



## **Additional Subsurface Investigation Report**

**7-Eleven Store No. 25331  
12720 4<sup>th</sup> Avenue West  
Everett, Washington**

April 27, 2010

## **Executive Summary**

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This report presents the results of an Additional Subsurface Investigation conducted in January 2010 by Stantec Consulting Corporation (Stantec) at 7-Eleven Store No. 25331 (the Site), located at 12720 4<sup>th</sup> Avenue West, Everett, Washington. The objective of this investigation was to further assess the nature and extent of petroleum hydrocarbon impacts to the soil beneath the Site as a result of a suspected release from the underground storage tank (UST) system.

Based on field observations and the analytical data, the following are concluded from this investigation:

- Native soils encountered during this investigation generally consisted of silt and silt with sand or gravel to 45 feet below ground surface (bgs) (maximum probing depth).
- Groundwater was not observed during this investigation.
- Analytical results for soil samples collected from probehole GP-5 at depths of 5 feet bgs and 15 feet bgs confirmed concentrations of benzene, total xylenes, and total petroleum hydrocarbons characterized as gasoline (TPH-G) exceeding their respective Model Toxic Control Act (MTCA) Method A Cleanup Levels (CULs). Additionally, concentrations of toluene and ethyl benzene were reported exceeding their respective MTCA Method A CULs in the soil sample collected from probehole GP-5 at 15 feet bgs.
- Analytical results for soil samples collected from probehole GP-6 at 20 feet bgs, GP-7 at 5 feet bgs, and GP-10 at 5 feet bgs and 20 feet bgs reported concentrations of benzene exceeding the MTCA Method A CUL.

Soil analytical results from this and the previous investigation conducted in June 2009 confirm that petroleum hydrocarbons are present in vadose zone soils located in the area surrounding the dispenser island, extending south to southwest of the dispenser island and southwest of the UST basin, to a depth of at least 20 feet bgs, but less than 45 feet bgs.

Concentrations of petroleum hydrocarbons in soil samples collected from probeholes GP-5, GP-7 and GP-10 indicate that the extent of petroleum hydrocarbon impacted soil exceeding MTCA Method A CULs have not been completely delineated. Based on these results, Stantec recommends conducting additional subsurface investigation activities to further delineate the extent of petroleum hydrocarbon impacted soils.

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## **1.0 Introduction**

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This report presents the results of an additional subsurface investigation conducted by Stantec Consulting Corporation (Stantec) at 7-Eleven store No. 25331 (the Site), located at 12720 4<sup>th</sup> Avenue West, Everett, Washington (**Figures 1 and 2**). The State of Washington, Department of Ecology (Ecology), Facility Site ID number is 76937186. The objective of this investigation was to further delineate the extent of petroleum-impacted soil as a result of a suspected release from the underground storage tank (UST) system located at the site. Stantec performed this most recent subsurface investigation on January 5 and 6, 2010.

### **1.1 Scope of Work**

Stantec's scope of work included, but was not limited to, the following tasks:

- Preparing and implementing a site-specific Health and Safety Plan (HASP);
- Reviewing historical information from previous Site assessments;
- Marking the probing locations, notifying the municipal Utility Notification Center, and hiring a private utility locator to identify any potential conflicts with existing underground utilities;
- Using an air wand and a hand-auger to clear onsite probing locations to five feet below ground surface (bgs) prior to probing;
- Supervising the advancement of five vertical soil probeholes (GP-5 through GP-7, GP-9 and GP-10) at the locations shown on **Figure 3**;
- Collecting soil samples for the purposes of logging subsurface conditions, field screening soil samples for organic vapors using a photo-ionization detector (PID), and submitting selected soil samples for laboratory analysis of total petroleum hydrocarbons characterized as gasoline (TPH-G) by Ecology method NWTPH-Gx, benzene, toluene, ethyl benzene and total xylenes (BTEX) by United States Environmental Protection Agency (EPA) method 8021B, and total lead by EPA Method 200.8; and,
- Preparing this Additional Subsurface Investigation Report.

### **1.2 Site Background**

In December 1999, Adapt Engineering of Seattle, WA (Adapt) completed a limited Phase I Site Assessment and Limited Soil Vapor Sampling & Testing Report at the Site (Adapt 1999) that identified the Site as a potential source of a release. Vapor samples containing elevated

concentrations of tetrachloroethene (PCE) were collected near a dry cleaner adjacent to the Site.

In May 2006, Adapt conducted a limited subsurface assessment at the Site (Adapt 2006) which indicated that groundwater was deeper than 60 feet bgs. PCE was not detected in the soil samples submitted from the May 2006 investigation.

Petroleum hydrocarbon impacts to the soil at the Site were first identified when Adapt conducted a limited Phase II Site Assessment in June 2009 (Adapt 2009) on behalf of Empire Holdings, which included the advancement of four probeholes; GP-1 through GP-4, located near the dispenser islands and the USTs (**Figure 3**). Petroleum hydrocarbon concentrations were reported exceeding Ecology's Model Toxics Control Act (MTCA) cleanup levels (CULs) in soil samples collected from GP-1 at 8 to 10 feet bgs, GP-2 at 8 to 10 feet bgs, and GP-4 at 8-10 feet bgs and 18-20 feet bgs. The results of the Phase II assessment indicated that the lateral and vertical extent of petroleum-impacted soils was not completely defined.

### **1.3 Regulatory Status**

Stantec reviewed Ecology's electronic databases regarding the regulatory status of the Site. The Site is listed in Ecology's UST and Tank Summary databases as UST Site Number 8634 and Facility Site ID number 76937186.

### **1.4 Site Description**

The Site is currently an operating gasoline station and 7-Eleven convenience store located in a mini strip mall in a commercial and residential area (**Figure 2**). The property is currently owned by Empire Holdings of La Quinta, CA and is leased to 7-Eleven. The building covers approximately 2,400 square feet. The current UST system at the Site was installed in 1984 and consists of three 10,000-gallon fiberglass reinforced plastic gasoline tanks and one dispenser island containing three individual product dispensers. The Site is approximately 475 feet above mean sea level and the topography in the area is moderately level, sloping gently to the east-southeast.

#### **1.4.1 Surrounding Land Use**

The Site is located in a mini strip mall in a mixed commercial and residential area in Everett, Washington (**Figure 2**). The Site and strip mall are bordered to the North by an apartment complex. The Site and strip mall are bordered to the east by 4<sup>th</sup> Avenue West, and beyond that commercial businesses and a casino. The Site and strip mall are bordered to the south by 128<sup>th</sup> Street West, and beyond that a credit union and Albertson's grocery store. The Site and strip mall are bordered to the west by commercial businesses.

### **1.4.2 Local Geologic and Hydrologic Setting**

The Site sits upon a glacial drift plain. The closest body of water is North Creek, located approximately  $\frac{3}{4}$  miles to the east of the Site. Surface waters at the Site drain in an easterly direction towards North Creek. North Creek drains south to the Sammamish River that releases into Lake Washington that drains into the Puget Sound via the Ship Canal.

Groundwater was not encountered during the investigation. Adapt conducted a limited subsurface assessment at the Site in May 2006 (Adapt 2006) reported groundwater deeper than 60 feet bgs. According to Ecology, there are four Water Well reports on file within the same township, range, and section as the Site. All four of the wells are resource protection wells. The closest well is less than 1.5 miles from the site. According to available information, no domestic supply wells are located within  $\frac{1}{4}$ -mile of the Site.

## **2.0 Field Investigation**

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Soil probehole activities were conducted on January 5 and 6, 2010, and were supervised by a Stantec field geologist. Stantec contracted ESN-Northwest, Inc. (ESN-NW), of Olympia, Washington to complete the advancement of five soil probeholes identified as GP-5, GP-6, GP-7, GP-9 and GP-10 using direct-push and hollow-stem auger (HSA) methods (**Figure 3**). Proposed probehole GP-8 was placed in the up-gradient position in the approved work plan but was not probed because of time constraints in the field and it was not critical in order to delineate the plume. The probehole locations were selected as per the attached work plan presented in **Appendix A**. The soil probehole logs for the January 2010 probing event are presented in **Appendix B**. The soil probehole logs contain geologic descriptions, Unified Soil Classification System (USCS) soil descriptions, probing methods and field screening results.

### **2.1 Health and Safety**

A site-specific HASP was prepared for the Site as part of this project. The HASP identified potential physical and chemical hazards associated with the proposed field activities and established personnel protection standards and mandatory safety practices. The HASP also included information on suspected chemical compounds to be encountered, a list of monitoring equipment, the required protective clothing and equipment, a map and directions to the nearest hospital and a list of emergency telephone numbers. The HASP was available on the Site at all times during the field activities. All Stantec personnel and subcontractors working on the Site were required to review, sign and comply with the provision set forth in the HASP.

### **2.2 Utility Clearance**

Prior to advancement of the probeholes, Stantec contacted One Call, a municipal underground utility location service to identify subsurface municipal utilities located in public rights-of-way. APS of North Bend, Washington, a private underground utility location service, was also contracted to clear the proposed probehole locations on the Site.

### **2.3 Site Investigation Activities**

ESN-NW utilized a truck-mounted direct-push and hollow-stem auger (HSA) Power Probe 9630 PRO-PTO<sup>®</sup> combination rig to complete onsite probeholes GP-5 through GP-7, GP-9 and GP-10. GP-5 was advanced using HSA methods, and GP-6, GP-7, GP-9 and GP-10 were advanced using direct-push probing technology. All sampling and soil descriptions were completed by a Stantec field geologist under the supervision of a State of Washington Licensed Geologist. Prior to probing, all probeholes were cleared to five feet bgs using a hand-auger. Probeholes GP-6, GP-7 and GP-9 were advanced to a maximum depth of 20 feet bgs. Probehole GP-10 was advanced to a depth of 24 feet bgs. GP-5 was advanced only to a depth of 45 feet bgs instead of 50 feet bgs as described in the work plan because of the two zero PID readings obtained at 40 and 45 feet bgs. GP-5 was advanced to a deeper depth than the other

probes in order to vertically delineate the plume. After completion of soil sampling, all probes and borehole were backfilled with hydrated bentonite chips to 0.5 feet bgs and then completed to the surface with cement.

Four 55-gallon drums of soil cuttings were generated and subsequently transferred to Belshire Environmental Services, Inc. of Foothill Ranch, California for disposal at a permitted non-hazardous waste landfill (**Appendix C**).

## **2.4 Sampling Methodology**

### **2.4.1 Soil**

Soil samples were collected from the cores by cutting open the acetate liner, then using EPA Method 5035A (described as follows). Relatively undisturbed soils were collected from the center of the 4-foot split-barrel sampler with an acetate liner using a nitrile gloved hand and a syringe-type sampler in order to obtain approximately 5 grams of soil. The samples were placed directly into pre-weighed 40-milliliter vials, then re-weighed to confirm the soil sample amount. Additional soil was collected by hand and placed directly in clean 4-ounce glass jars. A clean disposable glove was used for each sample. Care was taken to obtain representative soil samples and to place the soils directly and quickly into the sample container to minimize loss of volatile constituents.

The threads of the sample jars were wiped clean of soil particles that would interfere with an airtight seal, and a Teflon-lined screw closure lid was immediately placed on the jars. The sample jars were labeled (i.e., probe name, depth, type of analysis, date, and time of sampling) and placed in a cooler on ice for subsequent transport to Friedman & Bruya, Inc., of Seattle, Washington (F&B), an Ecology-accredited fixed-base analytical laboratory. EPA recommended protocols for sample management including chain-of-custody procedures and documentation were observed during all sampling activities.

The remaining sample was used for soil type classification and field screening analysis for petroleum hydrocarbon impacts. Field-screening consisted of visual observations of potential hydrocarbon contamination and headspace analysis for volatile organic vapors. Headspace testing for volatile organic vapors was completed using a portable PID to monitor volatile vapors given off by the sampled soil. A sample of the soil matrix was placed in a re-sealable plastic bag, and allowed to equilibrate for approximately ten minutes. The probe of the PID was used to pierce the plastic, and was extended into the headspace above the soil surface. The greatest vapor reading obtained during the next 60 seconds was then recorded. Prior to use, the PID was calibrated to known concentrations of isobutylene, in accordance with the manufacturer's specifications.

**2.4.2 Quality Assurance (QA) / Quality Control (QC)**

QA/QC procedures were conducted in conformance with industry standards. QA/QC procedures included data quality objectives and quality assurance goals, quality assurance procedures for sample collection, laboratory analytical protocols and calibration methods, data validation procedures, and corrective actions in the event that data quality issues arise. The quality of the data collected during this investigation was evaluated on an on-going basis to determine if the data quality objectives were met. The analytical data was evaluated in terms of precision, accuracy, representativeness, completeness, and comparability using the results of the quality control sampling.

A field duplicate sample was prepared at a frequency of one per day per matrix. The field duplicate is an independent sample which is collected as close as possible to the same point in time and space as the primary field sample. Field duplicate samples were prepared for both soil and groundwater. Field duplicates are used to estimate the reproducibility (precision) of the sampling process.

Trip blanks were prepared at a frequency of one per day of sampling. The trip blanks were prepared by the project laboratory using lab-grade distilled water and were included with the sample containers and kits prior to being transported to the Site. The trip blanks accompanied field samples throughout all sampling activities and were used to assess potential sample cross-contamination originating from sample transport, shipping, or site conditions.

