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## **DECOMMISSIONING REPORT**

Avis SeaTac

18811 16th Avenue South

SeaTac, Washington

*Prepared for:*

**Avis Rent A Car**

Parsippany, New Jersey

*Prepared by:*

**AMEC Environment & Infrastructure, Inc.**

600 University Street, Suite 600

Seattle, Washington 98101

(206) 342-1760

June 2012

Project No. SE11160290

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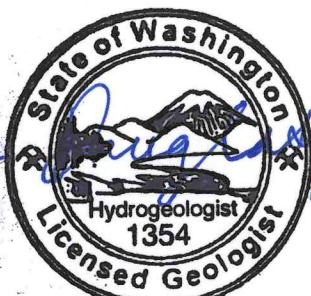
## DECOMMISSIONING REPORT

Avis SeaTac  
18811 16th Avenue South  
SeaTac, Washington

June 26, 2012  
Project No. SE11160290

This report was prepared by the staff of AMEC Environment & Infrastructure, Inc., under the supervision of the Hydrogeologist whose seal and signature appear hereon.

The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, in accordance with generally accepted professional geologic practice. No warranty is expressed or implied.

  
  
*6/26/12*

**John Douglas Long**

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John Long, L.G., L.Hg.  
Licensed Geologist/Hydrogeologist #1354  
Expiration Date: May 23, 2013

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## **DECOMMISSIONING REPORT**

Avis SeaTac  
18811 16th Avenue South  
SeaTac, Washington

### **1.0 INTRODUCTION**

This report documents the decommissioning of a former rental car parking lot and vehicle maintenance property located at 18811 16th Avenue South in SeaTac, Washington (Figure 1). The site is currently registered with the Washington Department of Ecology (Ecology) as Underground Storage Tank (UST) Site 6132; it is also listed as a leaking UST (LUST) site 6132.

The site was used historically as a car rental and maintenance facility. The former car rental facility included an office, vehicle maintenance facility with hydraulic lifts, vehicle fueling facilities, a carwash, and associated facilities. Underground storage tanks (USTs) were present historically and used to store vehicle fuel, motor oil, and waste oil generated as part of vehicle maintenance. An historical gasoline tank and two smaller tanks used for motor oil and waste oil were removed in 1992. The fuel tank was replaced with a new similar-sized fuel tank in 1992. The new tank was located at nearly the same location as the original fuel tank that had been removed in 1992. Oil storage tanks removed in 1992 showed evidence of a release of motor oil.

In 2011, AMEC Environment & Infrastructure, Inc. (AMEC), conducted environmental investigations to assess the status of the site and determine the steps needed to remove the remaining tank and decommission the site. A site assessment and decommissioning activities were conducted in late 2011 through early 2012 and included removal of the remaining 12,000-gallon UST with associated piping and equipment, removal of hydraulic hoists, and cleanup of impacted soil discovered during removal of the hydraulic hoists.

This report documents removal of the UST and associated piping, hydraulic lifts, and impacted soil. In addition, this report summarizes the historic closures of USTs at the site, the results of environmental sampling associated with UST closure activities, results from preclosure soil and groundwater sampling, and results of the site assessment conducted in 2011 for the 12,000-gallon UST and associated piping.



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## **2.0 SITE IDENTIFICATION AND DESCRIPTION**

This section presents a brief description of the site and its environmental setting, including the regulatory status, location and setting, topography, and geologic and hydrogeologic conditions.

### **2.1 REGULATORY STATUS**

The site is listed in Ecology's Facility/Site Identification System (F/SID) as Underground Storage Tank (UST) Site 6132, and Leaking Underground Storage Tank (LUST) Site 6132. The overall F/SID site number is 32197393. Ecology's F/SID listing for the site identifies the following USTs:

- Tank 1, a former 12,000-gallon gasoline storage tank that was removed in 1991;
- Tanks 2 and 3, two former 500-gallon motor oil (waste and new motor oil) storage tanks installed adjacent to one another and removed in 1992;
- Tank 4, a 12,000-gallon unleaded gasoline storage tank installed in January 1992 within the tank cavity of Tank 1 and removed in February to March 2012 as part of decommissioning activities.

Information about the tanks is summarized in Table 1. Tanks 1 through 3 were removed from December 1991 to January 1992 (Section 4.1), and Tank 4 was removed in February 2012 as part of decommissioning activities described in this report.

The site is listed as a LUST site due to evidence for a suspected release of motor oil that was discovered during removal of Tank 2 and Tank 3 in January 1992 (Section 4.1.2). Although the release of oil to the soil was cleaned up in 1992, the site is still listed as a LUST site because a groundwater sample collected during the cleanup excavation contained detectable levels of total petroleum hydrocarbons (TPH) (see Section 4.1.2).

### **2.2 SITE AND PROPERTY LOCATION**

The property is located in SeaTac, Washington, at 18811 16th Avenue South, southwest of the intersection of South 188th Street and 16th Avenue South (Figure 1). The property is in the southeast quarter of the southeast quarter of Section 32 of Township 23 North, Range 4 East and comprises King County Parcels 3223049089 and 3223049090.

### **2.3 NEIGHBORHOOD SETTING**

The site is located at the corner of South 188th Street and 16th Avenue South, directly across South 188th Street from Seattle-Tacoma International Airport. Runways for the airport lie to the north and east; an airport maintenance facility is located directly across the street to the north. The surrounding properties are zoned for either Industrial or Aviation Operations. Buildings to the west



and south are a mix of office parks and light manufacturing, including an air conditioner maintenance facility, culinary supplier, and precision-tool manufacturing facility.

## **2.4 TOPOGRAPHIC SETTING**

The property lies on the Des Moines Drift Upland, a glacially sculpted, north/south-trending upland plateau steeply bordered by Puget Sound to the west and the Duwamish River valley to the east (Aspect, 2005). The area around the property is generally flat, with a gradual slope to the southwest. Elevation contours for the site are illustrated on Figure 2. The elevation of the property itself ranges between approximately 290 and 305 feet above mean sea level, with a slope of approximately 5 to 7 degrees toward the southwest.

## **2.5 SITE GEOLOGY AND HYDROGEOLOGY**

The property has been mapped as a recessional outwash deposit associated with the retreat of the Vashon ice sheet during the most recent glaciations (Aspect, 2005). Recessional outwash deposits are fluvial deposits consisting of sand, gravel, and silty sand. Brown poorly graded sand or brown silt was encountered during a push-probe investigation in December 2011 and during excavation of Tank 4 in February 2012, consistent with the expected recessional outwash deposits. The push-probe investigations encountered refusal at depths of approximately 16 feet below ground surface (bgs), likely representing the transition to the more indurated Vashon lodgement till deposits. Perched groundwater was encountered at a depth of around 12 feet bgs during the 2012 push probe investigation. Groundwater flow is most likely to the south, following the general surface topography, but could be locally variable.

### **3.0 PROPERTY DEVELOPMENT AND HISTORY**

This section summarizes historic land uses and operations at the property and identifies potential sources of contamination from these historic site activities.

#### **3.1 SITE USES AND FACILITIES**

The site has been used historically as a parking lot and service area for rental vehicles (Figure 2). One 7,047-square-foot building is present on the property, which was used historically for office space and vehicle servicing, including car washing. A canopy to the southwest of the building covers two service islands formerly equipped with dispensers for vehicle fuel, motor oil, and windshield washer fluid. The main building contains a car wash and a maintenance bay. Prior to decommissioning the maintenance bay contained:

- Two motor oil aboveground storage tanks (AST), one for waste oil and one for new motor oil;
- One AST for windshield washer fluid;
- Four dispenser hose reels for motor oil, washer fluid, and water;
- One electric car hoist; and
- Two sub-grade hydraulic cylinder car hoists.

#### **3.2 PROPERTY ZONING, UTILITIES, AND ACCESS**

The property is zoned for industrial use. A Port of Seattle stormwater conveyance and easement runs north to south through the length of the property. The storm water conveyance is located approximately 12- to 15-feet in the subsurface below the fuel dispenser island canopy for the fuel dispenser islands (Figure 3). Utility lines for natural gas and three-phase electrical power from Puget Sound Energy (PSE) enter the property from along 16th Avenue South and run west to connect to the building. A sanitary sewer line runs along the same general course as the PSE utility lines, with a junction connecting it to an oil/water separator on the southeast corner of the building. Two storm sewer line conveyances collect stormwater runoff from the property. One storm sewer runs to the south from the canopy area in the southwest corner of the site. The other storm sewer consists of two lines encircling all but the northeast corner of the building, with the lines joining in the center-south of the property and running east to 16th Avenue South. Access to the site is provided from 16th Avenue South through two locked gates.



### **3.3 POTENTIAL SOURCES OF CONTAMINATION**

This section summarizes potential sources or contamination at the property from historical activities at the site.

#### **3.3.1 Historic Gasoline UST**

Tank 1, a 12,000-gallon gasoline UST removed in 1991, had been used to supply fuel for the dispenser islands prior to 1992. The historical tank was located east of the fuel island and to the southwest of the building (Figure 3). The tank was registered with Ecology as Tank ID 40739. This historic 12,000-gallon gasoline UST was removed on December 10, 1991. This tank was located at the same approximate location as Tank 4, the recently removed 12,000-gallon UST (Figure 3).

#### **3.3.2 Former Oil USTs**

Tanks 2 and 3, two 500-gallon USTs for storage of motor oil and waste oil, were located outside the east wall near the southeast corner of the building (Figure 3). They were registered with Ecology as Tank ID 40704 and 40630, respectively, and removed on January 27, 1992.

#### **3.3.3 12,000-Gallon UST and Fueling System**

Tank 4 was a 12,000-gallon unleaded gasoline tank registered with Ecology as Tank ID 40652. It was installed in January 1992 by B & C Equipment Company (B&C) approximately 35 feet southwest of the main building in the approximate location of Tank 1 (Figure 3). The tank pump system was pressurized, with a spill bucket/box for spill prevention, an overfill alarm, corrosion-resistant flexible double-wall pipe, and automatic line leak detection. The tank was constructed of double-walled fiberglass, UL #38003 and a LAFD #40-90-1.

The primary tank release detection method was interstitial monitoring and annual pipe tightness tests. The tank was secured via four deadman anchors spaced evenly along the tank. The tank was current on inspections and was operational until July 7, 2011. The tank was pumped dry on July 7, 2011, and a permit to operate the tank was valid through January 31, 2013.

#### **3.3.4 Hydraulic Lift Cylinders (Hoists)**

Two hydraulic lift cylinders or hoists were located on the east side of the maintenance bay as shown in Figure 3. The hoists contained below-grade hydraulic cylinders with internal storage of hydraulic fluid; these types of cylinders are a potential release source because the cylinders can leak hydraulic fluid into the subsurface without being observed.

## **4.0 SUMMARY OF HISTORIC TANK REMOVAL AND ENVIRONMENTAL INVESTIGATIONS**

This section summarizes historical tank removal activities conducted at the site that were performed prior to the more recent site decommissioning activities and describes results from environmental investigations conducted at the site. More recent tank removal activities conducted as part of site decommissioning are presented in Section 5.0.

### **4.1 1991 TO 1992 UST CLOSURE AND SAMPLING**

In 1991, B&C was retained by Avis Rent A Car to remove Tanks 1 through 3 that were present at the facility at that time. B&C removed Tank 1, a 12,000-gallon UST located southwest of the main building, and Tanks 2 and 3, two smaller motor oil USTs located just east of the main building, as shown in Figure 3. A copy of the B&C report is presented in Appendix A. Removal of the gasoline tank and results of associated sampling are discussed in Section 4.2.1. Removal and cleanup of the motor oil tanks and results of associated sampling are discussed in Section 4.2.2.

#### **4.1.1 Historic Gasoline UST**

Tank 1, removed in 1991, was a 12,000-gallon gasoline tank that was used to fuel rental cars that were cleaned and serviced at the facility. This tank was a fiberglass tank that may have been installed when the facility was constructed in 1978. The tank was located approximately 35 feet southwest of the rental car service building, as shown in Figure 3.

When the historic 12,000-gallon gasoline UST was excavated and removed, soil samples were collected from two sidewalls and the bottom of the UST excavation for analysis of the following analytes:

- hydrocarbons by the NWTPH-Hydrocarbon Identification (HCID) method; and
- benzene, toluene, ethylbenzene, and xylenes (BTEX).

Table 2 presents the analytical results for these confirmation samples. All analytical results were below their respective reporting limits. No visible or olfactory indications of contamination in the excavation were reported (B&C, 1992). A new double-walled, 12,000-gallon fiberglass tank (Tank 4) was installed in the former tank cavity. Removal of Tank 4 is documented in Section 5.1.

#### **4.1.2 Former Motor Oil USTs**

Tanks 2 and 3 were 500-gallon historic motor oil USTs located adjacent to one another approximately 8 feet away from the eastern side of the main building, as shown in Figure 3. Tank 2 was used to store new motor oil, and Tank 3 was used to store waste motor oil. On January 27, 1992, B&C



removed the tanks from a common excavation. Four soil samples were collected from the excavation on January 27, 1992: one from the bottom of the tank at a depth of 9 feet, and one each from the west, north, and east sidewalls at approximately 7 feet in depth. No soil sample was collected from the south side of the excavation as this sidewall continued to collapse (B&C, 1992).

All four soil samples were analyzed for TPH as diesel (TPH-D), TPH as gasoline (TPH-G), and TPH as motor oil (TPH-MO). In addition, the bottom soil sample was also analyzed for the following constituents:

- Metals using the toxicity characteristic leaching procedure (TCLP);
- Polychlorinated biphenyls (PCBs) by EPA Method 8080; and
- Chlorinated volatile organic compounds (CVOCs) by EPA Method 8010.

Table 2 lists the TPH results for these samples. The bottom soil sample and the west sidewall soil sample contained TPH-diesel (TPH-D) and TPH-motor oil (TPH-MO) at concentrations exceeding the reporting limits. No metal exceeded TCLP regulatory limits (40 Code of Federal Regulations, Part 261), and no PCBs or CVOCs were detected in this soil sample above the reporting limits.

Due to evidence (Visual and laboratory analytical results) of petroleum-impacted soils, B&C remobilized to the site on March 5, 1992, to extend the excavation and remove impacted soil. The lateral extent of the excavation was extended by 2 feet on the west sidewall and 1 foot along the south sidewall, and the excavation was deepened by 2 feet. Three additional soil samples were collected from the bottom, from the south sidewall, and from the west sidewall of the excavation on March 5, 1992. In addition, one sample was collected from the excavated soil stockpile.

As shown in Table 2, all four samples were analyzed for both TPH-D using NWTPH-D and total petroleum hydrocarbons. All of the soil confirmation samples from the extended excavation were below the reporting limits for TPH-D and TPH. The stockpile sample contained 10,000 milligrams per kilogram (mg/kg) of TPH, and 5,800 mg/kg of TPH-D. Thirty cubic yards of stockpiled soil was eventually trucked off site to Rabanco's transfer station for eventual disposal at the Roosevelt Regional Landfill (B&C, 1992)

A visible sheen was observed on groundwater in the excavation. B&C subcontracted Burlington Environmental to use a vacuum truck to remove 3,500 gallons of groundwater from the excavation on March 12, 1992. A grab sample of groundwater from the excavation was collected and analyzed for TPH using EPA Method 418.1. This sample contained 9.9 milligrams per liter (mg/L) of TPH; the excavation was backfilled and paved after this sample was collected (B&C, 1992). Additional investigations performed in the area of these waste oil USTs in 2011 are described in Section 4.2.1.

## **4.2 PUSH-PROBE INVESTIGATION — DECEMBER 2012**

On December 6, 2011, AMEC Environment & Infrastructure, Inc. (AMEC) conducted a push-probe investigation on the property using a Power Probe 9630 ProD Geoprobe drill rig. All locations were cleared with a One Call and a private utility locator, as well as air-knifed to 4 feet bgs to clear possible utility conflicts.

### **4.2.1 Soil and Groundwater near Former Waste Oil Tanks**

Two borings (ASB1 and ASB2) were advanced to a depth of 16 feet in the vicinity of the former 500-gallon USTs (Figure 4). Boring location ASB1 was directly to the east of the former 500-gallon USTs and encountered groundwater at 12 feet. Boring location ASB2 was directly south of the former 500-gallon USTs and encountered groundwater at 11.5 feet. No sheen or odor was detected and no volatile organic compounds (VOCs) were detected in headspace using a photoionization detector (PID). Groundwater samples were collected through a temporary screen set from 12 to 16 feet bgs. Four soil and two groundwater samples were collected from these borings and analyzed for TPH using the NWTPH-HCID analytical method. None of the samples contained TPH-G, TPH-D, or TPH-Heavy Oil (TPH-HO) above reporting limits, as shown in Table 3. Copies of the boring logs are presented in Appendix B. Copies of the laboratory analytical data packages are contained in Appendix C.

### **4.2.2 Soil Near Gasoline UST**

Two borings (ASC1x and ASC2) were advanced to depths of 16 feet bgs to the south of the 12,000-gallon UST and dispenser islands. A third planned boring nearer the tank was abandoned when the drillers encountered pea gravel fill and filter cloth. Boring ASC1x was located on the southern margin of the 12,000-gallon UST, and boring location ASC2 was just to the south of the fuel island (Figure 4). One soil sample was collected from each of these borings at a depth of approximately 14 feet bgs and analyzed for petroleum hydrocarbons by Method NWTPH-HCID. None of these samples contained TPH-G, TPH-D, or TPH-MO above reporting limits, as shown in Table 3.



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## **5.0 SITE DECOMMISSIONING, CLEANUP, AND RESTORATION**

This section documents the decommissioning activities conducted in February to March 2012. To accomplish the site decommissioning, cleanup, and restoration, AMEC completed the following tasks:

- Removed the 12,000-gallon gasoline UST.
- Removed the two existing subgrade hydraulic cylinders associated with the vehicle lifts in the vehicle maintenance portion of the building at the site.
- Cleaned up a limited volume of soil affected by a release of hydraulic fluid from the northern hydraulic hoist.
- Cleaned the two oil/water separators, removed sludge from the separators, and inspected the condition of the separators and left both of the functional oil/water separators in place.
- Cleaned and removed sediment from a settling tank connected to the car wash and one of the oil/water separators.
- Cleaned and disposed of the two aboveground storage tanks (ASTs) from the dispenser islands, and three ASTs from inside the maintenance bay.
- Drained and disposed of unwanted motor oil and windshield washer fluid hose reels.
- Removed the gasoline dispensers and shipped them to other sites for re-use.
- Removed an abovegrade, electrically operated lift from inside the maintenance bay.
- Backfilled and repaved the areas disturbed during removal activities and recycled and/or disposed of miscellaneous metal debris and other refuse generated during decommissioning activities.

Photographs of the site decommissioning activities are included in Appendix D. Additional details concerning activities related to removal of the gasoline UST and hydraulic cylinders, cleaning of the oil/water separators, and asphalt and concrete repaving are provided in the sections below.

### **5.1 REMOVAL OF 12,000-GALLON GASOLINE UST**

This section documents removal of the 12,000-gallon UST used to store gasoline used for vehicle refueling. Removal activities included permitting, removal of the tank, collection of samples from the tank excavation area, and laboratory testing of the samples.

#### **5.1.1 Permitting**

Prior to the start of any decommissioning activities, AMEC completed a State Environmental Policy Act (SEPA) checklist and submitted the checklist to the City of SeaTac (City). The City of SeaTac provided AMEC with a Notice of Application and a Determination of Non-Significance for the proposed



work at the site. AMEC erected the required SEPA Notice board as required by the City. A separate Grading and Drainage and Storage Tank permit were also required by the City of SeaTac prior to starting decommissioning activities. Copies of the SEPA notice materials, the Grading and Drainage Permit, and the Storage Tank permit are presented in Appendix E.

### **5.1.2 Removal of Tank and Supply Lines**

On February 22, 2012, Wyser Construction Company (Wyser), under the direction of AMEC, removed and palletized the dispensers from the fuel island for future use at another facility. On February 27, Wyser's subcontractor Marvac flushed the product lines with water and collected using a vacuum truck and vacuumed sludge from the existing 12,000-gallon UST. On February 24 and February 28, Wyser removed first the concrete above the product lines leading to the dispensers, and then the product lines for the 12,000-gallon UST. No visible leaks or fouling were observed anywhere along the product lines leading to the tank.

On February 29, 2012, the tank was inerted and certified safe by a marine chemist, leading immediately to its excavation and removal by Wyser. The tank removal steps included:

- The pea gravel surrounding the tank was stockpiled on plastic next to the excavation;
- Because the UST had been installed in an existing excavation, pea gravel kept sloughing into the excavation as the tank was gradually uncovered;
- Due to the undermining, the existing asphalt collapsed into the excavation;
- The area surrounding the excavation was cordoned off with cones and warning tape;
- The excavation was deepened to approximately 14 feet in order to expose the UST;
- Once the tank was uncovered, the deadman anchors were severed to free the tank;
- The UST was secured and hoisted from the excavation using an excavator;
- The double-wall fiberglass UST was intact and in tank to be in good condition;
- The tank was then crushed on-site and the tank debris was hauled to the Allied Waste Renton Transfer Station as refuse; and
- Following receipt of clean analytical results for the stockpiled pea gravel, the tank cavity was backfilled with a combination of imported fill and the excavated pea gravel.

### **5.1.3 Soil Analytical Results**

On February 28, 2012, AMEC collected six soil samples (AVIS18811-01-022812 through AVIS18811-06-022812) in the vicinity of the fuel dispensers and product lines that were to be removed. The samples were analyzed for petroleum hydrocarbons using the NWTPH-HCID method.

The samples were collected at approximately 2 feet depth, at the interface between the pea gravel fill and the native soil surface. The native soil consisted of brown (7.5YR 4/4) gravelly, silty medium-grained sand. One soil sample was collected for each dispenser removed, with another sample for every 20 feet of product line, resulting in a total of six samples (as shown on Figure 4).

On February 29, 2012, AMEC collected soil samples associated with the tank excavation for analysis of petroleum hydrocarbons by the NWTPH-HCID method. Five samples were taken from the stockpiled soil and three from the tank cavity itself, with one sample on the east side wall, one sample on the west side wall, and one sample from the bottom of the pit. None of the samples from the piping system or tank cavity contained any petroleum hydrocarbons above the respective reporting limits. Analytical results are summarized in Table 3.

Representatives from Ecology were present on site to observe the UST removal. The UST removal, soil confirmation sample analytical results and permanent closure were documented in a Site Assessment Report certified by Devin O'Reilly, a UST Site Inspector (ICC #8124953). This report was sent to Ecology in accordance with WAC 173-360-390. A copy of the Site Assessment report is included as Appendix F.

## **5.2 REMOVAL OF HYDRAULIC HOIST CYLINDER**

As shown in Figure 4, two hydraulic hoist cylinders were located in the eastern side of the maintenance bay. The hydraulic cylinders were removed on February 23, 2012. The concrete floor surrounding each hoist was removed using a jack hammer and recycled at Renton Concrete Recycling. The cylinders were then excavated and removed from the excavation for inspection. Samples of soil adhering to each cylinder were collected at a depth of approximately 7 to 8 feet on February 23, 2012. The south cylinder appeared structurally sound, and the soil sample collected from the cylinder was not visibly impacted by hydrocarbons. The north cylinder was visibly rusted through and leaking. Soil in the area of the leak produced a sheen when tested.

Both soil samples were submitted to Friedman & Bruya, Inc., for analysis of petroleum hydrocarbons by Method NWTPH-HCID. The analytical results are shown in Table 3 (it should be noted that these two soil samples are not shown on Figure 4 as this soil was subsequently excavated). The sample from the north lift contained TPH-D at a concentration of 4,600 mg/kg, and TPH-MO at a concentration of 1,800 mg/kg. The sample from the south lift did not contain any petroleum hydrocarbons above the respective TPH-D or TPH-MO reporting limits (Table 3).

On March 1, 2012, John Long and Koorus Tahghighi, an AMEC senior civil engineer, directed Wyser in cleanup of affected soil from the north hydraulic cylinder excavation. Soil was removed from this excavation using a backhoe to gradually enlarge the hole. As shown on Figure 4, the excavation



measured 6 feet wide by 8 feet long. The excavation eventually reached a depth of 9 feet. Soil was removed and stockpiled inside of the maintenance area, and the excavation continued until clean soil was encountered on all sides as shown by the analytical results in Table 3. The native soils in the excavation were dense enough to support nearly vertical sides. Samples from the sidewalls and base of the excavation were checked for sheen, and confirmation samples were collected from each sidewall and from the base of the excavation. Once these samples were collected, the base of the excavation was filled with imported pea gravel.

A right-of-way permit was obtained from the City of SeaTac prior to the excavation to allow transport of contaminated soils via city streets. A copy of the permit is included in Appendix E. The contaminated soil was trucked to the Cemex facility in Everett, Washington, and 17.68 tons of Class 3 soil were disposed. A copy of the weight ticket is included in Appendix E.

### **5.3 CLEANUP OF OIL/WATER SEPARATOR**

On February 27, 2012, Wyser's subcontractor Marvac jetted the lines leading to the oil/water separator and pressure washed the interior. Marvac pumped the sludge from the oil/water separator and transported it to their Seattle facility for disposal. The oil/water separator remains functional and in good condition. Therefore it was not plugged as originally planned, and instead was left in place and continues to function.

### **5.4 ASPHALT AND CONCRETE REPAVING**

On March 7, 2012, Wyser's subcontractor, Miles Sand & Gravel, delivered and poured concrete to backfill the product line trenches on the fuel island. Wyser smoothed the poured concrete in place. Wyser also compacted the pea gravel using a walk-behind vibratory hammer and imported fill material in the tank cavity. On March 9, 2012, Wyser's subcontractor, Northwest Asphalt, paved over the backfilled tank cavity and product line trenches with new asphalt pavement.

## **6.0 SUMMARY AND CONCLUSIONS**

This section summarizes the results of the decommissioning of the Avis facility located at 18811 16th Avenue South in SeaTac, Washington. The sections below describe activities and summarize existing conditions at the locations of the former gasoline USTs, the hydraulic hoists, and the former motor oil USTs.

### **6.1 HISTORIC AND RECENT GASOLINE USTs**

The historic gasoline UST that was removed in 1991 and the soil confirmation samples collected at that time showed no evidence of a release from the former fueling system (B&C, 1991). The December 2011 push probe investigation confirmed that no releases had occurred from Tank 4, which that was installed in the cavity from which Tank 1 had been removed. The fuel dispensers, subgrade piping, and gasoline UST had no visible damage or holes when removed. Observations during field screening of soil indicated that there no releases from the fueling system had occurred. In addition, all of the soil confirmation analytical results were below reporting limits. The UST was removed in accordance with Ecology UST regulations, and there are no environmental issues associated with either of the former gasoline USTs.

