Walker Subara
VCP# NW0420

Sound Subaru
LUST #442838

GROUNDWATER TECHNOLOGY ®

Groundwater Technology, Inc.
19033 West Valley Highway, Suite D104, Kent, WA 98032 USA
Tel: (206) 251-5441 Fax: (206) 251-8452
Project # 020600266

May 1, 1996

ENTERED 4/7/00

DEPARTMENT OF ECOLOGY
NWRO/TCP TANKS UNIT
INTERIM CLEANUP REPORT ☐
SITE CHARACTERIZATION ☐
FINAL CLEANUP REPORT ☐
OTHER Phase 2 ☑
AFFECTED MEDIA: SOIL ☑
OTHER GW ☑
INSPECTOR (INIT.) DATE 4-7-00

Ms. Sandy Rodal
Pacific Northwest Bank
11100 NE 8th Street
Bellevue, Washington 98004

Re: Phase 2 Environmental Assessment
Sound Subaru
240-250 Rainier Avenue South, Renton, Washington

Dear Ms. Rodal:

Attached for your use are the results of the Phase 2 environmental assessment prepared for the referenced site. Activities performed included the installation of 8 soil borings, the collection of soil and groundwater samples, field screening of all soil samples collected, and the laboratory analysis of 8 soil samples and 5 groundwater samples. The attached report summarizes the activities performed and the laboratory analysis related to Washington Department of Ecology (WDOE) Model Toxics Control Act (MTCA) Method A Compliance Cleanup Levels (CCL(a)s).

Two soil borings were installed in the former vicinity of the three 10,000 gallon gasoline underground storage tanks (USTs). Field screening indicated organic vapor above background in several of the soil samples. Gasoline range volatile organic compounds (VOCs) were detected in soil and groundwater. VOC concentrations in groundwater exceeded the CCL(a)s. These tanks may have been on property reported to be leased from the City of Renton.

Two soil borings were installed in the former vicinity of the pump islands on the south side of the site. Field screening indicated organic vapor above background in all but one of the soil samples. Gasoline range volatile organic compounds (VOCs) were detected in soil and groundwater. VOC concentrations in soil and groundwater exceeded the CCL(a)s. The pump islands are on property reported to be leased from the City of Renton.

Four soil borings were advanced in the area of the former Texaco station, near the existing oil water separator, near the former auto repair/transmission shop, and near the drainage area at the northeast corner of the site. Field screening indicated organic vapor results generally in the range expected for background. No VOCs were detected in the samples submitted.

In summary, gasoline range VOCs were detected above CCL(a)s in groundwater in the former area of the 10,000 gallon USTs and in the soil and groundwater in the area of the associated pump islands. In accordance with WDOE regulations (WAC 173-340-450), the property owners are required to report a confirmed release from a UST to the WDOE within 24 hours of discovery. Reporting is required by other parties with knowledge within 72 hours. As such, we recommend that the City of Renton be made aware of the release and the reporting requirement, and the release reported to the WDOE Northwest Regional Office (206-649-7000). Submittal of a follow-up report is required within 20 days. This Phase 2 assessment report will likely meet the requirements of a follow-up report. At 90 days, a Site Characterization Report is due. This report also likely meets that requirement.

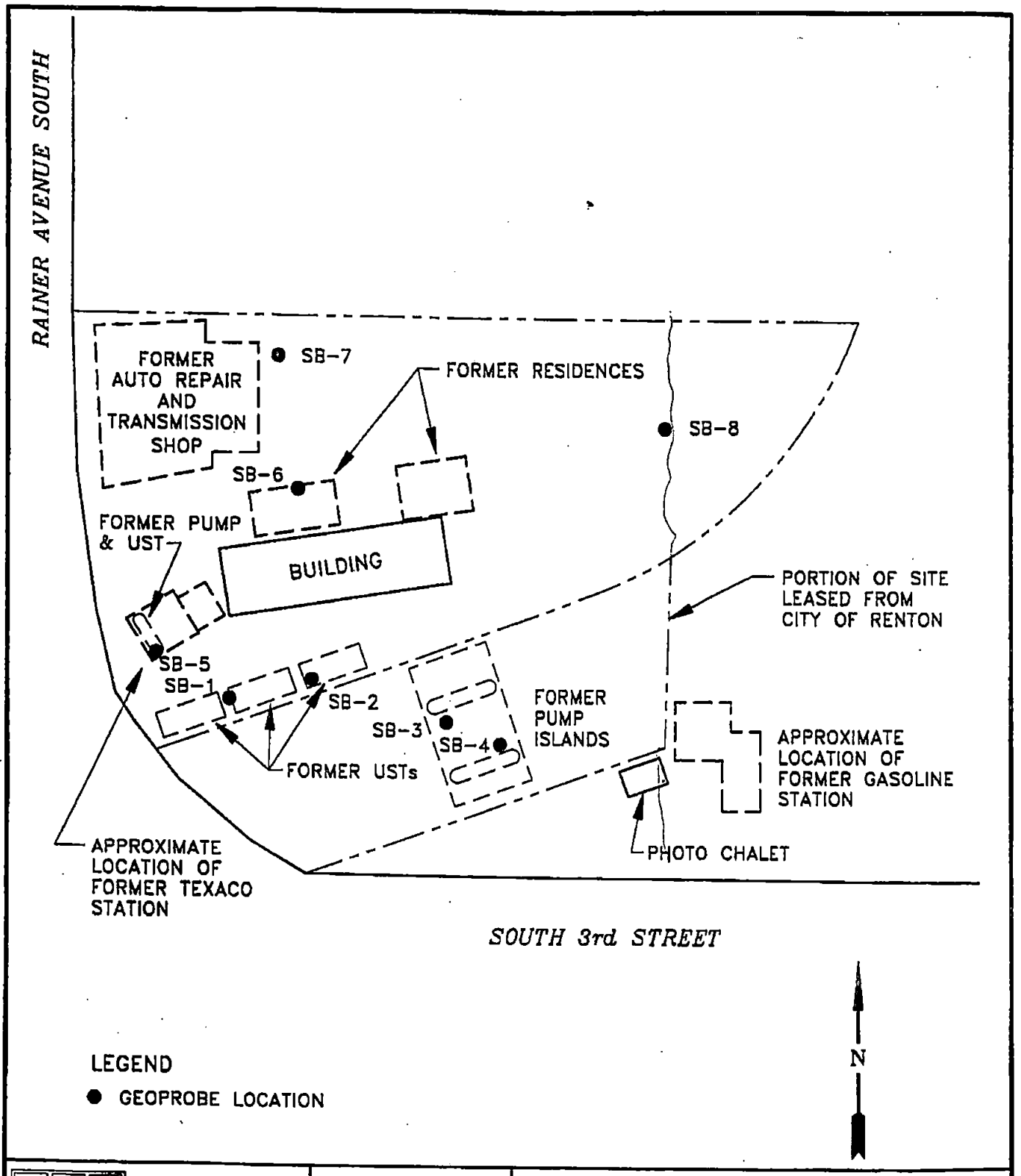
Some form of corrective action will likely be required at the site based on VOC concentrations exceeding MTCA CCL(a)s in soil and groundwater and the site location in or bordering the City of Renton Aquifer Protection Zone. Corrective action may include installation of monitoring wells, evaluation of groundwater flow direction and likely receptors, and potential installation of a remediation system.

Groundwater Technology recommends that the results of the assessment be reviewed with appropriate legal counsel to limit potential liability should the decision be made to pursue purchase of the property leased by the City of Renton.

Sincerely,
Groundwater Technology, Inc.