An equipment rinsate blank was collected from sample collection devices used for each distinct sample matrix. The equipment blanks were obtained prior to sample collection activities. A second equipment rinsate sample was collected at the end of sample collection. The results from these analyses are used to assess possible sample cross-contamination from the sampling equipment.

## **3.0 Subsurface Conditions**

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### **3.1 Soil**

Soil probehole logs from this investigation are presented in **Appendix B**. The soil probehole logs contain geologic descriptions; USCS soil descriptions, probing methods, and field screening results. Native soils encountered during this investigation consisted of silt and silt with sand or gravel to 45 feet bgs (maximum probing depth). Field-screening of soils from soil probeholes GP-5 through GP-7, GP-9 and GP-10 detected the presence of volatile organic compounds ranging from 2.0 parts per million (ppm) to 458 ppm. Geologic cross-sections of the subsurface are shown on **Figures 4 and 5**.

## **4.0 Analytical Program and Results**

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Soil sample laboratory analytical results for this investigation are summarized in **Table 1** and are shown on **Figure 6**. QA/QC sample analytical results for this investigation are included in **Table 2**. Laboratory analytical reports and chain-of-custody documentation are presented in **Appendix D**. The analytical program and results are discussed below.

### **4.1 Soil Analytical Program**

A total of 12 soil samples were collected from GP-5 through GP-7, GP-9 and GP-10 and were submitted to F&B. One of the 12 soil samples was a field duplicate.

Targeted contaminants of concern at the Site were identified based on the former known historical use of the Site and Ecology requirements. All soil samples submitted for laboratory analysis were analyzed for TPH-G using Ecology method NWTPH-Gx; for BTEX using EPA Method 8021B, and total lead by EPA Method 200.8.

#### **4.1.1 Soil Analytical Results**

Analytical results for soil samples collected from probehole GP-5 at depths of 5 feet bgs and 15 feet bgs reported concentrations of benzene, total xylenes, and TPH-G exceeding their respective MTCA Method A CULs. Additionally, concentrations of toluene and ethyl benzene were reported exceeding their respective MTCA Method A CULs in the soil samples collected from probehole GP-5 at 15 feet bgs. Analytical results for soil samples collected from probehole GP-6 at 20 feet bgs, GP-7 at 5 feet bgs, and GP-10 at 5 feet bgs and 20 feet bgs reported concentrations of benzene exceeding the MTCA Method A CUL. Petroleum hydrocarbon concentrations were not reported above laboratory practical quantitation limits (PQLs) in all other submitted soil samples.

### **4.2 Quality Assurance Analytical Program**

A total of eight QA/QC samples were submitted to the project laboratory for analysis, including four equipment rinsate samples, two field blanks and two trip blanks. The equipment rinsate samples EQRP-1 and EQRP-2 were collected from the rinsate water prior to the commencement of probing activities for the day, and the samples EQRR-1 and EQRR-2 were collected from the used rinsate water at the end of probing activities for the day. The two field blank samples were prepared by Stantec in the field and the two trip blank samples were prepared by the project laboratory.

Additionally, one soil sample field duplicate, collected from GP-5 at 45 feet bgs, was submitted to the project laboratory for analysis. Results for the field duplicate sample are shown below the original sample in **Table 1**.

Targeted contaminants of concern at the Site were identified based on the former known historical use of the Site and Ecology requirements. All QA/QC samples submitted for laboratory analysis were analyzed for TPH-G using Ecology method NWTPH-Gx; for BTEX using EPA Method 8021B, and total lead by EPA Method 200.8.

#### **4.2.1 Quality Assurance Analytical Results**

Concentrations of petroleum hydrocarbons in all QA/QC samples submitted were not reported exceeding laboratory PQLs or their respective MTCA Method A CULs. These data suggest that equipment decontamination procedures and sampling storage practices were effective.

Concentrations of petroleum hydrocarbons in all soil field duplicate samples were not reported exceeding laboratory PQLs or their respective MTCA Method A CULs, similar to the results for the original samples.

Since analytes were not detected above PQLs in the field duplicate samples, the average relative percent difference was not calculated.

## **5.0 Conclusions**

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Based on field observations and the analytical data, Stantec concludes the following:

- Analytical results for soil samples collected from probehole GP-5 at depths of 5 feet bgs and 15 feet bgs confirmed concentrations of benzene, total xylenes and TPH-G exceeding their respective MTCA Method A CULs. Additionally, concentrations of toluene and ethyl benzene were reported exceeding their respective MTCA Method A CULs in the soil sample collected from probehole GP-5 at 15 feet bgs.
- Analytical results for soil samples collected from probehole GP-6 at 20 feet bgs, GP-7 at 5 feet bgs, and GP-10 at 5 feet bgs and 20 feet bgs reported concentrations of benzene exceeding the MTCA Method A CUL.

Soil analytical results from this and the previous investigation conducted in June 2009 confirm that petroleum hydrocarbons are present in vadose zone soils located in the area surrounding the dispenser island, extending south to southwest of the dispenser island and southwest of the UST basin, to a depth of at least 20 feet bgs, but less than 45 feet bgs.

Concentrations of petroleum hydrocarbons in soil samples collected from probeholes GP-5, GP-7 and GP-10 indicate that the extent of petroleum hydrocarbon impacted soil exceeding MTCA Method A CULs have not been completely delineated. Based on these results, Stantec recommends conducting additional subsurface investigation activities to further delineate the extent of petroleum hydrocarbon impacted soils.

## **6.0 References**

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Adapt Engineering, Inc. 1999. *Phase I Environmental Site Assessment and Limited Soil Vapor Sampling & Testing, 4<sup>th</sup> Avenue Retail Center 12720-4<sup>th</sup> Avenue West, Everett, Washington.* Prepared for The Southland Corporation. December 2.

Adapt Engineering, Inc. 2006. *Supplemental Limited Subsurface Assessment, 4<sup>th</sup> Avenue Retail Center 12720-4<sup>th</sup> Avenue West, Everett, Washington.* Prepared for The Southland Corporation. May 10.

Adapt Engineering, Inc. 2009. *Limited Phase II Environmental Site Assessment, Commercial Center 12720-4<sup>th</sup> Avenue West, Everett, Washington.* Prepared for The Southland Corporation. June 19.

Golder Associates, Inc. 2009. *Proposal to Conduct Subsurface Investigations & Environmental Services, Everett Commercial Property.* Prepared for Empire Holdings, Inc. July 20.

**Stantec**

**ADDITIONAL SUBSURFACE INVESTIGATION REPORT**

Standard Limitations

April 27, 2010

**7.0 Standard Limitations**

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This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the Site. It was prepared for the exclusive use of 7-Eleven, Inc. for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the Site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

**Prepared by:**

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Staff Geologist

**Reviewed by:**

*Mark Trewartha*

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Mark Trewartha, R.G.  
Senior Hydrogeologist

All information, conclusions, and recommendations provided by Stantec in this document regarding the Site have been prepared under the supervision of and reviewed by the Licensed Professional whose signature appears below:

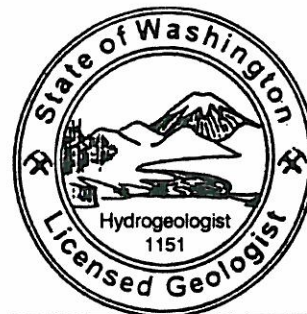
**Licensed Approver:**

**Name:** Mark Trewartha

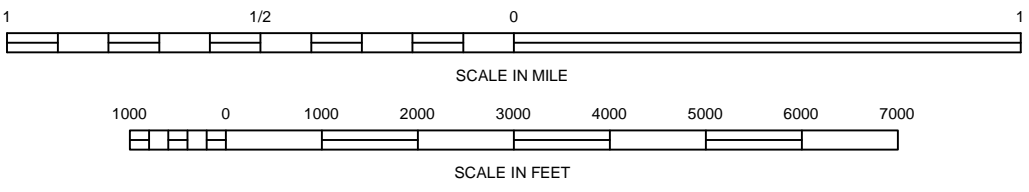
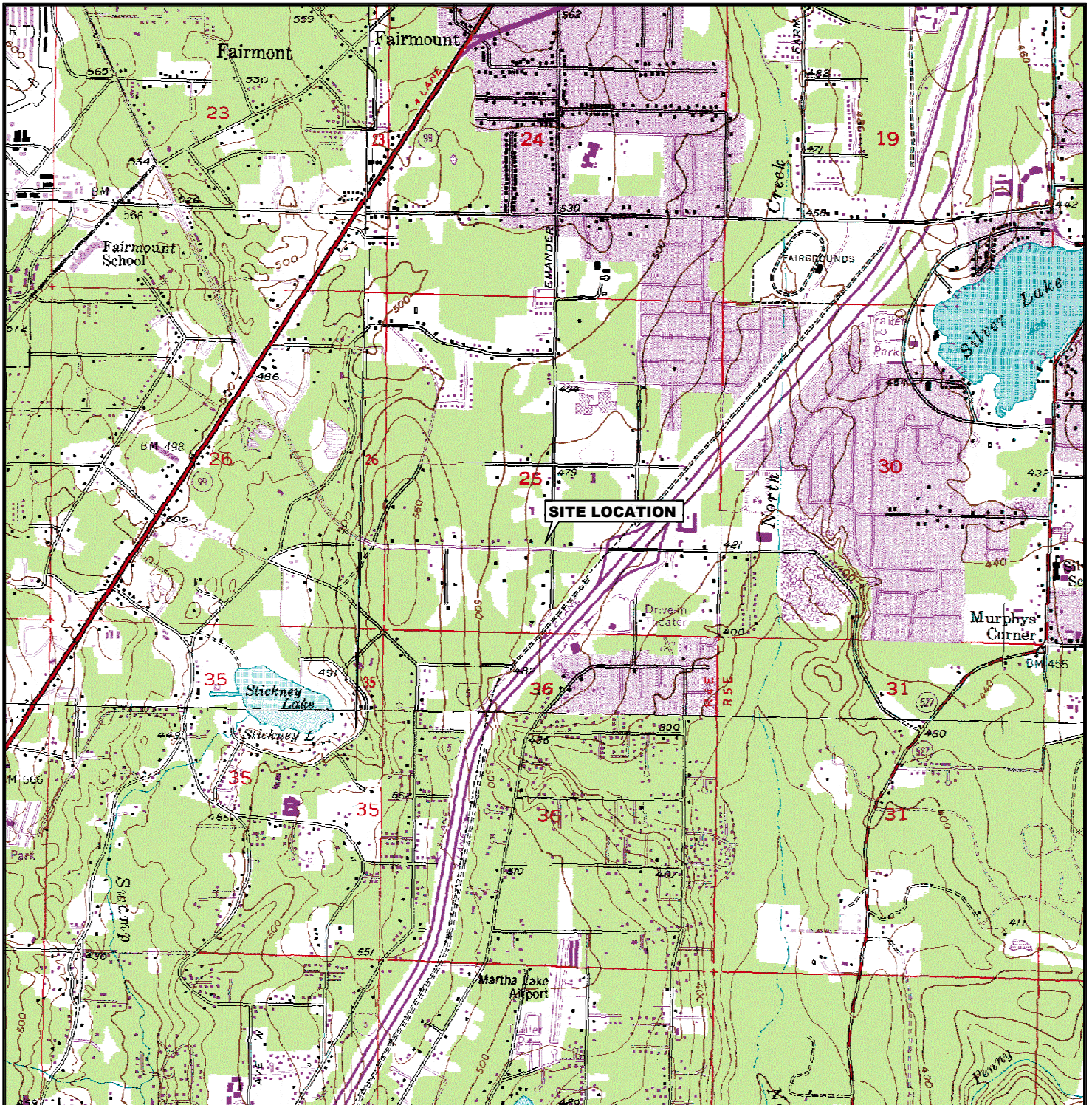
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**Signature:** *Mark Trewartha*