### **6.2 NORTH HYDRAULIC HOIST CYLINDER CLEANUP**

Field observations clearly showed that a release of hydraulic fluid from the corroded cylinder had occurred at the north hydraulic hoist cylinder. After excavation of approximately 17.7 tons of soil, soil confirmation samples from the four sidewalls and the bottom of the excavation showed that all soil affected by hydraulic fluid had been removed. No environmental issues remain that are associated with the north hoist cylinder release.

### **6.3 FORMER MOTOR OIL USTs**

A historic release of motor oil to the subsurface was documented for the former motor oil USTs. Soil confirmation samples collected in 1992 indicated that the affected soil had been successfully cleaned up (B&C, 1992). At the time of the tank removal, a groundwater grab sample collected from the excavation still showed a visible sheen, and TPH was detected at a concentration of 9.9 mg/L. Because this single water sample had been collected nearly 20 years earlier, AMEC collected additional soil and groundwater samples in the area of these former USTs. The area where the USTs were located was still easily determined due to the location of the asphalt patch over the former excavation.

The soil and groundwater samples collected on the west and south sides of the former excavation had no reported sheens or elevated PID readings. The analytical results for these samples did not contain



TPH exceeding reporting levels. These data suggest that while the groundwater may have contained a sheen and reportable levels of hydrocarbons in 1992, removal of the TPH source by excavation and the passage of nearly 20 years have degraded the small amount of hydrocarbon remaining at this location. Since hydrocarbons were not detected in the soil and groundwater samples collected in December 2011, no source of hydrocarbons remains.

#### **6.4 SITE DECOMMISSIONING AND CLOSURE CONCLUSIONS**

All USTs have been removed from the site, and results from both the push-probe investigation and confirmation samples collected from the excavations show that no contaminated soil remains on site. All soil affected by hydraulic fluid near the northern hoist was removed and disposed.

The groundwater and soil samples collected near the former oil UST locations confirmed that no affected soil remains near these former USTs, and the groundwater no longer contains any residual TPH impacts resulting from the historic releases.

Therefore, AMEC recommends that UST site 6132 should be removed from Ecology's LUST list.

## 7.0 REFERENCES

Aspect (Aspect Consulting), 2005, Seattle-Tacoma International Airport Phase I Groundwater Study Report: Prepared for Port of Seattle, February 15.

B&C Equipment Co. (B&C), 1992, Environmental Site assessment for the property located at 18811 16th Avenue South, Seattle, WA. Prepared for Avis, June 1.



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**TABLE 1**

**FORMER UNDERGROUND STORAGE TANKS<sup>1</sup>**

Avis SeaTac  
SeaTac, Washington

Size (gallons)	Contents	Ecology Tank ID	Status	Install date <sup>2</sup>	Removal date
12,000	Gasoline	40739	Removed	1978	12/10/1991
500	Motor oil	40704	Removed	1978	1/27/1992
500	Waste oil	40630	Removed	1978	1/27/1992
12,000	Unleaded gasoline	40652	Removed	January 1992	2/29/2012

Notes

1. The site is listed on Ecology's UST and LUST databases as site #6132.
2. Install date of 1978 assumed for tanks installed during facility construction.

Abbreviations

Ecology = Washington State Department of Ecology

UST = underground storage tank

LUST = leaking underground storage tank

**TABLE 2**  
**HISTORICAL SOIL AND GROUNDWATER SAMPLES**  
 Avis SeaTac  
 SeaTac, Washington

Former 12,000-gallon Gasoline UST			Soil Sample Analytical Results in mg/kg <sup>1</sup>						
Sample ID	Date	Depth (ft)	TPH-G	TPH-D	TPH-Lube Oil	Benzene	Toluene	Ethylbenzene	Xylenes
Bottom Center	12/10/1991	12	<20	<50	<100	<0.05	<0.05	<0.05	<0.05
West Wall		10	<20	<50	<100	<0.05	<0.05	<0.05	<0.05
East Wall		10	<20	<50	<100	<0.05	<0.05	<0.05	<0.05
Two 500-Gallon Motor Oil USTs			Soil Sample Analytical Results in mg/kg <sup>1</sup>						
Sample ID	Date	Depth (ft)	TPH-G	TPH-D	TPH-Lube Oil				
Bottom #1	1/27/1992	9	<25	3,800 <sup>2</sup>	54,000				
North Side #2		7	<24	<59	<120				
East Side #3		7	<23	<57	<110				
West Side #4		7	<23	39,000 <sup>2</sup>	380,000				
Sample ID	Date	Depth (ft)	TPH-D	TPH <sup>3</sup>					
Bottom #2	3/5/1992	11	<25	ND					
West #3		6	<25	ND					
South #4		6	<25	ND					
Stockpile #1		1	5,800 <sup>2</sup>	10,000					
Groundwater Sample Analytical Result <sup>4</sup>									
Sample ID	Date	TPH (mg/L)	Benzene	Toluene	Ethylbenzene	Xylenes			
Groundwater in Oil Tanks Excavation	3/12/1992	9.9	<1.0	<1.0	<1.0	<1.0			

**Notes**

1. Total Petroleum Hydrocarbons by Analytical Method NWTPH-HCID and EPA 8020 for aromatic hydrocarbons.
2. Although the sample was quantified as diesel, the chromatographic pattern is not characteristic of diesel.
3. Although the report stated these samples were analyzed by EPA Method 418.1, no laboratory data report was found to confirm these results.
4. The groundwater sample was collected from the open excavation after 3,500 gallons of water had been removed from the excavation; the sample was analyzed by EPA Method 418.1 for TPH, and EPA Method 8020 for aromatic hydrocarbons.

**Abbreviations**

- < = Analyte was not detected equal to or above the laboratory reporting limit indicated.
- ft = feet
- kg = kilogram
- L = liter
- mg = milligram
- TPH = total petroleum hydrocarbons
- TPH-G = total petroleum hydrocarbons in gas
- TPH-D = total petroleum hydrocarbons in diesel
- TPH-Lube Oil = total petroleum hydrocarbons in lube oil

TABLE 3

DECOMMISSIONING ACTIVITIES FROM SITE ASSESSMENT AND ANALYTICAL RESULTS

Avis SeaTac  
SeaTac, Washington

Push-Probe Investigation Soil Samples			Soil Sample Analytical Result in mg/kg <sup>1</sup>		
Sample ID	Date	Depth (ft)	TPH-G	TPH-D	TPH-MO
ASB1-001	12/6/2012	9	<20	<50	<250
ASB1-002		12	<20	<50	<250
ASB2-001		10	<20	<50	<250
ASB2-002		13	<20	<50	<250
ASC1x-001		14	<20	<50	<250
ASC2-001		14	<20	<50	<250
Push-Probe Investigation Soil Samples			GW Sample Analytical Result in mg/L <sup>1</sup>		
Sample ID	Date	Depth (ft)	TPH-G	TPH-D	TPH-MO
ASB1-003	12/6/2012	12-16	<0.2	<0.5	<0.5
ASB2-003		12-16	<0.2	<0.5	<0.5
Initial Hydraulic Hoist Soil Samples			Soil Sample Analytical Result in mg/kg <sup>2</sup>		
Sample ID	Date	Depth (ft)	TPH-D	TPH-MO	
South Hydraulic Hoist	2/23/2012	8.2	<25	<50	
North Hydraulic Hoist		7.3	4,600	1,800	
Fuel Island Soil Samples			Soil Sample Analytical Result in mg/kg <sup>1</sup>		
Sample ID	Date	Depth (ft)	TPH-G	TPH-D	TPH-MO
AVIS18811-01-022812	2/28/2012	2	<20	<50	<250
AVIS18811-02-022812		2	<20	<50	<250
AVIS18811-03-022812		2	<20	<50	<250
AVIS18811-04-022812		2	<20	<50	<250
AVIS18811-05-022812		2	<20	<50	<250
AVIS18811-06-022812		2	<20	<50	<250
Tank Cavity Samples			Soil Sample Analytical Result in mg/kg <sup>1</sup>		
Sample ID	Date	Depth (ft)	TPH-G	TPH-D	TPH-MO
AVIS18811-06-022912	2/29/2012	7	<20	<50	<250
AVIS18811-07-022912		7	<20	<50	<250
AVIS18811-08-022912		14	<20	<50	<250
Stockpile Samples			Soil Sample Analytical Result in mg/kg <sup>1</sup>		
Sample ID	Date	Depth (ft) <sup>3</sup>	TPH-G	TPH-D	TPH-MO
AVIS18811-01-022912	2/29/2012	1-14	<20	<50	<250
AVIS18811-02-022912		1-14	<20	<50	<250
AVIS18811-03-022912		1-14	<20	<50	<250
AVIS18811-04-022912		1-14	<20	<50	<250
AVIS18811-05-022912		1-14	<20	<50	<250

**TABLE 3**

**DECOMMISSIONING ACTIVITIES FROM SITE ASSESSMENT AND ANALYTICAL RESULTS**

Avis SeaTac  
SeaTac, Washington

North Lift Cleanup Confirmation Samples			Soil Sample Analytical Result in mg/kg <sup>2</sup>		
Sample ID	Date	Depth (ft)	TPH-D	TPH-MO	
ANH-1-8	3/2/2012	8	<50	<250	
ANH-2-8		8	<50	<250	
ANH-3-8		8	<50	<250	
ANH-4-8		8	<50	<250	
ANH-5-9		9	<50	<250	

Notes

1. All samples analyzed by Method NWTPH-HCID for TPH-gasoline range (C6 to C10) (TPH-G), TPH-diesel range (C10 to C25) (TPH-D), and TPH-heavy oil range (>C25) (TPH-MO).
2. All samples analyzed by Method NWTPH-Dx for TPH-D (C10 to C25) and TPH MO (C25 to C36).
3. Stockpiled soil samples were collected from soil removed during soil excavation and stockpiled on plastic. The samples therefore represent depths between approximately 1 and 14 feet (the limits of the excavation depth).

Abbreviations

< = Analyte was not detected equal to or above the laboratory reporting limit indicated.

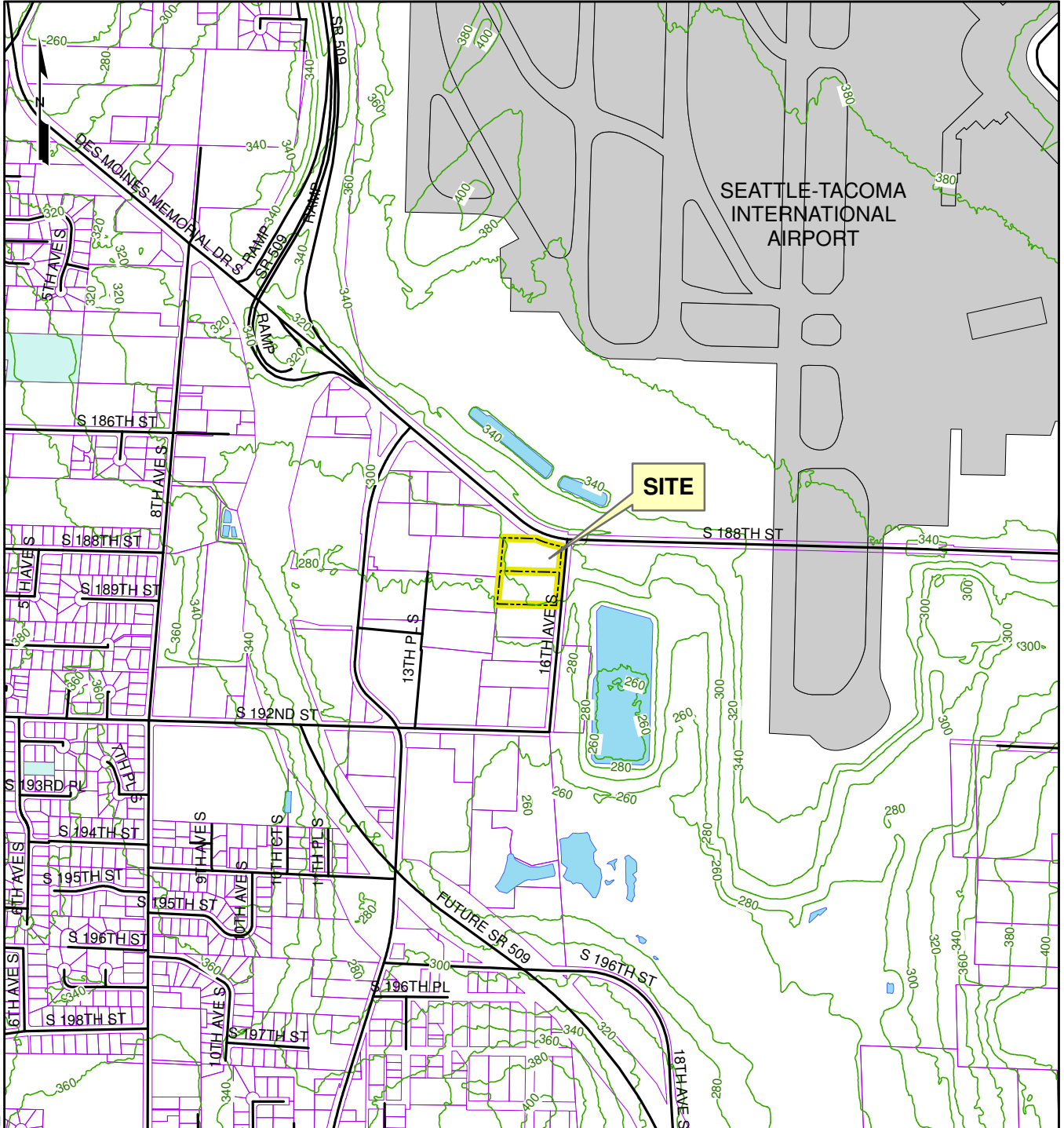
ft = feet

kg = kilogram

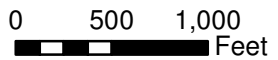
L = liter

mg = milligram





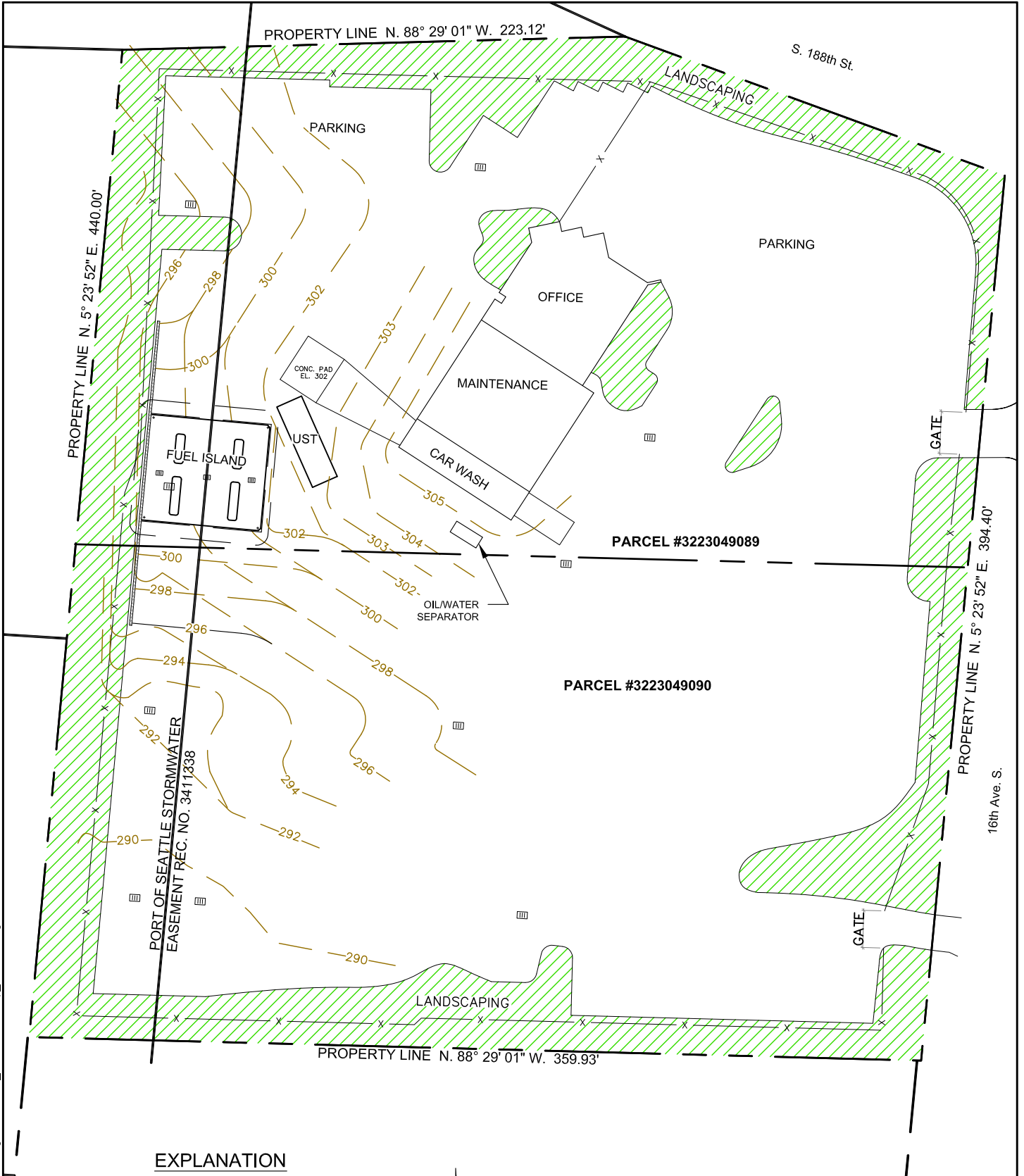
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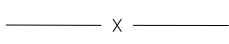


VICINITY MAP  
 Avis SeaTac  
 18811 16th Avenue South  
 SeaTac, Washington

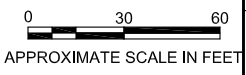
By: APS	Date: 6/20/2012	Project No. SE11160290
		Figure 1


Plot Date: 06/22/12 - 4:46pm. Plotted by: adam.stenberg  
 Drawing Path: S:\16029\003\_Sea Tac\ Drawing Name: Avis\_Sea Tac-SiteMap\_061812.dwg



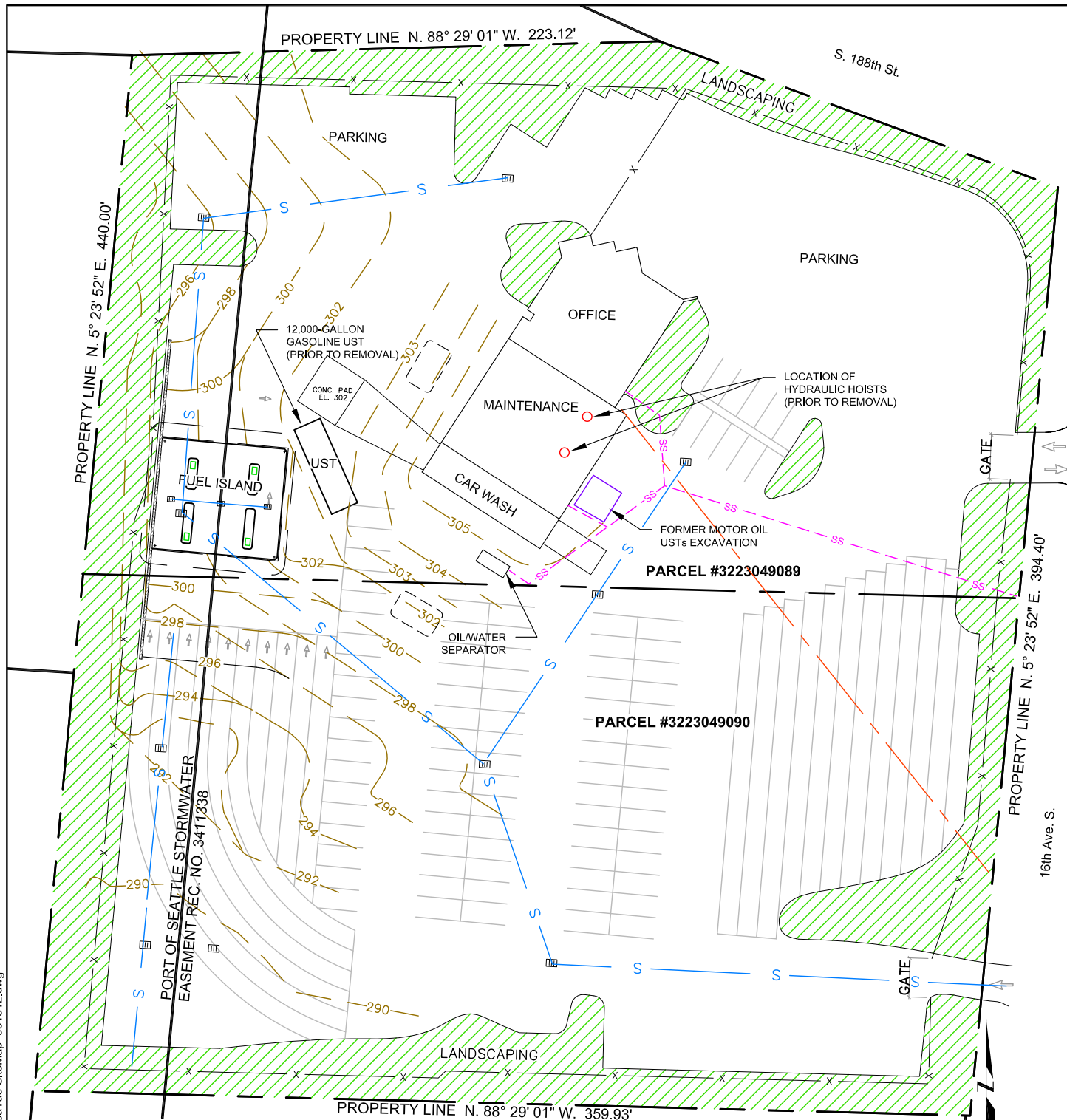
**EXPLANATION**

-  PARCEL LINE
-  FENCE LINE
-  TOPOGRAPHIC CONTOUR LINE
-  LANDSCAPING



<p><b>SITE PLAN</b>          Avis SeaTac          18811 16th Avenue South          SeaTac, Washington</p>		
By: APS	Date: 06/22/12	Project No. SE11160290
		Figure <b>2</b>

Plot Date: 06/22/12 - 4:47pm. Plotted by: adam.stenberg  
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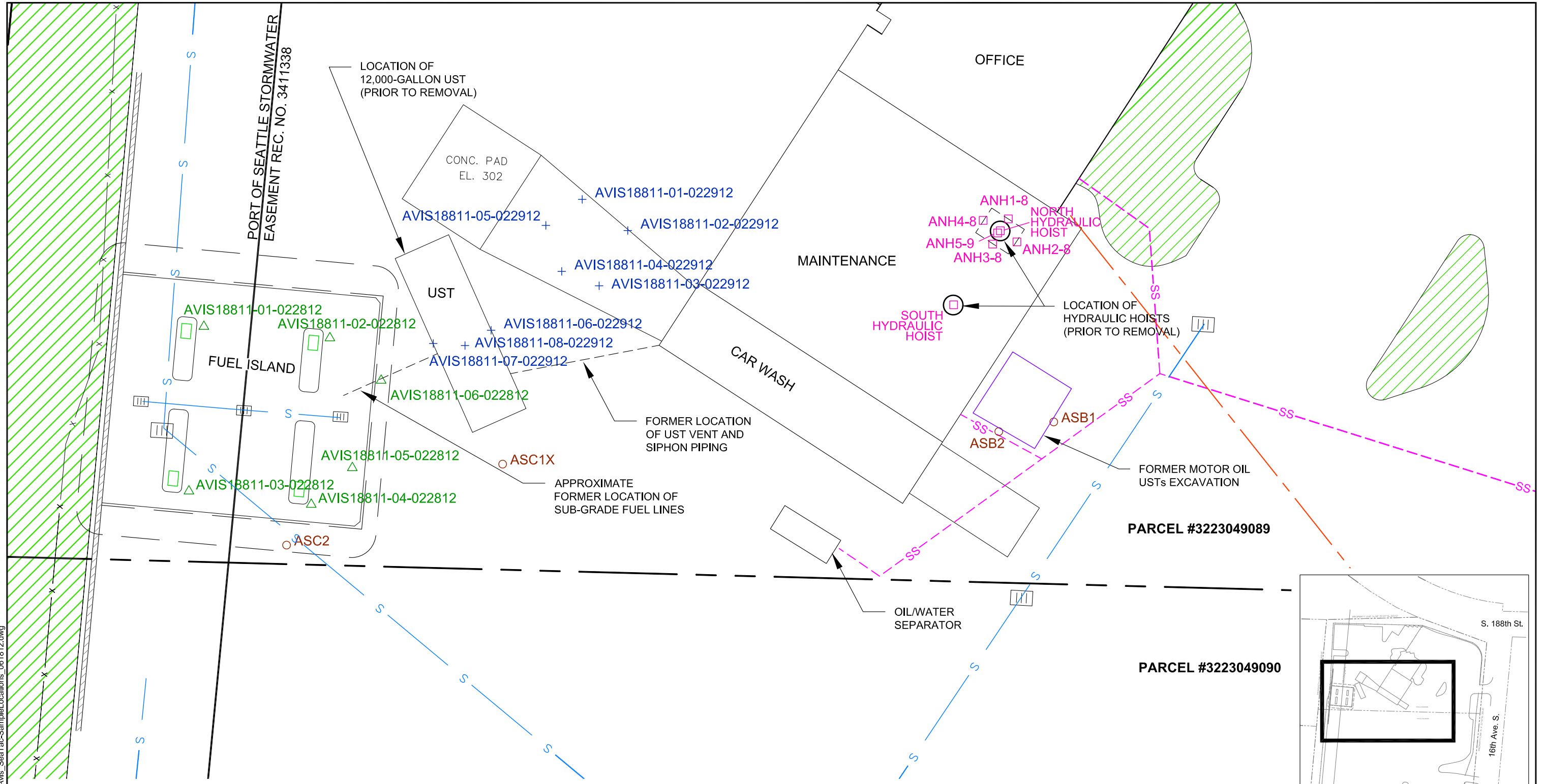
**EXPLANATION**

- PARCEL LINE
- x- FENCE LINE
- 296- TOPOGRAPHIC CONTOUR LINE
- [Hatched Green] LANDSCAPING
- S- STORM SEWER
- [Square with X] STORM SEWER CATCH BASIN
- SS- SANITARY SEWER
- 3- 3-PHASE POWER