Justin E. Peach, PG, PE
Senior Engineer

copy: Dale Walker - Sound Subaru w/ attachment

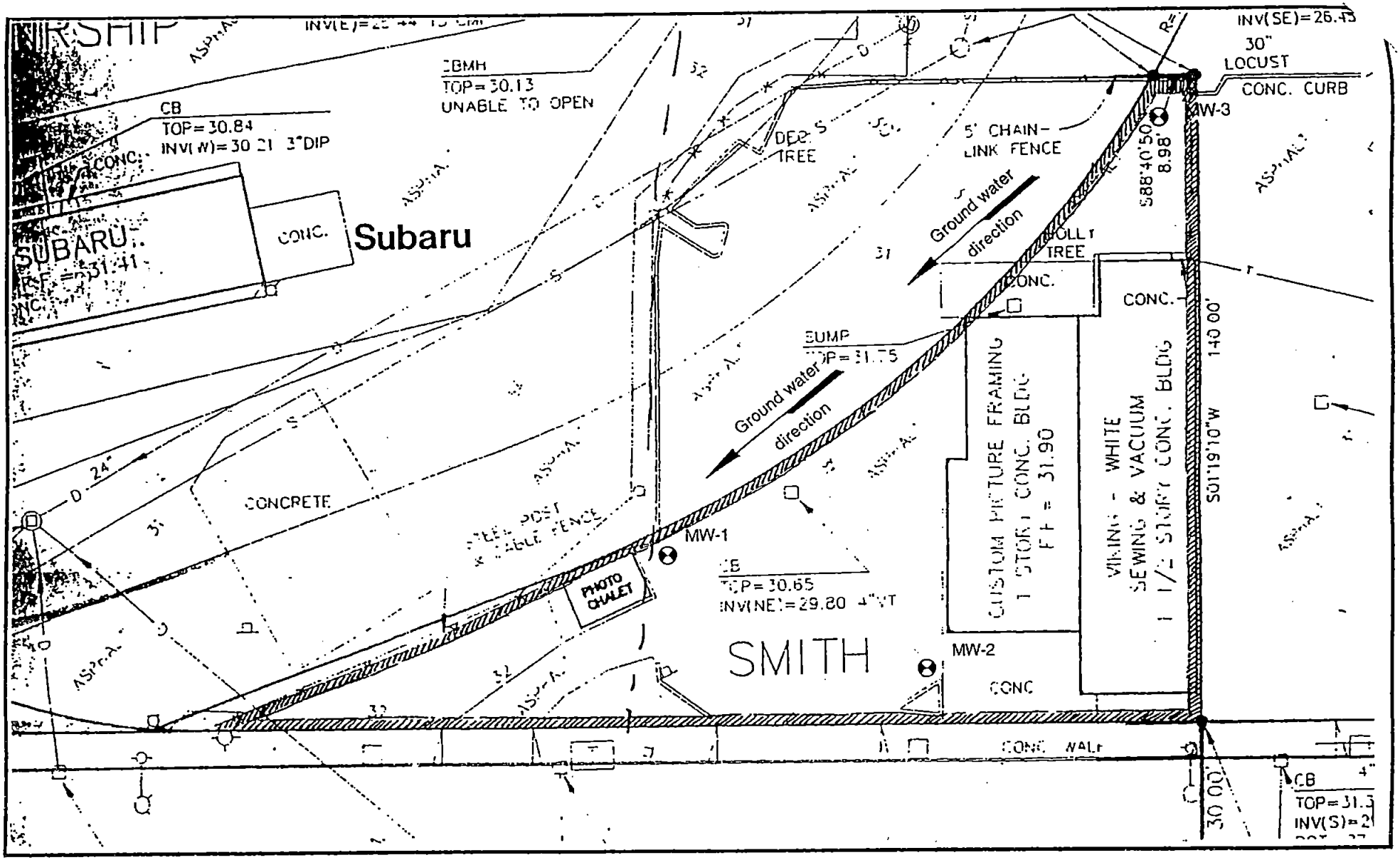


GROUNDWATER TECHNOLOGY

0 FEET 50
SCALE

SITE PLAN

CLIENT: SOUND SUBARU	FILE: SP496	PROJECT NO: 020600266		PM	RG/PE
LOCATION: 240-250 RAINER AVENUE S. RENTON, WASHINGTON	REV: 0			FIGURE: 2	
	DES: SH	DET: CY	DATE: 5/1/96		



ENVIRONMENTAL PARTNERS INC

Date: August, 1996
EPI Project No: 08219.0

N

Figure 1

Monitoring Wells Locations and Ground Water Flow Direction

Key

Subject Property Boundary

Source: ALTA Survey and Topographic Map
Date: April 25, 1995

Please Note: Well Locations Not Drawn to Scale

GROUNDWATER TECHNOLOGY ®

Groundwater Technology, Inc.
19033 West Valley Highway, Suite D104, Kent, WA 98032 USA
Tel: (206) 251-5441 Fax: (206) 251-8452

May 1, 1996

Project # 020600266

Ms. Sandy Rodal
Pacific Northwest Bank
11100 NE 8th Street
Bellevue, Washington 98004

Re: Phase 2 Environmental Site Assessment
Sound Subaru Property
240-250 Rainier Avenue South, Renton, Washington

Dear Ms. Rodal:

This letter-report presents the results of the Phase II environmental site assessment conducted on April 17 1996 at the Sound Subaru property located at 240-250 Rainier Avenue S., in Renton, Washington (Figure 1). The work presented in this report was conducted on behalf of Pacific Northwest Bank as authorized by the agreement dated March 29, 1996 between Groundwater Technology, Inc. and Pacific Northwest Bank. The purpose of the environmental site assessment is to identify potential petroleum impacts to soil or groundwater in the areas most likely to have been affected by past and present operations.

Site Description

The subject property is currently a used car lot operated by Sound Subaru of Renton, Washington. The property is bordered on the north by a dead-end driveway and a Wendy's Restaurant; the south by South Third Street; the west by Rainier Avenue South; and the east by a commercial building and parking area. The northeast corner of the property is bordered by an undeveloped area of bushes which appears to be a potential drain for surface water runoff. The site vicinity is light commercial located in the southeast quarter of the northwest quarter, Township 23 North, Range 5 East. Renton Airport is approximately 0.5 miles to the north and Lake Washington is approximately one mile to the northeast.

The site is fully covered by asphalt with minor amounts of concrete at the former location of a gasoline service island area and at the auto washing areas. There is one building on the site used as a sales office and auto detailing shop. According to the Environmental Associates, Inc. Phase I Site Assessment Report, there have been five buildings on various portions of the site (Figure 2, Site Plan). Former uses of these buildings include: auto repair shop, pet shop, commercial building, transmission shop, private residences, and two service stations. The auto repair shop and transmission shop were housed in a former building north of the current sales building. The private residences were located immediately north of the current building. One former service station operated by Texaco, Inc. from 1918 to 1953 was located west of the current building. According to Environmental Associates, Inc. there was one service island and one underground storage tank (UST). No current footprint of the former station remains on the site. A second

service station was located southeast of the current building. The station building is located off the subject site. Two service islands are on the portion of the site leased from the City of Renton and are visible. Three 10,000-gallon USTs were used for the operation of the second service station. They were located south-southwest of the sales office. The locations of the Texaco service station, the 10,000-gallon USTs and the second service station are approximate.

Scope of Work

The following scope of work was completed as part of the Phase II environmental site assessment at the Sound Subaru property:

- Prepare a site-specific health and safety plan;
- Contact the City of Renton and public utilities locating service to identify public underground utilities;
- Conduct a site walk to identify potential environmentally sensitive areas and sampling locations;
- Contact a private utility locator to identify on-site private underground utilities;
- Install and sample 8 drive-points to approximately four to fifteen feet below grade (bg);
- Collect and analyze 8 soil and 5 groundwater samples; and,
- Prepare a report of findings and recommendations.

Utility Clearance

Prior to April 17, 1996, One Call Underground Utility Service was contacted to provide markings of all underground utilities located on public land adjacent to the subject property. On April 17, 1996, Locating, Inc. of Issaquah, Washington performed an on-site survey for underground utilities, especially in the proposed sampling locations. In addition, Locating Inc. surveyed the area of the 10,000-gallon USTs with a metal detector. No indications of buried metal existed in the former UST area. The City of Renton Public Works Department was contacted prior to placement of the drilling locations for information on underground utilities, former road layout, and former gasoline service station placement. The City of Renton did not have historical information that would augment the accuracy of the project.

Drive-Point Sampling And Analysis

On April 17, 1996, a drive-point sampling investigation was conducted by Cascade Drilling, Inc. (Cascade) of Woodinville, Washington under the direction of a Groundwater Technology geologist. Eight sampling locations, designated SB-1 through SB-8, were advanced to approximately 15 feet bg, or until the sampling probe could not be advanced due to rock or concrete. Soil and groundwater samples were collected using Cascade's Geoprobe™ drive-point sampling system. The drive-point sampling system consists of a truck-mounted, 2-inch outside diameter drive-point that is advanced by hydraulic ram. Soil samples were collected at five-foot intervals (when possible) with a 1-inch diameter disposable sampling spoon driven by the hydraulic ram. Each soil sample was screened in the field for volatile organic compounds using a

portable photoionization detector (PID). A log of the drilling activities, soils encountered (VOC), and PID headspace readings was kept by the Groundwater Technology geologist (Appendix A, Drill Logs).

When soil saturated with groundwater was encountered, a groundwater sample was collected. Groundwater samples were collected by advancing covered well screen four feet into the water-bearing zone. Dedicated plastic tubing was placed in the temporary well at the bottom of the screened casing. The water-bearing zone was exposed by removing the opening the screen, allowing groundwater to pass into the well. Groundwater was collected for sampling with a peristaltic pump.

A total of eight soil samples and five groundwater samples were collected, preserved as required, and transported under Chain-of-Custody to North Creek Analytical in Bothell, Washington for laboratory analysis. Each sample was analyzed by one or more of the following:

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8020
- Total petroleum hydrocarbons-as-gasoline (TPH-g) by Washington Method WTPH-G
- Total petroleum hydrocarbons-as-diesel (TPH-d) by Washington Method WTPH-D
- Hydrocarbon identification (HCID) by Washington Method WTPH-HCID
- Volatile organic compounds (VOC) by EPA Method 8240.

Samples were analyzed by particular methods based on historical information and field observations. Tables 1 and 2 summarize the analytical results for soil and groundwater samples, respectively. The complete laboratory report is included in Appendix B.

Results of Drive-Point Sampling And Analysis

The lithology encountered during the subsurface assessment consisted of fill material, generally a brown to gray silty sand with varying percentages of gravel and clay. Several of the borings contained pieces of brick, concrete, and rocks. Groundwater was encountered in six of the borings at 11 to 12 feet bg. Two of the borings did not reach water due to impassible rock and concrete. The following section describes the purpose and findings of each soil boring.

