Environmental Assessment
Sahlberg Equipment Facility
5950 Fourth Avenue South
Seattle, Washington

Prepared for

U.S. Bank of Washington, Trust Group
P.O. Box 720
Seattle, Washington 98111-0720

Prepared by

RZA AGRA, Inc.
11335 NE 122nd Way, Suite 100
Kirkland, Washington 98034-6918

May 1992

W-7497-1

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ENVIRONMENTAL ASSESSMENT
SAHLBERG EQUIPMENT FACILITY
5950 FOURTH AVENUE SOUTH
SEATTLE, WASHINGTON

1.0 EXECUTIVE SUMMARY

This report presents the results of our subsurface exploration program and analytical testing of soils and groundwater at the above referenced site. The field work for this evaluation was performed from the 23rd to the 28th of April 1992. The purpose of this project was to quantitatively evaluate the sites soil and groundwater conditions at the southern end of the parcel with respect to the potential presence of petroleum hydrocarbons, volatile organic compounds, and ethylene glycol. The scope of work consisted of advancing exploratory borings B-1 and B-2, installation of monitoring wells MW-1 and MW-2, soil and groundwater sampling, analytical laboratory testing of selected soil and groundwater samples, data interpretation, and preparation of this report. This summary is presented for introductory purposes only and should be utilized in conjunction with the full text of this report. The project description, site conditions, subsurface exploration, and investigation results are presented within the remainder of this report.

A brief summary of significant findings presented in this report is outlined below:

- Two soil borings (B-1 and B-2) were advanced, and two monitoring wells (MW-1 and MW-2) were installed in each of the borings at the subject property on 23 April 1992.
- Subsurface soils generally consisted of loose, moist to wet, brownish black, silty fine to medium coarse sand.
- Groundwater was encountered in the monitoring wells at a depth of approximately five feet below the site grade at the time of drilling. Subsequent measurements indicated a depth to groundwater of approximately five feet below the top of the well casing in monitoring well MW-1, and approximately 3.9 feet below the top of the casing in monitoring well MW-2.
- The soil samples collected from each boring were analyzed for TPH by Washington Department of Ecology Methods WTPH-D and WTPH-418.1, volatile organic compounds by EPA Method 8240/8260, and for ethylene glycol. The results of the analyses indicated TPH by WTPH-D ranging to 187 ppm (B-2), TPH by WTPH-418.1 ranging to 5,100 ppm (B-1), volatile organics ranging to 0.19 ppm (total xylenes, B-2) and ethylene glycol concentrations which were below the method detection limit.
- The groundwater samples collected from the monitoring wells were analyzed for TPH by Ecology Methods WTPH-D and WTPH-418.1, volatile organic compounds by EPA Method 8240 for ethylene glycol. The results of the analysis indicated concentrations of TPH by

WTPH-D ranging to 8.3 ppm (MW-2), concentrations of TPH by WTPH-418.1 ranging to 42 ppm (MW-1), concentrations of volatile organics ranging to 1,200 ppb (chlorobenzene; MW-2), and ethylene glycol concentrations which were below the method detection limit.

2.0 PROJECT DESCRIPTION

This report presents the results of our subsurface evaluation at the Sahlberg Equipment facility located at 5950 Fourth Avenue South in Seattle, Washington. The purpose of this study was to evaluate site subsurface soils and groundwater conditions with respect to the potential presence of petroleum hydrocarbons, volatile compounds, and ethylene glycol and to evaluate the field and laboratory data with regard to current regulatory criteria. The efforts of our exploration program were limited to the southern portion of the parcel where during a previous RZA AGRA assessment (W-7497) it was noted that drums labeled waste oil, anti-freeze and solvents were present in an unpaved storage yard. Discolored soils were observed within the immediate vicinity of these drums during our previous visit to the site. In addition, a concrete paved equipment cleaning area is present immediately north of the unpaved storage yard. Spraying equipment, drums of cleaning agents, and two sumps were noted in this area.

During our current evaluation, RZA AGRA, Inc. completed the following:

- Drilled and sampled two soil borings located near the southern end of the property;
- Field screened and collected soil samples from the two soil borings;
- Based on the field screening, selected soil samples for laboratory analysis;
- Installed monitoring wells in each of the borings at the time of drilling;
- Measured water levels in the monitoring wells;
- Sampled groundwater from each of the monitoring wells for laboratory analysis; and
- Performed data evaluation and prepared the following report.

This report has been prepared for the exclusive use of U.S. Bank of Washington and their agents for specific application to this project in general accordance to locally accepted environmental assessment practices and our approved scope of work. No warranty, expressed or implied, is made. In the event that other information regarding the site conditions becomes known, or if there are any changes to the existing site or nearby properties, the conclusions of this report should be reviewed and, if necessary, modified by our office to reflect any updated site information and conditions.

3.0 SITE CONDITIONS

The subject property is located at 5950 Fourth Avenue South at the northeast corner of the intersection of Fourth Avenue South and South Front Street in Seattle, Washington (Figure 1). The site is a rectangular shaped parcel measuring approximately 100 feet by 400 feet. The parcel is bound on the north, south, east, and west by industrial and commercial properties.

The site is currently occupied by Sahlberg Equipment, and consists of four main structures. The majority of the site is paved with asphalt and concrete with the exception of a relatively small area at the southeast corner of the site. At the time this assessment was conducted, Sahlberg Equipment was in the process of moving from the site. As a result of this, the southern portion of the property, including the southern equipment storage shed, had been vacated.

4.0 SUBSURFACE EXPLORATION PROGRAM

Our subsurface exploration program for this project included the advancement of two soil borings and the installation of monitoring wells in each boring at the locations indicated on the Site and Exploration Plan, (Figure 2). Drilling and well installation was performed on 23 April 1992 using a truck-mounted hollow stem auger drill rig operated by a local drilling company under subcontract to our firm. The borings were terminated at a depth of 14 feet below the existing site grade. Soil samples were collected at the time of drilling and transported to North Creek Analytical for chemical analysis. Two inch inside diameter monitoring wells were installed in each of the borings. After completion of the monitoring wells, the wells were developed and the groundwater sampled and submitted to the analytical laboratory for chemical analysis. A detailed description of the subsurface exploration procedures followed during this project has been included in Appendix A.