0 30 60  
 APPROXIMATE SCALE IN FEET

<b>SITE DETAILS</b> Avis SeaTac 18811 16th Avenue South SeaTac, Washington		
By: APS	Date: 06/22/12	Project No. SE11160290
		Figure <b>3</b>

Plot Date: 06/22/12 - 4:46pm. Plotted by: adam.stenberg  
 Drawing Path: S:\16029\003\_SeaTac\ Drawing Name: Avis\_SeaTac-SampleLocations\_061812.dwg



**EXPLANATION**

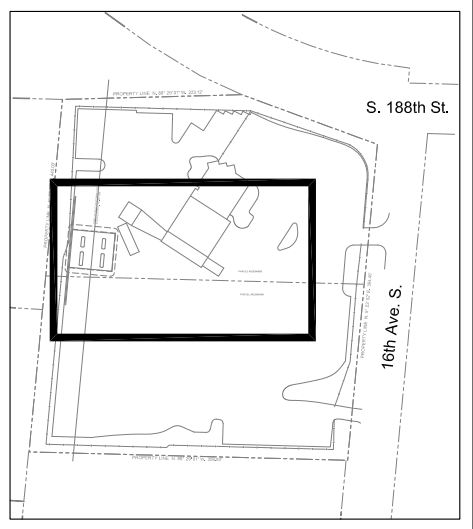
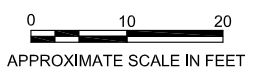
- PARCEL LINE
- X- FENCE LINE
- FORMER MOTOR OIL USTs
- DISPENSER
- HYDRAULIC HOISTS
- ▨ LANDSCAPING

**UTILITIES LEGEND**

- S STORM SEWER
- ▨ STORM SEWER CATCH BASIN
- SS SANITARY SEWER
- 3-PHASE POWER

**SAMPLING LEGEND**

- BORING LOCATIONS FROM 12/6/2012 PUSH PROBE INVESTIGATION
- HYDRAULIC HOIST SAMPLING LOCATIONS
- △ PIPING REMOVAL SAMPLING LOCATIONS
- + TANK REMOVAL SAMPLING LOCATIONS



**SOIL AND GROUNDWATER SAMPLING LOCATIONS**  
 Avis SeaTac  
 18811 16th Avenue South  
 SeaTac, Washington

By: APS Date: 06/22/12 Project No. SE11160290

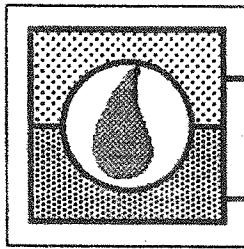




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**APPENDIX A**

Historic Tank Closure and Sampling Report



**B & C**

20320 80th Ave. S. Kent, WA 98032  
(206) 872-8890

## ENVIRONMENTAL SITE ASSESSMENT

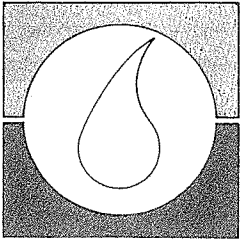
For the property located at  
18811 16th Ave. So.  
Seattle, WA 98188

File name: Avis Headquarters

Prepared for:  
**Avis**

DEPARTMENT OF ECOLOGY NWRO/TCP TANK UNIT	
INTERIM CLEANUP REPORT	<input checked="" type="checkbox"/>
SITE CHARACTERIZATION	<input type="checkbox"/>
FINAL CLEANUP REPORT	<input type="checkbox"/>
OTHER _____	<input type="checkbox"/>
AFFECTED MEDIA: SOIL	<input checked="" type="checkbox"/>
OTHER _____ GW	<input checked="" type="checkbox"/>
INSPECTOR (INIT.) _____ DATE 7-2-98	<input checked="" type="checkbox"/>

3501



# B & C EQUIPMENT CO.

A Division of **DEPARTMENT OF ECOLOGY**  
NWRO/TCP TANK UNIT

INTERIM CLEANUP REPORT	<input checked="" type="checkbox"/>
SITE CHARACTERIZATION	<input type="checkbox"/>
FINAL CLEANUP REPORT	<input type="checkbox"/>
OTHER	<input type="checkbox"/>
AFFECTED MEDIA: SOIL	<input checked="" type="checkbox"/>
OTHER: GW	<input checked="" type="checkbox"/>
INSPECTOR (INT.) & DATE 3-26-93	

June 1, 1992

Washington Department of Ecology  
3190 160th Avenue SE  
Bellevue, Washington 98008-5452

Attn: Joseph M. Hickey

Re: Avis Headquarters  
18811 16th Avenue So.  
Seattle, Washington 98188

Dear Mr. Hickey:

This report presents the scope of environmental work performed by B & C Equipment Co. in regard to the removal of (1) 12,000 gallon gasoline and (2) 500 gallon underground storage tanks (UST) at the above referenced address. The (2) 500 gallon tanks were removed from the same excavation and contained (1) motor oil and (1) waste oil tank.

### BACKGROUND:

On December 10, 1991, B & C Equipment removed (1) 12,000 gallon gasoline UST from Avis' 16th Ave. So. facility. The location of this gasoline UST is depicted in Figure 1. Three soil samples were collected and processed from this excavation; one from the bottom center at a depth of 12 feet and two from the east and west sidewalls at a depth of 10 feet. All 3 gas tank samples were analyzed for total petroleum hydrocarbons (TPH) by the hydrocarbon identification method (WTPH-HCID); and for benzene, toluene, ethyl benzene, and xylene (BTEX). The BTEX analyses revealed non-detectable levels for all three soil samples and the WTPH-HCID analyses revealed non-detectable levels for the gasoline, diesel, and heavy petroleum oil ranges. Additionally, there were no visible or olfactory signs of contamination from this gas tank excavation.

On January 27, 1992, B & C removed (1) 500 gallon motor oil UST and (1) 500 gallon waste oil UST from in front of the Avis garage maintenance area. Figure 1 shows the location of these tanks in relation to the building. Soil samples were collected at a depth of 7 feet from the north, east, and west sidewalls and at a depth of 9 feet from the bottom center of the excavation. Figure 2 shows the locations from where these samples were taken. No south sidewall sample was collected from the excavation after the two USTs were removed since this sidewall collapsed during collection of the other samples.

Duplicate UST 00613Z  
LUST Inc. #300  
20320 80th Ave. S.  
Kent, Washington 98032  
Office (206) 872-8890  
FAX (206) 872-8987  
1-800-822-0084

RECEIVED

MAR 23 1993

DEPT. OF ECOLOGY

THM  
Avis Rent-A-Car  
System, Inc.  
Seattle

DEPARTMENT OF ECOLOGY  
UNDERGROUND STORAGE TANKS

JUN 15 1992

There were visible signs of petroleum impacted soil in this excavation, particularly around the area of the southernmost UST fill pipe and it was from this vicinity that sample #4 was collected. All initial excavation samples were analyzed for TPH by the WTPH-HCID method to determine the ranges of petroleum contamination. In addition to the WTPH-HCID analysis, a toxicity characteristic leaching procedure (TCLP) for metals, chlorinated solvents by Method 8010, and PCB analysis was performed on the bottom center sample (sample #1) to document the concentrations of these parameters.

The results of the WTPH-HCID analyses revealed non-detectable levels in the gasoline range from all 4 soil samples and non-detectable levels in all hydrocarbon ranges from the north and east sidewall samples. However, the bottom center and west sidewall samples revealed hydrocarbon levels above detection limits in the diesel and heavy petroleum oil ranges. These hydrocarbon ranges were specifically addressed in samples collected during B & C's succeeding environmental investigation.

On March 5, 1992, B & C excavated and stockpiled an estimated 30 cubic yards of impacted soil from the excavation. Approximately 1 lateral foot of soil was removed from the south sidewall, 2 feet of soil from the west sidewall, and 2 feet of soil vertically from the bottom of the excavation. No further excavation was possible in the south and west directions since subsurface pipelines were encountered at a depth of 2 feet in these directions (refer to Figure 2). During the ensuing excavation, groundwater began to recharge into the tank hole. At this time, the sidewalls of the excavation showed groundwater saturation beginning at a depth of 6 feet and it was from this depth that the south and west sidewall samples were collected. One bottom center sample was collected at a depth of 11 feet from a clay material that showed no signs of contamination. One additional composite soil sample was collected from the excavated stockpile to profile the soil for later disposal. All (4) soil samples collected on March 5th were analyzed for diesel concentration by Method WTPH-D and for total hydrocarbon concentration by Method TPH 418.1. At the request of Rabanco Co., an additional semi-volatile organics analysis by EPA Method 8270 was performed on the stockpile sample to further profile the soil for disposal. The result of the March 5th environmental investigation revealed that all "excavation" samples contained non-detectable TPH concentrations in both the diesel and heavy petroleum oil ranges.

On March 12, 1992, Burlington Environmental Inc. pumped all standing water from the motor oil/waste oil tank excavation so that B & C Equipment could collect a groundwater recharge sample. The water exhibited a "sheen"; however, some of this sheen was probably the result of soil contaminating the recharging groundwater during the removal of soil on March 5th.

The 3,500 gallons of impacted water pumped from the excavation was taken to Burlington Environmental's disposal facility for treatment and processing. The sidewalls and bottom of the excavation showed no visual indications of soil discoloration from a petroleum nature after all the water was pumped from the excavation.

Recharge was relatively rapid into the excavation so the recharging groundwater sample was collected utilizing a stainless steel bailer. Prior to sampling, the bailer was thoroughly rinsed with water, washed withalconox detergent, and once again rinsed with water to remove any contaminants that may have remained on the bailer from previous sampling events. The excavation was backfilled with clean imported pea gravel after the recharge sample was collected.

All samples collected were placed in EPA approved glass containers. The samples were packed for minimal headspace, labeled, and placed on ice for transport to the laboratory accompanied by chain of custody documentation.

#### RESULTS:

Subsurface Conditions: Soil immediately surrounding the USTs consisted of a medium grained sandy fill material in both the gasoline UST excavation and the motor oil/waste oil UST excavation. Based on the analytical results from the gasoline excavation samples and visible soil conditions in this tank hole, no further excavation was performed into the native soil. Upon receiving the final analytical results from the December 10, 1991 sampling event, a new 10,000 gallon UST was installed into the gas tank excavation.

Soil in the motor oil/waste oil excavation consisted of poorly graded sands and gravels to a depth of 5 feet. Below this depth, the native soil of the site was encountered which consisted of silts and clays to the total depth explored of 11 feet. As previously mentioned, groundwater was encountered in the motor oil/waste oil excavation at a depth of approximately 6 feet.

#### Chemical Results:

The current DOE soil cleanup standards for the parameters analyzed are:

TPH (gasoline).....	100 parts per million (ppm)
TPH (diesel and heavier oils).....	200 ppm
Benzene.....	0.5 ppm
Toluene.....	40.0 ppm
Ethyl benzene.....	20.0 ppm
Xylene.....	20.0 ppm

The current DOE water cleanup standards for the parameters analyzed are:

TPH (all petroleum ranges).....	1000 parts per billion (ppb)
Benzene.....	0.5 ppb
Toluene.....	40.0 ppb
Ethyl benzene.....	30.0 ppb
Xylene.....	20.0 ppb

As indicated in the Background Section of this report, the gasoline tank excavation showed non-detectable concentrations for all BTEX and TPH parameters.

The initial analytical results from the motor oil/waste oil UST sampling event performed on January 27th revealed TPH levels over DOE cleanup standards in the diesel and heavy petroleum oil ranges from the west sidewall and bottom center samples. Summarized below are the petroleum range analytical results from B & C Equipment's follow-up investigations performed on March 5th and March 12th. All units are expressed in ppm.

TABLE 1  
March 5, 1992

Soil Sample #	WTPH-D (diesel)	TPH 418.1 (total)
*1.....	5,800.....	10,000
2.....	ND.....	ND
3.....	ND.....	ND
4.....	ND.....	ND

\*Excavated stockpile sample. Note: "ND" denotes non-detected.

TABLE 2  
March 12, 1992

Groundwater Sample #	TPH (8015 Mod.)	Benzene	Toluene	Ethyl benzene	Xylene
**1.....	9.9.....	ND.....	ND.....	ND.....	ND

\*\*Groundwater recharge sample. The BTEX parameters for the recharge sample were analyzed to a detection limit expressed in parts per billion (ppb).

Complete analytical methods and results for all sampling events are summarized in the attached certified laboratory reports.

**CONCLUSIONS & RECOMMENDATIONS:**

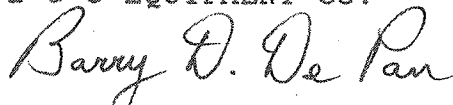
Upon acceptance of the excavated soil stockpile results, the estimated 30 cubic yards of soil was taken to Rabanco Co.'s transfer station in Seattle for final disposal at Roosevelt Regional Landfill.

Based on the analytical results from the initial motor oil/waste oil excavation samples collected 1/27/92 and the follow-up analytical results from the 3/5/92 excavation samples, B & C feels these results confirm the removal of impacted soils from this UST excavation to within DOE cleanup standards.

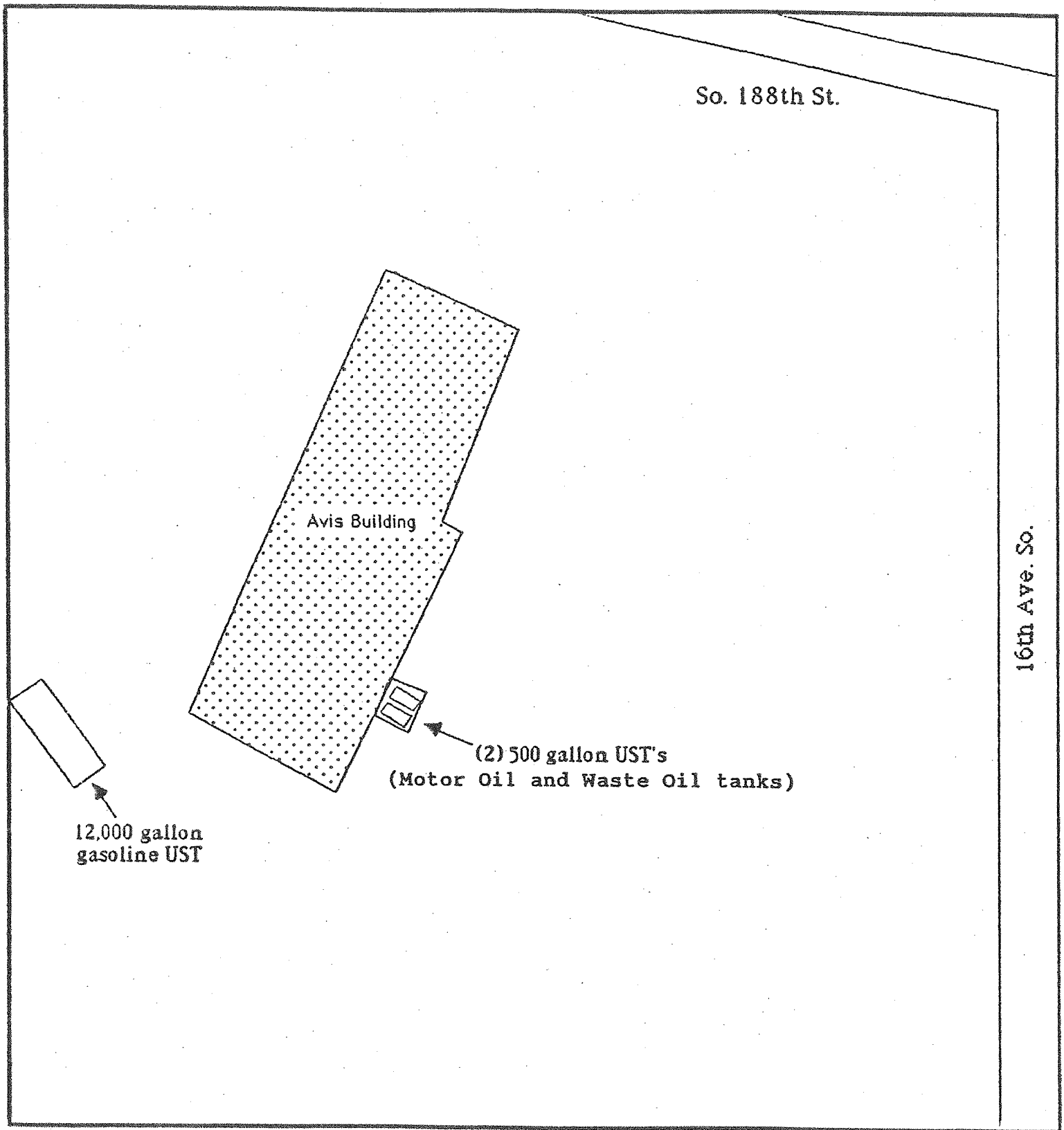
As referenced in the chemical results section, the groundwater recharge sample revealed a TPH concentration of 9.9 ppm and the BTEX concentrations were all non-detectable. Due to the relatively high water table on-site (i.e. 6 feet below surface), it is unknown without further investigation whether impacted groundwater has migrated a significant distance from the excavation. Therefore, B & C recommends the installation of (2) 4" monitoring wells to a total depth of 15 feet at the locations depicted in Figure 1. The actual locations of these 2 wells will be dictated by the location of subsurface utilities. Additionally, since the water table is relatively near the surface, the wells should be installed with 10 feet of screened casing with the remainder of the wells being completed with blank casing. The on-site topography has a definite down gradient slope from north to south. On this premise, the location of these (2) proposed wells should be sufficient to monitor downgradient groundwater conditions.


B & C further recommends to develop the wells by purging at least three casing volumes and sampling the wells on a quarterly basis for a period of (1) year. All wells will be analyzed for TPH by method 8015. Monitoring results would then be reported to the DOE's NW Regional Office quarterly. Upon review of this report, a written confirmation from the DOE's NW Regional Office would be greatly appreciated.

Sincerely,  
B & C EQUIPMENT CO.



Barry D. DePan  
Environmental Specialist



<p>Avis 18811 16th Ave. So. Seattle, WA 98188</p> <p>Figure 1</p>	<p><i>KEY</i></p>	 <p><b>B &amp; C</b></p>
		<p>Job # 1387</p> <p>Date: 4/30/92</p>
		<p>Barry DePan</p>

# Motor Oil/Waste Oil Tanks Excavation

North



Office Area

Avis  
Maintenance  
Garage

Bay Door

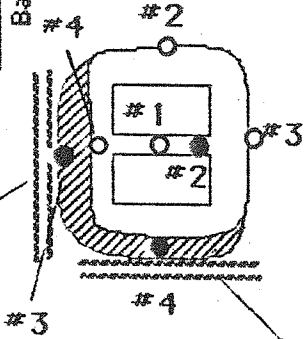
Bay Door

Bay Door

4" drain line

2" water line

Proposed Monitor  
Well Locations



## KEY

- Samples collected 1/27/92
- Samples collected 3/5/92



**B & C**

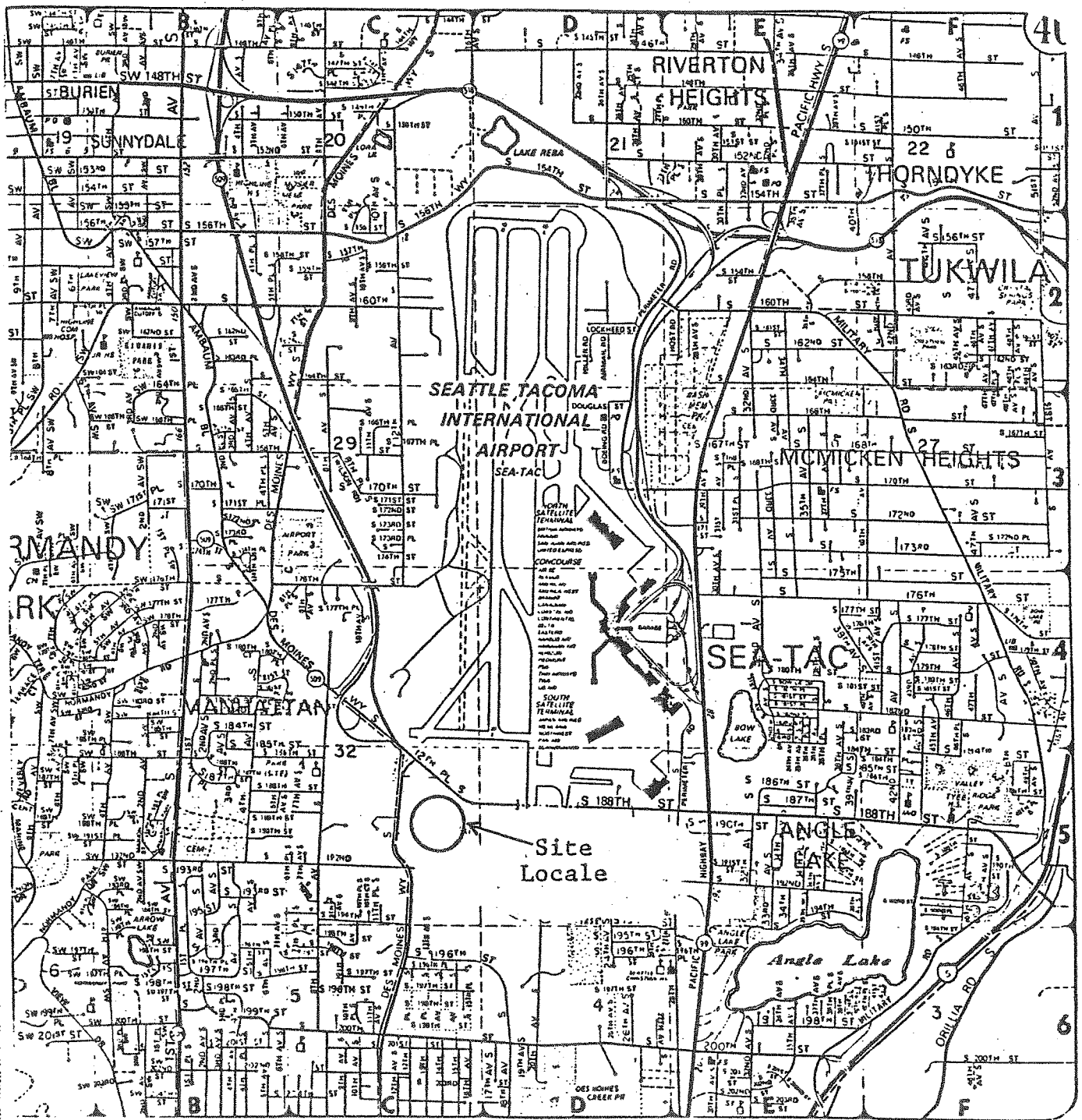
Job # 1387

Date: 4/30/92

Barry DePan

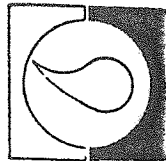
Avis  
18811 16th Ave. So.  
Seattle, WA 98188

Figure 2



Vicinity Map

Figure 3



**B & C EQUIPMENT CO.**  
A Division of FECCO

20320 80th Ave. S.  
Kent, Washington 98032  
Office (206) 872-8850  
FAX (206) 872-9987  
1-800-832-0894

**CHAIN OF CUSTODY**  
**REQUEST FOR LABORATORY ANALYSIS**

PROJ. NO.	PROJECT NAME:		SAMPLER		Depth	BTEX 602/8020	WTPH-HCID	WTPH-G w/BTEX	WTPH-D	WTPH-418.1 Mod.	TPH 8015 Mod.	Total Pb	PAH 625/8270	Total Halogens 9076	PCB 608/8080	TCLP (As, Cd, Cr, Pb)	TCLP Pb
	#1387	ADDRESS: 18811 - 16th St.	PROJECT NAME: AV15	SAMPLER: ME													
SAMPLE NUMBER	DATE	TIME	Water	Soil	Sludge	Iced	SAMPLE LOCATION TANK SIZE & PRODUCT										
1	12-10	4:00	✓	✓		✓	Bottom Center 12000		✓								
2	12-10	4:00	✓	✓		✓	West wall 10'		✓								
3	12-10	4:00	✓	✓		✓	East wall 10'		✓								
4	<del>12-10</del>						<del>South wall 10'</del>										
5	<del>12-10</del>						<del>South wall 10'</del>										

Relinquished by:	Date	Time	Received by:	RUSH: YES NO	COMMENTS:
Relinquished by: Mike Kinosh	12-10	5:30	Received by: <i>[Signature]</i>		
Relinquished by: Barry D. De Pan	12/11/91	2:40	Received by: <i>[Signature]</i>		

# SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: B & C Equipment Co.

Date: December 18, 1991

Report On: Analysis of Soil

Lab No: 21643

## IDENTIFICATION:

Samples received on 12-11-91

Project: #1387 Avis, 18811 - 16th South

## ANALYSIS:

Lab Sample No.	1	2	3
Client ID	#1	#2	#3
Units	mg/kg	mg/kg	mg/kg
WTPH-HCID			
Gasoline (C7-C12)	< 20	< 20	< 20
Diesel (> C12-C24)	< 50	< 50	< 50
Heavy Petroleum Oils (C24+)	< 100	< 100	< 100
BTEX by Method 8020			
Benzene	< 0.05	< 0.05	< 0.05
Toluene	< 0.05	< 0.05	< 0.05
Ethyl Benzene	< 0.05	< 0.05	< 0.05
Xylenes	< 0.05	< 0.05	< 0.05
SURROGATE RECOVERIES			
WTPH-HCID			
1-Chlorooctane %	90	104	105
Perylene %	95	107	98
BTEX-			
Trifluorotoluene %	70	73	75

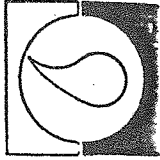
< = less than

> = greater than

Results are reported on a dry weight basis.

