



PRIVILEGED & CONFIDENTIAL

January 12, 2005

BNSF Railway Co.
920 S.E. Quincy
Topeka, KS 66612-1116

RE: Limited Phase II Assessment Report – Leased Property No.: 40,250,477
John Michael, Cashmere, Chelan County, Washington
EMR Project #6984.001

EMR, Inc. has completed a Limited Phase II Assessment for the above referenced property. This letter is submitted to present our findings and should be viewed as a summary of the Leased Property Checklist, included as an attachment.

Background and Setting

The subject property is comprised of one parcel containing 30,000 square feet. The property was leased to John Michael doing business as (dba) Michael Irrigation and Excavation in March 1986 for the purpose of storage of irrigation supplies, equipment, and miscellaneous tanks and timbers. Recent excavation of the subject property by the power company to install poles uncovered crude oil at 3 to 6 feet below ground surface (bgs). It is believed that the crude oil was present due to a railroad tanker spill in the 1930s.

Findings

EMR inspected the site on December 1st, 2004. At the time of inspection the property appeared to be undeveloped. The western portion of the parcel used for vehicle parking and material storage. No improvements were noted on site. A dismantled vehicle, an engine block, three drums with unknown contents, and other miscellaneous debris were noted on site. Minor surface staining in the storage and parking areas was also noted. A photographic log is included as an attachment.

Evaluation of shallow subsurface soils was collected using a Geoprobe hydraulic sampler. Eight borings were drilled on the subject parcel. Depth of the soil borings ranged from 5 feet to 12 feet bgs. Soil samples were collected continuously during advancement of the Geoprobe. The subsurface soil samples were collected from depths ranging from 3 feet to 8 feet bgs and submitted to the laboratory for the detection of Total Petroleum Hydrocarbons (TPH) as Gasoline Range Organics (GRO)/Benzene, Toulene, Ethylbenzene, and Xylene (BTEX) and Total Extractable Hydrocarbons (TEH) as Diesel Range Organics (DRO). Boring logs are included as an attachment.

Laboratory results of the TPH as GRO/BTEX analysis of the soil samples indicated elevated levels of GRO in B-2 and B-5 at concentration of 795 µg/kg or parts per billion (ppb) and 38.7 ppb, respectively and Benzene in B-5 at a concentration of 0.0294 ppb.

Laboratory results of the TEH as DRO analysis of the soil samples indicated elevated levels of Diesel in B-1, B-2, B-4, B-5, B-6, and B-8 at concentrations ranging between 35.9 mg/kg or parts per million (ppm) to 3,620 ppm; Kerosene in B-1, B-2, and B-5 at concentrations ranging between 78.3 ppm to 1,130 ppm; and Motor Oil in B-1, B-2, B-4, B-5, B-6, and B-8 at concentrations ranging between 286 ppm to 7,610 ppm.

Three groundwater samples were collected and submitted to the laboratory for the detection of TPH as GRO/BTEX and TEH as DRO.

Laboratory results of the TPH as GRO/BTEX analysis of the groundwater samples indicated elevated levels of Benzene in B-5 at a concentration of 0.0261 ppb and Naphthalene in B-5, B-6, and B-8 at concentrations ranging between 0.00112 ppb to 0.00264 ppb.

Laboratory results of the TEH as DRO analysis of the groundwater samples indicated elevated levels of Diesel in B-5 at a concentration of 0.352 ppm and Motor Oil in B-5 at a concentration of 2.16 ppm.

Analytical data sheets are included as an attachment. Results are summarized in the tables below.

ppm?

Summary of Soil Analytical Results									
Sample ID	Sample Depth	GRO (ppb)	Benzene (ppb)	Toulene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	Diesel (ppm)	Kerosene (ppm)	Motor Oil (ppm)
B-1	4	ND	ND	ND	ND	ND	446	78.3	7610
B-2	8	795	ND	ND	ND	ND	3620	1130	7380
B-3	6	ND	ND	ND	ND	ND	ND	ND	ND
B-4	6	ND	ND	ND	ND	ND	46.5	ND	286
B-5	8	38.7	0.0294	ND	ND	ND	397	85.1	989
B-6	5	ND	ND	ND	ND	ND	35.9	ND	320
B-7	3	ND	ND	ND	ND	ND	ND	ND	ND
B-8	5	ND	ND	ND	ND	ND	433	ND	6320

Summary of Groundwater Analytical Results									
Sample ID	GRO (ppb)	Benzene (ppb)	Toulene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	Naphthalene (ppb)	Diesel (ppm)	Kerosene (ppm)	Motor Oil (ppm)
B-5	ND	0.0261	ND	ND	ND	0.00264	1.29	0.352	2.16
B-6	ND	ND	ND	ND	ND	0.00128	ND	ND	ND
B-8	ND	ND	ND	ND	ND	0.00112	ND	ND	ND

Site Summary

At the time of inspection the property appeared to be undeveloped. The western portion of the parcel used for vehicle parking and material storage. No improvements were noted on site. A dismantled vehicle, an engine block, three drums with unknown contents, and other miscellaneous debris were noted on site. Minor surface staining in the storage and parking areas was also noted.

Eight soil samples and three groundwater samples were collected from eight soil borings on-site and submitted to the laboratory for analysis of TPH as GRO/BTEX and TEH as DRO.