5.0 SUBSURFACE CONDITIONS

Soil samples were collected at approximately five foot intervals from the two borings at the time of drilling. Collected soil samples and subsurface conditions were logged by an experienced environmental geologist. Detailed interpretive boring logs showing well design completion details are presented in Appendix A. Groundwater conditions were evaluated utilizing data obtained from the monitoring wells.

5.1 Subsurface Conditions: Soil

Subsurface soils encountered in our exploratory borings generally consisted of six inches of fill soils (gravelly fine to medium sand) overlying the native formation. The native formation is a loose to very loose, moist to wet, brownish black, silty fine to medium coarse sand which extended to the maximum depth of each of the borings (14 feet). The native formation appears to be consistent with soils typically described as alluvium in the Duamish River floodplain (Galster and Laprade, 1991, Geology of Seattle, Washington, AEG Bulletin, Vol 28, No 3).

5.2 Subsurface Conditions: Groundwater

Groundwater was encountered at a depth of approximately five feet below the existing site grade in both borings at the time of drilling. Subsequent measurements of fluid levels in the monitoring wells following well development indicated that the depth to groundwater in monitoring well MW-1 was approximately 5.0 feet below the top of the well casing, and the depth to groundwater in monitoring well MW-2 was approximately 3.9 feet below the top of the well casing. Groundwater collected from both monitoring wells exhibited a noticeable cleaning fluid like odor, and water collected from monitoring well MW-2 foamed slightly when agitated. Insufficient data was obtained during this study to determine a groundwater gradient based on fluid level measurements; however, given the regional topography of the subject area we have assumed a down gradient direction to the west-southwest.

6.0 QUANTITATIVE LABORATORY ANALYSIS

Soil samples were selected for laboratory analysis based on noticeable odor, depth with respect to groundwater, and/or field headspace measurements. Field screening was conducted using a photoization organic vapor meter (OVM) which is capable of detecting the presence of organic compounds. In addition, groundwater samples were collected from each of the monitoring wells and submitted for chemical analysis.

One soil sample from each boring and one groundwater sample collected from each monitoring well were analyzed for the presence of petroleum hydrocarbons, volatile organic compounds and ethylene glycol by the following parameters:

- Diesel range total petroleum hydrocarbons (TPH) by Washington State Department of Ecology (Ecology) Method WTPH-D (modified EPA Method 8015);
- Total petroleum hydrocarbons (heavy oils) by EPA Method 418.1;
- Volatile organic compounds (chlorinated solvents) by EPA Method 8240; and
- Ethylene glycol by gas chromatograph

7.0 CONCLUSIONS

The results of the Environmental Assessment indicate that soil and the groundwater within the area of investigation contain petroleum hydrocarbons at concentrations in excess of the Washington State Department of Ecology Model Toxics Control Act, Method A cleanup criteria. The results of the assessment further indicated the groundwater from MW-1 and MW-2 has been impacted by acetone, and total xylenes and that the groundwater from MW-2 has been further impacted by chlorobenzene, ethyl benzene and toluene. The concentration of ethylbenzene, toluene, and total xylenes in the water sample collected from MW-2 are above MTCA Method A cleanup criteria.

During analysis of the groundwater samples for volatile organics, the analytical laboratory noted a number of compounds which they were unable to identify using EPA method 8240. In order to identify these compounds, it may be prudent to resample the groundwater from monitoring wells MW-1 and MW-2 and submit the groundwater samples to an analytical laboratory for analysis of semi-volatile organics by EPA Method 8270. The information obtained from this additional analysis may be useful in completing a further assessment of the site. In addition, as the purpose of this assessment was only to screen for contaminants which were mostly likely to be encountered, it may be prudent to screen the sites soil and groundwater for a wider range of compounds which may be present given the previous use of the site.

Given the limited scope of work for this study, insufficient data was obtained to determine the vertical and horizontal limits of chemical constituents; therefore, we recommend that an additional investigation be performed better define the limits. A further assessment of the site would include the advancement of additional soil borings and the installation of groundwater monitoring wells, soil and groundwater sampling and analysis, groundwater level measurement to determine flow direction, and interpretation of the assembled data. It may also be prudent to re-evaluate the potential for other areas of the parcel to have been similarly impacted.

8.0 CLOSURE

The information in this report is based on our field observations, explorations, and the laboratory analysis accomplished for this study. The conclusions presented are professional opinions and reflect our interpretation of the analytical laboratory test results, as well as our experience and observations during project field studies. The number, locations and depths of the explorations, including the analytical testing

scope, were completed within the site and scope of work constraints so as to yield the information required to formulate our conclusions.

We appreciate this opportunity to be of continued service to U.S. Bank. If you have any questions please do not hesitate to call at your earliest convenience.

Respectfully submitted,

RZA AGRA, Inc.

David A. St. John
Environmental Geologist

John T. Cooper
Environmental Geologist

Mike Moore
Associate Environmental Geologist

DAS/DGC/CLT

Table 1: Analytical Results - Soil
Sahlberg Equipment
Seattle, Washington
W-7497-1

Sample Number	Date Sampled	WTPH-D	WTPH-418.1	Chlorobenzene	Total Xylenes
B-1,S-1	4/23/92	110	5,100	–	–
B-1,S-3	4/23/92	N.T.	N.T.	–	–
B-2,S-1	4/23/92	187	570	0.19	0.19
MTCA Clean-up		200*	200*	1600**	20*
Detection Limit		10	10	0.10	0.10

2'u-4' → 5'

Notes:

Sample locations indicated on Figure 2, Site and Exploration Plan.

All concentrations are expressed in parts per million (ppm).

– Not detected at a concentration above the method detection limit.

N.T. - Sample not tested.

- Concentration above MTCA clean-up criteria.