SOUND ANALYTICAL SERVICES

  
STAN P. PALMQUIST



**B & C EQUIPMENT CO.**  
A Division of PEECO

20320 80th Ave. S.  
Kent, Washington 98032  
Office (206) 872-8990  
FAX (206) 872-8987  
1-800-822-0084

# CHAIN OF CUSTODY REQUEST FOR LABORATORY ANALYSIS

PROJ. NO. 1387	PROJECT NAME: <i>Avis</i>		SAMPLER <i>Mike Kirsch</i>																	
	ADDRESS: <i>18811 16th Ave So. Seattle, WA 98188</i>																			
SAMPLE NUMBER	DATE	TIME	Water	Soil	Sludge	Iced	SAMPLE LOCATION TANK SIZE & PRODUCT	Depth	BTEX 602/8020	WTPH-HCID	WTPH-G w/BTEX	WTPH-D	WTPH-418.1 Mod.	TPH 8015 Mod.	TPH 418.1	Chlorinated Solvents 601/8010	Total Halogens 9076	PCB 608/8080	TCLP (As, Cd, Cr, Pb)	TCLP (8 metals)
1	1/27/92	2:00		✓		✓	Bottom center	9'	✓	✓						✓		✓		✓
2	1/27	2:10		✓		✓	N sidewall	7'	✓	✓										
3	1/27	2:15		✓		✓	E sidewall	7'	✓	✓										
4	1/27	2:30		✓		✓	W sidewall	7'	✓	✓										

Relinquished by: <i>Mike Kirsch</i>	Date <i>2/5/92</i>	Time <i>12:00</i>	Received by: <i>Barry D. De Pan</i>		RUSH: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
Relinquished by: <i>Barry D. De Pan</i>	<i>2/5/92</i>	<i>3:07 PM</i>	Received by: <i>My A</i>	COMMENTS:	
Relinquished by:			Received by:		



# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9202314-01  
Client Sample ID: #1 Bottom Center

Date Collected: 01/27/92  
Date Received : 02/05/92

----- WTPH-HCID -----

Preparation Date: 02/05/92  
Analysis Date : 02/05/92

	Result	SDL	
Gasoline Range Hydrocarbons...	25 U	25	mg/kg DB
Diesel Range Hydrocarbons.....	3800	63	mg/kg DB
Lube Oil and Related Products.	54000	130	mg/kg DB

Surrogate recoveries	% Rec	LCL	UCL
Bromofluorobenzene .....	97.5	50	150
2-Fluorobiphenyl .....	95.0	50	150
p-Terphenyl .....	100	50	150

Comments: Although the sample gave a result for diesel, there was no chromatographic pattern recognition when compared with the diesel standard. Sample was not concentrated for oil analysis to avoid off-scale readings and/or equipment contamination.

Analysis performed in accordance with Washington State Department of Ecology method WTPH-HCID.



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# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

REPORT ON SAMPLE: 9202597-01A  
Client Sample ID: #1 Bottom Center - 9'

Date Received : 02/12/92      Collection Date : 01/27/92  
Test Code : TCLP\_M      Date Extracted : 02/12/92

Prepared by the Toxic Characteristic Leaching Procedure (TCLP), Method 1311, Test Methods for Evaluating Solid Waste, U.S.E.P.A., 3rd edition. Metals were determined on the aqueous extract or the as-received sample (if applicable) using either the EPA's 7000 series or EPA Method 6010 or a combination of both.

mg/L

Analyte	Result	MCL	SDL	Analysis Date
Silver .....	0.10 U	5.0	0.10	02/19/92
Barium .....	0.83	100.	0.10	02/19/92
Cadmium .....	0.010 U	1.0	0.01	02/19/92
Lead .....	0.10 U	5.0	0.10	02/19/92
Chromium .....	0.10 U	5.0	0.10	02/19/92
Selenium .....	0.20 U	1.0	0.20	02/19/92
Arsenic .....	0.20 U	5.0	0.20	02/19/92
Mercury .....	0.005 U	0.2	0.005	02/26/92

MCL = Maximum Contamination Level, as established by regulation.

SDL = Sample Detection Limit



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# Laucks <sup>84</sup> years

## Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

REPORT ON SAMPLE: 9202597-01B

Client Sample ID: #1 Bottom Center - 9'

Collection Date : 01/27/92

Date Received : 02/12/92

Date Analyzed : 02/14/92

Date Confirmed : 02/13/92

Test Code : 8010\_S

Test Method : SW 8010

Analyte	Result (ug/kg DB)	SDL (ug/kg DB)	PQL (ug/kg DB)	Analyte	Result (ug/kg DB)	SDL (ug/kg DB)	PQL (ug/kg DB)
Dichlorodifluoromethane ...	1200 U	120	1200	Tetrachloroethylene .....	0.36 U	0.04	0.36
Chloromethane .....	0.96 U	0.10	0.96	Chlorodibromomethane .....	1.1 U	0.11	1.1
Vinyl chloride .....	2.2 U	0.22	2.2	Chlorobenzene .....	3.0 U	0.30	3.0
Bromomethane .....	120 U	12	120	Bromoform .....	2.4 U	0.24	2.4
Chloroethane .....	6.2 U	0.62	6.2	1,1,2,2-Tetrachloroethane	0.36 U	0.04	0.36
Trichlorofluoromethane ....	60 U	6.0	60	1,3-Dichlorobenzene .....	3.8 U	0.38	3.8
1,1-Dichloroethylene .....	1.6 U	0.16	1.6	1,4-Dichlorobenzene .....	2.9 U	0.29	2.9
Dichloromethane .....	60 U	6.0	60	1,2-Dichlorobenzene .....	1.8 U	0.18	1.8
trans-1,2-Dichloroethylene	1.2 U	0.12	1.2	Benzyl chloride .....	12 U	1.2	12
1,1-Dichloroethane .....	0.84 U	0.08	0.84	bis(2-Chloroethoxy)methane	12000 U	1200	12000
Chloroform .....	0.60 U	0.06	0.60	bis(2-Chloroisopropyl)ether	2400 U	240	2400
1,1,1-Trichloroethane ....	0.36 U	0.04	0.36	Bromobenzene .....	12 U	1.2	12
Carbon tetrachloride .....	1.4 U	0.14	1.4	1-Chlorohexane .....	12 U	1.2	12
1,2-Dichloroethane .....	0.36 U	0.04	0.36	2-Chloroethyl vinyl ether	2400 U	240	2400
Trichloroethylene .....	1.4 U	0.14	1.4	Chloromethylmethyl ether ..	12000 U	1200	12000
1,2-Dichloropropane .....	0.48 U	0.05	0.48	Chlorotoluene .....	12 U	1.2	12
Bromodichloromethane .....	1.2 U	0.12	1.2	Dibromomethane .....	48 U	4.8	48
trans-1,3-Dichloropropylene	4.1 U	0.41	4.1	1,1,1,2-Tetrachloroethane	12 U	1.2	12
1,1,2-Trichloroethane .....	0.24 U	0.02	0.24	Trichloropropane .....	12 U	1.2	12

### Surrogate recovery report for sample 9202597-01B

Surrogate	Percent Recovery	Limits:	
		Min.	Max.
Bromochloromethane .....	94	66	126
4-Bromofluorobenzene .....	61 *	63	125
1,2,3-Trichlorobenzene ...	13 *	34	148

\* = Indicates that recovery is outside control limits



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# Laucks <sup>84</sup> years

## Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

REPORT ON SAMPLE: 9202597-01B

Client Sample ID: #1 Bottom Center - 9'

Collection Date : 01/27/92

Date Received : 02/12/92

Date Extracted : 02/21/92

Date Analyzed : 02/26/92

Date Confirmed : 02/26/92

Test Code : 8080AS

Test Method : SW 8080

Extraction Method : SW 3550

Analyte	Result (ug/kg DB)	SDL (ug/kg DB)
Aroclor-1016 .....	58 U	58
Aroclor-1221 .....	120 U	120
Aroclor-1232 .....	58 U	58
Aroclor-1242 .....	58 U	58
Aroclor-1248 .....	58 U	58
Aroclor-1254 .....	58 U	58
Aroclor-1260 .....	58 U	58

### Surrogate recovery report for sample 9202597-01B

Surrogate	Percent Recovery	Limits:	
		Min.	Max.
Isodrin .....	55	20	146
Tetrachloro-m-xylene .....	80	60	150
Decachlorobiphenyl .....	39 *	60	150

\* = Indicates that recovery is outside control limits



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# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9202314-02  
Client Sample ID: #2 N. Sidewall

Date Collected: 01/27/92  
Date Received : 02/05/92

----- WTPH-HCID -----

Preparation Date: 02/05/92  
Analysis Date : 02/05/92

	Result	SDL		
Gasoline Range Hydrocarbons...	24 U	24	mg/kg	DB
Diesel Range Hydrocarbons.....	59 U	59	mg/kg	DB
Lube Oil and Related Products.	120 U	120	mg/kg	DB

Surrogate recoveries	% Rec	LCL	UCL
Bromofluorobenzene .....	75.0	50	150
2-Fluorobiphenyl .....	77.5	50	150
p-Terphenyl .....	75.0	50	150





# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9202314-03  
Client Sample ID: #3 E. Sidewall

Date Collected: 01/27/92  
Date Received : 02/05/92

----- WTPH-HCID -----

Preparation Date: 02/05/92  
Analysis Date : 02/05/92

	Result	SDL	
Gasoline Range Hydrocarbons...	23 U	23	mg/kg DB
Diesel Range Hydrocarbons.....	57 U	57	mg/kg DB
Lube Oil and Related Products.	110 U	110	mg/kg DB

Surrogate recoveries	% Rec	LCL	UCL
Bromofluorobenzene .....	90.0	50	150
2-Fluorobiphenyl .....	87.5	50	150
p-Terphenyl .....	90.0	50	150



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# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9202314-04  
Client Sample ID: #4 W. Sidewall

Date Collected: 01/27/92  
Date Received : 02/05/92

----- WTPH-HCID -----

Preparation Date: 02/05/92  
Analysis Date : 02/05/92

	Result	SDL	
Gasoline Range Hydrocarbons...	23 U	23	mg/kg DB
Diesel Range Hydrocarbons.....	39000	58	mg/kg DB
Lube Oil and Related Products.	380000	120	mg/kg DB

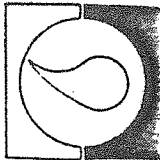
Surrogate recoveries	% Rec	LCL	UCL
Bromofluorobenzene .....	92.5	50	150
2-Fluorobiphenyl .....	110	50	150
p-Terphenyl .....	698 *	50	150

Comments: Although the sample gave a result for diesel, there was no chromatographic pattern recognition when compared with the diesel standard. Sample was diluted 50% for oil analysis to avoid equipment contamination. One of three surrogates had recovery outside of control limits due to matrix interference.

Analysis performed in accordance with Washington State Department of Ecology method WTPH-HCID.



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**B & C EQUIPMENT CO.**  
A Division of FEBCO

20320 80th Ave. S.  
Kent, Washington 98032  
Office (206) 872-8890  
FAX (206) 872-8987  
1-800-822-0084

**CHAIN OF CUSTODY**  
**REQUEST FOR LABORATORY ANALYSIS**

PROJ. NO.  
1387-905

PROJECT NAME: *Avis*  
ADDRESS: *18811 16th Ave So  
Seattle, WA 98188*

SAMPLER  
*Darryl  
De Pan*

SAMPLE NUMBER	DATE	TIME	Water	Soil	Sludge	Ice	SAMPLE LOCATION TANK SIZE & PRODUCT	Depth	BTX 602/8020	WTPH-HCID	WTPH-G w/BTEX	WTPH-D	WTPH-418.1 Mod.	TPH 8015 Mod.	TPH 418.1	Chlorinated Solvents 601/8010	Total Halogens 9076	PCB 608/8080	TCLP (As, Cd, Cr, Pb)	TCLP Pb
1	3/5/92	12:30	✓	✓	✓	✓	Excavated stockpile	1'				✓			✓					
2	3/5	1:30	✓	✓	✓	✓	Bottom center	11"				✓			✓					
3	3/5	2:15	✓	✓	✓	✓	West sidewall	6'				✓			✓					
4	3/5	2:45	✓	✓	✓	✓	South sidewall	6'				✓			✓					

Relinquished by: *Darryl De Pan* Date Time: *3/5/92 3:30* Received by: \_\_\_\_\_ RUSH: YES  NO

Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_ COMMENTS: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Received by: *Muel Overa 3/5/92 1530*



# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

CLIENT: B&C Equipment Co.  
20320 80th Ave. S.  
Kent, WA 98032

### Certificate of Analysis

Work Order# : 92-03-366  
DATE RECEIVED : 03/05/92  
DATE OF REPORT: 03/10/92  
CLIENT JOB ID : Project No. 1387-905

ATTN :

Work ID : Avis  
Taken By : Client  
Transported by: Hand Delivered  
Type : Soil

### SAMPLE IDENTIFICATION:

	Sample Description	Collection Date
01	#1 Excavated Stockpile	03/05/92 12:30
02	#2 Bottom Center	03/05/92 01:30
03	#3 West Sidewall	03/10/92 02:15
04	#4 South Sidewall	03/05/92 02:45
05	Method Blank	N/A

### FLAGGING:

The flag "U" indicates the analyte of interest was not detected, to the limit of detection indicated.

Unless otherwise instructed all samples will be discarded on 04/23/92

Respectfully submitted,  
Laucks Testing Laboratories, Inc.

J. M. Owens





# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

CLIENT : B&C Equipment Co.

Certificate of Analysis

Work Order # 92-03-366

TESTS PERFORMED AND RESULTS:

Analyte	Units	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>
Total Solids	%	87.4	87.3	81.4	82.2
WA TPH Oil and Grease	mg/kg DB	10000.	20. U	20. U	20. U



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# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9203366-01 Date Collected: 03/05/92  
Client Sample ID: #1 Excavated StockpDate Received : 03/05/92

----- WTPH-D -----

Preparation Date: 03/06/92  
Analysis Date : 03/06/92

	Result	SDL	
Diesel Range.....	5800	25	mg/kg DB

Surrogate recoveries	% Rec	LCL	UCL
2-Fluorobiphenyl .....	98.0	50	150
p-Terphenyl .....	39.0*	50	150

Comments: Although the sample showed a result in the diesel range, there was no pattern recognition when compared with the diesel standard. P-Terphenyl had a recovery outside of the control limits due to matrix interference.

Analysis performed in accordance with Washington State Department of Ecology method WTPH-D.



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# Laucks

## Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

REPORT ON SAMPLE: 9203759-01A

Client Sample ID: #1 Excavated Stockpile

Collection Date : N/A

Date Received : 03/13/92

Date Extracted : 03/13/92

Date Analyzed : 03/24/92

Test Code : LXCSS

Test Method : SW8270

Extraction Method : SW3550

Analyte	Result (ug/kg DB)	SDL (ug/kg DB)	Analyte	Result (ug/kg DB)	SDL (ug/kg DB)
Phenol .....	780 U	780	3-Nitroaniline .....	3900 U	3900
Aniline .....	3900 U	3900	Acenaphthene .....	780 U	780
Bis(2-chloroethyl)ether ....	780 U	780	2,4-Dinitrophenol .....	7800 U	7800
2-Chlorophenol .....	780 U	780	4-Nitrophenol .....	7800 U	7800
1,3-Dichlorobenzene .....	780 U	780	Dibenzofuran .....	780 U	780
1,4-Dichlorobenzene .....	780 U	780	2,4-Dinitrotoluene .....	1600 U	1600
Benzyl alcohol .....	780 U	780	Diethyl phthalate .....	780 U	780
1,2-Dichlorobenzene .....	780 U	780	4-Chlorophenyl phenylether	780 U	780
2-Methylphenol .....	780 U	780	Fluorene .....	780 U	780
Bis(2-chloroisopropyl)ether	780 U	780	4-Nitroaniline .....	1600 U	1600
4-Methylphenol .....	780 U	780	4,6-Dinitro-2-methylphenol	7800 U	7800
N-Nitroso-di-n-propylamine	780 U	780	N-Nitrosodiphenylamine .....	780 U	780
Hexachloroethane .....	1600 U	1600	1,2-Diphenylhydrazine .....	1600 U	1600
Nitrobenzene .....	780 U	780	4-Bromophenyl phenylether ..	1600 U	1600
Isophorone .....	780 U	780	Hexachlorobenzene .....	1600 U	1600
2-Nitrophenol .....	1600 U	1600	Pentachlorophenol .....	7800 U	7800
2,4-Dimethylphenol .....	780 U	780	Phenanthrene .....	780 U	780
Benzoic acid .....	19000 U	19000	Anthracene .....	780 U	780
Bis(2-chloroethoxy)methane	780 U	780	Carbazole .....	780 U	780
2,4-Dichlorophenol .....	1600 U	1600	Di-n-butyl phthalate .....	780 U	780
1,2,4-Trichlorobenzene .....	780 U	780	Fluoranthene .....	780 U	780
Naphthalene .....	780 U	780	Pyrene .....	780 U	780
4-Chloroaniline .....	780 U	780	Benzidine .....	19000 U	19000
Hexachlorobutadiene .....	780 U	780	Butylbenzylphthalate .....	780 U	780
4-Chloro-3-methylphenol ....	1600 U	1600	3,3'-Dichlorobenzidine .....	7800 U	7800
2-Methylnaphthalene .....	780 U	780	Benzo(a)anthracene .....	780 U	780
Hexachlorocyclopentadiene ..	1600 U	1600	Chrysene .....	780 U	780
2,4,6-Trichlorophenol .....	1600 U	1600	Bis(2-ethylhexyl)phthalate	780 U	780
2,4,5-Trichlorophenol .....	1600 U	1600	Di-n-octyl phthalate .....	780 U	780
2-Chloronaphthalene .....	780 U	780	Benzo(b)fluoranthene .....	780 U	780
2-Nitroaniline .....	1600 U	1600	Benzo(k)fluoranthene .....	780 U	780
Dimethyl phthalate .....	780 U	780	Benzo(a)pyrene .....	780 U	780
Acenaphthylene .....	780 U	780	Indeno(1,2,3-cd)pyrene .....	780 U	780
2,6-Dinitrotoluene .....	1600 U	1600	Dibenzo(a,h)anthracene .....	780 U	780
			Benzo(g,h,i)perylene .....	780 U	780



This report is submitted for the exclusive use of the person, partnership, or corporation to whom it is addressed. Subsequent use of the name of this company or any member of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9203366-02 Date Collected: 03/05/92  
Client Sample ID: #2 Bottom Center Date Received : 03/05/92

----- WTPH-D -----

Preparation Date: 03/06/92  
Analysis Date : 03/06/92

	Result	SDL	
Diesel Range.....	25 U	25	mg/kg DB

Surrogate recoveries	% Rec	LCL	UCL
2-Fluorobiphenyl .....	101	50	150
p-Terphenyl .....	76.0	50	150

Comments:

Analysis performed in accordance with Washington State Department of Ecology method WTPH-D.



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# Laucks

## Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9203366-03 Date Collected: 03/10/92  
Client Sample ID: #3 West Sidewall Date Received : 03/05/92

----- WTPH-D -----

Preparation Date: 03/06/92  
Analysis Date : 03/06/92

	Result		SDL	
Diesel Range.....	25	U	25	mg/kg DB

Surrogate recoveries	% Rec	LCL	UCL
2-Fluorobiphenyl .....	105	50	150
p-Terphenyl .....	100	50	150

Comments:

Analysis performed in accordance with Washington State Department of Ecology method WTPH-D.



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# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

Lab Sample ID : 9203366-04 Date Collected: 03/05/92  
Client Sample ID: #4 South Sidewall Date Received : 03/05/92

----- WTPH-D -----

Preparation Date: 03/06/92  
Analysis Date : 03/06/92

	Result	SDL	
Diesel Range.....	25 U	25	mg/kg DB

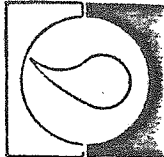
Surrogate recoveries	% Rec	LCL	UCL
2-Fluorobiphenyl .....	98.0	50	150
p-Terphenyl .....	95.0	50	150

Comments:

Analysis performed in accordance with Washington State Department of Ecology method WTPH-D.



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**B & C EQUIPMENT CO.**  
A Division of FRECO

20320 80th Ave. S.  
Kent, Washington 98032  
Office (206) 872-8950  
FAX (206) 872-8987  
1-800-822-0084

**CHAIN OF CUSTODY**  
**REQUEST FOR LABORATORY ANALYSIS**

PROJ. NO.	PROJECT NAME:		SAMPLER	Depth	SAMPLE LOCATION TANK SIZE & PRODUCT	Water	Soil	Sludge	Iced	Date	Time	Date	Time	WTPH-HCID	WTPH-G/W/TEX	WTPH-D	WTPH-418.1 Mod.	TPH 8015 Mod.	Total Pb	PAH 625/8270	Total Halogens 9076	PCB 608/8080	TCLP (As, Cd, Cr, Pb)	TCLP Pb	
	1387-905	ADDRESS:																							18811 16th Ave. So. Seattle, WA 98188
1	3/12/92	9:30	✓	Groundwater recharge	9'	✓																			

Relinquished by: Barry W. DePan  
Date: 3/12/92 10:30  
Received by: F. Williams  
Date: 3/12/92 10:30

RUSH: YES NO

COMMENTS:

Relinquished by: \_\_\_\_\_  
Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_  
Received by: \_\_\_\_\_



# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

CLIENT : B&C Equipment Co.

Certificate of Analysis

Work Order # 92-03-713

TESTS PERFORMED AND RESULTS:

Analyte	Units	Q1
Total Hydrocarbons (M8015)	mg/L	9.9



This report is submitted for the exclusive use of the person, partnership, or corporation to whom it is addressed. Subsequent use of the name of this company or any member of its staff in connection with the advertising or sale of any product or process will be granted only on contract. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



# Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

Chemistry, Microbiology, and Technical Services

REPORT ON SAMPLE: 9203713-01A  
Client Sample ID: #1 Groundwater Recharge

Collection Date : 03/12/92  
Date Received : 03/12/92  
Date Analyzed : 03/12/92

Test Code : BTEX W  
Test Method : SW 8020/EP602

Report Units : ug/L

Analyte	Result	SDL	Analysis Date	Confirmation Date
Benzene.....	1.0 U	1	03/12/92	03/12/92
Toluene.....	1.0 U	1	03/12/92	03/12/92
Ethylbenzene.....	1.0 U	1	03/12/92	03/12/92
Total xylenes.....	1.0 U	1	03/12/92	03/12/92

### Surrogate recovery report for sample 9203713-01A

Surrogate	Percent Recovery	Limits:	
		Min.	Max.
Bromofluorobenzene .....	108	78	119
1,2,3-Trichlorobenzene ...	121	61	145



Department of Ecology-NWRO

Underground Storage Tank  
Notice of Confirmed Release

Notification received by C Madden Date 2/10/92  
Reporter name Barry DePan  
address \_\_\_\_\_  
phone no. \_\_\_\_\_

006132

inct# 3001

Site name Avis Headquarters site phone no. 433-5850  
address 18811 - 16<sup>th</sup> Ave S  
city Seattle, WA county King zip 98188-5102

Karl Westermann 4735  
Site owner Avis Rent-A-Car Systems owner's phone 516-222-3432  
owner's address 900 Old Country Rd Dept 93  
city Garden City, NY zip 11530-2128

Consultant company B & C Equipment  
name Barry DePan phone no. 872-8890

Other contact \_\_\_\_\_ phone no. \_\_\_\_\_  
contact affiliation \_\_\_\_\_

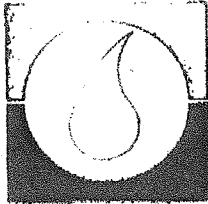
Description of Incident

Material	# Tanks	Status/Date
gasoline.....	<u>1</u>	<u>removed 1/27/92</u>
diesel .....	.....	.....
waste oil .....	<u>1</u>	<u>rem 1/27/92</u>
heat fuel .....	<u>1</u>	<u>rem 1/27/92</u>
.....	.....	.....
.....	.....	.....
Total number tanks: <u>3</u>		Cleanup Status <u>Ongoing</u>

Comments Gas clean. Fuel & waste hot. No GW at removal.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date inspected \_\_\_\_\_ Investigator \_\_\_\_\_ Referred to \_\_\_\_\_

**B & C EQUIPMENT CO.**

A Division of PEECO

20320 80th Ave. S.  
Kent, Washington 98032  
Office (206) 872-8890  
FAX (206) 872-8987  
1-800-822-0084**FACSIMILE COVER LETTER**

DATE: 7/30/92 TIME: 9:00 PAGES 2  
NAME: Wally Moon LOCATION: DOE (UST section)  
FAX NUMBER: 649-7098 REGARDING: Avis response  
FROM: Barry DePan  
COMMENTS:

Wally, Avis has requested a written response prior to the installation of the monitor wells.

The report is dated June 1, 1992 for the property located at 18811 16<sup>th</sup> Ave So., Seattle, WA 98188.

I am FAXing a written response from the DOI to reference the format of the letter that Avis is looking for. This letter is from another project but the circumstances are similar.

Please contact me if you have any questions. My phone # is 872-8990.



STATE OF WASHINGTON  
 DEPARTMENT OF ECOLOGY

Northwest Regional Office, 3190 - 160th Ave S.E. • Bellevue, Washington 98008-5452 • (206) 649-7000

February 14, 1992

Mr. Barry D. Depan  
 B & C Equipment Co.  
 20320 80th Avenue South  
 Kent, WA 98032

RE: Tank Removal and Petroleum Contamination Cleanup at the  
 Cascade Autovon Company - 12727 412th Ave. S.E., North Bend,  
 Washington.

Dear Mr. Depan:

Thank you for providing the report on the above referenced situation. The report meets requirements for tank closure and document the cleanup attempt of the release of petroleum under state and federal laws, 70.105D RCW/ WAC 173-340, and 40 CFR 280 of the Federal Register Sept. 1988, respectively.

Based on the information contained in the report, proper procedures have been followed with respect to this petroleum contamination cleanup. However, the cleanup was not entirely successful as some petroleum contamination still remain at the east and western parts of the property.

The report points out that recommended cleanup levels could not be attained because excavation of the remaining contaminated soil was not possible without undermining the structural integrity of the security and the facility's transformer pad.

Based on the above limitation, The Department of Ecology will assign a limited cleanup status to the site and will maintain a record of the property. Please be advised that it may become necessary to remediate more extensively in the future should a threat be demonstrated. There is no exemption from liability, and therefore your client is potentially responsible for any future problems which might occur from this release.

I will recommend a long term groundwater monitoring program. There is no requirement to implement this precaution, but it may prevent liabilities should the contamination affect other properties.

Please contact me at (206) 649-7099 should questions arise.

