to Ecology for their review and comment. If Ecology agrees with the presented findings and opinions of this report, we further recommend that Ecology be requested to provide an NFA.

## 7.0 LIMITATIONS

The scope of work on this project was presented in our identified workplan and subsequently approved by Frick & Frack and Ecology. Please be aware our scope of work was limited to those items specifically identified in the workplan. Other activities not specifically included in the presented scope of work (in a workplan, correspondence, or this report) are excluded and are therefore not part of our services.

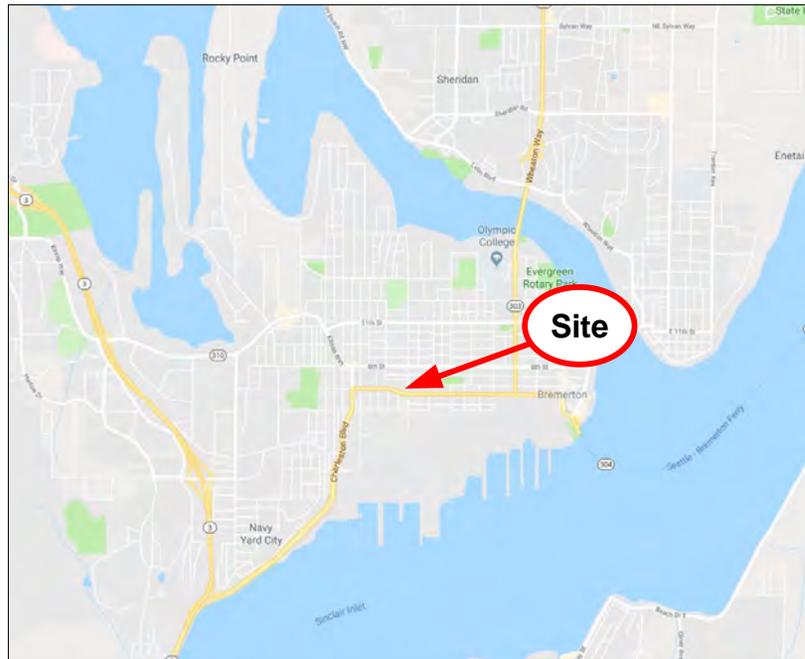
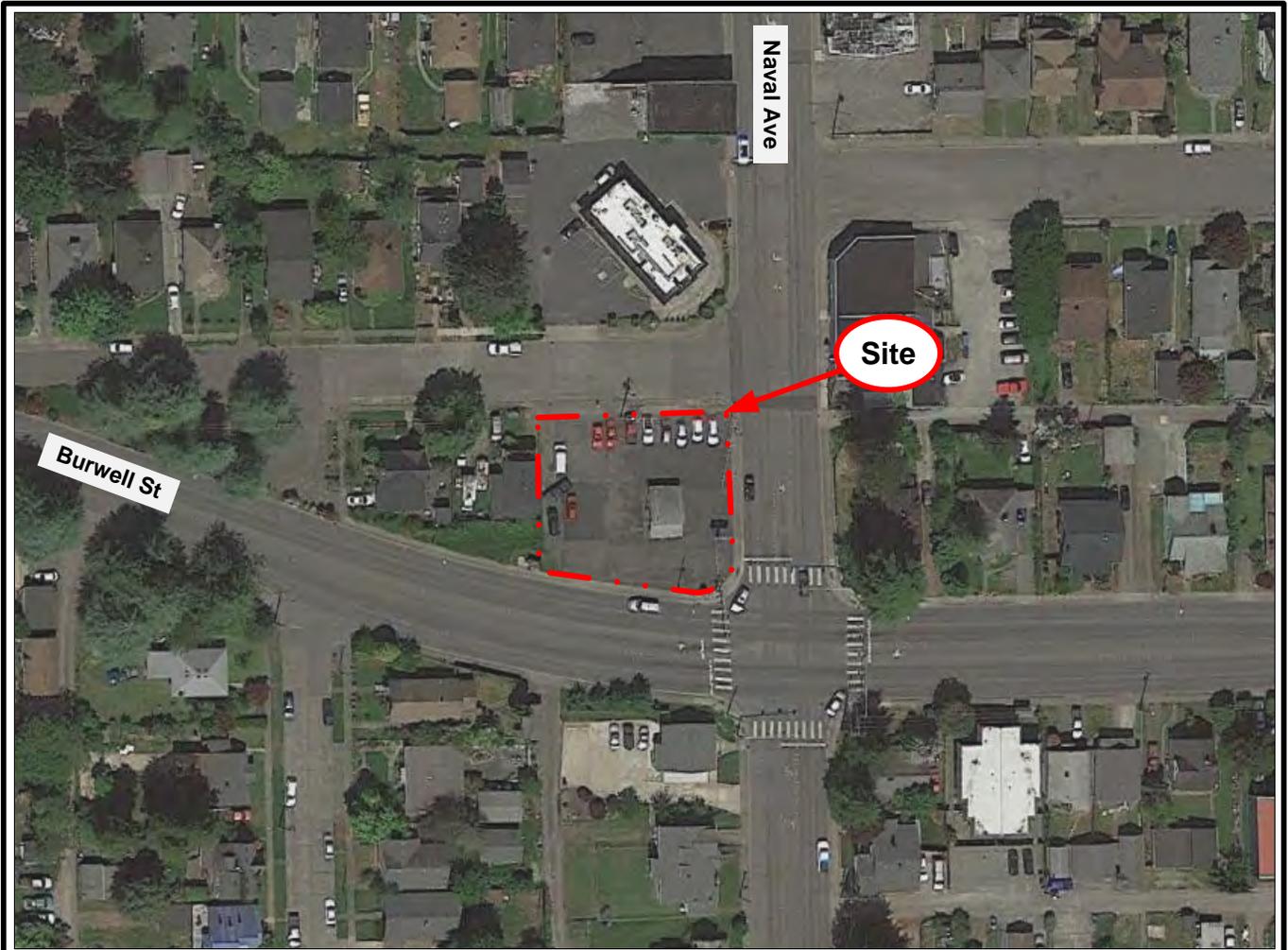
Land use, site conditions (both on-site and off-site), and other factors will change over time. Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings, and opinions can be considered valid only as of the date of the site visit.

The Property owner is solely responsible for notifying all governmental agencies and the public at large of the existence, release, treatment, or disposal of any hazardous materials identified at the project site. G-Logics assumes no responsibility or liability whatsoever for any claim, loss of Property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

This report is intended for the sole use of Frick and Frack, LLC (Users) and may not be appropriate for the needs of other parties. Re-use of this document or the findings, conclusions, or opinions presented herein, are at the sole risk of said party(s). Any party other than the identified Users who wish to receive a copy of this report shall notify G-Logics by executing the "Permission and Conditions for Use and Copying" form that follows this document. Based on the intended use of this report, G-Logics may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by anyone will release G-Logics from any liability resulting from the use of this report by any unauthorized party.

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# FIGURES



Project File: 01-1239-B.F1.vsd

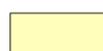
***g-logics***

**Site Location Maps**  
**L&E Auto Sales Property**  
**2101 Burwell Pl**  
**Bremerton, Washington**

**Figure**  
**1**



**Legend**

-  Property Boundary
-  Approximate Location of Hydraulic Lift
-  Understood Locations of Former USTs
-  Understood Locations of Former UST System Piping
-  Understood Locations of DLH Soil Borings (2010 Phase II Report)
-  Understood Locations of DLH Environmental UST Excavation Samples (2011 UST Decommissioning Report)
-  Understood Locations of DLH Environmental Excavation Confirmation Samples (2011 UST Decommissioning Report)
-  Understood Locations of EnviroSound Testpit Samples (2013 Final Cleanup Report)
-  G-Logics Boring Location (2019)
-  Understood Location of Former Garage
-  Approximate Location of Existing Building

**Notes: Presented feature locations are approximate. Boring and UST Locations are G-Logics Interpretations Based on DLH and EnviroSound Consulting Mapping.**

See Figure 4 for Details

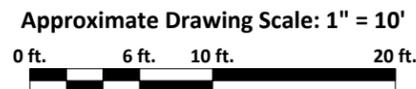
See Figure 5 for Details

Naval Avenue

B2  
⊕ (DLH 2010)

B3  
⊕ (DLH 2010)

Project File: 01-1239-B F2.vsd



Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

**Site Diagram, Exploration Locations**  
 L&E Auto Sales Property  
 2101 Burwell Pl  
 Bremerton, Washington

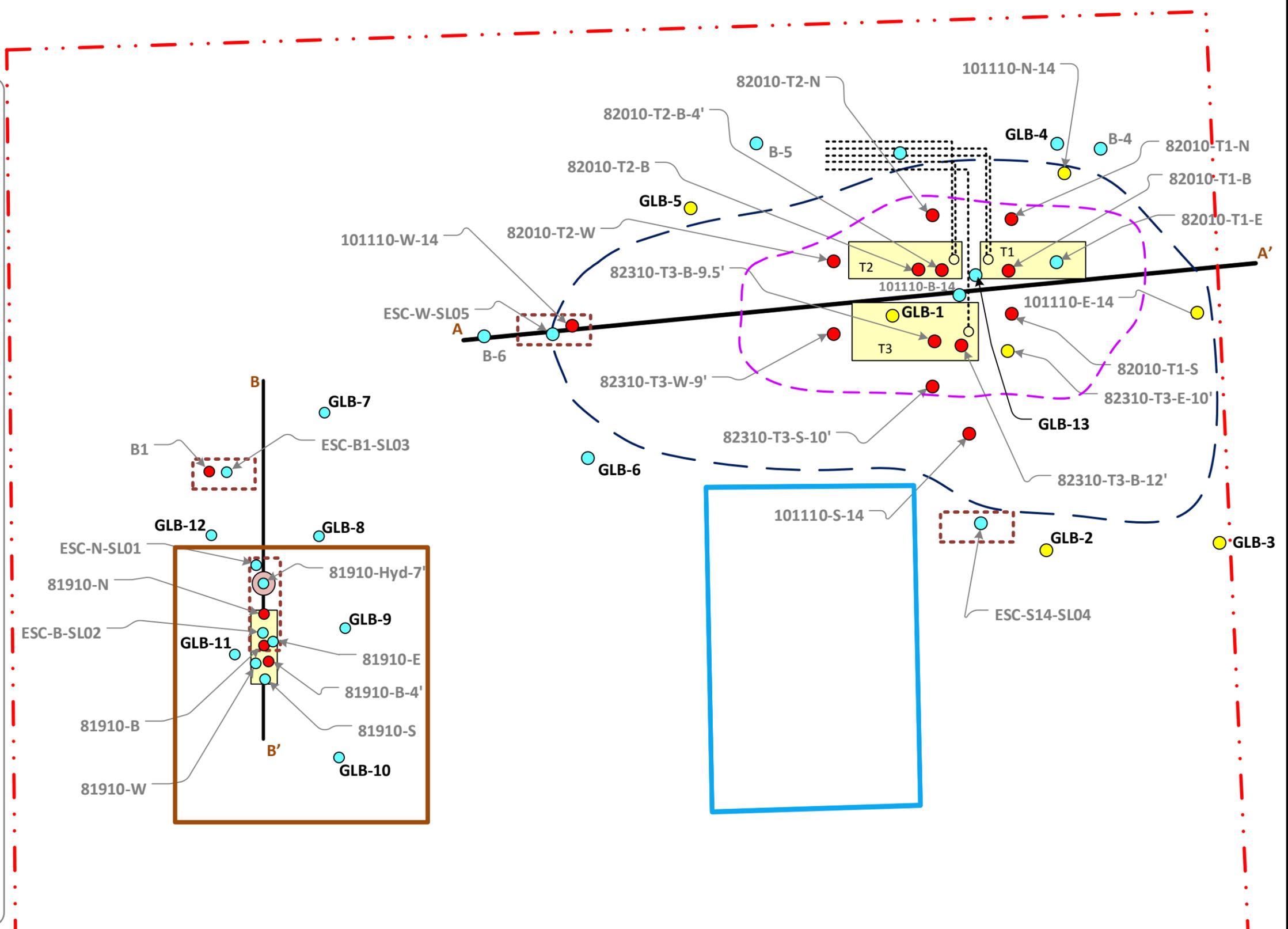
Figure  
2



**Legend**

- · - · - Property Line
- G-Logics Boring Locations
- Building Outline
- Approximate Location of Former USTs
- Approximate Location of Hydraulic Lift
- Soil Sample Location  
Petroleum Not Reported in Analyzed Sample
- Soil Sample Location  
Petroleum Present, but Below Method A Cleanup Level
- Soil Sample Location  
Petroleum Reported at Concentrations Greater than Method A Cleanup Level
- - - - - Understood Location of UST System Piping
- Initial Over Excavation
- Final Over Excavation
- Understood Testpit Location
- Understood Location of Former Garage
- Cross Section Line

Notes: Sampling and Excavation Locations are G-Logics Interpretations Based on DLH and EnviroSound Consulting Mapping.



Project File: 01-1239-B F3.vsd

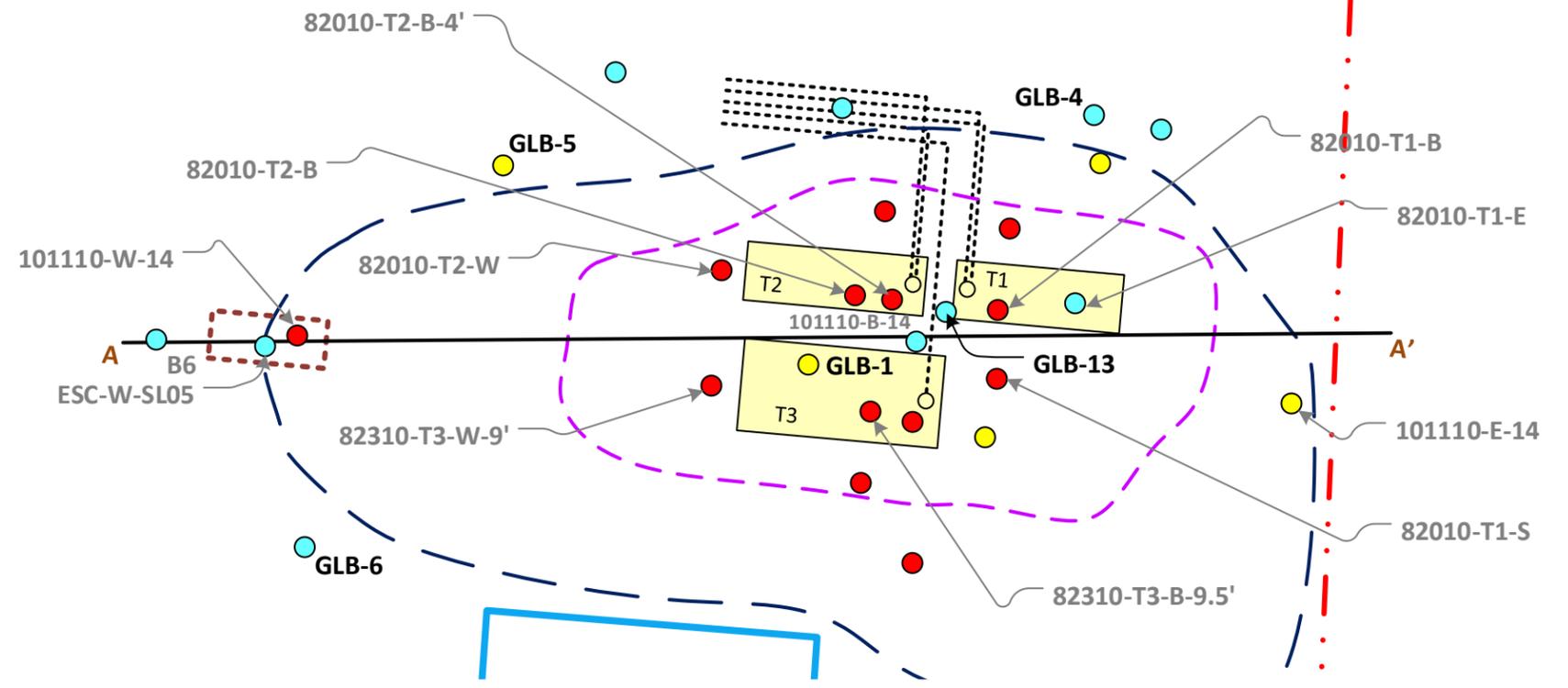


Approximate Drawing Scale: 1" = 10'  
0 ft. 6 ft. 10 ft. 20 ft.

Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

**Site Diagram, Excavation and Sampling Locations**  
L&E Auto Sales Property  
2101 Burwell PI  
Bremerton, Washington

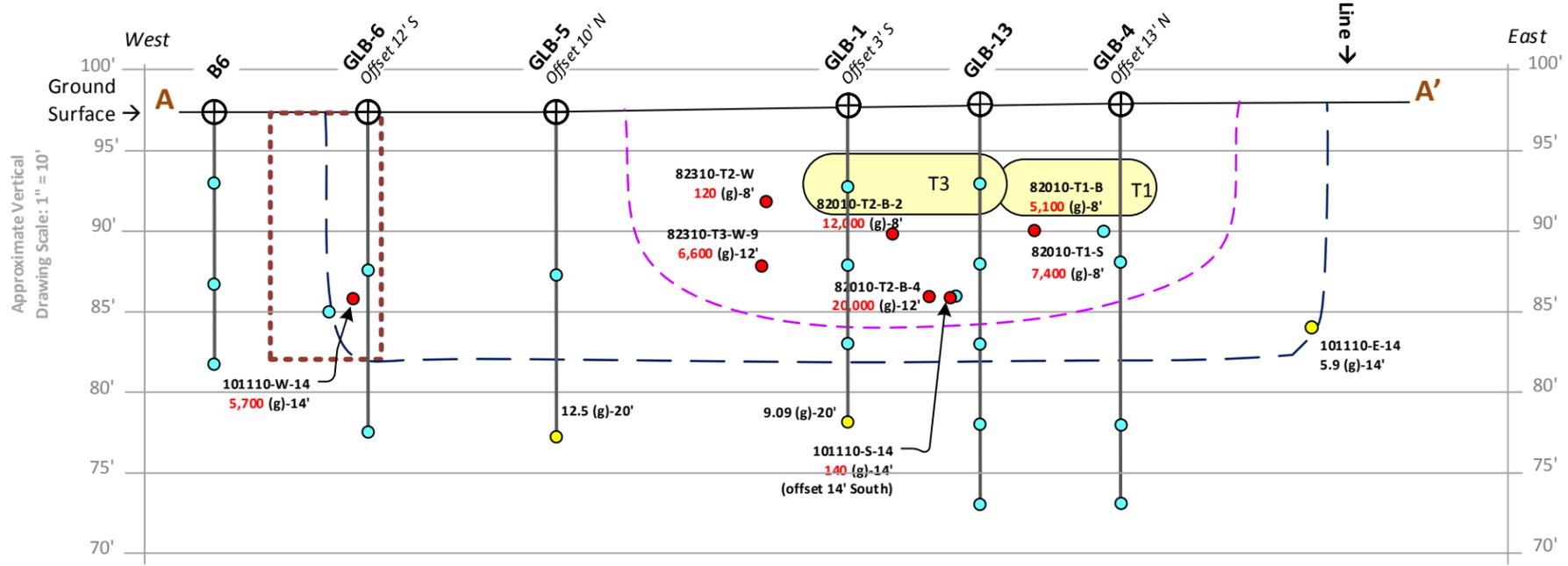
Figure  
**3**



### Legend

- . . - Property Line
- Building Outline
- Approximate Location of Former USTs
- Soil Sample Location  
Petroleum Not Reported in Analyzed Sample
- Soil Sample Location  
Petroleum Present, but Soil Below Method A Cleanup Level
- Soil Sample Location  
Petroleum Reported at Concentrations Greater than Method A Cleanup Level
- Understood Location of UST System Piping
- Understood Footprint of Initial Excavation
- Understood Footprint of Final Excavation
- Understood Testpit Location
- A A' ↗ Cross Section Line, Approximate Ground Surface

**Notes: Sampling and Excavation Locations are G-Logics Interpretations Based on DLH and EnviroSound Consulting Mapping. Only Borings Shown on Cross Section are Listed.**



### Sample Legend

- GLB-1 → Sample Identification
- nd - 5' → Sample Elevation (in feet)
- 25,000 (d) - 10' → Reported Concentration
- Gasoline (g), Diesel (d), Heavy Oil (h) Concentrations (mg/kg) (See Table 1 for complete list of results)
- 16,000 (g) - 16' → Reported Concentration

Project File: 01-1239-B F4.vsd

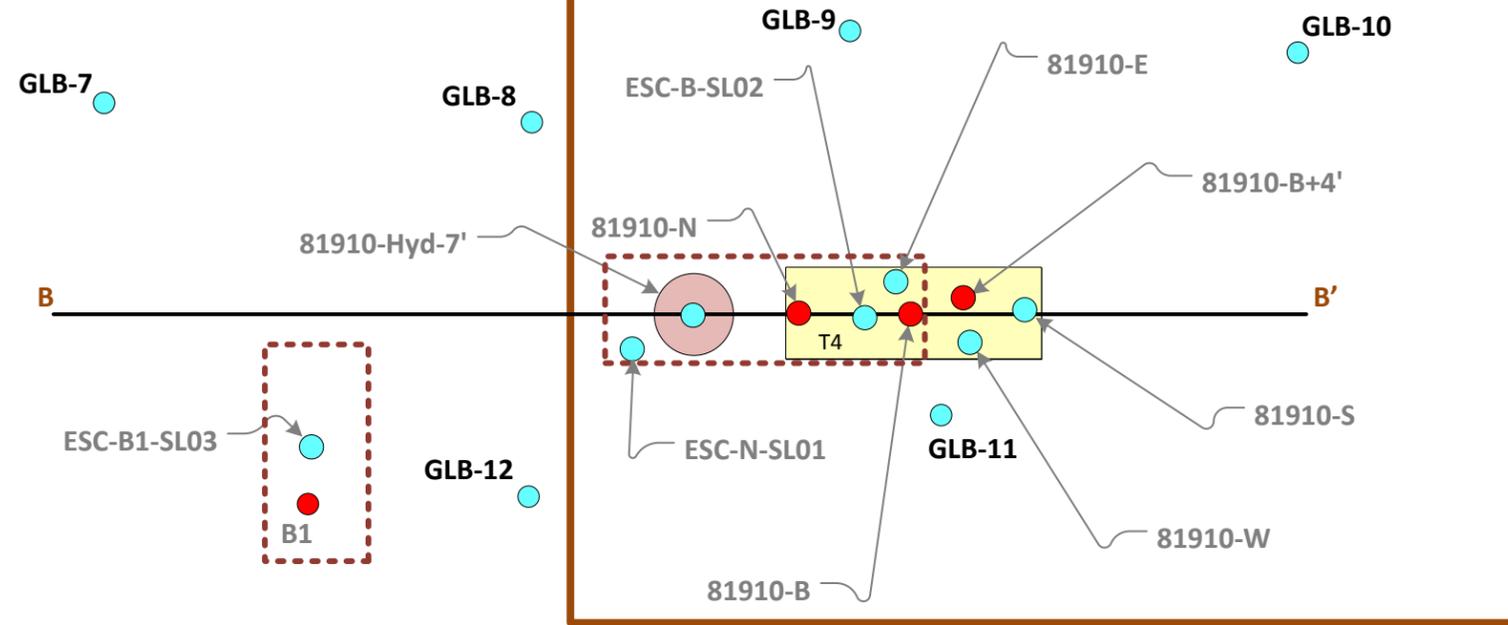


Approximate Drawing Scale: 1" = 10'  
 0 ft. 6 ft. 10 ft. 20 ft.

Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

**Northeast Area, Cross Section A to A'**  
**L&E Auto Sales Property**  
**2101 Burwell PI**  
**Bremerton, Washington**

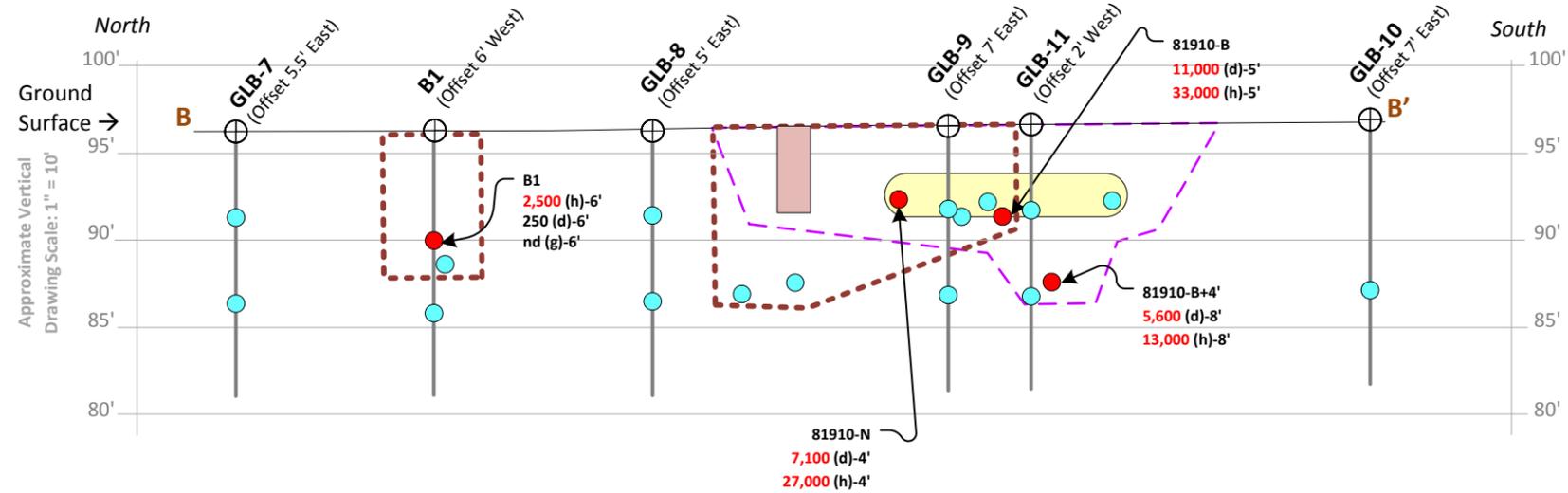
**Figure**  
**4**



### Legend

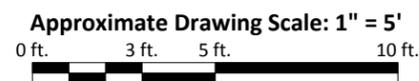
- Approximate Location of Former USTs
- Approximate Location of Hydraulic Lift
- Soil Sample Location  
Petroleum Not Reported in Analyzed Sample
- Soil Sample Location  
Petroleum Present, but Soil Below Method A Cleanup Level
- Soil Sample Location  
Petroleum Reported at Concentrations Greater than Method A Cleanup Level
- Assumed Footprint of Excavation
- Understood ESC Testpit Location
- Understood Location of Former Garage
- Cross Section Line, Approximate Ground Surface

**Notes: Sampling and Excavation Locations are G-Logics Interpretations Based on DLH and EnviroSound Consulting Mapping.**



### Sample Legend

- GLB-1 Sample Identification
- Sample Elevation (in feet)
- nd - 5' Reported Concentration
- Gasoline (g), Diesel (d), Heavy Oil (h) Concentrations (mg/kg)  
(See Table 1 for complete list of results)



Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

**West Area, Cross Section B to B'**  
 L&E Auto Sales Property  
 2101 Burwell PI  
 Bremerton, Washington

# **TABLES**

**TABLE 1**  
**Soil Sample Analyses**  
**L&E Auto Sales Property**  
**2101 Burwell Pl**  
**Bremerton, Washington**

Exploration Location	Sample Date	Sample Number	Surface Elevation (ft)	Sample Depth (ft)	Sample Elevation (ft)	PID Reading (ppmv) (1)	Gasoline Range Organics	Diesel Range Organics	Heavy-Oil Range Organics	Benzene	Toluene	Ethylbenzene	Xylenes	Lead
<b>MTCA Method A Cleanup Level</b> (units in mg/kg)						*	100(a)/30(b)	2,000	2,000	0.03	7	6	9	250
<b>DLH - PHASE II SAMPLES</b>														
<b>B1</b>	6/3/2010	B1-6	---	6	---	---	nd	250x	2,500	---	---	---	---	---
	6/3/2010	B1-10	---	10	---	---	nd	nd	nd	---	---	---	---	---
<b>B2</b>	6/3/2010	B2-15	---	15	---	---	nd	nd	nd	---	---	---	---	---
<b>B3</b>	6/3/2010	B3-15	---	15	---	---	nd	nd	nd	---	---	---	---	---
<b>B4</b>	6/3/2010	B4-15	---	15	---	---	nd	nd	nd	---	---	---	---	---
<b>B5</b>	6/3/2010	B5-15	---	15	---	---	nd	nd	nd	---	---	---	---	---
	6/3/2010	B5-20	---	20	---	---	nd	nd	nd	---	---	---	---	---
<b>B6</b>	6/3/2010	B6-3	---	3	---	---	nd	nd	nd	---	---	---	---	---
	6/3/2010	B6-10	---	10	---	---	nd	nd	nd	---	---	---	---	---
	6/3/2010	B6-15	---	15	---	---	nd	nd	nd	---	---	---	---	---
<b>DLH - UST Decommissioning Samples</b>														
<b>Waste Oil Tank (T4)</b>	8/19/2010	81910-N	---	4	---	---	---	7,100	27,000	---	---	---	---	---
	8/19/2010	81910-S	---	4	---	---	<50	<250	---	---	---	---	---	---
	8/19/2010	81910-E	---	4	---	---	<50	<250	---	---	---	---	---	---
	8/19/2010	81910-W	---	4	---	---	<50	<250	---	---	---	---	---	---
	8/19/2010	81910-B	---	5	---	---	---	11,000	33,000	---	---	---	---	---
	8/19/2010	81910-B+4	---	8	---	---	---	5,600	13,000	---	---	---	---	---
	8/19/2010	81910-Hyd-7'	---	8	---	---	<50	<250	---	---	---	---	---	---
<b>DLH - UST Decommissioning Samples (Continued)</b>														
<b>Gasoline Tank (T1)</b>	8/20/2010	82010-T1-B	---	8	---	---	5,100	---	---	<0.8	19	40	300	19.6
	8/20/2010	82010-T1-E	---	8	---	---	<2	---	---	<0.02	<0.02	<0.02	<0.06	---
	8/20/2010	82010-T1-N	---	8	---	---	4,900	---	---	<0.9	3.6	15	69	---
	8/20/2010	82010-T1-S	---	8	---	---	7,400	---	---	<0.9	15	36	280	---
	Pipes associated with T1 and T2	8/20/2010	82010-Pipes	---	---	---	<2	---	---	<0.02	<0.02	<0.02	<0.06	---

**TABLE 1**  
**Soil Sample Analyses**  
**L&E Auto Sales Property**  
**2101 Burwell Pl**  
**Bremerton, Washington**

Exploration Location	Sample Date	Sample Number	Surface Elevation (ft)	Sample Depth (ft)	Sample Elevation (ft)	PID Reading (ppmv) (1)	Gasoline Range Organics	Diesel Range Organics	Heavy Oil Range Organics	Benzene	Toluene	Ethylbenzene	XYlenes	Lead
<b>MTCA Method A Cleanup Level</b>						*	100(a)/30(b)	2,000	2,000	0.03	7	6	9	250
<i>(units in mg/kg)</i>														
<b>Gasoline Tank (T2)</b>	8/20/2010	82010-T2-N	---	8	---	---	8,700	---	---	6	92	100	720	---
	8/20/2010	82010-T2-B-2	---	8	---	---	12,000	---	---	1.5	120	110	790	18.3
	8/20/2010	82010-T2-W	---	8	---	---	120	---	---	<0.02	0.15	0.32	2.0	---
	8/20/2010	82010-T2-B-4	---	12	---	---	20,000	---	---	3.4	460	290	2000	---
<b>Gasoline Tank (T3)</b>	8/23/2010	82310-T3-B-9.5	---	9.5	---	---	6,600	---	---	<2	93	120	790	---
	8/23/2010	82310-T3-B-12	---	12	---	---	32	---	---	0.09	1.6	0.80	4.6	---
	8/23/2010	82310-T3-W-9	---	12	---	---	6,600	---	---	9.10	320	170	1100	19.6
	8/23/2010	82310-T3-S-10	---	10	---	---	8,900	---	---	<2	49	100	830	---
	8/23/2010	82310-T3-E-10	---	10	---	---	15	---	---	<0.02	0.75	0.11	0.75	---
Pipes associated with T3														
<b>Tank Excavation (T1, T2, T3)</b>	10/11/2010	101110-B-14	---	14	---	---	<5	---	---	<0.02	<0.02	<0.02	<0.06	---
	10/11/2010	101110-S-14	---	14	---	---	140	---	---	<0.02	0.35	0.47	4.3	---
	10/11/2010	101110-N-14	---	14	---	---	3	---	---	<0.02	<0.02	<0.02	<0.06	---
	10/11/2010	101110-E-14	---	14	---	---	5.9	---	---	<0.02	<0.02	0.042	0.43	---
	10/11/2010	101110-W-14	---	14	---	---	5,700	---	---	<2	68	72	420	---
<b>EnviroSound Consulting Samples</b>														
<b>Former Hydraulic Lift</b>	2/22/2013	ESC-E002-N-SL01	---	9	---	---	---	<25	<50	---	---	---	---	---
<b>Former Waste Oil UST</b>	2/22/2013	ESC-E002-B-SL02	---	5	---	---	---	<25	<50	---	---	---	---	---
<b>Garage ESC-B1</b>	3/28/2013	ESC-E002-B1-SL03	---	7	---	---	---	<25	<50	---	---	---	---	---
<b>South USTs</b>	3/28/2013	ESC-E002-S14-SL4	---	15	---	---	<3.0	---	---	<0.030	<0.050	<0.050	<0.20	---
<b>West USTs</b>	3/28/2013	ESC-E002-W-SL5	---	15	---	---	<3.0	---	---	<0.030	<0.050	<0.050	<0.20	---

**TABLE 1**  
**Soil Sample Analyses**  
**L&E Auto Sales Property**  
**2101 Burwell Pl**  
**Bremerton, Washington**

Exploration Location	Sample Date	Sample Number	Surface Elevation (ft)	Sample Depth (ft)	Sample Elevation (ft)	PID Reading (ppmv) (1)	Gasoline Range Organics	Diesel Range Organics	Heavy-Oil Range Organics	Benzene	Toluene	Ethylbenzene	Xylenes	Lead
<b>MTCA Method A Cleanup Level</b>						*	100(a)/30(b)	2,000	2,000	0.03	7	6	9	250
<b>(units in mg/kg)</b>														
<b>G-Logics Samples</b>														
<b>GLB-1</b>	5/21/2019	GLB-1-5	97.46	5	92.46	0.0	<5.46	---	---	<0.0218	<0.0218	<0.0273	0.0819	---
	5/21/2019	GLB-1-10		10	87.46	0.0	<5.67	---	---	<0.0227	<0.0227	<0.0284	<0.0851	---
	5/21/2019	GLB-1-15		15	82.46	0.0	<4.93	---	---	<0.0197	<0.0197	<0.0246	<0.0493	---
	5/21/2019	GLB-1-20		20	77.46	0.0	<b>9.09 (2)</b>	---	---	<0.0184	<0.0184	<0.0230	<0.0460	---
<b>GLB-2</b>	5/21/2019	GLB-2-5	98.16	5	93.16	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-2-10		10	88.16	24	<6.37	---	---	<0.0255	<0.0255	<0.0319	<0.0637	---
	5/21/2019	GLB-2-15		15	83.16	0.0	<b>8.24 (2)</b>	---	---	<0.0229	<0.0229	<0.0286	<0.0572	---
	5/21/2019	GLB-2-20		20	78.16	0.0	<b>5.80 (2)</b>	---	---	<0.0206	<0.0206	<0.0258	<0.0516	---
<b>GLB-3</b>	5/21/2019	GLB-3-5	98.7	5	93.7	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-3-10		10	88.7	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-3-15		15	83.7	0.0	<6.17	---	---	<0.0247	<0.0247	<0.0309	<0.0617	---
	5/21/2019	GLB-3-20		20	78.7	0.0	---	---	---	---	---	---	---	---
<b>GLB-4</b>	5/21/2019	GLB-4-5	97.68	5	92.68	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-4-10		10	87.68	0.0	<7.85	---	---	<0.0314	<0.0314	<0.0393	<0.0785	---
	5/21/2019	GLB-4-15		15	82.68	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-4-20		20	77.68	5.1	<5.96	---	---	<0.0239	<0.0239	<0.0298	<0.0596	---
	5/21/2019	GLB-4-25		25	72.68	0.0	<5.53	---	---	<0.0221	<0.0221	<0.0277	<0.0553	---
<b>GLB-5</b>	5/21/2019	GLB-5-5	96.91	5	91.91	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-5-10		10	86.91	0.0	<5.79	---	---	<0.0232	<0.0232	<0.0290	<0.0579	---
	5/21/2019	GLB-5-15		15	81.91	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-5-20		20	76.91	0.0	<b>12.5 (2)</b>	---	---	<0.0216	<0.0216	<0.0270	<0.0540	---
<b>GLB-6</b>	5/21/2019	GLB-6-5	96.99	5	91.99	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-6-10		10	86.99	0.0	<6.15	---	---	<0.0246	<0.0246	<0.0307	<0.0615	---
	5/21/2019	GLB-6-15		15	81.99	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-6-20		20	76.99	0.0	<5.44	---	---	<0.0218	<0.0218	<0.0272	<0.0544	---
<b>GLB-7</b>	5/21/2019	GLB-7-5	96.24	5	91.24	0.0	---	<22.8	<56.9	---	---	---	---	---
	5/21/2019	GLB-7-10		10	86.24	0.0	---	<24.0	<59.9	---	---	---	---	---
	5/21/2019	GLB-7-15		15	81.24	0.0	---	---	---	---	---	---	---	---
<b>GLB-8</b>	5/21/2019	GLB-8-5	96.51	5	91.51	0.0	---	<25.1	<62.8	---	---	---	---	---
	5/21/2019	GLB-8-10		10	86.51	0.0	---	<22.4	<56.1	---	---	---	---	---
	5/21/2019	GLB-8-15		15	81.51	0.0	---	---	---	---	---	---	---	---

**TABLE 1**  
**Soil Sample Analyses**  
**L&E Auto Sales Property**  
**2101 Burwell Pl**  
**Bremerton, Washington**

Exploration Location	Sample Date	Sample Number	Surface Elevation (ft)	Sample Depth (ft)	Sample Elevation (ft)	PID Reading (ppmv) (1)	Gasoline Range Organics	Diesel Range Organics	Heavy-Oil Range Organics	Benzene	Toluene	Ethylbenzene	XYlenes	Lead
<b>MTCA Method A Cleanup Level</b> (units in mg/kg)						*	100(a)/30(b)	2,000	2,000	0.03	7	6	9	250
<b>GLB-9</b>	5/21/2019	GLB-9-5	96.81	5	91.81	0.0	---	<23.8	<59.5	---	---	---	---	---
	5/21/2019	GLB-9-10		10	86.81	0.0	---	<22.6	<56.5	---	---	---	---	---
	5/21/2019	GLB-9-15		15	81.81	0.0	---	---	---	---	---	---	---	---
<b>GLB-10</b>	5/21/2019	GLB-10-5	97.22	5	92.22	0.0	---	---	---	---	---	---	---	---
	5/21/2019	GLB-10-10		10	87.22	0.0	---	<23.2	<58.1	---	---	---	---	---
	5/21/2019	GLB-10-15		15	82.22	0.0	---	---	---	---	---	---	---	---
<b>GLB-11</b>	5/21/2019	GLB-11-5	96.87	5	91.87	0.0	---	<25.4	<63.6	---	---	---	---	---
	5/21/2019	GLB-11-10		10	86.87	0.0	---	<23.7	<59.4	---	---	---	---	---
	5/21/2019	GLB-11-15		15	81.87	0.0	---	---	---	---	---	---	---	---
<b>GLB-12</b>	5/21/2019	GLB-12-5	96.32	5	91.32	0.0	---	<25.0	<62.6	---	---	---	---	---
	5/21/2019	GLB-12-10		10	86.32	0.0	---	<23.4	<58.5	---	---	---	---	---
	5/21/2019	GLB-12-15		15	81.32	0.0	---	---	---	---	---	---	---	---
<b>GLB-13</b>	5/21/2019	GLB-13-5	97.62	5	92.62	0.0	<7.15	---	---	<0.0286	<0.0286	<0.0358	0.1073	---
	5/21/2019	GLB-13-10		10	87.62	0.0	<6.10	---	---	<0.0244	<0.0244	<0.0305	0.0915	---
	5/21/2019	GLB-13-15		15	82.62	0.0	<5.13	---	---	<0.0215	<0.0215	<0.0269	<0.0807	---
	5/21/2019	GLB-13-20		20	77.62	0.5	<6.72	---	---	<0.0269	<0.0269	<0.0336	<0.0672	---
	5/21/2019	GLB-13-25		25	72.62	0.0	<4.75	---	---	<0.0190	<0.0190	<0.0238	<0.0475	---

Notes: Refer to site diagram(s) for sampling locations. Refer to laboratory reports for analytical methods.

(1) Soil samples were field screened using a PID to measure VOCs. Headspace VOC concentrations were measured after placing the soil in a sealed plastic bag and allowing soil and air inside the bag to equilibrate.

(2) Indicates the presence of unresolved compounds eluting from hexane to dodecane (-C6-C12). Chromatographic pattern does not represent a known petroleum distillate.

(a) Soil Cleanup Level for Gasoline with no detectable benzene in the soil.

(b) Soil Cleanup Level for Gasoline with detectable benzene in the soil.

--- Data Not Available or Sample not analyzed.

nd Not Detected (data gathered from historical reports, lab analysis reporting limits not available).

<1.07 The analyte was not detected at a concentration above the indicated reporting limit.

**12.0** Bold Number(s) indicates contaminant detected.

**419** Bold Number(s) and Yellow Shading indicates concentration exceeds applicable screening level.

<4.25 Laboratory reporting limit is higher than referenced Cleanup Levels.

X The sample chromatographic pattern does not resemble the fuel standard used for quantification.

# **APPENDIX A**

**From:** [Warfel, Michael \(ECY\)](#)  
**To:** [Haley Carter](#)  
**Cc:** [david kessler](#); [Dan Hatch](#)  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)  
**Date:** Friday, May 17, 2019 2:03:52 PM

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Hello Haley:

I am responding to your email regarding the *Workplan to Conduct a Subsurface Investigation, L&E Auto Sales Property, 2101 Burwell Place, Bremerton, WA*, dated April 24, 2019, and prepared by G-Logics on behalf of the Site owner.

In the interest of keeping with your schedule for conducting the field work described in the Workplan, and based on the description of the Workplan that you and Dan provided at our April 23, 2019 meeting at Ecology in Bellevue, please accept this email as concurrence that the Workplan is a positive step towards addressing issues identified in the 3/9/2018 Ecology opinion letter and completing Site characterization. This will be confirmed by me in an opinion letter, per the VCP opinion letter request dated April 24, 2019, which I plan to complete before the Ecology 90-day response goal of July 24, 2019.

Based on my initial review of the Workplan, I have the following comments:

- The elevation survey should be conducted by a licensed land surveyor and referenced to the North American Vertical Datum of 1988 (NAVD88). This vertical datum should be used on all geologic cross sections in future Site reports.
- Note that the diesel and oil fractions of the NWTPH-Dx analysis need to be added together for comparison to the Method A cleanup level of 2,000 mg/kg, per *Implementation Memorandum #4, Determining Compliance with Method A Cleanup Levels for Diesel and Heavy Oil, Publication No. 04-09-086, June 2004*, and *Guidance for Remediation of Petroleum Contaminated Sites, Publication No. 10-09-057, revised June 2016*.

Feel free to contact me during the Site investigation and report preparation stages of the project if you have questions or need clarification regarding Site cleanup requirements under the Model Toxics Control Act (MTCA) regulation.

Ecology appreciates your efforts in pursuing Site cleanup through the Voluntary Cleanup Program.

Mike

*Michael R. (Mike) Warfel, LG, LHG, RG  
Site Manager, Voluntary Cleanup Program  
State of Washington, Department of Ecology  
NW Regional Office/Toxics Cleanup Program  
3190 160th Ave SE  
Bellevue WA 98008*

Phone: 425-649-7257

Fax: 425-649-7098

[michael.warfel@ecy.wa.gov](mailto:michael.warfel@ecy.wa.gov)

---

**From:** Haley Carter <HaleyC@g-logics.com>

**Sent:** Friday, May 17, 2019 12:53 PM

**To:** Warfel, Michael (ECY) <MWAR461@ECY.WA.GOV>

**Cc:** david kessler <entkessler@gmail.com>; Dan Hatch <danh@g-logics.com>

**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Hi Mike,

I wanted to check in before drilling to see if you have any questions or comments on the workplan for L&E. Drilling begins Tuesday, May 21<sup>st</sup>.

Thanks!

**Haley Carter** | Staff Geologist

Cell: 248-924-1991 | [HaleyC@G-Logics.com](mailto:HaleyC@G-Logics.com)

**G-Logics, Inc.** | 40 2<sup>nd</sup> Avenue SE | Issaquah, WA 98027-3452

Office: 425-391-6874 | Fax: 425-313-3074 | [www.G-Logics.com](http://www.G-Logics.com)



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---

**From:** Warfel, Michael (ECY) [<mailto:MWAR461@ECY.WA.GOV>]

**Sent:** Thursday, April 25, 2019 12:27 PM

**To:** Haley Carter

**Cc:** david kessler; Dan Hatch

**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Received; thank you.

*Michael R. (Mike) Warfel, LG, LHG, RG  
Site Manager, Voluntary Cleanup Program  
State of Washington, Department of Ecology  
NW Regional Office/Toxics Cleanup Program  
3190 160th Ave SE  
Bellevue WA 98008  
Phone: 425-649-7257  
Fax: 425-649-7098  
[michael.warfel@ecy.wa.gov](mailto:michael.warfel@ecy.wa.gov)*

---

**From:** Haley Carter <[HaleyC@g-logics.com](mailto:HaleyC@g-logics.com)>

**Sent:** Thursday, April 25, 2019 12:25 PM

**To:** Warfel, Michael (ECY) <[MWAR461@ECY.WA.GOV](mailto:MWAR461@ECY.WA.GOV)>  
**Cc:** david kessler <[entkessler@gmail.com](mailto:entkessler@gmail.com)>; Dan Hatch <[danh@g-logics.com](mailto:danh@g-logics.com)>  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Hi Mike,

Here is the Opinion Request form.

**Regards,**

**Haley Carter** | Staff Geologist  
Cell: 248-924-1991 | [HaleyC@G-Logics.com](mailto:HaleyC@G-Logics.com)

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---

**From:** Warfel, Michael (ECY) [<mailto:MWAR461@ECY.WA.GOV>]  
**Sent:** Thursday, April 25, 2019 8:13 AM  
**To:** Haley Carter  
**Cc:** david kessler; Dan Hatch  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Hi Haley:

Thanks for the work plan. Please email a completed VCP Opinion Request form (see <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-process/Cleanup-options/Voluntary-cleanup-program> ).

Mike

*Michael R. (Mike) Warfel, LG, LHG, RG  
Site Manager, Voluntary Cleanup Program  
State of Washington, Department of Ecology  
NW Regional Office/Toxics Cleanup Program  
3190 160th Ave SE  
Bellevue WA 98008  
Phone: 425-649-7257  
Fax: 425-649-7098  
[michael.warfel@ecy.wa.gov](mailto:michael.warfel@ecy.wa.gov)*

---

**From:** Haley Carter <[HaleyC@g-logics.com](mailto:HaleyC@g-logics.com)>  
**Sent:** Wednesday, April 24, 2019 5:49 PM  
**To:** Warfel, Michael (ECY) <[MWAR461@ECY.WA.GOV](mailto:MWAR461@ECY.WA.GOV)>

**Cc:** david kessler <[entkessler@gmail.com](mailto:entkessler@gmail.com)>; Dan Hatch <[danh@g-logics.com](mailto:danh@g-logics.com)>  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Hi Mike,

We have converted our scope of work (described in the report) into a workplan for your review. Please let us know if you have any questions or comments.

**Regards,**

**Haley Carter** | Staff Geologist  
Cell: 248-924-1991 | [HaleyC@G-Logics.com](mailto:HaleyC@G-Logics.com)

**G-Logics, Inc.** | 40 2<sup>nd</sup> Avenue SE | Issaquah, WA 98027-3452  
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---

**From:** Dan Hatch  
**Sent:** Wednesday, April 10, 2019 9:48 AM  
**To:** Warfel, Michael (ECY) <[MWAR461@ECY.WA.GOV](mailto:MWAR461@ECY.WA.GOV)>  
**Cc:** david kessler <[entkessler@gmail.com](mailto:entkessler@gmail.com)>; Haley Carter <[HaleyC@g-logics.com](mailto:HaleyC@g-logics.com)>  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Thanks

**Dan Hatch** | Remediation Manager  
253-951-2024 | [Danh@G-Logics.com](mailto:Danh@G-Logics.com)

**Do justly, love mercifully, walk humbly. This is enough. – John Adams**

**G-Logics, Inc.** | 40 2<sup>nd</sup> Avenue SE | Issaquah, WA 98027-3452  
Office: 425-391-6874 | Fax: 425-313-3074 | [www.G-Logics.com](http://www.G-Logics.com)



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---

**From:** Warfel, Michael (ECY) [<mailto:MWAR461@ECY.WA.GOV>]  
**Sent:** Wednesday, April 10, 2019 9:45 AM  
**To:** Dan Hatch <[danh@g-logics.com](mailto:danh@g-logics.com)>  
**Cc:** david kessler <[entkessler@gmail.com](mailto:entkessler@gmail.com)>; Haley Carter <[HaleyC@g-logics.com](mailto:HaleyC@g-logics.com)>  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Done; see updated appointment.