SB-1 and SB-2: Soil borings SB-1 and SB-2 were placed in the vicinity of the former 10,000-gallon USTs. Each was advanced to 15 feet bg and groundwater was encountered at 12 feet bg. The soil in boring SB-1 from 10 to 10.5 feet bg appeared to be stained from petroleum impacts and had a moderate petroleum odor. However, the sample did not contain BTEX or TPH-g concentrations exceeding the Washington State Model Toxics Control Act (MTCA) Method A Compliance Cleanup Levels [CCL(a)s], which are the action levels that drive most petroleum cleanups. This sample was further analyzed by HCID to determine if the odor may have been due to diesel or oil impacts. The analytical results indicated that diesel and oil-range petroleum hydrocarbon concentrations exceeding the laboratory method reporting limits (MRLs) were not present in the sample.

The soil sample collected at 10 feet bg in boring SB-2 had a slight petroleum odor. The sample was analyzed for BTEX and TPH-g concentrations. The results indicated that the concentrations were below the CCL(a)s.

A groundwater sample was collected from both soil borings. The groundwater sample collected from boring SB-1 had a petroleum sheen on the water. The sample collected from SB-2 did not have a sheen. The groundwater sample from SB-1 was analyzed for BTEX and TPH-g. The following analyte concentrations exceed the CCL(a)s: benzene [13 micrograms per liter (ug/L], ethylbenzene (42 ug/L), total xylenes (140 ug/L), and TPH-g (2,100 ug/L). The groundwater sample collected from boring SB-2 was not analyzed due to its proximity to SB-1.

SB-3 and SB-4: Soil borings SB-3 and SB-4 were advanced in the former service island area. The purpose of the soil borings was to assess the soil and groundwater conditions at opposite ends of each island. It was assumed that the product piping was installed between the two islands, as is typical for most service island construction. Soil boring SB-3 was advanced to 15 feet bg and groundwater was encountered at 11 feet bg. Due to rock and concrete rubble at approximately 4 feet bg, a shallow soil sample was not collected. However, a strong odor was noted at approximately three feet bg, so a second soil boring was advanced adjacent to SB-3 to collect a sample of the impacted soil. The soil sample was analyzed for BTEX, TPH-g, and HCID. Benzene [4.6 milligrams per kilogram (mg/Kg)], total xylenes (100 mg/Kg), and TPH-g (1,200 mg/Kg) concentrations exceed the CCL(a)s for soil. The groundwater sample was analyzed for BTEX and TPH-g. The concentrations for total xylenes (54 ug/L) exceed the CCL(a).

Soil boring SB-4 was advanced to approximately 4 feet bg and was stopped due to rock and concrete rubble. A soil sample was collected at the extent of the boring. There was a strong odor that was not typical of gasoline impacts, with a sheen on the soil and on the sampler. The soil sample was analyzed for TPH-g and VOC (which includes the BTEX compounds). The detected concentrations exceeding the CCL(a)s include: benzene (2.3 mg/Kg), ethylbenzene (31 mg/Kg), total xylenes (48 mg/Kg), and TPH-g (2,600 mg/Kg). No other VOCs were detected above the MRLs. The complete list of tested VOC analytes is included in the laboratory's report in Appendix B.

SB-5: Soil boring SB-5 was advanced in the approximate area of the former Texaco service station. The boring was advanced to 15 feet bg and groundwater was encountered at 11 feet bg. The soil encountered in boring SB-5 was different from that encountered in the other borings, and not typical of soils found in the Puget Sound region. It was a light tan, medium-grain sand. The driller suggested that it may be fly ash related to coal burning operations, but that has not been verified. No significant impacts were observed while drilling. The soil and groundwater samples submitted for analysis did not contain BTEX or TPH-g concentrations exceeding the CCL(a)s.

SB-6: Soil boring SB-6 was advanced in the vicinity of the former residences, adjacent to the current auto washing area and oil/water separator. The boring was advanced to 15 feet bg and water was encountered at 11 feet bg. No impacts were observed during drilling. The soil sample collected at 5 feet bg and the groundwater sample were submitted for analysis to detect surface spills in the area. No concentrations of

BTEX or TPH-g in soil or groundwater exceeding the MRLs were detected. The groundwater sample was further analyzed for TPH-d. No concentration exceeding the MRL was detected.

SB-7: Soil boring SB-7 was advanced to approximately 12 feet bg in the vicinity of the former transmission shop and auto repair facility. The purpose of the boring was to determine if wastes from these operations may have been disposed of behind the former building. The soil was extremely rocky resulting in no sample recovery at five feet bg and a broken sampler at 12 feet bg. A soil sample was collected at eight feet bg, but no groundwater was collected. No impacts were observed during drilling and the soil sample did not contain BTEX or TPH-g concentrations exceeding the CCL(a)s.

SB-8: Soil boring SB-8 was drilled in the northeast portion of the property, nearest the undeveloped area and potential water drainage ditch. This boring was advanced to determine if dumping may have occurred in the back portion of the property. One soil sample was collected at 7 feet bg. Groundwater was encountered at 11.5 feet bg and sampled. No impacts were observed during drilling. Concentrations of TPH-d were at 60 mg/Kg, which does not exceed the CCL(a). The groundwater sample did not contain concentrations of BTEX or TPH-g in excess of the MRLs.

Conclusion

Eight soil borings were advanced on the Sound Subaru property in the areas determined to have to highest potential for environmental impacts. One soil boring from each soil boring was submitted for laboratory analysis of the compounds most likely to be present. Six groundwater samples were collected from the soil borings, five of which were submitted for laboratory analysis. Two soil borings did not reach groundwater due to refusal from rock and concrete rubble.

The main soil type underlying the site is a brown to gray silty-sand. Due to the high degree of variation in the soil types and the presence of brick, concrete and other debris in the subsurface, it appears that the soil is fill material and not native soil. Groundwater is approximately 11 to 12 feet bg across the site. Based on the data collected, groundwater flow direction and gradient can not be determined.

Gasoline-range petroleum impacts to soil, including benzene, with concentrations exceeding the MTCA CCL(a)s, were detected in soil boring SB-3 and SB-4 both located in the area of the former gasoline station service islands. The highest soil concentration detected was 2,600 mg/Kg of TPH-g, collected at three feet bg in SB-4. It should be noted that a groundwater sample was not collected in this area. Based on the laboratory data, it does not appear that diesel or oil-range petroleum hydrocarbons, or VOCs (beyond BTEX) are found in the subsurface.

Five groundwater samples were analyzed for BTEX and TPH-g. The sample from SB-6 was further analyzed for TPH-d. The samples collected from SB-1, in the vicinity of the former 10,000-gallon USTs, and from SB-3, collected in the vicinity of the former gasoline station service islands, contained gasoline-range hydrocarbons concentrations exceeding the CCL(a)s. The highest concentration was detected in SB-1 (2,100 ug/L of TPH-g). Benzene was detected in concentrations exceeding the CCL(a) in SB-1 with

13 ug/L. The benzene concentration in SB-3 was detected at 4.3 ug/L, which is just below the CCL(a) of 5 ug/L. It is possible that the benzene concentrations in the vicinity of the service islands exceeds the CCL(a) at times, especially in the vicinity of soil boring SB-4.

Limitations

This report has been prepared for the exclusive use of Pacific Northwest Bank for specific application to this site. Our work for this project was conducted in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated March 29, 1996. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings studies, etc., Groundwater Technology, Inc., may reevaluate the conclusions of this report.

We appreciate the opportunity to serve Pacific Northwest Bank on this project. If you have any questions or comments regarding this report, please feel free to contact us.

Sincerely,
Groundwater Technology, Inc.

Steven A. Hartman
Staff Geologist

Justin E. Peach, PE, PG
Project Manager

Attachments

FIGURES

SOURCE: USGS RENTON QUADRANGLE, WASHINGTON – 7.5 MINUTE SERIES, 1973

EXPLANATION

▲ SITE LOCATION

N

SCALE 1:24000

1000 0 1000 2000 3000 4000 5000 FEET

SOUND SUBARU

240 – 250 RAINIER AVE. SOUTH
RENTON, WASHINGTON
020600266

DRAWN BY: S. HARTMAN DATE: 5-1-96
DRAFTED BY: LISA MILLER DATE: 5-1-96
CHECKED BY:_____ DATE:_____

SITE LOCATION MAP

FIGURE 1

GROUNDWATER TECHNOLOGY, INC.