Sincerely,

Ben Amoah-Forsen, Ph.D  
 Environmental Engineer  
 Toxics Cleanup Program/LUST



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**APPENDIX B**

Boring Logs

PROJECT: 18811 SeaTac Push Probe Investigation 2011 18811 16th Ave S, SeaTac, WA		<b>Log of Boring No. ASB1</b>	
BORING LOCATION: 18811 Avis SeaTac		ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Cascade Drilling, Inc.		DATE STARTED: 12/6/11	DATE FINISHED: 12/6/11
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 16.0	MEASURING POINT: Ground
DRILLING EQUIPMENT: Power Probe 9630 ProD		DEPTH TO WATER (ft.): 12'	FIRST COMPL.
SAMPLING METHOD: Geoprobe macro-core sampler [4' x 1.5"]		LOGGED BY: D. O'Reilly	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL: J. Long	REG. NO. L. Hg. 1354

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.  Surface Elevation:	REMARKS
	Sample No.	Sample	Blows/ 6 inches			
1						
2						
3						
4						
5				0.0	SILT (ML): brown (7.5YR 5/4), Dry to moist, low to moderate plasticity, 95% fines, 5% fine grained sand.	OVM readings collected from headspace on soil baggies using a Photovac 2020 calibrated with 100 ppm isobutylene.
6				0.0		
7						
8						
9				0.0		Collected soil sample ASB1-001 (4x40 mL VOA, 2x4 oz jars for NWTPH-HCID, cPAHs, naphthalene, hexane, metals and BTEX).
10	ASB1-001				Color transition to dark gray	
11						
12				0.0	POORLY GRADED SAND (SP): dark gray (7.5YR 4/1), Moist, 90% medium sand, 5% nonplastic fines, 5% subrounded gravel.	Collected soil sample ASB1-002 (4x40 mL VOAs, 2x4 oz jars for NWTPH-HCID, cPAHs, naphthalene, hexane, metals and BTEX).
13	ASB1-002				Wet	
14						
15						Collected groundwater sample ASB1-003 (4x40 mL VOAs, 2x ambers, 1x 500 mL with HNO3 and 1x500 mL for NWTPH-HCID, cPAHs, naphthalene, hexane, metals and BTEX) through temporary screen set 12-16' BGS.
16						
17					Bottom of boring at 16'. Abandoned with hydrated 3/8" medium bentonite chips.	
18						

OAKBORE (REV. 8/2007)

PROJECT: 18811 SeaTac Push Probe Investigation 2011 18811 16th Ave S, SeaTac, WA		<b>Log of Boring No. ASB2</b>	
BORING LOCATION: 18811 Avis SeaTac		ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Cascade Drilling, Inc.		DATE STARTED: 12/6/11	DATE FINISHED: 12/6/11
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 16.0	MEASURING POINT: Ground
DRILLING EQUIPMENT: Power Probe 9630 ProD		DEPTH TO WATER (ft.)	FIRST 11.5'
SAMPLING METHOD: Geoprobe macro-core sampler [4' x 1.5"]		LOGGED BY: D. O'Reilly	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL: J. Long	REG. NO. L. Hg. 1354

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ 6 inches			
					Surface Elevation:	
1					Vacuumed to 4'.	
2						
3						
4						
5				0.0	POORLY GRADED SAND (SP): brown (7.5YR 4/4), Moist, 100% coarse to medium sand.	OVM readings collected from headspace on soil baggies using a Photovac 2020 calibrated with 100 ppm isobutylene.
6					SILT (ML): brown (7.5YR 5/4), Moist, 100% moderate plasticity fines.	
7						
8						
9				0.0		Collected soil sample ASB2-001 (4x40 mL VOA, 2x4 oz jars for NWTPH-HCID, cPAHs, naphthalene, hexane, metals and BTEX).
10	ASB2-001				Color transition to gray	
11				0.0	POORLY GRADED SAND with SILT (SP-SM): gray (7.5YR 5/1), Moist, 85% medium sand, 10% nonplastic fines, 5% subrounded gravel.	Collected soil sample ASB2-002 (4x40 mL VOAs, 2x4 oz jars for NWTPH-HCID, cPAHs, naphthalene, hexane, metals and BTEX).
12						
13	ASB2-002					
14				0.0		Collected groundwater sample ASB2-003 (4x40 mL VOAs, 2x ambers, 1x 500 mL with HNO3 and 1x500 mL for NWTPH-HCID, cPAHs, naphthalene, hexane, metals and BTEX) through temporary screen set 12-16' BGS.
15						
16						
17					Bottom of boring. Abandoned with hydrated 3/8" medium bentonite chips.	
18						

OAKBORE (REV. 8/2007)

PROJECT: 18811 SeaTac Push Probe Investigation 2011 18811 16th Ave S, SeaTac, WA		<b>Log of Boring No. ASC1x</b>	
BORING LOCATION: 18811 Avis SeaTac		ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Cascade Drilling, Inc.		DATE STARTED: 12/6/11	DATE FINISHED: 12/6/11
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 16.0	MEASURING POINT: Ground
DRILLING EQUIPMENT: Power Probe 9630 ProD		DEPTH TO WATER (ft.): 11.5'	FIRST COMPL.
SAMPLING METHOD: Geoprobe macro-core sampler [4' x 1.5"]		LOGGED BY: D. O'Reilly	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL: J. Long	REG. NO. L. Hg. 1354

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	REMARKS
	Sample No.	Sample	Blows/ 6 inches			
					Surface Elevation:	
1					Vacuumed to 4'.	
2						
3						
4						
5					POORLY GRADED SAND with GRAVEL (SP): brown (7.5YR 5/4), Moist, 80% medium sand, 15% subrounded gravel, 5% fines.	OVM readings collected from headspace on soil baggies using a Photovac 2020 calibrated with 100 ppm isobutylene.
6					SILT (ML): brown (7.5YR 5/4), Moist, 95% low to moderate plasticity fines, 5% fine sand.	
7				0.0		
8				0.0		
9						Collected soil sample ASC1x-001 (4x40 mL VOA, 2x4 oz jars for NWTPH-HCID, cPAHs, napthalene, hexane, metals and BTEX).
10						
11						
12				0.0	Wet	
13				0.0	Color change to brown (7.5YR 5/2)	
14						
15	ASC1x-001			0.0		
16						
17					Bottom of boring at 16'. Hard driving below. Abandoned with hydrated 3/8" medium bentonite chips.	
18						

PROJECT: 18811 SeaTac Push Probe Investigation 2011 18811 16th Ave S, SeaTac, WA		<b>Log of Boring No. ASC2</b>	
BORING LOCATION: 18811 Avis SeaTac		ELEVATION AND DATUM:	
DRILLING CONTRACTOR: Cascade Drilling, Inc.		DATE STARTED: 12/6/11	DATE FINISHED: 12/6/11
DRILLING METHOD: Direct push		TOTAL DEPTH (ft.): 16.0	MEASURING POINT: Ground
DRILLING EQUIPMENT: Power Probe 9630 ProD		DEPTH TO WATER (ft.): NA	FIRST NA
SAMPLING METHOD: Geoprobe macro-core sampler [4' x 1.5"]		LOGGED BY: D. O'Reilly	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL: J. Long	REG. NO. L. Hg. 1354

DEPTH (feet)	SAMPLES			OVM READING (ppm)	DESCRIPTION	REMARKS
	Sample No.	Sample	Blows/ 6 inches		NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter.	
					Surface Elevation:	
1					Vacuumed to 4'.	
2						
3						
4						
5				0.0	POORLY GRADED SAND (SP): dark brown (7.5YR 3/2), Moist, 95% medium sand, 5% subangular gravel, fill.	OVM readings collected from headspace on soil baggies using a Photovac 2020 calibrated with 100 ppm isobutylene.
6						
7						
8						
9				0.0		
10					SILT (ML): brown (7.5YR 5/4), Moist, 95% low to moderate plasticity fines, 5% fine sand.	Collected soil sample ASC2-001 (4x40 mL VOA, 2x4 oz jars for NWTPH-HCID, cPAHs, naphthalene, hexane, metals and BTEX).
11						
12				0.0		
13						
14	ASC2-001					
15				0.0		
16						
17					Bottom of boring at 16'. Hard driving below. Abandoned with hydrated 3/8" medium bentonite chips.	
18						

---

**APPENDIX C**

Laboratory Analytical Data Packages

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
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  
e-mail: fbi@isomedia.com



December 13, 2011

John Long, Project Manager  
AMEC Geomatrix  
One Union Square  
600 University Street, Suite 600  
Seattle, WA 98101

Dear Mr. Long:

Included are the results from the testing of material submitted on December 6, 2011 from the AVIS Seatac 18811/16029, F&BI 112078 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in cursive script, appearing to read "Michael Erdahl".

Michael Erdahl  
Project Manager

Enclosures  
GMX1213R.DOC

112078

SAMPLE CHAIN OF CUSTODY ME

12/06/11

USI/vi/cost/AT3

Send Report To JOHN LONG

Company AMEC

Address 6000 UNIVERSITY ST / SUITE 600

City, State, ZIP SEATTLE, WA 98101

Phone # 206 342-1779

Fax #

SAMPLERS (signature)

PROJECT NAME/NO.

ANIS SEMTE 18211 / #16029

PO#

16029

REMARKS

~~NO STATE AND GEL~~

Page #

TURNAROUND TIME

Standard (2 Weeks)

RUSH

Rush charges authorized by

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

ANALYSES REQUESTED

TPH-Diesel  
TPH-Gasoline  
BTEX by 8021B  
VOCs by 8260  
SVOCs by 8270  
HFS  
NUTPH-ACID

EVERYTHING ELSE -  
Notes  
HOLD FOR ANALYSIS

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	NUTPH-ACID			
ASB1-001	01 A-F	12/6/11	1030	SOIL	6									X	
ASB1-002	02 A-F		1035	SOIL	6									X	
ASB1-003	03 A-H		1100	WATER	8									X	
ASB2-001	04 A-F		1210	SOIL	6									X	
ASB2-002	05 A-F		1215	SOIL	6									X	
ASB2-003	06 A-H		1240	WATER	8									X	
ASL2-001	07 A-F		1410	SOIL	6									X	
ASLX-001	08 A-F		1445	SOIL	6									X	

Friedman & Bruya, Inc.

3012 16th Avenue West  
Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS/COC/COC.DOC

SIGNATURE

Relinquished by: [Signature]

Received by: [Signature]

PRINT NAME

DEAN O'NEILY

VINH

COMPANY

AMEC

FBI

DATE

12/6/11

12/6/11

TIME

1600

1600

Samples received at

3 °C

[Signature]

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 6, 2011 by Friedman & Bruya, Inc. from the AMEC Geomatrix AVIS Seatac 18811/16029, F&BI 112078 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>AMEC Geomatrix</u>
112078-01	ASB1-001
112078-02	ASB1-002
112078-03	ASB1-003
112078-04	ASB2-001
112078-05	ASB2-002
112078-06	ASB2-003
112078-07	ASC2-001
112078-08	ASC1x-001

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/13/11  
Date Received: 12/06/11  
Project: AVIS Seatac 18811/16029, F&BI 112078  
Date Extracted: 12/08/11  
Date Analyzed: 12/09/11

**RESULTS FROM THE ANALYSIS OF WATER 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 WITH REGARDS 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)
ASB1-003 112078-03	ND	ND	ND	82
ASB2-003 112078-06	ND	ND	ND	88
Method Blank 01-2187 MB	ND	ND	ND	85

ND - Material not detected at or above 0.2 mg/L gas, 0.5 mg/L diesel and 0.5 mg/L heavy oil.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/13/11  
Date Received: 12/06/11  
Project: AVIS Seatac 18811/16029, F&BI 112078  
Date Extracted: 12/07/11  
Date Analyzed: 12/07/11

**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 WITH REGARDS 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)
ASB1-001 112078-01	ND	ND	ND	96
ASB1-002 112078-02	ND	ND	ND	92
ASB2-001 112078-04	ND	ND	ND	92
ASB2-002 112078-05	ND	ND	ND	91
ASC2-001 112078-07	ND	ND	ND	90
ASC1x-001 112078-08	ND	ND	ND	91
Method Blank 01-2174 MB2	ND	ND	ND	104

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

# 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.

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
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  
e-mail: fbi@isomedia.com

February 28, 2012

John Long, Project Manager  
AMEC Environment & Infrastructure, Inc.  
One Union Square  
600 University Street, Suite 600  
Seattle, WA 98101

Dear Mr. Long:

Included are the results from the testing of material submitted on February 23, 2012 from the AVIS Seatac 18811 16th Ave S, PO 016029, F&BI 202270 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
GMX0228R.DOC

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 23, 2012 by Friedman & Bruya, Inc. from the AMEC Environment & Infrastructure AVIS Seatac 18811 16th Ave S, PO 016029, F&BI 202270 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>AMEC Environment &amp; Infrastructure</u>
202270-01	AVIS18811-01-022312
202270-02	AVIS18811-02-022312

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/28/12

Date Received: 02/23/12

Project: AVIS Seatac 18811 16th Ave S, PO 016029, F&BI 202270

Date Extracted: 02/24/12

Date Analyzed: 02/24/12

**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)
AVIS18811-01-022312 202270-01	4,600	1,800	112
AVIS18811-02-022312 202270-02	<50	<250	99
Method Blank 02-300 MB	<50	<250	107

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/28/12

Date Received: 02/23/12

Project: AVIS Seatac 18811 16th Ave S, PO 016029, F&BI 202270

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

Laboratory Code: 202272-37 (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	101	103	63-146	2

Laboratory Code: Laboratory Control Sample

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

20927-D

SAMPLE CHAIN OF CUSTODY HE 02/23/12

801

Send Report To John Long

Company AMEC

Address 600 University St. Ste 600

City, State, ZIP Seattle, WA 98101

Phone # 206-342-1760 Fax # 206-342-1761

SAMPLERS (signature)

PROJECT NAME/NO. AVIS SEATTLE 18811 16th Ave. S

Project # 016029

PO# 016029

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

ANALYSES REQUESTED

- TPH-Diesel
- TPH-Gasoline
- BTEX by 8021B
- VOCs by 8260
- SVOCs by 8270
- HFS
- NMTPH - held

4/23/12  
per JL

Need cameras  
↓

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	NMTPH - <u>held</u>	Notes
<u>AVIS18811-01-022312</u>	<u>01</u>	<u>2/23/12</u>	<u>1100</u>	<u>S</u>	<u>1</u>							<input checked="" type="checkbox"/>	
<u>AVIS18811-02-2312</u>	<u>02</u>	<u>↓</u>	<u>1140</u>	<u>S</u>	<u>1</u>							<input checked="" type="checkbox"/>	
<u>2/23/12</u>													
<u>John Long</u>													

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS/COC/COC.DOC

SIGNATURE

Relinquished by:

Received by:

Relinquished by:

Received by:

PRINT NAME

COMPANY

DATE

TIME

Trevor Louviere

AMEC

2/23/12

1500

VIN77

FB1

2/23/12

15M

0 samples received at 4 00

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
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  
e-mail: fbi@isomedia.com

March 1, 2012

John Long, Project Manager  
AMEC Environment & Infrastructure, Inc.  
One Union Square  
600 University Street, Suite 600  
Seattle, WA 98101

Dear Mr. Long:

Included are the results from the testing of material submitted on February 28, 2012 from the AVIS 18811 16029, F&BI 202316 project. There are 3 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  
GMX0301R.DOC

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 28, 2012 by Friedman & Bruya, Inc. from the AMEC Environment & Infrastructure AVIS 18811 16029, F&BI 202316 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>AMEC Environment &amp; Infrastructure</u>
202316-01	AVIS18811-01-022812
202316-02	AVIS18811-02-022812
202316-03	AVIS18811-03-022812
202316-04	AVIS18811-04-022812
202316-05	AVIS18811-05-022812
202316-06	AVIS18811-06-022812

All quality control requirements were acceptable.

Date of Report: 03/01/12  
 Date Received: 02/28/12  
 Project: AVIS 18811 16029, F&BI 202316  
 Date Extracted: 02/29/12  
 Date Analyzed: 03/01/12

**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 WITH REGARDS 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)
AVIS18811 -01-022812 202316-01	ND	ND	ND	101
AVIS18811 -02-022812 202316-02	ND	ND	ND	99
AVIS18811 -03-022812 202316-03	ND	ND	ND	101
AVIS18811 -04-022812 202316-04	ND	ND	ND	99
AVIS18811 -05-022812 202316-05	ND	ND	ND	100
AVIS18811 -06-022812 202316-06	ND	ND	ND	106
Method Blank 02-321 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.

**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.

202316

SAMPLE CHAIN OF CUSTODY

ME 02/28/12 159/003

Send Report To JOHN LONG

Company AMEC

Address 600 UNIVERSITY ST/SUITE 600

City, State, ZIP SEATTLE, WA 98101

Phone # (206) 342-1760 Fax # (206) 342-1761

SAMPLERS (signature) <u>[Signature]</u>	
PROJECT NAME/NO.	PO#
<u>AV15 18811 / 16029</u>	<u>16029</u>
REMARKS	

TURNAROUND TIME	<input checked="" type="checkbox"/> Standard (2 Weeks) <input type="checkbox"/> RUSH Rush charges authorized by _____
SAMPLE DISPOSAL	<input checked="" type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input 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	NWTPH-HUD		
AV1518811-01-022812	01	2/28/12	1326	SOIL	3							X		
AV1518811-02-022812	02		1336		3							X		
AV1518811-03-022812	03		1356		3							X		
AV1518811-04-022812	04		1400		3							X		
AV1518811-05-022812	05		1415		3							X		
AV1518811-06-022812	06		1436		3							X		

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	<u>DEVIN O'NEILLY</u>	<u>AMEC</u>	<u>2/28/12</u>	<u>1545</u>
Relinquished by:				
Received by:	<u>VINIF</u>	<u>FBI</u>	<u>2/28/12</u>	<u>1545</u>
Relinquished by:				
Received by:			<u>4</u>	<u>00</u>

Samples received at \_\_\_\_\_

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
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  
e-mail: fbi@isomedia.com



March 6, 2012

John Long, Project Manager  
AMEC Environment & Infrastructure, Inc.  
One Union Square  
600 University Street, Suite 600  
Seattle, WA 98101

Dear Mr. Long:

Included are the results from the testing of material submitted on February 29, 2012 from the AVIS 18811, PO 16029, F&BI 202331 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in cursive script, appearing to read "Michael Erdahl".

Michael Erdahl  
Project Manager

Enclosures  
GMX0306R.DOC

202331

SAMPLE CHAIN OF CUSTODY ~~ME~~ 02/29/12 151/003

Send Report To John Long  
 Company AMEC  
 Address 600 UNIVERSITY ST SUITE 600  
 City, State, ZIP SEATTLE WA 98101  
 Phone # (206) 342-1460 Fax # (206) 342-1461

SAMPLERS (signature) [Signature]  
 PROJECT NAME/NO. AVIS 19811 PO# 16029  
 REMARKS TUNA ROUNO SAMPLES - SEE REMARKS

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 Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED						Notes	
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS		DIRT-PAHs
AVIS19811-01-022A12	01	2/29/12	1345	SOIL	3								STANDARD
AVIS19811-02-022A12	02		1348		3								
AVIS19811-03-022A12	03		1351		3								
AVIS19811-04-022A12	04		1354		3								
AVIS18811-05-022A12	05		1357		3								
AVIS18911-06-022A12	06		1440		3								RUSH
AVIS19811-07-022A12	07		1445		3								RUSH
AVIS18911-08-022A12	08		1450		3								RUSH

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

SIGNATURE		PRINT NAME		COMPANY	DATE	TIME
<u>[Signature]</u>	<u>[Signature]</u>	DEAN DINAWAY	DEAN DINAWAY	AMEC	2/29/12	1500
<u>[Signature]</u>	<u>[Signature]</u>	WILL LONGSON	WILL LONGSON	FBF Inc	2/29/12	1400
Received by:						
Relinquished by:						
Received by:						

FRIEDMAN & BRUYA, INC.

---

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 29, 2012 by Friedman & Bruya, Inc. from the AMEC Environment & Infrastructure AVIS 18811, PO 16029, F&BI 202331 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>AMEC Environment &amp; Infrastructure</u>
202331-01	AVIS18811-01-022912
202331-02	AVIS18811-02-022912
202331-03	AVIS18811-03-022912
202331-04	AVIS18811-04-022912
202331-05	AVIS18811-05-022912
202331-06	AVIS18811-06-022912
202331-07	AVIS18811-07-022912
202331-08	AVIS18811-08-022912

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/06/12  
Date Received: 02/29/12  
Project: AVIS 18811, PO 16029, F&BI 202331  
Date Extracted: 03/01/12  
Date Analyzed: 03/01/12

**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 WITH REGARDS 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 53-144)
AVIS18811- 01-022912 202331-01	ND	ND	ND	108
AVIS18811- 02-022912 202331-02	ND	ND	ND	104
AVIS18811- 03-022912 202331-03	ND	ND	ND	106
AVIS18811- 04-022912 202331-04	ND	ND	ND	104
AVIS18811- 05-022912 202331-05	ND	ND	ND	109
AVIS18811- 06-022912 202331-06	ND	ND	ND	109
AVIS18811- 07-022912 202331-07	ND	ND	ND	109

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/06/12  
Date Received: 02/29/12  
Project: AVIS 18811, PO 16029, F&BI 202331  
Date Extracted: 03/01/12  
Date Analyzed: 03/01/12

**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 WITH REGARDS 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 53-144)
AVIS18811- 08-022912 202331-08	ND	ND	ND	98
Method Blank 02-321 MB2	ND	ND	ND	98

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

# 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.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
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  
e-mail: fbi@isomedia.com

March 7, 2012

John Long, Project Manager  
AMEC Environment & Infrastructure, Inc.  
One Union Square  
600 University Street, Suite 600  
Seattle, WA 98101

Dear Mr. Long:

Included are the results from the testing of material submitted on March 2, 2012 from the AVIS Seatac 18811 16th Ave PO 116029, F&BI 203024 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, appearing to read "Michael Erdahl".

Michael Erdahl  
Project Manager

Enclosures  
GMX0307R.DOC

203024

SAMPLE CHAIN OF CUSTODY

ME 03-02-12

201

Send Report To John Long  
 Company AMEC Geomatrix  
 Address 600 University, Ste 600  
 City, State, ZIP Seattle, WA, 98101  
 Phone # 206 342-1779 Fax # \_\_\_\_\_

SAMPLERS (signature) <u>John D. Long</u>	
PROJECT NAME/NO.	PO#
<u>AMS Seatac 18811 16th Ave</u>	<u>116021</u>
REMARKS	

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

TURNAROUND TIME  
 Standard (2 Weeks)  
 RUSH Monday 3/5/12  
 Rush charges authorized by [Signature]

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		
						NWTPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS			
ANH-1-8 <sup>300L</sup>	01	3/1/2012	12:00	SL	140z	X								
ANH-2-8	02	~	12:05	~	~	X								
ANH-3-8	03	~	12:10	~	~	X								
ANH-4-8	04	~	12:15	~	~	X								
ANH-5-9	05	~	12:30	~	~	X								

Samples received at 1 ec

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	John D. Long	AMEC	3/2/2012	11:15
<u>[Signature]</u>	R. NELSON	PX	3-2-12	11:15
<u>[Signature]</u>	R. NELSON	PX	3-2-12	11:45
<u>[Signature]</u>	DO UD	PT RB	4	11

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

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 2, 2012 by Friedman & Bruya, Inc. from the AMEC Environment & Infrastructure AVIS Seatac 18811 16th Ave PO 116029, F&BI 203024 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>AMEC Environment &amp; Infrastructure</u>
203024-01	ANH-1-8
203024-02	ANH-2-8
203024-03	ANH-3-8
203024-04	ANH-4-8
203024-05	ANH-5-9

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/07/12

Date Received: 03/02/12

Project: AVIS Seatac 18811 16th Ave PO 116029, F&BI 203024

Date Extracted: 03/02/12

Date Analyzed: 03/03/12

**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)
ANH-1-8 203024-01	<50	<250	113
ANH-2-8 203024-02	<50	<250	107
ANH-3-8 203024-03	<50	<250	112
ANH-4-8 203024-04	<50	<250	110
ANH-5-9 203024-05	<50	<250	110
Method Blank 02-338 MB	<50	<250	108

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/07/12

Date Received: 03/02/12

Project: AVIS Seatac 18811 16th Ave PO 116029, F&BI 203024

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

Laboratory Code: 203020-02 (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	140	102	103	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	104	79-144

# FRIEDMAN & BRUYA, INC.

## ENVIRONMENTAL CHEMISTS

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

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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.

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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.

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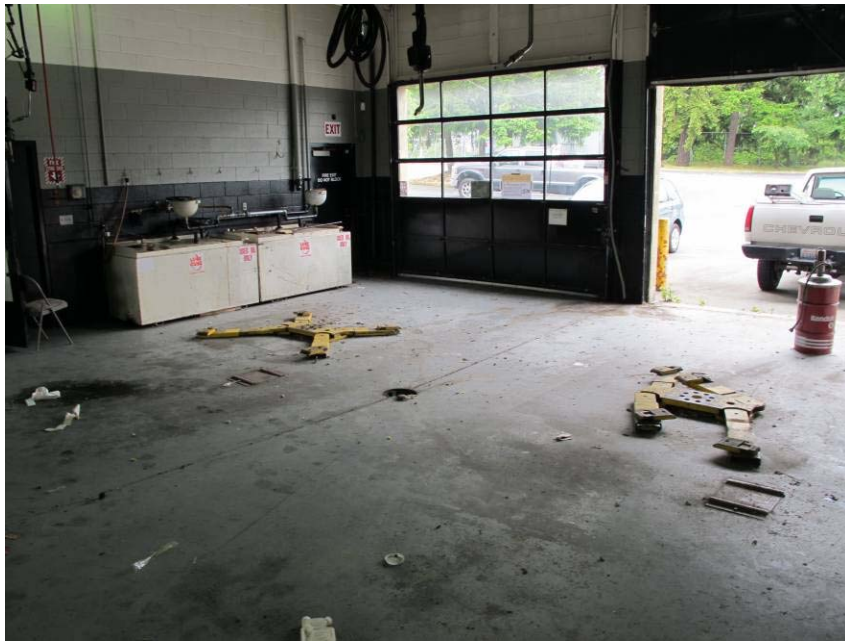
**APPENDIX D**

Decommissioning Photograph Log

## APPENDIX D

### DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



1. View inside maintenance bay showing hydraulic hoists prior to removal



2. Fuel dispenser islands prior to decommissioning

## APPENDIX D

### DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



3. North hydraulic cylinder during removal showing corrosion at base of cylinder



4. Temporary stormwater and erosion controls required by City of SeaTac

## APPENDIX D

### DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



5. 12,000-gallon underground storage tank (UST) during excavation. Note extensive pea gravel in tank cavity.