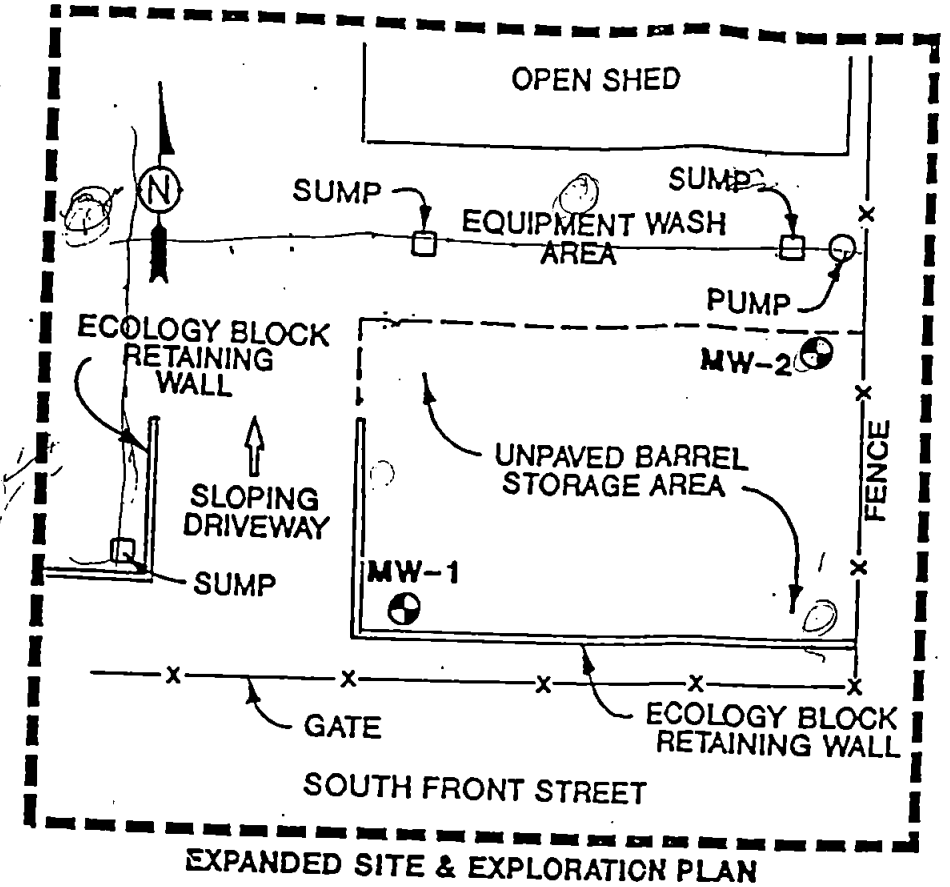
* - Indicates MTCA Method A clean-up criteria.

** - Indicates MTCA Method B calculated clean-up criteria.

Table 2: Analytical Results - Groundwater
Sahlberg Equipment
Seattle, Washington
W-7497-1

Sample Number	Date Sampled	WTPH-D	WTPH-418.1	Acetone	Chloro-benzene	Ethyl Benzene	Toluene	Total Xylenes
MW-1	4/28/92	3	42	0.042	–	–	–	0.0023
MW-2	4/28/92	6.9	24.9	0.061	1.2	0.2	0.38	1
MTCA Clean-up		1*	1*	0.8**	0.16**	0.03*	0.04*	0.02*
Detection Limit		0.5	1	0.02	0.004	0.004	0.004	0.004

Notes:
Sample locations indicated on Figure 2, Site and Exploration Plan.
All concentrations are expressed in parts per million (ppm).
– Not detected at a concentration above MTCA clean-up criteria.
- Concentration above MTCA clean-up criteria.
* - Indicates MTCA Method A clean-up criteria.
** - Indicates MTCA Method B calculated clean-up criteria.



EXPANDED SITE & EXPLORATION PLAN

LEGEND

MW-2 ◐ INDICATES MONITORING WELL NUMBER AND APPROXIMATE LOCATION

RZA-AGRA ENGINEERING & ENVIRONMENTAL SERVICES 11335 N.E. 122nd Way Suite 100 Kirkland, Washington	W.O. W-7479-1 DESIGN DAS DRAWN DMW DATE MAY 1992	SAHLBERG EQUIPMENT FACILITY SEATTLE, WASHINGTON SITE & EXPLORATION PLAN

Appendix A

Subsurface Exploration Procedures and Exploration Logs

Subsurface Explorations

The field exploration program conducted for this study consisted of advancing two hollow-stem auger borings. The approximate locations are illustrated on the Site and Exploration Plan, Figure 2. These locations were obtained in the field by taping and pacing from existing site features.

The borings were advanced on 23 April 1992 by a local exploration drilling company under subcontract to our firm. Each boring consisted of advancing a six inch inside diameter hollow stem auger with a truck mounted drill rig. During the drilling process, samples were generally obtained at five foot depth intervals. Borings were continuously observed and logged in the field by an experienced environmental geologist from our firm. Prior to advancing each of the borings, the drilling equipment and sampling tools were steam cleaned.

Characterization of Soil

Disturbed soil samples were obtained using the Standard Penetration Test procedure as described in ASTM:D-1586. This test and sampling method consists of driving a standard two inch outside diameter split barrel sampler a distance of 18 inches into the soil with a 140 pound hammer free falling a distance of 30 inches. The number of blows for each six inch interval is recorded. The number of blows required to drive the sampler barrel the final 12 inches is considered to be the Standard Penetration Resistance ("N") or blow count. If a total of 50 blows is recorded within one six inch interval, the blow count is recorded as 50 blows for the actual number of inches of penetration. The blow count or "N" value, provides a measure of the relative density of granular soils or the relative consistency of cohesive soils. The blow counts are presented in the borings logs in this appendix.

Soil Sampling

The soil samples were recovered at each interval using procedures designed to minimize the risk of cross contamination. Prior to each boring, the drilling equipment and sampling tools were scrubbed with a stiff brush in a detergent solution consisting of Alconox and water, rinsed with potable water and rinsed again with deionized water. The samples were classified in the field and immediately transferred to laboratory prepared glass jars and tightly sealed with a Teflon lined threaded cap. Collected samples were stored and transported in a chilled chest throughout the field program. Selected soil samples were subsequently transferred to the analytical laboratory in accordance with RZA AGRA chain-of-custody procedures.

Headspace Screening Procedures

Headspace measurements yield a semi-quantitative measurement of a volatile gas concentration in the volume of a closed container partially occupied with soil. The measurements are used to facilitate selecting an appropriate soil sample to submit for chemical laboratory analysis. The screening involved placing approximately four ounces of sampled soils directly into a resealable plastic bag. The sample was then shaken vigorously for approximately 15 seconds and a headspace reading was taken after purging the probe of a photolonization organic vapor meter (OVM) through the plastic bag. The highest value displayed by the instrument was recorded for each sample. The OVM is not capable of determining the species of organic compounds or their actual concentration in the soil sample. Therefore, this method is considered to be rough screening tool that aids in detecting the presence of organic compounds.

Water Sampling Procedures

Prior to sampling, the monitoring wells were purged of water to obtain a sample representative of the formation. Purging of the wells was accomplished on 24 and 27 April 1992 by hand bailing approximately six well volumes of water using disposable bailers.