Analytical results of the soil samples indicated elevated levels of GRO in B-2 and B-5; Benzene in B-5; Diesel in B-1, B-2, B-4, B-5, B-6, and B-8; Kerosene in B-1, B-2, and B-5; and Motor Oil in B-1, B-2, B-4, B-5, B-6, and B-8.

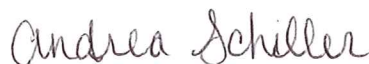
Analytical results of the groundwater samples indicated elevated levels of Benzene in B-5; Naphthalene in B-5, B-6, and B-8; Diesel in B-5; and Motor Oil in B-5.

Study Limitations

This assessment was completed following generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. The findings and conclusions stated herein must be considered not as scientific certainties, but as professional opinions concerning the significance of the limited data gathered during the assessment. No other warranty, expressed or implied, is made. EMR does not and cannot represent that the site contains no hazardous waste or material, petroleum products, or other latent condition beyond that noted by EMR during the period of the site assessment.

EMR appreciates the opportunity to assist you in this matter. Should you have any questions, or require further assistance, please contact the EMR office at (785) 842-9013.

Sincerely,
EMR, Inc.



Andrea Schiller
Staff Geologist



Jeremy Raye
Environmental Manager

Attachment
Cc: File 6984.001

LEASE PROPERTY CHECKLIST**I. BACKGROUND**Inspected by: Randal Dyer, P.G. Inspection Date: 12/1/2004Lessee Name: John Michael - Cashmere, WA Lease Number: 40,250,477Site Address: ContinSunset Highway,City/State/Zip: Cashmere, WA County: _____

Site Operator: _____ Phone: _____

Site Contact: _____ Phone: _____

BNSF Manager Environmental Leases: Jack Clay Phone: _____

Staubach Regional Property Manager: _____ Phone: _____

BNSF Manager Environmental Remediation: _____ Phone: _____

Legal Description/Location:T 23N R 19E N _____ 1/4 of the NE 1/4 of Section: 5**GPS Location:**N _____ 47.52315 ° W _____ -120.48319 °Site Dimensions: 30,000 square feet (75' x 400')Site Accesses: OpenPresent Site Setting: Rural**1) Present Site Use:**

Agricultural Commercial Undeveloped
 Industrial Residential Other (describe)

The western portion of the site has been cleared and used for parking of vehicles and material storage.**2) Former Site Use:**

Agricultural Commercial Undeveloped
 Industrial Residential Other (describe)

Specific former use and comment: Storage of construction supplies - lumber, pipe, steel, vehicles and equipment related to John Michael Irrigation Co.Former Occupants: John Michael Irrigation Co. (1986)

3) Potentially Significant Land Usage Adjacent to the Site:

North: BNSF Right-of-Way

East: Vacant

South: Sunset Highway

West: Retail auto tire store (John Michael property owner)

Comments: _____

II. SITE AND SURROUNDING AREA PHYSICAL DESCRIPTION

- 1) **Regional Topography:** Flat Hilly Mountainous
- 2) **Site Topography:** Flat Moderate Slope Bowl-shaped
- Gentle Slope Steep Slope
- Slope Direction: N NE E SE S SW W NW

3) Land Use Percentages:

	Percent	
Buildings	<u>0%</u>	Describe location: _____
Concrete/asphalt	<u>0%</u>	Describe location: _____
Bare ground	<u>100%</u>	Describe location: _____
Other	_____	Describe location: _____

4) Utilities (Show location of all utilities on site map)

- Electrical Yes No overhead power lines run east-west across center of site
- Natural gas Yes No
- Potable water: Municipal Supply Rural Supply Site Well(s) None
- Sewer System: Municipal Supply On-site septic system None
- If septic system, describe and locate on site map: _____

5) Transformers

- Are electrical transformers present on the leased parcel? Yes No
- If yes, where are they located? Pole mounted Pad mounted
- Evidence of environmental impacts around transformers? Yes No
- Are the transformers labeled as "Non PCB containing"? Yes No

6) Fill Materials (LPA only)

Type: _____

Amount: _____

Source: _____

7) Waste/Spill Evidence

Stressed vegetation	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Descr. _____
Soil/surface staining	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Descr. <u>Minor surface staining</u>
Odors	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Descr. _____
Leachate seeps	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Descr. _____
Construction/demolition debris	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Descr. <u>Minor debris piles</u>
Surface water discoloration, sheens or odors	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Descr. _____
Disposal areas (mounds/depressions)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Descr. _____

If yes, describe: Minor soil staining noted in the storage and parking portion of the property. Minor debris was noted throughout.

8) External Housekeeping

Excellent Good Fair Poor

Comments: Observed uncovered engine blocks and two unmarked drums with unknown contents stored on pallets.

III. SURFACE WATER/GROUNDWATER CHARACTERISTICS

1) Nearest Surface Water Bodies

Lake River Stream Wetlands Saltwater Bay

Distance from parcel (feet): Wenatchee River ~100 feet north of parcel.

2) Effluent Discharges:

Does the site accumulate surface water (ponding) Yes No

Runoff Direction? N NE E SE S SW W NW

If water is ponded on site, does it display any unusual odors or sheen? Yes No

If yes, describe: _____

Does the parcel contain any of the following:

Stormwater Retention System?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Lagoons, impoundment's?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Oil/Water Separator?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Sumps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Dry wells?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Catch basins?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Roof drains?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Floor drains?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Compressor blowdown areas?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown

If Yes, describe: _____

2) Above Ground Storage Tanks (Show all areas and features on site map)

Are there any above ground storage tanks on the parcel? Yes No

Inventory any on-site ASTs:

Tank I.D.	Type	Capacity	Contents	Date/Age	Spill Prevention (describe)	Registered? Y/N

Evidence of spill or leakage: Yes No

If yes, describe: There are several AST stored on site. No indication that the AST were installed or active.