6. Stockpiled pea gravel during removal of 12,000-gallon UST

## APPENDIX D

### DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



7. 12,000-gallon UST fully uncovered



8. 12,000-gallon UST during hoist

## APPENDIX D

### DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



9. Labeled end of intact UST. Label reads "MODEL DWT TYPE II / DOUBLE WALL TANK / 12000 GALLONS / UL 38003 / LAFD 40-90-1"



10. Intact 12,000-gallon UST following removal from cavity

## APPENDIX D

### DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



11. On-site crushing of 12,000-gallon fiberglass UST



12. Fuel dispenser island piping excavation showing saw cut concrete and fuel dispenser sump

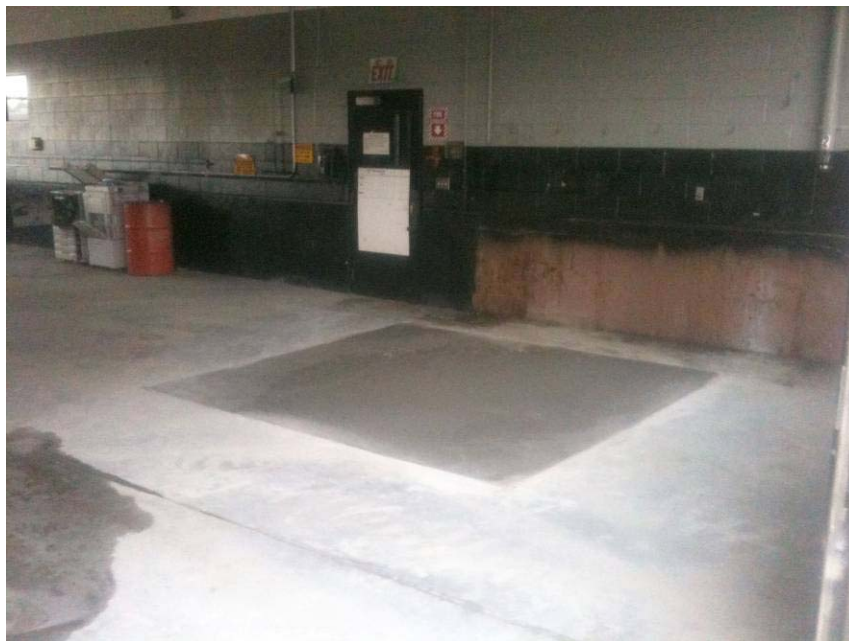
## APPENDIX D

### DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



13. North hydraulic hoist soil excavation, measuring approximately 6 feet wide by 8 feet long and 9 feet deep

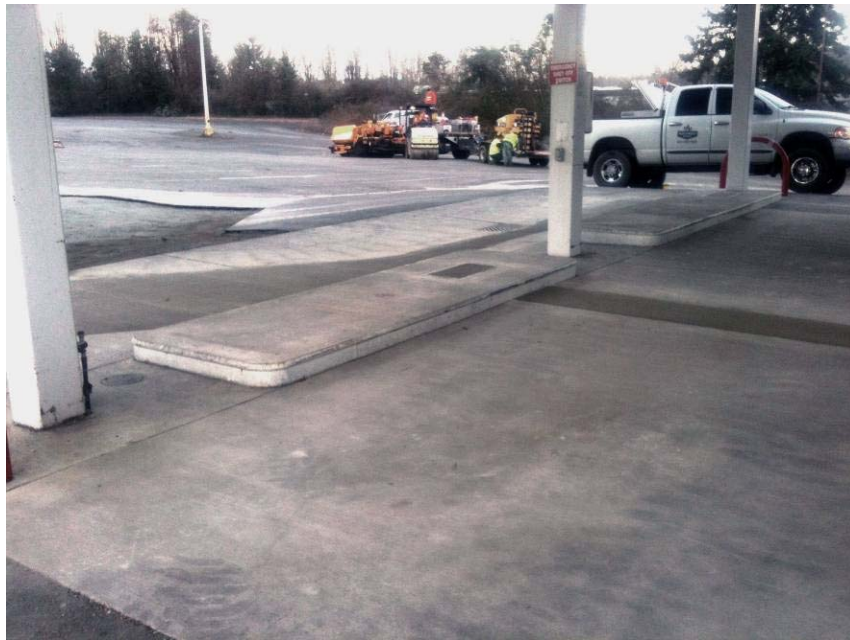


14. North hydraulic hoist following restoration of cement

## APPENDIX D

### DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



15. Fuel dispenser island following restoration of concrete paving



16. Former tank cavity following repaving

APPENDIX D

DECOMMISSIONING PHOTOGRAPH LOG

Avis SeaTac  
SeaTac, Washington



17. Former tank cavity following repaving



18. Repaved surface near building detail



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**APPENDIX E**

Permits and Soil Disposal Documentation



DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT

October 5, 2011



4800 South 188th Street  
SeaTac, WA 98188-8605

City Hall: 206.973.4800  
Fax: 206.973.4809  
TDD: 206.973.4808

Mr. John Long  
600 University Street  
Suite 1020  
Seattle, WA 98101

**SUBJECT: NOTICE OF APPLICATION & SEPA NOTICE  
AVIS RENT-A-CAR SEPA CHECKLIST  
SUP11-00005 & SEP11-00009**

Dear Mr. Long:

Please find enclosed a copy of the "Notice of Application" (NOA), Determination of Non-significance (DNS), and Vicinity Map regarding the Avis Rent-A-Car SEPA Checklist submittal related to property located at 18811 16th Avenue South, SeaTac, Washington. Also, enclosed you will find 20 two-sided copies of the NOA and DNS to be placed in the center distribution pocket on the installed notice board.

Please note that the "Notice Board" must be installed on or adjacent to the property no later than **October 10, 2011**. Also enclosed is an "Affidavit of Installation" to be signed, notarized and returned to the City of SeaTac Community and Economic Development Department. If needed, a Notary is available by appointment.

If you have any questions concerning the above, please contact Sandy Neilson or me at (206) 973-4844.

Sincerely,

Karen Scharer  
Senior Planner

cc: Cindy Baker, Director of Community & Economic Development  
Barbara Nelson, Planning Manager  
Albert Torrico, Senior Planner  
Ali Shasti, Engineering Development Review Manager  
Kevin Varao, Fire Prevention

Enclosures: "Notice of Application" Notices (20)  
"Determination of Non-significance (20)  
"Affidavit of Installation"

**Mayor**  
Terry Anderson

**Deputy Mayor**  
Gene Fisher

**Councilmembers**  
Rick Forschler  
Tony Anderson  
Ralph Shape  
Pam Fernald  
Mia Gregerson

**City Manager**  
Todd Cutts

**City Attorney**  
Mary Mirante Bartolo

**City Clerk**  
Kristina Gregg



# CITY OF SEATAC

## NOTICE OF APPLICATION

AND

## SEPA NOTICE OF DNS



**FILE NUMBERS & NAME:** SUP11-00005 & SEP11-00009  
**Avis Rent-A-Car Tank Decommissioning**

**DESCRIPTION OF PROPOSAL:** Remove one approximately 12,000 gallon UST, four 500 gallon above ground storage tanks (AST'S) together with associated piping, dispensers, and soils; and, removal of three hoists inside a shop building with related equipment.

**SEPA THRESHOLD DETERMINATION:** Determination of Nonsignificance (DNS)

**PROPONENT:** Avis Rent-A-Car  
6 Sylvan Way, Parsippany, NJ 07054

**AGENT/CONTACT:** John Long Phone: 206-342-1760  
600 University Street, Suite 1020, Seattle, WA 98101

**LOCATION OF PROPOSAL:** 18811 16<sup>th</sup> Avenue South or in the SE ¼ of Section 32, Township 223 Range 4, City of SeaTac, County of King, Parcel No 322304-9089 & -9090

**APPLICATIONS/PERMITS REQUESTED:** Type I Site Plan Review

**Future Permits:** SeaTac- Grading & Drainage Permit, Fuel Storage Tank Permit, Building Permit, Right of Way Use Permit; and, WA St. Department of Ecology- UST (Underground Storage Tank)

**Existing environmental documents available at City Hall:** Environmental Checklist **Studies Requested:** None

**Development Regulations to be used for Project Mitigation, known at this time:** Codes Listed Below

**Consistency with applicable City of SeaTac plans and regulations:** The proposal will be reviewed for compliance with all applicable codes and standards, including Building, Grading, Zoning, Road Standards, Fire Engineering, Surface Water Design, WA ST. DOE and Federal - EPA.

**COMMENT PERIOD:** Persons wishing to comment on the application(s) and/or the SEPA DNS should submit written comments within fourteen (14) days of the date of this notice, by 5:00 p.m. on **October 24, 2011** at the address listed below for the Community & Economic Development Department.

**SEPA APPEAL PERIOD:** Any person wishing to appeal this determination may file such an appeal within **ten (10) days** from the date of the end of the comment period for this DNS which is combined with the comment period for the Notice of Application under WAC 197-11-355. All appeals of the above determination must be filed with the City Clerk on the forms provided by the Clerk by **5:00 P.M. on November 3, 2011.**

**THERE IS A \$100.00 FEE TO APPEAL THIS DETERMINATION.**

**Community and Economic Development**  
**4800 S. 188<sup>th</sup> St.**  
**SeaTac, Washington 98188**  
[206] 973-4830/TDD 973-4808

Date Application Filed 9/8/2011  
Date Application Complete 10/05/2011

**STAFF CONTACT:** Any person wishing for additional information should contact:  
Karen Scharer, Senior Planner TEL - 206-973-4830 E-Mail at kscharer@ci.seatac.wa.us

Detailed information and copies of this proposal are available for the public to review upon request. A written decision will be issued following the comment period. A copy of the decision (once made) will be mailed upon request. The decision is appealable to the SeaTac Hearing Examiner. Details of the appeal process will be included in the notice of decision.

**DATE NOTICE ISSUED/PUBLISHED IN THE SEATTLE TIMES: October 10, 2011**

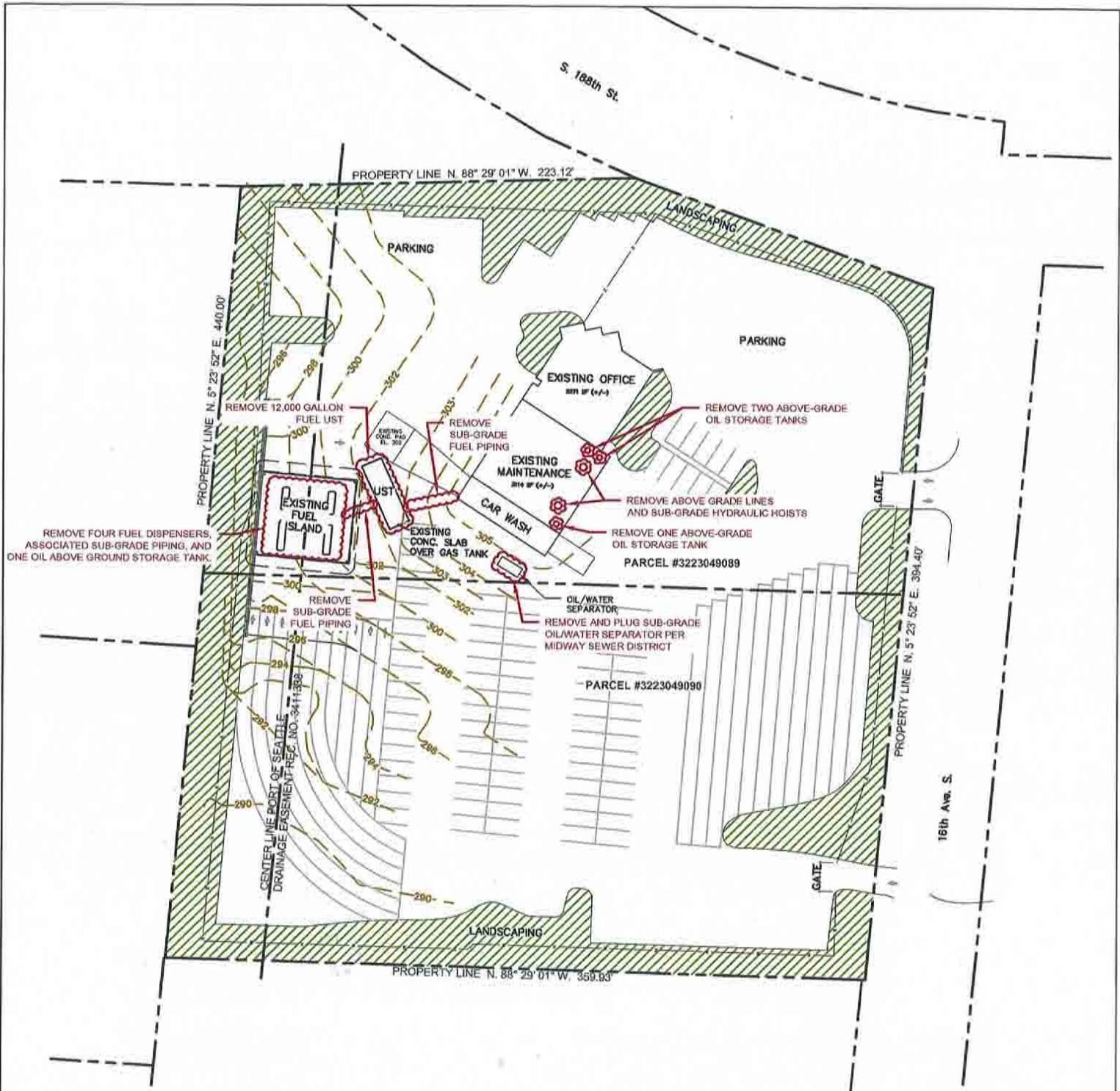


# City of SeaTac



Avis Rent-A-Car  
SU p11-00005 & SEP11-00009  
Vicinity Map





RECEIVED

SEP 08 2011

BUILDING DIVISION  
CITY OF SEATTLE



EXPLANATION	
	PARCEL LINE
	FENCE LINE
	TOPOGRAPHIC CONTOUR LINE
	LANDSCAPING

<b>SITE PLAN</b> Avis Rent A Car 18811 16th Avenue South SeaTac, Washington		
By: APS	Date: 09/06/11	Project No. SE11160290
<b>AMEC Geomatrix</b>		Figure 1

Plot Date: 09/06/11 1:32:00 PM. Printed by: admin@geomatrix.com  
 Drawing Scale: 1/8"=1'-0" (Horizontal), 1/16"=1'-0" (Vertical)

# Grading and Drainage Permit

**City of SeaTac**  
 Public Works Department  
 4800 South 188th Street  
 SeaTac, WA 98188-8605  
 Phone: 206.973.4730  
 Fax: 206.973.4809



**Permit Number** DRN11-00015  
**Bond:**  
**Bond Type:**  
**Parcel Number:** 322304-9089  
**Issue date:** 02/09/12  
**Expiration date:** 08/07/12

Y Grading      Drainage      Paving      Retaining      Clearing & Grubbing

Owner \ Applicant:  
 AVIS RENT A CAR  
 6 SYLVAN WY  
 Phone 1:  
 Phone 2:  
 Fax:

Contractor:  
 AMEC GEOMATRIX INC  
 2101 WEBSTER ST 12TH FLOOR  
 OAKLAND, CA 94612-  
 Phone 1: 206.342.1779 - JOHN LONG  
 Phone 2:  
 Fax:

SITE COPY

Contractors L & I Registration #: AMECGI\*921MG      Exp:  
 City of SeaTac Business License #: 006550      Exp: 05 /31 /2012

Type	Amount	Date	Receipt #
APRO	\$93.00	11 /17 /2011	0000021378
IMPR	\$213.00	11 /17 /2011	0000021378
APRO	\$29.00	11 /17 /2011	0000021378
CNST	\$918.00	02 /09 /2012	0000021652
<b>Total:</b>			
			<b>\$1,253.00</b>

Description of Work: EXCAVATION OF 12,000 GAL UST (GASONLINE), FOUR (4) OIL STORAGE TANKS (3 @ 240 GAL & 1 @ 450 GAL) AND ASSOCIATED FUEL DISPENSER SUBGRADE PIPING

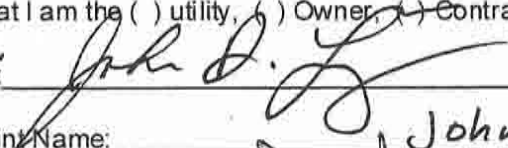
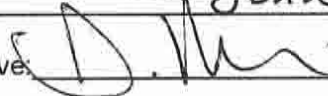
Location of Work: 18811 16TH AVE S

	Initials	Date
PRECON ESC	_____	_____
IESC-Initial Erosion Sedimentation Control	_____	_____
TESC-Temporary Erosion Sedimentation Control	_____	_____
FESC-Final Erosion Sedimentation Control	_____	_____

# Grading and Drainage Permit

## See Standard and Additional Conditions Attached

I certify that I am the ( ) utility, ( ) Owner, (x) Contractor for the project for which this permit is being issued.

Signature:  Date: 2/9/2012  
Please Print Name: John D. Long Date: 2/9/2012  
Public Works Representative:  Date: 2.9.12

**FOR INSPECTIONS CALL 206-973-4730 - 24 HOUR ADVANCE NOTICE REQUIRED  
FINAL INSPECTIONS ARE REQUIRED**

Issuance of this permit shall not be construed as approval of any violation of the Codes, Laws or Ordinances as adopted by the City of SeaTac or the State of Washington.

**CALL BEFORE YOU DIG - 48 HOUR LOCATORS (800) 424-5555**

# Grading and Drainage Permit

## Conditions:

**INDEMNITY AND HOLD HARMLESS:** THE PERMITTEE AGREES TO INDEMNIFY AND HOLD HARMLESS THE CITY OF SEATAC AS PROVIDED HEREIN TO THE MAXIMUM EXTENT POSSIBLE UNDER LAW. ACCORDINGLY, THE PERMITTEE AGREES FOR ITSELF, ITS SUCCESSORS AND ASSIGNS TO DEFEND ALL CLAIMS, DEMANDS, SUITS AND JUDGEMENTS, INCLUDING COST OF DEFENSE THEREOF, FOR INJURY TO PERSONS, DEATH OR PROPERTY DAMAGE WHICH IS CAUSED BY, ARISES OUT OF, OR IS INCIDENTAL TO PERMITTEES EXERCISE OF RIGHTS AND PRIVILEGES GRANTED BY THIS PERMIT. THE PERMITTEES OBLIGATIONS UNDER THIS PERMIT SHALL INCLUDE: A) INDEMNIFICATION FOR SUCH CLAIMS WHETHER OR NOT THEY ARISE FROM THE SOLE NEGLIGENCE OF EITHER THE CITY OF SEATAC OR THE PERMITTEE, THE CONCURRENT NEGLIGENCE OF BOTH PARTIES, OR THE NEGLIGENCE OF ONE OR MORE THIRD PARTIES; B) THE DUTY TO PROMPTLY ACCEPT TENDER OF DEFENSE AND PROVIDE DEFENSE TO THE CITY OF SEATAC AT THE PERMITTEES OWN EXPENSE; C) INDEMNIFICATION OF CLAIMS MADE BY THE PERMITTEES OWN EMPLOYEES OR AGENTS; AND D) WAIVER OF THE PERMITTEES IMMUNITY UNDER THE INDUSTRIAL INSURANCE PROVISIONS OF TITLE 51 RCW, WHICH WAIVER HAS BEEN MUTUALLY NEGOTIATED BY THE PARTIES. IN THE EVENT IT IS NECESSARY FOR THE CITY OF SEATAC TO INCUR ATTORNEY'S FEES, LEGAL EXPENSES OR OTHER COSTS TO ENFORCE THE PROVISIONS OF THIS SECTION, ALL SUCH FEES, EXPENSES AND COSTS SHALL BE RECOVERABLE FROM THE PERMITTEE. IN THE EVENT IT IS DETERMINED THAT RCW 4.24.115 APPLIES TO THIS PERMIT, THE PERMITTEE AGREES TO DEFEND, HOLD HARMLESS AND INDEMNIFY THE CITY OF SEATAC TO THE MAXIMUM EXTENT PERMITTED THEREUNDER, AND SPECIFICALLY FOR ITS NEGLIGENCE CONCURRENT WITH THAT OF THE CITY OF SEATAC TO THE FULL EXTENT OF PERMITTEES NEGLIGENCE.

THE PERMITTEE, ITS SUCCESSORS AND ASSIGNS, IS GIVEN AND GRANTED THE RIGHT AND AUTHORITY TO ENTER UPON THE RIGHT-OF-WAY FOR THE PURPOSE OF PERFORMING THE WORK DESCRIBED IN THIS PERMIT SUBJECT TO THE REQUIREMENTS AND CONDITIONS LISTED BELOW.

1. A CITY INSPECTOR WILL BE ASSIGNED TO THE PROJECT. PERMITTEE IS REQUIRED TO NOTIFY THE CITY OF SEATAC PUBLIC WORKS DEPT. AT 241-1996, **24 HOURS PRIOR TO STARTING WORK**. FAILURE TO GIVE REQUIRED NOTICE WILL RESULT IN ASSESSMENT OF A ONE HOUR INSPECTION FEE CHARGED AGAINST PERMITTEE. THIS ASSESSMENT IS IN ADDITION TO ANY OTHER REMEDY AVAILABLE UNDER LAW OR EQUITY WHICH THE CITY MAY WISH TO PURSUE AND SHALL NOT BE CONSTRUED AS AN ELECTION OF REMEDIES BY THE CITY OF SEATAC.
2. ALL HARD SURFACED ROADS TO BE JACKED OR BORED. EXCEPTIONS WILL BE ON A CASE-BY-CASE BASIS WITH THE EXPRESS PERMISSION OF THE CITY OF SEATAC CITY ENGINEER.
3. ONE-WAY TRAFFIC AND LOCAL ACCESS SHALL BE MAINTAINED AT ALL TIMES. SIGN AND TRAFFIC CONTROLS WILL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (LATEST EDITION). DETOURS AND ROAD CLOSURES SHALL BE ONLY BY THE EXPRESSED WRITTEN APPROVAL OF THE SEATAC CITY ENGINEER.
4. IT IS THE RESPONSIBILITY OF THE PERMITTEE TO NOTIFY ALL UTILITY DISTRICTS AND PRIVATE PROPERTY OWNERS WHEN SUCH PROPERTY IS SUBJECT TO INJURY OR DAMAGE THROUGH THE PERFORMANCE OF THE WORK UNDER THIS PERMIT.
5. AFTER THE INSTALLATION, OPERATION, MAINTENANCE OR REMOVAL OF A UTILITY OR FACILITY, THE PERMITTEE SHALL RESTORE ALL RIGHTS OF WAY AND PUBLIC PLACES TO THE CONDITION WHICH IS EQUIVALENT IN ALL RESPECTS TO THE CONDITION THEY WERE IN BEFORE STARTING WORK. ALL WORK TO MEET THE APPROVAL OF THE CITY ENGINEER. IN THE EVENT THAT DAMAGE OF ANY KIND IS CAUSED BY THE PERMITTEE IN THE COURSE OF PERFORMING WORK AUTHORIZED BY THIS PERMIT, THE PERMITTEE WILL REPAIR SAID DAMAGE AT ITS SOLE COST AND EXPENSE. REPAIR WORK SHALL BEGIN WITHOUT DELAY AND CONTINUE WITHOUT INTERRUPTION UNTIL COMPLETED. IF DAMAGE IS EXTENSIVE, THE TIME ALLOWED FOR REPAIR WILL BE PRESCRIBED BY THE CITY.
6. THE CITY MAY, AT ANY TIME, DO, ORDER OR HAVE DONE ANY AND ALL WORK CONSIDERED NECESSARY TO RESTORE TO A SAFE CONDITION ANY AREA LEFT BY THE PERMITTEE IN A CONDITION DANGEROUS TO LIFE OR PROPERTY AND UPON DEMAND THE PERMITTEE SHALL PAY TO THE CITY ALL COSTS OF SUCH WORK, MATERIALS, ETC.
7. THIS GRANT OR PRIVILEGE SHALL NOT BE DEEMED OR CONSTRUED TO BE AN EXCLUSIVE FRANCHISE. IT DOES NOT PROHIBIT THE CITY FROM GRANTING OTHER PERMITS OR FRANCHISE RIGHTS OF LIKE NATURE TO OTHER PUBLIC OR PRIVATE UTILITIES, NOR SHALL IT PREVENT THE CITY FROM USING ANY OF ITS ROADS OR PUBLIC PLACES FOR ANY AND ALL PUBLIC USE, OR AFFECT ITS JURISDICTION OVER ALL OR ANY PART OF THEM.
8. THE CITY MAY UNILATERALLY REVOKE, ANNUL, OR TERMINATE, REVISE OR AMEND THIS PERMIT WITHOUT CAUSE AND FOR ANY REASON INCLUDING, BUT NOT LIMITED TO:
  - A) PERMITTEES FAILURE TO COMPLY WITH ANY PROVISION, REQUIREMENT, OR REGULATION HEREIN SET FORTH;
  - B) PERMITTEES WILLFUL NEGLIGENCE OF, OR FAILURE TO HEED OR COMPLY WITH, NOTICES GIVEN IT;
  - C) PERMITTEES FACILITIES ARE NOT INSTALLED, OPERATED, OR MAINTAINED IN CONFORMITY WITH CONDITIONS HEREIN SET FORTH;
  - D) PERMITTEES FAILURE TO CONFORM TO ANY APPLICABLE LAW OR REGULATION AS CURRENTLY EXISTS OR MAY HEREAFTER BE ENACTED, ADOPTED, OR AMENDED.
9. THIS PERMIT AND ANY UNDERLYING FRANCHISE DOES NOT AUTHORIZE THE CUTTING OF TREES WITH A TRUNK DIAMETER GREATER THAN FOUR (4) INCHES UNLESS AUTHORIZATION IS SPECIFICALLY GRANTED IN WRITING BY THE DIRECTOR OF PUBLIC WORKS.