0000-SL

Figure 1

TABLES

Table 1
Sound Subaru - Renton, WA
Table of Screening and Analytical Results - Soil
Results in milligrams per kilogram (mg/Kg)

Sample I.D.	Depth (feet)	PID (ppm)	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH-g	TPH-d	HCID	VOC
SB1-A	5	8	--	--	--	--	--	--	--	--
SB1-B	10	--	0.10	<0.050	0.15	3.4	75	--	N/N/N	--
SB1-C	15	--	--	--	--	--	--	--	--	--
SB2-A	5	--	--	--	--	--	--	--	--	--
SB2-B	10	32	<0.050	0.10	0.24	0.37	74	--	--	--
SB3-A	8	8	--	--	--	--	--	--	--	--
SB3-B	3	440	**4.6**	25	17	**100**	**1200**	--	P/N/N	--
SB4-A	3	380	**2.3**[1]	<0.40[1]	**31**[1]	**48**[1]	**2600**	--	--	ND[2]
SB5-A	5	10	--	--	--	--	--	--	--	--
SB5-B	10	12	<0.050	<0.050	<0.050	<0.10	<1.0	--	--	--
SB6-A	5	6	<0.050	<0.050	<0.050	<0.10	<1.0	--	--	--
SB6-B	10	5	--	--	--	--	--	--	--	--
SB7-A	7	10	<0.050	<0.050	<0.050	<0.10	2.1	--	--	--
SB8-A	5	5	--	--	--	--	--	60	--	--
SB8-B	10	5	--	--	--	--	--	--	--	--
MTCA CCL(a)			**0.5**	**40.0**	**20.0**	**20.0**	**100.0**	**200.0**	--	--

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Table 2 Sound Subaru - Renton, WA Table of Analytical Results - Water Results in micrograms per liter (ug/L)						
Sample I.D.	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**TPH-g**	**TPH-d**
SB-1	**13**	1.4	**42**	**140**	**2100**	--
SB-3	4.3	8.1	8.6	**54**	560	--
SB-5	1.5	2.2	<0.50	2.9	66	--
SB-6	<0.50	<0.50	<0.50	<1.0	<50	<0.25
SB-8	<0.50	<0.50	<0.50	<1.0	<50	--
MTCA CCL(a)	**5.0**	**40.0**	**30.0**	**20.0**	**1000.0**	**200.0**

Notes:

Benzene, toluene, ethylbenzene, and total xylenes are analyzed by EPA Method 8020.
TPH-g = Total petroleum hydrocarbons-as-gasoline by Washington Method WTPH-G.
TPH-d = Total petroleum hydrocarbons-as-diesel by Washington Method WTPH-D.
MTCA CCL(a) = Model Toxics Control Act Method A Compliance Cleanup Level.

Notes:

PID = Photoionization detector readings in parts per million (ppm)
Benzene, toluene, ethylbenzene, and total xylenes are analyzed by EPA Method 8020.
TPH-g = Total petroleum hydrocarbons-as-gasoline by Washington Method WTPH-G.
TPH-d = Total petroleum hydrocarbons-as-diesel by Washington Method WTPH-D.
HCID = Hydrocarbon Identification by Washington Method WTPH-HCID (N = Not Present, P = Present).
VOC = Volatile organic compounds analyzed by EPA Method 8240.
[1] = Analyzed by EPA Method 8240 instead of EPA Method 8020.
[2] = No analytes detected except benzene, ethylbenzene, and total xylenes (listed). See laboratory report for full list of analyzed compounds.
MTCA CCL(a) = Model Toxics Control Act Method A Compliance Cleanup Level.

APPENDIX A
DRILL LOGS

Drilling Log

GROUNDWATER TECHNOLOGY

Soil Boring SB-1

Project Sound Subaru/Renton Owner Sound Subaru
Location 240 - 250 Rainier Avenue S., Renton, WA Proj. No. 020600266
Surface Elev. ____ Total Hole Depth 16.5 ft. Diameter 1 in.
Top of Casing ____ Water Level Initial 12 ft. Static ____
Screen: Dia ____ Length ____ Type/Size ____
Casing: Dia ____ Length ____ Type ____
Fill Material ____ Rig/Core Geoprobe
Drill Co. Cascade Drilling Method Geoprobe
Driller Lynn Goble Log By Steven Hartman Date 04/17/96 Permit # ____
Checked By Justin Peach License No. ____

See Site Map For Boring Location

COMMENTS:

Analyzed sample is shown in black.

Depth (ft.)	PID (ppm)	Sample ID	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0		SB1		ASP	2" of asphalt.
2					Brown and gray SILTY-SAND, some clay layers, trace gravel <1" (Fill) (dry, no odor)
4					
6	8	A		SW	(grades moist)
8					
10	5	B			(PID collected in soil immediately above impacted area) (grades moderate petroleum odor, gray staining for 6")
12					Gray, medium-coarse grain SAND, and pea gravel (wet, no odor)
14				SP	[illegible]
16		C			End of boring.
18					
20					[illegible] sheen.
22					
24					

Drilling Log

GROUNDWATER TECHNOLOGY

Soil Boring SB-2

Project Sound Subaru/Renton Owner Sound Subaru
Location 240 - 250 Rainier Avenue S., Renton, WA Proj. No. 020600266
Surface Elev. _____ Total Hole Depth 15 ft. Diameter 1 in.
Top of Casing _____ Water Level Initial 12 ft. Static _____
Screen: Dia _____ Length _____ Type/Size _____
Casing: Dia _____ Length _____ Type _____
Fill Material _____ Rig/Core Geoprobe
Drill Co. Cascade Drilling Method Geoprobe
Driller Lynn Goble Log By Steven Hartman Date 04/17/96 Permit # _____
Checked By Justin Peach License No. _____

See Site Map For Boring Location

COMMENTS:

Analyzed sample is shown in black.

Depth (ft.)	PID (ppm)	Sample ID	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0		SB2		ASP	2" of asphalt.
2					Brown SILTY-SAND, some clay layers, trace gravel <1/2" dia. (Fill) (dry, no odor)
4					
6	NR	A			(not enough recovery for PID sample - no odor or staining)
8				SW	(grades gray, moist)
10	32	B			(grades slight petroleum odor)
12			▽		Encountered water at 12 feet
14					End of boring @ 15.
16					
18					
20					
22					
24					

Drilling Log

GROUNDWATER TECHNOLOGY

Soil Boring SB-3

Project Sound Subaru/Renton Owner Sound Subaru
Location 240 - 250 Rainier Avenue S., Renton, WA Proj. No. 020600266
Surface Elev. _____ Total Hole Depth 15 ft. Diameter 1 in.
Top of Casing _____ Water Level Initial 11 ft. Static _____
Screen: Dia _____ Length _____ Type/Size _____
Casing: Dia _____ Length _____ Type _____
Fill Material _____ Rig/Core Geoprobe
Drill Co. Cascade Drilling Method Geoprobe
Driller Lynn Goble Log By Steven Hartman Date 04/17/96 Permit # _____
Checked By Justin Peach License No. _____

See Site Map For Boring Location

COMMENTS:

Analyzed sample is shown in black.

Depth (ft.)	PID (ppm)	Sample ID	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2					
0		SB3		Asp	4" of concrete.
2					Dark gray SILTY-SAND (Fill) (dry, no odor)
4	440	B			(brick chips) (Note: A second Geoprobe hole was drilled to collect sample SB3-B at 3 feet. Poor recovery prevented sample collection during the first boring installation.)
6					(Very tough drilling, possible rock or concrete rubble)
8	8	A		SW	
10					*Encountered water at 11 feet*
12					
14					
16					End of borehole.
18					
20					Collected water sample from 11-15 foot interval.
22					
24					

Drilling Log

GROUNDWATER TECHNOLOGY

Soil Boring SB-4

Project Sound Subaru/Renton Owner Sound Subaru
Location 240 - 250 Rainier Avenue S., Renton, WA Proj. No. 020600266
Surface Elev. _____ Total Hole Depth 4 ft. Diameter 1 in.
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia _____ Length _____ Type/Size _____
Casing: Dia _____ Length _____ Type _____
Fill Material _____ Rig/Core Geoprobe
Drill Co. Cascade Drilling Method Geoprobe
Driller Lynn Goble Log By Steven Hartman Date 04/17/96 Permit # _____
Checked By Justin Peach License No. _____

See Site Map For Boring Location

COMMENTS:

Analyzed sample is shown in black.

Depth (ft.)	PID (ppm)	Sample ID	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0		SB4		ASP	4" of concrete.
2				SW	Dark brown SILTY-SAND, trace gravel (Fill) (dry, no odor)
					(grades strong odor, visible sheen on soil and sampler)
4	380	A			End of borehole due to refusal.
6					
8					
10					
12					
14					
16					
18					
20					
22					
24					

Drilling Log

GROUNDWATER TECHNOLOGY

Soil Boring SB-5

Project Sound Subaru/Renton Owner Sound Subaru
Location 240 - 250 Rainier Avenue S., Renton, WA Proj. No. 020600266
Surface Elev. ____ Total Hole Depth 15 ft. Diameter 1 in.
Top of Casing ____ Water Level Initial 11 ft. Static ____
Screen: Dia ____ Length ____ Type/Size ____
Casing: Dia ____ Length ____ Type ____
Fill Material ____ Rig/Core Geoprobe
Drill Co. Cascade Drilling Method Geoprobe
Driller Lynn Goble Log By Steven Hartman Date 04/17/96 Permit # ____
Checked By Justin Peach License No. ____

See Site Map For Boring Location

COMMENTS:

Analyzed sample is shown in black.