Michael R. (Mike) Warfel, LG, LHG, RG  
Site Manager, Voluntary Cleanup Program  
State of Washington, Department of Ecology  
NW Regional Office/Toxics Cleanup Program  
3190 160th Ave SE  
Bellevue WA 98008  
Phone: 425-649-7257  
Fax: 425-649-7098  
[michael.warfel@ecy.wa.gov](mailto:michael.warfel@ecy.wa.gov)

---

**From:** Dan Hatch <[danh@g-logics.com](mailto:danh@g-logics.com)>  
**Sent:** Wednesday, April 10, 2019 9:42 AM  
**To:** Warfel, Michael (ECY) <[MWAR461@ECY.WA.GOV](mailto:MWAR461@ECY.WA.GOV)>  
**Cc:** david kessler <[entkessler@gmail.com](mailto:entkessler@gmail.com)>; Haley Carter <[HaleyC@g-logics.com](mailto:HaleyC@g-logics.com)>  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Hi Mike, would you please add David to the invite for our meeting on the 23<sup>rd</sup>.

Cheers

**Dan Hatch** | Remediation Manager  
253-951-2024 | [Danh@G-Logics.com](mailto:Danh@G-Logics.com)

**Do justly, love mercifully, walk humbly. This is enough. – John Adams**

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---

**From:** Dan Hatch  
**Sent:** Wednesday, April 10, 2019 8:22 AM  
**To:** Warfel, Michael (ECY) <[MWAR461@ECY.WA.GOV](mailto:MWAR461@ECY.WA.GOV)>  
**Cc:** david kessler <[entkessler@gmail.com](mailto:entkessler@gmail.com)>; Haley Carter <[HaleyC@g-logics.com](mailto:HaleyC@g-logics.com)>  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Good morning Mike,

Thanks for getting back so quickly. Let's plan on Tuesday the 23<sup>rd</sup> at 10. Haley Carter and I will plan on meeting you at your office.

Cheers

**Dan Hatch** | Remediation Manager  
253-951-2024 | [Danh@G-Logics.com](mailto:Danh@G-Logics.com)

**Do justly, love mercifully, walk humbly. This is enough. – John Adams**

**G-Logics, Inc.** | 40 2<sup>nd</sup> Avenue SE | Issaquah, WA 98027-3452  
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---

**From:** Warfel, Michael (ECY) [<mailto:MWAR461@ECY.WA.GOV>]  
**Sent:** Wednesday, April 10, 2019 8:06 AM  
**To:** Dan Hatch <[danh@g-logics.com](mailto:danh@g-logics.com)>  
**Cc:** david kessler <[entkessler@gmail.com](mailto:entkessler@gmail.com)>; Haley Carter <[HaleyC@g-logics.com](mailto:HaleyC@g-logics.com)>  
**Subject:** RE: Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Hello Dan:

Thank you for the email and data review/summary regarding this Site. I am available for a phone call or meeting at Ecology as follows:

April 15, 18, 19, and 25: after 12 PM  
April 23 and 30: 8 AM – 4 PM

Let me know what works for your team.

Mike

*Michael R. (Mike) Warfel, LG, LHG, RG  
Site Manager, Voluntary Cleanup Program  
State of Washington, Department of Ecology  
NW Regional Office/Toxics Cleanup Program  
3190 160th Ave SE  
Bellevue WA 98008  
Phone: 425-649-7257  
Fax: 425-649-7098  
[michael.warfel@ecy.wa.gov](mailto:michael.warfel@ecy.wa.gov)*

---

**From:** Dan Hatch <[danh@g-logics.com](mailto:danh@g-logics.com)>  
**Sent:** Tuesday, April 9, 2019 2:32 PM  
**To:** Warfel, Michael (ECY) <[MWAR461@ECY.WA.GOV](mailto:MWAR461@ECY.WA.GOV)>  
**Cc:** david kessler <[entkessler@gmail.com](mailto:entkessler@gmail.com)>; Haley Carter <[HaleyC@g-logics.com](mailto:HaleyC@g-logics.com)>  
**Subject:** Proposed Characterization for L&E Auto NW2785 (01-1239-A)

Hi Mike,

At the request of Mr. Kessler, G-Logics has reviewed several documents related to previously conducted environmental effort on the L&E Auto property located at 2101 Burwell Place, in Bremerton. With our review, we identified several data gaps that in our opinion require additional information. Our proposed efforts are intended to complete these data gaps in order to develop a path to site closure (no further action).

We would like to ask for your review and comment on our summary, specifically regarding the proposed efforts. Is this something that we could have conversation over in the next couple of weeks? Happy to meet at your offices or get on call.

Cheers and thank you.

**Dan Hatch** | Remediation Manager  
253-951-2024 | [Danh@G-Logics.com](mailto:Danh@G-Logics.com)

**Do justly, love mercifully, walk humbly. This is enough. – John Adams**

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# **APPENDIX B**

**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
ACTIVITIES**

**L&E AUTO SALES  
2101 BURWELL PLACE  
BREMERTON, WASHINGTON 98132**

**SUBMITTED TO:**

**HARRY B. ROMBERG  
11538 17<sup>TH</sup> AVENUE NE  
SEATTLE, WASHINGTON 98125**

**PREPARED BY:**

**DONNA HEWITT, L.G.  
DLH ENVIRONMENTAL CONSULTING  
2400 NW 80<sup>TH</sup> STREET No. 114  
SEATTLE, WASHINGTON 98117-4449**

**JUNE 17, 2010**

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## APPENDICES

    APPENDIX A: Site Map, Site Sketch, Site Photographs

    APPENDIX B: Laboratory Reports, Chain of Custody Forms

## **1.0 PROJECT DESCRIPTION/SCOPE OF WORK**

On June 3, 2010, Donna Hewitt of DLH Environmental Consulting (DLH) conducted a Phase II Site Assessment of the subject property located at 2101 Burwell Place in Bremerton, Washington.

The scope of work for this study was to access the subsurface soil and water (if applicable) by advancing a Geoprobe into the subsurface soil in six locations around the perimeter of the property. Ten soil samples were collected. Sample collection was conducted using a truck mounted Geoprobe. A site sketch showing locations of the borings is provided in Appendix A.

Geoprobe activities were completed by Cascade Drilling of Woodenville, Washington. Laboratory analysis was conducted by Friedman & Bruyah, Inc of Seattle, Washington.

### **1.1 Background**

Previous historical evaluations identified the potential presence of a three-pump island gas station on the property. No evidence for the removal of the tanks was found; however, all three pump islands have been removed. Currently there is one waste oil tank (500-1000 gallon) located on the southwest corner of the property in a garage.

## **2.0 METHODS OF INVESTIGATION**

DLH collected soil and water samples with a Geoprobe. This process involves driving a large-bore steel soil sampler (sealed piston sampler) to the required depth, then opening the sampler to advance a core (1.125" diameter) sampler, which collects soil samples. The soil samples were collected in 4-foot plastic sampling tubes. The soil was removed from the tubes and transferred directly into sterilized glassware sample jars furnished by the project laboratory.

No groundwater was found in any of the borings. The bore was advanced to 20 feet below ground level.

In an effort to minimize the loss of any volatile hydrocarbons that may have been present in the soil, the samples were stored in an iced chest until delivered to the laboratory.

All EPA-established sample-handling protocols, including chain of custody procedures, were observed during the course of the project. Laboratory results and chain of custody forms are located in Appendix B.

### **3.0 RESULTS OF INVESTIGATION**

#### **3.1 Soil Conditions**

Subsurface native soils consisted of brown, very gravelly loam intermixed with grayish brown sandy loam. Some imported backfill materials were noted in Borings 2 and 3 (from 1 to 3 feet below ground level), which are most likely due to the road building along Burwell Street.

#### **3.2 Groundwater**

Groundwater was not encountered.

#### **3.3 Hydrocarbon Testing**

Soil samples were collected from each boring and tested for hydrocarbon identification using Method NWTPH-HCID. One sample (B1-6) was found to have diesel or heavy oil and subsequently that sample was analyzed using Method NWTPH-Dx. The results of laboratory analysis are presented in Table A. Laboratory reports are located in Appendix B.

Current Washington State Department of Ecology (WDOE) cleanup levels for diesel in soil using Method A are as follows:

Diesel and Heavy Oil      2000 ppm

(Taken from Model Toxics Control Act (MTCA) 173-360-900 Table 740-1 (soil) and Table 720-1)

**TABLE A**  
**Soil Sample Analytical Results**

Sample Number	Location	Analytical Method	Results
B1-6	Boring 1, at 6 ft below ground level (bgl)	NWTPH-HCID NWTPH-Dx	Heavy oil detected 2500 ppm
B1-10	Boring 1, @ 10 ft bgl	NWTPH-HCID	BC
B2-15	Boring 2, @ 15 ft bgl	NWTPH-HCID	BC
B3-15	Boring 3, @ 15 ft bgl	NWTPH-HCID	BC
B4-15	Boring 4, @ 15 ft bgl	NWTPH-HCID	BC
B5-15	Boring 5, @ 15 ft bgl	NWTPH-HCID	BC
B5-20	Boring 5, @ 20 ft bgl	NWTPH-HCID	BC
B6-3	Boring 6, @ 3 ft bgl	NWTPH-HCID	BC
B6-10	Boring 6, @ 10 ft bgl	NWTPH-HCID	BC
B6-15	Boring 6, @ 15 ft bgl	NWTPH-HCID	BC

NWTPH-HCID = Northwest total petroleum hydrocarbons identification  
NWTPH-Dx = Northwest total petroleum hydrocarbon for diesel and heavy oils  
BC = Below Cleanup

#### **4.0 CONCLUSIONS**

Based on laboratory analytical results, one sample (B1-6) contained heavy oil above the current Washington State Department of Ecology Model Toxics Control Act (MTCA) cleanup level, which is 2000 ppm. This sample was collected 6 feet below the ground surface and the location was adjacent to the car service garage located on the southwest corner of the property.

#### **5.0 RECOMMENDATIONS**

The waste oil tank located in the garage should be removed and any associated impacted soil should be mitigated. At that time, the soil in the area where B1-6 was found to have heavy oil contamination above the cleanup level should also be excavated and disposed of at a permitted facility (most likely Waste Management's Olympic View transfer station in Bremerton).

Since no data was found to confirm the removal of the former gasoline tanks, test pits should be dug to determine if the tanks are still in the ground and soil sampling can be conducted to confirm the presence or absence of petroleum impacted soils.

## **6.0 LIMITATIONS**

The soil borings completed during this project were located predominantly on the perimeter of the property to investigate whether or not contamination existed that could be migrating off site. The interior part of the property was not accessed and therefore is exempt from this study.

This report has been prepared for specific applications to this project in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area.

Recommendations and conclusions contained in this report are based on evaluation of technical information made available and reviewed during the course of this survey. Our work product and judgement rendered meet the standard of care of our profession at this time. Conclusions are based on site conditions and the analysis of samples taken from the site on June 3, 2010. This assessment covers the areas where soil samples were collected and based on information supplied by the current property owner. It does not confirm that the entire property is free of contamination.

DLH Environmental Consulting has no control over the accuracy of information provided by outside consultants, contractors, and agencies and, therefore, disclaims responsibility for any inaccuracies incurred. Also, DLH Environmental Consulting accepts no responsibility for verifying compliance with government regulations for hazardous material and waste use or storage at the subject facility.

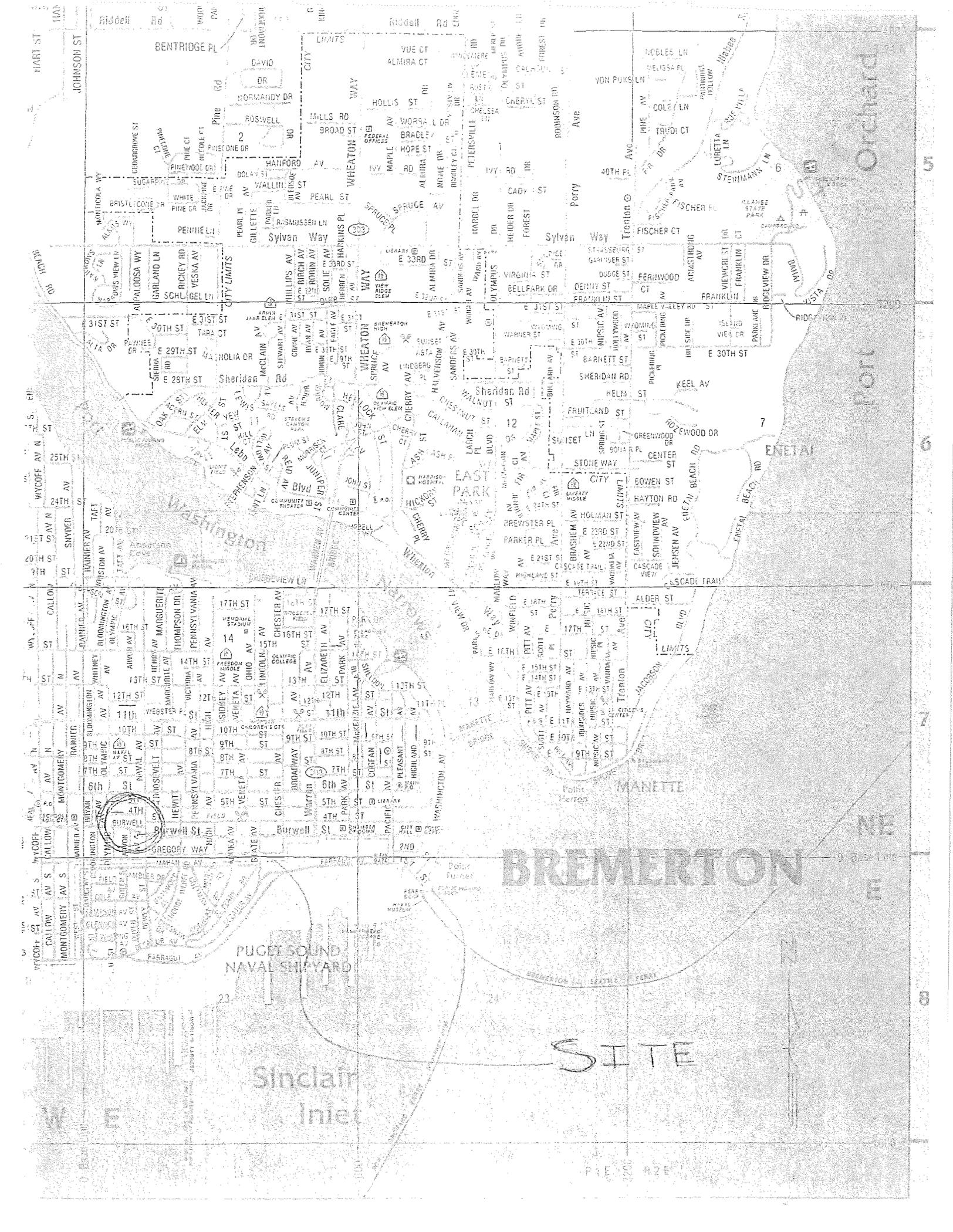
This report is for the exclusive use of Harry B. Romberg, the Estate of Mevelyn Romberg, and their representatives. If new information becomes available as a result of future site work, which may include excavations, borings, studies, etc., DLH Environmental Consulting reserves the right to reevaluate the conclusions of this report and to provide amendments as required. This report is valid for a period of 6 months.

**APPENDIX A**

**SITE MAP**

**SITE SKETCH**

**SITE PHOTOGRAPHS**



# BREMERTON

SITE

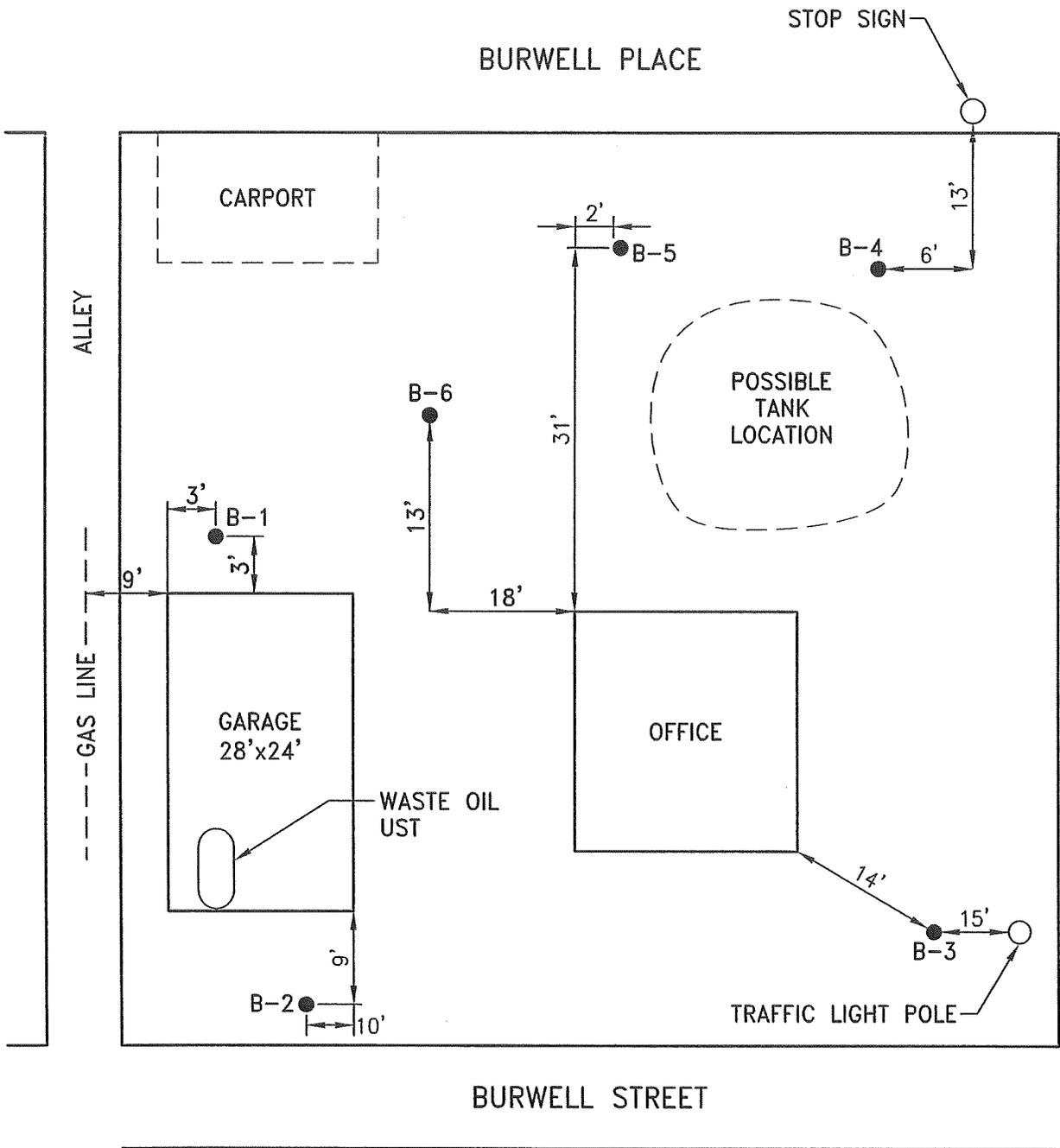
Sinclair Inlet

PUGET SOUND NAVAL SHIPYARD

W E

NE  
E

0 100 200  
FEET



L & E AUTO SALES  
 2101 BURWELL PL.  
 BREMERTON, WASHINGTON

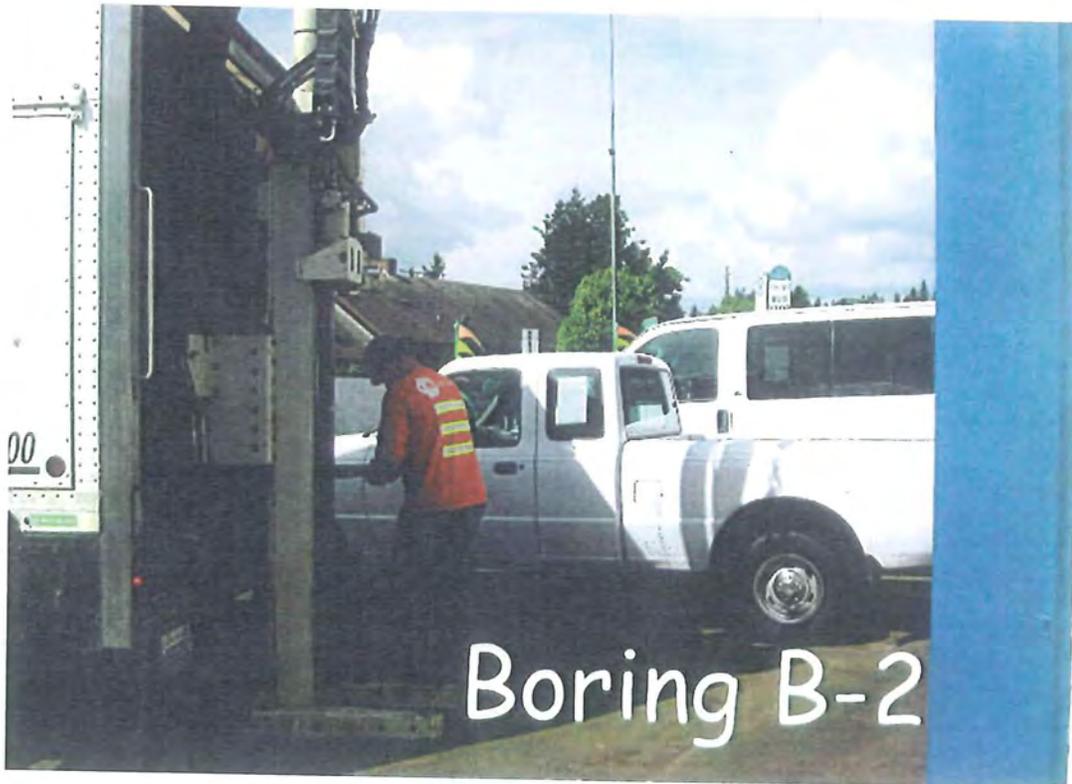
● - BORING LOCATION

**DLH Environmental Consulting**

NOT TO SCALE

6/3/10





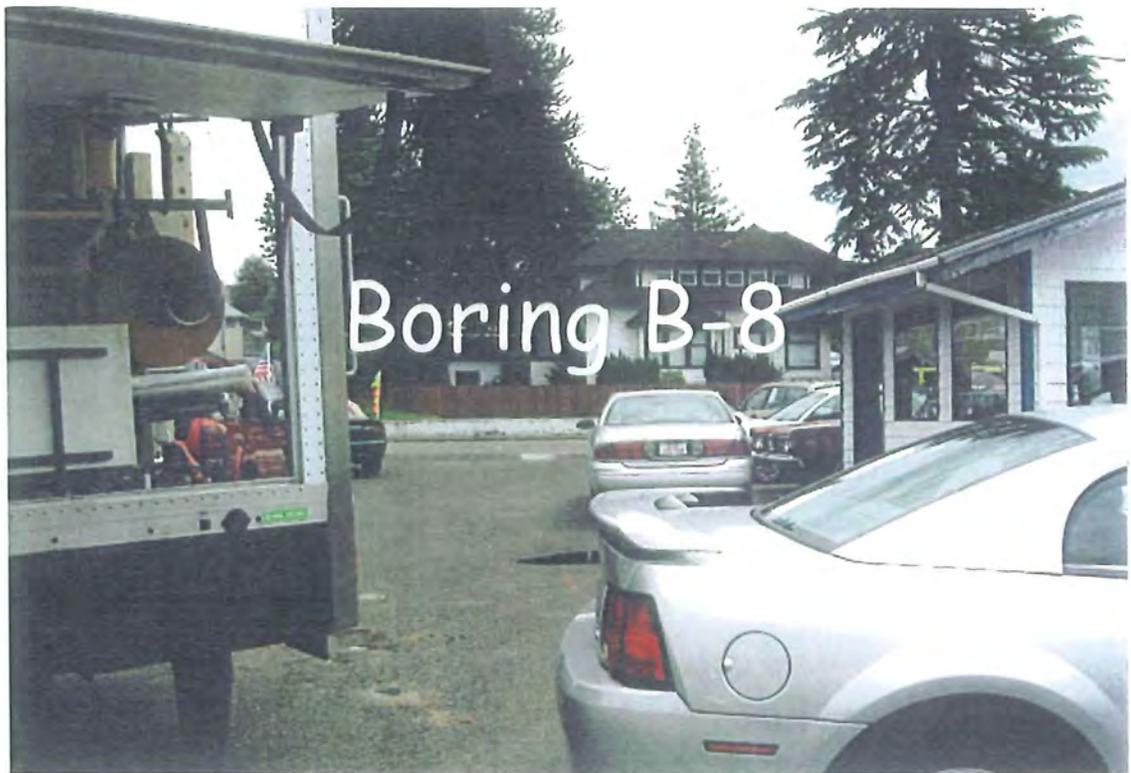




Boring B-5



Boring B-6



**APPENDIX B**

**LABORATORY REPORTS**

**CHAIN OF CUSTODY FORMS**

**MTCA CLEANUP LEVELS TABLE 740-1**

006038

SAMPLE CHAIN OF CUSTODY

ME 06/03/10

1 of 1 CO4

Send Report To

Donna Hewitt

Company

DLH

Address

2400 NW 80th St #114

City, State, ZIP

Seattle, WA 98117

Phone #

2064323123 ~~Fred~~dlh@environmental@pac.com

SAMPLERS (signature)

PROJECT NAME/NO.

L'E Auto Sales

PO #

REMARKS

Page # of

TURNAROUND TIME

Standard (2 Weeks)

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 802IB	VOCs by 8260	SVOCs by 8270	HFS	HClD	Dx Follow Up				
B1-6	01	6/3/10	9:28	Soil	1							X	✓				✓ per DLH 6/3/10
B1-10	02		9:31									X					me
B2-15	03		10:10									X					
B3-15	04		10:37									X					
B4-15	05		11:12									X					
B5-15	06		11:35									X					
B5-20	07		11:47									X					
B6-3	08		12:20									X					
B6-10	09		12:07									X					
B6-15	10		12:10									X					

Friedman & Bruya, Inc.  
3012 16th Avenue West

Seattle, WA 98119  
Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Donna Hewitt	DLH	6/3/10	
Received by:	Nhan Phan	F&B T	6/3/10	15:15
Relinquished by:				
Received by:				

Se it's ac v tr 20 °C

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: [fbi@isomedia.com](mailto:fbi@isomedia.com)

June 11, 2010

Donna Hewitt, Project Manager  
DLH Environmental Consulting  
2400 NW 80th St., 114  
Seattle, WA 98117-4449

Dear Ms. Hewitt:

Included are the results from the testing of material submitted on June 3, 2010 from the L&E Auto Sales, F&BI 006038 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
DLH0611R.DOC

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 3, 2010 by Friedman & Bruya, Inc. from the DLH Environmental Consulting L&E Auto Sales, F&BI 006038 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>DLH Environmental Consulting</u>
006038-01	B1-6
006038-02	B1-10
006038-03	B2-15
006038-04	B3-15
006038-05	B4-15
006038-06	B5-15
006038-07	B5-20
006038-08	B6-3
006038-09	B6-10
006038-10	B6-15

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/10  
 Date Received: 06/03/10  
 Project: L&E Auto Sales, F&BI 006038  
 Date Extracted: 06/07/10  
 Date Analyzed: 06/08/10

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
 FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID  
 Results Reported as Not Detected (ND) or Detected (D)**

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITHGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

<u>Sample ID</u> Laboratory ID	<u>Gasoline</u>	<u>Diesel</u>	<u>Heavy Oil</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
B1-6 006038-01	ND	ND	D	105
B1-10 006038-02	ND	ND	ND	111
B2-15 006038-03	ND	ND	ND	101
B3-15 006038-04	ND	ND	ND	105
B4-15 006038-05	ND	ND	ND	103
B5-15 006038-06	ND	ND	ND	102
B5-20 006038-07	ND	ND	ND	106
B6-3 006038-08	ND	ND	ND	113
B6-10 006038-09	ND	ND	ND	111
B6-15 006038-10	ND	ND	ND	111
Method Blank 00-0843 MB	ND	ND	ND	102

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 06/11/10  
 Date Received: 06/03/10  
 Project: L&E Auto Sales, F&BI 006038  
 Date Extracted: 06/09/10  
 Date Analyzed: 06/09/10

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
 FOR TOTAL PETROLEUM HYDROCARBONS AS  
 DIESEL AND MOTOR OIL  
 USING METHOD NWTPH-Dx**  
 Results Reported on a Dry Weight Basis  
 Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
B1-6 006038-01	250 x	2,500	83
Method Blank 00-867 MB	<50	<250	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/11/10  
 Date Received: 06/03/10  
 Project: L&E Auto Sales, F&BI 006038

**QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
 FOR TOTAL PETROLEUM HYDROCARBONS AS  
 DIESEL EXTENDED USING METHOD NWTPH-D<sub>x</sub>**

Laboratory Code: 006091-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	103	104	63-146	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	93	79-144

**Data Qualifiers & Definitions**

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 - More than one compound of similar molecule structure was identified with equal probability.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte indicated may be due to carryover from previous sample injections.
- d - The sample was diluted. Detection limits may be raised due to dilution.
- ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb - Analyte present in the blank and the sample.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.
- ht - Analysis performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The result is below normal reporting limits. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the compound indicated is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

**Table 740-1**  
**Method A Soil Cleanup Levels**  
**for Unrestricted Land Uses.<sup>a</sup>**

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	20 mg/kg <sup>b</sup>
Benzene	71-43-2	0.03 mg/kg <sup>c</sup>
Benzo(a)pyrene	50-32-8	0.1 mg/kg <sup>d</sup>
Cadmium	7440-43-9	2 mg/kg <sup>e</sup>
Chromium		
Chromium VI	18540-29-9	19 mg/kg <sup>f1</sup>
Chromium III	16065-83-1	2,000 mg/kg <sup>f2</sup>
DDT	50-29-3	3 mg/kg <sup>g</sup>
Ethylbenzene	100-41-4	6 mg/kg <sup>h</sup>
Ethylene dibromide (EDB)	106-93-4	0.005 mg/kg <sup>i</sup>
Lead	7439-92-1	250 mg/kg <sup>j</sup>
Lindane	58-89-9	0.01 mg/kg <sup>k</sup>
Methylene chloride	75-09-2	0.02 mg/kg <sup>l</sup>
Mercury (inorganic)	7439-97-6	2 mg/kg <sup>m</sup>
MTBE	1634-04-4	0.1 mg/kg <sup>n</sup>
Naphthalenes	91-20-3	5 mg/kg <sup>o</sup>
PAHs (carcinogenic)		See benzo(a)pyrene <sup>d</sup>
PCB Mixtures		1 mg/kg <sup>p</sup>
Tetrachloroethylene	127-18-4	0.05 mg/kg <sup>q</sup>
Toluene	108-88-3	7 mg/kg <sup>r</sup>
Total Petroleum Hydrocarbons <sup>s</sup>		
[Note: Must also test for and meet cleanup levels for other petroleum components--see footnotes!]		
Gasoline Range Organics		
Gasoline mixtures without benzene and the total of ethyl benzene, toluene and xylene are less than 1% of the gasoline mixture		100 mg/kg
All other gasoline mixtures		30 mg/kg
Diesel Range Organics		2,000 mg/kg
Heavy Oils		2,000 mg/kg
Mineral Oil		4,000 mg/kg
1,1,1 Trichloroethane	71-55-6	2 mg/kg <sup>t</sup>
Trichloroethylene	79-01-6	0.03 mg/kg <sup>u</sup>
Xylenes	1330-20-7	9 mg/kg <sup>v</sup>

Footnotes:

- a **Caution on misusing this table.** This table has been developed for specific purposes. It is intended to provide conservative cleanup levels for sites undergoing routine cleanup actions or for sites with relatively few hazardous substances, and the site qualifies under WAC 173-340-7491 for an exclusion from conducting a simplified or site-specific terrestrial ecological evaluation, or it can be demonstrated using a terrestrial ecological evaluation under WAC 173-340-7492 or 173-340-7493 that the values in this table are ecologically protective for the site. This table may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in this table should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in this table do not necessarily mean the soil must be restored to these levels at a site. The level of restoration depends on the remedy selected under WAC 173-340-350 through 173-340-390.
- b **Arsenic.** Cleanup level based on direct contact using Equation 740-2 and protection of ground water for drinking water use using the procedures in WAC 173-340-747(4), adjusted for natural background for soil.
- c **Benzene.** Cleanup level based on protection of ground water for drinking water use, using the procedures in WAC 173-340-747(4) and (6).
- d **Benzo(a)pyrene.** Cleanup level based on direct contact using Equation 740-2. If other carcinogenic PAHs are suspected of being present at the site, test for them and use this value as the total concentration that all carcinogenic PAHs must meet using the toxicity equivalency methodology in WAC 173-340-708(8).
- e **Cadmium.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4), adjusted for the practical quantitation limit for soil.
- f1 **Chromium VI.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- f2 **Chromium III.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4). Chromium VI must also be tested for and the cleanup level met when present at a site.
- g **DDT (dichlorodiphenyltrichloroethane).** Cleanup level based on direct contact using Equation 740-2.
- h **Ethylbenzene.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- i **Ethylene dibromide (1,2 dibromoethane or EDB).** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4) and adjusted for the practical quantitation limit for soil.
- j **Lead.** Cleanup level based on preventing unacceptable blood lead levels.
- k **Lindane.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4), adjusted for the practical quantitation limit.
- l **Methylene chloride (dichloromethane).** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- m **Mercury.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- n **Methyl tertiary-butyl ether (MTBE).** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- o **Naphthalenes.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4). This is a total value for naphthalene, 1-methyl naphthalene and 2-methyl naphthalene.
- p **PCB Mixtures.** Cleanup level based on applicable federal law (40 C.F.R. 761.61). This is a total value for all PCBs.

- q **Tetrachloroethylene.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- r **Toluene.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- s **Total Petroleum Hydrocarbons (TPH).**  
TPH cleanup values have been provided for the most common petroleum products encountered at contaminated sites. Where there is a mixture of products or the product composition is unknown, samples must be tested using both the NWTPH-Gx and NWTPH-Dx methods and the lowest applicable TPH cleanup level must be met.
- **Gasoline range organics** means organic compounds measured using method NWTPH-Gx. Examples are aviation and automotive gasoline. The cleanup level is based on protection of ground water for noncarcinogenic effects during drinking water use using the procedures described in WAC 173-340-747(6). Two cleanup levels are provided. The lower value of 30 mg/kg can be used at any site. When using this lower value, the soil must also be tested for and meet the benzene soil cleanup level. The higher value of 100 mg/kg can only be used if the soil is tested and found to contain no benzene and the total of ethyl benzene, toluene and xylene are less than 1% of the gasoline mixture. No interpolation between these cleanup levels is allowed. In both cases, the soil cleanup level for any other carcinogenic components of the petroleum [such as EDB and EDC], if present at the site, must also be met. Also, in both cases, soil cleanup levels for any noncarcinogenic components [such as toluene, ethylbenzene, xylenes, naphthalene, and MTBE], also must be met if these substances are found to exceed ground water cleanup levels at the site. See Table 830-1 for the minimum testing requirements for gasoline releases.
  - **Diesel range organics** means organic compounds measured using method NWTPH-Dx. Examples are diesel, kerosene, and #1 and #2 heating oil. The cleanup level is based on preventing the accumulation of free product on the ground water, as described in WAC 173-340-747(10). The soil cleanup level for any carcinogenic components of the petroleum [such as benzene and PAHs], if present at the site, must also be met. Soil cleanup levels for any noncarcinogenic components [such as toluene, ethylbenzene, xylenes and naphthalenes], also must be met if these substances are found to exceed the ground water cleanup levels at the site. See Table 830-1 for the minimum testing requirements for diesel releases.
  - **Heavy oils** means organic compounds measured using NWTPH-Dx. Examples are #6 fuel oil, bunker C oil, hydraulic oil and waste oil. The cleanup level is based on preventing the accumulation of free product on the ground water, as described in WAC 173-340-747(10) and assuming a product composition similar to diesel fuel. The soil cleanup level for any carcinogenic components of the petroleum [such as benzene, PAHs and PCBs], if present at the site, must also be met. Soil cleanup levels for any noncarcinogenic components [such as toluene, ethylbenzene, xylenes and naphthalenes], also must be met if found to exceed the ground water cleanup levels at the site. See Table 830-1 for the minimum testing requirements for heavy oil releases.
  - **Mineral oil** means non-PCB mineral oil, typically used as an insulator and coolant in electrical devices such as transformers and capacitors, measured using NWTPH-Dx. The cleanup level is based on preventing the accumulation of free product on the ground water, as described in WAC 173-340-747(10). Sites using this cleanup level must also analyze soil samples and meet the soil cleanup level for PCBs, unless it can be demonstrated that: (1) The release originated from an electrical device that was manufactured after July 1, 1979; or (2) oil containing PCBs was never used in the equipment suspected as the source of the release; or (3) it can be documented that the oil released was recently tested and did not contain PCBs. Method B must be used for releases of oils containing greater than 50 ppm PCBs.
- See Table 830-1 for the minimum testing requirements for mineral oil releases.
- t **1,1,1 Trichloroethane.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- u **Trichloroethylene.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4).
- v **Xylenes.** Cleanup level based on protection of ground water for drinking water use, using the procedures described in WAC 173-340-747(4). This is a total value for all xylenes.

WAC 173-340-900 Tables.

Footnotes:

**Table 720-1**  
**Method A Cleanup Levels for Ground Water.<sup>a</sup>**

Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	5 ug/liter <sup>b</sup>
Benzene	71-43-2	5 ug/liter <sup>c</sup>
Benzo(a)pyrene	50-32-8	0.1 ug/liter <sup>d</sup>
Cadmium	7440-43-9	5 ug/liter <sup>e</sup>
Chromium (Total)	7440-47-3	50 ug/liter <sup>f</sup>
DDT	50-29-3	0.3 ug/liter <sup>g</sup>
1,2 Dichloroethane (EDC)	107-06-2	5 ug/liter <sup>h</sup>
Ethylbenzene	100-41-4	700 ug/liter <sup>i</sup>
Ethylene dibromide (EDB)	106-93-4	0.01 ug/liter <sup>j</sup>
Gross Alpha Particle Activity		15 pCi/liter <sup>k</sup>
Gross Beta Particle Activity		4 mrem/yr <sup>l</sup>
Lead	7439-92-1	15 ug/liter <sup>m</sup>
Lindane	58-89-9	0.2 ug/liter <sup>n</sup>
Methylene chloride	75-09-2	5 ug/liter <sup>o</sup>
Mercury	7439-97-6	2 ug/liter <sup>p</sup>
MTBE	1634-04-4	20 ug/liter <sup>q</sup>
Naphthalenes	91-20-3	160 ug/liter <sup>r</sup>
PAHs (carcinogenic)		See benzo(a)pyrene <sup>d</sup>
PCB mixtures		0.1 ug/liter <sup>s</sup>
Radium 226 and 228		5 pCi/liter <sup>t</sup>
Radium 226		3 pCi/liter <sup>u</sup>
Tetrachloroethylene	127-18-4	5 ug/liter <sup>v</sup>
Toluene	108-88-3	1,000 ug/liter <sup>w</sup>
Total Petroleum Hydrocarbons <sup>x</sup>		
[Note: Must also test for and meet cleanup levels for other petroleum components--see footnotes!]		
Gasoline Range Organics		
Benzene present in ground water		800 ug/liter
No detectable benzene in ground water		1,000 ug/liter
Diesel Range Organics		
Heavy Oils		500 ug/liter
Mineral Oil		500 ug/liter
1,1,1 Trichloroethane	71-55-6	200 ug/liter <sup>y</sup>
Trichloroethylene	79-01-6	5 ug/liter <sup>z</sup>
Vinyl chloride	75-01-4	0.2 ug/liter <sup>aa</sup>
Xylenes	1330-20-7	1,000 ug/liter <sup>bb</sup>

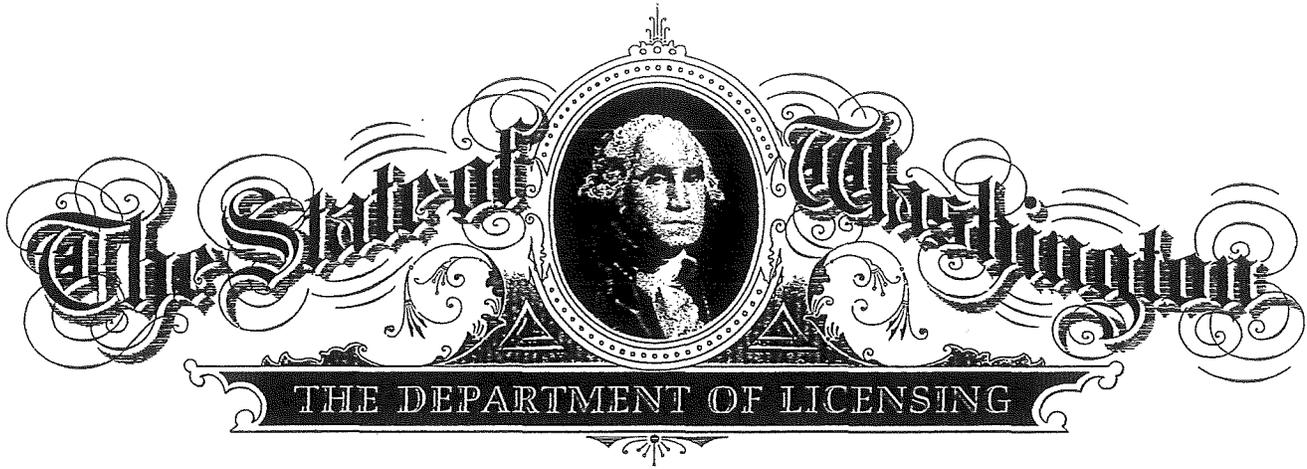
- a **Caution on misusing this table.** This table has been developed for specific purposes. It is intended to provide conservative cleanup levels for drinking water beneficial uses at sites undergoing routine cleanup actions or those sites with relatively few hazardous substances. This table may not be appropriate for defining cleanup levels at other sites. For these reasons, the values in this table should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage or placement, or similar transactions or purposes. Exceedances of the values in this table do not necessarily mean the ground water must be restored to those levels at all sites. The level of restoration depends on the remedy selected under WAC 173-340-350 through 173-340-390.
- b **Arsenic.** Cleanup level based on background concentrations for state of Washington.
- c **Benzene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- d **Benzo(a)pyrene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61), adjusted to a  $1 \times 10^{-5}$  risk. If other carcinogenic PAHs are suspected of being present at the site, test for them and use this value as the total concentration that all carcinogenic PAHs must meet using the toxicity equivalency methodology in WAC 173-340-708(8).
- e **Cadmium.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.62).
- f **Chromium (Total).** Cleanup level based on concentration derived using Equation 720-1 for hexavalent chromium. This is a total value for chromium III and chromium VI. If just chromium III is present at the site, a cleanup level of 100 ug/l may be used (based on WAC 246-290-310 and 40 C.F.R. 141.62).
- g **DDT (dichlorodiphenyltrichloroethane).** Cleanup levels based on concentration derived using Equation 720-2.
- h **1,2 Dichloroethane (ethylene dichloride or EDC).** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- i **Ethylbenzene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- j **Ethylene dibromide (1,2 dibromoethane or EDB).** Cleanup level based on concentration derived using Equation 720-2, adjusted for the practical quantitation limit.
- k **Gross Alpha Particle Activity, excluding uranium.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.15).
- l **Gross Beta Particle Activity, including gamma activity.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.15).
- m **Lead.** Cleanup level based on applicable state and federal law (40 C.F.R. 141.80).
- n **Lindane.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- o **Methylene chloride (dichloromethane).** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- p **Mercury.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.62).
- q **Methyl tertiary-butyl ether (MTBE).** Cleanup level based on federal drinking water advisory level (EPA-822-F-97-009, December 1997).
- r **Naphthalenes.** Cleanup level based on concentration derived using Equation 720-1. This is a total value for naphthalene, 1-methyl naphthalene and 2-methyl naphthalene.
- s **PCB mixtures.** Cleanup level based on concentration derived using Equation 720-2, adjusted for the practical quantitation limit. This cleanup level is a total value for all PCBs.
- t **Radium 226 and 228.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.15).
- u **Radium 226.** Cleanup level based on applicable state law (WAC 246-290-310).

- v **Tetrachloroethylene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- w **Toluene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- x **Total Petroleum Hydrocarbons (TPH).** TPH cleanup values have been provided for the most common petroleum products encountered at contaminated sites. Where there is a mixture of products or the product composition is unknown, samples must be tested using both the NWTPH-Gx and NWTPH-Dx methods and the lowest applicable TPH cleanup level must be met.
  - **Gasoline range organics** means organic compounds measured using method NWTPH-Gx. Examples are aviation and automotive gasoline. The cleanup level is based on protection of ground water for noncarcinogenic effects during drinking water use. Two cleanup levels are provided. The higher value is based on the assumption that no benzene is present in the ground water sample. If any detectable amount of benzene is present in the ground water sample, then the lower TPH cleanup level must be used. No interpolation between these cleanup levels is allowed. The ground water cleanup level for any carcinogenic components of the petroleum [such as benzene, EDB and EDC] and any noncarcinogenic components [such as ethylbenzene, toluene, xylenes and MTBE], if present at the site, must also be met. See Table 830-1 for the minimum testing requirements for gasoline releases.
  - **Diesel range organics** means organic compounds measured using NWTPH-Dx. Examples are diesel, kerosene, and #1 and #2 heating oil. The cleanup level is based on protection from noncarcinogenic effects during drinking water use. The ground water cleanup level for any carcinogenic components of the petroleum [such as benzene and PAHs] and any noncarcinogenic components [such as ethylbenzene, toluene, xylenes and naphthalenes], if present at the site, must also be met. See Table 830-1 for the minimum testing requirements for diesel releases.
  - **Heavy oils** means organic compounds measured using NWTPH-Dx. Examples are #6 fuel oil, bunker C oil, hydraulic oil and waste oil. The cleanup level is based on protection from noncarcinogenic effects during drinking water use, assuming a product composition similar to diesel fuel. The ground water cleanup level for any carcinogenic components of the petroleum [such as benzene, PAHs and PCBs] and any noncarcinogenic components [such as ethylbenzene, toluene, xylenes and naphthalenes], if present at the site, must also be met. See Table 830-1 for the minimum testing requirements for heavy oil releases.
  - **Mineral oil** means non-PCB mineral oil, typically used as an insulator and coolant in electrical devices such as transformers and capacitors measured using NWTPH-Dx. The cleanup level is based on protection from noncarcinogenic effects during drinking water use. Sites using this cleanup level must analyze ground water samples for PCBs and meet the PCB cleanup level in this table unless it can be demonstrated that: (1) The release originated from an electrical device manufactured after July 1, 1979; or (2) oil containing PCBs was never used in the equipment suspected as the source of the release; or (3) it can be documented that the oil released was recently tested and did not contain PCBs. Method B (or Method C, if applicable) must be used for releases of oils containing greater than 50 ppm PCBs. See Table 830-1 for the minimum testing requirements for mineral oil releases.
- y **1,1,1 Trichloroethane.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- z **Trichloroethylene.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61).
- aa **Vinyl chloride.** Cleanup level based on applicable state and federal law (WAC 246-290-310 and 40 C.F.R. 141.61), adjusted to a  $1 \times 10^{-5}$  risk.
- bb **Xylenes.** Cleanup level based on xylene not exceeding the maximum allowed cleanup level in this table for total petroleum hydrocarbons and on prevention of adverse aesthetic characteristics. This is a total value for all xylenes.

**APPENDIX C**

**CERTIFICATIONS**

**GEOPROBE DATA**  
(Resource Protection Well Report )

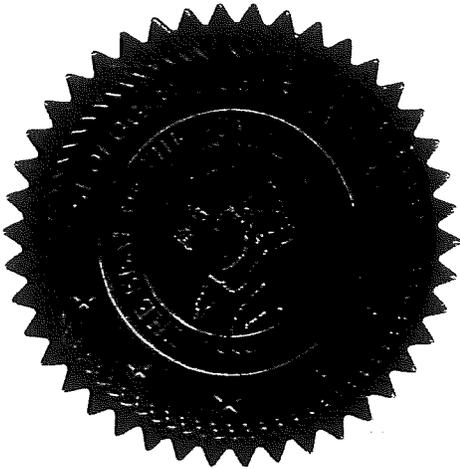


*It is hereby certified that* **Donna L. Hewitt**

*has satisfactorily complied with and completed the statutory requirements set forth in title 18 revised code of Washington to engage in practice as a*

## **Geologist**

*And is hereby authorized, empowered and granted the right to engage in that practice within the State of Washington subject to the state laws.*



*Given under the hand and seal of the director this fifth day of June, 2002.*

*Fred Stephens*  
\_\_\_\_\_  
DIRECTOR

*Geologist Licensing Board*

*Jeffrey H. Roubal*  
\_\_\_\_\_  
CHAIR

No. 899

# RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. SEE 7392 AED 9619

**Construction/Decommission**

**Type of Well**

Construction

Resource Protection

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

Geotechnical Soil Boring

Property Owner L & E Auto Sales

Site Address 2101 Burwell Pl.