3) Piping/Dispensing Systems: Yes No

Describe: _____

4) Secondary Containment Structure: Yes No

Does the secondary containment structure have an impervious bottom? Yes No

Describe the containment area construction (earthen berm, concrete containment w all, etc.): _____

V. BUILDINGS

1) Buildings/Structures: Yes No If yes, how many? _____

Describe Buildings/Structures

Construction Type	Approximate Dimensions/Square feet	Age	Usage

VIII. PRODUCT/SWASTE STORAGE AND HANDLING

1) Does the facility store bulk chemicals, petroleum products or hazardous substances other than previously identified?

Yes No

If yes, check all applicable products listed below:

Product	Container	Volume (gallons)	Product	Container	Volume (gallons)
<input type="checkbox"/> Solvents	_____	_____	<input type="checkbox"/> Gasoline	_____	_____
<input type="checkbox"/> Degreasers	_____	_____	<input type="checkbox"/> Fuel Oil/Diesel	_____	_____
<input type="checkbox"/> Acids/Bases	_____	_____	<input type="checkbox"/> Lubricant/Motor Oil	_____	_____
<input type="checkbox"/> Paints/Thinners	_____	_____	<input type="checkbox"/> Organic Chemicals	_____	_____
<input type="checkbox"/> Adhesives/Glues	_____	_____	<input type="checkbox"/> Inorganic Chemical	_____	_____
<input type="checkbox"/> Hydraulic Fluid	_____	_____	<input type="checkbox"/> Perfumes	_____	_____
<input type="checkbox"/> Pesticides	_____	_____	<input type="checkbox"/> Plastics	_____	_____
<input type="checkbox"/> Herbicides	_____	_____	<input type="checkbox"/> Wood Preservatives	_____	_____
<input type="checkbox"/> Rodenticides	_____	_____	<input type="checkbox"/> PCBs	_____	_____
<input type="checkbox"/> Fertilizers	_____	_____	<input type="checkbox"/> Unlabeled	_____	_____
<input type="checkbox"/> Other	_____				

IX. ADDITIONAL OBSERVATIONS/COMMENTS REGARDING INSPECTION:

DRAW A SITE MAP

Include the parcel boundaries, remaining improvements, areas of concern, and sampling locations along with dimensions and distances. Mark each photo location and indicate direction of view. Don't forget the rail way and a north arrow.

For site map, see attached figure 1.