**Stamp:** State of Washington





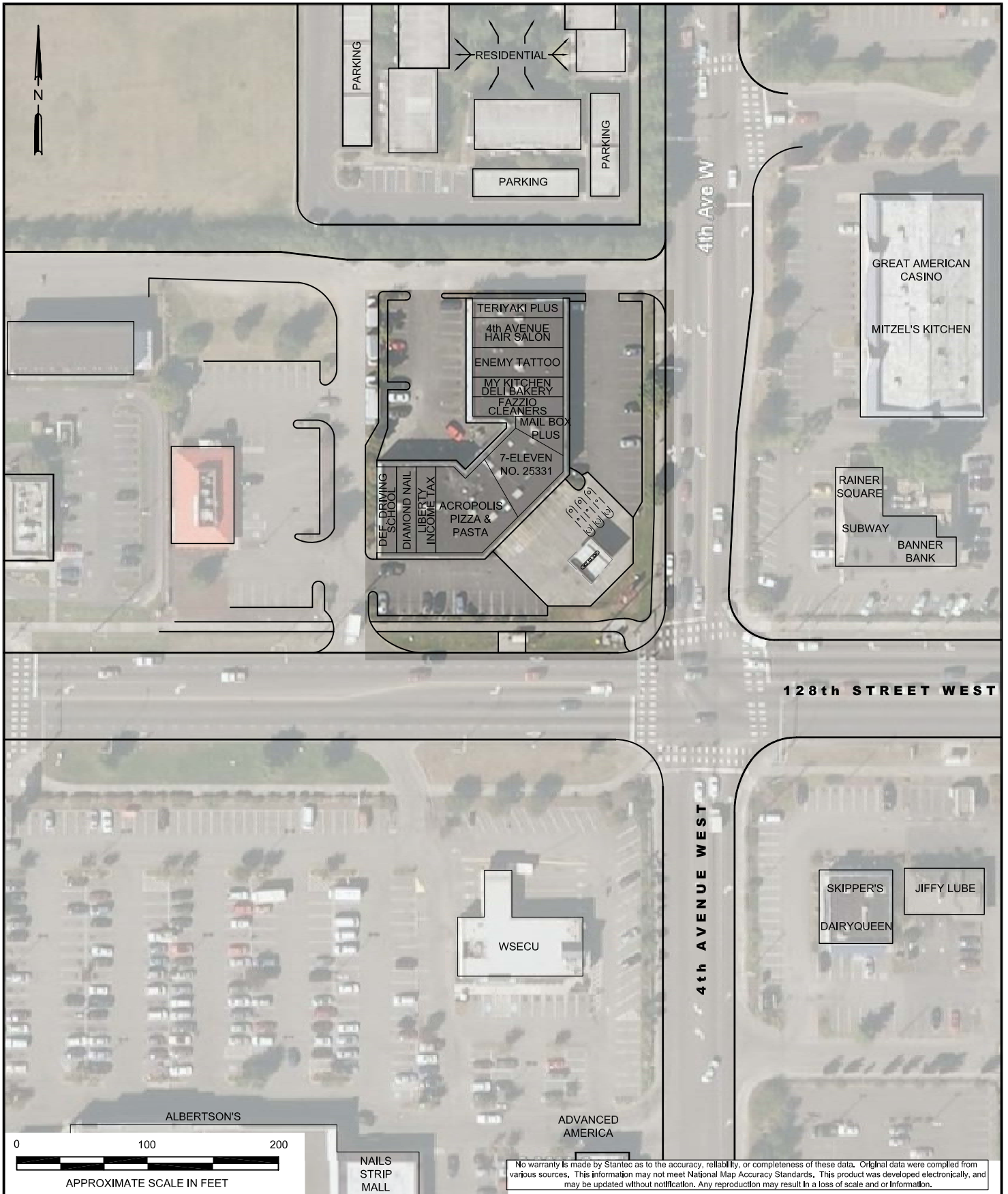
Mark A. Trewartha





REFERENCE: SEATTLE ACADEMY OF ARTS AND SCIENCES,  
 USGS SEATTLE SOUTH (WA) QUADRANGLE;  
 MUKILTEO, EVERETT, EDMONDS EAST, BOTHEL, WASHINGTON; 1981

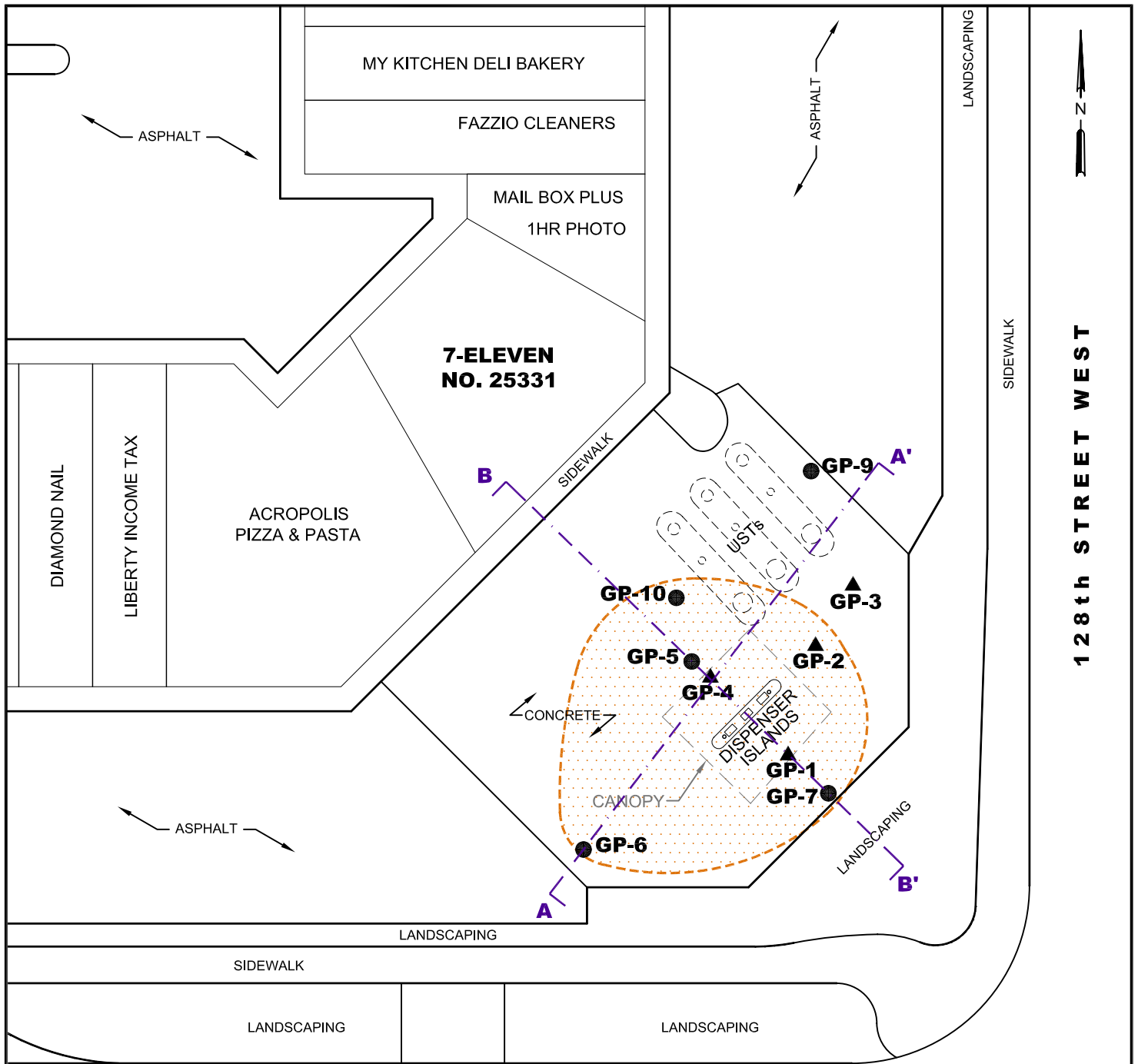
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	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:




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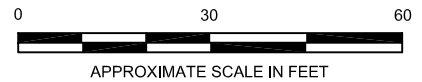
 <b>Stantec</b> 12034 134th COURT NORTHEAST REDMOND, WASHINGTON 98052 PHONE: (425) 372-1590 FAX: (425) 372-1650	FOR:  STORE NO. 25331 12720 4th AVENUE WEST EVERETT, WASHINGTON	<b>SITE VICINITY MAP</b>		FIGURE: <h1 style="text-align: center;">2</h1>
	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:





**4th AVENUE WEST**

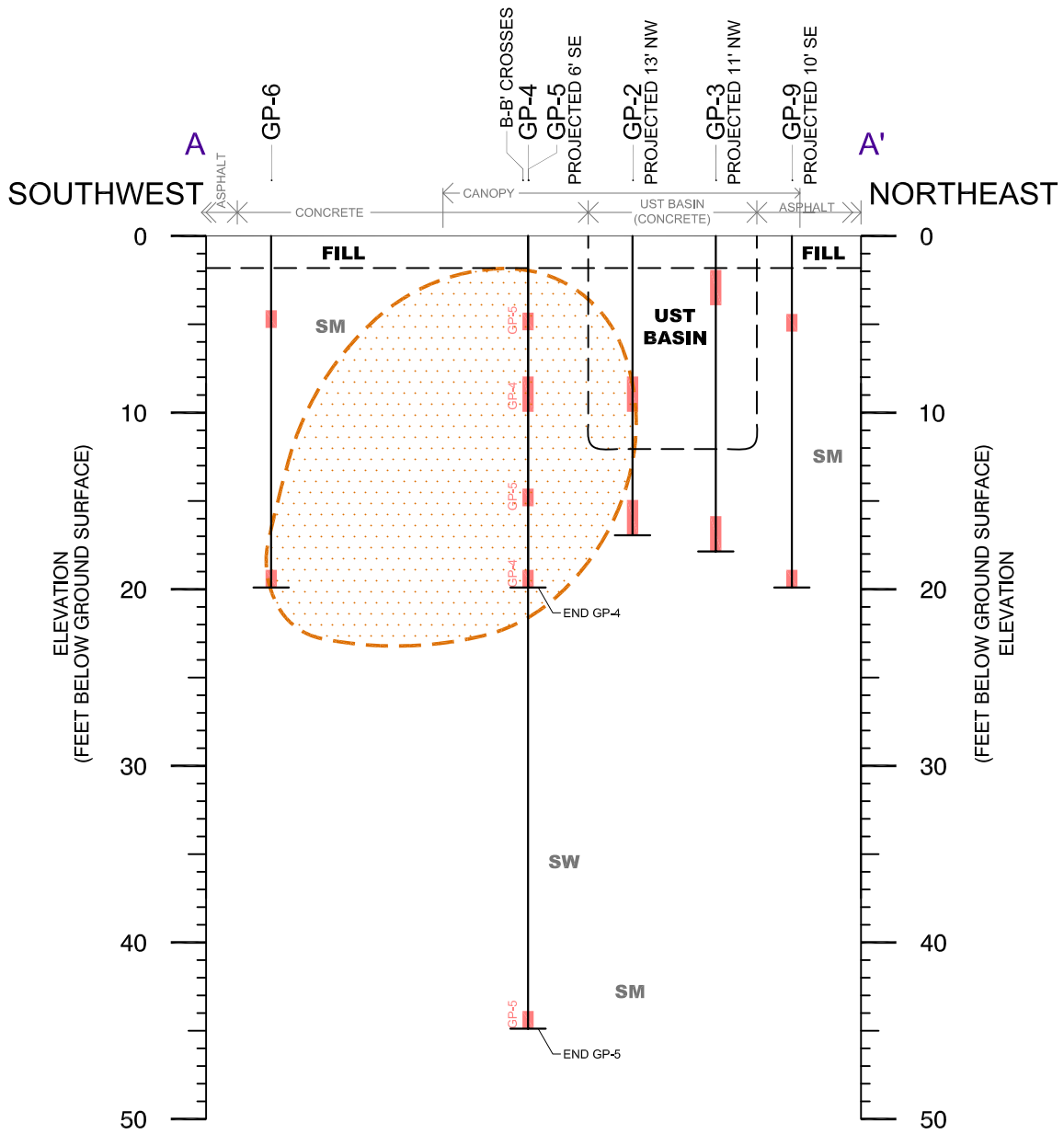
**LEGEND**

- ▲ **GP-1** SOIL BORING (ADAPT 2009)
- **GP-5** SOIL PROBEHOLE (STANTEC 2010)
-  ESTIMATED EXTENT OF PETROLEUM HYDROCARBON IMPACTED SOIL EXCEEDING MTCA METHOD A CLEANUP LEVELS, BASED ON 2009-2010 INVESTIGATIONS
- - - CROSS SECTION LINE







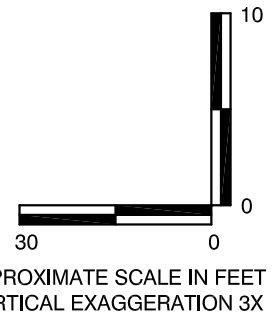
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	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:





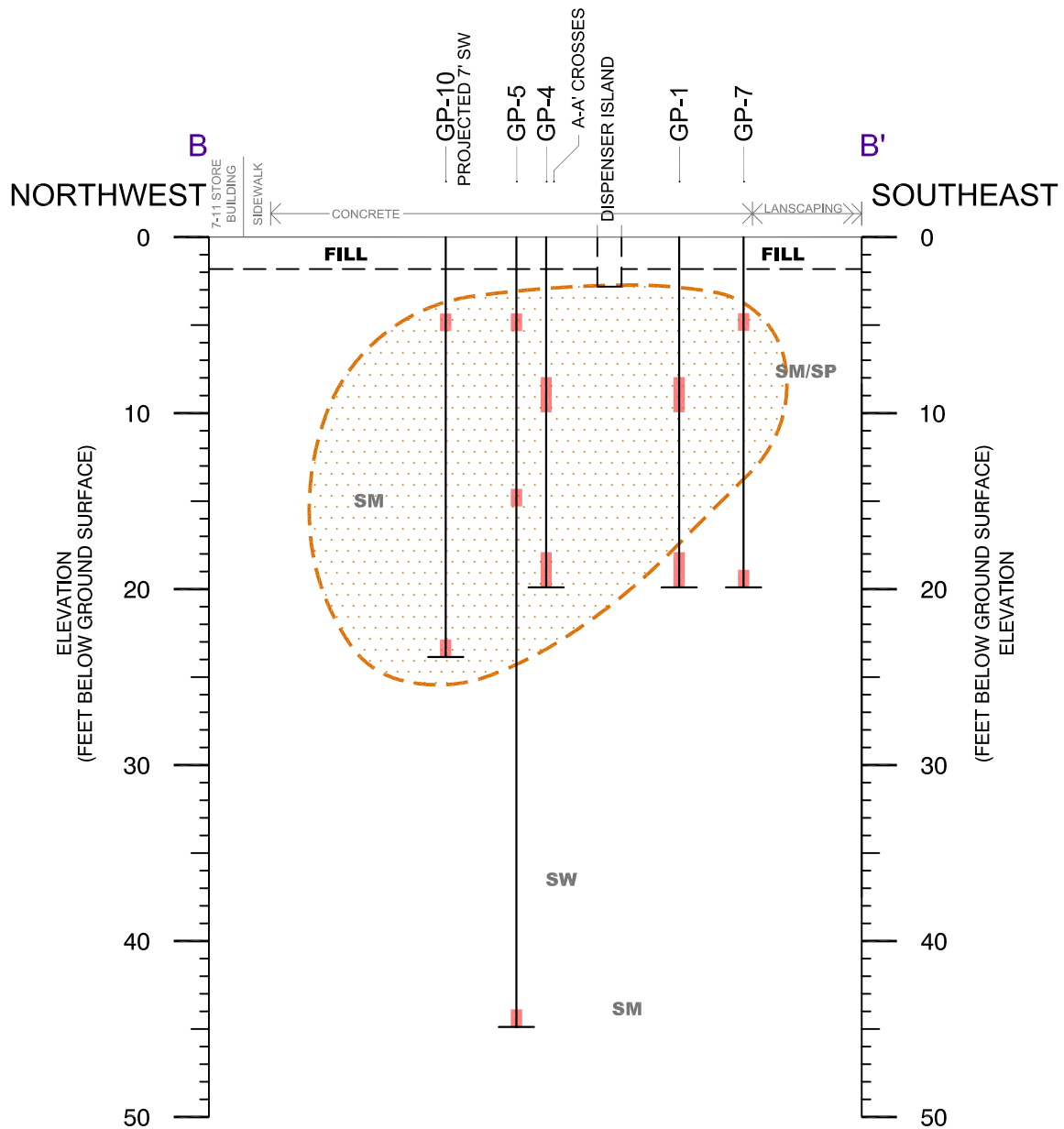
**EXPLANATION:**

-  BORING/WELL LOCATION
-  SCREENED INTERVAL FOR MONITORING WELLS
-  ANALYTICAL SAMPLE
-  ESTIMATED EXTENT OF PETROLEUM HYDROCARBON IMPACTED SOIL EXCEEDING MTCA METHOD A CLEANUP LEVELS, BASED ON 2009-2010 INVESTIGATIONS







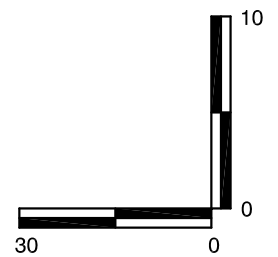
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 12034 134th COURT NORTHEAST REDMOND, WASHINGTON 98052 PHONE: (425) 372-1590 FAX: (425) 372-1650	FOR:  STORE NO. 25331 12720 4th AVENUE WEST EVERETT, WASHINGTON	<b>GEOLOGIC SECTION A-A'</b>		FIGURE: <h1 style="text-align: center;">4</h1>
	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:





**EXPLANATION:**

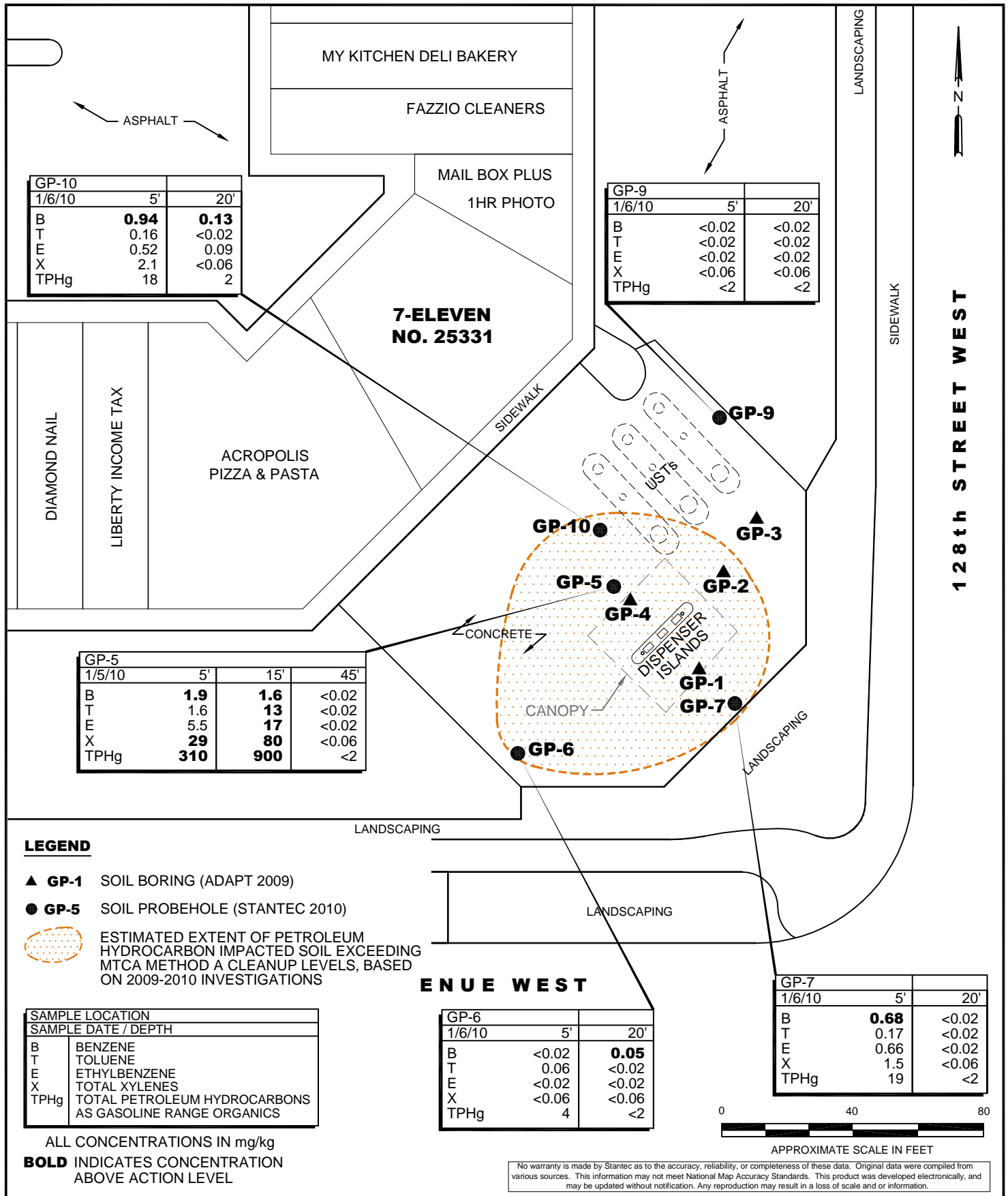
-  BORING/WELL LOCATION
-  SCREENED INTERVAL FOR MONITORING WELLS
-  ANALYTICAL SAMPLE
-  ESTIMATED EXTENT OF PETROLEUM HYDROCARBON IMPACTED SOIL EXCEEDING MTCA METHOD A CLEANUP LEVELS, BASED ON 2009-2010 INVESTIGATIONS





APPROXIMATE SCALE IN FEET  
VERTICAL EXAGGERATION 3X

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 12034 134th COURT NORTHEAST REDMOND, WASHINGTON 98052 PHONE: (425) 372-1590 FAX: (425) 372-1650	FOR:  STORE NO. 25331 12720 4th AVENUE WEST EVERETT, WASHINGTON	<b>GEOLOGIC SECTION B-B'</b>		FIGURE: <h1 style="text-align: center;">5</h1>
	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:



 12034 134th COURT NORTHEAST REDMOND, WASHINGTON 98052 PHONE: (425) 372-1590 FAX: (425) 372-1650	FOR:  STORE NO. 25331 12720 4th AVENUE WEST EVERETT, WASHINGTON	<b>SITE PLAN WITH          SOIL ANALYTICAL RESULTS          JANUARY 5 AND 6, 2010</b>		FIGURE: <b>6</b>
	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:

**TABLE 1**  
**SOIL ANALYTICAL RESULTS**  
**7-Eleven Store No. 25331**  
**12720 4th Avenue West, Everett, Washington**  
*All results and cleanup levels presented in milligrams per kilogram (mg/kg)*

Sample Identification	Date	Depth (feet bgs)	Benzene	Toluene	Ethyl Benzene	Total Xylenes	TPH-G	Lead
GP-1	06/04/09	8-10	<b>0.4</b>	<b>7.1</b>	2.9	<b>17</b>	<b>280</b>	--
	06/04/09	18-20	<0.02	<0.05	<0.05	<0.15	<10	--
GP-2	06/04/09	8-10	<b>0.5</b>	<0.05	0.08	<0.15	<10	--
	06/04/09	15-17	<0.02	<0.05	<0.05	<0.15	<10	--
GP-3	06/04/09	2-4	0.02	<0.05	<0.05	<0.15	<10	--
	06/04/09	16-18	<0.02	<0.05	<0.05	<0.15	<10	--
GP-4	06/04/09	8-10	<b>4.6</b>	3.8	<b>10.6</b>	<b>56</b>	<b>1,900</b>	--
	06/04/09	18-20	<b>0.3</b>	<0.05	0.1	0.4	<10	--
GP-5	01/05/10	5	<b>1.9</b>	1.6	5.5	<b>29</b>	<b>310</b>	7.25
	01/05/10	15	<b>1.6</b>	<b>13</b>	<b>17</b>	<b>80</b>	<b>900</b>	3.23
	01/05/10	45	<0.02	<0.02	<0.02	<0.06	<2	1.78
GP-5 FD (Duplicate)	01/05/10	45	<0.02	<0.02	<0.02	<0.06	<2	1.79
GP-6	01/06/10	5	<0.02	0.06	<0.02	<0.06	4	--
	01/06/10	20	<b>0.05</b>	<0.02	<0.02	<0.06	<2	--
GP-7	01/06/10	5	<b>0.68</b>	0.17	0.66	1.5	19	--
	01/06/10	20	<0.02	<0.02	<0.02	<0.06	<2	--
GP-9	01/06/10	5	<0.02	<0.02	<0.02	<0.06	<2	--
	01/06/10	20	<0.02	<0.02	<0.02	<0.06	<2	--
GP-10	01/06/10	5	<b>0.94</b>	0.16	0.52	2.1	18	--
	01/06/10	20	<b>0.13</b>	<0.02	0.09	<0.06	2	--
<b>MTCA Method A Cleanup Levels</b>			<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>30<sup>a</sup></b>	<b>250</b>

Explanation of Abbreviations:

- bgs = below ground surface
- TPH-G = total petroleum hydrocarbons in the gasoline range
- < = not detected above the specified practical quantitation limit
- = not analyzed
- MTCA = Model Toxics Control Act

Notes:

<sup>a</sup> gasoline mixtures without benzene and where the total of ethylbenzene, toluene, and xylene are less than 1% of the gasoline mixture have a cleanup level of 100 mg/Kg; all other mixtures are 30 mg/Kg

**bold** analytical result exceeds the specified MTCA Method A Cleanup Level

**TABLE 2**  
**QA/QC ANALYTICAL RESULTS**  
**7-Eleven Store No. 25331**  
**12720 4th Avenue West, Everett, Washington**  
All results in micrograms per liter (µg/L)

Sample ID	Sample Date	Benzene	Toluene	Ethyl Benzene	Total Xylenes	TPH-G	Total Lead
EGRP-1	01/05/10	<1	<1	<1	<3	<100	<10
EQRR-1	01/05/10	<1	<1	<1	<3	<100	<10
EGRP-2	01/06/10	<1	<1	<1	<3	<100	--
EQRR-2	01/06/10	<1	<1	<1	<3	<100	--
FB-1	01/05/10	<1	<1	<1	<3	<100	<10
FB-2	01/06/10	<1	<1	<1	<3	<100	--
TRIP BLANK 1	01/05/10	<1	<1	<1	<3	<100	<10
TRIP BLANK 2	01/06/10	<1	<1	<1	<3	<100	--
<b>MTCA Method A CULs</b>		<b>5</b>	<b>1,000</b>	<b>700</b>	<b>1,000</b>	<b>800/1,000<sup>a</sup></b>	<b>15</b>

Explanation of Abbreviations:

ID = identification  
TPH-G = total petroleum hydrocarbons in the gasoline range  
< = not detected above the specified practical quantitation limit  
-- = not analyzed  
MTCA = Model Toxics Control Act  
CUL = cleanup level

Notes:

<sup>a</sup> TPH-G cleanup level is reduced from 1,000 µg/L to 800 µg/L if benzene is present in the sample

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**APPENDIX A**

**WORK PLAN**

**ADDITIONAL SUBSURFACE INVESTIGATION REPORT**

**7-ELEVEN STORE NO. 25331**

Stantec Project No. 211502035

April 27, 2010



**Stantec**

**Stantec Consulting Corporation**  
12034 134<sup>th</sup> Court NE, Suite 102  
Redmond, Washington 98033  
Tel: (425) 372-1600  
Fax: (425) 372-1650

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November 24, 2009

Mr. John Bails  
Washington State Department of Ecology  
Northwest Regional Office  
3190 160th Ave SE  
Bellevue, Washington 98008

**RE: Work Plan Additional Subsurface Investigation**

7-Eleven Store Number: 25331, 12720 4th Avenue West, Everett, Washington  
Stantec Project Number: 211502035  
Underground Storage Tank (UST) Site Number: 8634  
Facility Site ID: 76937186

Dear Mr. Bails:

On behalf of 7-Eleven, Inc. (7-Eleven), Stantec Consulting Corporation presents the following work plan for additional subsurface investigation at 7-Eleven Store No. 25331 (the Site), located at 12720 4th Avenue West, Everett, Washington (**Figure 1 and Figure 2**). The purpose of this work plan is to present a technical approach to further delineate the extent of petroleum-impacted soil as a result of a suspected release from the underground storage tank (UST) system located at the Site.