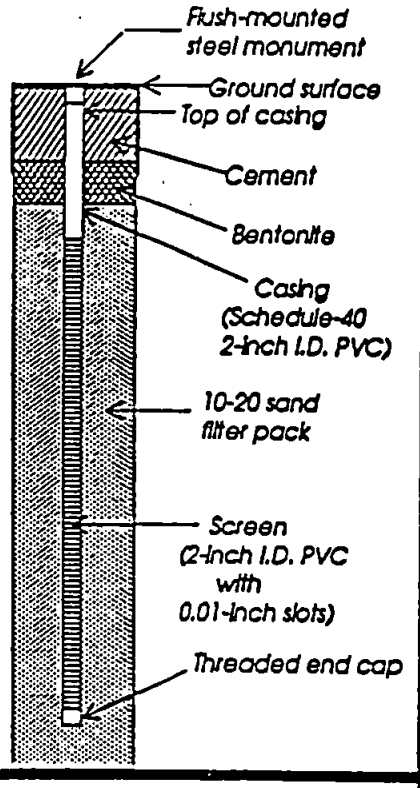
Groundwater samples were obtained from each monitoring well for analysis using disposable plastic bailers. Following sampling, recovered portions were immediately placed in laboratory prepared glass jars and tightly sealed with a Teflon lined threaded cap. The samples were stored and transported in a chilled cooler through the filed program. Groundwater samples were subsequently transferred to the analytical laboratory in accordance with RZA AGRA's chain-of-custody procedures.

PROJECT: *Sahlberg Equipment* W.O. *W-7497-1* WELL NO. *MW-1*

Elevation reference: Well completed: *23 April 1992*
Ground surface elevation: Casing elevation:

AS-BUILT DESIGN

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	OVM READING	GROUND WATER	TESTING
0	*Gravely, fine to medium SAND (FILL)*						
	Loose, moist, brown-black, silty, fine to medium coarse SAND.		S-1	7	0		WTPH-D 418.1 8240
5	*Increase moisture to wet*					ATD	
			S-2	2	0		
10			S-3	3	14		
	Bottom of boring at 14 feet.						
20							
25							
30							



LEGEND

I 2-inch O.D. split-spoon sample

ATD Observed groundwater level ATD = at time of drilling

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Geotechnical & Environmental Group

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Kirkland, Washington 98034-6918

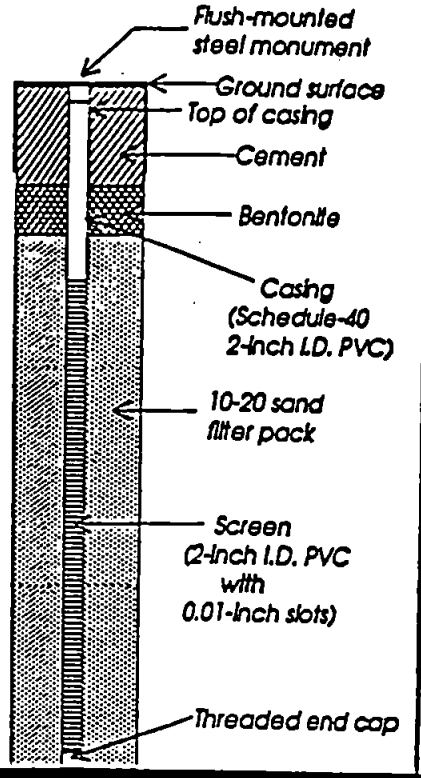
Drilling started: *23 April 1992* Drilling completed: *23 April 1992* Logged by: *BDE*

PROJECT: *Sahlberg Equipment* W.O. *W-97-1* WELL NO. *MW-2*

Elevation reference: Well completed: *23 April 1992*
Ground surface elevation: Casing elevation:

AS-BUILT DESIGN

DEPTH (feet)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	OVM READING	GROUND WATER
0	*Gravely, fine to medium SAND (FILL)*					
	Medium dense, moist to wet, brown-black, silty fine to medium SAND with some organics		S-1	22	108	
5						ATD
	Very loose, wet, brown-black, silty fine to medium SAND		S-2	2	37	
10			S-3	1	39	
15	*Bottom of boring at 14 feet.*					
20						
25						
30						



TESTING

WTPH-D 418.1 8240

8240

LEGEND

2-inch O.D. split-spoon sample

ATD Observed groundwater level ATD = at time of drilling

RZA AGRA, Inc.
Geotechnical & Environmental Group

11335 NE 122nd Way, Suite 100
Kirkland, Washington 98034-6918

Drilling started: *23 April 1992* Drilling completed: *23 April 1992* Logged by: *BDE*

NORTH CREEK ANALYTICAL

18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

A/AGRA	Client Project ID:	Sahlberg Equip. #W-7497		
11335 NE 122nd Way, #100	Matrix:	Soil		
Kirkland, WA 98034	Analysis for:	Total Solids	Received:	Apr 24, 1992
Attention: John Cooper	First Sample #:	204-1406	Reported:	

LABORATORY ANALYSIS FOR: Total Solids

Sample Number	Sample Description	Sample Result %
204-1406	B-1, S-1	91
204-1408	B-1, S-3	79
204-1410	B-2, S-1	79
204-1412	B-2, S-3	82

North Creek Analytical routinely provides analytical results for soils, sediments or sludges on a WET WEIGHT "as received" basis.
To attain dry weight equivalents for regulatory compliance, divide the soil result by the decimal fraction of percent solids.

NORTH CREEK ANALYTICAL inc

Scot Cocanour
Laboratory Director

NORTH CREEK ANALYTICAL

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/AGRA	Client Project ID:	Sahlberg Equip. #W-7497	Sampled:	Apr 23, 1992
11335 NE 122nd Way, #100	Matrix Descript:	Soil	Received:	Apr 24, 1992
Kirkland, WA 98034	Analysis Method:	EPA 3550/8015	Extracted:	Apr 29, 1992
Attention: John Cooper	First Sample #:	204-1406	Analyzed:	May 4, 1992
			Reported:	May 12, 1992

TOTAL PETROLEUM HYDROCARBONS (WTPH-D)

Sample Number	Sample Description	Extractable Hydrocarbons mg/kg (ppm)	Surrogate Recovery %
204-1406	B-1, S-1 3-4'	110	91 D2
204-1410	B-2, S-1 3-4'	187	N.A. D2
BLK042992	Method Blank	N.D.	85

Detection Limits:	10

Extractable Hydrocarbons are quantitated as diesel range organics (nC8 - nC24). Surrogate recovery reported is for 2-Fluorobiphenyl. Analytes reported as N.D. were not present above the stated limit of detection.