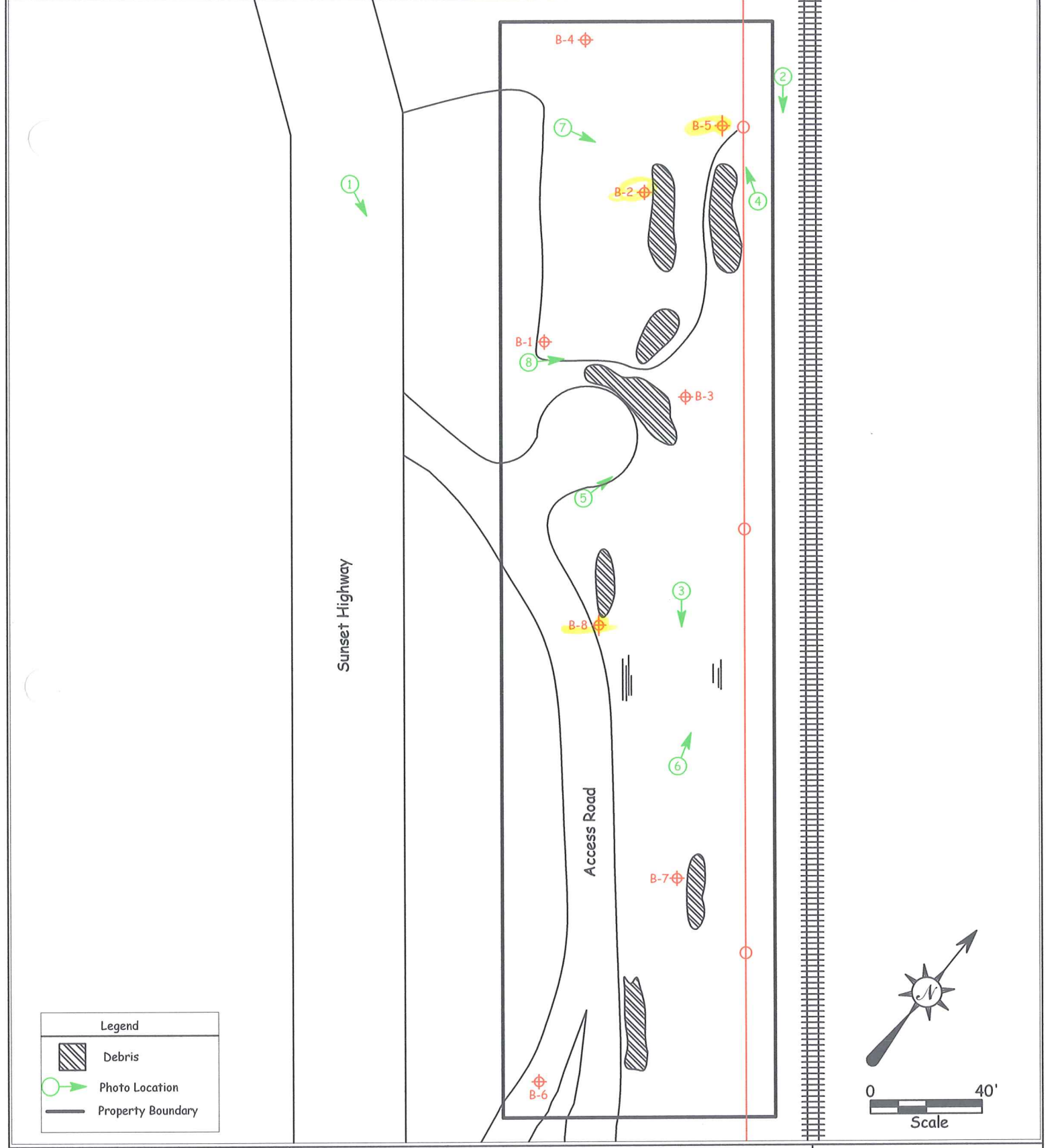


Figure
1

John Michael
Cashmere, WA
Lease Property No. 40,250,477

Site Map

DRAWN BY:	<u>SMC</u>	DATE:	<u>4/5/05</u>
CHECKED BY:	<u>JR</u>	REVISION NO.:	<u>1</u>
PROJECT NO.:	<u>6984.001</u>	Reference:	<u> </u>





Photo 1: View east through the subject property.



Photo 2: View southeast through the subject property.



Photo 3: View southeast through the subject property.



Photo 4: View west through the subject property.



Photo 5: View north through the subject property.



Photo 6: View of stacked pipe.



Photo 7: View east of old engine block, dismantled vehicle, and two unlabeled drums with unknown contents.



Photo 8: View of drum with unknown contents.



FIELD BOREHOLE LOG

BOREHOLE NO.: **B-1**

TOTAL DEPTH: **8 feet**

PROJECT INFORMATION

PROJECT: **John Michael**
 SITE LOCATION: **Cashmere, WA**
 JOB NO.: **6984.001**
 LOGGED BY: **Randy Dyer**
 PROJECT MANAGER: **Jeremy Raye**
 DATE DRILLED: **12/1/04**