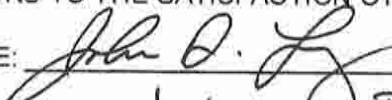
# Grading and Drainage Permit

- 10) SEE SEPA EVALUATION FOR DETAILS OF APPLICANT'S PROPOSAL
- 11) ACTIVITY PERMITTED UNDER THIS PERMIT MAY REQUIRE AN ADDITIONAL HAUL PERMIT PER CITY OF SEATAC MUNICIPAL CODE 11.10.080-E.2.a. FREQUENT USE HAULING INVOLVING AN AVERAGE OF SIX LOADED VEHICLES PER HOUR DURING ANY EIGHT HOUR PERIOD IN ONE DAY, FOR TWO OR MORE CONSECUTIVE DAYS, OR E.2.b ANY HAZARDOUS WASTE HAULING (RCW 70.105.010(5), (6), & (15)). THIS INCLUDES BUT IS NOT LIMITED TO ASBESTOS REMOVAL, HYDROCARBON CONTAMINATED SOILS, ETC.
- 12) THE CONTRACTOR SHALL DESIGNATE A PERSON TO BE TESC SUPERVISOR PER APPENDIX "D" OF THE 2009 KING COUNTY SURFACE WATER DESIGN MANUAL THE TESC SUPERVISOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REVIEW OF TESC MEASURES AND FOR COMPLIANCE WITH ALL PERMIT CONDITIONS RELATING TO TESC. THE TESC SUPERVISOR MUST BE AVAILABLE FOR RAPID RESPONSE TO TESC PROBLEMS. THE CONTRACTOR WILL PROVIDE THE PUBLIC WORKS INSPECTOR THE NAME AND PHONE NUMBER(S) TO REACH THE TESC SUPERVISOR AT ALL TIMES.
- 13) ALL PRECAUTIONS ARE TO BE TAKEN DURING CONSTRUCTION TO PREVENT SILT AND DEBRIS FROM COLLECTING IN THE CITY STORM DRAINAGE SYSTEM, WETLAND AREAS, OR FLOWING ONTO ADJOINING PROPERTY. INSTALL AND MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES AS DESCRIBED IN APPENDIX "C" SMALL SITE REQUIREMENTS OF THE 2005 KING COUNTY SURFACE WATER DESIGN MANUAL OR AS OTHERWISE DIRECTED BY THE CITY PUBLIC WORKS INSPECTOR. SPECIFICALLY, THE CONTRACTOR SHALL INSTALL CB INSERTS IN ALL EXISTING AND NEW CATCHBASINS. TESC MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO THE START OF ANY CONSTRUCTION OR EXCAVATION ON THE SITE.
- 14) THE PUBLIC RIGHT-OF-WAY IS TO BE KEPT CLEAN AND FREE OF DEBRIS, CONSTRUCTION MATERIAL, AND EQUIPMENT AT ALL TIMES PER THE DIRECTION OF THE PUBLIC WORKS INSPECTOR.
- 15) NO MATERIAL IS TO BE STOCKPILED OR TEMPORARILY PLACED ON THE PAVEMENT SECTION OF ANY RIGHT-OF-WAY UNLESS SPECIFICALLY APPROVED IN WRITING BY A REPRESENTATIVE OF THE ENGINEERING DIVISION.
- 16) ROADS, SHOULDERS, CURBS & GUTTERS, DRIVEWAYS, SIDEWALKS, AND/OR OTHER IMPROVEMENTS IN THE PUBLIC RIGHT-OF-WAY WHICH ARE DAMAGED DURING CONSTRUCTION ARE TO BE REPLACED OR RESTORED TO CURRENT CITY STANDARDS. ALL RESTORATION AND CLEAN-UP WORK ARE TO MEET THE APPROVAL OF THE PUBLIC WORKS INSPECTOR.
- 17) NORMAL WORKING HOURS ARE FROM 7:00 A.M. TO 5:00 P.M. MONDAY THROUGH FRIDAY. ADDITIONAL RESTRICTIONS MAY APPLY BASED SEPA CONDITIONS OR SPECIFIC SITE CHARACTERISTICS. WORK OUTSIDE THE NORMAL HOURS OF WORK AND ON SATURDAYS, SUNDAYS, AND HOLIDAYS WILL REQUIRE PRIOR WRITTEN APPROVAL FROM THE ENGINEERING DIVISION. REQUESTS FOR SUCH AFTER HOURS WORK ON SATURDAY, SUNDAY, OR HOLIDAYS ARE TO BE SUBMITTED TO THE ENGINEERING DIVISION 72 HOURS IN ADVANCE OF SUCH WORK AND MUST BE APPROVED IN WRITING. CITY STAFF TIME FOR AFTER HOURS, SATURDAY, SUNDAY, AND HOLIDAY WORK WILL BE BILLED AT THE RATE OF ONE AND ONE HALF TIMES THE STANDARD HOURLY RATE.
- 18) A PRE-CONSTRUCTION MEETING IS TO BE HELD 72 HOURS PRIOR TO START OF CONSTRUCTION BETWEEN THE PERMITTEE, THE PERMITTEE'S CONTRACTOR AND SUB-CONTRACTORS, AND THE CITY OF SEATAC ENGINEERING DIVISION.
- 19) ALL DEVIATIONS OR CHANGES FROM THE APPROVED PLANS SHALL BE SUBMITTED TO THE ENGINEERING DIVISION FOR REVIEW AND APPROVAL. ALL SUCH DEVIATIONS OR CHANGES SHALL BE APPROVED BY THE ENGINEERING DIVISION PRIOR TO IMPLEMENTATION IN THE FIELD.
- 20) ALL CONSTRUCTION PLANS ARE TO BE STAMPED AND APPROVED BY A REPRESENTATIVE OF THE ENGINEERING DIVISION AND A COPY OF THE APPROVED PLANS IS TO BE ON SITE AT ALL TIMES.
- 21) ALL SPOILS AND OR OTHER EXCESS MATERIALS TO BE REMOVED FROM THE RIGHT-OF-WAY ARE TO BE TAKEN TO AN APPROVED SITE. ALL SITES WITHIN THE CITY LIMITS OF SEATAC ARE TO BE APPROVED IN WRITING BY THE ENGINEERING DIVISION PRIOR TO THEIR USE. ANY MATERIAL DISPOSED OF AT AN UNAPPROVED SITE WITHIN THE CITY LIMITS OF THE CITY OF SEATAC SHALL BE REMOVED AND THE SITE RESTORED TO THE SITE'S ORIGINAL OR BETTER CONDITION AT THE EXPENSE OF THE PERMITTEE.
- 22) THE PERMITTEE IS RESPONSIBLE FOR ALL ACTIONS OF THEIR CONTRACTOR.

## Grading and Drainage Permit

- 23) ALL CONTRACTOR'S AND SUB-CONTRACTORS ARE TO HAVE A CURRENT WASHINGTON STATE L&I CONTRACTOR'S REGISTRATION NUMBER AND HAVE A CURRENT CITY OF SEATAC BUSINESS LICENSE.
- 24) THE CITY HAS ADOPTED AS ITS STANDARD SPECIFICATIONS (SMC 11.05.040) THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PUBLISHED BY WSDOT. THE CITY HAS ADOPTED (SMC 11.50.050) AS ITS ROAD STANDARDS THE LATEST EDITION OF THE KING COUNTY ROAD STANDARDS. IF THERE ARE CONFLICTS BETWEEN PROJECT SPECIFICATIONS AND THE CITY'S STANDARDS AND SPECIFICATIONS THE LATTER SHALL PREVAIL FOR ANY PROJECT PERMITTED BY THE PUBLIC WORKS DEPARTMENT.
- 25) COMPLY WITH ALL SEPA CONDITIONS PER THE CITY OF SEATAC SEPA DETERMINATION FOR THIS PROJECT.

I AGREE TO ADDRESS THE ABOVE CONDITIONS TO THE SATISFACTION OF THE CITY OF SEATAC.

DATE: 2/9/2012 SIGNATURE:   
NAME (PRINT): John D. Long

# Fuel Storage Tank Permit



Inspection Request Line  
206.973.4764  
For next day inspection call before 4:00pm

Permit #: FST11-00002  
Date Issued: 2/9/2012  
Parcel #: 322304-9089  
Description of Work: REMOVAL OF 12,000 GALLON UST (GASONLINE) AND FOUR (4) OIL STORAGE TANKS (3 @ 240 GAL & 1 @ 450 GAL)

Project Name: AVIS RENT A CAR  
Project Address: 18811 16TH AVE S

Applicant: AMEC GEOMATRIX 600 UNIVERSITY STREET SUITE 1020 SEATTLE, WA 98101  
Phone: John Long 206-342-1779

Contact: JOHN LONG 206.342.1779  
Phone:

Contractor: AMEC GEOMATRIX INC 2101 WEBSTER ST 12TH FLOOR OAKLAND, CA 94612-  
Phone: 206.342.1779 - JOHN License #: L&I AMECGI\*921MG

Owner: AVIS RENT A CAR 6 SYLVAN WY  
Phone:

Architect/Engineer:  
Phone:

Type of Constr. P.O.S.	Type of Installation Type of Use	BEL COM	Type of Work	REMV
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FEES PAID					- Inspections -	- Completed -
TYPE	AMOUNT	BY	DATE	RECEIPT #		
REMV	\$650.00	JLM	11 /17 /2011	0000021377	Prior to Placement	
Total fees:	\$650.00				Tank Pressure Test	
					Annular Pressure Test	
					Other Inspection	
					Final Fire Inspection	

# Fuel Storage Tank Permit



Inspection Request Line  
206.973.4764  
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Permit #: FST11-00002

Date issued: 2/9/2012

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Description of Work: REMOVAL OF 12,000 GALLON UST (GASONLINE) AND FOUR (4) OIL STORAGE TANKS (3 @ 240 GAL & 1 @ 450 GAL)

Project Name: AVIS RENT A CAR

Project Address: 18811 16TH AVE S

## Conditions:

- 1) EXCAVATED SOILS SHALL BE PLACED IN A BERMED POLYETHELENE SHEETING-LINED AREA AND COVERED W POLYETHELENE SHEETING WEIGHTED DOWN. OR OTHER APPROVED MATERIAL DURING REMOVAL OF THE TA SOILS. FILTER RABRIC FENCING IS TO BE USED AROUND THE SITE WHERE THERE IS THE POSSIBILITY OF SED LADEN WATER LEAVING THE SITE. ALL CATCH BASINS ON SITE ARE TO BE PROTECTER WITH FILTER INSEART SROUNDED WITH WEIGHTED DOWN STRAW WADDELS. POWER SWEEPING OF THE SITE IS REQUIRED IF THE S ASPHALT GETS LADEN WITH DIRT.  
A RIGHT-OF-WAY USE HAUL PERMIT WILL BE REQUIRED FROM THE CITY TO TRANSPORT CONTAMINATED METI OVER CITY STREETS.  
THE SITE AND ADJACENT PUBLIC SYSTEM ARE TO BE PROTECTED BY ANY MEASURES AS APPROVED BY THE F WORKS INSPECTOR.
- 2) PUMP OUT ALL FLAMMABLE OR COMBUSTIBLE LIQUIDS. 2. PRIOR TO REMOVAL FROM THE GROUND, PROVIDE CERTIFICATION FROM A MARINE CHEMIST THAT THE TANK HAS BEEN INERTED PER NFPA 306. 3. TANKS SHALL REMOVED FROM THE PREMISES WITHIN 24 HOURS AFTER THESE PROCEDURES HAVE BEEN COMPLETED, THE ATMOSPHERE IN THE TANK MAY NOT REMAIN GAS FREE INDEFINITELY. 4. IF A TANK REMAINS AT THE SITE OVERNIGHT, SECURE BY CHOKING AND LEAVE BARRICADES IN PLACE AROUND THE TANK. ADDITIONAL VAPOF RELEASED FROM LIQUID HELD IN THE SCALE OR SEDIMENT IN THE TANK - THEREFORE, THE VAPOR SPACE S TESTED AGAIN AND THE GAS FREEING PROCESS REPEATED. 5. PRIOR TO BACKFILLING THE TANK HOLE, PRO TESTING LABORATORY CERTIFICATE INDICATING THE SOIL AROUND THE TANK IS FREE OF CONTAMINATION PI WASHINGTON STATE DEPARTMENT OF ECOLOGY REGULATIONS. 6. BACKFILL THE TANK HOLE WITH A CLEAN MATERIAL FREE OF ANY ORGANIC SUBSTANCE AND EQUAL TO OR BETTER THAN NATIVE SOIL. BACKFILL SHO PLACED IN 6 INCH LAYERS AND MACHINE COMPACTED TO A DENSITY COMPARABLE WITH NATIVE SOIL. SPEC INSPECTION AND DAILY REPORTS ARE REQUIRED. 7. DOCUMENTATION VERIFYING PROPER DISPOSAL OF THE SHALL BE PROVIDED TO THE CITY OF SEATAC FIRE PREVENTION BUREAU AND THE DEPARTMENT OF ECOLOG IF AT ANY TIME DURING THE EVACUATION OF THE TANK, REMOVAL OF THE TANK, OR BACKFILLING PROCEDUI EVIDENCE OF PRODUCT LEAKAGE IS OBSERVED OR DETECTED, THE OPERATION SHALL BE STOPPED. THE WASHINGTON STATE DEPARTMENT OF ECOLOGY AND THE FIRE PREVENTION BUREAU SHALL BE NOTIFIED AN FURTHER ACTIONS SHALL BE UNDER THE DIRECTION OF THE DEPARTMENT OF ECOLOGY. DEPARTMENT OF ECOLOGY (206) 649-7251 CITY OF SEATAC FIRE SERVICES (206) 824-2726
- 3) ALL REQUIREMENTS CONTAINED IN THE DOCUMENT ENTITLED "REMOVAL OF UNDERGROUND STORAGE TANK REQUIREMENTS", DATED APRIL 13, 1992, AS PUBLISHED BY THE SEATAC FIRE DEPARTMENT ARE APPLICABLE.
- 4) SPECIFICS OF THE HEIGHT, WIDTH, AND OTHER DETAILS OF THE LOADED TRANSPORT ARE TO BE PROVIDED T CITY AND TO THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. IF OVERSIZE LOAD CONDITIONS / OCCUR IN TRANSPORT OF THE TANKS, A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED FOR REVIEW TO TH SEATAC POLICE AND ENGINEERING DEPARTMENTS AND TO WSDOT FOR TRANSPORT OF THE TANK THROUGH CITY PRIOR TO TRANSPORT TO THE SITE. THE PLAN SHALL INCLUDE ROUTING OF TRANSPORT, CLEARANCES EXISTING FACILITIES (e.g. TRAFFIC SIGNALS, UTILITY POLES, STREET LIGHTS, ETC.), TRAFFIC CONTROL DEVI PERSONNEL, AND LEAD AND TRAILING PILOT VEHICLES.
- 5) ACTUAL TRANSPORT OF THE TANK TO THE SITE SHOULD BE DONE DURING "OFF-PEAK" TRAFFIC FLOW PERIOD SPECIFICALLY APPROVED BY THE CITY.
- 6) ALL OPERATIONS AND/OR EQUIPMENT INVOLVED IN THE INSTALLATION OF THE TANK SHALL NOT IN ANY WAY TRAFFIC FLOW ON CITY RIGHT-OF-WAYS. ALL EQUIPMENT, INCLUDING EQUIPMENT SIMPLY PARKED IN THE AF SHALL BE PLACED SO AS TO PROVIDE A MINIMUM OF TEN FEET (10') CLEARANCE TO THE NEAREST EDGE DRIV LANES OF CITY RIGHTS-OF-WAYS.
- 7) EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE, AND SHALL NOT BE DISPOSED OF WITHIN ANY PL RIGHT-OF-WAY, NOR SHALL IT BE PLACED ON ANY SITE WITHIN THE CITY LIMITS WITHOUT A PROPER GRADIN PERMIT AND INSPECTION.
- 8) GRADING/DRAINAGE PERMIT (DRN11-00015) IS REQUIRED TO BE ISSUED BEFORE WORRK CAN BEGIN UNDER T PERMIT

PERMIT #

FST 11-00002

PROJECT NAME:

~~AMEC~~ Avis Rent-A-Car

### INSPECTION RECORD CARD

All permits and inspection records must be displayed in one location on the job site. "X" indicates a required inspection.

"X"	Inspections	Date	Initial	Comments
	Erosion Control- precon			<i>To be done by P.W. inspectors on Grading and Drainage permit</i>
	Initial erosion/sediment control			
	Footing			
	Ufer ground			
	Foundation walls			
	Footing drains			
	Roof drains			
	Underslab insulation			
	PS/PT concrete			
X	Concrete Slab <i>restoration</i>			
	Masonry			
	Underfloor framing			
	Temp. erosion/sediment control			
	Exterior wall nailing			
	Roof nailing			
	Framing			
	Insulation			
<b>Do Not Cover Walls Until Above Inspections Are Approved</b>				
	Drywall nailing			
	WSEC Compliance Certificate			
	<b><u>FINAL INSPECTIONS</u></b>			
	Erosion/Sediment Control			
	Plumbing 206.973.4750			
	Mechanical 206.973.4750			
	Electrical 206.973.4750			
	Planning 206.973.4830			
X	Engineering 206.973.4730			
	Police 206.973.4904			
X	Fire 206.973.4500			
X	Building Final- OK to Occupy			

Call (206) 973-4764 BEFORE 4:00 PM FOR NEXT DAY INSPECTIONS

# Fuel Storage Tank Permit



Inspection Request Line  
206.973.4764  
For next day inspection call before 4:00pm

Permit #: FST11-00002  
Date Issued: 2/9/2012  
Parcel #: 322304-9089  
Description of Work: REMOVAL OF 12,000 GALLON UST (GASOLINE) AND FOUR (4) OIL STORAGE TANKS (3 @ 240 GAL & 1 @ 450 GAL)

Project Name: AVIS RENT A CAR  
Project Address: 18811 16TH AVE S

I certify that I am the ( ) Owner (  ) Contractor for the property on which this permit is being issued.

SIGNED: John D. Long DATE: 2/9/2012

PLEASE PRINT: John D. Long

ISSUED BY: [Signature] DATE: 2.9.12

This permit expires one year from the date of issuance provided work begins within 180 days of issuance.

**FOR NEXT DAY INSPECTIONS CALL 206-973-4500 BEFORE 4:00 PM**

**FINAL INSPECTIONS ARE REQUIRED**

Issuance of this permit shall not be construed as approval of any violation of the Codes, Laws or Ordinances as adopted by the City of SeaTac or the State of Washington

**THIS PERMIT MUST BE MAINTAINED ON SITE**

City of SeaTac 4800 South 188th Street SeaTac, WA 98188 206-973-4750 Fax 206-973-4769

# Right of Way Use Permit

City of SeaTac  
 Public Works Department  
 4800 South 188th Street  
 SeaTac, WA 98188-8605  
 Phone: 206.973.4730  
 Fax: 206.973.4809



Permit Number ROW12-00037  
 Bond:  
 Bond Type:  
 Parcel Number: 322304-9089  
 Issue date: 3/2/2012  
 Expiration date: 9/2/2012

Owner \ Applicant:  
 AVIS RENT A CAR  
 6 SYLVAN WY

Phone 1:  
 Phone 2:  
 Fax:

**SITE COPY**

Contractor:  
 AMEC GEOMATRIX INC  
 2101 WEBSTER ST 12TH FLOOR  
 OAKLAND, CA 94612-

Phone 1: 206.342.1779 - JOHN LONG  
 Phone 2:  
 Fax:

Contractors L & I Registration # : AMECGI\*921MG  
 City of SeaTac Business License # : 006550

Exp:  
 Exp: 05 /31 /2012

<u>Type</u>	<u>Amount</u>	<u>Date</u>	<u>Receipt #</u>
APPE	\$93.00	03 /01 /2012	0000021723
PRC1	\$250.00	03 /01 /2012	0000021723
EUSE	\$130.00	03 /01 /2012	0000021723
Total:	\$473.00		

Description of Work: HAUL PERMIT - HAULING TWO TRUCKS OF HYDRAULIC FLUID CONTAMINATED SOIL TO CEMEX IN EVERETT - CONTACT JOHN LONG 206.713.9499

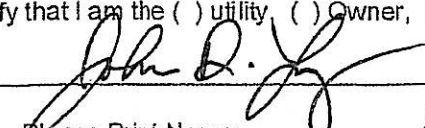
Location of Work: 18811 16TH AVE S TO I-5 NORTHBOUND

	<u>Initials</u>	<u>Date</u>
PRECON ESC	_____	_____
IESC-Initial Erosion Sedimentation Control	_____	_____
TESC-Temporary Erosion Sedimentation Control	_____	_____
FESC-Final Erosion Sedimentation Control	_____	_____

# Right of Way Use Permit

## See Standard and Additional Conditions Attached

I certify that I am the ( ) utility, ( ) Owner, () Contractor for the project for which this permit is being issued.

Signature: 

Date: 3/2/2012

Please Print Name: John D. Long

Public Works Representatives: 

Date: 3.2.12

**FOR JOB STARTS AND INSPECTIONS CALL 206.973.4730 OR PWJOBSTART@CI.SEATAC.WA.US  
24 HOUR ADVANCE NOTICE REQUIRED FINAL INSPECTIONS ARE REQUIRED**

Issuance of this permit shall not be construed as approval of any violation of the Codes, Laws or Ordinances as adopted by the City of SeaTac or the State of Washington.

**CALL BEFORE YOU DIG - 48 HOUR LOCATORS (800) 424-5555**

# Right of Way Use Permit

## Conditions:

**INDEMNITY AND HOLD HARMLESS:** THE PERMITTEE AGREES TO INDEMNIFY AND HOLD HARMLESS THE CITY OF SEATAC AS PROVIDED HEREIN TO THE MAXIMUM EXTENT POSSIBLE UNDER LAW. ACCORDINGLY, THE PERMITTEE AGREES FOR ITSELF, ITS SUCCESSORS AND ASSIGNS TO DEFEND ALL CLAIMS, DEMANDS, SUITS AND JUDGEMENTS, INCLUDING COST OF DEFENSE THEREOF, FOR INJURY TO PERSONS, DEATH OR PROPERTY DAMAGE WHICH IS CAUSED BY, ARISES OUT OF, OR IS INCIDENTAL TO PERMITTEES EXERCISE OF RIGHTS AND PRIVILEGES GRANTED BY THIS PERMIT. THE PERMITTEES OBLIGATIONS UNDER THIS PERMIT SHALL INCLUDE: A) INDEMNIFICATION FOR SUCH CLAIMS WHETHER OR NOT THEY ARISE FROM THE SOLE NEGLIGENCE OF EITHER THE CITY OF SEATAC OR THE PERMITTEE, THE CONCURRENT NEGLIGENCE OF BOTH PARTIES, OR THE NEGLIGENCE OF ONE OR MORE THIRD PARTIES; B) THE DUTY TO PROMPTLY ACCEPT TENDER OF DEFENSE AND PROVIDE DEFENSE TO THE CITY OF SEATAC AT THE PERMITTEES OWN EXPENSE; C) INDEMNIFICATION OF CLAIMS MADE BY THE PERMITTEES OWN EMPLOYEES OR AGENTS; AND D) WAIVER OF THE PERMITTEES IMMUNITY UNDER THE INDUSTRIAL INSURANCE PROVISIONS OF TITLE 51 RCW, WHICH WAIVER HAS BEEN MUTUALLY NEGOTIATED BY THE PARTIES. IN THE EVENT IT IS NECESSARY FOR THE CITY OF SEATAC TO INCUR ATTORNEY'S FEES, LEGAL EXPENSES OR OTHER COSTS TO ENFORCE THE PROVISIONS OF THIS SECTION, ALL SUCH FEES, EXPENSES AND COSTS SHALL BE RECOVERABLE FROM THE PERMITTEE. IN THE EVENT IT IS DETERMINED THAT RCW 4.24.115 APPLIES TO THIS PERMIT, THE PERMITTEE AGREES TO DEFEND, HOLD HARMLESS AND INDEMNIFY THE CITY OF SEATAC TO THE MAXIMUM EXTENT PERMITTED THEREUNDER, AND SPECIFICALLY FOR ITS NEGLIGENCE CONCURRENT WITH THAT OF THE CITY OF SEATAC TO THE FULL EXTENT OF PERMITTEES NEGLIGENCE.

THE PERMITTEE, ITS SUCCESSORS AND ASSIGNS, IS GIVEN AND GRANTED THE RIGHT AND AUTHORITY TO ENTER UPON THE RIGHT-OF-WAY FOR THE PURPOSE OF PERFORMING THE WORK DESCRIBED IN THIS PERMIT SUBJECT TO THE REQUIREMENTS AND CONDITIONS LISTED BELOW.

1. A CITY INSPECTOR WILL BE ASSIGNED TO THE PROJECT. PERMITTEE IS REQUIRED TO NOTIFY THE CITY OF SEATAC PUBLIC WORKS DEPT. AT 973-4730, **24 HOURS PRIOR TO STARTING WORK**. FAILURE TO GIVE REQUIRED NOTICE WILL RESULT IN ASSESSMENT OF A ONE HOUR INSPECTION FEE CHARGED AGAINST PERMITTEE. THIS ASSESSMENT IS IN ADDITION TO ANY OTHER REMEDY AVAILABLE UNDER LAW OR EQUITY WHICH THE CITY MAY WISH TO PURSUE AND SHALL NOT BE CONSTRUED AS AN ELECTION OF REMEDIES BY THE CITY OF SEATAC.
2. ALL HARD SURFACED ROADS TO BE JACKED OR BORED. EXCEPTIONS WILL BE ON A CASE-BY-CASE BASIS WITH THE EXPRESS PERMISSION OF THE CITY OF SEATAC CITY ENGINEER.
3. ONE-WAY TRAFFIC AND LOCAL ACCESS SHALL BE MAINTAINED AT ALL TIMES. SIGN AND TRAFFIC CONTROLS WILL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (LATEST EDITION). DETOURS AND ROAD CLOSURES SHALL BE ONLY BY THE EXPRESSED WRITTEN APPROVAL OF THE SEATAC CITY ENGINEER.
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5. AFTER THE INSTALLATION, OPERATION, MAINTENANCE OR REMOVAL OF A UTILITY OR FACILITY, THE PERMITTEE SHALL RESTORE ALL RIGHTS OF WAY AND PUBLIC PLACES TO THE CONDITION WHICH IS EQUIVALENT IN ALL RESPECTS TO THE CONDITION THEY WERE IN BEFORE STARTING WORK. ALL WORK TO MEET THE APPROVAL OF THE CITY ENGINEER. IN THE EVENT THAT DAMAGE OF ANY KIND IS CAUSED BY THE PERMITTEE IN THE COURSE OF PERFORMING WORK AUTHORIZED BY THIS PERMIT, THE PERMITTEE WILL REPAIR SAID DAMAGE AT ITS SOLE COST AND EXPENSE. REPAIR WORK SHALL BEGIN WITHOUT DELAY AND CONTINUE WITHOUT INTERRUPTION UNTIL COMPLETED. IF DAMAGE IS EXTENSIVE, THE TIME ALLOWED FOR REPAIR WILL BE PRESCRIBED BY THE CITY.
6. THE CITY MAY, AT ANY TIME, DO, ORDER OR HAVE DONE ANY AND ALL WORK CONSIDERED NECESSARY TO RESTORE TO A SAFE CONDITION ANY AREA LEFT BY THE PERMITTEE IN A CONDITION DANGEROUS TO LIFE OR PROPERTY AND UPON DEMAND THE PERMITTEE SHALL PAY TO THE CITY ALL COSTS OF SUCH WORK, MATERIALS, ETC.
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  - B) PERMITTEES WILLFUL NEGLECT OF, OR FAILURE TO HEED OR COMPLY WITH, NOTICES GIVEN IT;
  - C) PERMITTEES FACILITIES ARE NOT INSTALLED, OPERATED, OR MAINTAINED IN CONFORMITY WITH CONDITIONS HEREIN SET FORTH;
  - D) PERMITTEES FAILURE TO CONFORM TO ANY APPLICABLE LAW OR REGULATION AS CURRENTLY EXISTS OR MAY HEREAFTER BE ENACTED, ADOPTED, OR AMENDED.
9. THIS PERMIT AND ANY UNDERLYING FRANCHISE DOES NOT AUTHORIZE THE CUTTING OF TREES WITH A TRUNK DIAMETER GREATER THAN FOUR (4) INCHES UNLESS AUTHORIZATION IS SPECIFICALLY GRANTED IN WRITING BY THE DIRECTOR OF PUBLIC WORKS.