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Laboratory Director

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[illegible]/AGRA	Client Project ID:	Sahlberg Equip. #W-7497	Sampled:	Apr 23, 1992
1[illegible]35 NE 122nd Way, #100	Matrix Descript:	Soil	Received:	Apr 24, 1992
Kirkland, WA 98034	Analysis Method:	EPA 418.1 Modified (I.R. w/clean-up)	Extracted:	Apr 27, 1992
Attention: John Cooper	First Sample #:	204-1406	Analyzed:	Apr 28, 1992
			Reported:	May 12, 1992

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (WTPH-418.1)

Sample Number	Sample Description	Petroleum Oil mg/kg (ppm)
204-1406	B-1, S-1 3-4'	5,100
204-1410	B-2, S-1	570
BLK042792	Method Blank	N.D.

Detection Limits:	10

Analytes reported as N.D. were not present above the stated limit of detection.

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H_/AGRA	Client Project ID:	Sahlberg Equip. #W-7497	Sampled:	Apr 23, 1992
11335 NE 122nd Way, #100	Sample Descript:	Soil, B-1, S-1,	Received:	Apr 24, 1992
Kirkland, WA 98034	Analysis Method:	EPA 8240/8260	Analyzed:	May 7, 1992
Attention: John Cooper	Sample Number:	204-1406	Reported:	May 12, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240/8260)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acetone	0.50	N.D.
Benzene	0.10	N.D.
Bromodichloromethane	0.10	N.D.
Bromoform	0.10	N.D.
Bromomethane	0.10	N.D.
2-Butanone	0.50	N.D.
Carbon disulfide	0.10	N.D.
Carbon tetrachloride	0.10	N.D.
Chlorobenzene	0.10	N.D.
Chloroethane	0.10	N.D.
2-Chloroethyl vinyl ether	0.50	N.D.
Chloroform	0.10	N.D.
Chloromethane	0.10	N.D.
Dibromochloromethane	0.10	N.D.
1,2-Dichloroethane	0.10	N.D.
1,1-Dichloroethane	0.10	N.D.
1,1-Dichloroethene	0.10	N.D.
cis 1,2-Dichloroethene	0.10	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	0.10	N.D.
2-Hexanone	0.50	N.D.
Methylene chloride	0.50	N.D.
4-Methyl-2-pentanone	0.50	N.D.
Styrene	0.10	N.D.
1,1,2,2-Tetrachloroethane	0.10	N.D.
Tetrachloroethene	0.10	N.D.
Toluene	0.10	N.D.
1,1,1-Trichloroethane	0.10	N.D.
1,1,2-Trichloroethane	0.10	N.D.
Trichloroethene	0.10	N.D.
Trichlorofluoromethane	0.10	N.D.
Vinyl chloride	0.10	N.D.
Total Xylenes	0.10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Scot Cocanour
Laboratory Director

Surrogate Standards Percent Recovery:	
1,2-Dichloroethane-d4	106
Toluene-d8	100
4-Bromofluorobenzene	97

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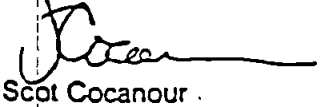
-/AGRA	Client Project ID:	Sahlberg Equip. #W-7497	Sampled: Apr 23, 1992
11335 NE 122nd Way, #100	Sample Descript:	Soil, B-2, S-1	Received: Apr 24, 1992
Kirkland, WA 98034	Analysis Method:	EPA 8240/8260	Analyzed: May 7, 1992
Attention: John Cooper	Sample Number:	204-1410	Reported: May 12, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240/8260)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acetone	0.50	N.D.
Benzene	0.10	N.D.
Bromodichloromethane	0.10	N.D.
Bromoform	0.10	N.D.
Bromomethane	0.10	N.D.
2-Butanone	0.50	N.D.
Carbon disulfide	0.10	N.D.
Carbon tetrachloride	0.10	N.D.
Chlorobenzene	0.10	0.19
Chloroethane	0.10	N.D.
2-Chloroethyl vinyl ether	0.50	N.D.
Chloroform	0.10	N.D.
Chloromethane	0.10	N.D.
Dibromochloromethane	0.10	N.D.
1,1-Dichloroethane	0.10	N.D.
Dichloroethane	0.10	N.D.
1,1-Dichloroethene	0.10	N.D.
cis 1,2-Dichloroethene	0.10	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	0.10	N.D.
2-Hexanone	0.50	N.D.
Methylene chloride	0.50	N.D.
4-Methyl-2-pentanone	0.50	N.D.
Styrene	0.10	N.D.
1,1,2,2-Tetrachloroethane	0.10	N.D.
Tetrachloroethene	0.10	N.D.
Toluene	0.10	N.D.
1,1,1-Trichloroethane	0.10	N.D.
1,1,2-Trichloroethane	0.10	N.D.
Trichloroethene	0.10	N.D.
Trichlorofluoromethane	0.10	N.D.
Vinyl chloride	0.10	N.D.
Total Xylenes	0.10	0.19

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc



Scot Cocanour
Laboratory Director

Surrogate Standards Percent Recovery:	
1,2-Dichloroethane-d4	105
Toluene-d8	99
4-Bromofluorobenzene	96