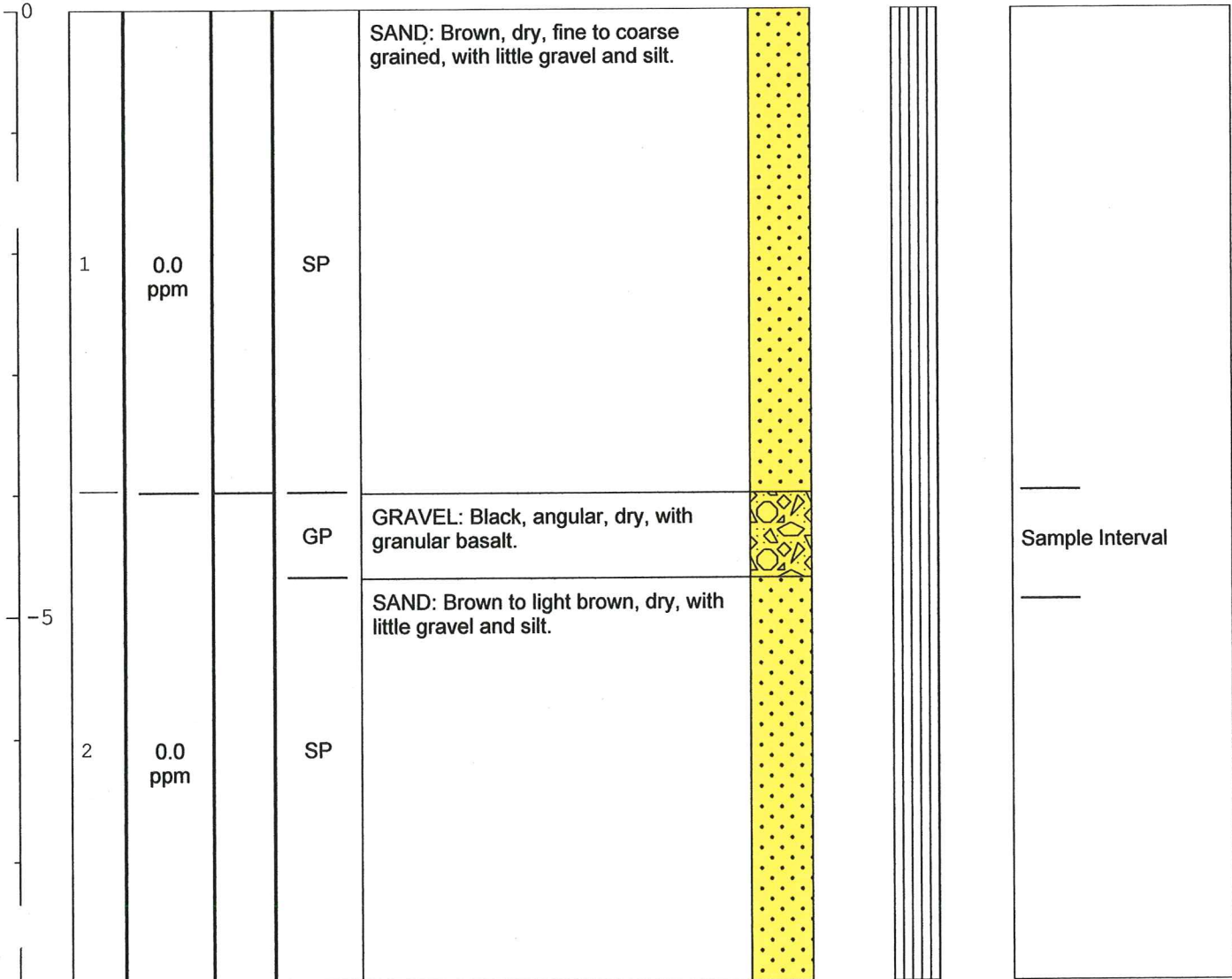
DRILLING INFORMATION

DRILLING CO.: **EMR, Inc.**
 DRILLER: **Randy Dyer**
 RIG TYPE: **Geoprobe CH-40**
 METHOD OF DRILLING: **Direct Push**
 SAMPLING METHODS: **2" macrocore**
 HAMMER WT./DROP **Pneumatic**

NOTES:

- ⊘ Water level during drilling
- ⊖ Water level in completed well

DEPTH	SAMP. #	PID (ppm)	Sample Recovery	USCS	SOIL DESCRIPTION	Graphic Log	WELL COMPLETION	SAMPLE INTERVAL
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FIELD BOREHOLE LOG

BOREHOLE NO.: **B-2**

TOTAL DEPTH: **12 feet**

PROJECT INFORMATION

PROJECT: **John Michael**
 SITE LOCATION: **Cashmere, WA**
 JOB NO.: **6984.001**
 LOGGED BY: **Randy Dyer**
 PROJECT MANAGER: **Jeremy Raye**
 DATE DRILLED: **12/1/04**

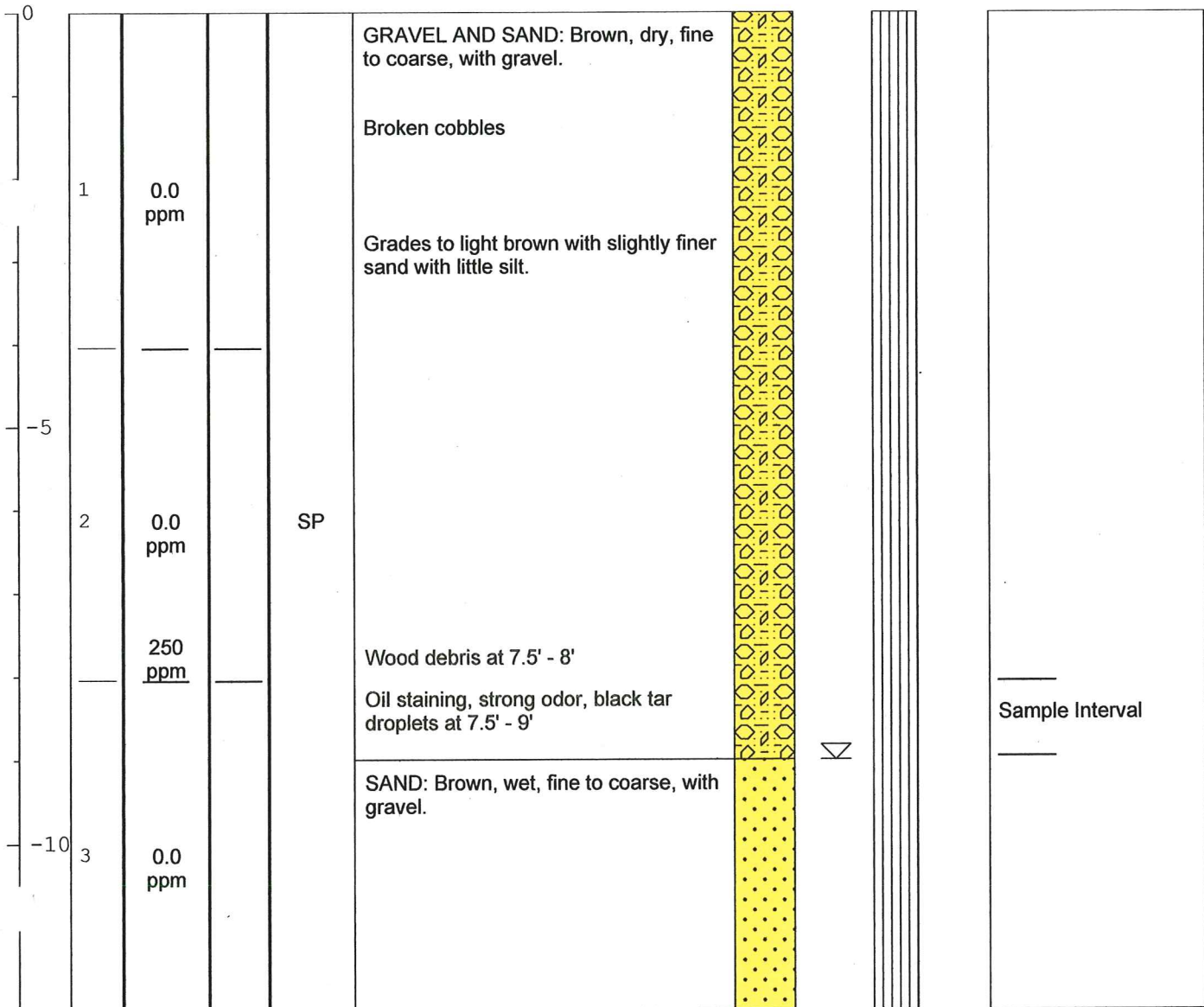
DRILLING INFORMATION

DRILLING CO.: **EMR, Inc.**
 DRILLER: **Randy Dyer**
 RIG TYPE: **Geoprobe CH-40**
 METHOD OF DRILLING: **Direct Push**
 SAMPLING METHODS: **2" macrocore**
 HAMMER WT./DROP **Pneumatic**