**SITE DESCRIPTION**

The Site is currently an operating gasoline station and 7-Eleven convenience store located in a commercial area (**Figure 2**). The property is currently owned by Empire Holdings of La Quinta, CA and is leased to 7-Eleven. The building covers approximately 2,400 square feet. The current UST system at the Site consists of three 10,000-gallon fiberglass reinforced plastic gasoline tanks and one dispenser island installed in 1984. The Site is located approximately 2,500 feet northeast of Stickney Lake at an elevation of approximately 475 feet above mean sea level.

**BACKGROUND**

In December 1999 Adapt Engineering of Seattle, WA (Adapt) completed a limited Phase I Site Assessment and Limited Soil Vapor Sampling & Testing Report at the Site that identified the 7-Eleven gas station as a potential source of a release. Vapor samples containing elevated concentrations of tetrachloroethene (PCE) were collected near a dry cleaner adjacent to the 7-Eleven.

In May 2006 Adapt conducted a limited subsurface assessment at the Site that indicated that groundwater was below 60 feet below ground surface (bgs). PCE was not detected in the soil samples submitted.

Adapt conducted a limited Phase II Site Assessment in 2009 on behalf Empire Holdings, which included the advancement of four probeholes; GP-1 through GP-4, located near the pump island and the USTs (**Figure 3**). Petroleum hydrocarbon constituents were reported exceeding the Washington State Model Toxics Control Act (MTCA) cleanup levels (CULs) in soil samples collected from GP-1 at 8 to 10 feet bgs, GP-2 at 8 to 10 feet bgs, and GP-4 at 8-10 feet bgs and 18-20 bgs. The results of the Phase II assessment indicated that the lateral and vertical extent of petroleum-impacted soils was not completely defined.

Based on a recent search conducted on Ecology's Integrated Site Information System Leaking Underground Storage Tank Sites list, there is no record of a reported release associated with 7-Eleven's activities at the Site. (<https://fortress.wa.gov/ecy/tcpwebreporting/reports.aspx>)

## SCOPE OF WORK

Stantec proposes the following scope of work to further delineate the extent of petroleum-impacted soil beneath the Site.

The scope of work includes the following tasks:

- Pre-Field Activities;
- Direct-Push Probing and Hollow-Stem Auger Drilling;
- Laboratory Analytical Program;
- Quality Assurance/Quality Control;
- Waste Management; and,
- Data Analysis and Reporting.

Details of each of these tasks are discussed below.

### Task 1 – Pre-field Activities

Prior to conducting subsurface work at the Site, the municipal Utility Notification Center will be contacted to delineate subsurface utilities near the Site with surface markings. In addition, a private utility locator service will be contracted to clear the proposed monitoring well locations.

Stantec will prepare a site-specific *Health and Safety Plan* for the proposed scope of work as required by the Occupational Health and Safety Administration (OSHA) Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120). The document will be reviewed and signed by Stantec personnel and subcontractors performing work at the Site.

### Task 2 – Direct-Push Probing and Hollow Stem Auger Boring

To further assess petroleum hydrocarbon impact to the subsurface, Stantec proposes advancing a total of six soil probeholes [GP-5(P) through GP-10(P)]. GP-5(P) will be advanced using a hollow stem auger (HSA) to a maximum depth of 50 feet bgs. GP-6(P) through GP-10(P) will be advanced to a maximum depth of 20 feet bgs using direct-push probing technology. Groundwater is not expected to be encountered at the Site based on information obtained from previous investigations; however, if groundwater is encountered, samples will be collected. The proposed probing locations are presented on **Figure 3**.

Day lighting by air knife or hand-auger methods will be used to clear the top five feet of each probehole for obstructions or possible underground utilities. Probeholes will be advanced using a truck-mounted Geoprobe Systems® direct-push and HSA combo rig. For direct push probeholes, continuous soil sampling will be performed through the use of a two-inch diameter macro sampler. The HSA boring will be advanced using an 8-inch diameter hollow-stem auger drilling rig. Borings will have soil collected every five feet using a split spoon sampler. Drilling equipment will be cleaned before drilling each probehole and borehole, and sampling equipment will be cleaned between each sampling interval.

Soil samples will be field-screened for hydrocarbon vapors using a portable photoionization detector. Soils encountered during boring and probing will be logged using the Unified Soil Classification System by a Stantec field geologist, working under the supervision of a Washington Licensed Geologist.

Direct-push probing and hollow stem auger services will be subcontracted to ESN Northwest Inc. of Olympia, Washington.

### **Task 3 – Laboratory Analytical Program**

A minimum of two soil samples will be submitted from the vadose zone from each probehole for laboratory analysis. Additional samples may be selected for analysis based on significant changes in lithology and where field screening indicates the possible presence of contaminants. Soil samples will be collected in accordance with the Environmental Protection Agency (EPA) Method 5035A, then labeled and placed on ice in an insulated container for delivery to OnSite Environmental, located in Redmond, Washington. Selected soil samples will be analyzed for the following: TPH-G by Ecology Method NWTPH-Gx; and, benzene, toluene, ethyl benzene and total xylenes (BTEX) by EPA Method 8260B. Selected soil samples may additionally be analyzed for petroleum constituents in accordance with MTCA Table 830-1.

If groundwater is encountered samples will be analyzed for the following: TPH-G by Ecology Method NWTPH-Gx; BTEX by EPA method 8021B. Selected groundwater samples may additionally be analyzed for petroleum constituents in accordance with MTCA Table 830-1.

### **Task 4 – Quality Assurance/Quality Control**

Proposed quality assurance/quality control (QA/QC) procedures include data quality objectives and quality assurance goals, quality assurance procedures for sample collection, laboratory analytical protocols and calibration methods, data validation procedures, and corrective actions in the event that data quality issues arise. The quality of the data collected during this investigation will be evaluated on an on-going basis to determine if the data quality objectives are being met. The analytical data will be evaluated in terms of precision, accuracy, representativeness, completeness, and comparability using the results of the quality control sampling. The following QA/QC samples may be collected during the investigation:

- Temperature Blanks;
- Trip Blanks;
- Field Blanks;
- Equipment Blanks;
- Field Duplicates; and,
- Matrix Spikes and Matrix Spike Duplicates.

In addition, the laboratory will run method blanks and laboratory control samples.

### **Task 5 – Waste Management**

Soil generated through probing will be placed in a Department-of-Transportation (DOT) approved 55-gallon drum and stored onsite pending characterization and disposal. Water generated by cleaning and purging will also be stored onsite in DOT approved 55-gallon drums pending laboratory analysis for proper disposal.

### **Task 6 - Data Analysis and Reporting**

Stantec anticipates that the above scope of work will be conducted in the December of 2009.

November 24, 2009

Page 4 of 4

Following completion of field activities, Stantec will prepare a report summarizing the fieldwork completed and data collected including:

- Details of field procedures and operations;
- Probehole logs;
- Soil and groundwater analytical data;
- Updated map showing the location of probeholes; and
- Maps and tables summarizing the results.

If you have any questions or comments regarding the contents of this work plan, please contact us at your convenience.

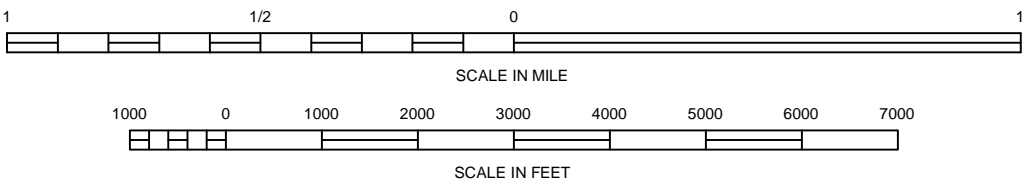
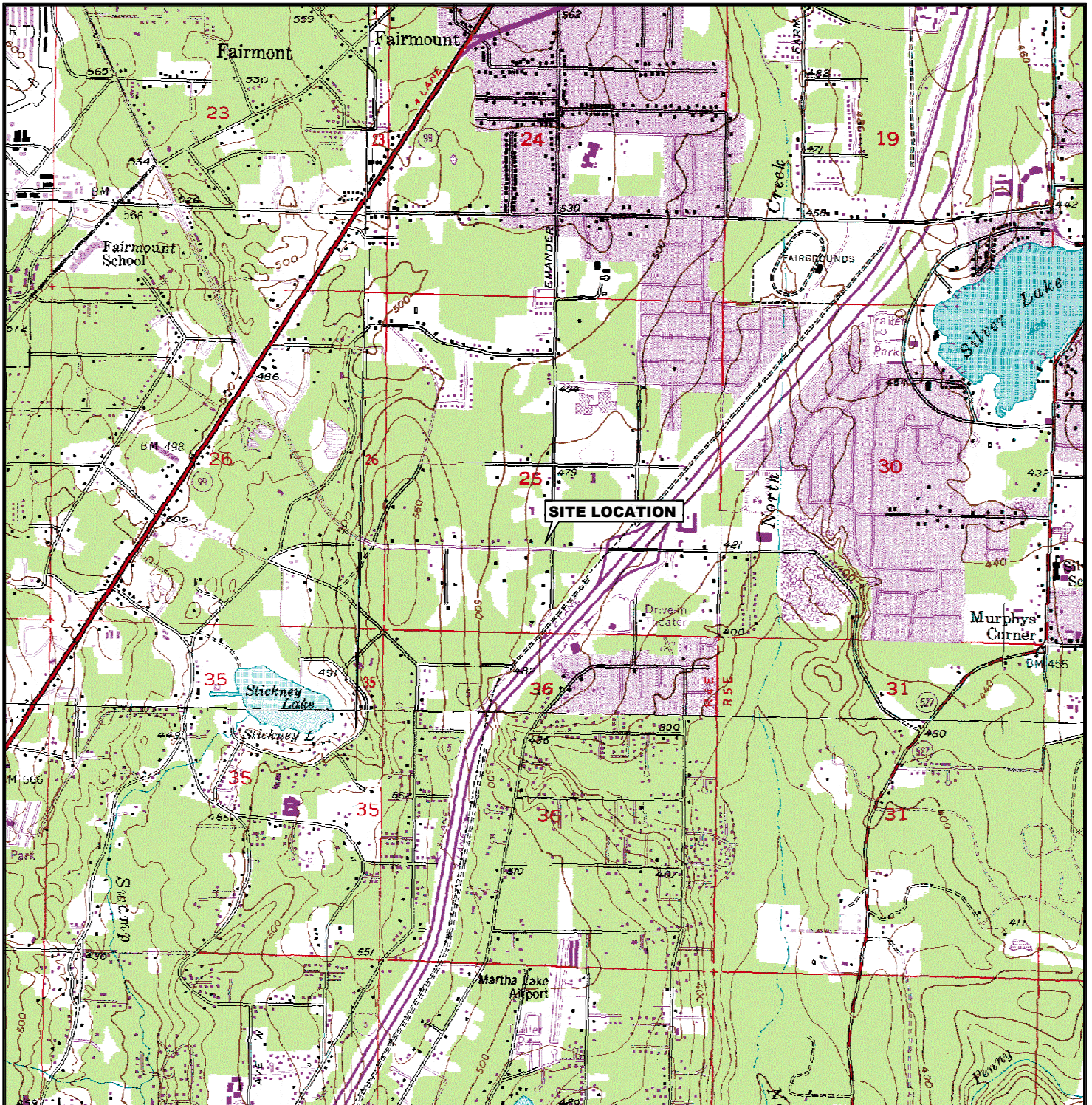
Sincerely,

**Stantec Consulting Corporation**

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Paul Fairbairn  
Project Manager