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./AGRA	Client Project ID:	Sahlberg Equip. #W-7497	Sampled:	Apr 23, 1992
11335 NE 122nd Way, #100	Sample Descript:	Soil, B-2, S-3	Received:	Apr 24, 1992
Kirkland, WA 98034	Analysis Method:	EPA 8240/8260	Analyzed:	May 7, 1992
Attention: John Cooper	Sample Number:	204-1412	Reported:	May 12, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240/8260)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acetone	0.50	N.D.
Benzene	0.10	N.D.
Bromodichloromethane	0.10	N.D.
Bromoform	0.10	N.D.
Bromomethane	0.10	N.D.
2-Butanone	0.50	N.D.
Carbon disulfide	0.10	N.D.
Carbon tetrachloride	0.10	N.D.
Chlorobenzene	0.10	N.D.
Chloroethane	0.10	N.D.
2-Chloroethyl vinyl ether	0.10	N.D.
Chloroform	0.50	N.D.
Chloromethane	0.10	N.D.
Dibromochloromethane	0.10	N.D.
1,1-Dichloroethane	0.10	N.D.
Dichloroethane	0.10	N.D.
,,-Dichloroethene	0.10	N.D.
cis 1,2-Dichloroethene	0.10	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	0.10	N.D.
2-Hexanone	0.50	N.D.
Methylene chloride	0.50	N.D.
4-Methyl-2-pentanone	0.50	N.D.
Styrene	0.10	N.D.
1,1,2,2-Tetrachloroethane	0.10	N.D.
Tetrachloroethene	0.10	N.D.
Toluene	0.10	N.D.
1,1,1-Trichloroethane	0.10	N.D.
1,1,2-Trichloroethane	0.10	N.D.
Trichloroethene	0.10	N.D.
Trichlorofluoromethane	0.10	N.D.
Vinyl chloride	0.10	N.D.
Total Xylenes	0.10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Laboratory Director

Surrogate Standards Percent Recovery:	
1,2-Dichloroethane-d4	109
Toluene-d8	100
4-Bromofluorobenzene	97

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[illegible]A/AGRA	Client Project ID:	Sahlberg Equip. #W-7497	Sampled:	Apr 23, 1992
11335 NE 122nd Way, #100	Sample Descript:	Method Blank	Received:	Apr 24, 1992
Kirkland, WA 98034	Analysis Method:	EPA 8240/8260	Analyzed:	May 7, 1992
Attention: John Cooper	Sample Number:	BLK050792	Reported:	May 12, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240/8260)

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Acetone	0.50	N.D.
Benzene	0.10	N.D.
Bromodichloromethane	0.10	N.D.
Bromoform	0.10	N.D.
Bromomethane	0.10	N.D.
2-Butanone	0.50	N.D.
Carbon disulfide	0.10	N.D.
Carbon tetrachloride	0.10	N.D.
Chlorobenzene	0.10	N.D.
Chloroethane	0.10	N.D.
2-Chloroethyl vinyl ether	0.50	N.D.
Chloroform	0.10	N.D.
Chloromethane	0.10	N.D.
Dibromochloromethane	0.10	N.D.
[illegible]1-Dichloroethane	0.10	N.D.
[illegible]-Dichloroethane	0.10	N.D.
1,1-Dichloroethene	0.10	N.D.
cis 1,2-Dichloroethene	0.10	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	0.10	N.D.
2-Hexanone	0.50	N.D.
Methylene chloride	0.50	N.D.
4-Methyl-2-pentanone	0.50	N.D.
Styrene	0.10	N.D.
1,1,2,2-Tetrachloroethane	0.10	N.D.
Tetrachloroethene	0.10	N.D.
Toluene	0.10	N.D.
1,1,1-Trichloroethane	0.10	N.D.
1,1,2-Trichloroethane	0.10	N.D.
Trichloroethene	0.10	N.D.
Trichlorofluoromethane	0.10	N.D.
Vinyl chloride	0.10	N.D.
Total Xylenes	0.10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Laboratory Director

Surrogate Standards	Percent Recovery:
1,2-Dichloroethane-d4	104
Toluene-d8	99
4-Bromofluorobenzene	95

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RZA/AGRA
35 NE 122nd Way, #100
Kirkland, WA 98034
Attention: John Cooper

Client Project ID: Sahlberg Equip. #W-7497
Sample Descript: Soil
Analysis for: Ethylene Glycol
First Sample #: 204-1406

Sampled: Apr 23, 1992
Received: Apr 24, 1992
Extracted: May 1, 1992
Analyzed: May 4, 1992
Reported: May 12, 1992

LABORATORY ANALYSIS FOR: Ethylene Glycol

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg	Surrogate Recovery %
204-1406	B-1, S-1	10	N.D.	60
204-1410	B-2, S-1	10	N.D.	45
BLK050192	Method Blank	10	N.D.	63

Analytes reported as N.D. were not present above the stated limit of detection.

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Please Note:
Report was amended on May 20, 1992.

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./AGRA 1335 NE 122nd Way, #100 Kirkland, WA 98034 Attention: John Cooper	Client Project ID: Sahlberg Equip. #W-7497 Method : EPA 418.1 mod. Sample Matrix : Soil Units : mg/kg QC Sample #: 204-1198	Analyst : S. Kimball Extracted: Apr 27, 1992 Analyzed: Apr 28, 1992 Reported: May 12, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Petroleum Oil
Sample Conc.:	18
Spike Conc. Added:	500
Conc. Matrix Spike:	544
Matrix Spike % Recovery:	105
Conc. Matrix Spike Dup.:	514
Matrix Spike Duplicate % Recovery:	99
Relative % Difference:	3.8

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Laboratory Director

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

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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RZA/AGRA
1 5 NE 122nd Way, #100
Kirkland, WA 98034
Attention: John Cooper

Client Project ID: Sahlberg Equip. #W-7497
Method : EPA 3510 or 3550/8015
Sample Matrix : Soil
Units : mg/kg
QC Sample #: BLK042992

Analyst : D. Harmon

Extracted: Apr 29, 1992
Analyzed: May 4, 1992
Reported: May 12, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel Fuel
Sample Conc.:	N.D.
Spike Conc. Added:	66
Conc. Matrix Spike:	62
Matrix Spike % Recovery:	93
Conc. Matrix Spike Dup.:	61
Matrix Spike Duplicate % Recovery:	93
Relative % Difference:	1.6

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Laboratory Director

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

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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PTI/AGRA
[illegible]5 NE 122nd Way, #100
Kirkland, WA 98034
Attention: John Cooper

Client Project ID: Sahlberg Equip. #W-7497
Method : EPA 8240
Sample Matrix : Soil
Units : mg/kg
QC Sample #: 204-1406

Analyst : J. Kimball
Analyzed: May 7, 1992
Reported: May 12, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	2	2	100%	1.6	80%	22.2%
Benzene	N.D.	2	1.7	85%	1.9	95%	11.1%
Trichloroethene	N.D.	2	1.8	90%	1.8	90%	0.0%
Toluene	N.D.	2	1.9	95%	1.9	95%	0.0%
Chlorobenzene	N.D.	2	1.8	90%	1.9	95%	5.4%

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Laboratory Director

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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A/AGRA	Client Project ID:	Sahlberg Equipment, # W-7497-1	Sampled: Apr 28, 1992
335 NE 122nd Way, #100	Matrix Descript:	Water	Received: Apr 29, 1992
Kirkland, WA 98034	Analysis Method:	EPA 418.1 (I.R. with clean-up)	Extracted: Apr 30, 1992
Attention: Dave St. John	First Sample #:	204-1664	Analyzed: Apr 30, 1992
			Reported: May 19, 1992

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (WTPH-418.1)

Sample Number	Sample Description	Petroleum Oil mg/L (ppm)
204-1664	MW-1	42
204-1665	MW-2	24.9
BLK043092	Method Blank	N.D.