NOTES:

- ⚡ Water level during drilling
- ⚡ Water level in completed well

DEPTH	SAMP. #	PID (ppm)	Sample Recovery	USCS	SOIL DESCRIPTION	Graphic Log	WELL COMPLETION	SAMPLE INTERVAL
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FIELD BOREHOLE LOG

BOREHOLE NO.: **B-3**

TOTAL DEPTH: **6 feet**

PROJECT INFORMATION

PROJECT: **John Michael**
 SITE LOCATION: **Cashmere, WA**
 JOB NO.: **6984.001**
 LOGGED BY: **Randy Dyer**
 PROJECT MANAGER: **Jeremy Raye**
 DATE DRILLED: **12/1/04**

DRILLING INFORMATION

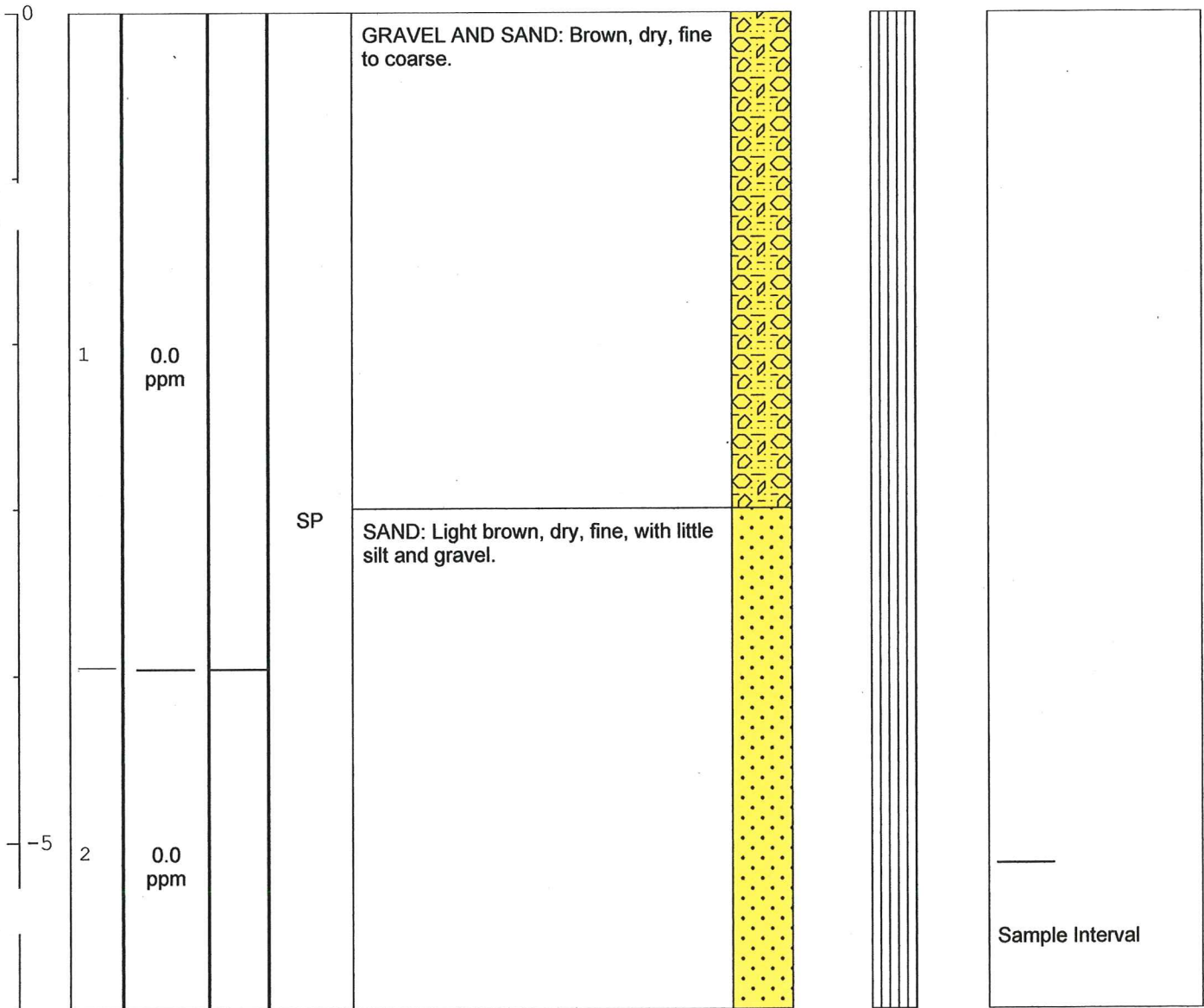
DRILLING CO.: **EMR, Inc.**
 DRILLER: **Randy Dyer**
 RIG TYPE: **Geoprobe CH-40**
 METHOD OF DRILLING: **Direct Push**
 SAMPLING METHODS: **2" macrocore**
 HAMMER WT./DROP **Pneumatic**