Consulting Firm DLH Environmental Consultants

City Bremerton County 18-Kitsap

Unique Ecology Well ID \_\_\_\_\_

Location 1/4 SW 1/4 SW Sec 14 Town 24N R1E or EWM

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

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

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

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

Driller  Trainee Name (Print) Goble, Kaye

Driller/Trainee Signature [Signature]

Driller/Trainee License No. 7/2901

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

Cased or Uncased Diameter 2" Static Level —

Work/Decommission Start Date 6/3/2010

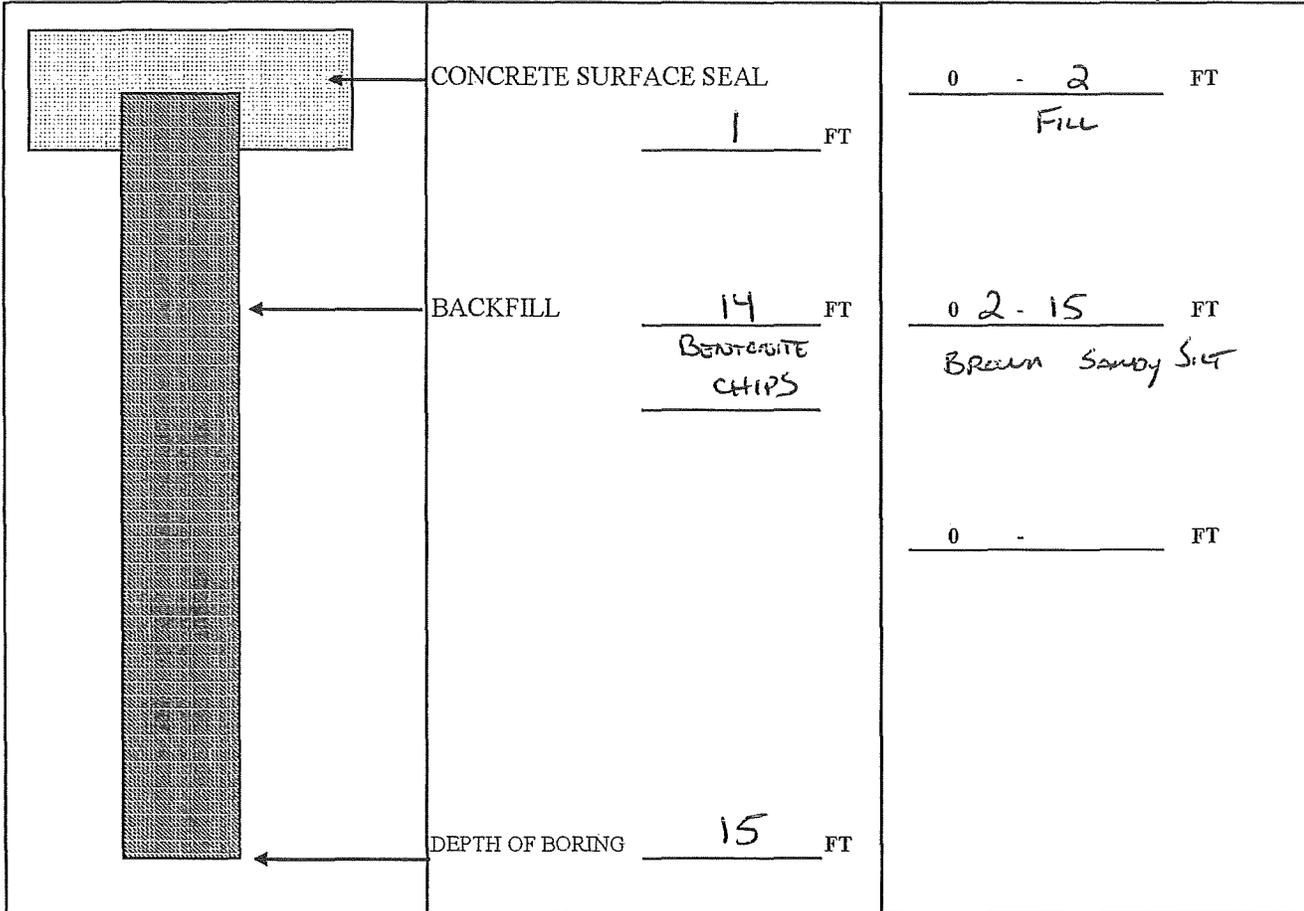
If trainee, licensed drillers' \_\_\_\_\_  
Signature and License No. \_\_\_\_\_

Work/Decommission Completed Date 6/3/10

**Construction/Design**

Well Data W10-263

**Formation Description**



Scale 1" = \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

ECY 050-12 (Rev=v 2/01)

# RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No.

SE07392 AED 9619

**Construction/Decommission**

Construction

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

**Type of Well**

Resource Protection

Geotechnical Soil Boring

Consulting Firm DLH Environmental Consultants

Property Owner L & E Auto Sales

Site Address 2101 Burwell Pl.

City Bremerton

County 18-Kitsap

Unique Ecology Well ID \_\_\_\_\_

Location 1/4 SW 1/4 SW Sec 14 Town 24N R1E

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

EWM

or

WWM

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

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

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

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

Driller  Trainee Name (Print) Goble, Kasey

Cased or Uncased Diameter 2" Static Level —

Driller/Trainee Signature [Signature]

Work/Decommission Start Date 6/3/2010

Driller/Trainee License No. 7/2901

Work/Decommission Completed Date 6/3/10

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

**Construction/Design**

**Well Data W10-263**

**Formation Description**

	<p>CONCRETE SURFACE SEAL <u>1</u> FT</p> <p>BACKFILL <u>14</u> FT BENTONITE CHIPS</p> <p>DEPTH OF BORING <u>15</u> FT</p>	<p><u>0 - 2</u> FT Fill</p> <p><u>0 2 - 15</u> FT Brown Sandy Silt</p> <p><u>0 -</u> FT</p>
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Scale 1" = \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

ECY 050-12 (Rev=2/01)

# RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. SE07392 AED 9619

**Construction/Decommission**

Construction

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

**Type of Well**

Resource Protection

Geotechnical Soil Boring

Consulting Firm DLH Environmental Consultants

Property Owner L & E Auto Sales

Site Address 2101 Burwell Pl.

City Bremerton County 18-Kitsap

Unique Ecology Well ID

Location 1/4 SW 1/4 SW Sec 14 Town 24N R1E or EWM

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

Lat/Long (s,t,r) Lat Deg x Lat Min/Sec x

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

still Required) Long Deg x Long Min/Sec x

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

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

Driller  Trainee Name (Print) Goble, Casey

Cased or Uncased Diameter 2" Static Level —

Driller/Trainee Signature [Signature]

Work/Decommission Start Date 6/3/2010

Driller/Trainee License No. 7/2901

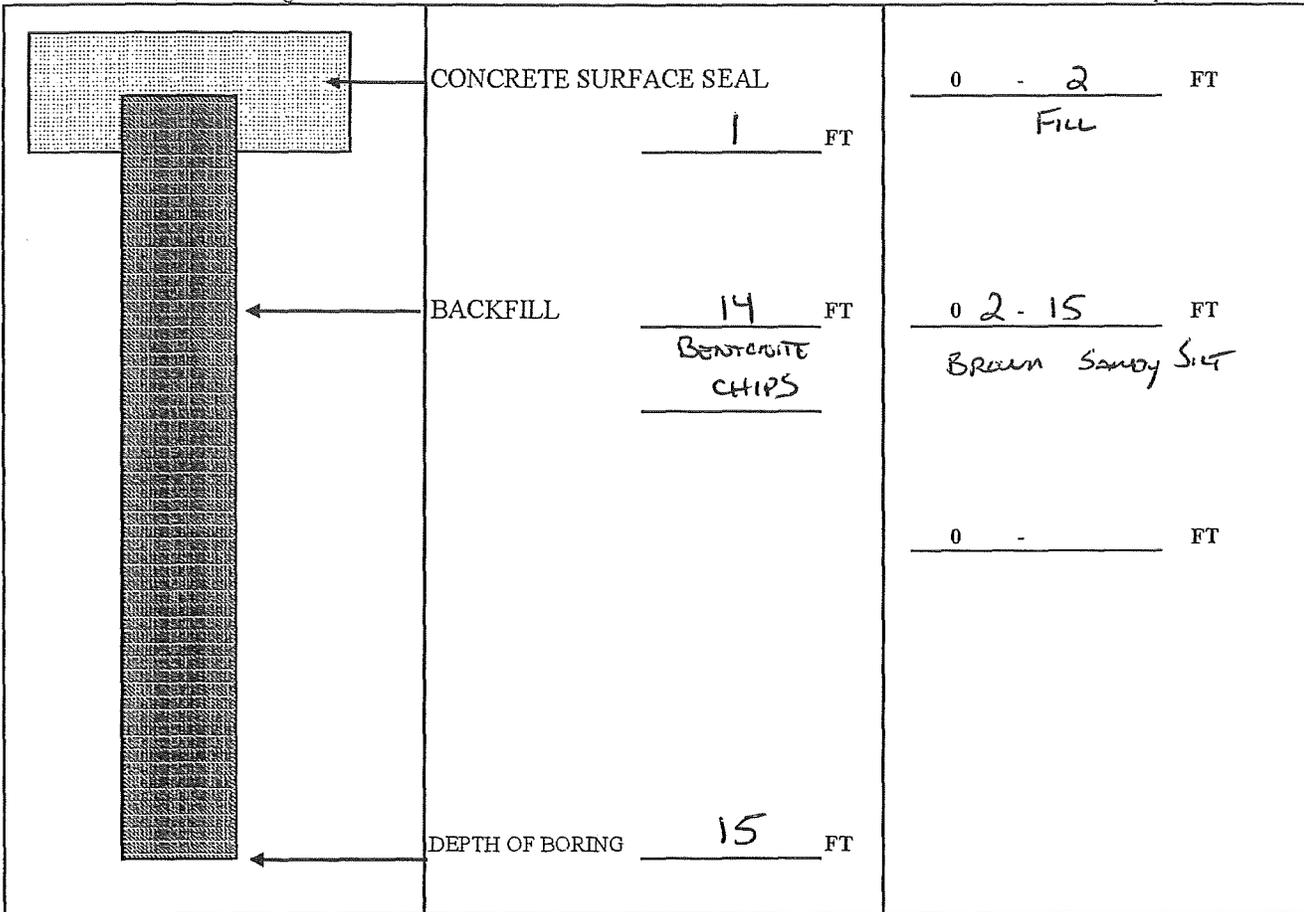
Work/Decommission Completed Date 6/3/10

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

**Construction/Design**

**Well Data W10-263**

**Formation Description**



Scale 1" = \_\_\_\_\_

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ECY 050-12 (Rev-v 2/01)

# RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. SE07392 AED 9619

**Construction/Decommission**

Construction

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

Consulting Firm DLH Environmental Consultants

Unique Ecology Well ID \_\_\_\_\_

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

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

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

Driller  Trainee Name (Print) Goble, Kasey  
Driller/Trainee Signature [Signature]  
Driller/Trainee License No. 712901

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

**Type of Well**

Resource Protection

Geotechnical Soil Boring

Property Owner L & E Auto Sales

Site Address 2101 Burwell Pl.

City Bremerton County 18-Kitsap

Location 1/4 SW 1/4 SW Sec 14 Town 24N R1E or EWM

Lat/Long (s,t,r Lat Deg x Lat Min/Sec x

still Required) Long Deg x Long Min/Sec x

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

Cased or Uncased Diameter 2" Static Level —

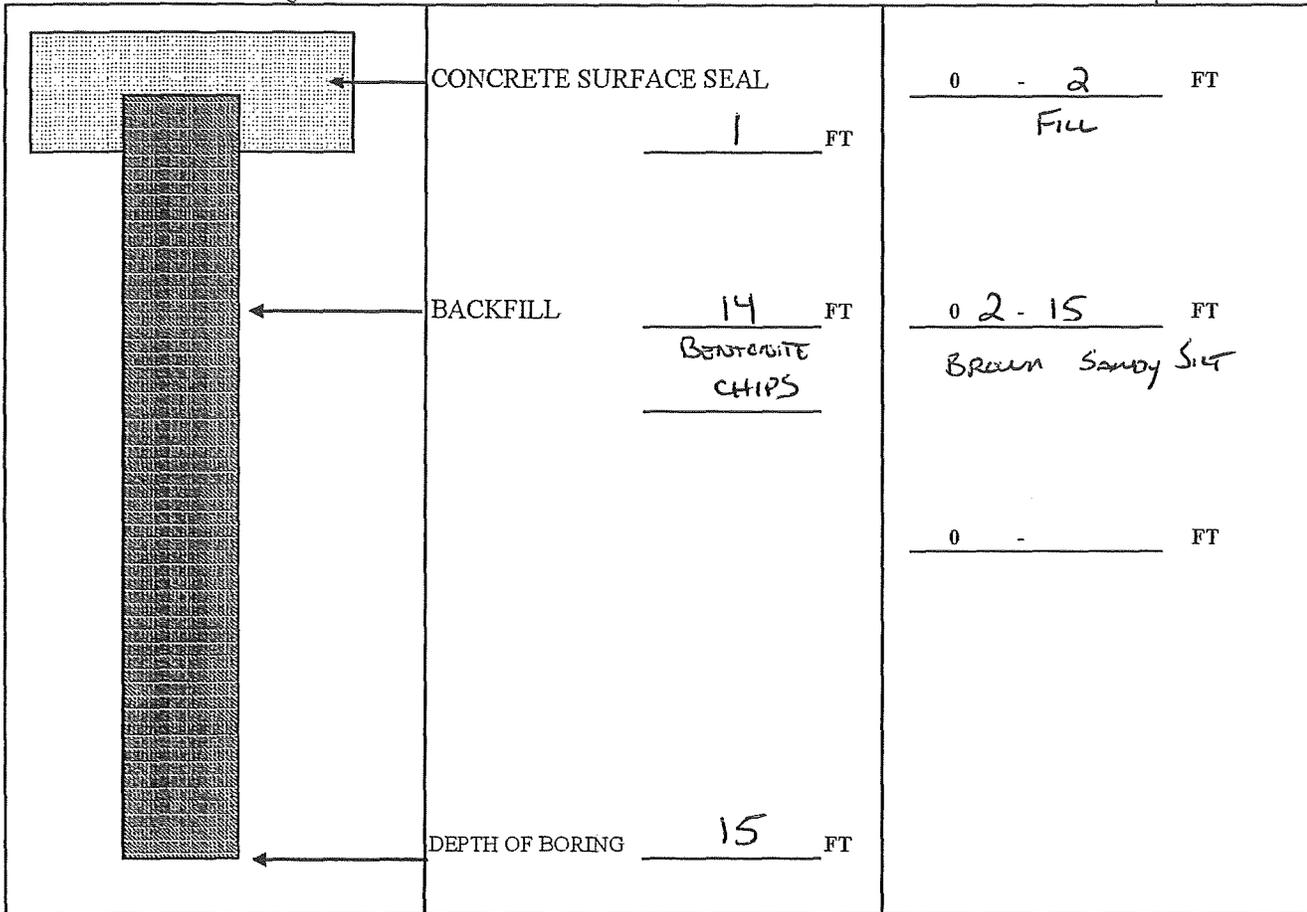
Work/Decommission Start Date 6/3/2010

Work/Decommission Completed Date 6/3/10

**Construction/Design**

Well Data W10-263

**Formation Description**



Scale 1" = \_\_\_\_\_

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ECY 050-12 (Rev-v 2/01)

# RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. SE07392 AEO 9619

**Construction/Decommission**

**Type of Well**

Construction

Resource Protection

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

Geotechnical Soil Boring

Property Owner L & E Auto Sales

Site Address 2101 Burwell Pl.

Consulting Firm DLH Environmental Consultants

City Bremerton County 18-Kitsap

Unique Ecology Well ID \_\_\_\_\_

Location 1/4 SW 1/4 SW Sec 14 Town 24N R1E or EWM

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

Lat/Long (s,t,r) Lat Deg x Lat Min/Sec x

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

still Required) Long Deg x Long Min/Sec x

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

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

Driller  Trainee Name (Print) Goble, Kasey

Cased or Uncased Diameter 2" Static Level —

Driller/Trainee Signature [Signature]

Work/Decommission Start Date 6/3/2010

Driller/Trainee License No. 7/2901

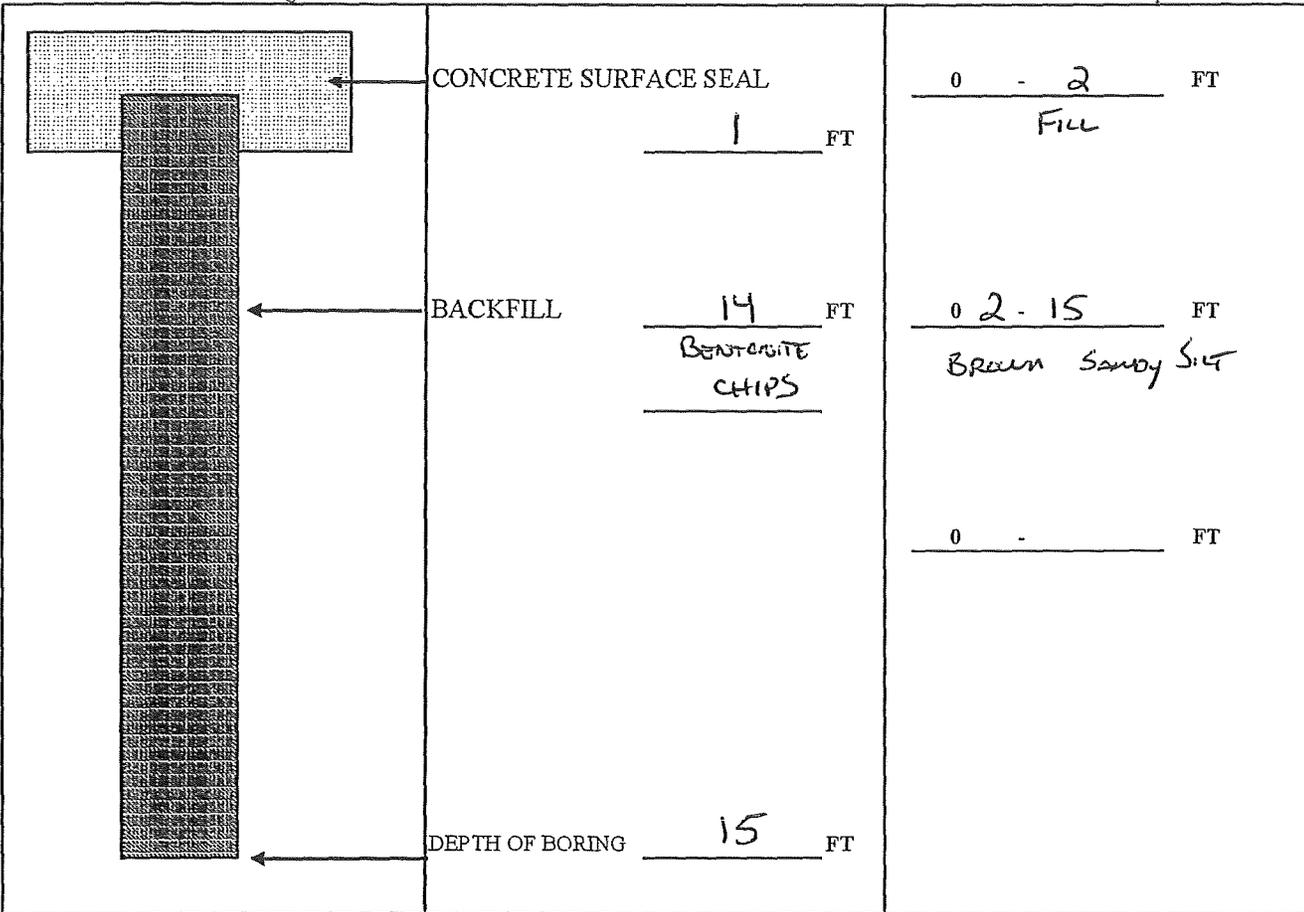
Work/Decommission Completed Date 6/3/10

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

**Construction/Design**

**Well Data W10-263**

**Formation Description**



Scale 1" = \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

ECY 050-12 (Rev-v 2/01)

# RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. SE0.7392 AEO9619

**Construction/Decommission**

**Type of Well**

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

- Resource Protection
- Geotechnical Soil Boring

Consulting Firm DLH Environmental Consultants

Property Owner L & E Auto Sales  
 Site Address 2101 Burwell Pl.  
 City Bremerton County 18-Kitsap

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

Location 1/4 SW 1/4 SW Sec 14 Town 24N R1E EWM or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief

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

Driller  Trainee Name (Print) Joble, KASEY  
 Driller/Trainee Signature [Signature]  
 Driller/Trainee License No. 2501

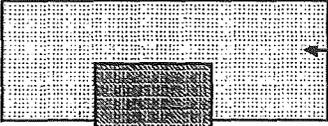
Tax Parcel No. \_\_\_\_\_

Cased or Uncased Diameter 2" Static Level —

Work/Decommission Start Date 6/3/2010

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

Work/Decommission Completed Date 6/3/10

Construction/Design	Well Data W10-263	Formation Description
	CONCRETE SURFACE SEAL <u>1</u> FT	<u>0 - 2</u> FT Fill
	BACKFILL <u>19</u> FT BENTONITE CHIPS	<u>0 2 - 20</u> FT BROWN SANDY SILT
	DEPTH OF BORING <u>20</u> FT	<u>0 -</u> FT

Scale 1" = \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

**UNDERGROUND STORAGE TANK DECOMMISSIONING  
AND FINAL CLEANUP REPORT**

**2101 BURWELL PLACE  
BREMERTON, WASHINGTON 98312  
WDOE RELEASE # 623271**

*SUBMITTED TO:*

**DOROTHY ROMBERG AND ESTATE OF MEVELYN ROMBERG  
C/O HARRY B. ROMBERG JR.  
11538 17<sup>TH</sup> AVENUE NE  
SEATTLE, WASHINGTON 98125**

*PREPARED BY*

  
**DONNA HEWITT, L.G.  
DLH ENVIRONMENTAL CONSULTING  
2400 NW 80<sup>TH</sup> STREET  
PMB 114  
SEATTLE, WASHINGTON 98117**

**JANUARY 12, 2011**

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## **1.0 PROJECT DESCRIPTION/SCOPE OF WORK**

Historical data research conducted by DLH Environmental Consulting in May 2010 confirmed that one (1) waste oil tank was located in a garage on the Property. In addition, interviews with onsite personnel indicated that at least one (1) gasoline tank might be located on the Property and that it might have been associated with a taxi cab company that formerly occupied the site. Historical aerial photograph research indicated that there were three (3) pump islands located on the northeastern corner of the Property. Kitsap County files indicated that there were three (3) underground storage tanks (USTs) on-site, but no information regarding the removal of tanks was found.

Subsurface investigations (using a Geoprobe) conducted in June 2010 confirmed that there were heavy oil-impacted soils along the southwestern portion of the Property adjacent to the garage. No other impacted soils were discovered, but the sample locations were primarily on the perimeter of the Property. However, one boring was placed in an area that was believed to be down gradient from the pump islands noted in historical aerial photographs.

After the waste oil tank and an old hydraulic lift were removed on August 19, 2010, exploratory work was completed to locate any other UST's. As a result, three (3) USTs were discovered on the northeast corner of the property. They were subsequently removed along with 75.95 tons of petroleum-impacted soil.

The USTs were removed by Pacific Environmental Services Company (PESCO) and disposed of by Marine Vacuum Services, Inc. Impacted soils were disposed of at the Waste Management Olympic View Transfer Station in Bremerton, Washington. Donna Hewitt of DLH Environmental Consulting (DLH) was onsite during the removal of all of the tanks. Ms. Hewitt is an ICC Decommissioning Supervisor (#1044716-U2) and a Washington State Site Assessor (#1044716-U2) (certifications are included as Appendix E). Washington Department of Ecology (Ecology) Site Check and Site Assessment Forms are located in Appendix C. Laboratory analysis was conducted by Friedman & Bruya Inc. located in Seattle, Washington and laboratory reports are provided in Appendix B.

The following tanks were decommissioned:

Tank Number	Size	Contents	Removal Date
Tank 1 (T1)	1000 gallon	gasoline	8/20/10
Tank 2 (T2)	1000 gallon	gasoline	8/20/10
Tank 3 (T3)	2000 gallon	gasoline	8/23/10
Tank (T4)	250 Gallon	waste oil	8/19/10

As part of the site assessment, soil samples were collected and analyzed from the tank excavations. Stockpiled soils were also sampled and analyzed. Required WDOE checklist forms were completed and are part of this report (see Appendix C).

## 2.0 METHODS OF INVESTIGATION

Small excavations were dug in the northeast corner of the Property where the pump islands were noted in the historical aerial photographs (see Appendix A for site maps and photographs). Numerous product lines were found underneath several layers of asphalt. The soil around the product lines was removed and the lines followed until the tops of the tanks were discovered. The tops of the tanks were exposed, the fill tubes opened, and the tanks inerted with dry ice. The tanks were then removed from the ground. The tanks were empty and had numerous holes in the bottoms

Soil samples were collected for hydrocarbon analysis from a minimum of two feet below each tank, from the sidewalls of the tank excavation, and from the final limits of the excavation. Samples were also taken below product lines and from stockpiled soils. After initial laboratory analysis confirmed hydrocarbon contamination exceeding Model Toxics Control Act (MTCA) Method A cleanup levels, the impacted soil was removed (75.95 tons) and final confirmational soil samples were collected from the walls and bottom of the final excavation limits.

Soil samples were collected and placed in sterilized glassware furnished by the project laboratory. In an effort to minimize the possible loss of any volatile hydrocarbons that may have been present in the soil, the samples were stored in an iced chest until delivered to the laboratory. All EPA-established sample-handling protocols, including chain of custody procedures, were observed during the course of the project.

Samples were analyzed according to the Ecology document "Guidance for Site Checks and Site Assessments for Underground Storage Tanks," February 1991 (Revised October 1992).

Soil samples collected from around the waste oil tank were analyzed for diesel-range petroleum hydrocarbons and heavy oil-range petroleum hydrocarbons using Method NWTPH-Dx. Additional analysis of soil collected adjacent to the tank during Geoprobe drilling activities included volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) and RCRA 8 metals. Laboratory data confirmed that only heavy oil was detected in the soils.

Soil samples collected around the other three tanks were analyzed for the presence of gasoline and benzene, toluene, ethylbenzene, and xylenes (BTEX), using EPA Method 8021B and NWTPH-Gx, and lead, using EPA-Method 200.8.

### **3.0 RESULTS OF INVESTIGATION**

#### **3.1 Soil Conditions**

Soils surrounding the USTs were a mixture of imported non-native fill material (including old brick and crushed asphalt) underlain by native clay.

#### **3.2 Groundwater**

Water was not encountered during tank and soil removal activities. The depth of the excavation was approximately 16 feet below ground surface.

#### **3.3 Observation of Tank Removal Activities**

Donna Hewitt of DLH Environmental Consulting, a licensed UST Decommissioning Supervisor and Site Assessor was onsite during all tank removal activities.

##### **3.3.1 Waste Oil Tank**

The owner of L&E Auto Sales confirmed that the contents of the waste tank had been removed approximately 6 months prior to the tank removal operations. The waste oil tank was located underneath a concrete slab inside the garage. After the slab was removed, the top of the tank was exposed and soils from the sides of that tank were removed. During the soil removal process, an old hydraulic lift was discovered just north of the end of the waste oil tank. Both the tank and the hydraulic lift were removed and soil samples were collected from the bottom and sides of the final excavation. The tank was inspected for holes and found to be in poor condition although no obvious holes were noted.

### 3.3.2 Gasoline Tanks

Product lines were discovered during exploratory digging on the northeast corner of the site. The lines were exposed, and three major product lines and vent lines were unearthed. The product lines were followed until the tops of three (3) USTs were found. The tops of the USTs were exposed, then the tanks were inerted with dry ice and subsequently removed from the ground. The first two USTs (Tank 1 and Tank 2) were completely empty. Tank 3 had a little water in the bottom but all three tanks were in poor, rusty condition and full of holes.

Strong odors were noted around and below the tanks and bluish grey soils were noted at depths starting at approximately 6-7 feet below ground surface (bgs). This was the bottom level of both Tank 1 and Tank 2.

### 3.4 Hydrocarbon Testing

Soil samples collected from the waste oil tank were analyzed for diesel-range petroleum hydrocarbons and heavy oil-range petroleum hydrocarbons using Method NWTPH-Dx. Additional analysis of soil samples collected adjacent to the tank during Geoprobe drilling activities included VOCs, PCBs and RCRA 8 metals. Laboratory data confirmed that only heavy oil was present in the soils. Laboratory results for soil samples collected from the waste oil tank are summarized in Table A, and laboratory results are located in Appendix B.

Soil samples collected around the other three USTs were analyzed for the presence of gasoline and BTEX, using EPA Method 8021B and NWTPH-Gx, and lead using EPA Method 200.8.

Laboratory results for soil samples collected around the other three USTs are summarized in Tables B and C. Laboratory reports are located in Appendix B.

### 3.5 Observation of Soil Removal Activities

Based on soil sample analysis, it was determined that contamination existed underneath all three USTs and along the sidewalls of the tank excavation. On October 10, 2010, contaminated soils (75.95 tons) were removed and transported to the Waste Management Olympic View Transfer Station for disposal under Waste Manifest # 102441.

### **3.6 Final Confirmational Soil Sampling and Analysis**

Once the confirmed impacted soil was removed, final confirmation samples were collected from the sidewalls and bottom of the excavation. Laboratory data confirmed that impacted soil still remains on the south and west ends of the gasoline tank excavation. In addition, no soils were removed from in and around the waste oil tank located in the garage. Laboratory results for the final confirmation samples are summarized in Table D, and laboratory reports are located in Appendix B.

### **4.0 FINAL CLEANUP OPERATIONS**

Impacted soils were disposed of at the Waste Management Olympic View Transfer Station in Bremerton, Washington. A total of 75.95 tons was disposed of on October 11, 2010. Impacted soil still remains on the south and west side of the tank excavation. Additionally, no soil was removed from the garage where the former waste oil tank (T4) was located.

### **5.0 WASHINGTON STATE DEPARTMENT OF ECOLOGY REQUIREMENTS**

Ecology requires UST checklists and site assessment forms to be filled out during UST decommissioning projects. These forms have been completed and are located in Appendix C.

### **6.0 CONCLUSIONS**

The following conclusions are based on the results of the soil sample analyses:

- Analysis of soil samples collected around and under the waste oil and hydraulic lift in the garage indicated that heavy oil impacted soils remain on the Property.
- Impacted soils associated with the three gasoline tanks located on the northwestern portion of the property were confirmed. The three tanks were removed along with 75.95 tons of impacted soils. The impacted soils were disposed of at the Olympic View Transfer Station in Bremerton, Washington.
- Confirmational soil sampling and analysis of the gasoline tank excavation indicates that impacted soils remains along the south and west ends of the excavation.
- All tanks, product lines, and vent lines were removed and disposed of according to current requirements.

## **7.0 RECOMMENDATIONS**

Since impacted soils still remain on the Property, it is recommended that they be removed. The garage will need to be demolished in order to remove the soils associated with the waste oil tank. The most cost - effective approach may be to dovetail remediation with any future development of the Property.

## **8.0 LIMITATIONS**

This report has been prepared for specific application to this project in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area.

Recommendations and conclusions contained in this report are based on evaluation of technical information made available and reviewed during the course of this survey. Our work product and judgements rendered meet the standard of care of our profession at this time. No other warranty, expressed or implied, is made concerning the professional conclusions and recommendations included in this report.

DLH Environmental Consulting shall not be responsible for conditions or consequences arising from relevant facts that were withheld, concealed, or not fully disclosed at the time this evaluation was performed.

DLH Environmental Consulting has no control over the accuracy of information provided by outside consultants, contractors, and agencies and, therefore, disclaims responsibility for any inaccuracies incurred. Also, DLH Environmental Consulting accepts no responsibility for verifying compliance with government regulations for hazardous material and waste use or storage at the subject facility.

The underlying philosophy in formulating the conclusions and recommendations was to reduce uncertainties regarding the property and pertaining to environmental hazards, to the degree possible. Therefore, the results of this assessment should be viewed as reasonably accurate estimates, given the project limitations of the existing environmental condition of the property.

This report is for the exclusive use of Harry B Romberg Jr. and his representatives. If new information becomes available as a result of future site work, which may include excavations, borings, studies, etc., DLH Environmental Consulting reserves the right to reevaluate the conclusions of this report and to provide amendments as required.

**TABLE A**  
**Waste Oil Tank (T4) Soil Sampling Analytical Results**

SAMPLE NUMBER	LOCATION	ANALYSIS	RESULTS
81910 - N	north sidewall at approximately 4 ft bgl	NWTPH-DX	Diesel 7,100 ppm Motor Oil 27,000 ppm
81910 - S	south sidewall at approximately 4 ft bgl	NWTPH-DX	Diesel < 50 ppm Motor Oil < 250 ppm
81910 - E	east sidewall at approximately 4 ft bgl	NWTPH-DX	Diesel < 50 ppm Motor Oil < 250 ppm
81910 - W	west sidewall at approximately 4 ft bgl	NWTPH-DX	Diesel < 50 ppm Motor Oil < 250 ppm
81910 - B	bottom of excavation below tank at approximately 5 ft bgl	NWTPH-DX	Diesel 11,000 ppm Motor Oil 33,000 ppm
81910 - B+4	bottom of excavation below tank at approximately 8 ft bgl	NWTPH-DX	Diesel 5,600 ppm Motor Oil 13,000 ppm
81910 - Hyd-7'	below hydraulic lift approximately 8 ft bgl	NWTPH-DX	Diesel < 50ppm Motor Oil < 250 ppm

Note: Current MTCA cleanup level for diesel and heavy oil is 2000 ppm  
 WTPH = Washington Total Petroleum Hydrocarbon  
 Dx = Diesel and heavy oils  
 ppm = Parts per million (soil)  
 bgl = Below ground level  
 ft = Feet

**TABLE B**  
**Tank 1 & Tank 2 - Initial Soil Sampling Analytical Results**

SAMPLE NUMBER	LOCATION	ANALYSIS	RESULTS
82010 - Pipes	Below product lines	NWTPH-Gx BTEX	< 2 ppm AC
82010 - T1-B	Tank 1 - below tank at 8 ft bgl	NWTPH-Gx BTEX Lead	5,100 ppm AC 19.6
82010 - T1-E	Tank 1- east sidewall at 8 ft bgl	NWTPH-Gx BTEX	< 2 ppm BC
82010 - T1-N	Tank 1- north sidewall at 8 ft bgl	NWTPH-Gx BTEX	4,900 ppm AC
82010 - T1-S	Tank 1- south sidewall at 8 ft bgl	NWTPH-Gx BTEX	7,400 ppm AC
82010 - T2-N	Tank 2- north sidewall at 8 ft bgl	NWTPH-Gx BTEX	8,700 ppm AC
82010 - T2-B2	Tank 2- below tank at 8 ft bgl	NWTPH-Gx BTEX Lead	12,000 ppm AC 18.3
82010 - T2-W	Tank 2- west sidewall at 8 ft bgl	NWTPH-Gx BTEX	120 ppm BC
82010 - T2-B-4	Tank 2 - 4 ft below bottom of tank at 12 ft bgl	NWTPH-Gx BTEX	20,000 ppm AC

Note: Current MTCA cleanup level for gasoline in soil is 100 ppm or 30 ppm if benzene is present.  
 Cleanup levels for BTEX as follows B=0.03 ppm, T=7 ppm, E= 6 ppm, X=9 ppm  
 Cleanup level for lead is 250 ppm

WTPH = Washington Total Petroleum Hydrocarbon  
 Gx = Gasoline  
 BTEX = Benzene, toluene, ethyl-benzene, xylene (gasoline additives)  
 ppm = Parts per million (soil)  
 BC = Below cleanup  
 AC = Above Cleanup  
 bgl = Below ground level  
 ft = Feet

**TABLE C**  
**Tank 3 - Initial Soil Sampling Analytical Results**

SAMPLE NUMBER	LOCATION	ANALYSIS	RESULTS
82310 - T3-B-9.5	Tank 3, below tank at 9.5 ft bgl	NWTPH-Gx BTEX	6,600 ppm AC
82310 - T3-B-12	Tank 3, below tank at 12 ft bgl	NWTPH-Gx BTEX	32 ppm AC
82310 - T3-W-9	Tank 3, below tank at 12 ft bgl	NWTPH-Gx BTEX lead	6,600 ppm AC 19.6
82310 - T3-S-10	Tank 3, south sidewall at 10 ft bgl	NWTPH-Gx BTEX	8,900 ppm AC
82310 - T3-E-10	Tank 3, east sidewall at 10 ft bgl	NWTPH-Gx BTEX	15 ppm BC
82310 - PIPES	product pipes associated with Tank 3	NWTPH-Gx BTEX	Archived - no analysis
82310 - paint white	paint from garage	TCLP-200.8/ Pb	2.76 ppm
82310 - paint blue	paint from garage	TCLP-200.8/ Pb	3.19 ppm

Note: Current MTCA cleanup level for gasoline in soil is 100 ppm or 30 ppm if benzene is present.  
 Cleanup levels for BTEX as follows B=0.03 ppm, T=7 ppm, E= 6 ppm, X=9 ppm  
 Cleanup level for lead is 250 ppm

WTPH = Washington Total Petroleum Hydrocarbon  
 Gx = Gasoline  
 BTEX = Benzene, toluene, ethyl-benzene, xylene (gasoline additives)  
 ppm = Parts per million (soil)  
 bgl = Below ground level  
 ft = Feet

**TABLE D**  
**Tank Excavation (T1, T2 and T3) -**  
**Final Confirmational Soil Sampling Analytical Results**

SAMPLE NUMBER	LOCATION	ANALYSIS	RESULTS
101110 - B-14	Bottom of excavation at 14 ft bgl	NWTPH-Gx BTEX	< 5 ppm BC
101110 - S-14	South sidewall of excavation at 14 ft bgl	NWTPH-Gx BTEX	140 ppm AC
101110 - N-14	North sidewall of excavation at 14 ft bgl	NWTPH-Gx BTEX	3 ppm BC
101110 - E-14	East sidewall of excavation at 14 ft bgl	NWTPH-Gx BTEX	5.9 ppm BC
101110 - W-14	West sidewall of excavation at 14 ft bgl	NWTPH-Gx BTEX	5,700 ppm AC

Note: Current MTCA cleanup level for gasoline in soil is 100 ppm or 30 ppm if benzene is present.  
Cleanup levels for BTEX as follows B=0.03 ppm, T=7 ppm, E= 6 ppm, X=9 ppm  
Cleanup level for lead is 250 ppm

WTPH = Washington Total Petroleum Hydrocarbon  
Gx = Gasoline  
BTEX = Benzene, toluene, ethyl-benzene, xylene (gasoline additives)  
ppm = Parts per million (soil)  
BC = Below cleanup  
AC = Above Cleanup  
bgl = Below ground level  
ft = Feet

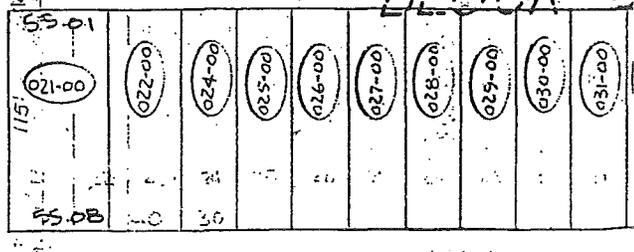
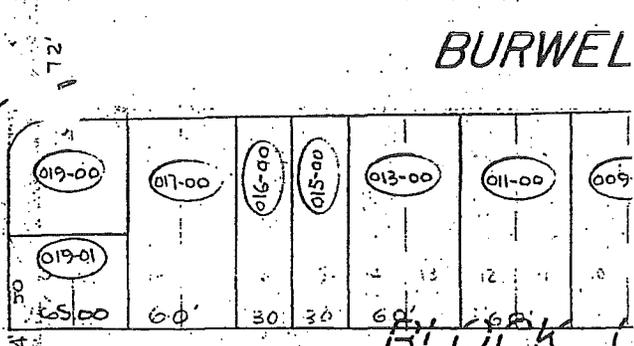
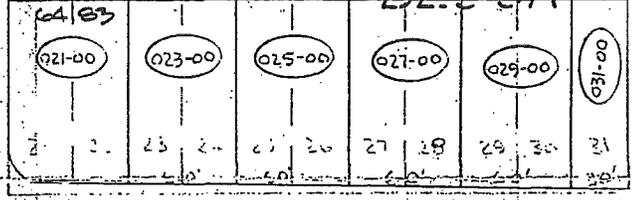
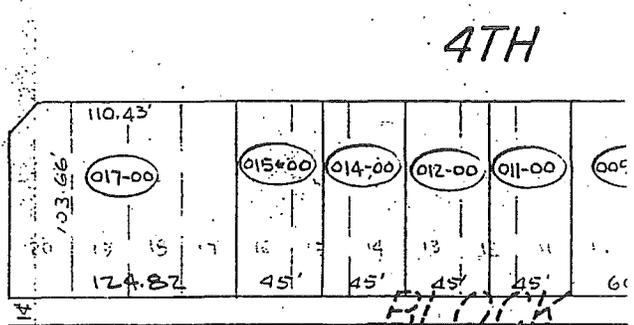
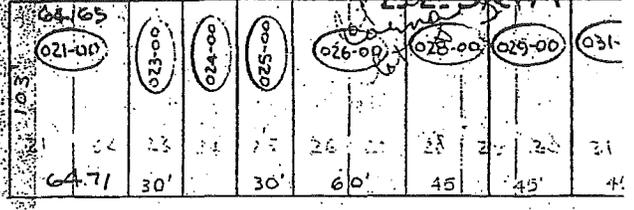
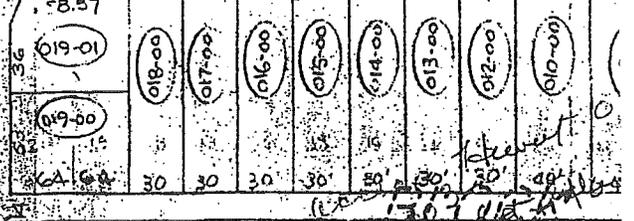
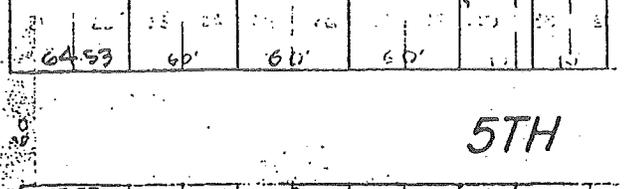
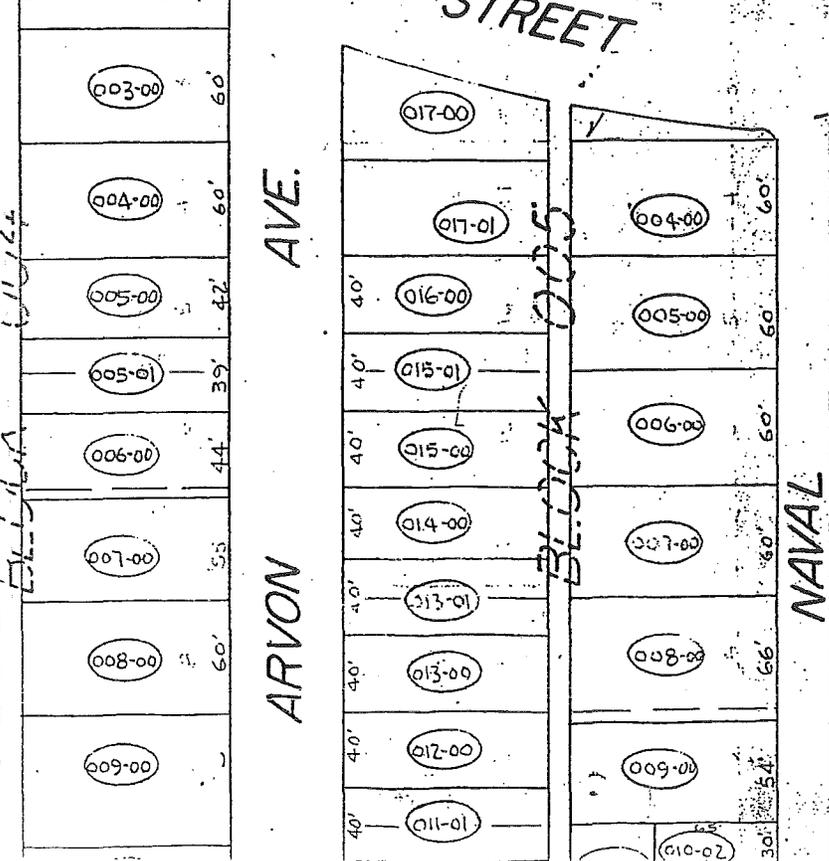
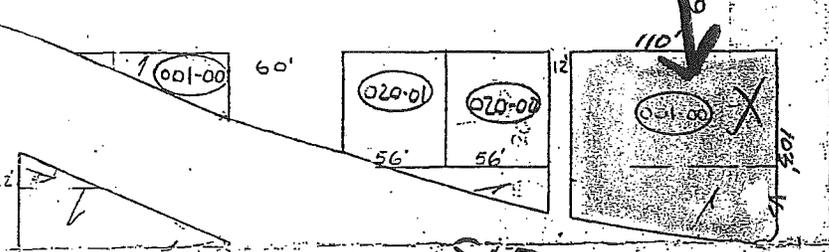
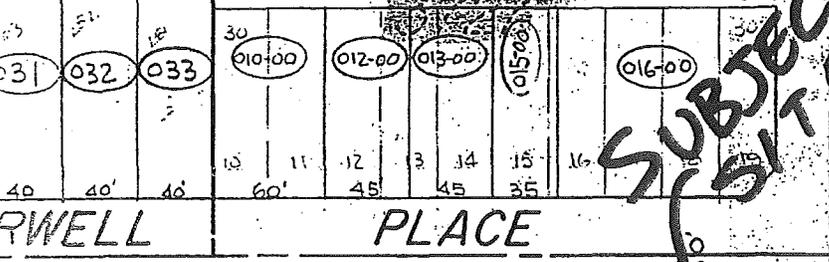
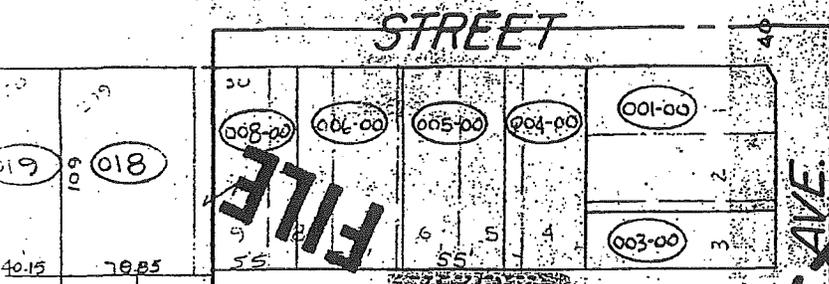
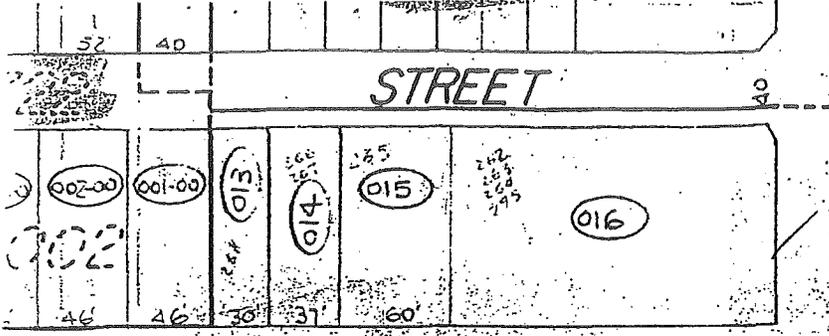
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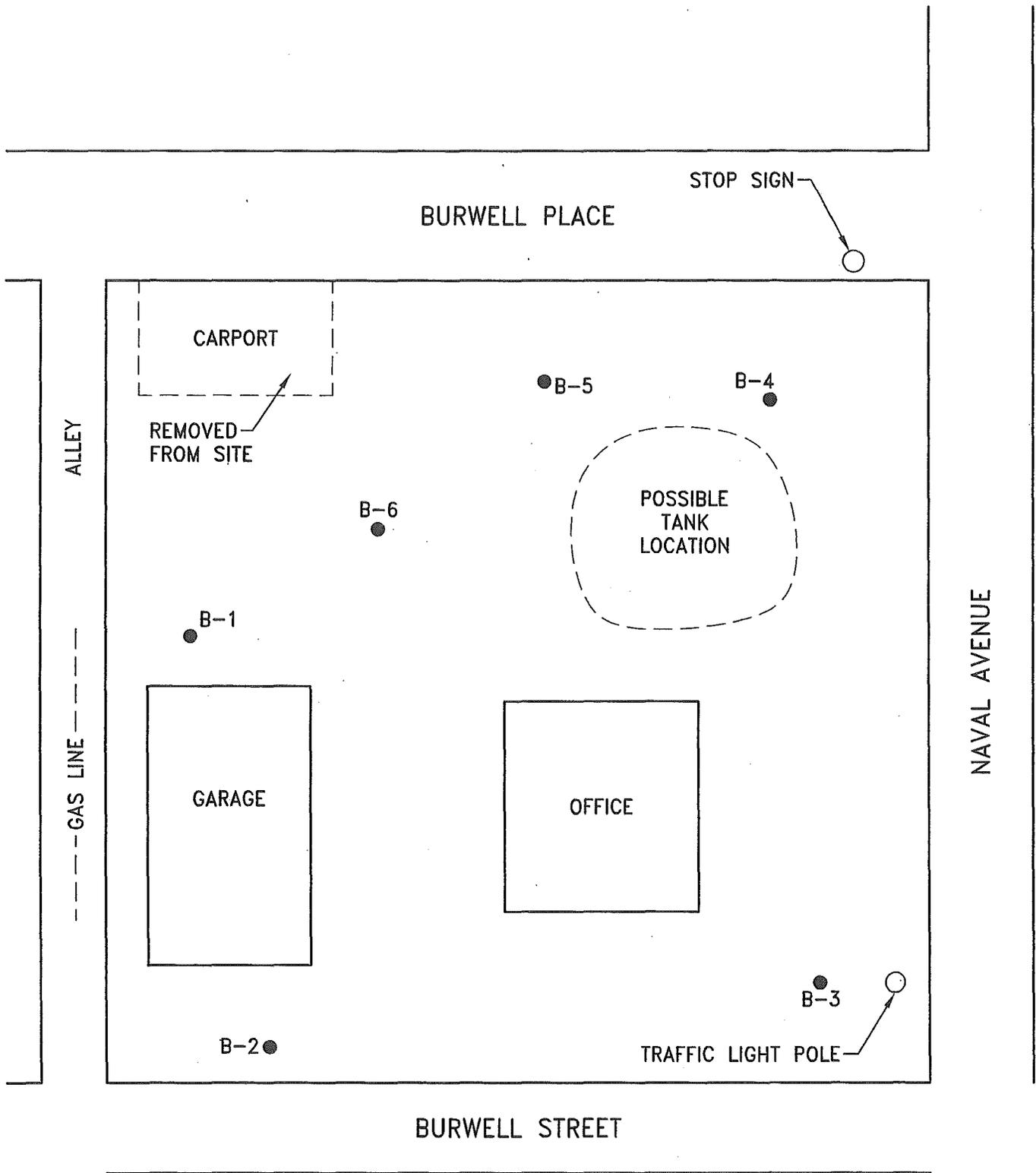
**APPENDIX A**