Detection Limits:	1.0

Analytes reported as N.D. were not present above the stated limit of detection.

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Laboratory Director

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A/AGRA	Client Project ID:	Sahlberg Equipment, # W-7497-1	Sampled:	Apr 28, 1992
11335 NE 122nd Way, #100	Matrix Descript:	Water	Received:	Apr 29, 1992
Kirkland, WA 98034	Analysis Method:	EPA 3510/8015	Extracted:	May 4, 1992
Attention: Dave St. John	First Sample #:	204-1664	Analyzed:	May 11, 1992
			Reported:	May 19, 1992

TOTAL PETROLEUM HYDROCARBONS (WTPH-D)

Sample Number	Sample Description	Extractable Hydrocarbons mg/L (ppm)	Surrogate Recovery %
204-1664	MW-1	3.0 D3	86
204-1665	MW-2	6.3 D3	95
BLK050492	Method Blank	N.D.	98

Detection Limits:	0.50

Extractable Hydrocarbons are quantitated as diesel range organics (nC8 - nC24). Surrogate recovery reported is for 2-Fluorobiphenyl.
Analytes reported as N.D. were not present above the stated limit of detection.

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R.../AGRA	Client Project ID:	Sahlberg Equipment, # W-7497-1	Sampled: Apr 28, 1992
11335 NE 122nd Way, #100	Sample Descript:	Water, MW-1	Received: Apr 29, 1992
Kirkland, WA 98034	Analysis Method:	EPA 8240/8260	Analyzed: May 8, 1992
Attention: Dave St. John	Sample Number:	204-1664	Reported: May 19, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240/8260)

Analyte	Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Acetone	10	42
Benzene	2.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	2.0	N.D.
2-Butanone	10	N.D.
Carbon disulfide	2.0	N.D.
Carbon tetrachloride	2.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethyl vinyl ether	10	N.D.
Chloroform	2.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	2.0	N.D.
cis 1,2-Dichloroethene	2.0	N.D.
trans 1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
cis 1,3-Dichloropropene	2.0	N.D.
trans 1,3-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
2-Hexanone	10	N.D.
Methylene chloride	10	N.D.
4-Methyl-2-pentanone	10	N.D.
Styrene	2.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	2.0	N.D.
Total Xylenes	2.0	2.3

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc

For Scot Cocanour
Laboratory Director

Surrogate Standards Percent Recovery:	
1,2-Dichloroethane-d4	104
Toluene-d8	100
4-Bromofluorobenzene	97

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R[illegible]/AGRA	Client Project ID:	Sahlberg Equipment, # W-7497-1	Sampled: Apr 28, 1992
11335 NE 122nd Way, #100	Sample Descript:	Water, MW-2	Received: Apr 29, 1992
Kirkland, WA 98034	Analysis Method:	EPA 8240/8260	Analyzed: May 12, 1992
Attention: Dave St. John	Sample Number:	204-1665	Reported: May 19, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240/8260)

Analyte	Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Acetone	20	61
Benzene	4.0	N.D.
Bromodichloromethane	4.0	N.D.
Bromoform	4.0	N.D.
Bromomethane	4.0	N.D.
2-Butanone	20	N.D.
Carbon disulfide	4.0	N.D.
Carbon tetrachloride	4.0	N.D.
Chlorobenzene	4.0	1,200
Chloroethane	4.0	N.D.
2-Chloroethyl vinyl ether	20	N.D.
Chloroform	4.0	N.D.
Chloromethane	4.0	N.D.
Dibromochloromethane	4.0	N.D.
1,[illegible]-Dichloroethane	4.0	N.D.
1,[illegible]-ichloroethane	4.0	N.D.
1,1-Dichloroethene	4.0	N.D.
cis 1,2-Dichloroethene	4.0	N.D.
trans 1,2-Dichloroethene	4.0	N.D.
1,2-Dichloropropane	4.0	N.D.
cis 1,3-Dichloropropene	4.0	N.D.
trans 1,3-Dichloropropene	4.0	N.D.
Ethylbenzene	4.0	200
2-Hexanone	20	N.D.
Methylene chloride	20	N.D.
4-Methyl-2-pentanone	20	N.D.
Styrene	4.0	N.D.
1,1,2,2-Tetrachloroethane	4.0	N.D.
Tetrachloroethene	4.0	N.D.
Toluene	4.0	380
1,1,1-Trichloroethane	4.0	N.D.
1,1,2-Trichloroethane	4.0	N.D.
Trichloroethene	4.0	N.D.
Trichlorofluoromethane	4.0	N.D.
Vinyl chloride	4.0	N.D.
Total Xylenes	4.0	1,000

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

NORTH CREEK ANALYTICAL inc

Scot Cocanour
Laboratory Director

Surrogate Standards Percent Recovery:	
1,2-Dichloroethane-d4	106
Toluene-d8	97
4-Bromofluorobenzene	102

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I /AGRA	Client Project ID:	Sahlberg Equipment, # W-7497-1	Sampled: Apr 28, 1992
11335 NE 122nd Way, #100	Sample Descript:	Water, Trip Blank	Received: Apr 29, 1992
Kirkland, WA 98034	Analysis Method:	EPA 8240/8260	Analyzed: May 11, 1992
Attention: Dave St. John	Sample Number:	204-1683	Reported: May 19, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240/8260)

Analyte	Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Acetone	10	N.D.
Benzene	2.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	2.0	N.D.
2-Butanone	10	N.D.
Carbon disulfide	2.0	N.D.
Carbon tetrachloride	2.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethyl vinyl ether	10	N.D.
Chloroform	2.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	2.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	2.0	N.D.
cis 1,2-Dichloroethene	2.0	N.D.
trans 1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
cis 1,3-Dichloropropene	2.0	N.D.
trans 1,3-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
2-Hexanone	10	N.D.
Methylene chloride	10	N.D.
4-Methyl-2-pentanone	10	N.D.
Styrene	2.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	2.0	N.D.
Total Xylenes	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL Inc