NOTES:

☒ Water level during drilling

☒ Water level in completed well

DEPTH	SAMP. #	PID (ppm)	Sample Recovery	USCS	SOIL DESCRIPTION	Graphic Log	WELL COMPLETION	SAMPLE INTERVAL
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FIELD BOREHOLE LOG

BOREHOLE NO.: **B-4**

TOTAL DEPTH: **12 feet**

PROJECT INFORMATION

PROJECT: **John Michael**
 SITE LOCATION: **Cashmere, WA**
 JOB NO.: **6984.001**
 LOGGED BY: **Randy Dyer**
 PROJECT MANAGER: **Jeremy Raye**
 DATE DRILLED: **12/1/04**

DRILLING INFORMATION

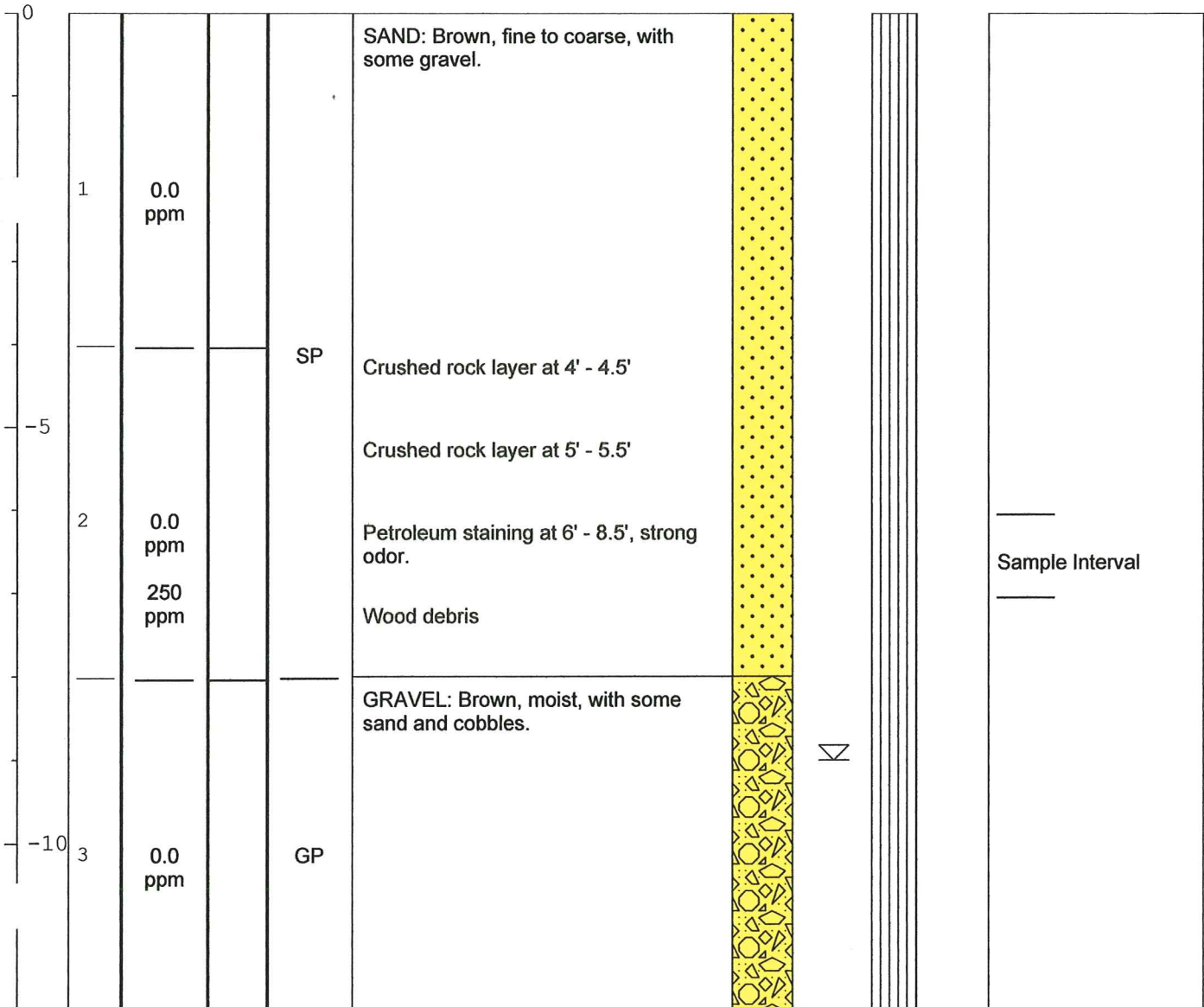
DRILLING CO.: **EMR, Inc.**
 DRILLER: **Randy Dyer**
 RIG TYPE: **Geoprobe CH-40**
 METHOD OF DRILLING: **Direct Push**
 SAMPLING METHODS: **2" macrocore**
 HAMMER WT./DROP **Pneumatic**

NOTES:

☒ Water level during drilling

☒ Water level in completed well

DEPTH	SAMP. #	PID (ppm)	Sample Recovery	USCS	SOIL DESCRIPTION	Graphic Log	WELL COMPLETION	SAMPLE INTERVAL
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FIELD BOREHOLE LOG

BOREHOLE NO.: **B-5**

TOTAL DEPTH: **12 feet**

PROJECT INFORMATION

PROJECT: **John Michael**
 SITE LOCATION: **Cashmere, WA**
 JOB NO.: **6984.001**
 LOGGED BY: **Randy Dyer**
 PROJECT MANAGER: **Jeremy Raye**
 DATE DRILLED: **12/1/04**