**SITE MAP**

**SITE SKETCH**

**SITE PHOTOGRAPHS**





L & E AUTO SALES  
 2101 BURWELL PL.  
 BREMERTON, WASHINGTON

● - BORING LOCATION

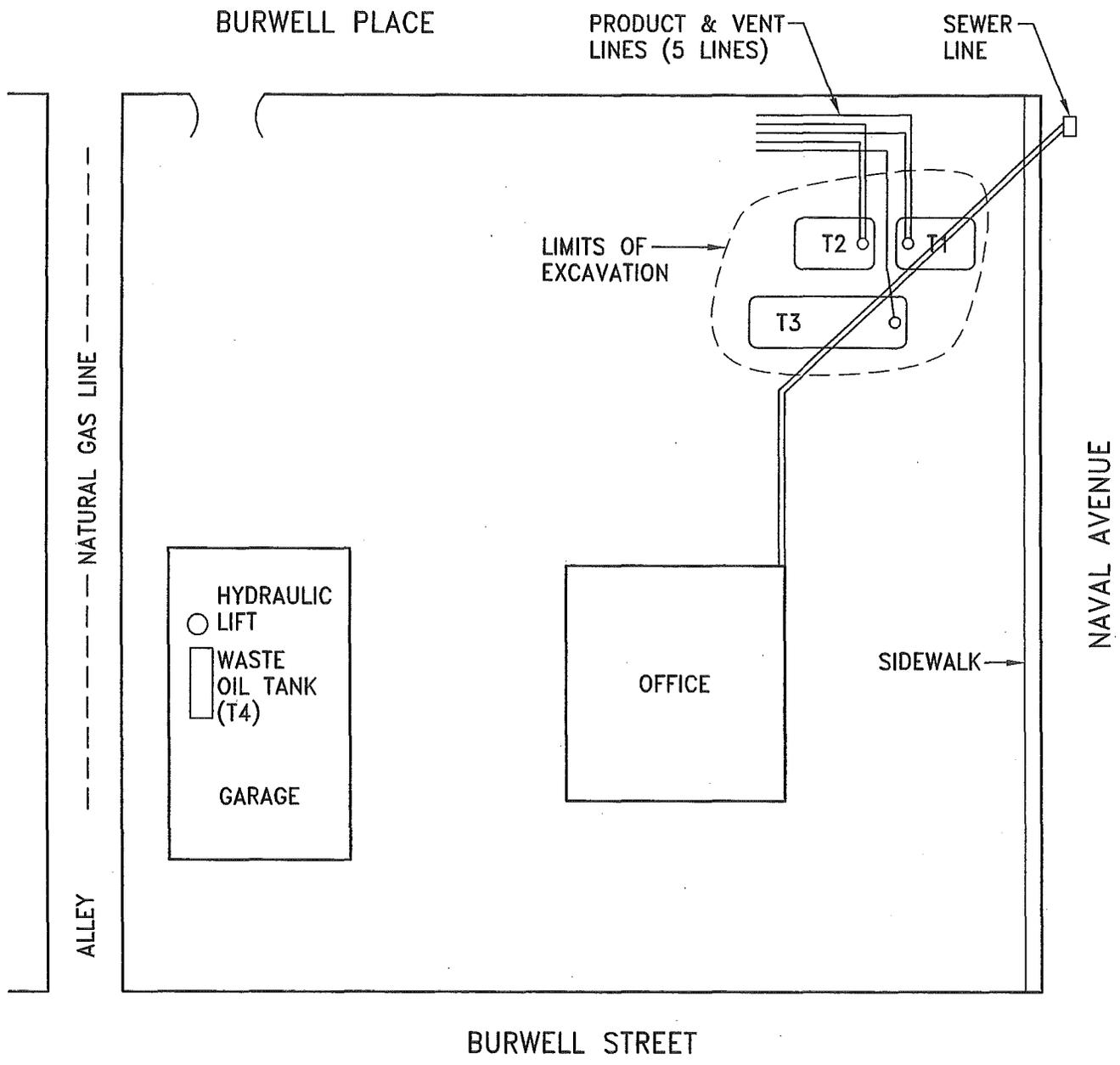
**DLH Environmental Consulting**

NOT TO SCALE

FIGURE 1

6/3/10





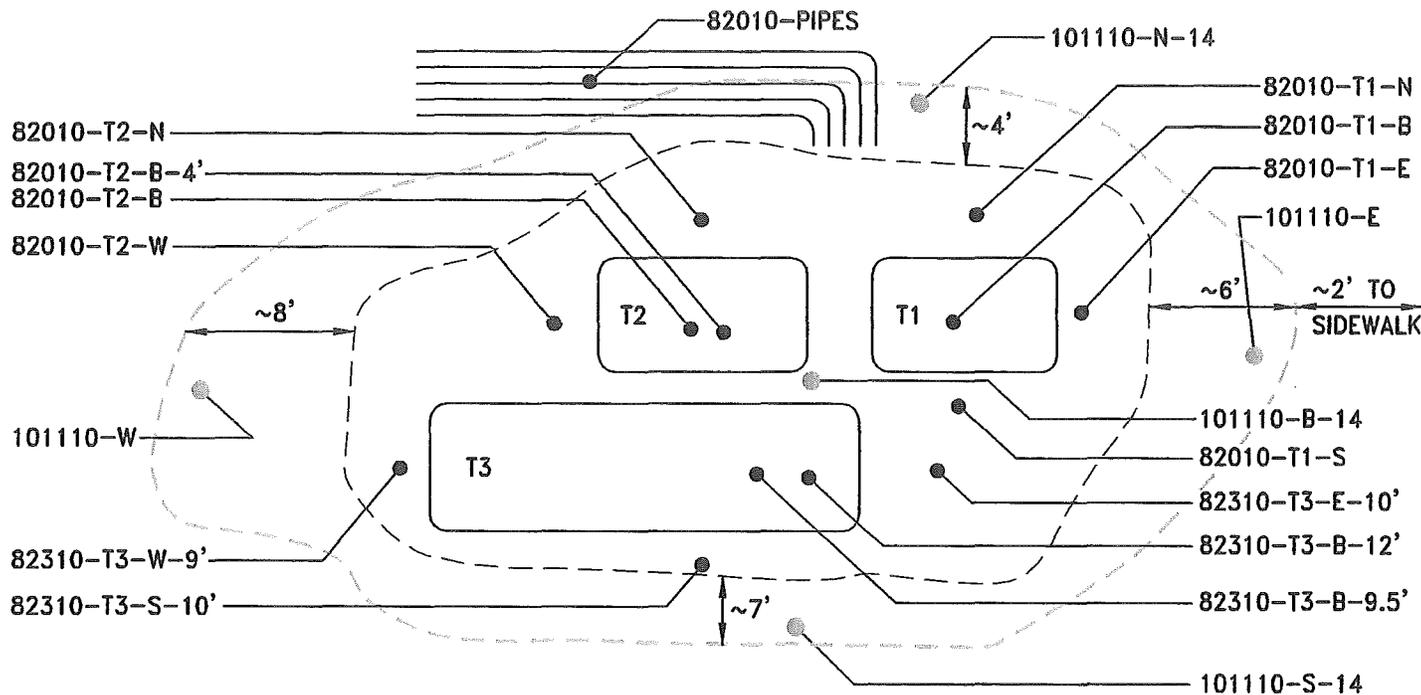
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**DLH Environmental Consulting**

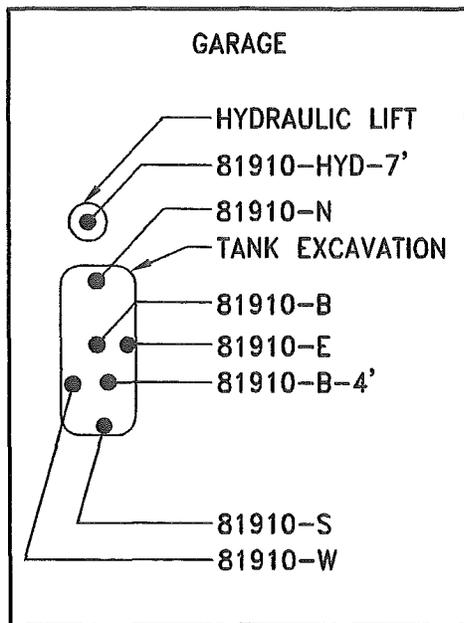
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FIGURE 2  
 AUGUST 2010





**UNDERGROUND STORAGE TANK REMOVAL**



**WASTE OIL TANK & HYDRAULIC LIFT REMOVAL**

- - - - - FINAL OVEREXCAVATION
- - SOIL SAMPLE LOCATION
- - FINAL CONFIRMATIONAL SOIL SAMPLE LOCATION

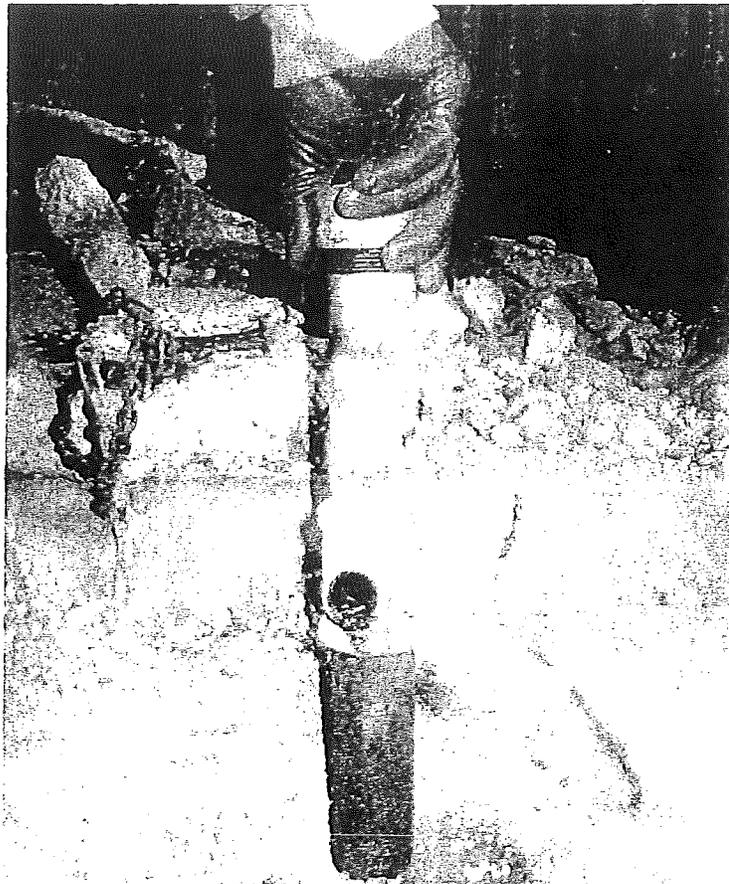
**TANK EXCAVATION DETAIL**

L & E AUTO SALES  
 2101 BURWELL PL.  
 BREMERTON, WASHINGTON

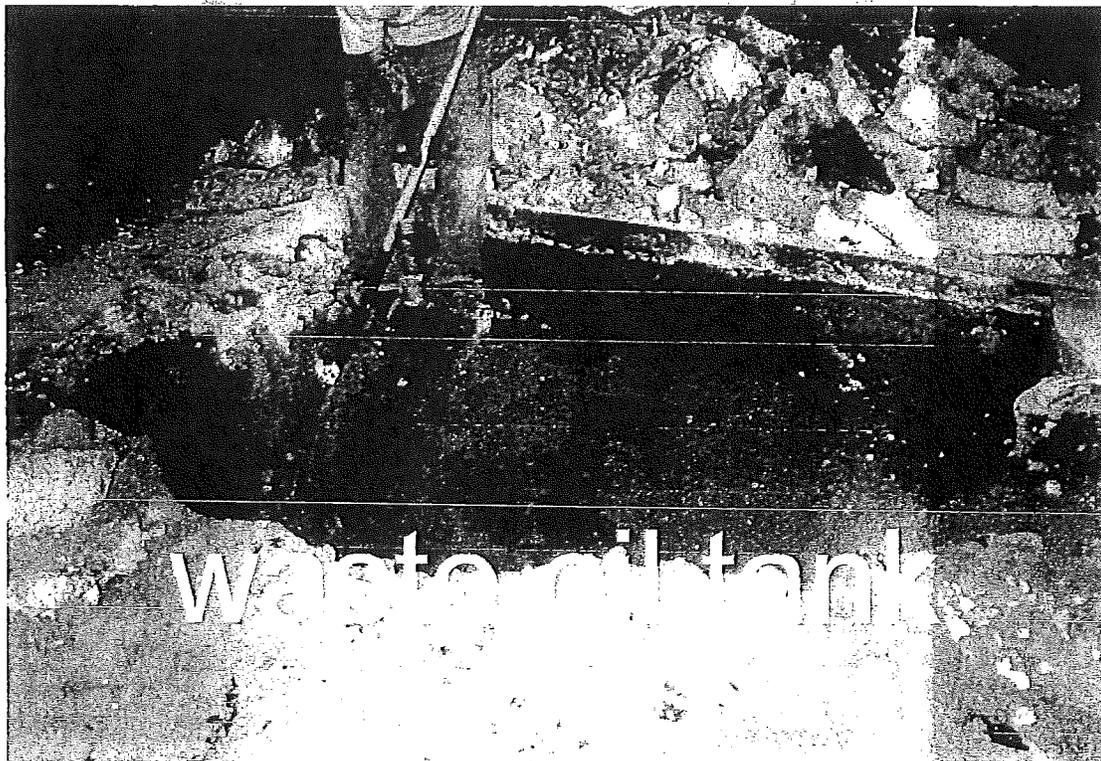
**DLH Environmental Consulting**  
 NOT TO SCALE

FIGURE 3  
 AUGUST-OCTOBER 2010





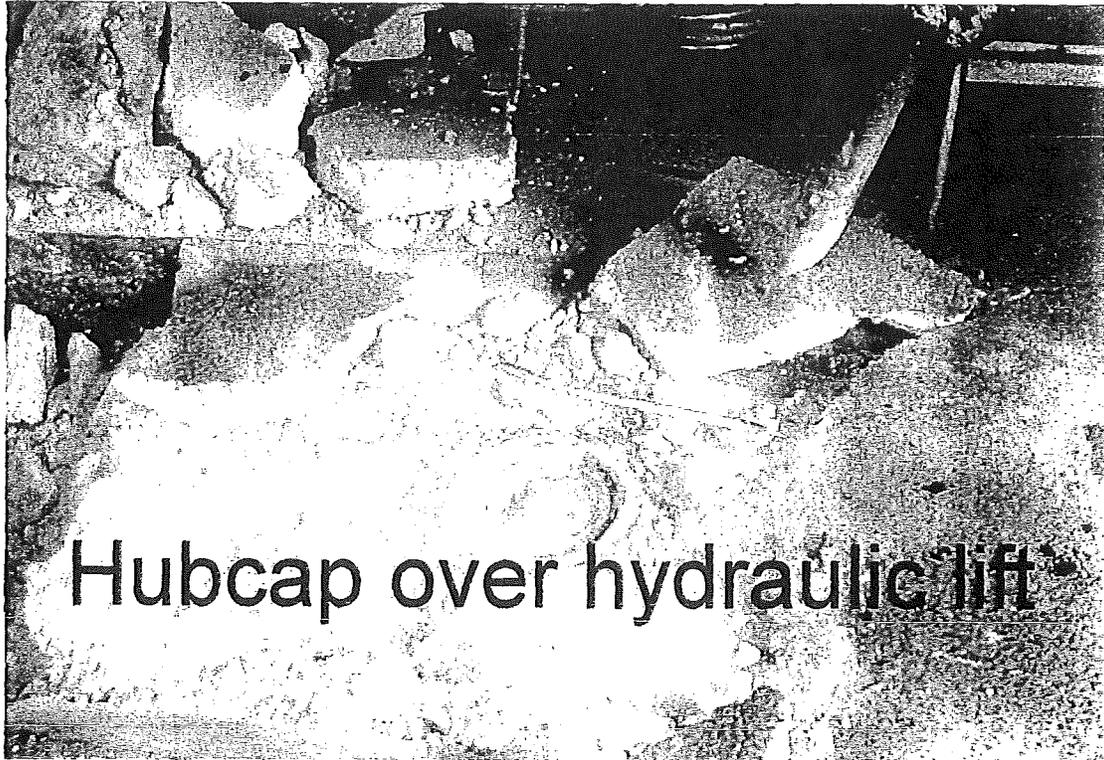
Waste oil tank fill



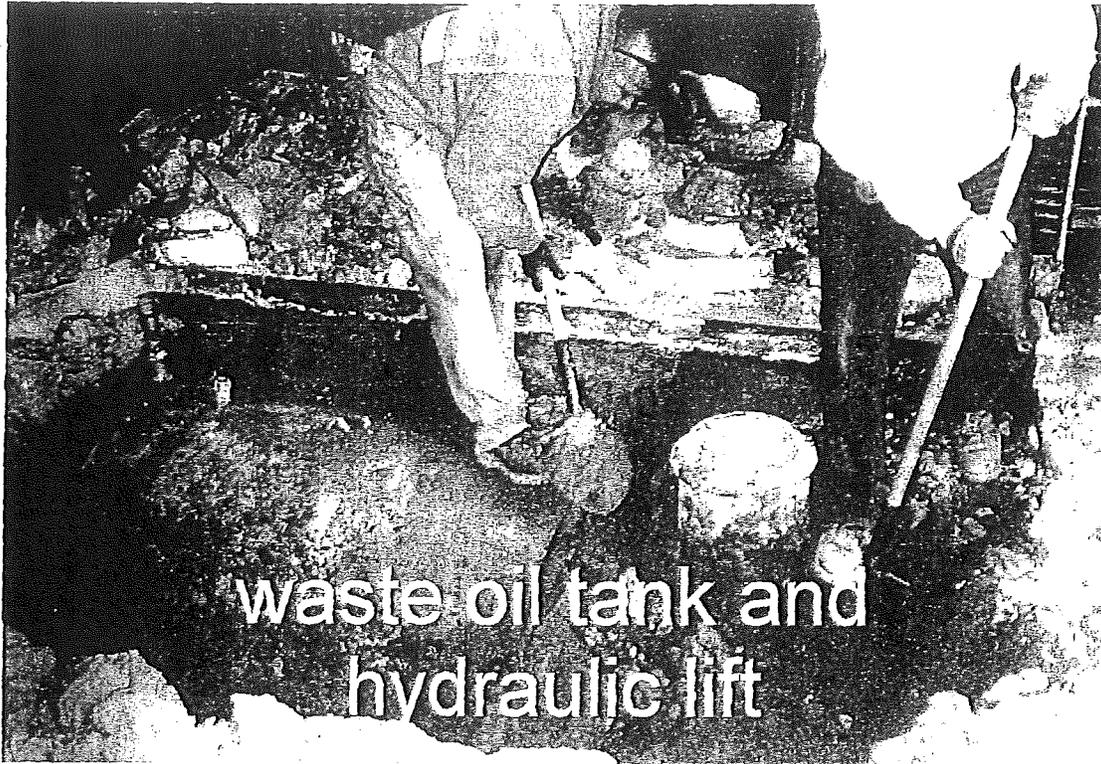
waste oil tank



Hydraulic lift  
adjacent to waste oil tank



Hubcap over hydraulic lift



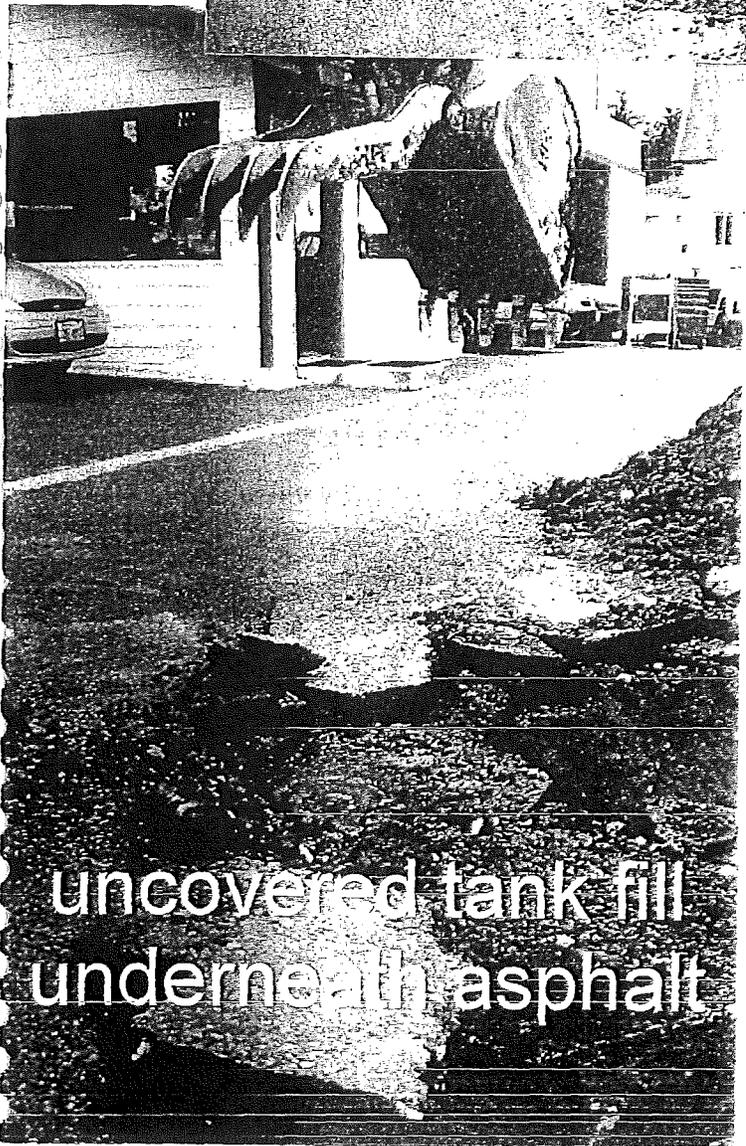
waste oil tank and  
hydraulic lift



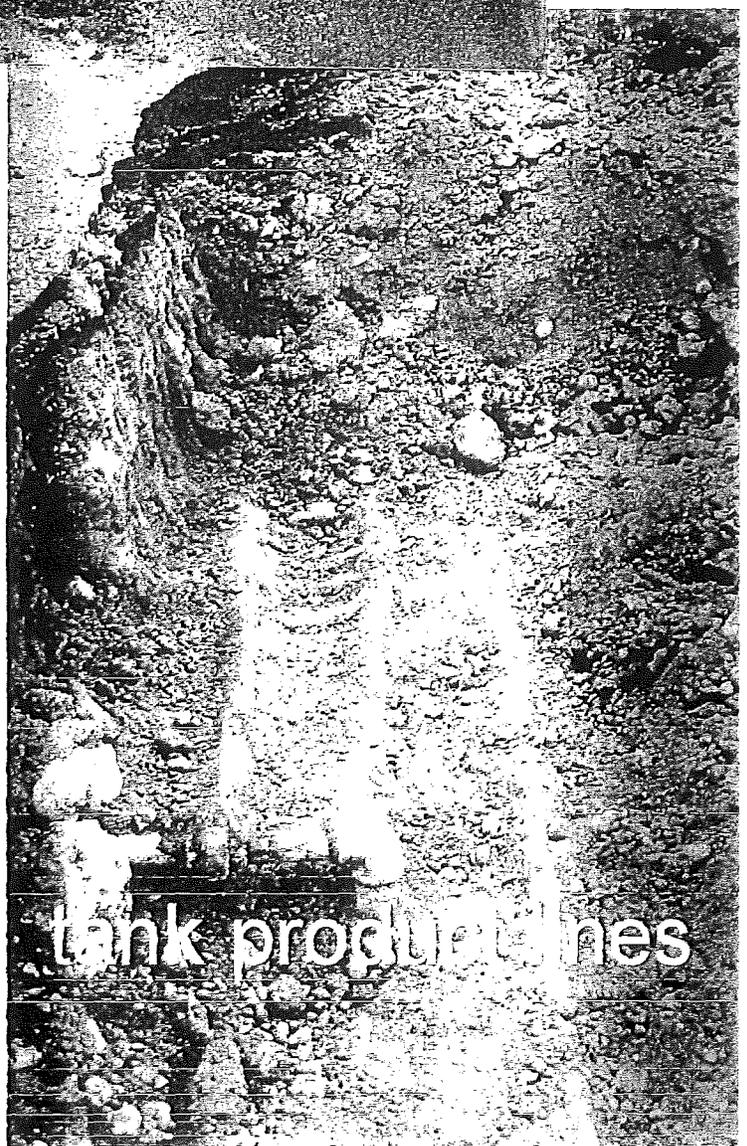
removed was tank and  
hydraulic lift



trenching to locate UST'S  
facing west



uncovered tank fill  
underneath asphalt



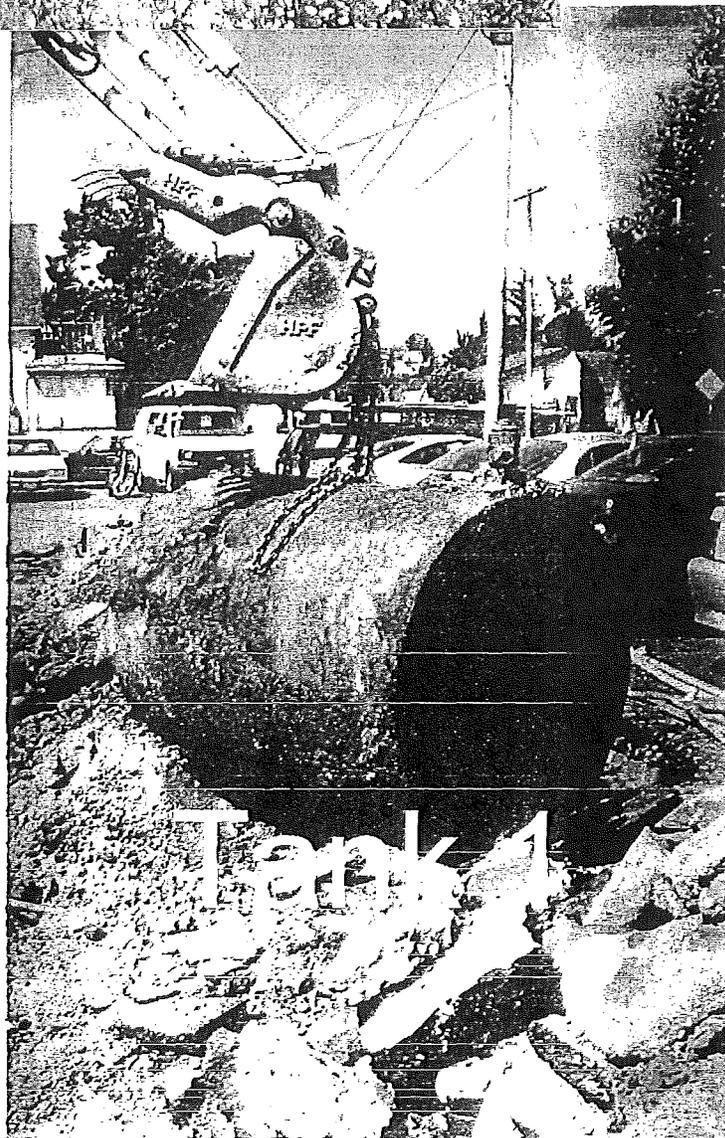
tank production lines



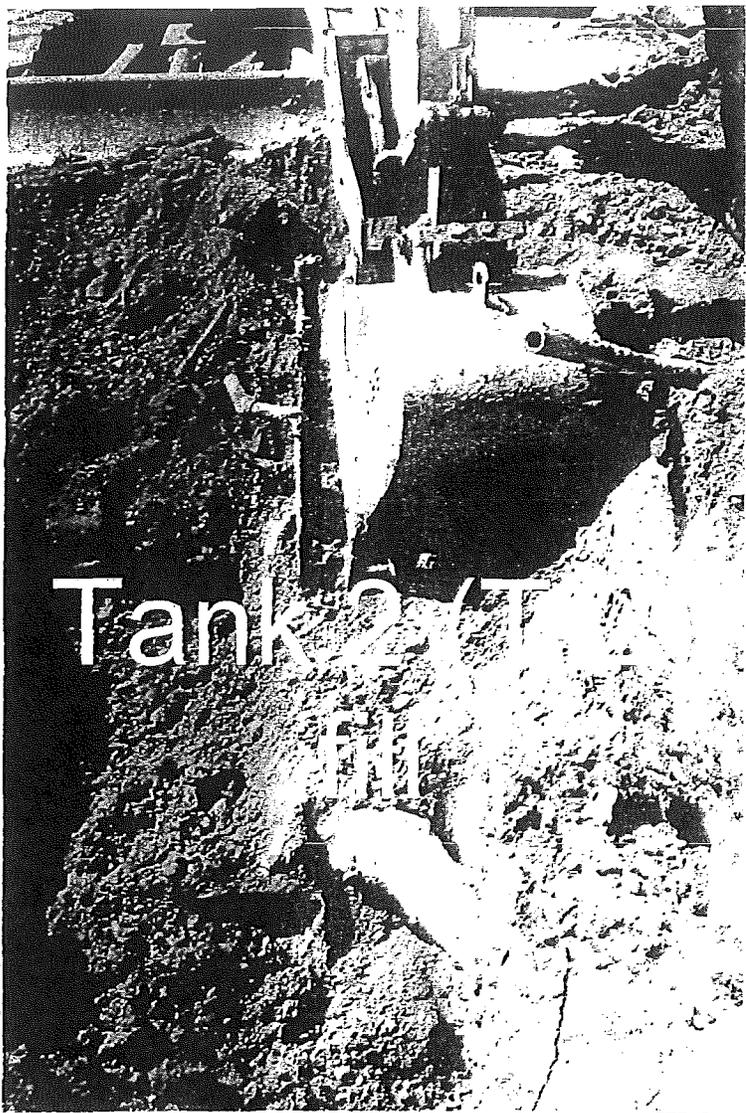
Tank 1 fill



Tank 1 (T-1) fill



Tank 1



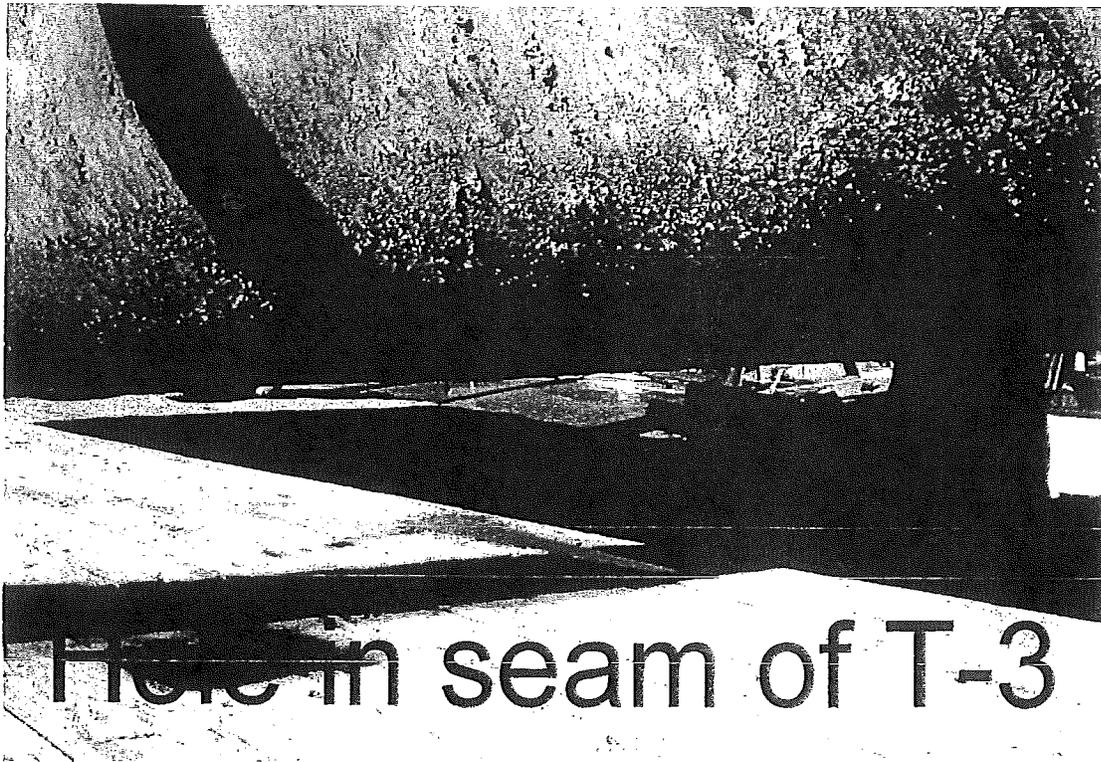
Tank 2/T

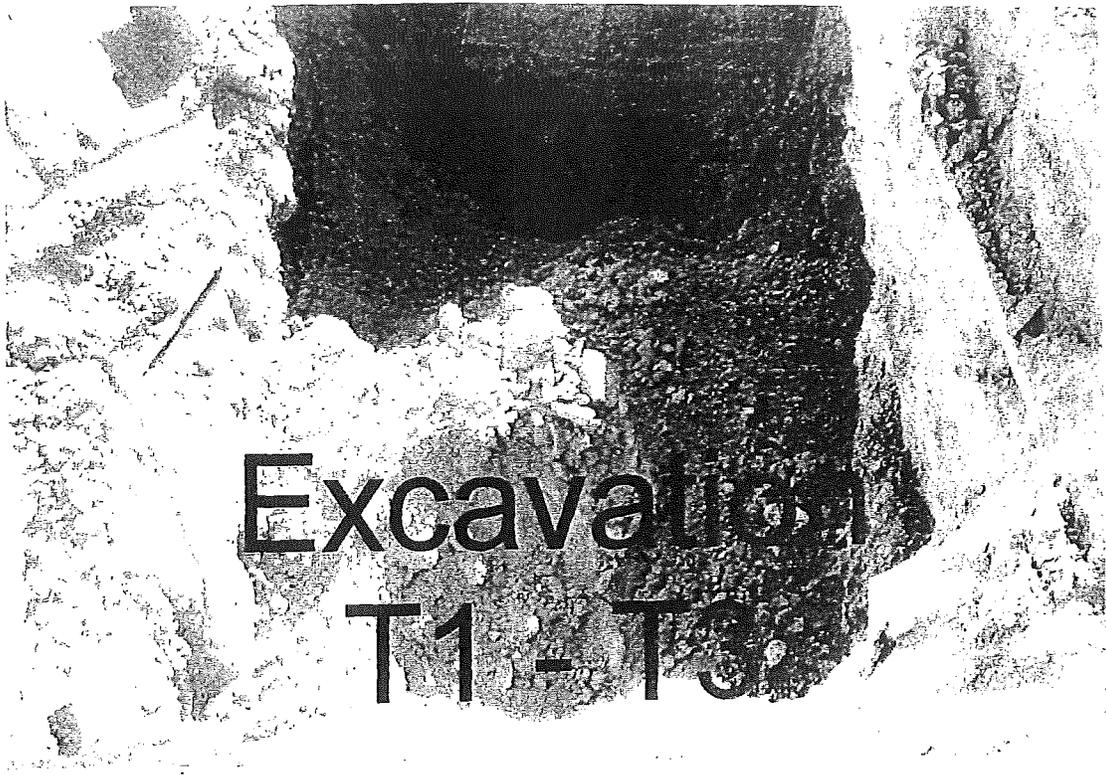


TANK 2



Holes in Tank 2





**APPENDIX B**

**LABORATORY REPORTS**

**CHAIN OF CUSTODY FORMS**

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

October 20, 2010

Donna Hewitt, Project Manager  
DLH Environmental Consulting  
2400 NW 80th St., 114  
Seattle, WA 98117-4449

Dear Ms. Hewitt:

Included are the results from the testing of material submitted on October 11, 2010 from the L&E Auto, F&BI 010117 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
DLH1020R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on October 11, 2010 by Friedman & Bruya, Inc. from the DLH Environmental Consulting L&E Auto, F&BI 010117 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>DLH Environmental Consulting</u>
010117-01	101110-B-14
010117-02	101110-S-14
010117-03	101110-N-14
010117-04	101110-E-14
010117-05	101110-W-14

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/20/10  
 Date Received: 10/11/10  
 Project: L&E Auto, F&BI 010117  
 Date Extracted: 10/12/10  
 Date Analyzed: 10/14/10 and 10/19/10

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
 FOR BENZENE, TOLUENE, ETHYLBENZENE,  
 XYLENES AND TPH AS GASOLINE  
 USING EPA METHOD 8021B AND NWTPH-Gx**  
 Results Reported on a Dry Weight Basis  
 Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
101110-B-14 010117-01	<0.02	<0.02	<0.02	<0.06	<5	111
101110-S-14 010117-02	<0.02	0.35	0.47	4.3	140	124
101110-N-14 010117-03	<0.02	<0.02	<0.02	<0.06	3	97
101110-E-14 010117-04	<0.02	<0.02	0.042	0.43	5.9	130
101110-W-14 010117-05 1/100	<2	68	72	420	5,700	ip
Method Blank 00-1616 MB	<0.02	<0.02	<0.02	<0.06	<5	117

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/20/10

Date Received: 10/11/10

Project: L&E Auto, F&BI 010117

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	0.5	88	91	69-120	3
Toluene	mg/kg (ppm)	0.5	107	107	70-117	0
Ethylbenzene	mg/kg (ppm)	0.5	108	109	65-123	1
Xylenes	mg/kg (ppm)	1.5	105	106	66-120	1
Gasoline	mg/kg (ppm)	20	120	115	71-131	4

**Data Qualifiers & Definitions**

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 - More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

010117

SAMPLE CHAIN OF CUSTODY

ME 10/11/10

Page # 1 of 1 VSI

Send Report To Donna Hewitt  
 Company DLH  
 Address 2400 NW 80th St #114  
 City, State, ZIP Seattle, WA 98117  
 Phone # 206-632-3123 Fax # dlhenvironmental @ aol.com

SAMPLERS (signature) \_\_\_\_\_  
 PROJECT NAME/NO. L3E Auto PO # \_\_\_\_\_  
 REMARKS \_\_\_\_\_

TURNAROUND TIME  
 Standard (2 Weeks)  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_  
 SAMPLE DISPOSAL  
 Dispose after 30 days  
 Return samples  
 Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						
101110-B-14	01A-D	10/11/10	10:42	Soil	4	X	X										
101110-S-14	02A-D	↓	11:00	"	"	X	X										
-N-14	03A-D	↓	11:58	↓	↓	X	X										
-E-14	04A-D	↓	12:03	↓	↓	X	X										
-W-14	05A-D	↓	12:05	↓	↓	X	X										
<del>_____</del>																	

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119  
 Ph. (206) 285-8282  
 Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	<u>Donna Hewitt</u>	<u>DLH</u>	<u>10/11/10</u>	<u>1:45</u>
Received by: <u>[Signature]</u>	<u>Jan Shimazu</u>	<u>FBI</u>	<u>10/10/10</u>	<u>1:45</u>
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

September 7, 2010

Donna Hewitt, Project Manager  
DLH Environmental Consulting  
2400 NW 80th St., 114  
Seattle, WA 98117-4449

Dear Ms. Hewitt:

Included are the results from the testing of material submitted on August 23, 2010 from the L&E, F&BI 008262 project. There are 12 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
DLH0907R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 23, 2010 by Friedman & Bruya, Inc. from the DLH Environmental Consulting L&E, F&BI 008262 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>DLH Environmental Consulting</u>
008262-01	82310-T3-B-9'5"
008262-02	82310-T3-B-12'
008262-03	82310-T3-W-9
008262-04	82310-T3-S-10
008262-05	82310-T3-E-10
008262-06	82310-Paint-White
008262-07	82310-Paint-Blue
008262-08	82310-Pipes.W-2

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/07/10  
 Date Received: 08/23/10  
 Project: L&E, F&BI 008262  
 Date Extracted: 08/31/10 and 09/02/10  
 Date Analyzed: 09/01/10 and 09/02/10

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
 FOR BENZENE, TOLUENE, ETHYLBENZENE,  
 XYLENES AND TPH AS GASOLINE  
 USING EPA METHOD 8021B AND NWTPH-Gx**  
 Results Reported on a Dry Weight Basis  
 Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-132)
82310-T3-B-9'5" 008262-01 1/100	<2	93	120	790 ve	6,600	ip
82310-T3-B-12' 008262-02	0.09	1.6	0.80	4.6	32	123
82310-T3-W-9 008262-03 1/200	9.1	320	170	1,100	6,600	ip
82310-T3-S-10 008262-04 1/100	<2	49	100	830	8,900	ip
82310-T3-E-10 008262-05	<0.02	0.075	0.11	0.75	15	108
Method Blank 00-1348 MB2	<0.02	<0.02	<0.02	<0.06	<2	74
Method Blank 00-1409 MB	<0.02	<0.02	<0.02	<0.06	<2	116

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	82310-T3-W-9	Client:	DLH Environmental Consulting
Date Received:	08/23/10	Project:	L&E, F&BI 008262
Date Extracted:	08/24/10	Lab ID:	008262-03
Date Analyzed:	08/26/10	Data File:	008262-03.019
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	92	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	19.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	DLH Environmental Consulting
Date Received:	NA	Project:	L&E, F&BI 008262
Date Extracted:	08/23/10	Lab ID:	I0-457 mb
Date Analyzed:	08/26/10	Data File:	I0-457 mb.018
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	88	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)

Lead	<1
------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	82310-Paint-White	Client:	DLH Environmental Consulting
Date Received:	08/23/10	Project:	L&E, F&BI 008262
Date Extracted:	08/31/10	Lab ID:	008262-06
Date Analyzed:	09/01/10	Data File:	008262-06.038
Matrix:	Paint	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	104	Limit:	Limit:
		60	125

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	2.76	5.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	82310-Paint-Blue	Client:	DLH Environmental Consulting
Date Received:	08/23/10	Project:	L&E, F&BI 008262
Date Extracted:	08/31/10	Lab ID:	008262-07
Date Analyzed:	09/01/10	Data File:	008262-07.041
Matrix:	Paint	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	109	Limit:	Limit:
		60	125

Analyte:	Concentration	TCLP Limit
	mg/L (ppm)	
Lead	3.19	5.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis for TCLP Metals By EPA Method 200.8 and 40 CFR PART 261

Client ID:	Method Blank	Client:	DLH Environmental Consulting
Date Received:	NA	Project:	L&E, F&BI 008262
Date Extracted:	08/31/10	Lab ID:	I0-477 mb
Date Analyzed:	09/01/10	Data File:	I0-477 mb.036
Matrix:	Paint	Instrument:	ICPMS1
Units:	mg/L (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	105	60	125

Analyte:	Concentration mg/L (ppm)	TCLP Limit
Lead	<1	5.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/07/10

Date Received: 08/23/10

Project: L&E, F&BI 008262

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
FOR BENZENE, TOLUENE, ETHYLBENZENE,  
XYLENES, AND TPH AS GASOLINE  
USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 008237-05 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	4	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	104	66-121
Toluene	mg/kg (ppm)	0.5	102	72-128
Ethylbenzene	mg/kg (ppm)	0.5	102	69-132
Xylenes	mg/kg (ppm)	1.5	110	69-131
Gasoline	mg/kg (ppm)	20	125	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/07/10  
 Date Received: 08/23/10  
 Project: L&E, F&BI 008262

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
 FOR BENZENE, TOLUENE, ETHYLBENZENE,  
 XYLENES, AND TPH AS GASOLINE  
 USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 008262-08 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	
			Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	98	69-120
Toluene	mg/kg (ppm)	0.5	103	70-117
Ethylbenzene	mg/kg (ppm)	0.5	108	65-123
Xylenes	mg/kg (ppm)	1.5	103	66-120
Gasoline	mg/kg (ppm)	20	95	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/07/10  
Date Received: 08/23/10  
Project: L&E, F&BI 008262

QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 008250-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	20	5.27	98 b	100 b	65-126	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	106	81-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/07/10  
Date Received: 08/23/10  
Project: L&E, F&BI 008262

QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF PAINT SAMPLES  
FOR TCLP METALS USING  
EPA METHOD 200.8 AND 40 CFR PART 261

Laboratory Code: 008262-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/L (ppm)	1.0	2.76	95 b	102 b	50-150	7 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/L (ppm)	1.0	95	70-130

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 - More than one compound of similar molecule structure was identified with equal probability.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte indicated may be due to carryover from previous sample injections.
- d - The sample was diluted. Detection limits may be raised due to dilution.
- ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb - Analyte present in the blank and the sample.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.
- ht - Analysis performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The result is below normal reporting limits. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the compound indicated is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

008262

70 242/101

**SAMPLE CHAIN OF CUSTODY** ME 8/23/10 VS21/DOI

Send Report To Donna Heath  
 Company DLH  
 Address 2400 NW 80th St #114  
 City, State, ZIP Seattle, WA 98117  
 Phone # 206-632-3123 Fax # dhenvironmental@aol.com

SAMPLERS (signature) \_\_\_\_\_  
 PROJECT NAME/NO. L3E PO # \_\_\_\_\_  
 REMARKS \_\_\_\_\_

Page # \_\_\_\_\_

**TURNAROUND TIME**  
 Standard (2 Weeks)  
 RUSH  
 Rush charges authorized by: \_\_\_\_\_

**SAMPLE DISPOSAL**  
 Dispose after 30 days  
 Return samples  
 Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes		
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	LEAD	TRCP Pb					
82310-T3-B-9'5"	01 A-D	8/23/10	9:25	Soil	4		X	X										
- B-T21	02 A-D		9:29	Soil	4		X	X										
- W-9	03 A-E		9:32		5		X	X				X						
S-10	04 A-D		9:44		4		X	X										
E-10	05 A-D		9:46		4		X	X										
82310-Paint-White	06 <del>A-D</del>		1:19	Paint chip	1													
- Paint-Blue	07 <del>A-D</del>		10:00	Paint chip	1													
82310-pipes.W-2	08 A-D	8/23	1:19	Soil	4													add 8/23/10