# Right of Way Use Permit

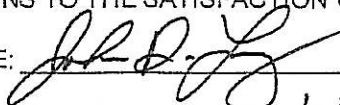
- 10) ACTIVITY PERMITTED UNDER THIS PERMIT MAY REQUIRE AN ADDITIONAL HAUL PERMIT PER CITY OF SEATAC MUNICIPAL CODE 11.10.080-E.2.a. FREQUENT USE HAULING INVOLVING AN AVERAGE OF SIX LOADED VEHICLES PER HOUR DURING ANY EIGHT HOUR PERIOD IN ONE DAY, FOR TWO OR MORE CONSECUTIVE DAYS, OR E.2.b ANY HAZARDOUS WASTE HAULING (RCW 70.105.010(5), (6), & (15). THIS INCLUDES BUT IS NOT LIMITED TO ASBESTOS REMOVAL, HYDROCARBON CONTAMINATED SOILS, ETC.
- 11) HOURS OF WORK ARE 7:00 A.M. TO 10:00 P.M. ON WEEKDAYS AND 9:00 A.M. TO 10:00 P.M. ON WEEKENDS.
- 12) THE HAUL PERMIT DAILY USE FEE IS CALCULATED AT ONE HOUR INSPECTOR'S TIME PER DAY (NON-HOLIDAY WEEKDAY AT THE STANDARD HOURLY RATE OF \$65.00 AND HOLIDAY AND WEEKEND HOURLY RATE OF \$97.50). TIME WILL BE BILLED TO THE OWNER; DEVELOPER; CONTRACTOR; OR THEIR AUTHORIZED AGENT UNDER AN AUTHORIZATION OF SPECIAL BILLING.
- 13) STATE AND CITY LICENSES: ALL CONTRACTOR'S AND SUB-CONTRACTORS ARE TO HAVE A CURRENT WASHINGTON STATE L&I CONTRACTOR'S REGISTRATION NUMBER AND HAVE A CURRENT CITY OF SEATAC BUSINESS LICENSE.
- 14) THE PERMITTEE IS TO NOTIFY (CALL 206-973-4730 OR YOU MAY EMAIL TO PWJOBSTART@CI.SEATAC.WA.US) THE CITY OF SEATAC ENGINEERING DIVISION 24 HOURS PRIOR TO THE START OF WORK (JOB START) AND 24 HOURS PRIOR TO A REQUIRED OR REQUESTED INSPECTION. FAILURE TO CALL IN A JOB START OR A REQUEST FOR A FINAL INSPECTION WILL RESULT IN ADDITIONAL PERMIT FEES.
- 15) ACCESS ROUTE: ACCESS TO THE SITE WILL BE LIMITED TO THE FOLLOWING ROUTE:  
  
LEFT ON TO 16TH AVE S  
RIGHT ON S 188TH ST  
LEFT ON TO NORTHBOUND I-5
- 16) KEEP THE PUBLIC RIGHT-OF-WAY CLEAN: THE INBOUND AND OUTBOUND HAUL ROUTE WILL BE KEPT CLEAN AND FREE OF HAULING DEBRIS AT ALL TIMES DURING THE HOURS OF HAULING. FLUSHING THE STREET WILL NOT BE PERMITTED. WATER MAY BE USED FOR THE PURPOSE OF DUST CONTROL ON SITE PROVIDED THE RUNOFF DOES NOT DISCHARGE DIRECTLY INTO A CITY CONVEYANCE OR SENSITIVE AREA AS DEFINED BY THE CITY MUNICIPAL CODE.
- 17) STORM DRAIN CLEANING: THE CONTRACTOR SHALL FLUSH AND CLEAN THE STORM DRAINAGE SYSTEMS ALONG THE HAUL ROUTES WITHIN THE CITY WHEN SO DIRECTED BY THE DIRECTOR OF PUBLIC WORKS OR THEIR REPRESENTATIVE.
- 18) TRUCK SCALES: PORTABLE SCALES MAY BE USED BY THE CITY FOR THE PURPOSE OF WEIGHING TRUCKS HAULING MATERIAL TO THE SITE TO INSURE THEY ARE NOT EXCEEDING THEIR LICENSED WEIGHT LIMIT.
- 19) COVERED LOADS: ALL TRUCKS AND TRAILERS TRANSPORTING MATERIAL TO THE SITE WILL BE COVERED WHEN SO DIRECTED BY THE DIRECTOR OF PUBLIC WORKS OR THEIR REPRESENTATIVE.
- 20) NOISE VARIANCE: IF WORKING AT NIGHT IS PERMITTED, THE CONTRACTOR SHALL PROVIDE A PLAN OF OPERATION TO INSURE COMPLIANCE WITH THE CITY'S NOISE ORDINANCE. IN PARTICULAR, ADDRESS THE TRUCK BACKUP BELLS. IF THE HAULING OPERATION CANNOT COMPLY WITH THE CITY'S NOISE ORDINANCE, THE CONTRACTOR WILL BE REQUIRED TO APPLY FOR A VARIANCE TO SAID ORDINANCE AND NOT HAUL AT NIGHT UNTIL A VARIANCE IS GRANTED.
- 21) SIGNAL MODIFICATIONS: THE CONTRACTOR HAS AGREED TO PAY FOR THE MODIFICATION OF THE SIGNAL AT S. 188TH ST. AND DES MOINES MEMORIAL DRIVE SOUTH TO PROVIDE FOR A PROTECTED/PERMISSIVE EAST-NORTHBOUND LEFT TURN. ONCE THESE MODIFICATIONS HAVE BEEN COMPLETED THE TRAFFIC CONTROL PLAN CAN BE MODIFIED TO ELIMINATE THE REQUIREMENT FOR THE ((((((FLAGPERSON)))))) AT THE INTERSECTION OF S. 188TH ST. AND DES MOINES MEMORIAL DRIVE SOUTH. ALL OTHER CONDITIONS REMAIN INTACT.

I AGREE TO ADDRESS THE ABOVE CONDITIONS TO THE SATISFACTION OF THE CITY OF SEATAC.

DATE:

3/2/2012

SIGNATURE:



NAME (PRINT):

John D. Long





EXPORT MATERIALS LOG

AM-11-1295 Avis ~ SeaTac DATE: March 5, 2012

LOAD NO.	TRUCKING COMPANY	MANIFEST #	DUMP TIME	ESTIMATED QUANTITY	LOCATION	DATE	TYPE OF MATERIALS	TONNAGE SLIPS
1	Wyser Construction	1876056843	11:00 AM	17.68 ton	Cemex	3/5/2012	Class 3 Soil	17.68
2	Wyser Construction	192648	10:24 AM	5.0 CY	Renton Concrete Recyclers	3/5/2012	Asphalt	5.0 CY
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18						Class 3 Soil	Total Tons	17.68
19						Asphalt	TOTAL CY	5.0 CY



1876056843

Weighed At: Soil Remediation  
6300 Glenwood Ave  
Everett, WA 98213

Location: 1873

Order:                      Dispatch:                      0.00 Date: 03/05/2012

Ship To: 3031899-WYSER CONSTRUCTION INC  
188TH & 16TH SEATAC  
TO EVERETT SOILS  
EVERETT, WA 98213

Instruct:

Job #: AVIS                      PO: 1295  
Product: 1192508 - CLASS 3 SOIL DUMPED BY TON  
Carrier: -  
Vehicle: 2146258 - WC30T, WYSER CONSTRUCTION  
Tractor / Trailer 1 / Trailer 2: -/-

Qty:	17.68 ton	--- DRIVER ON AT TARE & GROSS ---			
Weighmaster:			lb	ton	tnr
CEMEX		Gross:	78,100	39.05	35.43
Deputy Weighmaster:		Tare:	42,740	21.37	19.39
Malia J. Leake		Net:	35,360	17.68	16.04
Scale:	0	* Manual Weight			
In:	11:00 am	Today Loads:	1		
Out:	11:14 am	Today Qty:	17.68 ton		

CEMEX'S STANDARD TERMS AND  
CONDITIONS INCORPORATED HEREIN.

Signature of Receiving Agent

Driver:

METRIC CONVERSION FORMULA: POUNDS DIVIDED BY 2204.623, ROUNDED TO 2 DECIMALS  
SEE REVERSE SIDE FOR PRODUCT LABEL INFORMATION

---

**APPENDIX F**

Site Assessment Report



March 26, 2012

Project SE11160290

Washington State Department of Ecology  
Underground Storage Tank Section  
PO Box 47655  
Olympia, WA 98504

**Subject: Site Assessment for Removal of UST (Tank ID #40652)  
UST Permanent Closure at Site 6132**  
18811 16th Avenue South  
SeaTac, Washington

This letter presents the site assessment for the permanent closure and removal of underground storage tank (UST) (Tank ID #40652) at Site 6132, Avis Rent A Car, 18811 16th Avenue South, SeaTac, Washington (site), shown on the enclosed vicinity map, Figure 1. The UST was removed on February 29, 2012, under the supervision of Devin O'Reilly, ICC #8124953.

#### **SITE INSPECTION**

There were no surface indications of a release, including distressed vegetation, cracks in paving or poor condition equipment. There was no evidence of improper waste disposal in either nearby storm drains or in the bathroom at the closed on-site office building. All aboveground tank components and attendant piping were located and sized as expected and in good condition.

Utilities were located with both the One-Call service and an on-site private utility locator. The only utility in the immediate area of the excavation was a Port of Seattle stormwater sewer line running north-south below the west side of the dispenser island, as shown in Figure 2. Utilities on the east side of the property included a gas line and 3-phase electrical power, both from Puget Sound Energy.

#### **UST SYSTEM DATA SUMMARY**

The removed UST (Tank ID #40652), a 12,000-gallon double-walled, corrosion resistant fiberglass reinforced tank was originally installed in January 1992 by B&C Equipment Co. The tank pumping system was pressurized, with a spill bucket/box for spill prevention, an overfill alarm, corrosion resistant flexible double wall pipe and automatic line leak detection. The primary tank release detection method was interstitial monitoring and the pipe tightness test was annual. The tank was secured via four deadman anchors spaced evenly along the tank. An upgrade was performed on April 16, 1998. The tank current was on inspections and operational through July 2009. The tank was pumped dry on July 7, 2011, and permitted through January 31, 2012.

Earlier, a 12,000-gallon gasoline UST (Tank ID #40739) was removed from the site on December 10, 1991. Two 500-gallon oil USTs were removed from the far side of the on-site structure (approximately 100 feet away) on January 27, 1992, and found to be leaking; a notice of confirmed release was filed with the Washington State Department of Ecology (Ecology) in February 1992. The highest soil

Underground Storage Tank Section  
Washington State Department of Ecology  
March 26, 2012  
Page 2

sample detections were collected on January 27, 1992, from the west side wall of the oil UST excavation and registered 380,000 milligrams per kilogram (mg/kg) in the lube oil and related products range of a State of Washington Total Petroleum Hydrocarbon – Hydrocarbon Identification (WTPH-HCID) analysis. There was an excavation of 30 cubic yards of impacted soil from around the oil tanks on March 5, 1992. A groundwater recharge sample collected from the excavation on March 12, 1992, had 9.9 milligrams per liter (mg/L) for total petroleum hydrocarbon (TPH) (8015 Mod.). The excavation was subsequently backfilled with clean pea gravel.

A push-probe investigation was conducted on December 6, 2012, in the vicinity of both the former oil tanks and on the west side of the property near the extant 12,000-gallon gasoline tank slated for removal. No gasoline, diesel, or heavy oil product was detected in any of the six soil and two groundwater samples collected during this investigation using the Northwest Total Petroleum Hydrocarbon – Hydrocarbon Identification (NWTPH-HCID) method.

#### **SOIL AND HYDROGEOLOGICAL CHARACTERISTICS**

The dispenser island lines and UST (Tank ID #40652) were surrounded by angular to subangular pea gravel fill, to a depth of approximately 2 feet below the dispenser lines and 2 feet below the UST. The native soil was a brown (7.5YR 5/4) moist inorganic silt with 15 percent subrounded fine to coarse gravel.

The surface drainage is to the south over an impervious surface towards storm drains, which were protected following a City of SeaTac Temporary Erosion and Sedimentation Control (TESC) plan with bermed straw waffles and catch basin socks. Groundwater appeared in push-probe borings located near the UST at approximately 12 feet depth during a December 2011 investigation that found no evidence of contamination.

No public or private drinking water wells are within a half-mile radius, according to the Ecology Well Log database. There are no current uses of groundwater on site.

#### **SURROUNDING LAND USE**

The site has been used historically as a parking lot for rented vehicles and is zoned as Industrial. The surrounding properties are zoned as either Industrial or Aviation Operations; Seattle-Tacoma International Airport (Sea-Tac Airport) is across the street, to the north and east of the site. Buildings to the west and south are a mix of office parks and light manufacturing, including air conditioner maintenance, culinary supply and precision-tool manufacturing. Runways for Sea-Tac Airport are to the north, east, and west; a large airport maintenance facility is directly across the street to the north. There are no potentially sensitive receptors within range of the site.

#### **SAMPLE ANALYSIS**

Samples were collected from locations indicated on Figure 2. All samples were collected as grab samples and analyzed using the NWTPH-HCID method. Preference was given to collecting samples as close as possible to the fill-native soil interface. Sampling equipment was decontaminated between samples using an Alconox and deionized water rinse. All 14 soil samples associated with the tank and piping removal returned non-detects in every hydrocarbon range, as indicated on

Underground Storage Tank Section  
Washington State Department of Ecology  
March 26, 2012  
Page 3

Table 1. The analysis was conducted by Friedman & Bruya, Inc., an Ecology-certified laboratory located at 3012 16th Avenue West, Seattle, Washington 98119.

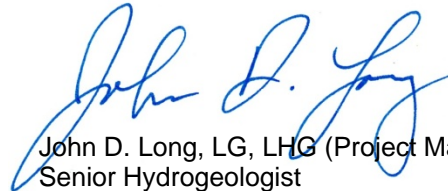
## CONCLUSION

The results of this site assessment indicate that no releases occurred. The UST was permanently closed and removed successfully.

Sincerely yours,  
AMEC Environment and Infrastructure, Inc.



Devin O'Reilly  
Staff Geologist  
Direct Tel.: (206) 342-1771  
Main Fax: (206) 342-1761  
E-mail: devin.oreilly@amec.com



John D. Long, LG, LHG (Project Manager)  
Senior Hydrogeologist  
Direct Tel.: (206) 342-1779  
Main Fax: (206) 342-1761  
E-mail: john.long@amec.com

DO/ri  
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Enclosures: Table 1 – Laboratory Results  
Figure 1 – Vicinity Map  
Figure 2 – Site Plan  
UST Closure and Site Assessment Notice  
UST Site Check/Site Assessment Checklist

cc: Kevin Varao, SeaTac Fire Department (PDF only)

**TABLES**

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**TABLE 1**

**LABORATORY RESULTS**

18811 16th Avenue South  
SeaTac, Washington

Sample ID	Media	Location	Analysis	Gasoline range	Diesel range	Heavy Oil range
AVIS18811-01-022812	Soil	Dispenser island	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-02-022812	Soil	Dispenser island	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-03-022812	Soil	Dispenser island	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-04-022812	Soil	Dispenser island	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-05-022812	Soil	Dispenser piping	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-06-022812	Soil	Dispenser piping	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-01-022912	Soil	East side wall	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-02-022912	Soil	West side wall	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-03-022912	Soil	Bottom of pit	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-04-022912	Soil	Stockpiled soil	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-05-022912	Soil	Stockpiled soil	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-06-022912	Soil	Stockpiled soil	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-07-022912	Soil	Stockpiled soil	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg
AVIS18811-08-022912	Soil	Stockpiled soil	NWTPH-HCID	< 20 mg/kg	< 50 mg/kg	< 250 mg/kg

Notes

1. Analysis performed by Friedman & Bruya, Inc. of Seattle, Washington.
2. < = Analyte was not detected equal to or above the laboratory reporting limit indicated.

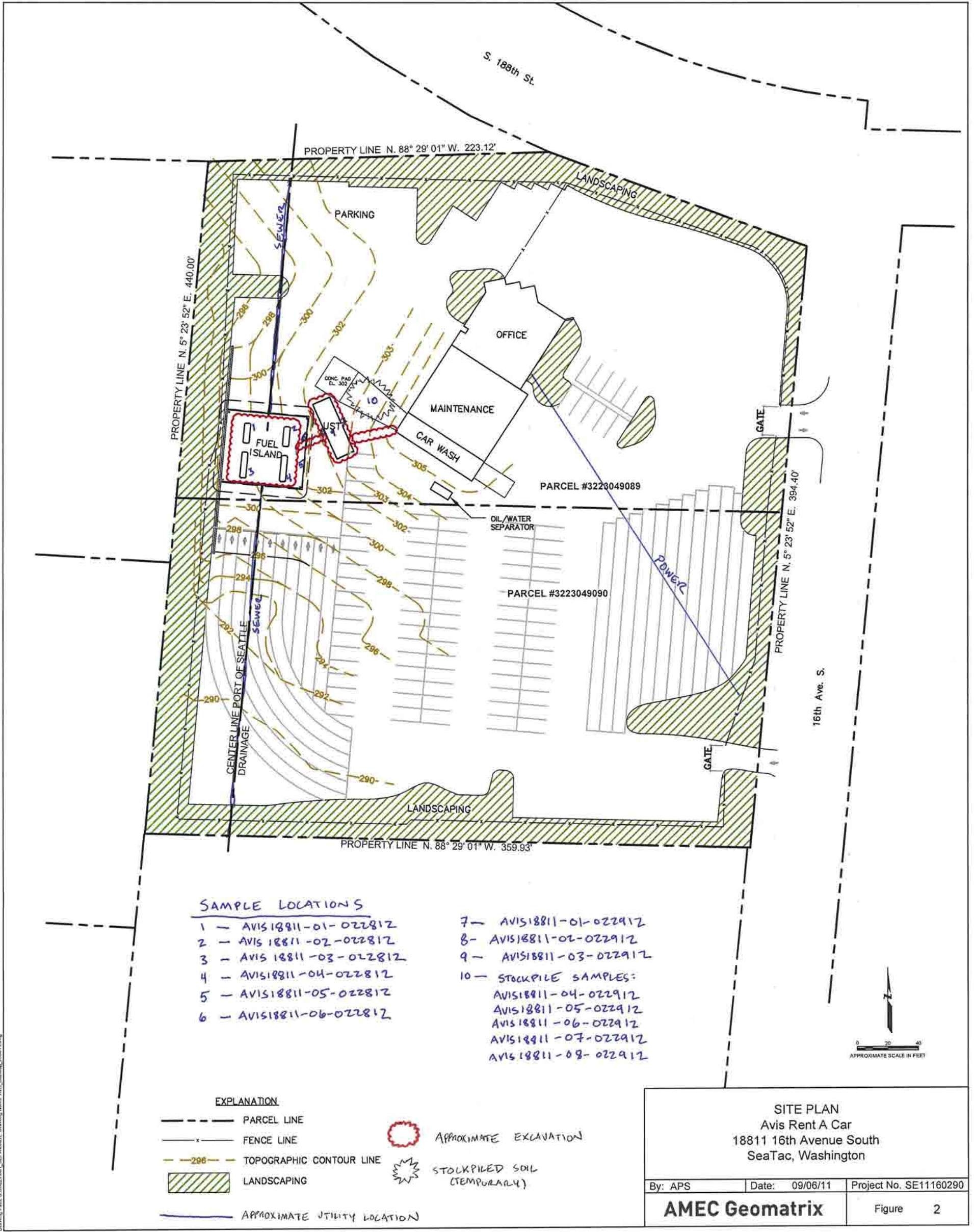
Abbreviations

mg/kg = milligrams per kilogram

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**FIGURES**





**SAMPLE LOCATIONS**

- |                         |                         |
|-------------------------|-------------------------|
| 1 - AVIS18811-01-022812 | 7 - AVIS18811-01-022912 |
| 2 - AVIS18811-02-022812 | 8 - AVIS18811-02-022912 |
| 3 - AVIS18811-03-022812 | 9 - AVIS18811-03-022912 |
| 4 - AVIS18811-04-022812 | 10 - STOCKPILE SAMPLES: |
| 5 - AVIS18811-05-022812 | AVIS18811-04-022912     |
| 6 - AVIS18811-06-022812 | AVIS18811-05-022912     |
|                         | AVIS18811-06-022912     |
|                         | AVIS18811-07-022912     |
|                         | AVIS18811-08-022912     |

**EXPLANATION**

- |  |                              |  |                             |
|--|------------------------------|--|-----------------------------|
|  | PARCEL LINE                  |  | APPROXIMATE EXCAVATION      |
|  | FENCE LINE                   |  | STOCKPILED SOIL (TEMPORARY) |
|  | TOPOGRAPHIC CONTOUR LINE     |  |                             |
|  | LANDSCAPING                  |  |                             |
|  | APPROXIMATE UTILITY LOCATION |  |                             |

**SITE PLAN**  
 Avis Rent A Car  
 18811 16th Avenue South  
 SeaTac, Washington

By: APS	Date: 09/06/11	Project No. SE11160290
<b>AMEC Geomatrix</b>		Figure 2

Plot File: 090611-13290.dwg, Plotted by: amec@amec.com  
 Drawing Path: S:\Projects\1160290\Drawings\18811-Avis-SeaTac.dwg (090611.dwg)



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**UST CLOSURE AND SITE ASSESSMENT NOTICE**



# UNDERGROUND STORAGE TANK Closure and Site Assessment Notice

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

See back of form for instructions

Please  the appropriate box(es)

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

### Site Information

### Owner Information

Site ID Number <sup>UST:</sup> 6132 (FACILITY: 32197393)  
(Available from Ecology if the tanks are registered)

UST Owner/Operator AVIS RENT A CAR SYSTEM, LLC  
c/o PHIL ENGLE

Site/Business Name AVIS RENT A CAR SYSTEM, LLC  
Street

Mailing Address 6 SYLVAN WAY  
Street

Site Address 18811 16<sup>TH</sup> AVENUE SOUTH

City/State SEATTLE, WA

City/State PARSIPPANY, NJ

Zip Code 98148 Telephone (206) 444-7491

Zip Code 07504 Telephone (973) 496-6942

Owners Signature [Signature]

### Tank Closure/Change-In-Service Company

Service Company AMEC

Certified Supervisor DEVIN O'REILLY Decommissioning Certification No. ICC# 8124953

Supervisor's Signature [Signature] Date 3/12/12

Address 600 UNIVERSITY ST / SUITE 600  
Street

SEATTLE WA 98101 Telephone (206) 342-1760  
City State Zip Code

### Site Check/Site Assessor

Certified Site Assessor DEVIN O'REILLY ICC#: 8124953

Address 600 UNIVERSITY ST / SUITE 600  
Street

SEATTLE WA 98101 Telephone (206) 342-1760  
City State Zip Code

### Tank Information

### Contamination Present at the Time of Closure

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
<u>40652</u>	<u>2/29/12</u>	<u>REMOVAL AND ON-SITE RESTORATION</u>	<u>12,000 GAL</u>	<u>UNLEADED GASOLINE</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

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

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

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



**UST SITE CHECK/SITE ASSESSMENT CHECKLIST**

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# UNDERGROUND STORAGE TANK Site Check/Site Assessment Checklist

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

## INSTRUCTIONS

When a release has not been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person certified by ICC or a Washington registered professional engineer who is competent, by means of examination, experience, or education, to perform site assessments. **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 tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers 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.

Underground Storage Tank Section  
Department of Ecology  
PO Box 47655  
Olympia WA 98504-7655

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

## SITE INFORMATION

Site ID Number (Available from Ecology if the tanks are registered): <sup>UST:</sup> 6132 FACILITY: 32197393  
 Site/Business Name: AVIS RENT A CAR  
 Site Address: 18811 16TH AVENUE SOUTH Telephone: (206) 444-7491  
SEATAC Street WA 98148  
 City State Zip Code

## TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
<u>40652</u>	<u>12,000 GAL</u>	<u>UNLEADED GASOLINE</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 with tank removed.
- Abandoned tank containing product.
- Required by Ecology or delegated agency for UST system closed before 12/22/88.
- Other (describe): \_\_\_\_\_

**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 a vicinity map.	X	
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)	X	
3. A summary of UST system data is provided. (see Section 3.1.)	X	
4. The soils characteristics at the UST site are described. (see Section 5.2)	X	
5. Is there any apparent groundwater in the tank excavation?	X	
6. A brief description of the surrounding land use is provided. (see Section 3.1)	X	
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.	X	
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	X	
- groundwater samples distinguished from soil samples (if applicable)	X	
- samples collected from stockpiled excavated soil	X	
- tank and piping locations and limits of excavation pit	X	
- adjacent structures and streets	X	
- approximate locations of any on-site and nearby utilities	X	
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)	X	
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.	X	
11. Any factors that may have compromised the quality of the data or validity of the results are described.	X	
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred.		X

**SITE ASSESSOR INFORMATION**

DEVIN O'REILLY Person registered with Ecology      AMEC Firm Affiliated with  
 Business Address: 600 UNIVERSITY ST / SUITE 600 Telephone: (206) 342-1760  
Street  
SEATTLE WA 98101  
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.*

3/16/12 Date      [Signature] Signature of Person Registered with Ecology

*If you need this publication in an alternate format, please contact Toxics Cleanup Program at (360) 407-7170. For persons with a speech or hearing impairment call 711 for relay service or 800-833-6388 for TTY.*