Depth (ft.)	PID (ppm)	Sample ID	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0		SB5		ASP	2" of asphalt.
2					Light tan medium-grain SAND (Fill) (dry, no odor)
4					
6	10	A			
8				SP	
10	12	B			(grades dark gray)
12					*Encountered water at 11 feet*
14					End of borehole due to refusal.
16					
18					
20					Collected water sample from 11-15 foot interval.
22					[illegible] consistent with soils commonly found in [illegible] suggested it may be fly ash.
24					

Drilling Log

GROUNDWATER TECHNOLOGY

Soil Boring SB-6

Project Sound Subaru/Renton Owner Sound Subaru
Location 240 - 250 Rainier Avenue S., Renton, WA Proj. No. 020600266
Surface Elev. ____ Total Hole Depth 15 ft. Diameter 1 in.
Top of Casing ____ Water Level Initial 11 ft. Static ____
Screen: Dia ____ Length ____ Type/Size ____
Casing: Dia ____ Length ____ Type ____
Fill Material ____ Rig/Core Geoprobe
Drill Co. Cascade Drilling Method Geoprobe
Driller Lynn Goble Log By Steven Hartman Date 04/17/96 Permit # ____
Checked By Justin Peach License No. ____

See Site Map For Boring Location

COMMENTS:

Analyzed sample is shown in black.

Depth (ft.)	PID (ppm)	Sample ID	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2					
0		SB5		Asp	2" of asphalt.
2					Dark brown fine-grain SILTY-SAND (Fill) (moist, no odor)
4					
6	6	A			
8				SW	
10	5	B			(grades to medium-grain sand, little silt)
12					*Encountered water at 11 feet*
14					End of borehole.
16					
18					
20					Collected water sample from 11-15 foot interval.
22					
24					

Drilling Log

GROUNDWATER TECHNOLOGY

Soil Boring SB-7

Project Sound Subaru/Renton Owner Sound Subaru
Location 240 - 250 Rainier Avenue S., Renton, WA Proj. No. 020600266
Surface Elev. _____ Total Hole Depth 12 ft. Diameter 1 in.
Top of Casing _____ Water Level Initial _____ Static _____
Screen: Dia _____ Length _____ Type/Size _____
Casing: Dia _____ Length _____ Type _____
Fill Material _____ Rig/Core Geoprobe
Drill Co. Cascade Drilling Method Geoprobe
Driller Lynn Goble Log By Steven Hartman Date 04/17/96 Permit # _____
Checked By Justin Peach License No. _____

See Site Map For Boring Location

COMMENTS:

Analyzed sample is shown in black.

Depth (ft.)	PID (ppm)	Sample ID	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0		SB7		Asp	2" of asphalt.
2					Brown medium to coarse-grain SILTY-SAND (Fill) (dry, no odor)
4					
6				SW	(Rocks at 5 feet. No sample recovery)
8	10	A			
10					
12					(Refusal at 12 feet. Sampler broke off in hole.) End of borehole.
14					
16					
18					
20					
22					
24					

GROUNDWATER TECHNOLOGY

Drilling Log

Soil Boring SB-8

Project *Sound Subaru/Renton* Owner *Sound Subaru*

Location *240 - 250 Rainier Avenue S., Renton, WA* Proj. No. *020600266*

Surface Elev. _____ Total Hole Depth *15 ft.* Diameter *1 in.*

Top of Casing _____ Water Level Initial *11.5 ft.* Static _____

Screen: Dia _____ Length _____ Type/Size _____

Casing: Dia _____ Length _____ Type _____

Fill Material _____ Rig/Core *Geoprobe*

Drill Co. *Cascade Drilling* Method *Geoprobe*

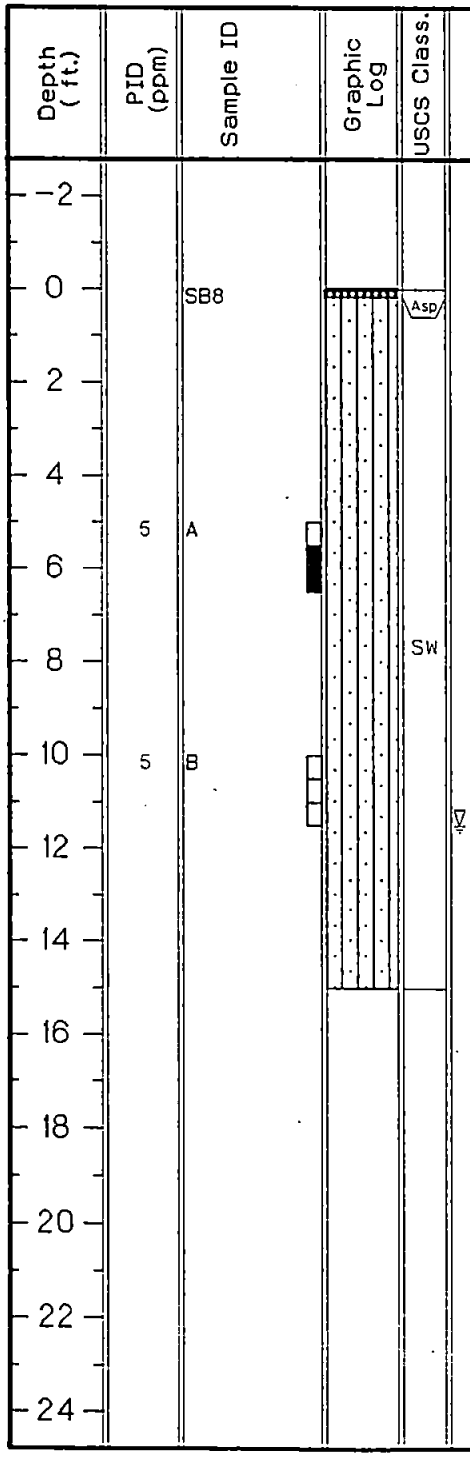
Driller *Lynn Goble* Log By *Steven Hartman* Date *04/17/96* Permit # _____

Checked By *Justin Peach* License No. _____

See Site Map For Boring Location

COMMENTS:

Analyzed sample is shown in black.



Description

(Color, Texture, Structure)

Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

2" of asphalt.

Brown to light tan SILTY-SAND, little gravel <2" dia. (Fill) (dry, no odor)

Encountered water at 11.5 feet

End of borehole.

Collected water sample from 11-15 foot interval.

APPENDIX B
LABORATORY ANALYTICAL REPORTS

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Groundwater Technology Inc.	Project Name:	Sound Subaru	
19033 W. Valley HWY, D-104	Client Project :	#020600266	
Kent, WA 98032			Received: Apr 18, 1996
Attention: Steve Hartman	NCA Project #:	B604312	Reported: Apr 25, 1996

PROJECT SUMMARY PAGE

Laboratory Sample Number	Sample Description	Sample Matrix	Date Sampled
B604312-01	SB1-B	Soil	4/17/96
B604312-02	SB2-B	Soil	4/17/96
B604312-03	SB3-B	Soil	4/17/96
B604312-04	SB4-A	Soil	4/17/96
B604312-05	SB5-B	Soil	4/17/96
B604312-06	SB6-A	Soil	4/17/96
B604312-07	SB7-A	Soil	4/17/96
B604312-08	SB8-A	Soil	4/17/96
B604312-09	SB-1	Water	4/17/96
B604312-10	SB-3	Water	4/17/96
B604312-11	SB-5	Water	4/17/96

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

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Groundwater Technology Inc.	Project Name:	Sound Subaru	
19033 W. Valley HWY, D-104	Client Project :	#020600266	
Kent, WA 98032			Received: Apr 18, 1996
Attention: Steve Hartman	NCA Project #:	B604312	Reported: Apr 25, 1996

PROJECT SUMMARY PAGE

Laboratory Sample Number	Sample Description	Sample Matrix	Date Sampled
B604312-12	SB-6	Water	4/17/96
B604312-13	SB-8	Water	4/17/96
B604312-14	SB1-A	Soil	4/17/96
B604312-15	SB1-C	Soil	4/17/96
B604312-16	SB2-A	Soil	4/17/96
B604312-17	SB3-A	Soil	4/17/96
B604312-18	SB5-A	Soil	4/17/96
B604312-19	SB6-B	Soil	4/17/96
B604312-20	SB8-B	Soil	4/17/96
B604312-21	SB-2	Water	4/17/96

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NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

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Groundwater Technology Inc.
19033 W. Valley HWY, D-104
Kent, WA 98032
Attention: Steve Hartman

Client Project ID: Sound Subaru
Sample Matrix: Soil
First Sample #: B604312-01

Received: Apr 18, 1996
Reported: Apr 25, 1996

TOTAL SOLIDS & MOISTURE CONTENT REPORT

Sample Number	Sample Description	Total Solids %	Moisture Content %
B604312-01	SB1-B	86	14
B604312-02	SB2-B	79	21
B604312-03	SB3-B	82	18
B604312-04	SB4-A	85	15
B604312-05	SB5-B	68	32
B604312-06	SB6-A	81	19
B604312-07	SB7-A	90	10
B604312-08	SB8-A	79	21

The enclosed analytical results for soils, sediments and sludges have been converted to a DRY WEIGHT reporting basis.
To attain the wet weight "as received" equivalent, multiply the dry weight result by the decimal fraction of percent Total Solids.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