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119  
 Ph. (206) 285-8282  
 Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: _____	Donna Heath	DLH	8/23/10	
Received by: _____	Michelle Costales Poggiu	F&B	8/23/10	3:10 PM
Relinquished by: _____				
Received by: _____				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

August 26, 2010

Donna Hewitt, Project Manager  
DLH Environmental Consulting  
2400 NW 80th St., 114  
Seattle, WA 98117-4449

Dear Ms. Hewitt:

Included are the results from the testing of material submitted on August 20, 2010 from the L&E, F&BI 008255 project. There are 8 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
DLH0826R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 20, 2010 by Friedman & Bruya, Inc. from the DLH Environmental Consulting L&E, F&BI 008255 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>DLH Environmental Consulting</u>
008255-01	82010-Pipes
008255-02	82010-T1-B
008255-03	82010-T1-E
008255-04	82010-T1-N
008255-05	82010-T1-S
008255-06	82010-T2-N
008255-07	82010-T2-B-2
008255-08	82010-T2-W
008255-09	82010-T2-B-4

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/26/10  
 Date Received: 08/20/10  
 Project: L&E, F&BI 008255  
 Date Extracted: 08/23/10  
 Date Analyzed: 08/23/10 and 08/24/10

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
 FOR BENZENE, TOLUENE, ETHYLBENZENE,  
 XYLENES AND TPH AS GASOLINE  
 USING EPA METHOD 8021B AND NWTPH-G<sub>x</sub>**  
 Results Reported on a Dry Weight Basis  
 Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
82010-Pipes 008255-01	<0.02	<0.02	<0.02	<0.06	<2	114
82010-T1-B 008255-02 1/40	<0.8	19	40	300	5,100	ip
82010-T1-E 008255-03	<0.02	<0.02	<0.02	<0.06	<2	85
82010-T1-N 008255-04 1/40	<0.8	3.6	15	69	4,900	ip
82010-T1-S 008255-05 1/40	<0.8	15	36	280	7,400	ip
82010-T2-N 008255-06 1/100	6.0	92	100	720	8,700	ip
82010-T2-B-2 008255-07 1/10	1.5	120	110	790	12,000	ip
82010-T2-W 008255-08	<0.02	0.15	0.32	2.0	120	76
82010-T2-B-4 008255-09 1/10	3.4	460	290	2,000	20,000	ip
Method Blank 00-1305 MB	<0.02	<0.02	<0.02	<0.06	<2	74

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	82010-T1-B	Client:	DLH Environmental Consulting
Date Received:	08/20/10	Project:	L&E, F&BI 008255
Date Extracted:	08/23/10	Lab ID:	008255-02
Date Analyzed:	08/23/10	Data File:	008255-02.015
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	97	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)
Lead	19.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	82010-T2-B-2	Client:	DLH Environmental Consulting
Date Received:	08/20/10	Project:	L&E, F&BI 008255
Date Extracted:	08/23/10	Lab ID:	008255-07
Date Analyzed:	08/23/10	Data File:	002555-07.016
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	99	60	125

Analyte:	Concentration mg/kg (ppm)
----------	------------------------------

Lead	18.3
------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	DLH Environmental Consulting
Date Received:	NA	Project:	L&E, F&BI 008255
Date Extracted:	08/23/10	Lab ID:	I0-457 mb
Date Analyzed:	08/23/10	Data File:	I0-457 mb.018
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	89	60	125

Analyte:	Concentration mg/kg (ppm)
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/26/10  
 Date Received: 08/20/10  
 Project: L&E, F&BI 008255

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES  
 FOR BENZENE, TOLUENE, ETHYLBENZENE,  
 XYLENES, AND TPH AS GASOLINE  
 USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 008255-01 (Duplicate)

Analyte	Reporting Units	(Wet Wt) Sample Result	(Wet Wt) Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	79	69-120
Toluene	mg/kg (ppm)	0.5	85	70-117
Ethylbenzene	mg/kg (ppm)	0.5	81	65-123
Xylenes	mg/kg (ppm)	1.5	84	66-120
Gasoline	mg/kg (ppm)	20	108	71-131

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/26/10  
Date Received: 08/20/10  
Project: L&E, F&BI 008255

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL METALS USING EPA METHOD 200.8**

Laboratory Code: 008250-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	20	5.27	98 b	100 b	65-126	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	106	81-120

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 - More than one compound of similar molecule structure was identified with equal probability.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte indicated may be due to carryover from previous sample injections.
- d - The sample was diluted. Detection limits may be raised due to dilution.
- ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
- dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.
- fb - Analyte present in the blank and the sample.
- fc - The compound is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.
- ht - Analysis performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The result is below normal reporting limits. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the compound indicated is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

008255

SAMPLE CHAIN OF CUSTODY

ME

8/20/10 VS/AI/1

Send Report To Donna Heath  
 Company DLH  
 Address 2400 NW 80th St #114  
 City, State, ZIP Seattle, WA 98117  
 Phone # 206-632-3123 Fax # dlhenvironmental @ Adl.com

SAMPLERS (signature) [Signature]  
 PROJECT NAME/NO. L3E PO #  
 REMARKS 2-24 Hr RUSH the Rest by Friday 27th

Page # 1 of 1  
 TURNAROUND TIME  
 Standard (2 Weeks)  
 RUSH  
 Rush charges authorized by:  
 SAMPLE DISPOSAL  
 Dispose after 30 days  
 Return samples  
 Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED							Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	LEAD		
82010-Pipes	01 A-D	8/20/10	10:25	Soil	4	X	X							
82010-T1-B	02 A-E		12:13		5	X	X					X		
-T1-E	03A-D		12:15		4	X	X							
-T1-N	04 A-D		12:17		4	X	X							
-T1-S	05 A-D		12:21		4	X	X							
-T2-N	06 A-D		2:07		4	X	X							
-T2-B-2	07 A-D		2:08		5	X	X					X	RUSH-24	7'6
-T2-W	08 A-D		2:10		4	X	X							
-T2-B-4	09 A-D		2:15		4	X	X						RUSH-24	11'45
X	X	X	X	X	X									

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119  
 Ph. (206) 285-8282  
 Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	Donna Heath	DLH	8/20/10	4:20
Received by: <u>[Signature]</u>	Michael Erdahl	FERM	1	1
Relinquished by:				
Received by:				

Samples received at 24 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

August 24, 2010

Donna Hewitt, Project Manager  
DLH Environmental Consulting  
2400 NW 80th St., 114  
Seattle, WA 98117-4449

Dear Ms. Hewitt:

Included are the results from the testing of material submitted on August 19, 2010 from the L&E, F&BI 008231 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
DLH0824R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 19, 2010 by Friedman & Bruya, Inc. from the DLH Environmental Consulting L&E, F&BI 008231 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>DLH Environmental Consulting</u>
008231-01	81910-N
008231-02	81910-S
008231-03	81910-E
008231-04	81910-W
008231-05	81910-B
008231-06	81910-B+4'
008231-07	81910-Hyd-7'

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/24/10  
 Date Received: 08/19/10  
 Project: L&E, F&BI 008231  
 Date Extracted: 08/20/10  
 Date Analyzed: 08/20/10

**RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
 FOR TOTAL PETROLEUM HYDROCARBONS AS  
 DIESEL AND MOTOR OIL  
 USING METHOD NWTPH-Dx**  
 Results Reported on a Dry Weight Basis  
 Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C <sub>10</sub> -C <sub>25</sub> )	<u>Motor Oil Range</u> (C <sub>25</sub> -C <sub>36</sub> )	<u>Surrogate</u> (% Recovery) (Limit 53-144)
81910-N 008231-01	7,100	27,000	93
81910-S 008231-02	<50	<250	93
81910-E 008231-03	<50	<250	91
81910-W 008231-04	<50	<250	92
81910-B 008231-05	11,000	33,000	87
81910-B+4' 008231-06	5,600	13,000	95
81910-Hyd-7' 008231-07	<50	<250	91
Method Blank 00-1292 MB	<50	<250	92

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/24/10  
Date Received: 08/19/10  
Project: L&E, F&BI 008231

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES  
FOR TOTAL PETROLEUM HYDROCARBONS AS  
DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 008231-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	21,000	33 b	19 b	64-133	54 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	107	58-147

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

### Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- A1 - More than one compound of similar molecule structure was identified with equal probability.
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- ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.
- c - The presence of the analyte indicated may be due to carryover from previous sample injections.
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- ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.
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- fc - The compound is a common laboratory and field contaminant.
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- ht - Analysis performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.
- j - The result is below normal reporting limits. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.
- jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- lc - The presence of the compound indicated is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.
- pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.
- ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

008231

COPY FOR STATE OF WASHINGTON

ME 08/19/10

DO3

Send Report To Donna Hewitt  
 Company DLH  
 Address 2400 NW Both St #114  
 City, State, ZIP Seattle, WA 98117  
 Phone # 206-632-3123 Fax # 206-632-3123

SAMPLERS (signature) [Signature]  
 PROJECT NAME/NO. LIE ~~20050801~~ PO # \_\_\_\_\_  
 REMARKS 2 RUSH samples

Page # 1 of 1  
 TURNAROUND TIME  
 Standard (2 Weeks) 24HR  
 RUSH 2 Sample only  
 Rush charges authorized by: \_\_\_\_\_  
 SAMPLE DISPOSAL  
 Dispose after 30 days  
 Return samples  
 Will call with instructions

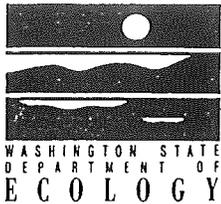
Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS						
81910-N	01	8/19/10	10:12	Soil	1	X											
S	02					X											
E	03					X											
W	04					X											
B	05					X											24HR RUSH
B+4'	06					X											24HR RUSH
Hyd-T	07		1:48			X											

Friedman & Bruya, Inc.  
 3012 16th Avenue West  
 Seattle, WA 98119-2029  
 Ph. (206) 285-8282  
 Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: <u>[Signature]</u>	Donna Hewitt	DLH	8/19/10	4:30
Received by: <u>[Signature]</u>	Shaw Pham	FEBT	8/19/10	4:30
Relinquished by:				
Received by:				

## **APPENDIX C**

# **WASHINGTON STATE DEPARTMENT OF ECOLOGY UST SITE CHECK/SITE ASSESSMENT FORMS.**



# UNDERGROUND STORAGE TANK TEMPORARY/PERMANENT CLOSURE and SITE ASSESSMENT NOTICE

See back of form for instructions  
Please  the appropriate box(es)  
Please type or print information

For Office Use Only

Owner # \_\_\_\_\_

Site # \_\_\_\_\_

Temporary Tank Closure  Permanent Tank Closure  Change-In-Service  Site Assessment/Site Check

## SITE INFORMATION:

Site ID Number (on invoice or available from Ecology if the tanks are registered): \_\_\_\_\_

Site/Business Name: LIE AUTO SALES (tenant)

Site Address: 2101 Burwell Place Telephone: (360) 377-6683  
Street  
Bremerton WA 98311  
City State ZIP-Code

## TANK INFORMATION:

Tank ID	Closure Date	Tank Capacity	Substance Stored
T1	8/20/10	1000 gal	gasoline
T2	8/20/10	1000 gal	gasoline
T3	8/23/10	2000 gal	gasoline
T4	8/19/10	250 gallon	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.

## UST SYSTEM OWNER/OPERATOR:

UST Owner/Operator: Dorothy Romberg + Estate of Mevelyn Romberg

Owners Signature: Dorothy Romberg Telephone: (206) 365-9302

Address: 11538 17th Ave NE  
Street  
Seattle WA 98125  
City State ZIP-Code

## TANK CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Service Provider: PESCO License Number: \_\_\_\_\_

Licensed Supervisor: Donna Hewitt (for PESCO) Decommissioning License Number: \_\_\_\_\_

Supervisors Signature: [Signature]

Address: \_\_\_\_\_ P.O. Box 2049  
Street P.O. Box  
Port Townsend WA 98368  
City State ZIP-Code

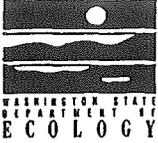
Telephone: (800) 222-9219

## SITE CHECK/SITE ASSESSMENT CONDUCTED BY:

Name of Registered Site Assessor: DONNA HEWITT

Telephone: (206) 632-3123

Address: 2400 NW Both Street Pmb #114  
Street  
Seattle, WA 98117  
City State ZIP-Code



# UNDERGROUND STORAGE TANK Site Check/Site Assessment Checklist

For Office Use Only	
Owner #	_____
Site #	_____

### INSTRUCTIONS:

When a release has **not** been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person registered with the Department of Ecology. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

**SITE INFORMATION:** Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

**TANK INFORMATION:** Please list all the tanks for which the site check and site assessment is being conducted. Use the tank ID number if available, and indicate tank capacity and substance stored.

**REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT:** Please check the appropriate item.

**CHECKLIST:** Please initial each item in the appropriate box.

**SITE ASSESSOR INFORMATION:** This form must be signed by the registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section  
Department of Ecology  
P. O. Box 47655  
Olympia, WA 98504-7655

### SITE INFORMATION

Site ID Number (on invoice or available from Ecology if the tanks are registered): Not Registered

Site/Business Name: L & E Auto Sales (lease)

Site Address: 2101 Burwell place Telephone: (206) 377-6683

Bremerton WA 98311

Street City State ZIP-Code

### TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
<u>T1</u>	<u>1000 gal</u>	<u>gasoline</u>
<u>T2</u>	<u>1000 gal</u>	<u>gasoline</u>
<u>T3</u>	<u>2000 gal</u>	<u>gasoline</u>
<u>T4</u>	<u>250 gallon</u>	<u>Waste Oil</u>

### REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

- Investigate suspected release due to on-site environmental contamination.
- Investigate suspected release due to off-site environmental contamination.
- Extend temporary closure of UST system for more than 12 months.
- UST system undergoing change-in-service.
- UST system permanently closed-in-place.
- UST system permanently closed with tank removed.
- Abandoned tank containing product.
- Required by Ecology or delegated agency for UST system closed before 12/22/88.
- Other (describe): Found tanks during Historical Review

TANK-TI

**CHECKLIST**

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

	YES	NO
1. The location of the UST site is shown on the vicinity map.	✓	
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in the Site Assessment Guidance)	✓	
3. A summary of UST system data is provided. (see Section 3.1)		✓
4. The soils characteristics at the UST site are described. (see Section 5.2)	✓	✓
5. Is there apparent groundwater in the tank excavation?		
6. A brief description of the surrounding land is provided. (see Section 3.1)	✓	
7. Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	✓	
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	✓	
- groundwater samples distinguished from soil samples (if applicable)	NA	
- 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 different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see 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.	✓	
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 regulated substance has occurred.	✓	

**SITE ASSESSOR INFORMATION**

DONNA HEWITT DLH  
 PERSON REGISTERED WITH ECOLOGY FIRM AFFILIATED WITH  
 BUSINESS ADDRESS: 2400 NW 80th St Pmb 114 TELEPHONE: (206) 632-3123  
Seattle WA 98117  
 CITY STATE ZIP+CODE  
 I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173-360 WAC.  
8/31/2010 \_\_\_\_\_  
 Date Signature of Person Registered with Ecology

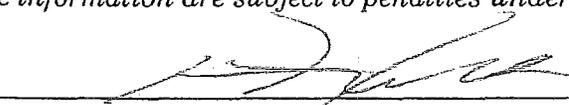
TANK-T2

**CHECKLIST**

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

	YES	NO
1. The location of the UST site is shown on the vicinity map.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in the Site Assessment Guidance)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. A summary of UST system data is provided. (see Section 3.1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. The soils characteristics at the UST site are described. (see Section 5.2)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5. Is there apparent groundwater in the tank excavation?	<input type="checkbox"/>	<input type="checkbox"/>
6. A brief description of the surrounding land is provided. (see Section 3.1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- groundwater samples distinguished from soil samples (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
- samples collected from stockpiled excavated soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- tank and piping locations and limits of excavation pit	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- adjacent structures and streets	<input checked="" type="checkbox"/>	<input type="checkbox"/>
- approximate locations of any on-site and nearby utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. A table is provided showing laboratory results for each sample collected including: sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Any factors that may have compromised the quality of the data or validity of the results are described.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. The results of this site check/site assessment indicate that a confirmed release of regulated substance has occurred.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**SITE ASSESSOR INFORMATION**

DONNA HEWITT PERSON REGISTERED WITH ECOLOGY DLH FIRM AFFILIATED WITH  
 BUSINESS ADDRESS: 2400 NW 80th St Pmb 114 TELEPHONE: (206) 632-3123  
Seattle CITY WA STATE 98117 ZIP+CODE  
 I hereby certify that I have been in responsible charge of performing the site check / site assessment described above. Persons submitting false information are subject to penalties under Chapter 173-360 WAC.  
8/31/2010 Date  Signature of Person Registered with Ecology

TANK - T3

**CHECKLIST**

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

	YES	NO
1. The location of the UST site is shown on the vicinity map.	✓	
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in the Site Assessment Guidance)	✓	
3. A summary of UST system data is provided. (see Section 3.1)		✓
4. The soils characteristics at the UST site are described. (see Section 5.2)	✓	✓
5. Is there apparent groundwater in the tank excavation?		
6. A brief description of the surrounding land is provided. (see Section 3.1)	✓	
7. Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	✓	
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	✓	
- groundwater samples distinguished from soil samples (if applicable)	NA	
- 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 different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see 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.	✓	
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 regulated substance has occurred.	✓	

**SITE ASSESSOR INFORMATION**

DONNA HEWITT PERSON REGISTERED WITH ECOLOGY      DLH FIRM AFFILIATED WITH  
 BUSINESS ADDRESS: 2400 NW 80th St Pmb 114 TELEPHONE: (206) 432-3123  
Seattle CITY      WA STATE      98117 ZIP+CODE

I hereby certify that I have been in responsible charge of performing the site check / site assessment described above. Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

8/31/2010 Date      [Signature] Signature of Person Registered with Ecology

TANK - 14

**CHECKLIST**

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

		YES	NO
1.	The location of the UST site is shown on the vicinity map.	✓	
2.	A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in the Site Assessment Guidance)	✓	
3.	A summary of UST system data is provided. (see Section 3.1)		✓
4.	The soils characteristics at the UST site are described. (see Section 5.2)	✓	✓
5.	Is there apparent groundwater in the tank excavation?		
6.	A brief description of the surrounding land is provided. (see Section 3.1)	✓	
7.	Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	✓	
8.	A sketch or sketches showing the following items is provided:		
	- location and ID number for all field samples collected	✓	
	- groundwater samples distinguished from soil samples (if applicable)	NA	
	- 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 different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see 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.	✓	
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 regulated substance has occurred.	✓	

**SITE ASSESSOR INFORMATION**

DONNA HEWITT DLH  
 PERSON REGISTERED WITH ECOLOGY FIRM AFFILIATED WITH  
 BUSINESS ADDRESS: 2400 NW 80th St Pmb 114 TELEPHONE: (206) 632-3123  
Seattle WA 98117  
 CITY STATE ZIP+CODE

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173-360 WAC.

8/31/2010  
Date

  
Signature of Person Registered with Ecology

## **APPENDIX D**

# **TANK CLEANING AND SOIL DISPOSAL DATA**

*Marine Vacuum Service, Inc.*

GENERAL CONTRACTOR  
CONTRACTORS LICENSE # MARINVS097JA

P.O. Box 24263 Seattle, Washington 98124

Telephone (206) 762-0240

FAX (206) 763-8084

1-800-540-7491

STORAGE TANK  
CERTIFICATE OF DESTRUCTION

DATE: 8/20 - 8/23/2010

ATTN: Pacific Environmental Service

TANK OWNER: L&E auto Sales

TANK LOCATION: 2101 Burwell pl, Bremerton, wa

TANK DESCRIPTION: 1-300 gallon & 2 -500 gallon tanks

LAST CONTENTS HELD IN TANKS: Oil and Water.

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

Thank you,



Lucas Meier  
Dispatcher

DBE # D4M1302341

EPA # WAD980974521

A MINORITY BUSINESS ENTERPRISE ID # D4M1302341

# Olympic View Transfer Station

9300 SW Barney White Road, Port Orchard Washington

## Profile # 102441WA

### PERMIT TO DISPOSE OF NON-HAZARDOUS MATERIALS

This permit authorizes disposal of Customer's waste materials in accordance with the Industrial Waste & Disposal Services Agreement dated \_\_\_\_\_.

**EXPIRES: 12/16/2010**

**GENERATOR: DOROTHY ROMBERG AND ESTATE  
OF MEVELYN ROMBERG - CS2**

<b>DESCRIPTION:</b> PCS - GASOLINE	<b>VOLUME:</b> 60 tons
<input checked="" type="checkbox"/> CO-MINGLE <input type="checkbox"/> SEGREGATE <input type="checkbox"/> CLEAN-UP MATERIAL	
<b>LOCATION:</b> BREMERTON, WASHINGTON 227 NAVAL AVENUE	<b>COUNTY:</b> * Kitsap
<b>CONTACT:</b> HARRY ROMBERG	<b>PHONE:</b> 206-365-9302
	<b>FAX:</b> hromb@aol.com
<b>Recertification:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	

<b>BILLING:</b> PESCO VIA WM SALES	<b>PO#:</b> N/A	<b>JOB#:</b> N/A
------------------------------------	-----------------	------------------

<b>TYPE OF DISPOSAL/SPECIAL HANDLING :</b> <i>Commodity: contaminated soils</i>
*****PLEASE CALL OVTS TO SCHEDULE DISPOSAL*****

<b>APPROVED:</b>  KRISTIN CASTNER <b>DATE:</b> 10/09/10 3:54:56 PM
---

A COPY OF THIS PERMIT MUST BE SHOWN BY EACH DRIVER  
**PROJECTS MUST BE SCHEDULED WITH FACILITY  
MANAGEMENT CALL : 360-674-2297**



# WASTE MANAGEMENT

2009

**OLYMPIC VIEW TRANSFER STATION  
BILL OF LADING/WEIGH TICKET**

**OLYMPIC VIEW  
TRANSFER STATION**



Generator Name & Address:

Dorothy Romberg  
and Estate of  
Melvyn Romberg  
227 Naval Avenue  
Bremerton, WA

CS-2 12471 Date: 10/11/10  
To: Pescovia WM Sales  
profile # 102441 WA

Billing: Pesco via WM Sale

Contact Person: Harry Romberg

Telephone #: 206 365-9302

G-51,080	
T-26,040	
N-25,040	

TRK  
MJTRK5 Jueku 12.52 TONS  
Signature:

Acknowledgement of Loading

THOMAS WESTERLUND  
Name (Please Print)

Pacific Environmental  
Company

Thomas Westerlund  
Signature

10-11-10  
Date

Deliver To:  
Olympic View Transfer Station  
9300 SW Barney White Road  
Port Orchard, WA 98367  
Tel# (360) 674-2297  
Monday-Friday 8:00am-5:00pm

Disposal Facility:  
Columbia Ridge Landfill & Recycling Facility  
18177 Cedar Springs Lane  
Arlington, Oregon 97812  
Tel# (541)454-2030

Transporter Name: MJ

Waste Profile#: 102441WA

Truck #: TRK #5

Waste Type: CS2/PCS-Gasoline

Container#:

Expiration Date: 12-16-10

THOMAS WESTERLUND  
Driver's name (Please Print)

Thomas Westerlund  
Driver's Signature

10-11-10  
Date

2009

**OLYMPIC VIEW TRANSFER STATION  
BILL OF LADING/WEIGH TICKET**

**OLYMPIC VIEW  
TRANSFER STATION**



Generator Name & Address:

Dorothy Romberg  
and Estate of  
Melelyn Romberg  
227 Naval Avenue  
Bremerton, WA

CS-2 14413 Date: 10/11/10  
To: Pesco via WM Sales  
Profile #102441WA

Billing: Pesco via WM Sales

Contact Person: Harry Romberg  
Telephone #: 206 365-9302

G-32,060  
T-16,180  
N 15,880

TRK  
PAC120 John L. Tyner  
Signature:

7.94 TONS

Acknowledgement of Loading

John L. Tyner  
Name (Please Print)

Pacific Environmental  
Company

John L. Tyner  
Signature

10-11-10  
Date

Deliver To:  
Olympic View Transfer Station  
9300 SW Barney White Road  
Port Orchard, WA 98367  
Tel# (360) 674-2297  
Monday-Friday 8:00am-5:00pm

Disposal Facility:  
Columbia Ridge Landfill & Recycling Facility  
18177 Cedar Springs Lane  
Arlington, Oregon 97812  
Tel# (541)454-2030

Transporter Name: \_\_\_\_\_

Waste Profile#: 102441WA

Truck #: TRK 120

Waste Type: CS2/PCS-Gasoline

Container#: \_\_\_\_\_

Expiration Date: 12-16-10

John L. Tyner  
Driver's name (Please Print)

John L. Tyner  
Driver's Signature

10-11-10  
Date

2004

**OLYMPIC VIEW TRANSFER STATION  
BILL OF LADING/WEIGH TICKET**

**OLYMPIC VIEW  
TRANSFER STATION**



Generator Name & Address:

Dorothy Romberg  
and Estate of  
Melvyn Romberg  
227 Naval Avenue  
Bremerton, WA

CS-2 14414 Date: 10/11/10  
To: Pesco via WM Sales  
profile# 102441WA

Billing: Pesco via WM Sale

Contact Person: Harry Romberg  
Telephone #: 206 365-9302

G	-	55,300
T	-	26,180
N	-	29,120

TRK  
MJ #5 Meek

14.56 TONS

Signature:

Acknowledgement of Loading

THOMAS WESTERLUND  
Name (Please Print)

Pacific Environmental  
Company

Thomas Westerlund  
Signature

10-11-10  
Date

Deliver To:  
Olympic View Transfer Station  
9300 SW Barney White Road  
Port Orchard, WA 98367  
Tel# (360) 674-2297  
Monday-Friday 8:00am-5:00pm

Disposal Facility:  
Columbia Ridge Landfill & Recycling Facility  
18177 Cedar Springs Lane  
Arlington, Oregon 97812  
Tel# (541)454-2030

Transporter Name: MJ

Waste Profile#: 102441WA

Truck #: TRK #5

Waste Type: CS2/PCS-Gasoline

Container#:

Expiration Date: 12-16-10

THOMAS WESTERLUND  
Driver's name (Please Print)

Thomas Westerlund  
Driver's Signature

10-11-10  
Date

2009

**OLYMPIC VIEW TRANSFER STATION  
BILL OF LADING/WEIGH TICKET**

**OLYMPIC VIEW  
TRANSFER STATION**



Generator Name & Address:

Dorothy Romberg  
and Estate of  
Melelyn Romberg  
227 Naval Avenue  
Bremerton, WA

CS2 14426

Date: 10/11/10

To: Pesco via WM Sales

Profile #102441 WA

Billing: Pesco via WM Sales

Contact Person: Harry Romberg

Telephone #: 206 365-9302

G-49140  
T-26220  
N 22920

11.46 TONS

TRK  
MJ-5 Spelw

Signature:

Acknowledgement of Loading

THOMAS WESTERLUND  
Name (Please Print)

Pacific Environmental  
Company

Thomas Westerlund  
Signature

10-11-10  
Date

Deliver To:  
Olympic View Transfer Station  
9300 SW Barney White Road  
Port Orchard, WA 98367  
Tel# (360) 674-2297  
Monday-Friday 8:00am-5:00pm

Disposal Facility:  
Columbia Ridge Landfill & Recycling Facility  
18177 Cedar Springs Lane  
Arlington, Oregon 97812  
Tel# (541)454-2030

Transporter Name: MJ

Waste Profile#: 102441WA

Truck #: TRK #5

Waste Type: CS2/PCS-Gasoline

Container#:

Expiration Date: 12-16-10

THOMAS WESTERLUND  
Driver's name (Please Print)

Thomas Westerlund  
Driver's Signature

10-11-10  
Date

2009

OLYMPIC VIEW TRANSFER STATION  
BILL OF LADING/WEIGH TICKET

OLYMPIC VIEW  
TRANSFER STATION



Generator Name & Address:

Dorothy Romberg  
and Estate of  
Melelyn Romberg  
227 Naval Avenue  
Bremerton, WA

CS-2 14440 Date: 10/11/10  
To: Pesco via WM Sales  
profile # 102441 WA

Billing: Pesco via WM Sales

Contact Person: Harry Romberg

Telephone #: 206 365-9302

G-31700	
T-16,140	
N 15,500	
<b>7.18 TONS</b>	

TRK  
PAC120 John L. Tyner  
MAJ TRK 6

Signature:

Acknowledgement of Loading

John L. Tyner

Name (Please Print)

Pacific Environmental

Company

John L. Tyner

Signature

Date

10/11/10

Deliver To:  
Olympic View Transfer Station  
9300 SW Barney White Road  
Port Orchard, WA 98367  
Tel# (360) 674-2297  
Monday-Friday 8:00am-5:00pm

Disposal Facility:  
Columbia Ridge Landfill & Recycling Facility  
18177 Cedar Springs Lane  
Arlington, Oregon 97812  
Tel# (541)454-2030

Transporter Name: \_\_\_\_\_

Waste Profile#: 102441WA

Truck #: TRK 120

Waste Type: CS2/PCS-Gasoline

Container#: \_\_\_\_\_

Expiration Date: 12-16-10

John L. Tyner

Driver's name (Please Print)

John L. Tyner

Driver's Signature

Date

10/11/10

2009

**OLYMPIC VIEW TRANSFER STATION  
BILL OF LADING/WEIGH TICKET**

**OLYMPIC VIEW  
TRANSFER STATION**



Generator Name & Address:

Dorothy Romberg  
and Estate of  
Melvyn Romberg  
227 Naval Avenue  
Bremerton, WA

14441

Date: 10/11/10

CS-2

To: Pesco via WM Sales  
profile # 102441 WA

Billing: Pesco via WM Sales

Contact Person: Harry Romberg

Telephone #: 206 365-9302

G-55100	14.48
T-26140	
N-28960	
<u>TRK</u>	<u>TRUCK</u>
<u>MS TRKS</u>	<u>TONS</u>

Signature: \_\_\_\_\_

Acknowledgement of Loading

THOMAS WESTERLUND  
Name (Please Print)

Pacific Environmental  
Company

Thomas Westerlund  
Signature

10-11-10  
Date

Deliver To:  
Olympic View Transfer Station  
9300 SW Barney White Road  
Port Orchard, WA 98367  
Tel# (360) 674-2297  
Monday-Friday 8:00am-5:00pm

Disposal Facility:  
Columbia Ridge Landfill & Recycling Facility  
18177 Cedar Springs Lane  
Arlington, Oregon 97812  
Tel# (541)454-2030

Transporter Name: MTJ

Waste Profile#: 102441WA

Truck #: TRK #5

Waste Type: CS2/PCS-Gasoline

Container#:

Expiration Date: 12-16-10

THOMAS WESTERLUND  
Driver's name (Please Print)

Thomas Westerlund  
Driver's Signature

10-11-10  
Date

2009

**OLYMPIC VIEW TRANSFER STATION  
BILL OF LADING/WEIGH TICKET**

**OLYMPIC VIEW  
TRANSFER STATION**



Generator Name & Address:

Dorothy Romberg  
and Estate of  
Melelyn Romberg  
227 Naval Avenue  
Bremerton, WA

CS-2 14442 Date: 10/11/10  
To: Pesco via WM Sales  
profile # 102441WA

Billing: Pesco via WM Sales

Contact Person: Harry Romberg

Telephone #: 206 365-9302

<u>G-30540</u>	<u>(7.21)</u>
<u>T-16120</u>	
<u>N14420</u>	
<u>TRK <u>John</u></u>	<u>TONS</u>
<u>PAC 120</u>	Signature: _____

Acknowledgement of Loading

John L. Tyner  
Name (Please Print)

Pacific Environmental  
Company

John L. Tyner  
Signature

10-11-10  
Date

Deliver To:  
Olympic View Transfer Station  
9300 SW Barney White Road  
Port Orchard, WA 98367  
Tel# (360) 674-2297  
Monday-Friday 8:00am-5:00pm

Disposal Facility:  
Columbia Ridge Landfill & Recycling Facility  
18177 Cedar Springs Lane  
Arlington, Oregon 97812  
Tel# (541)454-2030

Transporter Name: PAC ENV

Waste Profile#: 102441WA

Truck #: TRK 120

Waste Type: CS2/PCS-Gasoline

Container#:

Expiration Date: 12-16-10

John L. Tyner  
Driver's name (Please Print)

John L. Tyner  
Driver's Signature

10-11-10  
Date

**APPENDIX E**

**PERMITS AND CERTIFICATIONS**

# INTERNATIONAL CODE COUNCIL

**DONNA HEWITT**

*The International Code Council attests that the individual named on this certificate has satisfactorily demonstrated knowledge as required by the International Code Council by successfully completing the prescribed written examination based on codes and standards then in effect, and is hereby issued this certification as:*

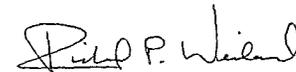
**UST Decommissioning**

Given this day of July 1, 2009

Certificate No. 1044716-U2



Adolf Zubia  
President, Board of Directors



Richard P. Weiland  
Chief Executive Officer



**INTERNATIONAL  
CODE COUNCIL®**



DONNA HEWITT  
WASHINGTON STATE SITE ASSESSMENT

Birmingham District Office  
Certification and Testing Department  
900 Montclair Road  
Birmingham, Alabama 35213  
Tel: 888-422-7233 extension 5524  
Fax: 205-599-9897  
[www.iccsafe.org](http://www.iccsafe.org)



The individual named hereon is CERTIFIED in the category shown, having been so certified pursuant to successful completion of the prescribed written examinations.

Expiration date: **June 8, 2012**  
No. 1044716

Not valid unless signed by certificate holder.

ICC certification attests to competent knowledge of codes and standards

DONNA HEWITT  
2400 NW 80TH ST PMB 114  
SEATTLE, WA 98117

**From:** Certification and Testing Department  
**Date:** July 1, 2010  
**Subject:** June 8, 2010 ADMINISTRATION  
**Examination:** WASHINGTON STATE SITE ASSESSMENT

Congratulations! You have demonstrated a commitment to the code enforcement profession by successfully achieving ICC certification. Your wallet card is enclosed. Your certification information will be posted on the Certification Website as an Active Certification. <http://www.iccsafe.org/ACCREDITATION>

**RENEWAL:** Prior to the expiration date shown on your wallet card, we will mail you a reminder notice with information on certification renewal to your address on record. If your address has changed, please see CHANGE OF ADDRESS below. Unless otherwise specified, we will mail the renewal reminder notice 6 months before your Certification expiration date. This is done so far in advance because we want to help ensure you have sufficient time to accrue the necessary Continuing Education Units (CEUs).

**AST/UST certification renewal** – Certification is valid for a two year period. You may renew by retaking and passing the exam. State licensing may vary. Contact the appropriate state agency in charge of AST/UST work for information on licensing requirements.

**ICC California UST Inspector certification renewal** – Certification is valid for a two year period. Renew by retaking and passing the exam or by fulfilling the continuing educational requirements approved by the State Water Resources Control Board, Underground Storage Tank Program Manager. Contact the appropriate state agency in charge of UST work for information on certification requirements.

**NAFED certification renewal** – NAFED must receive your application for recertification and documentation within 60 days prior to the expiration date of the current certification. <http://www.nafed.org/certification/>

**Renewal of certifications is the responsibility of the certified individual.** Please make sure you keep track of your renewal date(s).

**CHANGE OF ADDRESS:** It is extremely important that you notify ICC Renewal Department of any change of address to avoid the possibility of your renewal information not being received. The change of address form is located on the ICC website at <http://www.iccsafe.org/Accreditation/Pages/safety.aspx>.

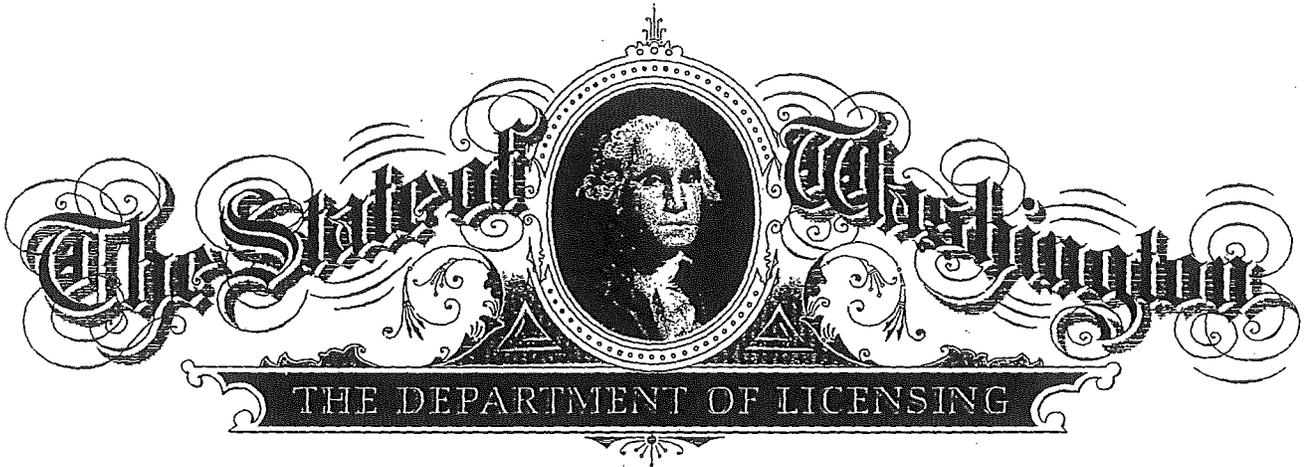
If you have achieved a NAFED certification you must notify NAFED of any change of address. <http://www.nafed.org>

Best wishes for continued success in your career, and thank you for your interest in the Certification Programs of the International Code Council.

Yours very truly,

Certification and Testing Department

Enclosure

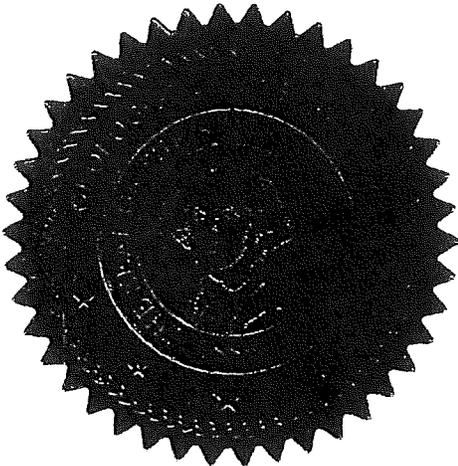


*It is hereby certified that Donna L. Hewitt*

*has satisfactorily complied with and completed the statutory requirements set forth in title 18 revised code of Washington to engage in practice as a*

## **Geologist**

*And is hereby authorized, empowered and granted the right to engage in that practice within the State of Washington subject to the state laws.*



*Given under the hand and seal of the director this fifth day of June, 2002.*

*Fred Stephens*  
\_\_\_\_\_  
DIRECTOR

*Geologist Licensing Board*

*Jeffrey H. Randall*  
\_\_\_\_\_  
CHAIR

No. 899

# ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID KE  
DLHEN-1

DATE (MM/DD/YYYY)  
04/20/10

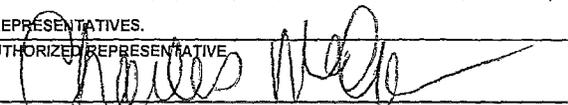
PRODUCER Assurance Brokers Ltd. 95 North Research Dr Ste 100 Edwardsville IL 62025 Phone: 618-692-9800 Fax: 618-692-9865	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
	INSURERS AFFORDING COVERAGE	NAIC #
INSURED  DLH Environmental Consulting 2400 NW 80th Street #114 Seattle WA 98117	INSURER A: American Safety RRG, Inc.	25448
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	

## COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY				EACH OCCURRENCE	\$ 1,000,000
		<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	ENV013037-10-05	04/24/10	04/24/11	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 50,000
		<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person)	\$ 5,000
		<input checked="" type="checkbox"/> POLLUTION LIAB	ENV013037-10-05	04/24/10	04/24/11	PERSONAL & ADV INJURY	\$ 1,000,000
						GENERAL AGGREGATE	\$ 1,000,000
		GEN'L AGGREGATE LIMIT APPLIES PER:				PRODUCTS - COMP/OP AGG	\$ 1,000,000
		<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					
		AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT (Ea accident)	\$
		<input type="checkbox"/> ANY AUTO				BODILY INJURY (Per person)	\$
		<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident)	\$
		<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per accident)	\$
		<input type="checkbox"/> HIRED AUTOS					
		<input type="checkbox"/> NON-OWNED AUTOS					
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	\$
		<input type="checkbox"/> ANY AUTO				OTHER THAN EA ACC	\$
						AUTO ONLY: AGG	\$
		EXCESS/UMBRELLA LIABILITY				EACH OCCURRENCE	\$
		<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE	\$
							\$
		DEDUCTIBLE					\$
		RETENTION \$					\$
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU-TORY LIMITS	OTH-ER
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?				E.L. EACH ACCIDENT	\$
		If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - EA EMPLOYEE	\$
		OTHER				E.L. DISEASE - POLICY LIMIT	\$
A		Professional Liab.	ENV013037-10-05	04/24/10	04/24/11	Aggregate	1,000,000
						Ea. Claim	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS  
 For informational and bidding purposes.

CERTIFICATE HOLDER  INFORMATIONAL PURPOSES	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
	AUTHORIZED REPRESENTATIVE 

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# FINAL CLEANUP REPORT

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**L&E AUTO SALES PROPERTY  
2101 BURWELL PLACE  
BREMERTON, WASHINGTON  
ECOLOGY FS ID: 14170/ CS ID: 11943**

**Prepared for:  
MR. RIC BEARBOWER  
FRICK N FRACK HOLDINGS, INC.  
P. O. BOX 1010  
SILVERDALE, WA. 98383**

**Prepared by:  
ENVIRO SOUND CONSULTING, INC.  
3388 BYRON STREET NW, SUITE 200  
SILVERDALE, WA 98383**

**Project No. ESC13-E002  
July 21, 2013**



July 21, 2013

Project No. ESC13-E002

Mr. Ric Bearbower  
Frick N Frack Holdings Inc.  
P. O. Box 1010  
Silverdale, WA 98383

RE: Final Cleanup Report  
L & E Auto Sales Property  
2101 Burwell Place  
Bremerton, Washington  
Ecology FS ID: 14170/ CS ID: 11943

Dear Mr. Bearbower:

EnviroSound Consulting, Inc., (EnviroSound) has completed a Report for the L & E Auto Sales Property site, summarized in a report dated July 21, 2013.

EnviroSound has completed confirmation sampling in areas of former UST's on the site.

Due to the non-detect levels, EnviroSound recommends that a No Further Action (NFA) designation be requested from the Washington Department of Ecology.

If you have any questions, or if we can be of further assistance, please do not hesitate to contact our office.

Respectfully Submitted,  
EnviroSound Consulting, Inc.

Shawn E. Williams, L.G.  
Senior Environmental Geologist

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Figure 1: Vicinity Map

Figure 2: Site Plan

**Appendices**

- A Phase II ESA Report by DLH Environmental Consulting
- B Underground Storage Tank Decommissioning and Final Cleanup Report by DLH Environmental Consulting
- C EnviroSound Laboratory Data-2013.



July 21, 2013

Project No. ESC13-E002

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**FINAL CLEANUP REPORT**

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**L & E SALES PROPERTY  
2101 BURWELL PLACE  
BREMERTON, WASHINGTON**

**Executive Summary**

This Final Cleanup Report has been prepared by EnviroSound Consulting, Inc. (EnviroSound) for the L & E Sales property at 2101 Burwell Place in Bremerton, Washington. This report describes the results of confirmation soil sampling by EnviroSound following previous site cleanup efforts following the removal of three Underground Storage Tanks (USTs) and petroleum contaminated soil (PCS) in 2010 and to obtain a No Further Action (NFA) designation from the Washington Department of Ecology.

Historical research by DLH Environmental Consulting (2010) indicated that **the subject property had been a taxi cab stand with the potential presence of a three- pump island on the subject property.** Although the pump islands had been removed there was no evidence that the UST's had been removed. A waste oil UST was also located in a small garage on the subject site.

In June 2010 **DLH performed a Phase II Environmental Site Assessment on the subject property with the drilling of six (6) geoprobes** at select locations on the site to a maximum depth of **20 feet.** Soil samples were submitted for Total Petroleum Hydrocarbon Identification by method NWTPH-HCID, with the sample next to the small garage having the only elevated level of Diesel at 2,500 ppm. Soil samples were also submitted for analysis of volatile organic compounds (VOC's), polychlorinated biphenyls (PCB's) and the RCRA 8 metals. Laboratory analysis confirmed that only diesel was detected.

**A waste oil tank and an old hydraulic lift were removed on August 19, 2010 from inside a small garage building on the southwest corner of the property.** Soil samples collected from the sidewalls and bottom of the excavation by DLH indicated elevated levels of heavy oil remain in place beneath the garage building. On **August 20, 2010 two UST's were removed from the northeast corner of the property.** On August 23, 2010 a **third UST was removed from the northeast corner of the property.** A total of 75.95 tons of petroleum impacted soil was excavated from the site and transported to the Waste Management Olympic View Transfer Station. Confirmation samples collected from the sidewalls and bottom of the UST excavation indicated elevated levels of gasoline impacted soil along the south and west ends of the excavation.

On February 22, 2013 a representative of EnviroSound collected two soil samples from an excavation inside the small garage. The garage was in the process of being demolished at the time of the sampling. The samples were collected from a depth below the elevated soil samples previously collected by DLH. No stained soil was observed during the excavation process. Soil sample results were non detect for diesel and heavy oil.

On March 28, 2013 a representative of EnviroSound collected two soil samples from an excavation in the

area of the former USTs. The samples were collected from a depth below previous soil samples collected by DLH. No stained soils or hydrocarbon odors were observed during the excavation process. Soil sample results were non-detect for Total Petroleum Hydrocarbons (TPH) in the gasoline range and the hydrocarbon constituents benzene, toluene, ethylbenzene, and total xylenes (BTEX). A third sample was collected in the area of geoprobe B-1 at a depth below the elevated diesel soil sample collected by DLH. No stained or odoriferous soils were noted during the excavation. The soil sample result was non-detect for diesel and heavy oil.

### **Section 1.0 Introduction**

This report presents the results of confirmation soil sampling conducted by EnviroSound on the referenced property. EnviroSound was contracted by Frick N Frack Holdings, LLC. to begin work on the subject property in February 2013. The results of the field activities are described in this report.

### **Section 2.0 Site Description**

The subject property is bounded by Naval Avenue on the east side, single-family residences to the west side, Burwell Place to the north and Burwell Street to the south in Bremerton, Washington (Figure 1). The property consists of 0.25 acres, with County Assessor's parcel number of 3778-005-001-0002 and is located in Range 1E, Township 24N Section 14. The parcel is developed with a one-story wood frame building which is currently vacant with gravel parking. The building was constructed during 1953. A small garage located on the southwestern portion of the site was demolished in March 2013. The topography of the site in general gently slopes toward the west.

### **Section 3.0 Project Background**

EnviroSound developed the scope of work contained herein based on the review of previous work performed on the site by DLH Environmental Consulting. (DLH). During June 2010 DLH conducted a Phase II Site Assessment at the subject property utilizing a geoprobe to collect soil samples from six locations on the site. Ten soil samples were collected and submitted for analysis of Total Petroleum Hydrocarbon Identification by method NWTPH-HCID and Total Petroleum Hydrocarbons (TPH) in the diesel and oil ranges by method NWTPH-Dx. Based on laboratory analytical results, one sample contained heavy oil above the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) cleanup level of 2,000 ppm. It was recommended that a waste oil UST be removed from a small garage building on the site. On August 19, 2010 the 250 gallon waste oil UST was removed as was an old hydraulic lift. Exploratory work with an excavator led to the discovery of three USTs on the northeastern corner of the lot. Two of the USTs had a capacity of 1,000 gallons and the third had a capacity of 2,000 gallons. The three larger USTs were empty and had numerous holes. During UST removal and excavation operations, 75.95 tons of petroleum-contaminated soil (PCS) were removed and disposed of at the Olympic View Transfer Station, for transport to Waste Management's disposal facility. Laboratory analysis of soil around the waste oil UST was conducted for diesel and heavy oil-range hydrocarbons, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), and RCRA 8 metals (which were non-detect). Laboratory analysis for the soils around the three USTs was for the presence of gasoline and benzene, toluene, ethylbenzene, and xylenes (BTEX), using method NWTPH-GX and EPA Method 8021B, respectively, and lead using EPA-Method 200.8. Laboratory results are included in Appendix A.

Soil sample results collected by DLH after soil excavation indicated that petroleum impacted soils were

still in place along the south and west ends of the excavation associated with the three USTs. A geoprobe sample outside the garage and samples underneath the garage building indicated that heavy oil impacted soils remain in place on the property. Previously excavated areas are shown on Figure 2. Laboratory results from DLH sampling will be inputted into Ecology's Environmental Information Management (EIM) system after the system has been updated (August 2013).