Scot Cocanour
Laboratory Director

Surrogate Standards Percent Recovery:	
1,2-Dichloroethane-d4	93
Toluene-d8	97
4-Bromofluorobenzene	95

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[illegible] /AGRA	Client Project ID:	Sahlberg Equipment, # W-7497-1	Sampled: Apr 28, 1992
1[illegible]35 NE 122nd Way, #100	Sample Descript:	Method Blank	Received: Apr 29, 1992
Kirkland, WA 98034	Analysis Method:	EPA 8240/8260	Analyzed: May 11, 1992
Attention: Dave St. John	Sample Number:	BLK051192	Reported: May 19, 1992

VOLATILE ORGANICS by GC/MS (EPA 8240/8260)

Analyte	Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Acetone	10	N.D.
Benzene	2.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	2.0	N.D.
2-Butanone	10	N.D.
Carbon disulfide	2.0	N.D.
Carbon tetrachloride	2.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	2.0	N.D.
2-Chloroethyl vinyl ether	10	N.D.
Chloroform	2.0	N.D.
Chloromethane	2.0	N.D.
Dibromochloromethane	2.0	N.D.
1,1-Dichloroethane	2.0	N.D.
[illegible] Dichloroethane	2.0	N.D.
[illegible]-Dichloroethene	2.0	N.D.
cis 1,2-Dichloroethene	2.0	N.D.
trans 1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
cis 1,3-Dichloropropene	2.0	N.D.
trans 1,3-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
2-Hexanone	10	N.D.
Methylene chloride	10	N.D.
4-Methyl-2-pentanone	10	N.D.
Styrene	2.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	2.0	N.D.
Vinyl chloride	2.0	N.D.
Total Xylenes	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL Inc

Scot Cocanour
Laboratory Director

Surrogate Standards Percent Recovery:	
1,2-Dichloroethane-d4	103
Toluene-d8	96
4-Bromofluorobenzene	99

NORTH CREEK ANALYTICAL

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Phone (206) 481-9200 • FAX (206) 485-2992

RZA/AGRA
1 ; NE 122nd Way, #100
Kirkland, WA 98034
Attention: Dave St. John

Client Project ID: Sahlberg Equipment, # W-7497-1
Sample Descript: Water
Analysis for: Ethylene Glycol
First Sample #: 204-1664

Sampled: Apr 28, 1992
Received: Apr 29, 1992
Analyzed: May 6, 1992
Reported: May 19, 1992

LABORATORY ANALYSIS FOR: Ethylene Glycol

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
204-1664	MW-1	25	N.D.
204-1665	MW-2	25	N.D.
BLK050692	Method Blank	25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Scot Cocanour
Laboratory Director

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F[illegible]/AGRA
[illegible]35 NE 122nd Way, #100
Kirkland, WA 98034
Attention: Dave St. John

Client Project ID: Sahlberg Equipment, # W-7497-1
Method : EPA 8240
Sample Matrix : Water
Units : µg/L
QC Sample #: BLK050892

Analyst : J. Kimball
Analyzed: May 8, 1992
Reported: May 19, 1992

QUALITY CONTROL DATA REPORT

Analyte	Sample Conc.	Spike Conc. Added	Conc. Matrix Spike	Matrix Spike % Recovery	Conc. Matrix Spike Duplicate	Matrix Spike Duplicate % Recovery	Relative % Difference
1,1-Dichloro-ethene	N.D.	10	9.8	98%	11	110%	11.5%
Benzene	N.D.	10	11	110%	11	110%	0.0%
Trichloroethene	N.D.	10	9.9	99%	10	100%	1.0%
Toluene	N.D.	10	10	100%	11	110%	9.5%
Chlorobenzene	N.D.	10	10	100%	11	110%	9.5%

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For Scot Cocanour
Laboratory Director

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

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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P[illegible]/AGRA	Client Project ID: Sahlberg Equipment, # W-7497-1	Analyst :	S. Kimball
[illegible]5 NE 122nd Way, #100	Method : EPA 418.1 mod.		
Kirkland, WA 98034	Sample Matrix : Water	Extracted:	Apr 30, 1992
Attention: Dave St. John	Units : mg/L	Analyzed:	Apr 30, 1992
	QC Sample #: BLK043092	Reported:	May 19, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Petroleum Oil
Sample Conc.:	N.D.
Spike Conc. Added:	16
Conc. Matrix Spike:	14.5
Matrix Spike % Recovery:	91
Conc. Matrix Spike Dup.:	14.5
Matrix Spike Duplicate % Recovery:	91
Relative % Difference:	0

NORTH CREEK ANALYTICAL inc

Scot Cocanour
Laboratory Director

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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P /AGRA	Client Project ID: Sahlberg Equipment, # W-7497-1	Analyst: D. Harmon
1 5 NE 122nd Way, #100	Method : EPA 3510 or 3550/8015	
Kirkland, WA 98034	Sample Matrix : Water	Extracted: May 4, 1992
Attention: Dave St. John	Units : mg/L	Analyzed: May 11, 1992
	QC Sample #: BLK050492	Reported: May 19, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel Fuel
Sample Conc.:	N.D.
Spike Conc. Added:	1.98
Conc. Matrix Spike:	1.13
atrix Spike % Recovery:	57
Conc. Matrix Spike Dup.:	1.58
Matrix Spike Duplicate % Recovery:	80
Relative % Difference:	33

NORTH CREEK ANALYTICAL Inc

Scot Cocanour
Laboratory Director

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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P AGRA
1 NE 122nd Way, #100
Kirkland, WA 98034
Attention: Dave St. John

Client Project ID: Sahlberg Equipment, # W-7497-1
Sample Matrix : Water
Units : mg/L
QC Sample #: BLK050692

Analyst : D. Harmon
Extracted: May 6, 1992
Analyzed: May 6, 1992
Reported: May 19, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Ethylene Glycol
Sample Conc.:	N.D.
Spike Conc. Added:	7.4
Conc. Matrix Spike:	6.6
Matrix Spike % Recovery:	90
Conc. Matrix Spike Dup.:	6.6
Matrix Spike Duplicate % Recovery:	90
Relative % Difference:	0

NORTH CREEK ANALYTICAL Inc

Scot Cocanour
Laboratory Director

$$\text{\% Recovery:} = \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} = \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$