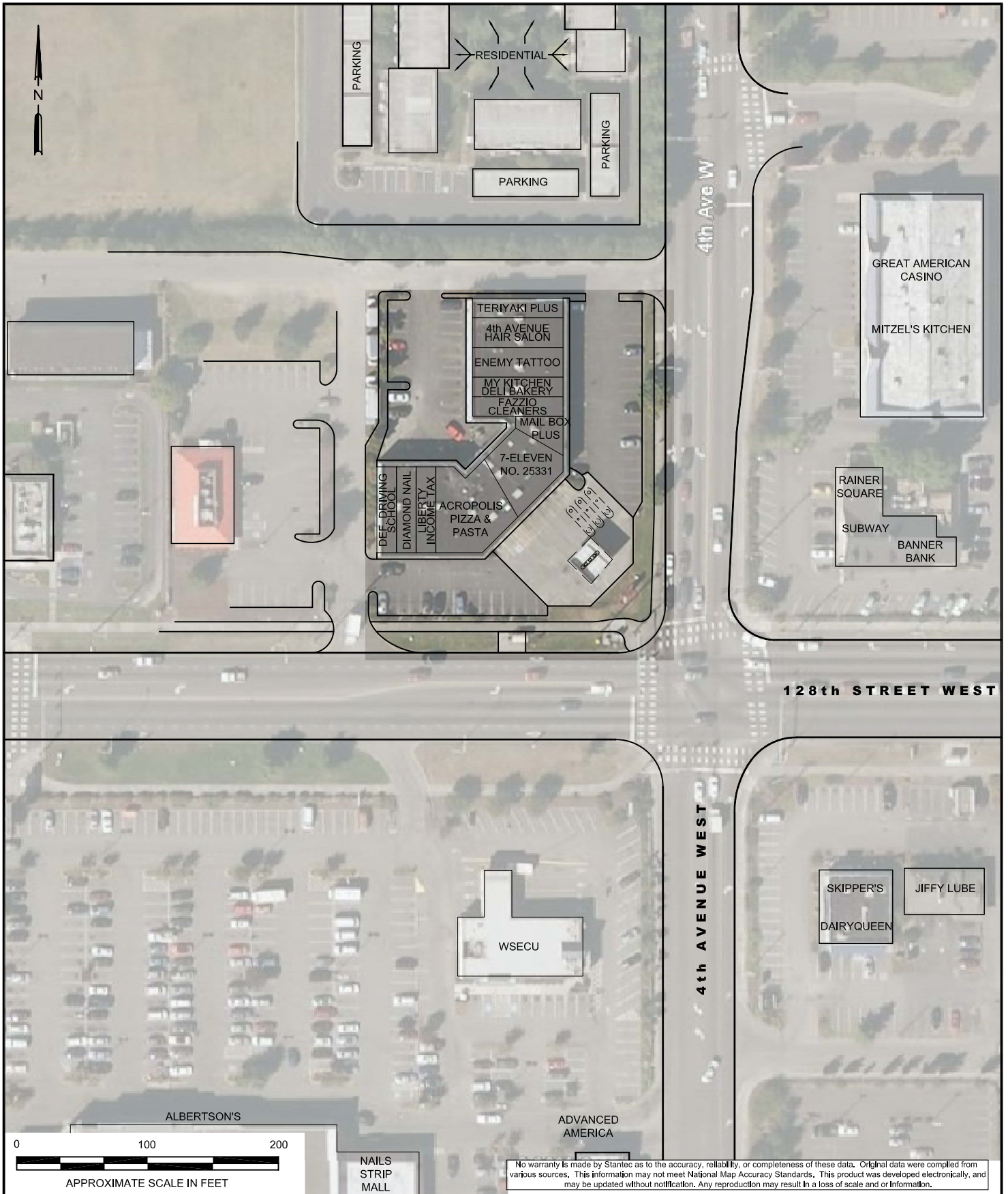
Attachments: Figure 1 – Site Location Map  
Figure 2 – Site Vicinity Map  
Figure 3 – Site Plan with Proposed Monitoring Well Locations





REFERENCE: SEATTLE ACADEMY OF ARTS AND SCIENCES,  
 USGS SEATTLE SOUTH (WA) QUADRANGLE;  
 MUKILTEO, EVERETT, EDMONDS EAST, BOTHEL, WASHINGTON; 1981

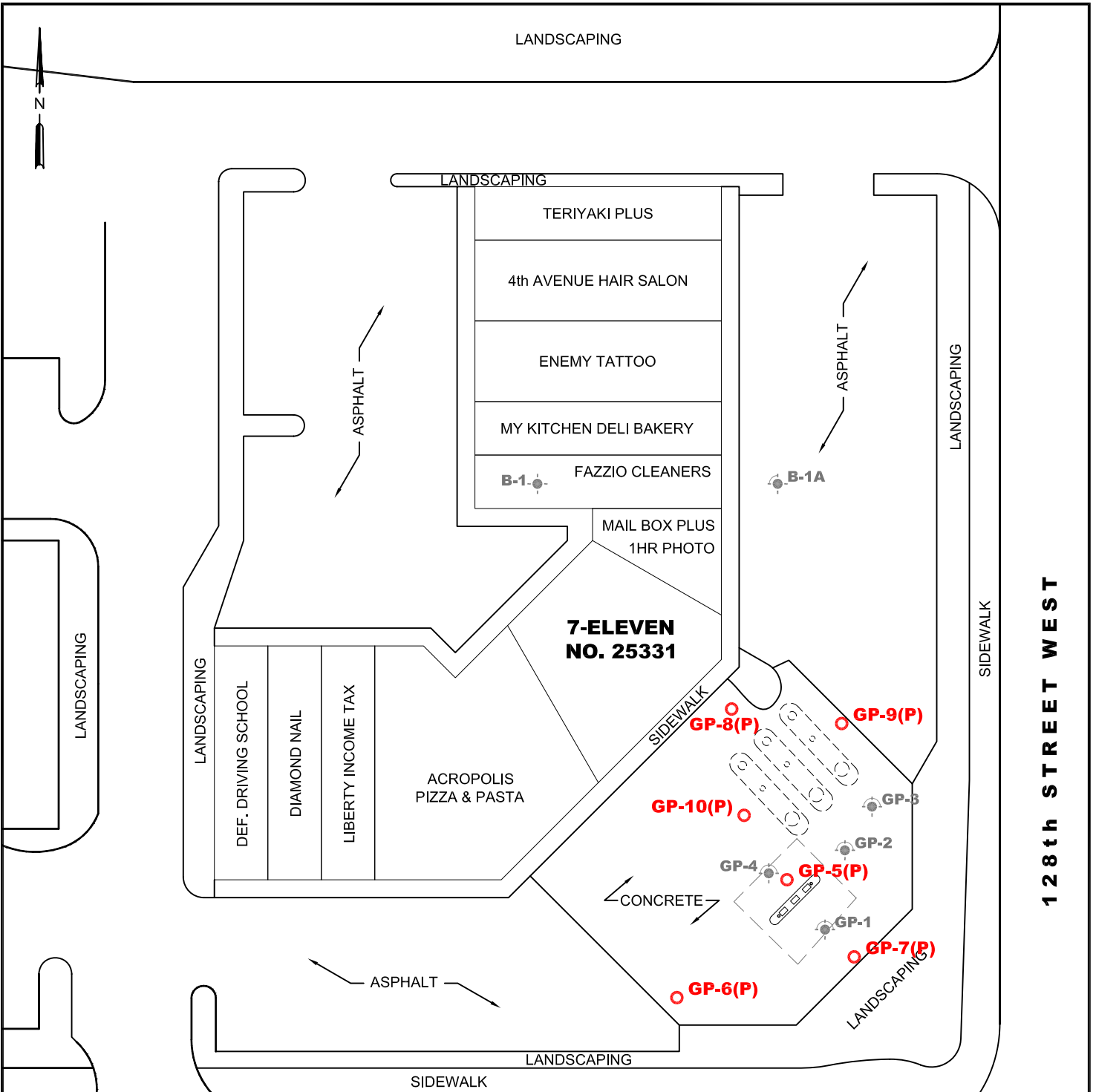
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	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:	DATE: 11/17/09



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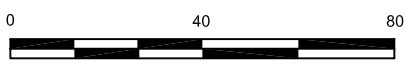
 <b>Stantec</b> 12034 134th COURT NORTHEAST REDMOND, WASHINGTON 98052 PHONE: (425) 372-1590 FAX: (425) 372-1650	FOR:  STORE NO. 25331 12720 4th AVENUE WEST EVERETT, WASHINGTON	<b>SITE VICINITY MAP</b>		FIGURE: <h1 style="text-align: center;">2</h1>
	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:



**LEGEND**



- B-1 SOIL BORING (ADAPT 1999)
- B-1A SOIL BORING (ADAPT 1999)
- GP-1 SOIL BORING (ADAPT 1999)
- GP-5(P) PROPOSED BOREHOLE (STANTEC)

**4th AVENUE WEST**



APPROXIMATE SCALE IN FEET

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	JOB NUMBER: 211502035	DRAWN BY: JR	CHECKED BY:	APPROVED BY:	DATE: 11/17/09

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**APPENDIX B**

**PROBEHOLE LOGS**

**ADDITIONAL SUBSURFACE INVESTIGATION REPORT**

**7-ELEVEN STORE NO. 25331**

Stantec Project No. 211502035

April 27, 2010

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 3

**GP-5**

DRILLING: STARTED **1/5/10** COMPLETED: **1/5/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Hollow Stem Auger**  
 SAMPLING EQUIPMENT: **HandAuger5'; Splitspoon5-45'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **45**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **12**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			ESN NW cleared hole to 5' bgs via hand-auger after 12" hole cut into 4" of concrete							← QUIKRETE
5		SM	<b>SILTY SAND WITH FINE GRAVEL</b> ; SM; bluish gray; fine-grained; medium dense; moist; slight petroleum odor; no staining; plant roots & wood debris; took sample via hand-auger at 5' bgs		1040 GP-5@ 5-5.5'	--	--	225 (ppm)	5	
10		SM	<b>SILTY SAND WITH FINE GRAVEL</b> ; SM; orange and gray; fine-grained; dense; moist; moderate petroleum odor; iron oxide staining; gravel is rounded; some roots		1105 GP-5@ 10-10.5'	--	--	237 (ppm)	10	← HYDRATED BENTONITE CHIPS
15		SM	<b>SILTY SAND WITH FINE GRAVEL</b> ; SM; orange and gray; medium-grained; dense; moist; moderate petroleum odor; iron oxide staining; gravel is rounded		1135 GP-5@ 15-15.5'	--	--	458 (ppm)	15	

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 2 OF 3

**GP-5**

DRILLING: STARTED **1/5/10** COMPLETED: **1/5/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Hollow Stem Auger**  
 SAMPLING EQUIPMENT: **HandAuger5'; Splitspoon5-45'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **45**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **12**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill	
		SM	<b>SILT WITH FINE SAND AND FINE GRAVEL</b> ; SM; gray; dense; damp; slight petroleum odor; 90% silt, 8% sand, 2% gravel		1150 GP-5@ 20-20.5'	--	--	23 (ppm)			
25		SM	SM; dry; no odor; same as above		1210 GP-5@ 25-25.5'	--	--	70.8 (ppm)	25		
30		SM	<b>SILT WITH FINE SAND AND FINE GRAVEL</b> ; SM; grayish brown; dense; damp; no odor; no staining; very fine sand mixture with silt; gravel is rounded		1255 GP-5@ 30-30.5'	--	--	6.5 (ppm)	30		← HYDRATED BENTONITE CHIPS
35		SW	<b>SAND WITH FINE GRAVEL</b> ; SW; tannish gray; medium-grained; medium dense; moist; no odor; no staining; well graded; gravel is rounded		1330 GP-5@ 35-35.5'	--	--	2.3 (ppm)	35		

GEO FORM 304 7-11\_25331\_JAN10.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 2/25/10

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 3 OF 3

**GP-5**

DRILLING: STARTED **1/5/10** COMPLETED: **1/5/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Hollow Stem Auger**  
 SAMPLING EQUIPMENT: **HandAuger5'; Splitspoon5-45'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **45**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **12**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		SM	<b>SILTY SAND WITH FINE GRAVEL</b> ; SM; gray; fine-grained; very dense; no odor; no staining		1455 GP-5@ 40-40.5'	--	--	0.0 (ppm)		 ← HYDRATED BENTONITE CHIPS
45		SM	<b>SILT WITH FINE SAND AND FINE GRAVEL</b> ; SM; gray; medium dense; no odor; no staining; gravel is rounded Borehole terminated at 45 feet.		1545 GP-5@ 44.5-45' 1550 GP-5@ 45'FD	--	--	0.0 (ppm)	45	
50									50	
55									55	

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 1

**GP-6**

DRILLING: STARTED **1/6/10** COMPLETED: **1/6/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Geoprobe**  
 SAMPLING EQUIPMENT: **HandAuger5'; Geoprobe5-20'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **20**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **3**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			ESN NW cleared to 5' bgs via hand-auger							← QUIKRETE
5		OL	<b>CLAYEY SILT ORGANICS WITH FINE GRAVEL</b> ; OL; dark reddish brown; medium dense; slight petroleum odor; no staining; hand-augered at 5' bgs has plant roots		1040 GP-6@ 5-5.5'	--	--	2.9 (ppm)	5	
10		SM	<b>SILT WITH FINE GRAVEL</b> ; SM; bluish gray; dense; moist; moderate petroleum odor; iron oxide staining; orange mottling; gravel is rounded		1050 GP-6@ 10-10.5'	--	--	0.0 (ppm)	10	← HYDRATED BENTONITE CHIPS
15		SM	SM; Same as above		1100 GP-6@ 15-15.5'	--	--	0.0 (ppm)	15	
		SM	<b>SILT WITH MEDIUM SAND AND MEDIUM GRAVEL</b> ; SM; bluish gray; very dense; no odor; no staining; gravel is rounded		1115 GP-6@ 20'	--	--	0.0 (ppm)		

Borehole terminated at 20 feet.