#### **Section 4.0 Scope of Services**

The scope of services for EnviroSound's investigation consisted of: 1) excavating test pits in the area of the impacted soils with a trackhoe excavator and the collection of soil samples, 2) chemical analysis of soil for Total Petroleum Hydrocarbons (TPH) in the diesel-extended range (method NWTPH-Dx) and the gasoline-range (method NWTPH-Gx) with the BTEX constituents (EPA method 8021B), and 3) preparation of a report documenting the field investigation and findings.

#### **Section 5.0 Field and Laboratory Procedures**

Field activities for collection of soil samples in the area of the former waste oil UST occurred on February 22, 2013, with one test pit placed within the former garage building and another outside the former building footprint. Field activities for collecting soil samples for the three USTs were performed on March 28, 2013. Test pit locations are shown on Figure 2.

##### **5.1 Soil Sampling**

Soil from the test pits were collected from the excavator bucket. Each soil sample was viewed for staining from petroleum and the presence of any petroleum odors.

Soil samples were selected for analysis based on depths from the previous sampling performed by DLH. Soil samples were collected at depths ranging from 5.0 to 9.0 feet in the former garage and 7.0 feet in the area of DLH Environmental consulting B-1. Soil samples in the area of the former UST's were collected at a depth of 15.0 to 16.0 feet. Soil samples for TPH diesel-range analysis were collected using individual stainless steel spoons and four-ounce glass jars which were laboratory-certified. Samples were placed into the jars, leaving no headspace, labeled, placed into a ziplock bag, and then placed into a cooler with ice-substitute. Soil samples for gasoline range hydrocarbons were collected utilizing a plunger and placed in glass vials. The cooler was delivered by courier to ALS Laboratories for analysis using proper chain-of-custody protocols.

##### **5.2 Laboratory Analytical Methods**

The submitted soil samples were analyzed by ALS Laboratories for the following:

- Diesel and Oil-Range Hydrocarbon by Method NWTPH-Dx,
- Gasoline-Range Hydrocarbon and BTEX by Method NWTPH-Gx and EPA Method 8021B, respectively.

#### **Section 6.0 Site Geological Characteristics**

The subject site is located at an elevation of about 100 feet above mean sea level in the City of Bremerton Washington. The soil conditions encountered in the EnviroSound test pits were approximately 2.5 feet of fill, underlain by a stiff to hard gray, slightly sandy Silt with trace clay to a depth of approximately 16.0 feet.

No groundwater was encountered in the geoprobe sample locations or in the test pit excavations to depths of 20 and 16 feet respectively.

## Section 7.0 Environmental Sample Results

Analysis and interpretation of the data generated during the laboratory testing is presented in the following sections. Where appropriate, the results are compared with regulatory limits for the chemicals identified in the soil and groundwater. Model Toxics Control Act (MTCA) Method A Cleanup Levels for Unrestricted Land Uses are shown for comparison with the analytical results. Those results shown as “less than” (<) are below detection limits, with the detection limit value following the “<”. Copies of the Certified Analytical Results and Chain-of-Custody Records are included in Appendix B.

### 7.1 Soil

Soil samples were collected from depths below previous sampling performed by DLH Consulting. The laboratory analytical results are listed in Table 1 for the Diesel and Oil-range Hydrocarbon and in Table 2 for the Gasoline-range Hydrocarbon and BTEX compounds. No concentrations of any of the parameters were detected above the detection limits or above the applicable cleanup levels.

**Table 1. Summary of Soil Diesel and Oil Results  
2101 Burwell Place, Bremerton, Washington**

Location	Sampling Depth	Diesel (mg/kg)	Lube Oil (mg/kg)
Former Hydraulic Lift	@ 9.0 feet	< 25	< 50
Former Waste Oil UST	@ 5.0 feet	< 25	< 50
B-1	@7.0 feet	< 25	< 50
<b>MTCA Method A Cleanup Levels</b>		<b>2,000.</b>	<b>2,000.</b>

**Notes:**

Concentrations listed in milligrams per kilogram (mg/kg), or parts per million (ppm). Standards are MTCA Method A Soil Cleanup Levels from Chapter 173-200 WAC.

**Table 2. Summary of Soil Gas and BTEX Results  
2101 Burwell Place, Bremerton, Washington**

Location	Sampling Depth	Benzene	Ethyl-benzene	Toluene	Xylenes	Gas
South USTs	@ 15.0 feet	< 0.02	<0.03	< 0.05	< 0.05	< 3
West USTs	@ 15.0 feet	< 0.02	< 0.03	< 0.05	< 0.05	< 3
<b>MTCA Method A Cleanup Levels</b>		<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>*30/100</b>

**Notes:**

Concentrations listed in milligrams per kilograms (mg/kg), or parts per million (ppm). \*Gasoline cleanup levels in soil is 30 mg/kg if benzene is present, and 100 mg/kg if benzene is not present. Standards are MTCA Method A Soil Cleanup Levels from Chapter 173-200 WAC.

## **Section 8.0 Discussion/Conclusions**

Based on the results of this study, the following conclusions have been developed:

### **Former Fuel USTs.**

DLH supervised the excavation and removal of three fuel UST's and 75.95 tons of PCS on the northeast corner of the subject property. A confirmation sample in the south portion of the UST excavation and the west portion of the excavation were above Ecology cleanup level guidelines. Both samples were approximately 14.0 feet in depth. EnviroSound supervised the excavation of a trench in the elevated sample areas. **No visible evidence of PCS was observed and no petroleum odors were noted during excavation.** Soil samples were collected at 15.0 feet to 16.0 feet below existing grade with soil sample results for Gas and BTEX below detection limits.

### **Former Garage**

DLH supervised the removal of a waste oil tank and a hydraulic lift in the small garage building. EnviroSound collected two samples from beneath the (former) garage building as well as one soil sample just outside (north) of the garage in the area of geoprobe B-1. Soil sample results were all below the detectable limits for heavy hydrocarbons. No stained soils or odors were observed during the excavation process.

With the removal of the fuel USTs and associated 75.95 tons of PCS as well as the removal of the waste oil UST and hydraulic lift, the sources of contamination on the site has been removed. No groundwater was encountered in the borings by DLH to a depth of 20 feet.

## **Section 9.0 Recommendations**

**EnviroSound recommends that a No Further Action (NFA) designation be requested from the Washington Department of Ecology.** All laboratory data from DLH and EnviroSound sampling activities will be inputted into the Department of Ecology EIM system when the system is updated in August 2013.

**Section 10.0 Limitations**

The findings in this report are based on the results of field and laboratory investigations, along with the interpretation of surface and subsurface conditions associated with our soil samples. The data presented should be considered representative of the time of our observations. Changes in the condition of the property can occur over time by both natural processes and human activities. Additionally, changes in government codes, regulations or laws may occur.

A laboratory certified by the State of Washington, Department of Ecology, performed the analytical testing. The results are accurate only to the degree of testing accuracy required, the representative nature of the samples obtained, and professional interpretation.

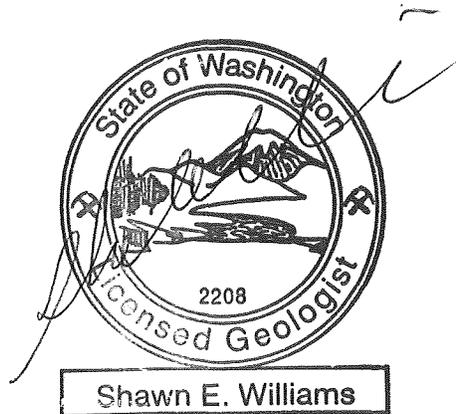
This report has been prepared for the exclusive use of the client noted on the cover page, and their agents for specific application to the subject site. Use or reliance upon this report by a third party is at their own risk. EnviroSound does not make any representation or warranty, express or implied, to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatever, known or unknown, to EnviroSound.

If you have any questions, or if we can be of further assistance, please do not hesitate to contact our office at (360) 698-5950.

Respectfully submitted,  
EnviroSound Consulting, Inc.



Shawn E. Williams, L.G.  
Senior Environmental Geologist



7-29-13

## References

Phase II Environmental Site Assessment Activities for 2101 Burwell Place, Bremerton, WA. by DLH Environmental Consulting, dated June 17, 2010.

Underground Storage Tank Decommissioning and Final Cleanup Report for 2101 Burwell Place, Bremerton, WA. by DLH Environmental Consulting, dated January 12, 2011

## PHOTOGRAPHS



Photo 1: Former waste oil UST location in garage building. Building in process of being demolished.



Photo 2: Excavation in former waste oil location.



Photo 3. Sampling locations in the former waste oil UST area.



Photo 4. Begin excavation in the test pit outside the former garage building footprint.



Photo 5. Excavation in the area of the former USTs.



Map adapted from Kitsap parcel search 5/2013

Not to Scale



**FIGURE 1. Vicinity Map**

Project Name: Burwell Place  
Location: Bremerton, Washington  
Project: ESC13-E002  
Client: Frick N Frack Holdings LLC  
Date: May 2013



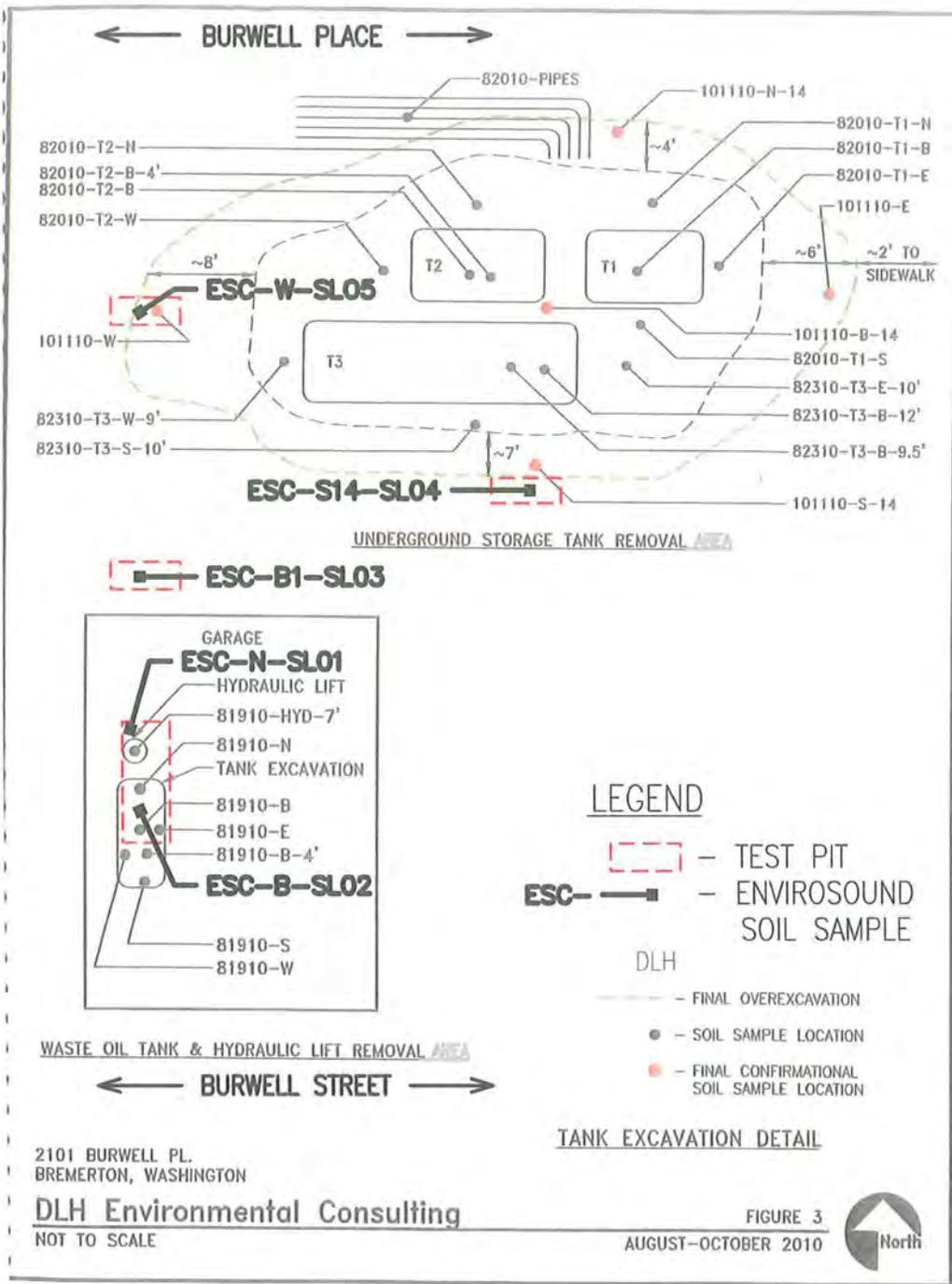


Figure Provided by DLH Environmental Consulting

Not to Scale



**FIGURE 2. Site Map**

Project Name: Burwell Place  
 Location: Bremerton, Washington  
 Project: ESC13-E002  
 Client: Frick N Frack Holdings LLC  
 Date: May 2013



# Appendix C



February 25, 2013

Mr. Shawn Williams  
Enviro Sound Consulting  
3388 Byron St, Suite 200  
Silverdale, WA 98383

Dear Mr. Williams,

On February 22nd, 2 samples were received by our laboratory and assigned our laboratory project number EV13020122. The project was identified as your ESC13-E002. 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



Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Enviro Sound Consulting DATE: 2/25/2013  
 3388 Byron St, Suite 200 ALS JOB#: EV13020122  
 Silverdale, WA 98383 ALS SAMPLE#: -01  
 CLIENT CONTACT: Shawn Williams DATE RECEIVED: 2/22/2013  
 CLIENT PROJECT: ESC13-E002 COLLECTION DATE: 2/22/2013 9:00:00 AM  
 CLIENT SAMPLE ID: ESC-E002-N-SL01 WDOE ACCREDITATION: C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	02/23/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	02/23/2013	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	93.7	02/23/2013	EBS

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



**CERTIFICATE OF ANALYSIS**

CLIENT:	Enviro Sound Consulting 3388 Byron St, Suite 200 Silverdale, WA 98383	DATE:	2/25/2013
CLIENT CONTACT:	Shawn Williams	ALS JOB#:	EV13020122
CLIENT PROJECT:	ESC13-E002	ALS SAMPLE#:	-02
CLIENT SAMPLE ID	ESC-E002-B-SL02	DATE RECEIVED:	2/22/2013
		COLLECTION DATE:	2/22/2013 9:15:00 AM
		WDOE ACCREDITATION:	C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	02/23/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	02/23/2013	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
C25	NWTPH-DX	86.1	02/23/2013	EBS

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



Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Enviro Sound Consulting DATE: 2/25/2013  
 3388 Byron St, Suite 200 ALS SDG#: EV13020122  
 Silverdale, WA 98383 WDOE ACCREDITATION: C601

CLIENT CONTACT: Shawn Williams  
 CLIENT PROJECT: ESC13-E002

LABORATORY BLANK RESULTS

MB-021513S - Batch 3476 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	ANALYSIS ANALYSIS		
					UNITS	DATE	BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	02/15/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	02/15/2013	EBS



Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Enviro Sound Consulting  
3388 Byron St, Suite 200  
Silverdale, WA 98383

DATE: 2/25/2013  
ALS SDG#: EV13020122  
WDOE ACCREDITATION: C601

CLIENT CONTACT: Shawn Williams  
CLIENT PROJECT: ESC13-E002

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 3476 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	98.4			02/15/2013	EBS
TPH-Diesel Range - BSD	NWTPH-DX	96.6	2		02/15/2013	EBS

APPROVED BY

Laboratory Director



April 1, 2013

Mr. Shawn Williams  
Enviro Sound Consulting  
3388 Byron St, Suite 200  
Silverdale, WA 98383

Dear Mr. Williams,

On March 29th, 5 samples were received by our laboratory and assigned our laboratory project number EV13030176. The project was identified as your ESC13-E002. 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



**CERTIFICATE OF ANALYSIS**

<b>CLIENT:</b>	Enviro Sound Consulting 3388 Byron St, Suite 200 Silverdale, WA 98383	<b>DATE:</b>	4/1/2013
<b>CLIENT CONTACT:</b>	Shawn Williams	<b>ALS JOB#:</b>	EV13030176
<b>CLIENT PROJECT:</b>	ESC13-E002	<b>ALS SAMPLE#:</b>	-01
<b>CLIENT SAMPLE ID</b>	ESC-E002-B1-SL03	<b>DATE RECEIVED:</b>	3/29/2013
		<b>COLLECTION DATE:</b>	3/28/2013 9:30:00 AM
		<b>WDOE ACCREDITATION:</b>	C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/01/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/01/2013	EBS

<b>SURROGATE</b>	<b>METHOD</b>	<b>%REC</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
C25	NWTPH-DX	86.3	04/01/2013	EBS

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



**CERTIFICATE OF ANALYSIS**

CLIENT:	Enviro Sound Consulting 3388 Byron St, Suite 200 Silverdale, WA 98383	DATE:	4/1/2013
CLIENT CONTACT:	Shawn Williams	ALS JOB#:	EV13030176
CLIENT PROJECT:	ESC13-E002	ALS SAMPLE#:	-02
CLIENT SAMPLE ID	ESC-E002-S14-SL4	DATE RECEIVED:	3/29/2013
		COLLECTION DATE:	3/28/2013 10:15:00 AM
		WDOE ACCREDITATION:	C601

**DATA RESULTS**

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	03/29/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	03/29/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/29/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/29/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/29/2013	DLC

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	74.8	03/29/2013	DLC
TFT	EPA-8021	75.3	03/29/2013	DLC

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



**CERTIFICATE OF ANALYSIS**

<b>CLIENT:</b>	Enviro Sound Consulting 3388 Byron St, Suite 200 Silverdale, WA 98383	<b>DATE:</b>	4/1/2013
<b>CLIENT CONTACT:</b>	Shawn Williams	<b>ALS JOB#:</b>	EV13030176
<b>CLIENT PROJECT:</b>	ESC13-E002	<b>ALS SAMPLE#:</b>	-03
<b>CLIENT SAMPLE ID</b>	ESC-E002-W-SL5	<b>DATE RECEIVED:</b>	3/29/2013
		<b>COLLECTION DATE:</b>	3/28/2013 10:30:00 AM
		<b>WDOE ACCREDITATION:</b>	C601

**DATA RESULTS**

<b>ANALYTE</b>	<b>METHOD</b>	<b>RESULTS</b>	<b>REPORTING LIMITS</b>	<b>DILUTION FACTOR</b>	<b>UNITS</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	03/29/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	03/29/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	03/29/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	03/29/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	03/29/2013	DLC

<b>SURROGATE</b>	<b>METHOD</b>	<b>%REC</b>	<b>ANALYSIS DATE</b>	<b>ANALYSIS BY</b>
TFT	NWTPH-GX	67.1	03/29/2013	DLC
TFT	EPA-8021	75.9	03/29/2013	DLC

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



Environmental

CERTIFICATE OF ANALYSIS

CLIENT: Enviro Sound Consulting
3388 Byron St, Suite 200
Silverdale, WA 98383

DATE: 4/1/2013
ALS SDG#: EV13030176
WDOE ACCREDITATION: C601

CLIENT CONTACT: Shawn Williams
CLIENT PROJECT: ESC13-E002

LABORATORY BLANK RESULTS

MBG-032713S - Batch 3594 - Soil by NWTPH-GX

Table with 8 columns: ANALYTE, METHOD, RESULTS, REPORTING LIMITS, DILUTION FACTOR, UNITS, ANALYSIS DATE, ANALYSIS BY. Row 1: TPH-Volatile Range, NWTPH-GX, U, 3.0, 1, MG/KG, 03/27/2013, DLC

MB-032713S - Batch 3594 - Soil by EPA-8021

Table with 8 columns: ANALYTE, METHOD, RESULTS, REPORTING LIMITS, DILUTION FACTOR, UNITS, ANALYSIS DATE, ANALYSIS BY. Rows: Benzene, Toluene, Ethylbenzene, Xylenes

MB-032513S - Batch 3591 - Soil by NWTPH-DX

Table with 8 columns: ANALYTE, METHOD, RESULTS, REPORTING LIMITS, DILUTION FACTOR, UNITS, ANALYSIS DATE, ANALYSIS BY. Rows: TPH-Diesel Range, TPH-Oil Range



**CERTIFICATE OF ANALYSIS**

CLIENT:	Enviro Sound Consulting 3388 Byron St, Suite 200 Silverdale, WA 98383	DATE:	4/1/2013
		ALS SDG#:	EV13030176
		WDOE ACCREDITATION:	C601
CLIENT CONTACT:	Shawn Williams		
CLIENT PROJECT:	ESC13-E002		

**LABORATORY CONTROL SAMPLE RESULTS**

**ALS Test Batch ID: 3594 - Soil by NWTPH-GX**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	74.9			03/27/2013	DLC
TPH-Volatile Range - BSD	NWTPH-GX	72.1	4		03/27/2013	DLC

**ALS Test Batch ID: 3594 - Soil by EPA-8021**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	91.0			03/27/2013	DLC
Benzene - BSD	EPA-8021	91.2	0		03/27/2013	DLC
Toluene - BS	EPA-8021	93.5			03/27/2013	DLC
Toluene - BSD	EPA-8021	92.9	1		03/27/2013	DLC
Ethylbenzene - BS	EPA-8021	90.5			03/27/2013	DLC
Ethylbenzene - BSD	EPA-8021	90.8	0		03/27/2013	DLC
Xylenes - BS	EPA-8021	92.7			03/27/2013	DLC
Xylenes - BSD	EPA-8021	93.3	1		03/27/2013	DLC

**ALS Test Batch ID: 3591 - Soil by NWTPH-DX**

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	84.3			03/25/2013	EBS
TPH-Diesel Range - BSD	NWTPH-DX	92.2	9		03/25/2013	EBS

APPROVED BY

Laboratory Director





# **APPENDIX C**

## **APPENDIX C**

### **FIELD EXPLORATION METHODS**

G-Logics performed subsurface soil sampling during the assessment conducted on the subject property. The sampling activities were conducted in general accordance with Ecology's guidelines and regulations.

#### **Underground Utility Clearance**

Before conducting the subsurface exploration, G-Logics contacted a service that notifies public utilities of proposed subsurface investigations. Additionally, on-site private utilities were located by a private locating company to identify on-site utilities. Consequently, the below-grade utility locations were identified by marking their inferred location on the ground surface. This information was used to aid in identifying sampling locations.

#### **Quality Assurance Quality Control**

Quality Assurance/Quality Control (QA/QC) for the presented scope of work included generally accepted procedures for sample collection, storage, tracking, and documentation. All sampling equipment was washed and rinsed before the collection of the samples. All samples were labeled with a sample number, date, time, and sampler name, and were stored in an ice chest containing ice. Appropriate chain-of-custody documentation was completed.

#### **Direct-Push Technologies Soil Borings**

A G-Logics employee was present during the drilling and assisted in obtaining samples of the subsurface materials, maintained a log of the borings, made detailed observations of site conditions, and provided technical assistance, as required. Soil borings were advanced using a track- truck-mounted direct-push probe, provided by our drilling subcontractor. Soil samples were collected using a 2-inch diameter stainless steel sampler, in lengths of five feet. Continuous soil samples were obtained by driving/pushing this sampler, containing an acrylic liner, to the sampling depth. After reaching the required depth, the sampler was retrieved and opened. All drilling and sampling equipment was cleaned before mobilization and between borings to reduce the potential for cross contamination. In addition, the

sampling equipment was cleaned between each sampling interval before the collection of the next sample.

### **Soil Sampling Procedures**

During this effort, soil samples were collected for soil identification and chemical analysis. A photoionization detector (PID) was used during drilling to screen for volatile organic compounds (VOCs) in collected soil samples. A portion of each soil sample was placed into a plastic zip-lock bag to allow contaminants to volatilize. Vapors then were drawn through the PID for qualitative screening of VOCs. The results were measured in parts per million by volume (ppmv) and noted on the boring logs. A new plastic bag was used each time a sample was screened.

The soils were then observed and categorized for grain-size, color, presence of artifacts, moisture, odor, staining, sheen, and any other indications of contamination and documented on boring logs (attached).

Samples were collected where indications of contamination were observed or from where contamination would likely be present. The collected soils contained within stainless-steel sampler were removed and placed into laboratory-provided sample containers prepared by the contract laboratory to conform to EPA-recommended preservation techniques for the analytes of concern. Sample containers were open only as long as necessary to collect the samples. The stainless-steel sampler then was washed and new liners were used for each sampling attempt.

Collected samples were labeled with a sample number, date, time, and sampler's name and stored in an ice chest containing frozen "blue ice". Chain-of-custody procedures were followed to document sample handling.

Upon completion of each soil boring the resulting hole was either backfilled with bentonite (hydrated with a small amount of water) and the ground surface restored to match original surface. All soil cuttings were collected and placed into a waste drum to be disposed at an off-site disposal facility (determined by analytical results).

# **APPENDIX D**

# Unified Soil Classification System (USCS)

PRIMARY DIVISIONS		SYMBOL	DESCRIPTIONS	
<b>COARSE GRAINED SOILS</b>  Sands & Gravels, Over 50% retained on #200 sieve	<b>GRAVELS</b>  Over 50% of coarse material retained on #4 sieve	<b>CLEAN GRAVEL</b>  Less than 5% passing #200 sieve	GW Well graded gravel, many different particle sizes, little or no fines	
		<b>GRAVEL WITH FINES</b>	GP Poorly graded, few different particle sizes, little or no fines	
			GM Silty gravels, gravel-sand-silt mixtures	
		GC Clayey gravels, gravel-sand-clay mixtures	<b>SAND</b>  Over 50% of coarse material passed #4 sieve	<b>CLEAN SANDS</b>  Less than 5% passing #200 sieve
	<b>SAND WITH FINES</b>			SP Poorly graded, few different particle sizes, little or no fines
		SM Silty gravels, gravel-sand-silt mixtures		
	SC Clayey gravels, gravel-sand-clay mixtures	<b>SILTS AND CLAYS</b>  Liquid limit is less than 50 %		ML Inorganic silts, slight to no plasticity
				CL Inorganic clays, low to moderate plasticity
	OL Organic silts and clays of low plasticity			
	<b>SILTS AND CLAYS</b>  Liquid limit is more than 50 %	MH Inorganic silts, moderate to high plasticity		
CH Inorganic clays, high plasticity, fat clays				
OH Organic silts and clays of high plasticity				
<b>Highly Organic Soils</b>		PT	Peat and other highly organic soils	

## Soil Samples



Disturbed, bag, bulk, or grab sample



Standard penetration split spoon sample



Cuttings



Continuous-Core Sample

## Field Measurements



Water Level Observed During Drilling



Photoionization Detector

ppmv

Parts Per Million by Volume



End of Boring (E.O.B)

**Note:** Blows per foot is the number of blows used to drive a split-spoon (2" OD) sampler through the last 12 inches of an 18-inch sampling attempt. One blow is a 30-inch fall of a 140-pound hammer.

**Note:** The line separating strata on the logs represents approximate boundaries only. The actual transition may be gradual. No warranty is provided as to the continuity of the strata between exploration locations. Logs represent the soil section observed at the exploration location on the date of exploration only.

ExplorationLogLegend.pub

*g-logics*

**Exploration Log Legend**



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>		DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>
DRILLING CONTRACTOR: <b>ESN</b>		BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-1</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>20'</b>	DEPTH TO WATER: <b>---</b>
	LOCATION: <b>Bremerton, Washington</b>		

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1.5': GRAVEL with sand, dry, no odor	GW	90				0 Backfilled with Bentonite
	1.5-3': SILTY SAND, very fine grained, orange/brown, dry, medium dense, no odor.	SM					
5	3-7.5': SILT with trace very fine grained sand, light brown, dry to moist medium stiff, no odor.	ML	95		0	GLB-1-5	5
	7.5-11': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM					
10	11-15': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML	100		0	GLB-1-10	10
	15-20': SAND, very fine grained with trace silt, light brown, very moist, medium dense, no odor. End of boring at 20 feet.	SP					
15					0	GLB-1-15	15
20					0	GLB-1-20	20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>	DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>	
	DRILLING CONTRACTOR: <b>ESN</b>	BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-2</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>20'</b>	DEPTH TO WATER: <b>---</b>
LOCATION: <b>Bremerton, Washington</b>			

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1.5': GRAVEL with sand, dry, no odor	GW					0
			100				Backfilled with Bentonite
5	1.5-7': SILTY SAND, very fine grained, orange/brown, dry to moist, medium dense, no odor. Wood debris at 5'.	SM			0	GLB-2-5	
			100				
10	7-14': SILTY SAND with SILT lenses at 8', 10, and 12', very fine grained sand, light brown, moist, medium dense, no odor	SM/ML			24	GLB-2-10	
			100				
15	14-17': SAND, very fine grained with trace silt, light brown, very moist, medium dense, no odor.	SP			0	GLB-2-15	
			90				
20	17-19': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML					
	19-20': SAND, medium grained with trace silt and gravel, brown, moist, very dense, no odor. End of boring at 20 feet.	SP			0	GLB-2-20	20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>	DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>	
	DRILLING CONTRACTOR: <b>ESN</b>	BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-3</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>20'</b>	DEPTH TO WATER: <b>---</b>
LOCATION: <b>Bremerton, Washington</b>			

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1.5': GRAVEL with sand, dry, no odor	GW	80				0 Backfilled with Bentonite
1.5	1.5-5': SILTY SAND, very fine grained with trace gravel, light brown, dry, medium dense, no odor.						
5	5-10': SILTY SAND, very fine grained with a silt lens from 7 feet to 8 feet, light brown, dry, medium dense, no odor.	SM	100		0	GLB-3-5	5
10	10-15': SILT with very fine grained sand, light brown, moist, medium stiff, no odor.	ML	80		0	GLB-3-10	10
15	15-18': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor.	SP	50		0	GLB-3-15	15
18	18-19': SILT with very fine grained sand, light brown, very moist, medium stiff, no odor.	ML					
19	19-20': SAND, very fine grained with silt and gravel, light gray, dry, very dense, no odor. End of boring at 20 feet.	SW					
20					0	GLB-3-20	20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>	DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>	
	DRILLING CONTRACTOR: <b>ESN</b>	BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-4</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>25'</b>	DEPTH TO WATER: <b>---</b>
LOCATION: <b>Bremerton, Washington</b>			

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1': GRAVEL with sand, dry, no odor	GW	70				0 Backfilled with Bentonite
	1-3': SILTY SAND, very fine grained, light brown, dry, medium dense, no odor.	SM					
	3-5': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML					
5	5-8': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM	100		0	GLB-4-5	5
	8-9': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML					
10	9-12': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor.	SP	100		0	GLB-4-10	10
	12-14': SILT with trace very fine grained sand, light brown with some iron oxidation staining, moist, medium stiff, no odor.	ML					
15	14-18': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor.	SP	100		0	GLB-4-15	15
	18-20': SAND, very fine grained with trace silt, gray, moist, medium dense, moderate petroleum odor.						
20	20-25': SAND, fine to medium grained with trace silt and gravel, brown, moist, medium dense, no odor. End of Boring at 25 feet.		50		5.1	GLB-4-20	20
25					0	GLB-4-25	25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>		DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>
DRILLING CONTRACTOR: <b>ESN</b>		BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-5</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>20'</b>	DEPTH TO WATER: <b>---</b>
	LOCATION: <b>Bremerton, Washington</b>		

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1.5': GRAVEL with sand, dry, no odor	GW					0
							Backfilled with Bentonite
5	1-6': SILTY SAND, very fine grained, light brown, dry, medium dense, no odor.	SM	80		0	GLB-5-5	5
	6-9.5': SILT with trace very fine grained sand, light brown, dry to moist, medium stiff, no odor.	ML	100				
10	9.5-11': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM			0	GLB-5-10	10
			100				
15	11-18': SILT with very fine grained sand, light brown with some iron oxidation staining, moist, medium stiff, no odor.	ML			0	GLB-5-15	15
			100				
20	18-20': SAND, very fine grained with trace silt, light brown, moist, no odor. End of Boring at 20 feet.	SP			0	GLB-5-20	20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>	DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>	
	DRILLING CONTRACTOR: <b>ESN</b>	BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-6</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>20'</b>	DEPTH TO WATER: <b>---</b>
LOCATION: <b>Bremerton, Washington</b>			

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1.5': GRAVEL with sand, dry, no odor	GW					0
			70				Backfilled with Bentonite
5	1-9': SILTY SAND, very fine grained with SILT lenses at 5 and 8 feet, light brown, dry to moist, medium dense, no odor.	SM/ML	100		0	GLB-6-5	5
10	9-11': SAND, very fine grained with silt, light brown, dmoist, medium dense, no odor.	SM			0	GLB-6-10	10
	11-14': SILT with trace very fine grained sand, light brown, dry, medium stiff, no odor.	ML	100				
15	14-17': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor.	SP			0	GLB-6-15	15
	17-18': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM	100				
20	18-20': SAND, very fine grained with trace silt, light brown, moist to very moist, medium dense, no odor.	SP			0	GLB-6-20	20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>		DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>
DRILLING CONTRACTOR: <b>ESN</b>		BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-7</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>15'</b>	DEPTH TO WATER: <b>---</b>
	LOCATION: <b>Bremerton, Washington</b>		

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1': GRAVEL with sand, dry, no odor	GW	80				0 Backfilled with Bentonite
	1-5': SILT SAND, very fine grained with trace gravel, light brown/orange, dry, medium dense, no odor.	SM					
5	5-7': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML	100		0	GLB-7-5	5
	7-11.5': SILTY SAND, very fine grained, light brown with some iron oxidation staining, moist, medium dense, no odor.	SM					
10	11.5-13': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML					
	13-15': SILTY SAND, very fine grained, light brown with some iron oxidation staining, moist, medium dense, no odor. End of boring at 15 feet.	SM	100		0	GLB-7-10	10
15					0	GLB-7-15	15
20							20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>	DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>
DRILLING CONTRACTOR: <b>ESN</b>	BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-8</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>15'</b>
LOCATION: <b>Bremerton, Washington</b>		DEPTH TO WATER: <b>---</b>

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1': GRAVEL with sand, dry, no odor	GW					0
	1-4': SILTY SAND, very fine grained, light brown, dry, medium dense, no odor.	SM	100				Backfilled with Bentonite
5	4-7.5': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML	100		0	GLB-8-5	5
10	7.5-13': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM	100		0	GLB-8-10	10
15	13-15': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor. End of boring at 15 feet.	SP			0	GLB-8-15	15
20							20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>	DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>	
	DRILLING CONTRACTOR: <b>ESN</b>	BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-9</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>15'</b>	DEPTH TO WATER: <b>---</b>
LOCATION: <b>Bremerton, Washington</b>			

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1.5': GRAVEL with sand, dry, no odor	GW	80				0 Backfilled with Bentonite
	1.5-4': SILTY SAND, very fine grained, light brown, dry, medium dense, no odor.	SM					
5	4-8': SILT with trace very fine grained sand, light brown, dry to moist, medium stiff, no odor.	ML	90		0	GLB-9-5	5
	8-12': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM					
10	12-13': SILT with trace very fine grained sand, light brown, very moist, medium stiff, no odor.	ML	100		0	GLB-9-10	10
	13-15': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor. End of boring at 15 feet.	SP					
15					0	GLB-9-15	15
20							20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>		DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>
DRILLING CONTRACTOR: <b>ESN</b>		BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-10</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>15'</b>	DEPTH TO WATER: <b>---</b>
	LOCATION: <b>Bremerton, Washington</b>		

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1': GRAVEL with sand, dry, no odor	GW	70				0 Backfilled with Bentonite
	1-3.5': SILTY SAND, very fine grained, light brown, dry, medium dense, no odor.	SM					
	3.5-4.5': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML					
5	4.5-8': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM	90		0	GLB-10-5	5
	8-9': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML					
10	9-12': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM	100		0	GLB-10-10	10
	12-15': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor. End of boring at 15 feet.	SP					
15					0	GLB-10-15	15
20							20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>		DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>
DRILLING CONTRACTOR: <b>ESN</b>		BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-11</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>15'</b>	DEPTH TO WATER: <b>---</b>
	LOCATION: <b>Bremerton, Washington</b>		

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1': GRAVEL with sand, dry, no odor	GW	80				0 Backfilled with Bentonite
	1-4': SILTY SAND, very fine grained, light brown, dry, medium dense, no odor.	SM					
5	4-5': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML	80		0	GLB-11-5	5
	5-7': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM					
	7-9': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML	100		0	GLB-11-10	10
10	9-12': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM					
15	12-15': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor. End of boring at 15 feet.	SP			0	GLB-11-15	15
20							20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>	DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>	
	DRILLING CONTRACTOR: <b>ESN</b>	BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-12</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>15'</b>	DEPTH TO WATER: <b>---</b>
LOCATION: <b>Bremerton, Washington</b>			

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1.5': GRAVEL with sand, dry, no odor	GW	80				0 Backfilled with Bentonite
5	1.5-6.5': SILTY SAND, very fine grained, light brown, dry, medium dense, no odor.	SM					
	6.5-7.5': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML	100		0	GLB-12-5	5
10	7.5-11': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM					
	11-13': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML	100		0	GLB-12-10	10
15	13-15': SAND, very fine grained with trace silt, light brown, moist, medium dense, no odor. End of boring at 15 feet.	SP					
20							20
25							25



PROJECT/PROJECT NO: <b>L&amp;E Auto Sales Property</b>	DRILLING DATE: <b>5/21/2019</b>	LOGGED BY: <b>HC</b>	
	DRILLING CONTRACTOR: <b>ESN</b>	BORING DIAMETER: <b>2"</b>	WEATHER: <b>Cloudy</b>
BORING/WELL ID: <b>GLB-13</b>	DRILLING METHOD: <b>Direct Push</b>	TOTAL DEPTH: <b>25'</b>	DEPTH TO WATER: <b>---</b>
LOCATION: <b>Bremerton, Washington</b>			

NOTES:

Depth (feet)	Description	USCS	Interval and % Recovery	# Blows	PID	Sample ID	Well Construction
0	0-1.5': GRAVEL with sand, dry, no odor	GW	90				0 Backfilled with Bentonite
5	1.5-7': SILTY SAND, very fine grained, light brown, dry, medium dense, no odor.	SM					
	7-8': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML	90				5
10	8-11': SILTY SAND, very fine grained, light brown, moist, medium dense, no odor.	SM	100		0	GLB-13-10	10
	11-14': SILT with trace very fine grained sand, light brown, moist, medium stiff, no odor.	ML					
15	14-20': SAND, very fine graind with trace silt, light brown, moist, medium dense, very slight odor at 19.5 feet.	SP	100		0	GLB-13-15	15
20	20-25': SAND, fine to medium grained with trace silt and gravel, brown, dry, medium dense, no odor. End of boring at 25 feet.		100	0.5	GLB-13-20	20	
25					0	GLB-13-25	25

# **APPENDIX E**



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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

September 27, 2013

MR. CHARLES CARMEL  
ATLANTIC RICHFIELD COMPANY  
P.O. BOX 1257  
SAN RAMON, CA 94583

**Re: No Further Action at the following Site:**

- **Site Name:** Budget Rent A Car ARCO (ARCO 5810)
- **Site Address:** 2101 West 6<sup>th</sup> Street, Bremerton, Washington 98132
- **Facility/Site No.:** 53813326
- **VCP Project No.:** NW2735
- **Cleanup Site ID No.:** 9615

Dear Mr. Carmel:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the **Budget Rent A Car ARCO (ARCO 5810)** facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

**Issue Presented and Opinion**

---

Is further remedial action necessary to clean up contamination at the Site?

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

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

**Description of the Site**

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This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:



- Total petroleum hydrocarbons in the gasoline (TPH-G) and diesel (TPH-D) ranges, benzene, toluene, ethylbenzene and xylenes (BTEX) into the Soil

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

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcels associated with this Site are affected by other sites.

### **Basis for the Opinion**

---

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

1. Antea Group, 2013. *Subsurface Investigation Report, ARCO Facility No. 5810, 2101 West 6<sup>th</sup> Street, Bremerton, Washington 98312*. May 15.
2. Antea Group, 2011. *Subsurface Investigation Report, ARCO Facility No. 5810, 2101 West 6<sup>th</sup> Street, Bremerton, Washington*. December 29.
3. Antea Group, 2011. *Work Plan for Soil Assessment, Soil Boring Installation, ARCO Facility No. 5810, 2101 West 6<sup>th</sup> Street, Bremerton, Washington*. April 25.
4. Delta Environmental Consultants, Inc., 2006. *Environmental Oversight during Retail Facility Upgrade Activities, ARCO Facility No. 5810, 2101 West 6<sup>th</sup> Street, Bremerton, Washington*. February 27.
5. Secor International Incorporated, 2001. *Results of Soil Sampling Report, ARCO Service Station No. 5810, 2101 West 6<sup>th</sup> Street, Bremerton, Washington*. January 10.
6. Geotech Consultants, 1991. *Geotechnical Engineering Study, Proposed ARCO AM/PM Mini-Market Facility, Southwest Corner – 6<sup>th</sup> Street and Naval Avenue, Bremerton, Washington*. April 11.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at (425) 649-7235 or sending an email to: [nwro\\_public\\_request@ecy.wa.gov](mailto:nwro_public_request@ecy.wa.gov).

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

### **Analysis of the Cleanup**

---

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

**1. Characterization of the Site.**

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

**2. Establishment of cleanup standards.**

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

**a. Cleanup Levels.**

Soil

The Site is situated in a mixed residential/commercial area. The cleanup levels for soil must therefore be set for unrestricted uses, specifically through protection against direct contact (ingestion). Either MTCA Method A or Method B cleanup levels can be used for protection of this use. MTCA Method A cleanup levels were selected. Ecology concurs.

The Site is a commercial property surrounded by commercial and residential land uses. The Site vicinity is covered with pavement, buildings and landscaped areas. There are less than 1.5 contiguous acres of undeveloped land on the Site or within 500 feet of any part of the Site. The Site qualifies for an exclusion from further terrestrial ecological evaluation. Soil cleanup levels protective of terrestrial species are unnecessary.

Ground water is present beneath the Property, and soil cleanup levels protective of leaching to ground water are needed. Method A cleanup levels are also appropriate for this purpose and were selected. Ecology concurs.

Ground Water

Ground water is present at a depth of approximately 70 below the ground surface (bgs). The highest beneficial use for ground water under MTCA is considered to be as a potable source, unless it can be demonstrated that the ground water is non-potable. Cleanup levels protective of potable use are therefore the default. Either Method A or Method B cleanup levels can be used for this purpose. Method A cleanup levels were selected. Ecology concurs.

**b. Points of Compliance**

Soil

The standard point of compliance for unrestricted land use is all soil to a depth of 15 feet below the ground surface.

Ground Water

The standard ground water point of compliance for ground water is throughout the Site.

**3. Selection of cleanup action.**

Ecology has determined the cleanup action you selected for the Site **meets** the substantive requirements of MTCA.

In 1989, approximately 8 cubic yards of contaminated soil were removed from the Property. In 2006, approximately 86 cubic yards of soil were removed from the Site but stockpile samples did not indicate petroleum hydrocarbon concentrations above Method A cleanup levels.

Soil vapor extraction (SVE) was selected as the primary remediation method. An SVE system was in operation at various times between 1991 and 1997 with an estimated 1,759 pounds of hydrocarbons removed.

**4. Cleanup.**

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

A subsurface investigation conducted in 2011 assessed the current soil conditions in the portion of the Site where an SVE system had operated in the 1990s. Three soil borings (AB-1 through AB-3) were advanced in the northeast corner of the Property. Soil samples collected in soil borings AB-2 and AB-3 yielded contamination exceeding Method A cleanup levels at a maximum depth of 50 feet below the ground surface. Sample No. AB-3-25.0 at a depth of 25 feet bgs contained 8,000 mg/kg TPH-G, 1,300 mg/kg TPH-D and 1.7 mg/kg benzene. Sample No. AB-2-50.0 at a depth of 50 feet, contained TPH-G at 68 mg/kg which exceeded the Method A cleanup level. No soil samples were collected below 50 feet bgs.

Later in 2013, a fourth soil boring, AB-4, was advanced to determine the vertical extent of contamination and to investigate ground water. Soil containing TPH-G at a concentration of 430 mg/kg, in excess of the Method A cleanup level, occurred at a depth of 15 feet at the Point of Compliance for soil. A sample collected 5 feet lower at a depth of 20 feet contained TPH-G at a concentration of 46 mg/kg. Below a depth of 20 feet, no petroleum hydrocarbons, benzene or MTBE were detected in samples collected at five-foot intervals to 65 feet below the ground surface. Toluene, ethylbenzene and xylenes were detected at low levels (well below cleanup levels) at a depth of 30 feet below the ground surface. Total lead was detected in all of the soil samples collected from AB-4 at concentrations below the Method A cleanup level.

Monitoring well MW-1 was installed in soil boring AB-4 which reached a maximum depth of 80 feet bgs. A ground water sample collected from MW-1 in January 2013 contained no detectable petroleum hydrocarbons, BTEX, MTBE, EDB, EDC or dissolved lead.

### **Listing of the Site**

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Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List and Leaking Underground Storage Tank List.

### **Limitations of the Opinion**

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**1. Opinion does not settle liability with the state.**

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

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

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

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

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you

Mr. Charles Carmel  
September 27, 2013  
Page 6

performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

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

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

**Termination of Agreement**

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Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#NW2735).

For more information about the VCP and the cleanup process, please visit our web site: [www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (425) 649-7064 or e-mail at [hvic461@ecy.wa.gov](mailto:hvic461@ecy.wa.gov).

Sincerely,



Heather Vick, LHg  
NWRO Toxics Cleanup Program

Enclosures (1): A – Description and Diagrams of the Site

cc: Peter Battuello, Innovex Environmental Management, Inc.  
Sonia Fernandez, VCP Coordinator, Ecology  
Dolores Mitchell, Financial Manager, Ecology

## **Enclosure A**

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

### **Site Description**

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

**Site:** The Site is defined as gasoline-range (TPH-G) and diesel-range (TPH-D) petroleum hydrocarbons, benzene, ethylbenzene, toluene and xylenes (BTEX) into the soil at 2101 6<sup>th</sup> Street in Bremerton, Washington (Property). The Property corresponds to Kitsap County parcel number 142401-3-065-2007 and is 0.81 acre in size. The Property is located in the southwest quarter of Section 14, Township 24 North, Range 1 East.

**Area and Property Description:** The Site vicinity consists of primarily commercial and residential land uses. The Property is bordered to the north by 6<sup>th</sup> Street, to the east by Naval Avenue and further east is a Chevron gasoline station that corresponds to Ecology Cleanup Site ID No. 5252. The Property is bordered to the south by 5<sup>th</sup> Street and residential properties to the west. The Site is fairly level and at an approximate elevation of 105 feet above mean sea level. The Property contains the service station building and convenience store, six dispenser islands under a single canopy, four 10,000-gallon underground storage tanks (USTs) and associated fueling system components. The surface of the Site is covered with asphalt and concrete with some landscaped areas around the perimeter.

**Property History and Current Use:** The Property was most likely originally developed commercially as a gasoline station although the date is unknown. According to a 1991 report, the previous service station had wood frame and cinder block warehouses in the southeast portion of the Property. A single family residence was located in the southwest portion of the Property. The northern half of the Property was occupied with an abandoned gas station building, canopy and pump islands. These previously existing structures, which are shown on an attached Site diagram, were demolished to allow for construction of a new ARCO gasoline station. The Property is currently an operating ARCO gasoline station with an AM-PM convenience store.

**Sources of Contamination:** Sources of contamination on the Site include the former USTs, fuel dispensers, related piping and equipment associated with the former gas station that were removed in 1989. These features were located in the northeast portion of the Property.

**Physiographic Setting:** The Site is located on the Kitsap Peninsula within the Puget Sound Lowland Physiographic Province, a north-south trending structural and topographic depression bordered on its west side by the Olympic Mountains, and to the east by the Cascade Mountain foothills. The Puget Sound Lowland is underlain by Tertiary volcanic and sedimentary bedrock, and has been filled to the present day land surface with Pleistocene glacial and nonglacial sediments.

**Surface/Storm Water System:** The closest surface water body to the Site is Puget Sound which is located approximately 0.5 mile to the south.

**Ecological Setting:** The Site is located in a commercial and residential area where the land surface is paved or covered by buildings with less than 1.5 acres of contiguous undeveloped land within 500 feet of any part of the Site.

**Geology:** The Site is in an area that has been mapped as the Vashon glacial till. Geological materials underlying the Site consist of dense to very dense silty sand to a depth of about 15 feet below the ground surface (bgs) underlain by poorly graded fine sand that extends to a depth of at least 80 feet bgs, the maximum depth explored. The dense silty sand is the Vashon till at the surface; the poorly graded fine sand most likely represents deposits of the Advance outwash.

**Ground Water:** Ground water at the Site occurs under water table conditions in the fine sand of the Advance outwash. Ground water was encountered at a depth of approximately 70 feet below the ground surface in soil boring AB-4 where a monitoring well, MW-1, was installed and screened from 65 to 80 feet bgs. Insufficient information is available to determine the ground water flow direction at the Site however based on topographic contours, ground water most likely flows to the southwest toward Puget Sound.

**Water Supply:** Surface water from the Union River Reservoir and groundwater from production wells located in the Bremerton area provide the supply for Bremerton's drinking water. According to Ecology's well log database, there are no private drinking water wells within a 0.5 mile of the Property.