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Groundwater Technology Inc.	Client Project ID:	Sound Subaru	Sampled:	Apr 17, 1996
19033 W. Valley HWY, D-104	Sample Matrix:	Soil	Received:	Apr 18, 1996
Kent, WA 98032	Analysis Method:	WTPH-HCID	Extracted:	Apr 19, 1996
Attention: Steve Hartman	First Sample #:	B604312-01	Analyzed:	Apr 19-20, 1996
			Reported:	Apr 25, 1996

HYDROCARBON IDENTIFICATION

Sample Number	Sample Description	HCID as Gasoline C7 - C12 mg/kg (ppm)	GRO Surrogate Recovery %	HCID as Diesel C12 - C24 mg/kg (ppm)	DRO Surrogate Recovery %	HCID Heavy Oil >C24 mg/kg (ppm)
B604312-01	SB1-B	<20	84	<50	90	<100
B604312-03	SB3-B	Present	83	<50	84	<100
BLK041996	Method Blank	<20	86	<50	89	<100

WTPH-HCID is a qualitative procedure which is used to identify petroleum products containing components from C7 to >C24 by Gas Chromatography using a capillary column and a Flame Ionization Detector (FID). While this method is intended to be qualitative, it can be used to eliminate the need for further analysis for those samples which demonstrate TPH levels significantly below the regulatory threshold. Surrogate Recovery control limits are 50 - 150%.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

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Groundwater Technology Inc.	Client Project ID:	Sound Subaru	Sampled:	Apr 17, 1996
19033 W. Valley HWY, D-104	Sample Matrix:	Soil	Received:	Apr 18, 1996
Kent, WA 98032	Analysis Method:	WTPH-G	Analyzed:	Apr 19-22, 1996
Attention: Steve Hartman	First Sample #:	B604312-01	Reported:	Apr 25, 1996

TOTAL PETROLEUM HYDROCARBONS-GASOLINE RANGE

Sample Number	Sample Description	Sample Result mg/kg (ppm)	Surrogate Recovery %
B604312-01	SB1-B	75	113
B604312-02	SB2-B	74	115
B604312-03	SB3-B	1,200	137
B604312-04	SB4-A	2,600	S-2
B604312-05	SB5-B	N.D.	89
B604312-06	SB6-A	N.D.	92
B604312-07	SB7-A	2.1	104
BLK041996	Method Blank	N.D.	106

Reporting Limits	1.0

4-Bromofluorobenzene surrogate recovery control limits are 50 - 150 %.
Volatile Total Petroleum Hydrocarbons are quantitated as Gasoline Range Organics (toluene - dodecane).
Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

Please Note:
S-2 = The Surrogate Recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.

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Groundwater Technology Inc.
19033 W. Valley HWY, D-104
Kent, WA 98032
Attention: Steve Hartman

Client Project ID: Sound Subaru
Sample Matrix: Soil
Analysis Method: WTPH-G
Units: mg/kg (ppm)

Analyzed: Apr 19-22, 1996
Reported: Apr 25, 1996

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT
Laboratory Control Sample

Gasoline

Spike Conc. Added:	5.00
Spike Result:	4.21
% Recovery:	84
Upper Control Limit %:	115
Lower Control Limit %:	33

PRECISION ASSESSMENT
Sample Duplicate

Gasoline Range Hydrocarbons

Sample Number:	B604320-15
Original Result:	1,200
Duplicate Result:	1,100
Relative % Difference:	8.6
Maximum RPD:	67

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

% Recovery: $\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result - Duplicate Result}}{(\text{Original Result + Duplicate Result}) / 2} \times 100$

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Groundwater Technology Inc.	Client Project ID:	Sound Subaru	Sampled:	Apr 17, 1996
19033 W. Valley HWY, D-104	Sample Matrix:	Soil	Received:	Apr 18, 1996
Kent, WA 98032	Analysis Method:	EPA 8020	Analyzed:	Apr 19-22, 1996
Attention: Steve Hartman	First Sample #:	B604312-01	Reported:	Apr 25, 1996

BTEX DISTINCTION

Sample Number	Sample Description	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)	Surrogate Recovery %
B604312-01	SB1-B	0.10	N.D.	0.15	3.4	86
B604312-02	SB2-B	N.D.	0.10	0.24	0.37	80
B604312-03	SB3-B	4.6	25	17	100	99
B604312-05	SB5-B	N.D.	N.D.	N.D.	N.D.	75
B604312-06	SB6-A	N.D.	N.D.	N.D.	N.D.	74
B604312-07	SB7-A	N.D.	N.D.	N.D.	N.D.	79
BLK041996	Method Blank	N.D.	N.D.	N.D.	N.D.	85
Reporting Limits:		**0.050**	**0.050**	**0.050**	**0.10**	

4-Bromofluorobenzene surrogate recovery control limits are 34 - 166 %.
Analytes reported as N.D. were not detected above the stated Reporting Limit.
The results reported above are on a dry weight basis.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

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Groundwater Technology Inc.
19033 W. Valley HWY, D-104
Kent, WA 98032
Attention: Steve Hartman

Client Project ID: Sound Subaru
Sample Matrix: Soil
Analysis Method: EPA 8020
Units: mg/kg (ppm)
QC Sample #: B604307-02

Analyzed: Apr 19, 1996
Reported: Apr 25, 1996

MATRIX SPIKE QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Sample Result:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.59	0.59	0.59	1.76
Spike Result:	0.52	0.55	0.57	1.79
Spike % Recovery:	88%	93%	97%	102%
Spike Dup. Result:	0.53	0.56	0.58	1.81
Spike Duplicate % Recovery:	90%	95%	98%	103%
Upper Control Limit %:	111	118	120	128
Lower Control Limit %:	59	55	61	55
Relative % Difference:	1.9%	1.8%	1.7%	1.1%
Maximum RPD:	17	16	17	17

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Matthew T. Essig
Project Manager

% Recovery: $\frac{\text{Spike Result - Sample Result}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Spike Result - Spike Dup. Result}}{\text{(Spike Result + Spike Dup. Result) / 2}} \times 100$

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Groundwater Technology Inc.	Client Project ID:	Sound Subaru	Sampled:	Apr 17, 1996
19033 W. Valley HWY, D-104	Sample Matrix:	Soil	Received:	Apr 18, 1996
Kent, WA 98032	Analysis Method:	WTPH-D	Extracted:	Apr 19, 1996
Attention: Steve Hartman	First Sample #:	B604312-08	Analyzed:	Apr 19-22, 1996
			Reported:	Apr 25, 1996

TOTAL PETROLEUM HYDROCARBONS-DIESEL RANGE

Sample Number	Sample Description	Sample Result mg/kg (ppm)	Surrogate Recovery %
B604312-08	SB8-A	60 D-2	60
BLK041996	Method Blank	N.D.	63

Reporting Limit:	10

2-Fluorobiphenyl surrogate recovery control limits are 50 - 150 %.
Extractable Total Petroleum Hydrocarbons are quantitated as Diesel Range Organics (C12 - C24).
Analytes reported as N.D. were not detected above the stated Reporting Limit. The results reported above are on a dry weight basis.

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Matthew T. Essig
Project Manager

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Groundwater Technology Inc.
19033 W. Valley HWY, D-104
Kent, WA 98032
Attention: Steve Hartman

Client Project ID: Sound Subaru
Sample Matrix: Soil
Analysis Method: WTPH-D
Units: mg/kg (ppm)

Extracted: Apr 19, 1996
Analyzed: Apr 19-22, 1996
Reported: Apr 25, 1996

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT
Laboratory Control Sample

Diesel

Spike Conc. Added:	68.0
Spike Result:	57.8
% Recovery:	85
Upper Control Limit %:	131
Lower Control Limit %:	66

PRECISION ASSESSMENT
Sample Duplicate

Diesel Range Hydrocarbons

Sample Number:	B604322-03
Original Result:	N.D.
Duplicate Result:	N.D.
Relative % Difference:	Relative Percent Difference values are not reported at sample concentration levels less than 10 times the Reporting Limit.
Maximum RPD:	48

NORTH CREEK ANALYTICAL Inc

Matthew T. Essig
Project Manager

% Recovery: $\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result - Duplicate Result}}{(\text{Original Result + Duplicate Result}) / 2} \times 100$

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Groundwater Technology Inc.	Client Project ID:	Sound Subaru	Sampled:	Apr 17, 1996
19033 W. Valley HWY, D-104	Sample Descript:	Soil, SB4-A	Received:	Apr 18, 1996
Kent, WA 98032	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1996
Attention: Steve Hartman	Sample Number:	B604312-04	Reported:	Apr 25, 1996

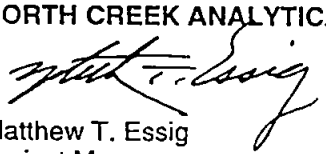
VOLATILE ORGANICS by GC/MS

Analyte	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acetone	8.0	N.D.
Benzene	**0.40**	**2.3**
Bromodichloromethane	0.40	N.D.
Bromoform	0.40	N.D.
Bromomethane	2.0	N.D.
2-Butanone	8.0	N.D.
Carbon disulfide	2.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	0.40	N.D.
Chloroethane	2.0	N.D.
Chloroform	0.40	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	0.40	N.D.
1,1-Dichloroethane	0.40	N.D.
1,2-Dichloroethane	0.40	N.D.
1,1-Dichloroethene	0.40	N.D.
cis 1,2-Dichloroethene	1.0	N.D.
trans 1,2-Dichloroethene	0.40	N.D.
1,2-Dichloropropane	0.40	N.D.
cis 1,3-Dichloropropene	0.40	N.D.
trans 1,3-Dichloropropene	0.40	N.D.
Ethylbenzene	**8.0**	**31**
2-Hexanone	2.0	N.D.
Methylene chloride	8.0	N.D.
4-Methyl-2-pentanone	2.0	N.D.
Styrene	1.0	N.D.
1,1,2,2-Tetrachloroethane	1.0	N.D.
Tetrachloroethene	1.0	N.D.
Toluene	0.40	N.D.
1,1,1-Trichloroethane	1.0	N.D.
1,1,2-Trichloroethane	0.40	N.D.
Trichloroethene	0.40	N.D.
Vinyl chloride	2.0	N.D.
Total Xylenes	**1.0**	**48**

The results reported above are on a dry weight basis.