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 2

**GP-7**

DRILLING: STARTED **1/6/10** COMPLETED: **1/6/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Geoprobe**  
 SAMPLING EQUIPMENT: **HandAuger5'; Geoprobe5-20'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **20**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **3**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			ESN NW cleared to 5' bgs via hand-auger							← QUIKRETE
		SP	<b>SAND</b> ; SP; gray		-			3.6 (ppm)		
		SM	<b>SILT WITH SAND</b> ; SM; gray; wet							
		OL	<b>ORGANIC SILT WITH CLAY</b> ; OL; dark reddish brown; medium dense; moist; slight petroleum odor; plant roots; hand-augered at 5' bgs					9.2 (ppm)		
5		SM	<b>SILT WITH SAND</b> ; SM		900 GP-7@ 5-5.5'	--	--	4.8 (ppm)	5	
		SP	<b>SAND</b> ; SP							
		SM	SM							
10		SM	<b>SILT WITH FINE GRAVEL</b> ; SM; bluish gray; dense; dry; no odor; gravel is rounded		915 GP-7@ 10-10.5'	--	--	2.0 (ppm)	10	← HYDRATED BENTONITE CHIPS
		SM	<b>SILT WITH MEDIUM GRAVEL</b> ; SM; bluish gray; dense; moist; no odor; gravel is rounded		930 GP-7@ 15-15.5'	--	--	3.9 (ppm)	15	
		GP	GP					0.0 (ppm)		
		SP	SP		1000 GP-7@ 20'	--	--	0.0 (ppm)		

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 2 OF 2

**GP-7**

DRILLING: STARTED **1/6/10** COMPLETED: **1/6/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Geoprobe**  
 SAMPLING EQUIPMENT: **HandAuger5';Geoprobe5-20'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **20**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **3**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		SM	<p><b>SILT WITH FINE GRAVEL</b>; SM; gray; very dense; dry; no odor; no staining; gravel is rounded</p> <p>Borehole terminated at 20 feet.</p>							
25									25	
30									30	
35									35	

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 1

**GP-9**

DRILLING: STARTED **1/6/10** COMPLETED: **1/6/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Geoprobe**  
 SAMPLING EQUIPMENT: **HandAuger5'; Geoprobe5-20'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **20**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **3**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			ESN NW cleared to 5' bgs via hand-auger							← QUIKRETE
5		OL	<b>CLAYEY SILT ORGANICS WITH ROOTS</b> OL; dark reddish brown; medium dense; moist; organic odor; fine gravel		1345 GP-9@ 5-5.5'	--	--	0.0 (ppm)	5	
10		SM	<b>SILT WITH MEDIUM SAND AND FINE GRAVEL</b> ; SM; bluish gray; dense; no odor; no staining; subangular & rounded gravel		1400 GP-9@ 10-10.5'	--	--	0.0 (ppm)	10	← HYDRATED BENTONITE CHIPS
15		SM	SM; Same as above		1410 GP-9@ 15-15.5'	--	--	0.0 (ppm)	15	
		SM	SM; Same as above		1430 GP-9@ 20'	--	--	3.8 (ppm)		

Borehole terminated at 20 feet.

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 1 OF 2

**GP-10**

DRILLING: STARTED **1/6/10** COMPLETED: **1/6/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Geoprobe**  
 SAMPLING EQUIPMENT: **HandAuger5'; Geoprobe5-20'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **24**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **3**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
			ESN NW cleared to 5' bgs via hand-auger							← QUIKRETE
5		OL	<b>CLAYEY SILT ORGANICS WITH FINE GRAVEL</b> ; OL; dark reddish brown; medium dense; moderate petroleum odor; roots		1145 GP-10@ 5-5.5'	--	--	32.8 (ppm)	5	
10		SM	<b>SILT WITH FINE GRAVEL</b> ; SM; bluish gray; medium dense; no odor; no staining		1200 GP-10@ 10-10.5'	--	--	31.5 (ppm)	10	← HYDRATED BENTONITE CHIPS
15		SM	<b>SILT WITH FINE GRAVEL</b> ; SM; bluish gray; medium dense; dry; slight petroleum odor; no staining		1210 GP-10@ 15-15.5'	--	--	39.1 (ppm)	15	
						--	--			

GEO FORM 304 7-11\_25331\_JAN10.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 2/25/10

PROJECT: **7-11 #25331 Geoprobe Assessment**  
 LOCATION: **12720 4th Ave W, Everett WA 98204**  
 PROJECT NUMBER: **211502035**

WELL / PROBEHOLE / BOREHOLE NO:



PAGE 2 OF 2

**GP-10**

DRILLING: STARTED **1/6/10** COMPLETED: **1/6/10**  
 INSTALLATION: STARTED **NA** COMPLETED: **NA**  
 DRILLING COMPANY: **ESN Northwest, Inc.**  
 DRILLING EQUIPMENT: **Power Probe 9630 PRO-PTO**  
 DRILLING METHOD: **Geoprobe**  
 SAMPLING EQUIPMENT: **HandAuger5'; Geoprobe5-20'**

NORTHING (ft): EASTING (ft):  
 LATITUDE: LONGITUDE:  
 GROUND ELEV (ft): TOC ELEV (ft):  
 INITIAL DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **24**  
 STATIC DTW (ft): **Not Encountered** WELL DEPTH (ft):  
 WELL CASING DIAMETER (in): --- BOREHOLE DIAMETER (in): **3**  
 LOGGED BY: **DH** CHECKED BY:

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)	Borehole Backfill
		SM	<b>SILT WITH FINE GRAVEL AND MEDIUM SAND</b> ; SM; bluish gray; dense; moist; no odor; no staining		1220 GP-10@ 20'			6.2 (ppm)		 ← HYDRATED BENTONITE CHIPS
		SM	SM; Same as above		-			9.0 (ppm)		
					-			29.2 (ppm)		
					-			9.6 (ppm)		
25			Refusal @ 24' bgs with Geoprobe. Attempted hollow-stem auger/split spoon Refusal using hollow-stem auger/split spoon Borehole terminated at 24 feet.					6.2 (ppm)	25	
30									30	
35									35	

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**APPENDIX C**

**WASTE DOCUMENTATION**  
**ADDITIONAL SUBSURFACE INVESTIGATION REPORT**  
**7-ELEVEN STORE NO. 25331**  
Stantec Project No. 211502035  
April 27, 2010

3miati

\*\*\*24 HOUR EMERGENCY RESPONSE, CALL (877) 577-2669 \*\*\*



# SHIPPING PAPER

Lading Manifest: 206209-10

#176361

SHIPPER / CUSTOMER <b>7-Eleven # 25331</b>		DELIVERY DATE	JOB # <b>1090100</b>
ADDRESS <b>12720 4th Ave West</b>		POINT OF CONTACT <b>Larry Moothart</b>	
CITY, STATE, ZIP <b>EVERETT WA 98204</b>		PHONE # <b>(949)460-5200x1014</b>	
CARRIER / TRANSPORTER <b>BURLINGTON ENVIRONMENTAL, LLC</b>		PHONE # <b>(253)383-3044</b>	
CONSIGNEE / FACILITY <b>BURLINGTON ENVIRONMENTAL, LLC.</b>		POINT OF CONTACT	
ADDRESS <b>20245 77TH AVENUE SOUTH</b>		PHONE # <b>(253)872-8030</b>	
CITY, STATE, ZIP <b>KENT , WA 98032</b>			

HM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers		Total Quantity	UOM
		No.	Type		
<del>A</del>	<del>MATERIAL NOT REGULATED BY DOT</del>	<del>1</del>	<del>DM</del>		<del>G</del>
B 352 3R	MATERIAL NOT REGULATED BY DOT	4	DM	3200	F
C					
D					

Special Handling Instruction and Additional Information:  
 a) 435979-00 - WATER WITH TRACE GASOLINE - WAT05 WAT06 WAT07 (1) b) 435989-00 - SOIL WITH GASOLINE - LF01 STAB01 (2)  
 YSO # 176361  
 25331  
 561013  
 Placards Provided YES \_\_\_\_\_ NO \_\_\_\_\_

SHIPPER'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, vessel, and rail according to applicable international and national government regulations.

(SHIPPER) PRINT OR TYPE NAME <b>XELIN BOWMAN, INC. IN BEHALF OF BELSHIRE X</b>	SIGNATURE 	MONTH <b>1</b>	DAY <b>28</b>	YEAR <b>10</b>
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME <b>X MARK BOWMAN</b>	SIGNATURE 	MONTH <b>2</b>	DAY <b>2</b>	YEAR <b>10</b>
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME <b>X Christine Crisostomo</b>	SIGNATURE 	MONTH <b>2</b>	DAY <b>2</b>	YEAR <b>10</b>

CONSIGNEE

10 FEB 2 PM 12:5

---

**APPENDIX D**

**LABORATORY ANALYTICAL REPORTS AND  
CHAIN-OF-CUSTODY DOCUMENTATION  
ADDITIONAL SUBSURFACE INVESTIGATION REPORT**

**7-ELEVEN STORE NO. 25331**

Stantec Project No. 211502035

April 27, 2010

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

January 12, 2010

Paul Fairbairn, Project Manager  
Stantec  
12034 134<sup>th</sup> Ct NE Suite 102  
Redmond, WA 98052

Dear Mr. Fairbairn:

Included are the results from the testing of material submitted on January 6, 2010 from the 25331 Everett Geoprobe Assessment/211502035, F&BI 001026 project. There are 18 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
STN0112R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 6, 2010 by Friedman & Bruya, Inc. from the Stantec 25331 Everett Geoprobe Assessment/211502035, F&BI 001026 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Stantec</u>
001026-01	GP-5@5'
001026-02	GP-5@10'
001026-03	GP-5@15'
001026-04	GP-5@20'
001026-05	GP-5@25'
001026-06	GP-5@30'
001026-07	GP-5@35'
001026-08	GP-5@40'
001026-09	GP-5@45'
001026-10	GP-5@45'FD
001026-11	EQRP-1
001026-12	EQRR-1
001026-13	FB-1
001026-14	TRIP BLANK-1

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/10

Date Received: 01/06/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001026

Date Extracted: 01/06/10

Date Analyzed: 01/07/10

**RESULTS FROM THE ANALYSIS OF THE 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)
GP-5@5' 001026-01 1/5	1.9	1.6	5.5	29	310	ip
GP-5@15' 001026-03 1/10	1.6	13	17	80	900	130
GP-5@45' 001026-09	<0.02	<0.02	<0.02	<0.06	<2	104
GP-5@45'FD 001026-10	<0.02	<0.02	<0.02	<0.06	<2	105
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	117

Date of Report: 01/12/10

Date Received: 01/06/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001026

Date Extracted: 01/06/10

Date Analyzed: 01/06/10

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

Results Reported as ug/L (ppb)

<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 52-124)
EQRP-1 001026-11	<1	<1	<1	<3	<100	75
EQRR-1 001026-12	<1	<1	<1	<3	<100	71
FB-1 001026-13	<1	<1	<1	<3	<100	66
TRIP BLANK-1 001026-14	<1	<1	<1	<3	<100	79
Method Blank	<1	<1	<1	<3	<100	76

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-5@5'	Client:	Stantec
Date Received:	01/06/10	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	001026-01
Date Analyzed:	01/07/10	Data File:	001026-01.013
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	7.25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-5@15'	Client:	Stantec
Date Received:	01/06/10	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	001026-03
Date Analyzed:	01/07/10	Data File:	001026-03.014
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	98	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)
Lead	3.23

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-5@45'	Client:	Stantec
Date Received:	01/06/10	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	001026-09
Date Analyzed:	01/07/10	Data File:	001026-09.010
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

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

Analyte:	Concentration
	mg/kg (ppm)
Lead	1.78

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-5@45'FD	Client:	Stantec
Date Received:	01/06/10	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	001026-10
Date Analyzed:	01/07/10	Data File:	001026-10.015
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	101	Limit:	Limit:
		60	125

Analyte:	Concentration
	mg/kg (ppm)
Lead	1.79

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Stantec
Date Received:	NA	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	I0-0012 mb
Date Analyzed:	01/07/10	Data File:	I0-0012 mb.008
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	103	Limit:	Limit:
		60	125

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	EQRP-1	Client:	Stantec
Date Received:	01/06/10	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	001026-11 10x
Date Analyzed:	01/07/10	Data File:	001026-11 10x.045
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

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

Analyte:	Concentration
	ug/L (ppb)
Lead	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	EQRR-1	Client:	Stantec
Date Received:	01/06/10	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	001026-12 10x
Date Analyzed:	01/07/10	Data File:	001026-12 10x.046
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	91	Limit:	Limit:
		60	125

Analyte:	Concentration
	ug/L (ppb)
Lead	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	FB-1	Client:	Stantec
Date Received:	01/06/10	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	001026-13 10x
Date Analyzed:	01/07/10	Data File:	001026-13 10x.047
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