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

**Soil:** In June 1989, five gasoline and one heating oil USTs were removed from the Property. Eight soil samples were collected from the excavated tank pit. Two of the soil samples contained total TPH at concentrations of 209 and 742 mg/kg. The area containing the tanks was sampled and then overexcavated. A ninth sample, a composite taken from the overexcavated area, contained non-detectable levels of TPH and BTEX. Approximately 8 cubic yards of contaminated soil were removed from the Property.

Nine geotechnical soil borings (B1 through B9) were advanced in 1991 to a maximum depth of 48.5 feet bgs. Ground water was not encountered. Soil samples collected during the boring installations indicated petroleum hydrocarbons in three of the nine borings at depths ranging from 10 to 30 feet bgs, located in the northeast corner of the Property. No specific sampling results were reported.

A soil vapor extraction (SVE) system was installed at the Site in 1991 that consisted of eight extraction wells located in the northeast corner of the Site and a blower. The system operated for various durations from January 1993 to March 1997. An estimated total of 1,759 pounds of hydrocarbons were removed during system operation. A diagram of the layout of the SVE system is shown in an attached Site diagram.

In December 2000, soil samples collected during a facility upgrade did not contain any petroleum hydrocarbons above Method A cleanup levels.

In September 2005, soil samples were collected beneath two dispenser islands that were being added to the facility. No petroleum hydrocarbons were detected in excess of Method A cleanup levels in soil samples collected from the proposed location of the new dispenser islands or the soil stockpile. Approximately 86 cubic yards of soil was removed from the Site.

In May 2011, three soil borings were advanced and eleven soil samples collected and submitted for analysis. A sample collected in soil boring AB-3 at a depth of 25 feet bgs contained 1.7 mg/kg benzene, 8,000 mg/kg TPH-G and 1,300 mg/kg TPH-D. A soil sample collected in soil boring AB-2 at a depth of 50 feet bgs contained TPH-G at a concentration of 68 mg/kg which exceeds the Method A cleanup level of 30 mg/kg when benzene is present. Soil boring AB-2 was continued to a depth of 51.5 feet bgs without additional sampling so the vertical extent of contamination had not been delineated.

In January, 2013, a soil boring, AB-4 was advanced to a maximum depth of 80 feet bgs. Soil samples were collected at five-foot intervals to just above the water table which was encountered at a depth of approximately 70 feet. The soil samples were analyzed for TPH-G, TPH-D, TPH-O, BTEX, methyl-tert-butyl-ether (MTBE), ethylene dibromide (EDB) and ethylene dichloride (EDC). TPH-G and TPH-D were present in soil at a depth of 15 feet bgs at concentrations of 430 mg/kg and 40 mg/kg respectively. The TPH-G concentration exceeds the Method A cleanup level. A sample collected 5 feet lower at a depth of 20 feet contained TPH-G at a concentration of 46 mg/kg and no detectable TPH-D indicating the vertical extent of contamination was delineated. All soil samples from the remainder of the borehole contained non-detectable levels of all of the analytes except lead. All of the samples contained total lead at concentrations below the Method A cleanup level.

**Ground Water:** Ground water on the Site was encountered at a depth of approximately 70 feet bgs in monitoring well MW-1 which was installed on January 21, 2013 and sampled ten days later. The ground water sample from MW-1 contained no detectable TPH-G, TPH-D, TPH-O, BTEX, MTBE, EDB, EDC or dissolved lead.

## **Site Diagrams**





GENERAL NOTES:  
 BASE MAP FROM U.S.G.S.  
 EDMONDS EAST, WA.  
 7.5 MINUTE TOPOGRAPHIC  
 PHOTOREVISED 1983



QUADRANGLE LOCATION

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, BREMERTON QUADRANT



FIGURE 1

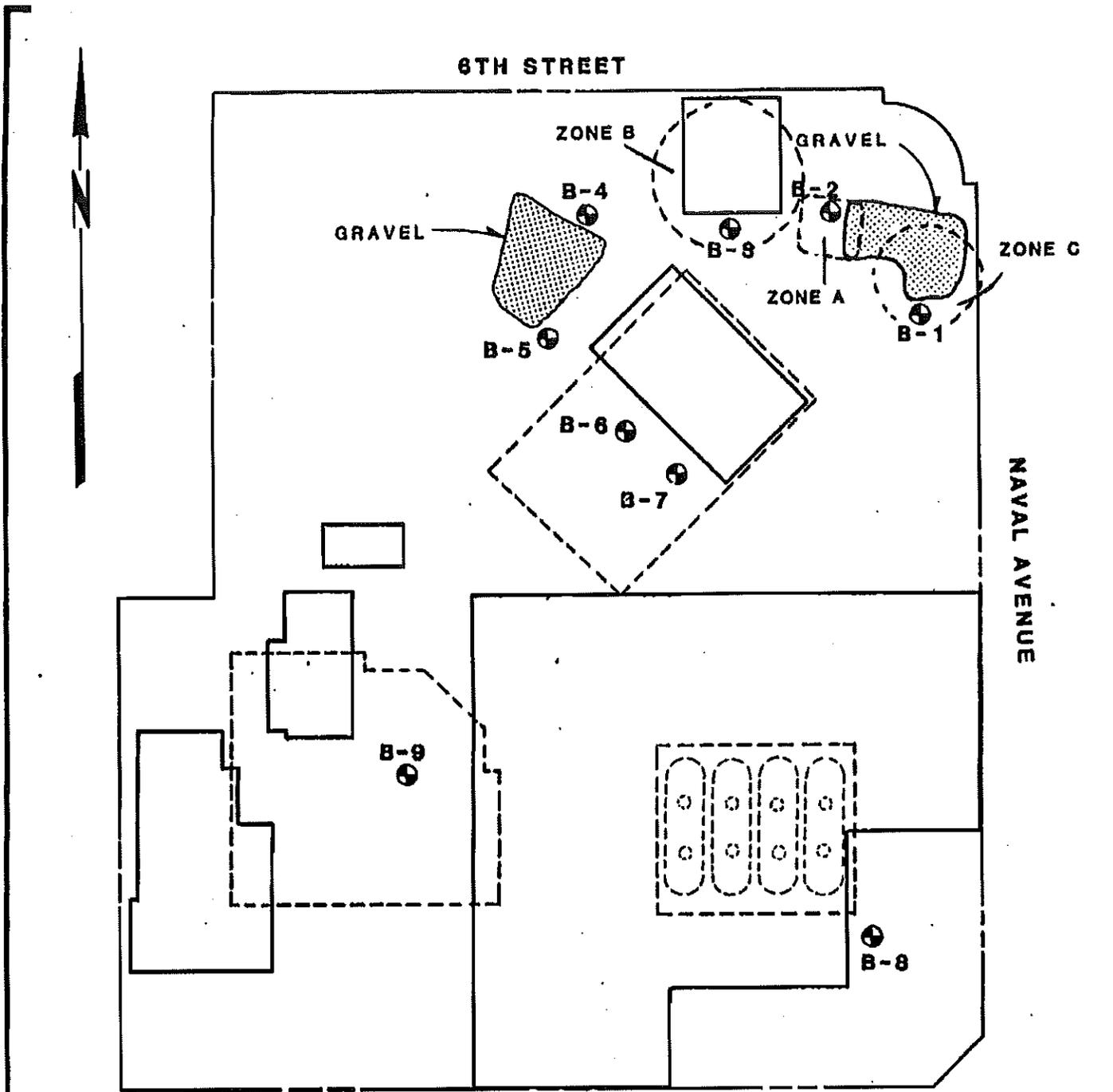
SITE LOCATION MAP

ARCO FACILITY NO. 5810  
 2101 6TH STREET  
 BREMERTON, WA.

PROJECT NO. 05810DA111	DRAWN BY DGR 3/22/11
FILE NO. Site Locator 5810	PREPARED BY SBM
REVISION NO. 2	REVIEWED BY







**LEGEND:**

-  B-1 APPROXIMATE BORING LOCATIONS
-  EXISTING BUILDINGS
-  PROPOSED BUILDINGS



**GEOTECH  
CONSULTANTS**

**SITE EXPLORATION PLAN  
AM/PM MINI-MARKET  
SWC. 6TH STREET  
& NAVAL AVENUE  
BREMERTON, WASHINGTON**

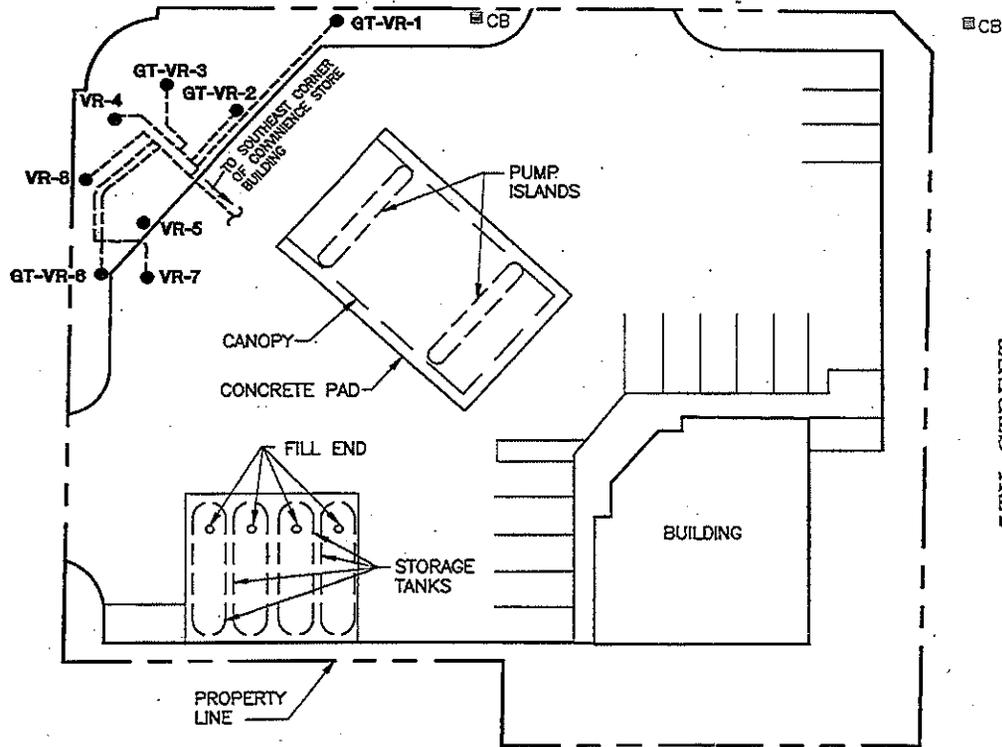
Job No.:	Date:	Scale:	Plate:
1056	MAR 1991	1" ≈ 30'	2



NAVAL AVENUE

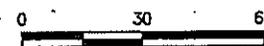
6TH STREET

6TH STREET



**LEGEND**

- GT-VR-3 Soil Vapor Extraction Well
- ▣ CB Catch Basin
- Piping Line



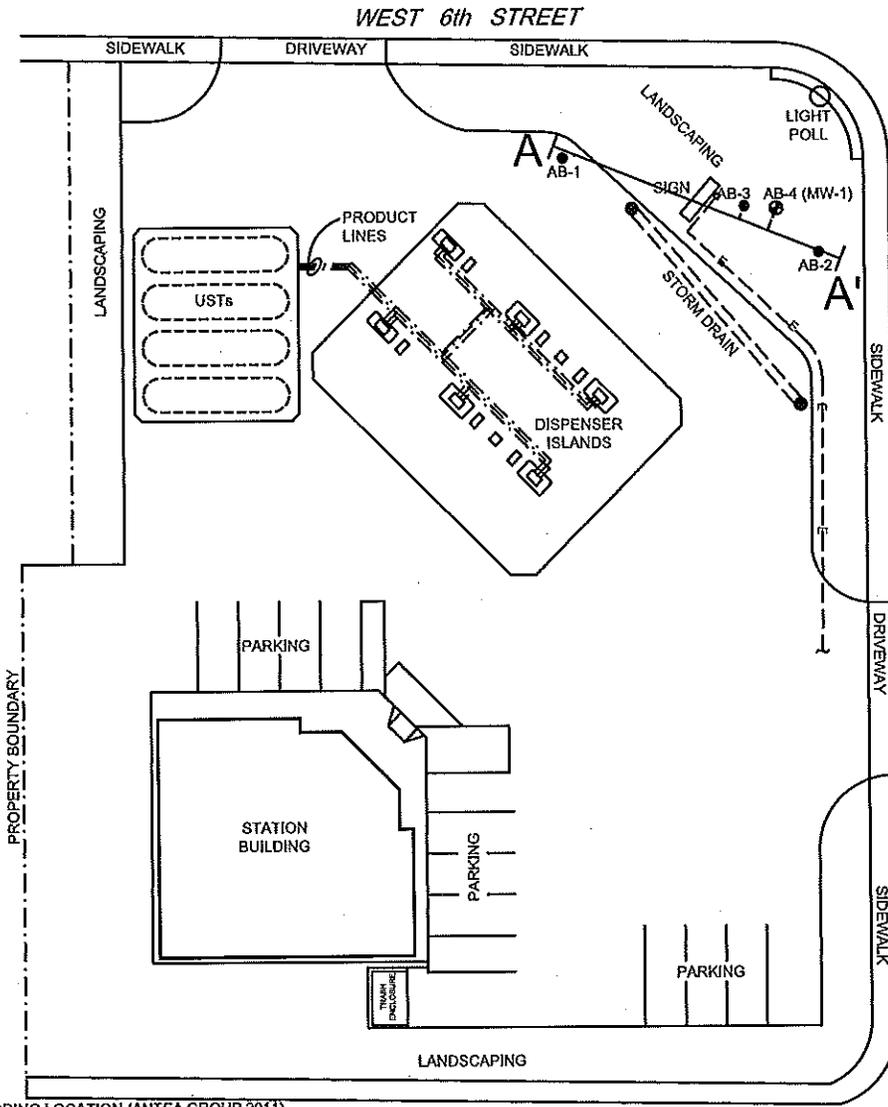
SCALE (ft)



DATE 12-94  
 DWN. MLP  
 REV. \_\_\_\_\_  
 APPR. \_\_\_\_\_  
 PROJECT NO. \_\_\_\_\_  
 WA

Figure 2  
 ARCO SERVICE STATION 5810  
 2101 SIXTH AVENUE  
 BREMERTON, WASHINGTON  
**SITE PLAN**





**LEGEND:**

- AB-3 ● SOIL BORING LOCATION (ANTEA GROUP 2011)
- AB-4/MW-1 ● GROUNDWATER MONITORING WELL LOCATION (ANTEA GROUP 2013)
- E--- UNDERGROUND ELECTRICAL LINE
- A|---|A' GEOLOGIC CROSS SECTION TRACE
- PROJECTED CROSS SECTION TRACE



APPROX. SCALE

**FIGURE 3  
SITE MAP**

ARCO FACILITY NO. 5810  
2101 WEST 6th STREET  
BREMERTON, WA.

PROJECT NO. 05810EA131	DRAWN BY KYM 5/14/13
FILE NO. AR-5810 -XS	PREPARED BY MR
REVISION NO. 2	REVIEWED BY





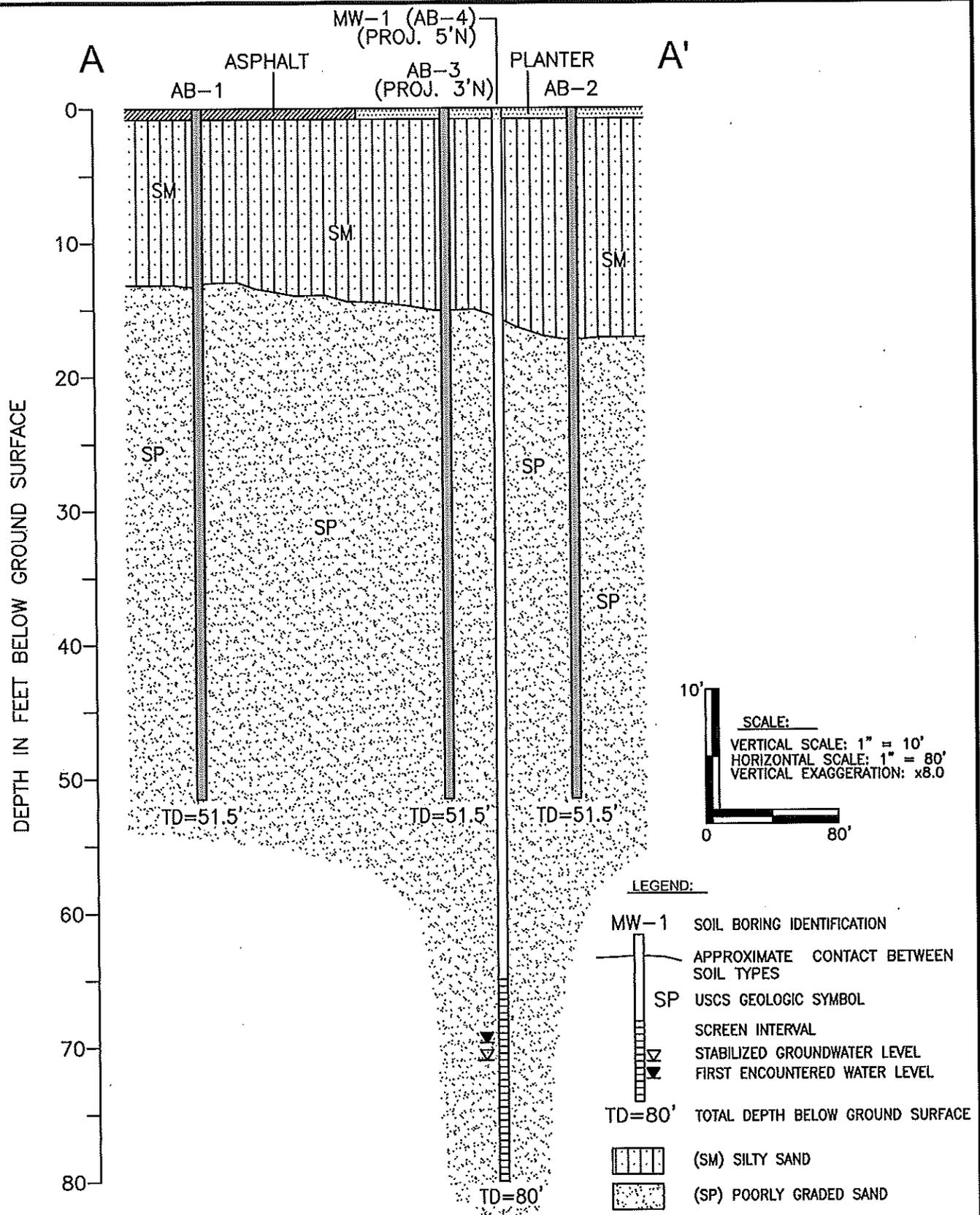


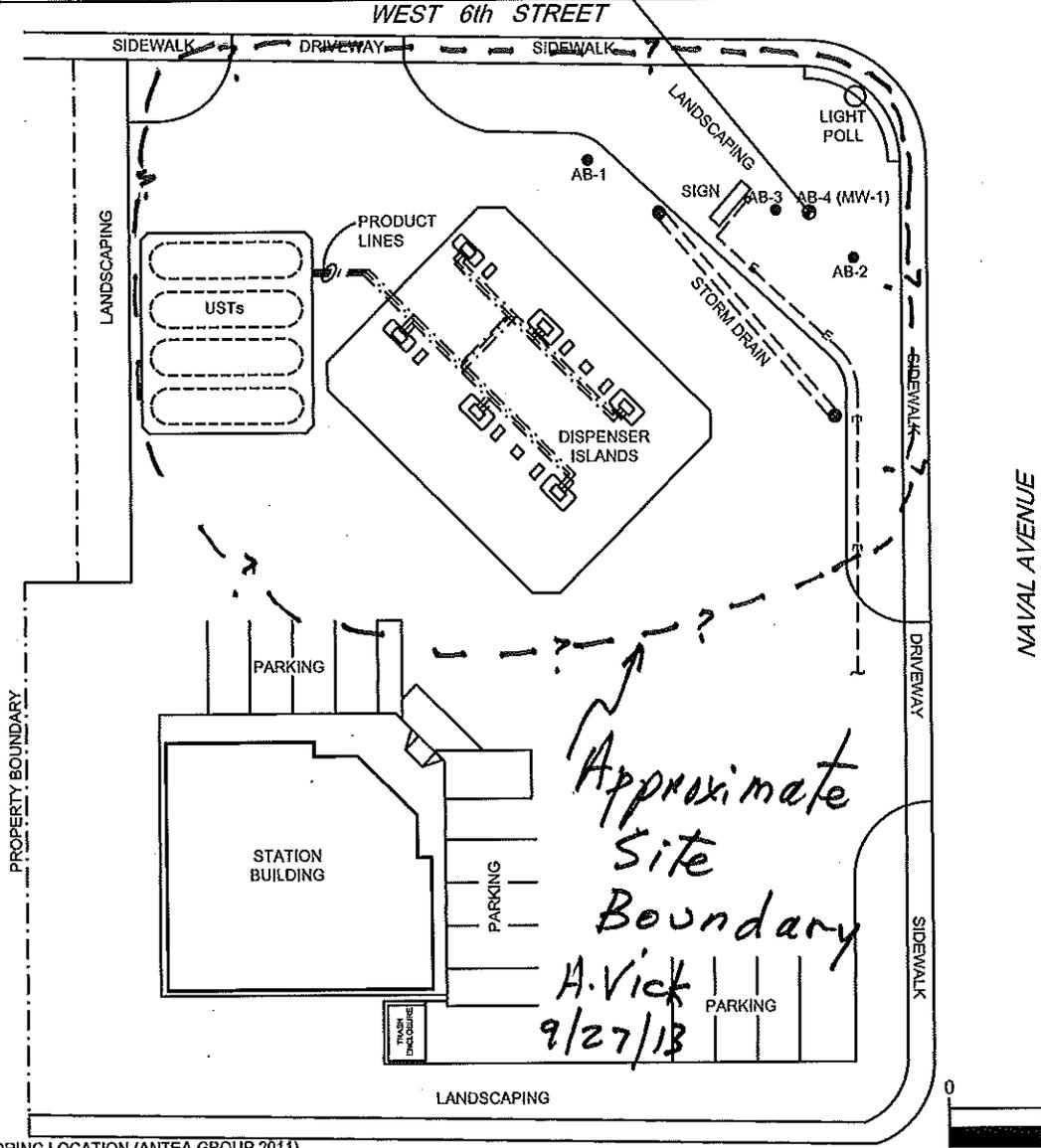
FIGURE 4  
GEOLOGIC CROSS SECTION A-A'

ARCO FACILITY NO. 5810  
2101 WEST 6th STREET  
BREMERTON, WA.

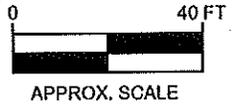
PREPARED SK	 <b>antea</b> group
DRAWN KM	
REV 0	
DATE 01 MAR 13	
PROJECT NO. AR-5810-XS	FILE NO. SEATTLE_QTRY



	AB-4 (1/21/13)												
	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0
B	<0.0051	<0.0046	<0.0062	<0.0053	<0.0059	<0.0057	<0.0058	<0.0056	<0.0054	<0.0056	<0.0051	<0.0051	<0.0061
T	<0.0051	<0.0046	<0.0049	<0.0053	<0.0059	0.0096	<0.0058	<0.0056	<0.0054	<0.0056	<0.0051	<0.0051	<0.0061
E	<0.0051	<0.0046	0.13	<0.0053	<0.0059	0.0096	<0.0058	<0.0056	<0.0054	<0.0056	<0.0051	<0.0051	<0.0061
X	<0.0102	<0.0092	2.71	0.067	<0.0118	0.047	<0.0116	<0.0112	<0.0108	<0.0112	<0.0102	<0.0102	<0.0122
MTBE	<0.0051	<0.0046	<0.0049	<0.0053	<0.0059	<0.0057	<0.0058	<0.0056	<0.0054	<0.0056	<0.0051	<0.0051	<0.0061
EDB	NA	NA	<0.010	<0.00098	<0.00011	NA							
EDC	NA	NA	<0.049	<0.0053	<0.0059	NA							
TPH-G	<3.3	<2.6	<b>430**</b>	<b>46**</b>	<3.5	<3.6	<3.2	<3.3	<3.2	<3.2	<3.1	<3.8	<4.3
TPH-D	<30	<28	40	<29	<29	<30	<28	<27	<27	<29	<27	<29	<30
TPH-O	<120	<120	<120	<120	<120	<120	<110	<110	<110	<120	<110	<120	<120
Pb-T	31.9	15.1	13.8	9.20	2.68	1.47	1.44	2.48	1.37	1.90	1.46	2.13	1.79



*Approximate Site Boundary*  
*A. Vick*  
*9/27/13*



**LEGEND:**

- AB-3 ● SOIL BORING LOCATION (ANTEA GROUP 2011)
- AB-4/MW-1 ⊕ GROUNDWATER MONITORING WELL LOCATION (ANTEA GROUP 2013)
- - - UNDERGROUND ELECTRICAL LINE

**SOIL ANALYTICAL DATA**

AB-4 (1/21/13)		WELL DESIGNATION WITH SAMPLING DATE
5.0		SAMPLING DEPTH IN FEET
B	<0.0051	BENZENE
T	<0.0051	TOLUENE
E	<0.0051	ETHYLBENZENE
X	<0.0102	XYLENES
MTBE	<0.0051	METHYL TERT-BUTYL ETHER
EDB	NA	1,2 DIBROMOETHANE
EDC	NA	1,2 DICHLOROETHANE
NWTPH-G	<3.3	GASOLINE-RANGE HYDROCARBONS
NWTPH-D	<30	DIESEL-RANGE HYDROCARBONS
NWTPH-O	<120	OIL-RANGE HYDROCARBONS
Pb-T	31.9	TOTAL LEAD

NA NOT ANALYZED  
 \*\* THE CHROMATOGRAPHIC FINGERPRINT DOES NOT RESEMBLE A PETROLEUM PRODUCT.  
 <0.0051 CONCENTRATIONS WERE NOT DETECTED ABOVE THE METHOD REPORTING LIMIT AND/OR METHOD DETECTION LIMIT.

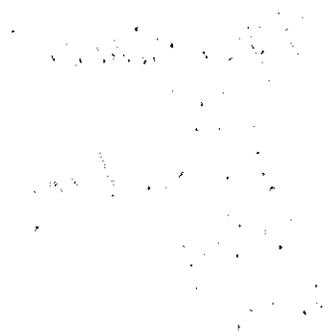
NOTES: 1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER KILOGRAM (mg/kg)  
 2. BOLD TEXT INDICATES CONCENTRATIONS IN EXCESS OF MODEL TOXICS CONTROL ACT METHOD A CLEANUP LEVELS.

**FIGURE 5**  
**SOIL ANALYTICAL DATA MAP**  
 1/21/13

**ARCO FACILITY NO. 5810**  
**2101 WEST 6th STREET**  
**BREMERTON, WA.**

PROJECT NO. 05810EA131	DRAWN BY KYM 5/14/13
FILE NO. AR-5810-SoilSamp	PREPARED BY MR
REVISION NO. 2	REVIEWED BY

**antea group**



# **APPENDIX F**

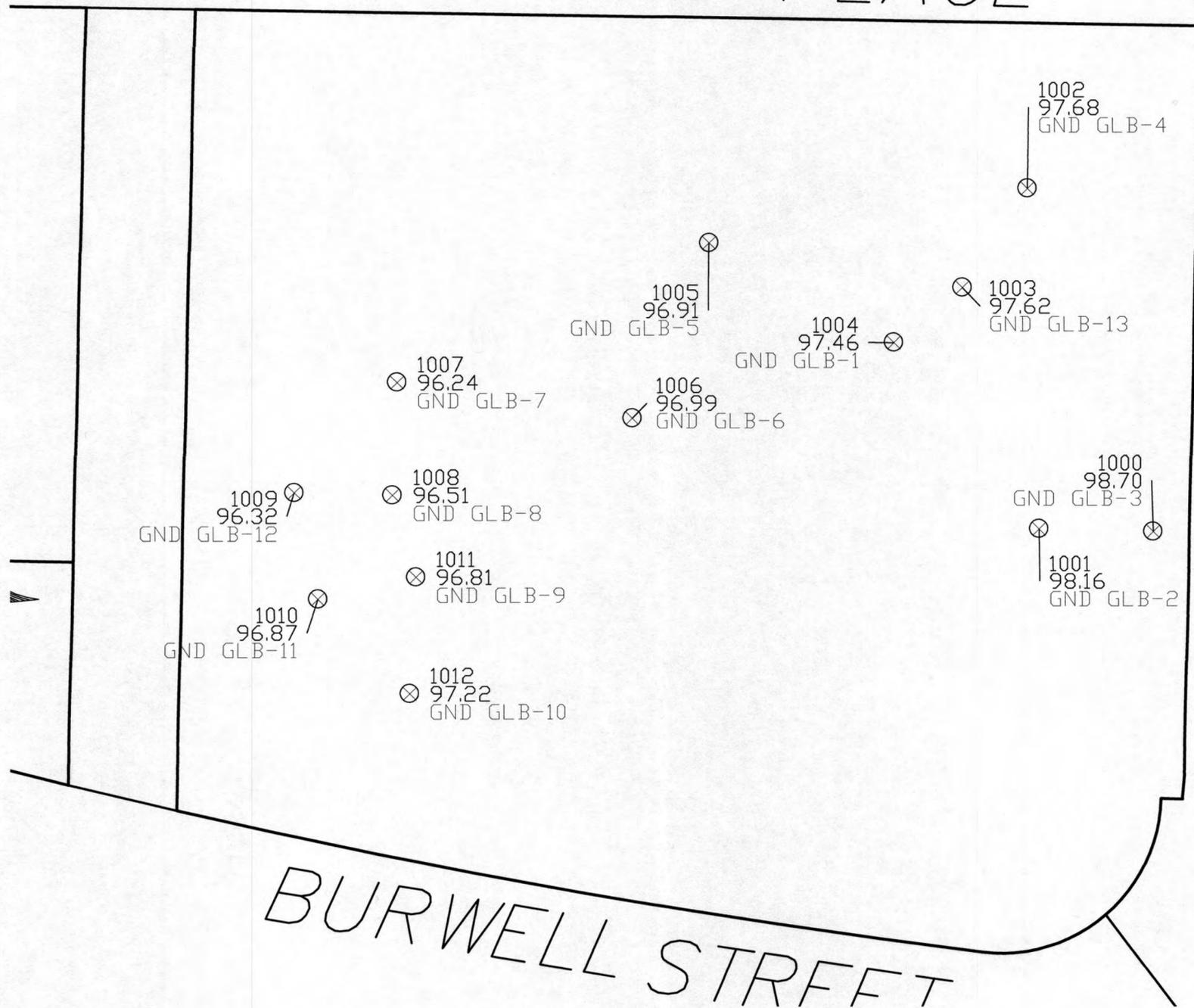
**Subject Property**  
Commercial lot on the Northwest corner of Naval Ave, and Burwell Street.

**NOTES**

1. This survey complies with all topographic standards and guidelines of WAC 332-130-145.
2. This map does not purport to depict all easements, of record or otherwise.
3. Current Title report not provided for this survey.
4. Basis of Elevations: GPS observation including metadata.
5. Purpose: Boring locations and Elevations.
6. Source of Contours: N/A
7. Contour Interval: N/A
8. Benchmarks Established: None
9. Elevation or Contour Accuracy: Elevation accuracy  $\pm 0.1'$
10. Statement of Limitation: THIS IS NOT A BOUNDARY SURVEY!!! No monuments were set, searched for, or recovered and no attempt has been made to determine the property boundary.
11. Source of Boundary information: Tax parcel lines were obtained from the Kitsap County GIS layers and are for general reference only and do not reflect ownership, deeded or otherwise.
12. Utility Clarification: N/A
13. Source of Utility Location: N/A
14. Accuracy of Utility Depiction: N/A
15. Scope of this Survey: To obtain surface elevation (NAVD88) on each of 13 boring locations.

BURWELL PLACE

NAVAL AVENUE



**Legend**

⊗ Utility Boring location

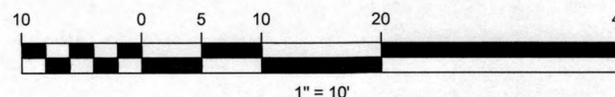


NAVD88

Leica Smartnet  
GPS observation including metadata

Wash. Grid Sys., North Zone (NAD83)

BURWELL STREET



**Surveyed By:**



6/10/19

Client

**CLIENT**

This survey employed the use of a Carlson CR 2+ 3" robotic total station and Carlson BRX6 dual-frequency receiver/antenna with multiple, meaned observations for each control point (SmartNet RTN).

Drawn by KJB	Date 6/10/2019	Job No. 1283
Checked by CPO	Scale 1" = 10'	Sheet 1 of 1



**Team4 Engineering**  
5819 NE Minder Road  
Poulsbo, WA 98370  
phone: 360 297-5560  
fax: 360 297-7951

SW 1/4, SW 1/4, Sec. 14, T. 24 N., R. 1 E., W.M.

**Property Information**

Project Name: 1283 Burwell  
Tax Account #: 3778-005-001-0002  
Site Address: 2101 Burwell Pl  
Bremerton WA  
City State

# **APPENDIX G**



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

**G-Logics**

Dan Hatch  
40 Second Ave. SE  
Issaquah, WA 98027

**RE: L&E Auto**  
**Work Order Number: 1905328**

June 07, 2019

**Attention Dan Hatch:**

Fremont Analytical, Inc. received 50 sample(s) on 5/22/2019 for the analyses presented in the following report.

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

This report consists of the following:

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

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

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike C. Ridgeway".

Mike Ridgeway  
Laboratory Director

DoD/ELAP Certification #L 17-135, ISO/IEC 17025:2005  
ORELAP Certification: WA 100009-007 (NELAP Recognized)

**CLIENT:** G-Logics  
**Project:** L&E Auto  
**Work Order:** 1905328

### Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1905328-001	GLB-1-5	05/21/2019 8:35 AM	05/22/2019 10:59 AM
1905328-002	GLB-1-10	05/21/2019 8:40 AM	05/22/2019 10:59 AM
1905328-003	GLB-1-15	05/21/2019 8:45 AM	05/22/2019 10:59 AM
1905328-004	GLB-1-20	05/21/2019 8:50 AM	05/22/2019 10:59 AM
1905328-005	GLB-2-5	05/21/2019 9:05 AM	05/22/2019 10:59 AM
1905328-006	GLB-2-10	05/21/2019 9:10 AM	05/22/2019 10:59 AM
1905328-007	GLB-2-15	05/21/2019 9:15 AM	05/22/2019 10:59 AM
1905328-008	GLB-2-20	05/21/2019 9:20 AM	05/22/2019 10:59 AM
1905328-009	GLB-3-5	05/21/2019 9:35 AM	05/22/2019 10:59 AM
1905328-010	GLB-3-10	05/21/2019 9:40 AM	05/22/2019 10:59 AM
1905328-011	GLB-3-15	05/21/2019 9:45 AM	05/22/2019 10:59 AM
1905328-012	GLB-3-20	05/21/2019 9:50 AM	05/22/2019 10:59 AM
1905328-013	GLB-4-5	05/21/2019 10:10 AM	05/22/2019 10:59 AM
1905328-014	GLB-4-10	05/21/2019 10:15 AM	05/22/2019 10:59 AM
1905328-015	GLB-4-15	05/21/2019 10:20 AM	05/22/2019 10:59 AM
1905328-016	GLB-4-20	05/21/2019 10:25 AM	05/22/2019 10:59 AM
1905328-017	GLB-4-25	05/21/2019 10:30 AM	05/22/2019 10:59 AM
1905328-018	GLB-5-5	05/21/2019 10:55 AM	05/22/2019 10:59 AM
1905328-019	GLB-5-10	05/21/2019 11:00 AM	05/22/2019 10:59 AM
1905328-020	GLB-5-15	05/21/2019 11:05 AM	05/22/2019 10:59 AM
1905328-021	GLB-5-20	05/21/2019 11:10 AM	05/22/2019 10:59 AM
1905328-022	GLB-6-5	05/21/2019 11:20 AM	05/22/2019 10:59 AM
1905328-023	GLB-6-10	05/21/2019 11:25 AM	05/22/2019 10:59 AM
1905328-024	GLB-6-15	05/21/2019 11:30 AM	05/22/2019 10:59 AM
1905328-025	GLB-DUP1	05/21/2019 11:33 AM	05/22/2019 10:59 AM
1905328-026	GLB-6-20	05/21/2019 11:35 AM	05/22/2019 10:59 AM
1905328-027	GLB-7-5	05/21/2019 11:55 AM	05/22/2019 10:59 AM
1905328-028	GLB-7-10	05/21/2019 12:00 PM	05/22/2019 10:59 AM
1905328-029	GLB-7-15	05/21/2019 12:05 PM	05/22/2019 10:59 AM
1905328-030	GLB-8-5	05/21/2019 12:15 PM	05/22/2019 10:59 AM
1905328-031	GLB-8-10	05/21/2019 12:20 PM	05/22/2019 10:59 AM
1905328-032	GLB-8-15	05/21/2019 12:25 PM	05/22/2019 10:59 AM
1905328-033	GLB-9-5	05/21/2019 12:40 PM	05/22/2019 10:59 AM
1905328-034	GLB-9-10	05/21/2019 12:45 PM	05/22/2019 10:59 AM
1905328-035	GLB-9-15	05/21/2019 12:50 PM	05/22/2019 10:59 AM
1905328-036	GLB-10-5	05/21/2019 1:05 PM	05/22/2019 10:59 AM

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**CLIENT:** G-Logics  
**Project:** L&E Auto  
**Work Order:** 1905328

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## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1905328-037	GLB-10-10	05/21/2019 1:10 PM	05/22/2019 10:59 AM
1905328-038	GLB-10-15	05/21/2019 1:15 PM	05/22/2019 10:59 AM
1905328-039	GLB-11-5	05/21/2019 1:25 PM	05/22/2019 10:59 AM
1905328-040	GLB-11-10	05/21/2019 1:30 PM	05/22/2019 10:59 AM
1905328-041	GLB-11-15	05/21/2019 1:35 PM	05/22/2019 10:59 AM
1905328-042	GLB-12-5	05/21/2019 1:45 PM	05/22/2019 10:59 AM
1905328-043	GLB-12-10	05/21/2019 1:50 PM	05/22/2019 10:59 AM
1905328-044	GLB-12-15	05/21/2019 1:55 PM	05/22/2019 10:59 AM
1905328-045	GLB-13-5	05/21/2019 2:10 PM	05/22/2019 10:59 AM
1905328-046	GLB-13-10	05/21/2019 2:15 PM	05/22/2019 10:59 AM
1905328-047	GLB-13-15	05/21/2019 2:20 PM	05/22/2019 10:59 AM
1905328-048	GLB-13-20	05/21/2019 2:25 PM	05/22/2019 10:59 AM
1905328-049	GLB-13-25	05/21/2019 2:30 PM	05/22/2019 10:59 AM
1905328-050	Trip Blank	05/15/2019 2:40 PM	05/22/2019 10:59 AM

---

**CLIENT:** G-Logics  
**Project:** L&E Auto

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

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

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

**III. ANALYSES AND EXCEPTIONS:**

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

6/7/19: Rev1 includes added analysis.

6/13/19: Rev 2 - Additional narratives added to samples with Gasoline Range Organics (GRO) detections. Samples were reviewed against the NIST library to determine the "peaks" present in the gasoline ranges. The analyst could only determine one of the two peaks. The detection is representative of a siloxane (Hexamethylcyclotrisiloxane).



Qualifiers:

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

Acronyms:

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



**Client:** G-Logics  
**Project:** L&E Auto  
**Lab ID:** 1905328-001  
**Client Sample ID:** GLB-1-5

**Collection Date:** 5/21/2019 8:35:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24780 Analyst: KT

Gasoline	ND	5.46		mg/Kg	1	6/3/2019 2:06:38 PM
Surr: 4-Bromofluorobenzene	93.8	65 - 135		%Rec	1	6/3/2019 2:06:38 PM
Surr: Toluene-d8	98.4	65 - 135		%Rec	1	6/3/2019 2:06:38 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24780 Analyst: KT

Benzene	ND	0.0218		mg/Kg	1	6/3/2019 2:06:38 PM
Toluene	ND	0.0218		mg/Kg	1	6/3/2019 2:06:38 PM
Ethylbenzene	ND	0.0273		mg/Kg	1	6/3/2019 2:06:38 PM
m,p-Xylene	ND	0.0546		mg/Kg	1	6/3/2019 2:06:38 PM
o-Xylene	ND	0.0273		mg/Kg	1	6/3/2019 2:06:38 PM
Surr: Dibromofluoromethane	98.9	56.5 - 129		%Rec	1	6/3/2019 2:06:38 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	6/3/2019 2:06:38 PM
Surr: 1-Bromo-4-fluorobenzene	97.9	54.8 - 168		%Rec	1	6/3/2019 2:06:38 PM



**Client:** G-Logics

**Collection Date:** 5/21/2019 8:40:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-002

**Matrix:** Soil

**Client Sample ID:** GLB-1-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24780

Analyst: KT

Gasoline	ND	5.67		mg/Kg	1	6/3/2019 2:36:45 PM
Surr: 4-Bromofluorobenzene	93.7	65 - 135		%Rec	1	6/3/2019 2:36:45 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	6/3/2019 2:36:45 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24780

Analyst: KT

Benzene	ND	0.0227		mg/Kg	1	6/3/2019 2:36:45 PM
Toluene	ND	0.0227		mg/Kg	1	6/3/2019 2:36:45 PM
Ethylbenzene	ND	0.0284		mg/Kg	1	6/3/2019 2:36:45 PM
m,p-Xylene	ND	0.0567		mg/Kg	1	6/3/2019 2:36:45 PM
o-Xylene	ND	0.0284		mg/Kg	1	6/3/2019 2:36:45 PM
Surr: Dibromofluoromethane	99.3	56.5 - 129		%Rec	1	6/3/2019 2:36:45 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	6/3/2019 2:36:45 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	54.8 - 168		%Rec	1	6/3/2019 2:36:45 PM



**Client:** G-Logics

**Collection Date:** 5/21/2019 8:45:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-003

**Matrix:** Soil

**Client Sample ID:** GLB-1-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755      Analyst: KT

Gasoline	ND	4.93		mg/Kg	1	5/29/2019 7:44:11 PM
Surr: 4-Bromofluorobenzene	90.9	65 - 135		%Rec	1	5/29/2019 7:44:11 PM
Surr: Toluene-d8	99.8	65 - 135		%Rec	1	5/29/2019 7:44:11 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755      Analyst: KT

Benzene	ND	0.0197		mg/Kg	1	5/29/2019 7:44:11 PM
Toluene	ND	0.0197		mg/Kg	1	5/29/2019 7:44:11 PM
Ethylbenzene	ND	0.0246		mg/Kg	1	5/29/2019 7:44:11 PM
m,p-Xylene	ND	0.0493		mg/Kg	1	5/29/2019 7:44:11 PM
o-Xylene	ND	0.0246		mg/Kg	1	5/29/2019 7:44:11 PM
Surr: Dibromofluoromethane	103	56.5 - 129		%Rec	1	5/29/2019 7:44:11 PM
Surr: Toluene-d8	106	64.5 - 151		%Rec	1	5/29/2019 7:44:11 PM
Surr: 1-Bromo-4-fluorobenzene	98.4	54.8 - 168		%Rec	1	5/29/2019 7:44:11 PM



**Client:** G-Logics

**Collection Date:** 5/21/2019 8:50:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-004

**Matrix:** Soil

**Client Sample ID:** GLB-1-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	4.60		mg/Kg	1	5/29/2019 8:14:19 PM
Gasoline Range Organics C6-C12	9.09	4.60		mg/Kg	1	5/29/2019 8:14:19 PM
Surr: 4-Bromofluorobenzene	90.3	65 - 135		%Rec	1	5/29/2019 8:14:19 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	5/29/2019 8:14:19 PM

**NOTES:**

GRO - Indicates the presence of unresolved compounds eluting from hexane to dodecane (~C6-C12). Chromatographic pattern does not represent a known petroleum distillate.

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0184		mg/Kg	1	5/29/2019 8:14:19 PM
Toluene	ND	0.0184		mg/Kg	1	5/29/2019 8:14:19 PM
Ethylbenzene	ND	0.0230		mg/Kg	1	5/29/2019 8:14:19 PM
m,p-Xylene	ND	0.0460		mg/Kg	1	5/29/2019 8:14:19 PM
o-Xylene	ND	0.0230		mg/Kg	1	5/29/2019 8:14:19 PM
Surr: Dibromofluoromethane	106	56.5 - 129		%Rec	1	5/29/2019 8:14:19 PM
Surr: Toluene-d8	106	64.5 - 151		%Rec	1	5/29/2019 8:14:19 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	54.8 - 168		%Rec	1	5/29/2019 8:14:19 PM



**Client:** G-Logics

**Collection Date:** 5/21/2019 9:10:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-006

**Matrix:** Soil

**Client Sample ID:** GLB-2-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	6.37		mg/Kg-dry	1	5/29/2019 8:44:25 PM
Surr: 4-Bromofluorobenzene	92.2	65 - 135		%Rec	1	5/29/2019 8:44:25 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	5/29/2019 8:44:25 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0255		mg/Kg-dry	1	5/29/2019 8:44:25 PM
Toluene	ND	0.0255		mg/Kg-dry	1	5/29/2019 8:44:25 PM
Ethylbenzene	ND	0.0319		mg/Kg-dry	1	5/29/2019 8:44:25 PM
m,p-Xylene	ND	0.0637		mg/Kg-dry	1	5/29/2019 8:44:25 PM
o-Xylene	ND	0.0319		mg/Kg-dry	1	5/29/2019 8:44:25 PM
Surr: Dibromofluoromethane	102	56.5 - 129		%Rec	1	5/29/2019 8:44:25 PM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/29/2019 8:44:25 PM
Surr: 1-Bromo-4-fluorobenzene	99.5	54.8 - 168		%Rec	1	5/29/2019 8:44:25 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51691 Analyst: CG

Percent Moisture	24.1	0.500		wt%	1	5/24/2019 10:34:45 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 9:15:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-007

**Matrix:** Soil

**Client Sample ID:** GLB-2-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	5.72		mg/Kg-dry	1	5/29/2019 9:14:32 PM
Gasoline Range Organics C6-C12	8.24	5.72		mg/Kg-dry	1	5/29/2019 9:14:32 PM
Surr: 4-Bromofluorobenzene	91.7	65 - 135		%Rec	1	5/29/2019 9:14:32 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	5/29/2019 9:14:32 PM

**NOTES:**

GRO - Indicates the presence of unresolved compounds eluting from hexane to dodecane (~C6-C12). Chromatographic pattern does not represent a known petroleum distillate.

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0229		mg/Kg-dry	1	5/29/2019 9:14:32 PM
Toluene	ND	0.0229		mg/Kg-dry	1	5/29/2019 9:14:32 PM
Ethylbenzene	ND	0.0286		mg/Kg-dry	1	5/29/2019 9:14:32 PM
m,p-Xylene	ND	0.0572		mg/Kg-dry	1	5/29/2019 9:14:32 PM
o-Xylene	ND	0.0286		mg/Kg-dry	1	5/29/2019 9:14:32 PM
Surr: Dibromofluoromethane	105	56.5 - 129		%Rec	1	5/29/2019 9:14:32 PM
Surr: Toluene-d8	106	64.5 - 151		%Rec	1	5/29/2019 9:14:32 PM
Surr: 1-Bromo-4-fluorobenzene	99.0	54.8 - 168		%Rec	1	5/29/2019 9:14:32 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51691 Analyst: CG

Percent Moisture	12.4	0.500		wt%	1	5/24/2019 10:34:45 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 9:20:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-008

**Matrix:** Soil

**Client Sample ID:** GLB-2-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	5.16		mg/Kg-dry	1	5/29/2019 10:14:53 PM
Gasoline Range Organics C6-C12	5.80	5.16		mg/Kg-dry	1	5/29/2019 10:14:53 PM
Surr: 4-Bromofluorobenzene	92.8	65 - 135		%Rec	1	5/29/2019 10:14:53 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	5/29/2019 10:14:53 PM

**NOTES:**

GRO - Indicates the presence of unresolved compounds eluting from hexane to dodecane (~C6-C12). Chromatographic pattern does not represent a known petroleum distillate.