Analytes reported as N.D. were not detected above the stated Reporting Limit. Because matrix effects and/or other factors required additional sample dilution, reporting limits for this sample have been raised.

NORTH CREEK ANALYTICAL Inc.



Matthew T. Essig
Project Manager

Surrogate Standards Percent Recovery:		Control Limits
1,2-Dichloroethane-d4	86	70-121
Toluene-d8	105	81-117
4-Bromofluorobenzene	88	74-121

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Groundwater Technology Inc.	Client Project ID:	Sound Subaru		
19033 W. Valley HWY, D-104	Sample Descript:	Method Blank		
Kent, WA 98032	Analysis Method:	EPA 8240	Analyzed:	Apr 23, 1996
Attention: Steve Hartman	Sample Number:	BLK042396	Reported:	Apr 25, 1996

VOLATILE ORGANICS by GC/MS

Analyte	Reporting Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acetone	2.0	N.D.
Benzene	0.10	N.D.
Bromodichloromethane	0.10	N.D.
Bromoform	0.10	N.D.
Bromomethane	0.50	N.D.
2-Butanone	2.0	N.D.
Carbon disulfide	0.50	N.D.
Carbon tetrachloride	0.25	N.D.
Chlorobenzene	0.10	N.D.
Chloroethane	0.50	N.D.
Chloroform	0.10	N.D.
Chloromethane	0.50	N.D.
Dibromochloromethane	0.10	N.D.
1,1-Dichloroethane	0.10	N.D.
1,2-Dichloroethane	0.10	N.D.
1,1-Dichloroethene	0.10	N.D.
cis 1,2-Dichloroethene	0.25	N.D.
trans 1,2-Dichloroethene	0.10	N.D.
1,2-Dichloropropane	0.10	N.D.
cis 1,3-Dichloropropene	0.10	N.D.
trans 1,3-Dichloropropene	0.10	N.D.
Ethylbenzene	0.25	N.D.
2-Hexanone	2.0	N.D.
Methylene chloride	1.0	N.D.
4-Methyl-2-pentanone	2.0	N.D.
Styrene	0.25	N.D.
1,1,2,2-Tetrachloroethane	0.25	N.D.
Tetrachloroethene	0.25	N.D.
Toluene	0.10	N.D.
1,1,1-Trichloroethane	0.25	N.D.
1,1,2-Trichloroethane	0.10	N.D.
Trichloroethene	0.10	N.D.
Vinyl chloride	0.50	N.D.
Total Xylenes	0.25	N.D.

The results reported above are on a dry weight basis.
Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

Surrogate Standards Percent Recovery:		Control Limits
1,2-Dichloroethane-d4	83	70-121
Toluene-d8	98	81-117
4-Bromofluorobenzene	94	74-121

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Groundwater Technology Inc.
19033 W. Valley HWY, D-104
Kent, WA 98032
Attention: Steve Hartman

Client Project ID: Sound Subaru
Sample Matrix: Soil
Analysis Method: EPA 8240
Units: mg/kg (ppm)
QC Sample #: B604378-06

Analyzed: Apr 23, 1996
Reported: Apr 25, 1996

MATRIX SPIKE QUALITY CONTROL DATA REPORT

ANALYTE	1,1-DCE	Benzene	TCE	Toluene	Chloro-benzene
Sample Result:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	2.14	2.14	2.14	2.14	2.14
Spike Result:	1.78	1.92	1.89	1.98	1.97
Spike % Recovery:	83%	90%	88%	93%	92%
Spike Dup. Result:	1.84	1.98	1.94	2.02	2.05
Spike Duplicate % Recovery:	86%	93%	91%	94%	96%
Upper Control Limit %:	87	105	97	118	101
Lower Control Limit %:	45	61	62	52	63
Relative % Difference:	3.3%	3.1%	2.6%	2.0%	4.0%
Maximum RPD:	10	10	10	20	10

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

% Recovery: $\frac{\text{Spike Results - Sample Result}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Spike Result - Spike Dup. Result}}{(\text{Spike Result + Spike Dup. Result}) / 2} \times 100$

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Groundwater Technology Inc.	Client Project ID:	Sound Subaru	Sampled: Apr 17, 1996
19033 W. Valley HWY, D-104	Sample Matrix:	Water	Received: Apr 18, 1996
Kent, WA 98032	Analysis Method:	WTPH-G	Analyzed: Apr 22-23, 1996
Attention: Steve Hartman	First Sample #:	B604312-09	Reported: Apr 25, 1996

TOTAL PETROLEUM HYDROCARBONS-GASOLINE RANGE

Sample Number	Sample Description	Sample Result µg/L (ppb)	Surrogate Recovery %
B604312-09	SB-1	2,100	S-2
B604312-10	SB-3	560	127
B604312-11	SB-5	66	89
B604312-12	SB-6	N.D.	98
B604312-13	SB-8	N.D.	95
BLK042296	Method Blank	N.D.	111

Reporting Limit:	50

4-Bromofluorobenzene surrogate recovery control limits are 50 - 150 %.
Volatile Total Petroleum Hydrocarbons are quantitated as Gasoline Range Organics (toluene - dodecane).
Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

Please Note:
S-2 = The Surrogate Recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.

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Groundwater Technology Inc.
19033 W. Valley HWY, D-104
Kent, WA 98032
Attention: Steve Hartman

Client Project ID: Sound Subaru
Sample Matrix: Water
Analysis Method: WTPH-G
Units: µg/L (ppb)

Analyzed: Apr 22, 1996
Reported: Apr 25, 1996

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT
Laboratory Control Sample

Gasoline

Spike Conc. Added:	100
Spike Result:	101
% Recovery:	101
Upper Control Limit %:	132
Lower Control Limit %:	56

PRECISION ASSESSMENT
Sample Duplicate

Gasoline Range Organics

Sample Number:	B604312-09
Original Result:	2,100
Duplicate Result:	1,800
Relative % Difference:	15
Maximum RPD:	50

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

% Recovery: $\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result - Duplicate Result}}{(\text{Original Result + Duplicate Result}) / 2} \times 100$

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Groundwater Technology Inc.	Client Project ID:	Sound Subaru	Sampled: Apr 17, 1996
19033 W. Valley HWY, D-104	Sample Matrix:	Water	Received: Apr 18, 1996
Kent, WA 98032	Analysis Method:	EPA 8020	Analyzed: Apr 22-23, 1996
Attention: Steve Hartman	First Sample #:	B604312-09	Reported: Apr 25, 1996

BTEX DISTINCTION

Sample Number	Sample Description	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)	Surrogate Recovery %
B604312-09	SB-1	13	1.4	42	140	127
B604312-10	SB-3	4.3	8.1	8.6	54	113
B604312-11	SB-5	1.5	2.2	N.D.	2.9	100
B604312-12	SB-6	N.D.	N.D.	N.D.	N.D.	98
B604312-13	SB-8	N.D.	N.D.	N.D.	N.D.	93
BLK042296	Method Blank	N.D.	N.D.	N.D.	N.D.	100
Reporting Limits:		**0.50**	**0.50**	**0.50**	**1.0**	

4-Bromofluorobenzene surrogate recovery control limits are 59 - 144 %.
Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Groundwater Technology Inc.
19033 W. Valley HWY, D-104
Kent, WA 98032
Attention: Steve Hartman

Client Project ID: Sound Subaru
Sample Matrix: Water
Analysis Method: EPA 8020
Units: µg/L (ppb)
QC Sample #: B604312-13

Analyzed: Apr 22, 1996
Reported: Apr 25, 1996

MATRIX SPIKE QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Sample Result:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10.0	10.0	10.0	30.0
Spike Result:	8.5	8.7	9.0	27.8
Spike % Recovery:	85%	87%	90%	93%
Spike Dup. Result:	9.3	9.6	9.9	30.3
Spike Duplicate % Recovery:	93%	96%	99%	101%
Upper Control Limit %:	115	116	122	122
Lower Control Limit %:	82	81	85	85
Relative % Difference:	9.0%	9.8%	9.1%	8.6%
Maximum RPD:	16	16	16	17

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

% Recovery: $\frac{\text{Spike Result - Sample Result}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Spike Result - Spike Dup. Result}}{(\text{Spike Result + Spike Dup. Result}) / 2} \times 100$

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Groundwater Technology Inc.	Client Project ID:	Sound Subaru	Sampled:	Apr 17, 1996
19033 W. Valley HWY, D-104	Sample Matrix:	Water	Received:	Apr 18, 1996
Kent, WA 98032	Analysis Method:	WTPH-D	Extracted:	Apr 22, 1996
Attention: Steve Hartman	First Sample #:	B604312-12	Analyzed:	Apr 23-24, 1996
			Reported:	Apr 25, 1996

TOTAL PETROLEUM HYDROCARBONS-DIESEL RANGE

Sample Number	Sample Description	Sample Result mg/L (ppm)	Surrogate Recovery %
B604312-12	SB-6	N.D.	55
BLK042296	Method Blank	N.D.	60

Reporting Limit:	**0.25**

2-Fluorobiphenyl surrogate recovery control limits are 50 - 150 %.
Extractable Total Petroleum Hydrocarbons are quantitated as Diesel Range Organics (C12 - C24).
Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

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HYDROCARBON ANALYSIS FOOTNOTES

2/94, Rev. 3

VOLATILE HYDROCARBONS - GASOLINE RANGE ORGANICS

G 1 This sample appears to contain extractable diesel range organics.