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

Analyte:	Concentration
	ug/L (ppb)
Lead	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	TRIP BLANK-1	Client:	Stantec
Date Received:	01/06/10	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	001026-14 10x
Date Analyzed:	01/07/10	Data File:	001026-14 10x.048
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	94	Limit:	Limit:
		60	125

Analyte:	Concentration
	ug/L (ppb)
Lead	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Stantec
Date Received:	NA	Project:	25331 Everett Geoprobe Assessment
Date Extracted:	01/07/10	Lab ID:	I0-0011 mb
Date Analyzed:	01/07/10	Data File:	I0-0011 mb.034
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower	Upper
Holmium	93	Limit:	Limit:
		60	125

Analyte:	Concentration
	ug/L (ppb)
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/10

Date Received: 01/06/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001026

**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: 001012-03 (Duplicate)

Analyte	Reporting Units	Sample Result	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	96	70-130
Toluene	mg/kg (ppm)	0.5	92	70-130
Ethylbenzene	mg/kg (ppm)	0.5	94	70-130
Xylenes	mg/kg (ppm)	1.5	91	70-130
Gasoline	mg/kg (ppm)	20	96	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/10

Date Received: 01/06/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001026

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

Laboratory Code: 001001-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	50	86	86	65-118	0
Toluene	ug/L (ppb)	50	86	85	72-122	1
Ethylbenzene	ug/L (ppb)	50	90	84	73-126	7
Xylenes	ug/L (ppb)	150	89	86	74-118	3
Gasoline	ug/L (ppb)	1,000	104	100	69-134	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/10

Date Received: 01/06/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001026

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

Laboratory Code: 001026-09 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	mg/kg (ppm)	1.78	2.13	18	0-20

Laboratory Code: 001026-09 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	mg/kg (ppm)	20	1.78	95	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	20	100	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/10

Date Received: 01/06/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001026

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

Laboratory Code: 001018-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 001018-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Lead	ug/L (ppb)	10	<1	102	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	103	70-130

**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 - The analyte indicated was found in the method blank. The result should be considered an estimate.
- 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 - The sample was extracted outside of holding time. Results should be considered estimates.
- 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 - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The pattern of peaks present is not indicative of diesel.
- y - The pattern of peaks present is not indicative of motor oil.

091026

SAMPLE CHAIN OF CUSTODY

ME 01/06/10 11/152/2/BTS

Send Report To **PAUL FAIRBAIN**

Company **STANTEC CONSULTING CORP.**

Address **12034 134th COURT NE SUITE 102**

City, State, ZIP **REDMOND, WA, 98052**

Phone # **(425) 298-1016** Fax # **(425) 298-1020**

SAMPLERS (signature) <i>Debbie Hanson</i>	PROJECT NAME/NO. <b>25331 EVERETT GEOPROBE ASSESSMENT/211502035</b>	PO #
REMARKS		

Page # <u>1</u> of <u>2</u>	TURNAROUND TIME Standard (2 Weeks) <input checked="" type="checkbox"/> RUSH <b>24 hour RUSH</b> Rush charges authorized by: <b>PAUL FAIRBAIN</b>
SAMPLE DISPOSAL <input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input checked="" type="checkbox"/> Will call with instructions	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED							Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	TOTAL LEAD		
GP-5@5'	A-E	1/5/2010	1040	SOIL	5		XXX							PID=225ppm
GP-5@10'	A-E	1/5/2010	1105	SOIL	5		XXX							PID=458ppm
GP-5@15'	A-E	1/5/2010	1135	SOIL	5		XXX							
GP-5@20'	A-E	1/5/2010	1150	SOIL	5									
GP-5@25'	A-E	1/5/2010	1210	SOIL	5									
GP-5@30'	A-E	1/5/2010	1255	SOIL	5									
GP-5@35'	A-E	1/5/2010	1330	SOIL	5									
GP-5@40'	A-E	1/5/2010	1455	SOIL	5		XXX							PID=0.0ppm
GP-5@45'	A-E	1/5/2010	1545	SOIL	5		XXX							PID=0.0ppm
GP-5@45'FD	A-E	1/5/2010	1550	SOIL	5		XXX							PID=0.0ppm

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Reinquished by: <i>Debbie Hanson</i>		Debbie Hanson		Stantec		1/6/10	14:25
Received by: <i>Luca's M...</i>		Luca's M...		HFS		1/6/10	14:25
Reinquished by:							
Received by:				Samples received at <u>2</u> °C			

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

001026

SAMPLE CHAIN OF CUSTODY

NE 01/06/10

11/15/2002 of 2/253

Send Report To PAUL FAIRBAIN

Company STANTEC CONSULTING CORPORATION

Address 12034/34th COURT NE SUITE 102

City, State, ZIP REDMOND, WA, 98052

Phone # (425) 298-1016 Fax # (425) 298-1020

SAMPLERS (signature)

Debbie Hanson

PO #

PROJECT NAME/NO. 25331 EVERETT GEOPROBE ASSESSMENT/ 211502035

REMARKS

Page #

TURNAROUND TIME

Standard (2 Weeks)

RUSH 24 HR RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	
EQRP-1	A.E	1/5/2010	0915	Water	5	X	X	X	X	X	X	
EQRR-1	A.E	1/5/2010	1015	Water	5	X	X	X	X	X	X	
FB-1	B	1/5/2010	0935	Water	1	X	X	X	X	X	X	
TRIP BLANK-1	B	1/4		Water	1	X	X	X	X	X	X	

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by: Debbie Hanson

Deitrie Hanson

Stantec

1/6/10

1425

Received by:

Debbie Hanson

Lucas Meneveler

F + B

1/6/10

14:25

Relinquished by:

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

Received by:

Samples received at 2 °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

January 11, 2010

Paul Fairbairn, Project Manager  
Stantec  
12034 134<sup>th</sup> Ct NE Suite 102  
Redmond, WA 98052

Dear Mr. Fairbairn:

Included are the results from the testing of material submitted on January 7, 2010 from the 25331 Everett Geoprobe Assessment/211502035, F&BI 001033 project. There are 6 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
STN0111R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 7, 2010 by Friedman & Bruya, Inc. from the Stantec 25331 Everett Geoprobe Assessment/211502035, F&BI 001033 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Stantec</u>
001033-01	GP-6@5'
001033-02	GP-6@10'
001033-03	GP-6@15'
001033-04	GP-6@20'
001033-05	GP-7@5'
001033-06	GP-7@10'
001033-07	GP-7@15'
001033-08	GP-7@20'
001033-09	GP-9@5'
001033-10	GP-9@10'
001033-11	GP-9@15'
001033-12	GP-9@20'
001033-13	GP-10@5'
001033-14	GP-10@10'
001033-15	GP-10@15'
001033-16	GP-10@20'
001033-17	EQRP-2
001033-18	EQRR-2
001033-19	TRIP BLANK-2
001033-20	FB-2

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/11/10

Date Received: 01/07/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001033

Date Extracted: 01/07/10

Date Analyzed: 01/07/10

**RESULTS FROM THE ANALYSIS OF THE 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)
GP-6@5' 001033-01	<0.02	0.06	<0.02	<0.06	4	82
GP-6@20' 001033-04	0.05	<0.02	<0.02	<0.06	<2	108
GP-7@5' 001033-05	0.68	0.17	0.66	1.5	19	86
GP-7@20' 001033-08	<0.02	<0.02	<0.02	<0.06	<2	103
GP-9@5' 001033-09	<0.02	<0.02	<0.02	<0.06	<2	76
GP-9@20' 001033-12	<0.02	<0.02	<0.02	<0.06	<2	101
GP-10@5' 001033-13	0.94	0.16	0.52	2.1	18	77
GP-10@20' 001033-16	0.13	<0.02	0.09	<0.06	2	100
Method Blank	<0.02	<0.02	<0.02	<0.06	<2	104

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/11/10

Date Received: 01/07/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001033

Date Extracted: 01/07/10

Date Analyzed: 01/07/10

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

Results Reported as ug/L (ppb)

<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 52-124)
EQRP-2 001033-17	<1	<1	<1	<3	<100	71
EQRR-2 001033-18	<1	<1	<1	<3	<100	72
TRIP BLANK-2 001033-19	<1	<1	<1	<3	<100	78
FB-2 001033-20	<1	<1	<1	<3	<100	77
Method Blank	<1	<1	<1	<3	<100	55

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/11/10

Date Received: 01/07/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001033

**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: 001012-03 (Duplicate)

Analyte	Reporting Units	Sample Result	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	96	70-130
Toluene	mg/kg (ppm)	0.5	92	70-130
Ethylbenzene	mg/kg (ppm)	0.5	94	70-130
Xylenes	mg/kg (ppm)	1.5	91	70-130
Gasoline	mg/kg (ppm)	20	96	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/11/10

Date Received: 01/07/10

Project: 25331 Everett Geoprobe Assessment/211502035, F&BI 001033

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

Laboratory Code: 001033-17 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	81	65-118
Toluene	ug/L (ppb)	50	80	72-122
Ethylbenzene	ug/L (ppb)	50	79	73-126
Xylenes	ug/L (ppb)	150	81	74-118
Gasoline	ug/L (ppb)	1,000	111	69-134

**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 - The analyte indicated was found in the method blank. The result should be considered an estimate.

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 - The sample was extracted outside of holding time. Results should be considered estimates.

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 - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

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

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

001033

SAMPLE CHAIN OF CUSTODY

ME 1/7/10 CTS/MSJ/M

Send Report To PAUL FAIRBAIRN

Company STANTEC CONSULTING CORPORATION

Address 12034 134th COURT NE SUITE 102

City, State, ZIP REDMOND, WA 98052

Phone # (425) 298-1016 Fax # (425) 298-1020

Page # 1 of 1

TURNAROUND TIME

Standard (2 Weeks)

~~RUSH~~ ~~STANDARD~~ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

SAMPLERS (signature) *Dethrie Hanson*

PROJECT NAME/NO. 25331 EVERETT GEOPROBE

PO #

REMARKS

Standard TAT

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED					Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270		HFS
GP-6@5'	01	6/10	1040	SOIL	5		X	X				PID=2.9ppm
GP-6@10'	02	6/10	1050	SOIL	5							PID=0
GP-6@15'	03	6/10	1100	SOIL	5							PID=0
GP-6@20'	04	6/10	1115	SOIL	5		X	X				PID=0
GP-7@5'	05	6/10	0900	SOIL	5		X	X				PID=4.8ppm
GP-7@10'	06	6/10	0915	SOIL	5							PID=2.0ppm
GP-7@15'	07	6/10	0930	SOIL	5							PID=3.9ppm
GP-7@20'	08	6/10	1000	SOIL	5		X	X				PID=0.0ppm
GP-9@5'	09	6/10	1345	SOIL	5		X	X				PID=0
GP-9@10'	10	6/10	1400	SOIL	5							PID=0

SIGNATURE

Relinquished by: *Dethrie Hanson*

PRINT NAME

Dethrie Hanson

COMPANY

STANTEC

DATE

1/7/10

TIME

9:30

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS\COG\COG.DOC

SIGNATURE

Received by: *Lucas Mercedes*

PRINT NAME

Lucas Mercedes

COMPANY

ETB

DATE

1/7/10

TIME

9:30

Samples received at 2 °C

001033

SAMPLE CHAIN OF CUSTODY

ME 1/7/10

CE 3/15/3 / V1

Send Report To **PAUL FAIRBAIRN**

Company **STANTEC CONSULTING CORP.**

Address **12034 134th COURT NE SUITE 102**

City, State, ZIP **REDMOND, WA 98052**

Phone # **(425) 298-1016** Fax # **(425) 298-1020**

SAMPLERS (signature) *Dethrie Hanson*

PROJECT NAME/NO. **25331 EVERETT GEOPROBE ASSESSMENT/211502035**

PO #

REMARKS **STANDARD TAT**

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TURNAROUND TIME **Standard (2 Weeks)**  
 RUSH ~~24 hr~~ Rush charges authorized by: **PAUL FAIRBAIRN**

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	
GP-9@15'	11 A#	6/10	1410	SOIL	5							PID=0
GP-9@20'	12 A#	6/10	1430	SOIL	5	X	X					PID=3.8ppm
GP-10@5'	13 A#	6/10	1145	SOIL	5	X	X					PID=32.8ppm
GP-10@10'	14 A#	6/10	1200	SOIL	5							PID=31.5ppm
GP-10@15'	15 A#	6/10	1210	SOIL	5							PID=39.1ppm
GP-10@20'	16 A#	6/10	1220	SOIL	5	X	X					PID=6.2ppm
EQRP-2	17 A#	6/10	0850	WATER	5	X	X					
EQRR-2	18 A#	6/10	1510	WATER	5	X	X					
TRIP BANK-2	19			WATER	1	X	X					
FB-2	20	6/10	0845	WATER	1	X	X					

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
Relinquished by: <i>Dethrie Hanson</i>	<i>Dethrie Hanson</i>	Dethrie Hanson	Stantec	1/7/10	09:30		
Received by: <i>Lucas Mendez</i>	<i>Lucas Mendez</i>	Lucas Mendez	ESB	1/7/10	09:50		
Relinquished by:							
Received by:			Samples received at	2	°C		

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