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0206		mg/Kg-dry	1	5/29/2019 10:14:53 PM
Toluene	ND	0.0206		mg/Kg-dry	1	5/29/2019 10:14:53 PM
Ethylbenzene	ND	0.0258		mg/Kg-dry	1	5/29/2019 10:14:53 PM
m,p-Xylene	ND	0.0516		mg/Kg-dry	1	5/29/2019 10:14:53 PM
o-Xylene	ND	0.0258		mg/Kg-dry	1	5/29/2019 10:14:53 PM
Surr: Dibromofluoromethane	101	56.5 - 129		%Rec	1	5/29/2019 10:14:53 PM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/29/2019 10:14:53 PM
Surr: 1-Bromo-4-fluorobenzene	101	54.8 - 168		%Rec	1	5/29/2019 10:14:53 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51691 Analyst: CG

Percent Moisture	8.51	0.500		wt%	1	5/24/2019 10:34:45 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 9:45:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-011

**Matrix:** Soil

**Client Sample ID:** GLB-3-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	6.17		mg/Kg-dry	1	5/29/2019 10:45:01 PM
Surr: 4-Bromofluorobenzene	92.3	65 - 135		%Rec	1	5/29/2019 10:45:01 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	5/29/2019 10:45:01 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0247		mg/Kg-dry	1	5/29/2019 10:45:01 PM
Toluene	ND	0.0247		mg/Kg-dry	1	5/29/2019 10:45:01 PM
Ethylbenzene	ND	0.0309		mg/Kg-dry	1	5/29/2019 10:45:01 PM
m,p-Xylene	ND	0.0617		mg/Kg-dry	1	5/29/2019 10:45:01 PM
o-Xylene	ND	0.0309		mg/Kg-dry	1	5/29/2019 10:45:01 PM
Surr: Dibromofluoromethane	101	56.5 - 129		%Rec	1	5/29/2019 10:45:01 PM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/29/2019 10:45:01 PM
Surr: 1-Bromo-4-fluorobenzene	99.9	54.8 - 168		%Rec	1	5/29/2019 10:45:01 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51691 Analyst: CG

Percent Moisture	21.4	0.500		wt%	1	5/24/2019 10:34:45 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 10:15:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-014

**Matrix:** Soil

**Client Sample ID:** GLB-4-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	7.85		mg/Kg-dry	1	5/29/2019 11:15:10 PM
Surr: 4-Bromofluorobenzene	91.1	65 - 135		%Rec	1	5/29/2019 11:15:10 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	5/29/2019 11:15:10 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0314		mg/Kg-dry	1	5/29/2019 11:15:10 PM
Toluene	ND	0.0314		mg/Kg-dry	1	5/29/2019 11:15:10 PM
Ethylbenzene	ND	0.0393		mg/Kg-dry	1	5/29/2019 11:15:10 PM
m,p-Xylene	ND	0.0785		mg/Kg-dry	1	5/29/2019 11:15:10 PM
o-Xylene	ND	0.0393		mg/Kg-dry	1	5/29/2019 11:15:10 PM
Surr: Dibromofluoromethane	101	56.5 - 129		%Rec	1	5/29/2019 11:15:10 PM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/29/2019 11:15:10 PM
Surr: 1-Bromo-4-fluorobenzene	98.7	54.8 - 168		%Rec	1	5/29/2019 11:15:10 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51691 Analyst: CG

Percent Moisture	23.9	0.500		wt%	1	5/24/2019 10:34:45 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 10:25:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-016

**Matrix:** Soil

**Client Sample ID:** GLB-4-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	5.96		mg/Kg-dry	1	5/29/2019 11:45:20 PM
Surr: 4-Bromofluorobenzene	90.3	65 - 135		%Rec	1	5/29/2019 11:45:20 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	5/29/2019 11:45:20 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0239		mg/Kg-dry	1	5/29/2019 11:45:20 PM
Toluene	ND	0.0239		mg/Kg-dry	1	5/29/2019 11:45:20 PM
Ethylbenzene	ND	0.0298		mg/Kg-dry	1	5/29/2019 11:45:20 PM
m,p-Xylene	ND	0.0596		mg/Kg-dry	1	5/29/2019 11:45:20 PM
o-Xylene	ND	0.0298		mg/Kg-dry	1	5/29/2019 11:45:20 PM
Surr: Dibromofluoromethane	102	56.5 - 129		%Rec	1	5/29/2019 11:45:20 PM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/29/2019 11:45:20 PM
Surr: 1-Bromo-4-fluorobenzene	96.5	54.8 - 168		%Rec	1	5/29/2019 11:45:20 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718 Analyst: CG

Percent Moisture	21.0	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 10:30:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-017

**Matrix:** Soil

**Client Sample ID:** GLB-4-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755      Analyst: KT

Gasoline	ND	5.53		mg/Kg-dry	1	5/30/2019 12:15:29 AM
Surr: 4-Bromofluorobenzene	90.3	65 - 135		%Rec	1	5/30/2019 12:15:29 AM
Surr: Toluene-d8	101	65 - 135		%Rec	1	5/30/2019 12:15:29 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755      Analyst: KT

Benzene	ND	0.0221		mg/Kg-dry	1	5/30/2019 12:15:29 AM
Toluene	ND	0.0221		mg/Kg-dry	1	5/30/2019 12:15:29 AM
Ethylbenzene	ND	0.0277		mg/Kg-dry	1	5/30/2019 12:15:29 AM
m,p-Xylene	ND	0.0553		mg/Kg-dry	1	5/30/2019 12:15:29 AM
o-Xylene	ND	0.0277		mg/Kg-dry	1	5/30/2019 12:15:29 AM
Surr: Dibromofluoromethane	99.7	56.5 - 129		%Rec	1	5/30/2019 12:15:29 AM
Surr: Toluene-d8	104	64.5 - 151		%Rec	1	5/30/2019 12:15:29 AM
Surr: 1-Bromo-4-fluorobenzene	97.8	54.8 - 168		%Rec	1	5/30/2019 12:15:29 AM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718      Analyst: CG

Percent Moisture	10.1	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 11:00:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-019

**Matrix:** Soil

**Client Sample ID:** GLB-5-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755      Analyst: KT

Gasoline	ND	5.79		mg/Kg-dry	1	5/30/2019 12:45:35 AM
Surr: 4-Bromofluorobenzene	90.7	65 - 135		%Rec	1	5/30/2019 12:45:35 AM
Surr: Toluene-d8	101	65 - 135		%Rec	1	5/30/2019 12:45:35 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755      Analyst: KT

Benzene	ND	0.0232		mg/Kg-dry	1	5/30/2019 12:45:35 AM
Toluene	ND	0.0232		mg/Kg-dry	1	5/30/2019 12:45:35 AM
Ethylbenzene	ND	0.0290		mg/Kg-dry	1	5/30/2019 12:45:35 AM
m,p-Xylene	ND	0.0579		mg/Kg-dry	1	5/30/2019 12:45:35 AM
o-Xylene	ND	0.0290		mg/Kg-dry	1	5/30/2019 12:45:35 AM
Surr: Dibromofluoromethane	102	56.5 - 129		%Rec	1	5/30/2019 12:45:35 AM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/30/2019 12:45:35 AM
Surr: 1-Bromo-4-fluorobenzene	98.1	54.8 - 168		%Rec	1	5/30/2019 12:45:35 AM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718      Analyst: CG

Percent Moisture	24.2	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 11:10:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-021

**Matrix:** Soil

**Client Sample ID:** GLB-5-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	5.40		mg/Kg-dry	1	5/30/2019 3:45:09 AM
Gasoline Range Organics C6-C12	12.5	5.40		mg/Kg-dry	1	5/30/2019 3:45:09 AM
Surr: 4-Bromofluorobenzene	91.4	65 - 135		%Rec	1	5/30/2019 3:45:09 AM
Surr: Toluene-d8	102	65 - 135		%Rec	1	5/30/2019 3:45:09 AM

**NOTES:**

GRO - Indicates the presence of unresolved compounds eluting from hexane to dodecane (~C6-C12). Chromatographic pattern does not represent a known petroleum distillate.

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0216		mg/Kg-dry	1	5/30/2019 3:45:09 AM
Toluene	ND	0.0216		mg/Kg-dry	1	5/30/2019 3:45:09 AM
Ethylbenzene	ND	0.0270		mg/Kg-dry	1	5/30/2019 3:45:09 AM
m,p-Xylene	ND	0.0540		mg/Kg-dry	1	5/30/2019 3:45:09 AM
o-Xylene	ND	0.0270		mg/Kg-dry	1	5/30/2019 3:45:09 AM
Surr: Dibromofluoromethane	105	56.5 - 129		%Rec	1	5/30/2019 3:45:09 AM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/30/2019 3:45:09 AM
Surr: 1-Bromo-4-fluorobenzene	98.4	54.8 - 168		%Rec	1	5/30/2019 3:45:09 AM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718 Analyst: CG

Percent Moisture	17.9	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 11:25:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-023

**Matrix:** Soil

**Client Sample ID:** GLB-6-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755      Analyst: KT

Gasoline	ND	6.15		mg/Kg-dry	1	5/30/2019 4:45:27 AM
Surr: 4-Bromofluorobenzene	91.1	65 - 135		%Rec	1	5/30/2019 4:45:27 AM
Surr: Toluene-d8	102	65 - 135		%Rec	1	5/30/2019 4:45:27 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755      Analyst: KT

Benzene	ND	0.0246		mg/Kg-dry	1	5/30/2019 4:45:27 AM
Toluene	ND	0.0246		mg/Kg-dry	1	5/30/2019 4:45:27 AM
Ethylbenzene	ND	0.0307		mg/Kg-dry	1	5/30/2019 4:45:27 AM
m,p-Xylene	ND	0.0615		mg/Kg-dry	1	5/30/2019 4:45:27 AM
o-Xylene	ND	0.0307		mg/Kg-dry	1	5/30/2019 4:45:27 AM
Surr: Dibromofluoromethane	103	56.5 - 129		%Rec	1	5/30/2019 4:45:27 AM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/30/2019 4:45:27 AM
Surr: 1-Bromo-4-fluorobenzene	98.6	54.8 - 168		%Rec	1	5/30/2019 4:45:27 AM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718      Analyst: CG

Percent Moisture	21.6	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 11:35:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-026

**Matrix:** Soil

**Client Sample ID:** GLB-6-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755      Analyst: KT

Gasoline	ND	5.44		mg/Kg-dry	1	5/30/2019 5:15:34 AM
Surr: 4-Bromofluorobenzene	91.3	65 - 135		%Rec	1	5/30/2019 5:15:34 AM
Surr: Toluene-d8	102	65 - 135		%Rec	1	5/30/2019 5:15:34 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755      Analyst: KT

Benzene	ND	0.0218		mg/Kg-dry	1	5/30/2019 5:15:34 AM
Toluene	ND	0.0218		mg/Kg-dry	1	5/30/2019 5:15:34 AM
Ethylbenzene	ND	0.0272		mg/Kg-dry	1	5/30/2019 5:15:34 AM
m,p-Xylene	ND	0.0544		mg/Kg-dry	1	5/30/2019 5:15:34 AM
o-Xylene	ND	0.0272		mg/Kg-dry	1	5/30/2019 5:15:34 AM
Surr: Dibromofluoromethane	101	56.5 - 129		%Rec	1	5/30/2019 5:15:34 AM
Surr: Toluene-d8	104	64.5 - 151		%Rec	1	5/30/2019 5:15:34 AM
Surr: 1-Bromo-4-fluorobenzene	98.7	54.8 - 168		%Rec	1	5/30/2019 5:15:34 AM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718      Analyst: CG

Percent Moisture	18.7	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 11:55:00 AM

**Project:** L&E Auto

**Lab ID:** 1905328-027

**Matrix:** Soil

**Client Sample ID:** GLB-7-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	22.8		mg/Kg-dry	1	5/29/2019 2:51:20 PM
Heavy Oil	ND	56.9		mg/Kg-dry	1	5/29/2019 2:51:20 PM
Surr: 2-Fluorobiphenyl	91.7	50 - 150		%Rec	1	5/29/2019 2:51:20 PM
Surr: o-Terphenyl	97.7	50 - 150		%Rec	1	5/29/2019 2:51:20 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	25.2	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 12:00:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-028

**Matrix:** Soil

**Client Sample ID:** GLB-7-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24744

Analyst: DW

Diesel (Fuel Oil)	ND	24.0		mg/Kg-dry	1	5/30/2019 2:50:14 AM
Heavy Oil	ND	59.9		mg/Kg-dry	1	5/30/2019 2:50:14 AM
Surr: 2-Fluorobiphenyl	72.5	50 - 150		%Rec	1	5/30/2019 2:50:14 AM
Surr: o-Terphenyl	92.2	50 - 150		%Rec	1	5/30/2019 2:50:14 AM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	28.0	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 12:15:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-030

**Matrix:** Soil

**Client Sample ID:** GLB-8-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	25.1		mg/Kg-dry	1	5/29/2019 4:51:30 PM
Heavy Oil	ND	62.8		mg/Kg-dry	1	5/29/2019 4:51:30 PM
Surr: 2-Fluorobiphenyl	87.7	50 - 150		%Rec	1	5/29/2019 4:51:30 PM
Surr: o-Terphenyl	92.9	50 - 150		%Rec	1	5/29/2019 4:51:30 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	24.6	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 12:20:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-031

**Matrix:** Soil

**Client Sample ID:** GLB-8-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	22.4		mg/Kg-dry	1	5/29/2019 5:21:38 PM
Heavy Oil	ND	56.1		mg/Kg-dry	1	5/29/2019 5:21:38 PM
Surr: 2-Fluorobiphenyl	87.1	50 - 150		%Rec	1	5/29/2019 5:21:38 PM
Surr: o-Terphenyl	92.5	50 - 150		%Rec	1	5/29/2019 5:21:38 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	17.8	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 12:40:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-033

**Matrix:** Soil

**Client Sample ID:** GLB-9-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	23.8		mg/Kg-dry	1	5/29/2019 5:51:40 PM
Heavy Oil	ND	59.5		mg/Kg-dry	1	5/29/2019 5:51:40 PM
Surr: 2-Fluorobiphenyl	90.9	50 - 150		%Rec	1	5/29/2019 5:51:40 PM
Surr: o-Terphenyl	96.3	50 - 150		%Rec	1	5/29/2019 5:51:40 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	26.6	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 12:45:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-034

**Matrix:** Soil

**Client Sample ID:** GLB-9-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	22.6		mg/Kg-dry	1	5/29/2019 6:21:43 PM
Heavy Oil	ND	56.5		mg/Kg-dry	1	5/29/2019 6:21:43 PM
Surr: 2-Fluorobiphenyl	92.8	50 - 150		%Rec	1	5/29/2019 6:21:43 PM
Surr: o-Terphenyl	99.2	50 - 150		%Rec	1	5/29/2019 6:21:43 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	20.6	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 1:10:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-037

**Matrix:** Soil

**Client Sample ID:** GLB-10-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	23.2		mg/Kg-dry	1	5/29/2019 6:51:44 PM
Heavy Oil	ND	58.1		mg/Kg-dry	1	5/29/2019 6:51:44 PM
Surr: 2-Fluorobiphenyl	96.7	50 - 150		%Rec	1	5/29/2019 6:51:44 PM
Surr: o-Terphenyl	104	50 - 150		%Rec	1	5/29/2019 6:51:44 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	18.4	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 1:25:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-039

**Matrix:** Soil

**Client Sample ID:** GLB-11-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	25.4		mg/Kg-dry	1	5/29/2019 7:21:46 PM
Heavy Oil	ND	63.6		mg/Kg-dry	1	5/29/2019 7:21:46 PM
Surr: 2-Fluorobiphenyl	108	50 - 150		%Rec	1	5/29/2019 7:21:46 PM
Surr: o-Terphenyl	115	50 - 150		%Rec	1	5/29/2019 7:21:46 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	25.3	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 1:30:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-040

**Matrix:** Soil

**Client Sample ID:** GLB-11-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	23.7		mg/Kg-dry	1	5/29/2019 7:51:45 PM
Heavy Oil	ND	59.4		mg/Kg-dry	1	5/29/2019 7:51:45 PM
Surr: 2-Fluorobiphenyl	88.7	50 - 150		%Rec	1	5/29/2019 7:51:45 PM
Surr: o-Terphenyl	95.0	50 - 150		%Rec	1	5/29/2019 7:51:45 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	22.8	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 1:45:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-042

**Matrix:** Soil

**Client Sample ID:** GLB-12-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24781

Analyst: DW

Diesel (Fuel Oil)	ND	25.0		mg/Kg-dry	1	6/3/2019 2:16:20 PM
Heavy Oil	ND	62.6		mg/Kg-dry	1	6/3/2019 2:16:20 PM
Surr: 2-Fluorobiphenyl	83.6	50 - 150		%Rec	1	6/3/2019 2:16:20 PM
Surr: o-Terphenyl	91.3	50 - 150		%Rec	1	6/3/2019 2:16:20 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51837

Analyst: PA

Percent Moisture	25.0	0.500		wt%	1	6/3/2019 9:11:18 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 1:50:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-043

**Matrix:** Soil

**Client Sample ID:** GLB-12-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 24732

Analyst: DW

Diesel (Fuel Oil)	ND	23.4		mg/Kg-dry	1	5/29/2019 9:51:33 PM
Heavy Oil	ND	58.5		mg/Kg-dry	1	5/29/2019 9:51:33 PM
Surr: 2-Fluorobiphenyl	87.5	50 - 150		%Rec	1	5/29/2019 9:51:33 PM
Surr: o-Terphenyl	92.5	50 - 150		%Rec	1	5/29/2019 9:51:33 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718

Analyst: CG

Percent Moisture	18.7	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 2:10:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-045

**Matrix:** Soil

**Client Sample ID:** GLB-13-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24780 Analyst: KT

Gasoline	ND	7.15		mg/Kg-dry	1	6/3/2019 3:06:54 PM
Surr: 4-Bromofluorobenzene	92.3	65 - 135		%Rec	1	6/3/2019 3:06:54 PM
Surr: Toluene-d8	98.7	65 - 135		%Rec	1	6/3/2019 3:06:54 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24780 Analyst: KT

Benzene	ND	0.0286		mg/Kg-dry	1	6/3/2019 3:06:54 PM
Toluene	ND	0.0286		mg/Kg-dry	1	6/3/2019 3:06:54 PM
Ethylbenzene	ND	0.0358		mg/Kg-dry	1	6/3/2019 3:06:54 PM
m,p-Xylene	ND	0.0715		mg/Kg-dry	1	6/3/2019 3:06:54 PM
o-Xylene	ND	0.0358		mg/Kg-dry	1	6/3/2019 3:06:54 PM
Surr: Dibromofluoromethane	99.3	56.5 - 129		%Rec	1	6/3/2019 3:06:54 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	6/3/2019 3:06:54 PM
Surr: 1-Bromo-4-fluorobenzene	96.7	54.8 - 168		%Rec	1	6/3/2019 3:06:54 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51837 Analyst: PA

Percent Moisture	27.7	0.500		wt%	1	6/3/2019 9:11:18 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 2:15:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-046

**Matrix:** Soil

**Client Sample ID:** GLB-13-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24780 Analyst: KT

Gasoline	ND	6.10		mg/Kg-dry	1	6/3/2019 3:37:00 PM
Surr: 4-Bromofluorobenzene	92.4	65 - 135		%Rec	1	6/3/2019 3:37:00 PM
Surr: Toluene-d8	99.3	65 - 135		%Rec	1	6/3/2019 3:37:00 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24780 Analyst: KT

Benzene	ND	0.0244		mg/Kg-dry	1	6/3/2019 3:37:00 PM
Toluene	ND	0.0244		mg/Kg-dry	1	6/3/2019 3:37:00 PM
Ethylbenzene	ND	0.0305		mg/Kg-dry	1	6/3/2019 3:37:00 PM
m,p-Xylene	ND	0.0610		mg/Kg-dry	1	6/3/2019 3:37:00 PM
o-Xylene	ND	0.0305		mg/Kg-dry	1	6/3/2019 3:37:00 PM
Surr: Dibromofluoromethane	98.6	56.5 - 129		%Rec	1	6/3/2019 3:37:00 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	6/3/2019 3:37:00 PM
Surr: 1-Bromo-4-fluorobenzene	96.8	54.8 - 168		%Rec	1	6/3/2019 3:37:00 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51837 Analyst: PA

Percent Moisture	22.6	0.500		wt%	1	6/3/2019 9:11:18 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 2:20:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-047

**Matrix:** Soil

**Client Sample ID:** GLB-13-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24780 Analyst: KT

Gasoline	ND	5.38		mg/Kg-dry	1	6/3/2019 4:07:08 PM
Surr: 4-Bromofluorobenzene	90.9	65 - 135		%Rec	1	6/3/2019 4:07:08 PM
Surr: Toluene-d8	99.8	65 - 135		%Rec	1	6/3/2019 4:07:08 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24780 Analyst: KT

Benzene	ND	0.0215		mg/Kg-dry	1	6/3/2019 4:07:08 PM
Toluene	ND	0.0215		mg/Kg-dry	1	6/3/2019 4:07:08 PM
Ethylbenzene	ND	0.0269		mg/Kg-dry	1	6/3/2019 4:07:08 PM
m,p-Xylene	ND	0.0538		mg/Kg-dry	1	6/3/2019 4:07:08 PM
o-Xylene	ND	0.0269		mg/Kg-dry	1	6/3/2019 4:07:08 PM
Surr: Dibromofluoromethane	98.3	56.5 - 129		%Rec	1	6/3/2019 4:07:08 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	6/3/2019 4:07:08 PM
Surr: 1-Bromo-4-fluorobenzene	95.3	54.8 - 168		%Rec	1	6/3/2019 4:07:08 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R51837 Analyst: PA

Percent Moisture	19.5	0.500		wt%	1	6/3/2019 9:11:18 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 2:25:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-048

**Matrix:** Soil

**Client Sample ID:** GLB-13-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755 Analyst: KT

Gasoline	ND	6.72		mg/Kg-dry	1	5/30/2019 5:45:42 AM
Surr: 4-Bromofluorobenzene	92.5	65 - 135		%Rec	1	5/30/2019 5:45:42 AM
Surr: Toluene-d8	102	65 - 135		%Rec	1	5/30/2019 5:45:42 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755 Analyst: KT

Benzene	ND	0.0269		mg/Kg-dry	1	5/30/2019 5:45:42 AM
Toluene	ND	0.0269		mg/Kg-dry	1	5/30/2019 5:45:42 AM
Ethylbenzene	ND	0.0336		mg/Kg-dry	1	5/30/2019 5:45:42 AM
m,p-Xylene	ND	0.0672		mg/Kg-dry	1	5/30/2019 5:45:42 AM
o-Xylene	ND	0.0336		mg/Kg-dry	1	5/30/2019 5:45:42 AM
Surr: Dibromofluoromethane	101	56.5 - 129		%Rec	1	5/30/2019 5:45:42 AM
Surr: Toluene-d8	105	64.5 - 151		%Rec	1	5/30/2019 5:45:42 AM
Surr: 1-Bromo-4-fluorobenzene	100	54.8 - 168		%Rec	1	5/30/2019 5:45:42 AM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718 Analyst: CG

Percent Moisture	20.2	0.500		wt%	1	5/28/2019 10:10:58 AM
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**Client:** G-Logics

**Collection Date:** 5/21/2019 2:30:00 PM

**Project:** L&E Auto

**Lab ID:** 1905328-049

**Matrix:** Soil

**Client Sample ID:** GLB-13-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Gasoline by NWTPH-Gx**

Batch ID: 24755      Analyst: KT

Gasoline	ND	4.75		mg/Kg-dry	1	5/30/2019 6:15:51 AM
Surr: 4-Bromofluorobenzene	91.5	65 - 135		%Rec	1	5/30/2019 6:15:51 AM
Surr: Toluene-d8	101	65 - 135		%Rec	1	5/30/2019 6:15:51 AM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 24755      Analyst: KT

Benzene	ND	0.0190		mg/Kg-dry	1	5/30/2019 6:15:51 AM
Toluene	ND	0.0190		mg/Kg-dry	1	5/30/2019 6:15:51 AM
Ethylbenzene	ND	0.0238		mg/Kg-dry	1	5/30/2019 6:15:51 AM
m,p-Xylene	ND	0.0475		mg/Kg-dry	1	5/30/2019 6:15:51 AM
o-Xylene	ND	0.0238		mg/Kg-dry	1	5/30/2019 6:15:51 AM
Surr: Dibromofluoromethane	105	56.5 - 129		%Rec	1	5/30/2019 6:15:51 AM
Surr: Toluene-d8	106	64.5 - 151		%Rec	1	5/30/2019 6:15:51 AM
Surr: 1-Bromo-4-fluorobenzene	98.8	54.8 - 168		%Rec	1	5/30/2019 6:15:51 AM

**Sample Moisture (Percent Moisture)**

Batch ID: R51718      Analyst: CG

Percent Moisture	8.95	0.500		wt%	1	5/28/2019 10:10:58 AM
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Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>MB-24732</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/28/2019</b>	RunNo:	<b>51791</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>24732</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021737</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.3		20.00		91.7	50	150				
Surr: o-Terphenyl	19.6		20.00		98.0	50	150				

Sample ID	<b>LCS-24732</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/28/2019</b>	RunNo:	<b>51791</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>24732</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021738</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	450	20.0	500.0	0	90.1	65	135				
Surr: 2-Fluorobiphenyl	17.7		20.00		88.6	50	150				
Surr: o-Terphenyl	19.1		20.00		95.6	50	150				

Sample ID	<b>1905328-027ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/28/2019</b>	RunNo:	<b>51791</b>		
Client ID:	<b>GLB-7-5</b>	Batch ID:	<b>24732</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021740</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	26.4						0		30	
Heavy Oil	ND	65.9						0		30	
Surr: 2-Fluorobiphenyl	21.0		26.37		79.6	50	150		0		
Surr: o-Terphenyl	22.0		26.37		83.6	50	150		0		

Sample ID	<b>1905328-027AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/28/2019</b>	RunNo:	<b>51791</b>		
Client ID:	<b>GLB-7-5</b>	Batch ID:	<b>24732</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021741</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	590	26.4	659.9	0	89.4	65	135				
Surr: 2-Fluorobiphenyl	24.4		26.40		92.5	50	150				
Surr: o-Terphenyl	25.1		26.40		95.2	50	150				

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>1905328-027AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/28/2019</b>	RunNo:	<b>51791</b>		
Client ID:	<b>GLB-7-5</b>	Batch ID:	<b>24732</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021741</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>1905328-027AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/28/2019</b>	RunNo:	<b>51791</b>		
Client ID:	<b>GLB-7-5</b>	Batch ID:	<b>24732</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021742</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	599	24.6	616.1	0	97.2	65	135	590.0	1.55	30
Surr: 2-Fluorobiphenyl	24.7		24.65		100	50	150		0	
Surr: o-Terphenyl	24.9		24.65		101	50	150		0	

Sample ID	<b>MB-24744</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51788</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>24744</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021655</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0								
Heavy Oil	ND	50.0								
Surr: 2-Fluorobiphenyl	13.8		20.00		69.0	50	150			
Surr: o-Terphenyl	17.6		20.00		88.2	50	150			

Sample ID	<b>LCS-24744</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51788</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>24744</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021656</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	433	20.0	500.0	0	86.6	65	135			
Surr: 2-Fluorobiphenyl	17.4		20.00		87.0	50	150			
Surr: o-Terphenyl	19.4		20.00		97.0	50	150			

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
 Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID	<b>1905357-003ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51788</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>24744</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021662</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.4						0		30	
Heavy Oil	ND	51.0						0		30	
Surr: 2-Fluorobiphenyl	13.7		20.42		67.0	50	150		0		
Surr: o-Terphenyl	17.6		20.42		86.0	50	150		0		

Sample ID	<b>1905328-028ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51788</b>		
Client ID:	<b>GLB-7-10</b>	Batch ID:	<b>24744</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021665</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	25.8						0		30	
Heavy Oil	ND	64.5						0		30	
Surr: 2-Fluorobiphenyl	18.0		25.79		69.9	50	150		0		
Surr: o-Terphenyl	22.3		25.79		86.5	50	150		0		

Sample ID	<b>1905328-028AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51788</b>		
Client ID:	<b>GLB-7-10</b>	Batch ID:	<b>24744</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021666</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	553	26.6	664.4	0	83.2	65	135				
Surr: 2-Fluorobiphenyl	19.2		26.58		72.2	50	150				
Surr: o-Terphenyl	21.0		26.58		79.1	50	150				

Sample ID	<b>1905328-028AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51788</b>		
Client ID:	<b>GLB-7-10</b>	Batch ID:	<b>24744</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021667</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	617	27.3	683.4	0	90.3	65	135	553.1	10.9	30	
Surr: 2-Fluorobiphenyl	20.8		27.33		76.1	50	150		0		
Surr: o-Terphenyl	23.4		27.33		85.7	50	150		0		

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>1905328-028AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51788</b>		
Client ID:	<b>GLB-7-10</b>	Batch ID:	<b>24744</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021667</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>MB-24781</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51854</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>24781</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023053</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.3		20.00		91.7	50	150				
Surr: o-Terphenyl	20.1		20.00		100	50	150				

Sample ID	<b>LCS-24781</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51854</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>24781</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023054</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	444	20.0	500.0	0	88.8	65	135				
Surr: 2-Fluorobiphenyl	20.4		20.00		102	50	150				
Surr: o-Terphenyl	21.5		20.00		108	50	150				

Sample ID	<b>1905328-042ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51854</b>		
Client ID:	<b>GLB-12-5</b>	Batch ID:	<b>24781</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023056</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	24.9						0		30	
Heavy Oil	ND	62.2						0		30	
Surr: 2-Fluorobiphenyl	21.7		24.88		87.4	50	150		0		
Surr: o-Terphenyl	24.0		24.88		96.7	50	150		0		

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Sample ID	<b>1905328-042AMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51854</b>		
Client ID:	<b>GLB-12-5</b>	Batch ID:	<b>24781</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023057</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	528	24.1	601.3	0	87.8	65	135				
Surr: 2-Fluorobiphenyl	22.8		24.05		94.7	50	150				
Surr: o-Terphenyl	23.8		24.05		99.0	50	150				

Sample ID	<b>1905328-042AMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51854</b>		
Client ID:	<b>GLB-12-5</b>	Batch ID:	<b>24781</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023058</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	539	25.1	628.5	0	85.7	65	135	528.1	1.96	30	
Surr: 2-Fluorobiphenyl	22.6		25.14		89.8	50	150		0		
Surr: o-Terphenyl	24.1		25.14		96.0	50	150		0		

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>LCS-24755</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51799</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021933</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	27.5	5.00	25.00	0	110	65	135				
Surr: Toluene-d8	1.27		1.250		102	65	135				
Surr: 4-Bromofluorobenzene	1.21		1.250		97.2	65	135				

Sample ID	<b>MB-24755</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51799</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021934</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.14		1.250		91.5	65	135				

Sample ID	<b>1905328-007BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51799</b>		
Client ID:	<b>GLB-2-15</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021911</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.72						0			30
Gasoline Range Organics C6-C12	8.98	5.72						8.243	8.55		30
Surr: Toluene-d8	1.45		1.429		102	65	135		0		
Surr: 4-Bromofluorobenzene	1.31		1.429		91.4	65	135		0		

**NOTES:**

GRO - Indicates the presence of unresolved compounds eluting from hexane to dodecane (~C6-C12). Chromatographic pattern does not represent a known petroleum distillate.

Sample ID	<b>1905328-021BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51799</b>		
Client ID:	<b>GLB-5-20</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021919</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.40						0			30
Gasoline Range Organics C6-C12	12.3	5.40						12.54	1.83		30
Surr: Toluene-d8	1.37		1.350		101	65	135		0		

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>1905328-021BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51799</b>		
Client ID:	<b>GLB-5-20</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021919</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Bromofluorobenzene 1.23 1.350 91.4 65 135 0

**NOTES:**

GRO - Indicates the presence of unresolved compounds eluting from hexane to dodecane (~C6-C12). Chromatographic pattern does not represent a known petroleum distillate.

Sample ID	<b>1905328-049BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51799</b>		
Client ID:	<b>GLB-13-25</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021924</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline 27.1 4.75 23.76 3.958 97.5 65 135  
 Surr: Toluene-d8 1.22 1.188 103 65 135  
 Surr: 4-Bromofluorobenzene 1.14 1.188 96.0 65 135

Sample ID	<b>1905328-049BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51799</b>		
Client ID:	<b>GLB-13-25</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021925</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline 28.7 4.75 23.76 3.958 104 65 135 27.12 5.63 30  
 Surr: Toluene-d8 1.22 1.188 103 65 135 0  
 Surr: 4-Bromofluorobenzene 1.14 1.188 95.9 65 135 0

Sample ID	<b>MB-24780</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51862</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023200</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline ND 5.00  
 Surr: Toluene-d8 1.25 1.250 99.8 65 135  
 Surr: 4-Bromofluorobenzene 1.16 1.250 92.5 65 135

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID	<b>LCS-24780</b>	SampType:	<b>LCS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51862</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023199</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	24.0	5.00	25.00	0	96.0	65	135				
Surr: Toluene-d8	1.24		1.250		98.9	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		102	65	135				

Sample ID	<b>1905301-012ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51862</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023174</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.95						0		30	
Surr: Toluene-d8	1.48		1.488		99.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.37		1.488		92.1	65	135		0		

Sample ID	<b>1905383-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51862</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023183</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	4.97						0		30	
Stoddard Solvent	1,390	4.97						1,440	3.51	30	E
Surr: Toluene-d8	1.23		1.243		99.2	65	135		0		
Surr: 4-Bromofluorobenzene	3.25		1.243		261	65	135		0		S

**NOTES:**

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

Sample ID	<b>1905389-002BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51862</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023185</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	31.6	5.73	28.63	0	110	65	135				
Surr: Toluene-d8	1.45		1.431		101	65	135				

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Gasoline by NWTPH-Gx**

Sample ID <b>1905389-002BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>		Prep Date: <b>6/3/2019</b>	RunNo: <b>51862</b>						
Client ID: <b>BATCH</b>	Batch ID: <b>24780</b>			Analysis Date: <b>6/3/2019</b>	SeqNo: <b>1023185</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Bromofluorobenzene      1.46      1.431      102      65      135

Sample ID <b>1905389-002BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>		Prep Date: <b>6/3/2019</b>	RunNo: <b>51862</b>						
Client ID: <b>BATCH</b>	Batch ID: <b>24780</b>			Analysis Date: <b>6/3/2019</b>	SeqNo: <b>1023186</b>						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline      34.1      5.73      28.63      0      119      65      135      31.58      7.81      30  
 Surr: Toluene-d8      1.43      1.431      99.7      65      135      0  
 Surr: 4-Bromofluorobenzene      1.45      1.431      101      65      135      0

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID	LCS-24755	SampType:	LCS	Units:	mg/Kg	Prep Date:	5/29/2019	RunNo:	51798		
Client ID:	LCSS	Batch ID:	24755	Analysis Date:	5/29/2019	SeqNo:	1021903				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.888	0.0200	1.000	0	88.8	64.3	133				
Toluene	0.887	0.0200	1.000	0	88.7	67	144				
Ethylbenzene	0.888	0.0250	1.000	0	88.8	74	129				
m,p-Xylene	1.78	0.0500	2.000	0	89.1	70	124				
o-Xylene	0.891	0.0250	1.000	0	89.1	68.1	139				
Surr: Dibromofluoromethane	1.29		1.250		103	56.5	129				
Surr: Toluene-d8	1.29		1.250		104	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		101	54.8	168				

Sample ID	MB-24755	SampType:	MBLK	Units:	mg/Kg	Prep Date:	5/29/2019	RunNo:	51798		
Client ID:	MBLKS	Batch ID:	24755	Analysis Date:	5/29/2019	SeqNo:	1021904				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.27		1.250		101	56.5	129				
Surr: Toluene-d8	1.30		1.250		104	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.24		1.250		99.1	54.8	168				

Sample ID	1905328-007BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	5/29/2019	RunNo:	51798		
Client ID:	GLB-2-15	Batch ID:	24755	Analysis Date:	5/29/2019	SeqNo:	1021885				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0229						0		30	
Toluene	ND	0.0229						0		30	
Ethylbenzene	ND	0.0286						0		30	
m,p-Xylene	ND	0.0572						0		30	

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID	<b>1905328-007BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51798</b>		
Client ID:	<b>GLB-2-15</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/29/2019</b>	SeqNo:	<b>1021885</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

o-Xylene	ND	0.0286						0		30	
Surr: Dibromofluoromethane	1.49		1.429		104	56.5	129		0		
Surr: Toluene-d8	1.50		1.429		105	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.41		1.429		98.6	54.8	168		0		

Sample ID	<b>1905328-014BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51798</b>		
Client ID:	<b>GLB-4-10</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021889</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	1.45	0.0314	1.571	0	92.5	63.5	133				
Toluene	1.44	0.0314	1.571	0	91.7	63.4	132				
Ethylbenzene	1.40	0.0393	1.571	0	89.0	54.5	134				
m,p-Xylene	2.79	0.0785	3.142	0	88.8	53.1	132				
o-Xylene	1.36	0.0393	1.571	0	86.7	53.3	139				
Surr: Dibromofluoromethane	2.05		1.964		104	56.5	129				
Surr: Toluene-d8	2.09		1.964		106	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	2.01		1.964		102	54.8	168				

Sample ID	<b>1905328-014BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51798</b>		
Client ID:	<b>GLB-4-10</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021890</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	1.43	0.0314	1.571	0	91.3	63.5	133	1.453	1.33	30	
Toluene	1.42	0.0314	1.571	0	90.3	63.4	132	1.441	1.59	30	
Ethylbenzene	1.39	0.0393	1.571	0	88.6	54.5	134	1.397	0.382	30	
m,p-Xylene	2.74	0.0785	3.142	0	87.3	53.1	132	2.790	1.69	30	
o-Xylene	1.34	0.0393	1.571	0	85.5	53.3	139	1.361	1.37	30	
Surr: Dibromofluoromethane	2.07		1.964		105	56.5	129		0		
Surr: Toluene-d8	2.07		1.964		105	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.99		1.964		101	54.8	168		0		

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID	<b>1905328-014BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51798</b>		
Client ID:	<b>GLB-4-10</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021890</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	<b>1905328-021BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>5/29/2019</b>	RunNo:	<b>51798</b>		
Client ID:	<b>GLB-5-20</b>	Batch ID:	<b>24755</b>			Analysis Date:	<b>5/30/2019</b>	SeqNo:	<b>1021895</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.0216						0		30	
Toluene	ND	0.0216						0		30	
Ethylbenzene	ND	0.0270						0		30	
m,p-Xylene	ND	0.0540						0		30	
o-Xylene	ND	0.0270						0		30	
Surr: Dibromofluoromethane	1.40		1.350		104	56.5	129		0		
Surr: Toluene-d8	1.41		1.350		105	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.33		1.350		98.3	54.8	168		0		

Sample ID	<b>MB-24780</b>	SampType:	<b>MBLK</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51864</b>		
Client ID:	<b>MBLKS</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023239</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.23		1.250		98.2	56.5	129				
Surr: Toluene-d8	1.28		1.250		102	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		96.9	54.8	168				

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID	LCS-24780	SampType:	LCS	Units:	mg/Kg	Prep Date:	6/3/2019	RunNo:	51864		
Client ID:	LCSS	Batch ID:	24780	Analysis Date:	6/3/2019	SeqNo:	1023238				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.02	0.0200	1.000	0	102	64.3	133				
Toluene	1.03	0.0200	1.000	0	103	67	144				
Ethylbenzene	1.05	0.0250	1.000	0	105	74	129				
m,p-Xylene	2.11	0.0500	2.000	0	106	70	124				
o-Xylene	1.05	0.0250	1.000	0	105	68.1	139				
Surr: Dibromofluoromethane	1.30		1.250		104	56.5	129				
Surr: Toluene-d8	1.28		1.250		102	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	54.8	168				

Sample ID	1905301-012ADUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	6/3/2019	RunNo:	51864		
Client ID:	BATCH	Batch ID:	24780	Analysis Date:	6/3/2019	SeqNo:	1023212				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0238						0		30	
Toluene	ND	0.0238						0		30	
Ethylbenzene	ND	0.0298						0		30	
m,p-Xylene	ND	0.0595						0		30	
o-Xylene	ND	0.0298						0		30	
Surr: Dibromofluoromethane	1.47		1.488		99.1	56.5	129		0		
Surr: Toluene-d8	1.53		1.488		103	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.43		1.488		96.2	54.8	168		0		

Sample ID	1905383-001BDUP	SampType:	DUP	Units:	mg/Kg-dry	Prep Date:	6/3/2019	RunNo:	51864		
Client ID:	BATCH	Batch ID:	24780	Analysis Date:	6/3/2019	SeqNo:	1023222				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0199						0		30	
Toluene	0.0996	0.0199						0.09998	0.395	30	
Ethylbenzene	ND	0.0249						0		30	
m,p-Xylene	ND	0.0497						0		30	

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID	<b>1905383-001BDUP</b>	SampType:	<b>DUP</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51864</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023222</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

o-Xylene	ND	0.0249						0		30	
Surr: Dibromofluoromethane	1.24		1.243		100	56.5	129		0		
Surr: Toluene-d8	1.25		1.243		100	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.95		1.243		157	54.8	168		0		

Sample ID	<b>1905328-001BMS</b>	SampType:	<b>MS</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51864</b>		
Client ID:	<b>GLB-1-5</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023214</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	1.09	0.0218	1.092	0	99.7	63.5	133				
Toluene	1.10	0.0218	1.092	0	101	63.4	132				
Ethylbenzene	1.13	0.0273	1.092	0	103	54.5	134				
m,p-Xylene	2.28	0.0546	2.184	0	104	53.1	132				
o-Xylene	1.14	0.0273	1.092	0	104	53.3	139				
Surr: Dibromofluoromethane	1.34		1.365		98.3	56.5	129				
Surr: Toluene-d8	1.35		1.365		98.5	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.42		1.365		104	54.8	168				

Sample ID	<b>1905328-001BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51864</b>		
Client ID:	<b>GLB-1-5</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023215</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	1.08	0.0218	1.092	0	99.2	63.5	133	1.089	0.517	30	
Toluene	1.09	0.0218	1.092	0	99.5	63.4	132	1.103	1.47	30	
Ethylbenzene	1.11	0.0273	1.092	0	102	54.5	134	1.128	1.32	30	
m,p-Xylene	2.25	0.0546	2.184	0	103	53.1	132	2.278	1.33	30	
o-Xylene	1.11	0.0273	1.092	0	102	53.3	139	1.136	1.93	30	
Surr: Dibromofluoromethane	1.38		1.365		101	56.5	129		0		
Surr: Toluene-d8	1.35		1.365		98.6	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.38		1.365		101	54.8	168		0		



Date: 6/7/2019

**Work Order:** 1905328  
**CLIENT:** G-Logics  
**Project:** L&E Auto

**QC SUMMARY REPORT**  
**Volatile Organic Compounds by EPA Method 8260D**

Sample ID	<b>1905328-001BMSD</b>	SampType:	<b>MSD</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51864</b>		
Client ID:	<b>GLB-1-5</b>	Batch ID:	<b>24780</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1023215</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Work Order: 1905328  
 CLIENT: G-Logics  
 Project: L&E Auto

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID	<b>1905329-009ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>5/24/2019</b>	RunNo:	<b>51691</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R51691</b>			Analysis Date:	<b>5/24/2019</b>	SeqNo:	<b>1019417</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	17.2	0.500						17.71	2.87	20	

Sample ID	<b>1905328-014ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>5/24/2019</b>	RunNo:	<b>51691</b>		
Client ID:	<b>GLB-4-10</b>	Batch ID:	<b>R51691</b>			Analysis Date:	<b>5/24/2019</b>	SeqNo:	<b>1019436</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	17.6	0.500						23.91	30.6	20	R

**NOTES:**  
 R - High RPD due to suspected sample inhomogeneity.

Sample ID	<b>1905328-019ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>5/28/2019</b>	RunNo:	<b>51718</b>		
Client ID:	<b>GLB-5-10</b>	Batch ID:	<b>R51718</b>			Analysis Date:	<b>5/28/2019</b>	SeqNo:	<b>1020067</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	24.7	0.500						24.24	1.98	20	

Sample ID	<b>1905328-043ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>5/28/2019</b>	RunNo:	<b>51718</b>		
Client ID:	<b>GLB-12-10</b>	Batch ID:	<b>R51718</b>			Analysis Date:	<b>5/28/2019</b>	SeqNo:	<b>1020081</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	21.3	0.500						18.69	13.2	20	

Sample ID	<b>1905430-002ADUP</b>	SampType:	<b>DUP</b>	Units:	<b>wt%</b>	Prep Date:	<b>6/3/2019</b>	RunNo:	<b>51837</b>		
Client ID:	<b>BATCH</b>	Batch ID:	<b>R51837</b>			Analysis Date:	<b>6/3/2019</b>	SeqNo:	<b>1022723</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	14.7	0.500						15.34	4.09	20	

**Work Order:** 1905328  
**CLIENT:** G-Logics  
**Project:** L&E Auto

**QC SUMMARY REPORT**  
**Sample Moisture (Percent Moisture)**

Sample ID	1905426-003ADUP	SampType:	DUP	Units:	wt%	Prep Date:	6/3/2019	RunNo:	51837		
Client ID:	BATCH	Batch ID:	R51837			Analysis Date:	6/3/2019	SeqNo:	1022742		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	40.6	0.500						40.44	0.422	20	

Client Name: **GL**

 Work Order Number: **1905328**

 Logged by: **Clare Griggs**

 Date Received: **5/22/2019 10:59:00 AM**

### Chain of Custody

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

### Log In

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

### Special Handling (if applicable)

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

Person Notified:	<input type="text" value="Haley Carter"/>	Date	<input type="text" value="5/23/2019"/>
By Whom:	<input type="text" value="Clare Griggs"/>	Via:	<input type="checkbox"/> eMail <input checked="" type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text" value="No 4oz jars received for moisture correction on 003 and 004."/>		
Client Instructions:	<input type="text" value="OK to proceed."/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Cooler 1	1.6
Cooler 2	7.0
Sample 1	5.6
Sample 2	6.7

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





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

# Chain of Custody Record & Laboratory Services Agreement

Date: 5/21/19 Page: 3 of 5

Laboratory Project No (internal): 1905328

Project Name: L&E Auto

Special Remarks:

Project No: 01-1239-B

Collected by: HC

Location:

Report To (PM): Don Hatch

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

Client: G-Logics

Address:

City, State, Zip:

Telephone:

Fax:

PM Email:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Analytes											Comments			
				VOCs (EPA 8260 / 624)	GV(B)TEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)**		EDB (8011)		
1 GLB-5-20	5/21	1110	S	X														
2 GLB-6-5		1120																
3 GLB-6-10		1125		X														
4 GLB-6-15		1130																
5 GLB-DUP1		1133																
6 GLB-6-20		1135		X														
7 GLB-7-5		1155					X											
8 GLB-7-10		1200					X											
9 GLB-7-15		1205																
10 GLB-8-5	✓	1215	✓				X											

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

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

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

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

Relinquished x Date/Time 5/22/19 1100

Received x Date/Time 5-22-19 1100

Relinquished x

Received x

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

















# **ATTACHMENTS**

**Permission and Conditions for Use and Copying Form**

**Subsurface Exploration  
L&E Auto Sales Property, 2101 Burwell Pl  
Bremerton, WA 98312**

**G-Logics Project 01-1239-B  
June 17, 2019**

G-Logics prepared the above-identified Document only for our Client and/or other user(s), as identified in the Document, for the purposes stated and subject to any identified and contractual limitations. Regulatory agencies may make additional “fair use” copies for internal and public use based on state and federal laws that do not violate copyright laws.

All other Requestors must obtain permission from G-Logics and our Client in order to avoid copyright violations. To request authorization for a copy of the Document, please read our conditions listed below, complete the Requestor section, and fax to G-Logics at 425-313-3074 for approval review.

- I recognize that G-Logics has prepared this Document only for their Client and/or other user(s), only for the purposes stated in the Document and subject to any identified and contractual limitations.
- My intended use of the Document is for general informational purposes only.
- I understand and accept that there may be limitations to the reliability of the Document’s findings due to circumstances beyond the control of G-Logics, the limited scope of funding, and/or limitations inherent in the nature of the performed services.
- I agree not to rely on the Document as being comprehensive or inclusive of all possible site hazards and agree to defend, indemnify, and hold G-Logics harmless from and against any and all claims, damages, or liability which arise from or which are alleged to arise from my use of the Document. I also will compensate G-Logics for any time spent or expenses incurred by G-Logics in defense of any such claim.
- I agree not to provide the Document to any other person or organizations without prior authorization from G-Logics and their Client.

I, the Requestor, have reviewed the above-identified conditions for copying/use of the Document, am familiar with the presented limitations of the provided services, and acknowledge my understanding and concurrence, as indicated by my signature below.

Requestor's Company	_____
Mailing Address	_____
City, State, Zip Code	_____
Contact Name & Title	_____
Signature & Date	_____
Telephone & Fax Numbers	_____
Planned Use of Document	_____
	_____
	_____
	_____

With your information and signature above, please fax to G-Logics (425-313-3074) for approval review. G-Logics will share your request with our Client for their approval.

**Client Review and Acknowledgment of Use and Copying Request**

Per the notification of G-Logics, I, the Client, have reviewed this request for copying/use of this Document, have discussed the request with G-Logics, and grant my consent as indicated by my signature below.

Client Company	_____
Client Contact Name & Title	_____
Signature & Date	_____
Telephone & Fax Numbers	_____

**G-Logics review and Acknowledgment of Use and Copying Request**

Based on your concurrence with the above-presented conditions, approval of our Client, and our review of the information, G-Logics allows the Requestor to copy/use the above referenced Document for purposes stated. Additional fees may apply.

G-Logics Signature	_____
Title	_____
Date	_____