G 2 The chromatogram for this sample does not resemble a typical gasoline pattern. Please refer to the sample chromatogram.

G 3 The total hydrocarbon result in this sample is primarily due to an individual compound(s) eluting in the volatile hydrocarbon range. Identification and quantitation by EPA 8010, 8021 or 8240 is recommended.

G 4 This sample contains compound(s) not identified as Benzene, Toluene, Ethyl benzene or Xylene.

G 5 This sample appears to contain or be saturated with gasoline product.

EXTRACTABLE HYDROCARBONS - DIESEL RANGE ORGANICS

D 1 This sample appears to contain volatile gasoline range organics.

D 2 The hydrocarbons present in this sample resemble heavy, non-resolvable oil range organics. Quantitation by TPH-Diesel Extended or TPH 418.1 is recommended.

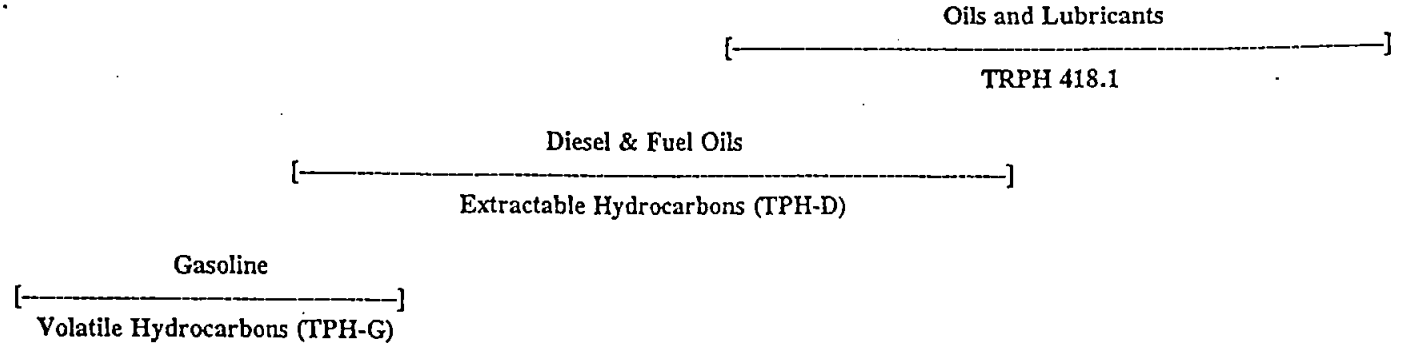
D 3 The hydrocarbon concentration result in this sample is partially due to an individual peak(s) eluting in the diesel / motor oil carbon range.

D 4 The hydrocarbons present in this sample are a complex mixture of diesel range and heavy oil range organics.

D 5 The hydrocarbon result shown is an estimated (greater than) value due to the high concentration. Reanalysis is being performed to yield a quantitative result. An amended report will follow.

D 6 The sample chromatographic pattern does not resemble the fuel standard used for quantitation. A fuel fingerprint is advised.

D 7 This sample appears to contain or be saturated with diesel product.



HYDROCARBON BOILING POINT RANGE

LOW LOW TO MEDIUM MEDIUM MEDIUM TO HIGH VERY HIGH

CARBON RANGE:

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31+

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Groundwater Technology Inc.
19033 W. Valley HWY, D-104
Kent, WA 98032
Attention: Steve Hartman

Client Project ID: Sound Subaru
Sample Matrix: Water
Analysis Method: WTPH-D
Units: mg/L (ppm)

Extracted: Apr 22, 1996
Analyzed: Apr 23-24, 1996
Reported: Apr 25, 1996

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT
Laboratory Control Sample

Diesel

Spike Conc. Added:	2.04
Spike Result:	1.50
% Recovery:	74
Upper Control Limit %:	121
Lower Control Limit %:	54

PRECISION ASSESSMENT
Sample Duplicate

Diesel Range Organics

Sample Number:	B604342-02
Original Result:	N.D.
Duplicate Result:	N.D.
Relative % Difference:	Relative Percent Difference values are not reported at sample concentration levels less than 10 times the Reporting Limit.
Maximum RPD:	44

NORTH CREEK ANALYTICAL Inc.

Matthew T. Essig
Project Manager

% Recovery: $\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result - Duplicate Result}}{(\text{Original Result + Duplicate Result}) / 2} \times 100$

NORTH CREEK ANALYTICAL

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

CHAIN OF CUSTODY REPORT

B604312 - p1

CLIENT: Groundwater Technology Inc
ADDRESS: 19033 West Valley Hwy # D-104
Kent WA 98032
PHONE: 251-5441 FAX: 251-8452

REPORT TO: Steve Hartman
BILLING TO: GTI
P.O. NUMBER: 020600266
NCA QUOTE #:

PROJECT NAME: Sound Subaru
PROJECT NUMBER: 020600266
SAMPLED BY: Steve Hartman

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [10] [5] [3] [2] [1]
(Please Select One)
Fuels & Hydrocarbon Analyses: [X] [3] [2] [1]

* Turnaround Requests less than standard will incur Rush Charges.

FAX RESULTS BY :

SAMPLE IDENTIFICATION: (NUMBER OR DESCRIPTION)	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONT.	Analysis Request: BTEX + ~~TPH-g~~	TPH-g	EPA 8240	HCID	TPH-d	COMMENTS & PRESERVATIVES USED	NCA SAMPLE NUMBER
1. SB1 - B	4-17 810	S	1	✓	✓		✓			B604312-01
2. SB2 - B	4-17 925	S	1	✓	✓					B604312-02
3. SB3 - B	4-17 1130	S	1	✓	✓					-03
4. SB4 - A	4-17 1220	S	1		✓	✓	✓			-04
5. SB5 - B	4-17 1320	S	1	✓	✓					-05
6. SB6 - A	4-17 1400	S	1	✓	✓					-06
7. SB7 - A	4-17 1450	S	1	✓	✓					-07
8. SB8 - A	4-17 1520	S	1		✓		✓			-08
9.										
10.										

RELINQUISHED BY: Steven Hartman DATE: 4-18-96
PRINT NAME: Steve Hartman FIRM: GTI TIME: 11:05

RECEIVED BY: RG Kelley DATE: 4/18/96
PRINT NAME: RG Kelley FIRM: NCA TIME: 1105

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

NORTH CREEK ANALYTICAL

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CHAIN OF CUSTODY REPORT

B604312 f

CLIENT: Groundwater Technology Inc
ADDRESS: 19033 West Valley Hwy, #D-104 Kent WA 98032
PHONE: 251-5441 FAX: 251-8452

REPORT TO: Steve Hartman
BILLING TO: GTI
P.O. NUMBER: 02060026 6
NCA QUOTE #:

PROJECT NAME: Sound Subaru
PROJECT NUMBER: 02060026
SAMPLED BY: Steve Hartman

TURNAROUND REQUEST in Business Days *
Organic & Inorganic Analyses: [10] [5] [3] [2] [1] (Please Select One)
Fuels & Hydrocarbon Analyses: [X] [3] [2] [1]
* Turnaround Requests less than standard will incur Rush Charges.
FAX RESULTS BY :

SAMPLE IDENTIFICATION: (NUMBER OR DESCRIPTION)	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONT.	Analysis Request: BTEX, TPH-g	TPH-d	COMMENTS & PRESERVATIVES USED	NCA SAMPLE NUMBER
1. SB-1	4-17 845	W	4	✓			B604312-0
2. SB-3	4-17 1150	W	4	✓			-10
3. SB-5	4-17 1330	W	4	✓			-11
4. SB-6	4-17 1420	W	4	✓	✓		-12
5. SB-8	4-17 1540	W	4	✓			-13
6.							
7.							
8.							
9.							
10.							

RELINQUISHED BY: Steven Hartman DATE: 4-18-96
PRINT NAME: Steve Hartman FIRM: GTI TIME: 11:05

RECEIVED BY: RD Kelley DATE: 4/18/96
PRINT NAME: RG Kelley FIRM: NCA TIME: 1105

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

PAGE 2 OF 2

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