DRILLING INFORMATION

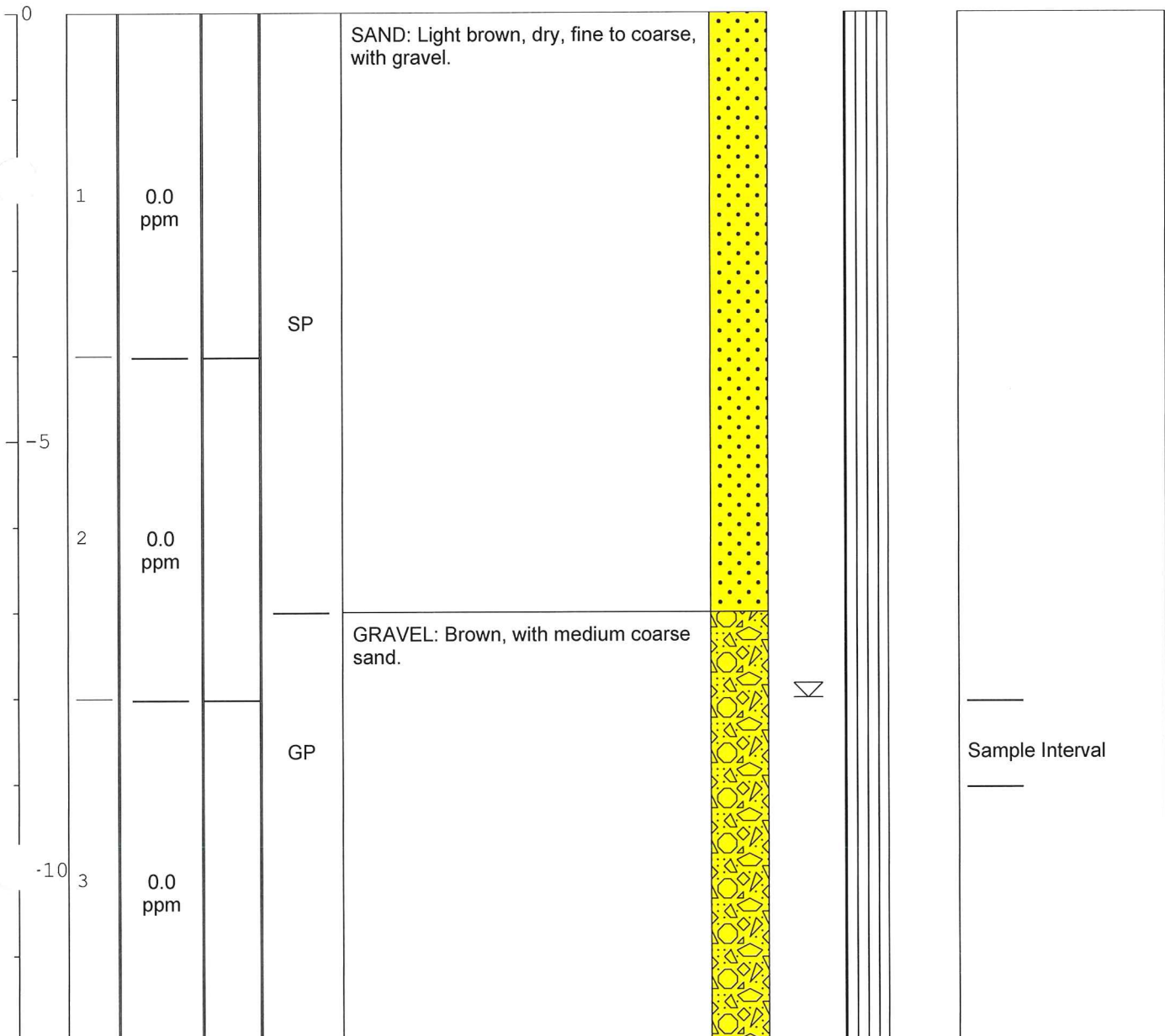
DRILLING CO.: **EMR, Inc.**
 DRILLER: **Randy Dyer**
 RIG TYPE: **Geoprobe CH-40**
 METHOD OF DRILLING: **Direct Push**
 SAMPLING METHODS: **2" macrocore**
 HAMMER WT./DROP: **Pneumatic**

NOTES:

- ☒ Water level during drilling
- ☒ Water level in completed well

Page 1 of 1

DEPTH	SAMP. #	PID (ppm)	Sample Recovery	USCS	SOIL DESCRIPTION	Graphic Log	WELL COMPLETION	SAMPLE INTERVAL
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FIELD BOREHOLE LOG

BOREHOLE NO.: **B-6**

TOTAL DEPTH: **12 feet**

PROJECT INFORMATION

PROJECT: **John Michael**
 SITE LOCATION: **Cashmere, WA**
 JOB NO.: **6984.001**
 LOGGED BY: **Randy Dyer**
 PROJECT MANAGER: **Jeremy Raye**
 DATE DRILLED: **12/1/04**

DRILLING INFORMATION

DRILLING CO.: **EMR, Inc.**
 DRILLER: **Randy Dyer**
 RIG TYPE: **Geoprobe CH-40**
 METHOD OF DRILLING: **Direct Push**
 SAMPLING METHODS: **2" macrocore**
 HAMMER WT./DROP **Pneumatic**

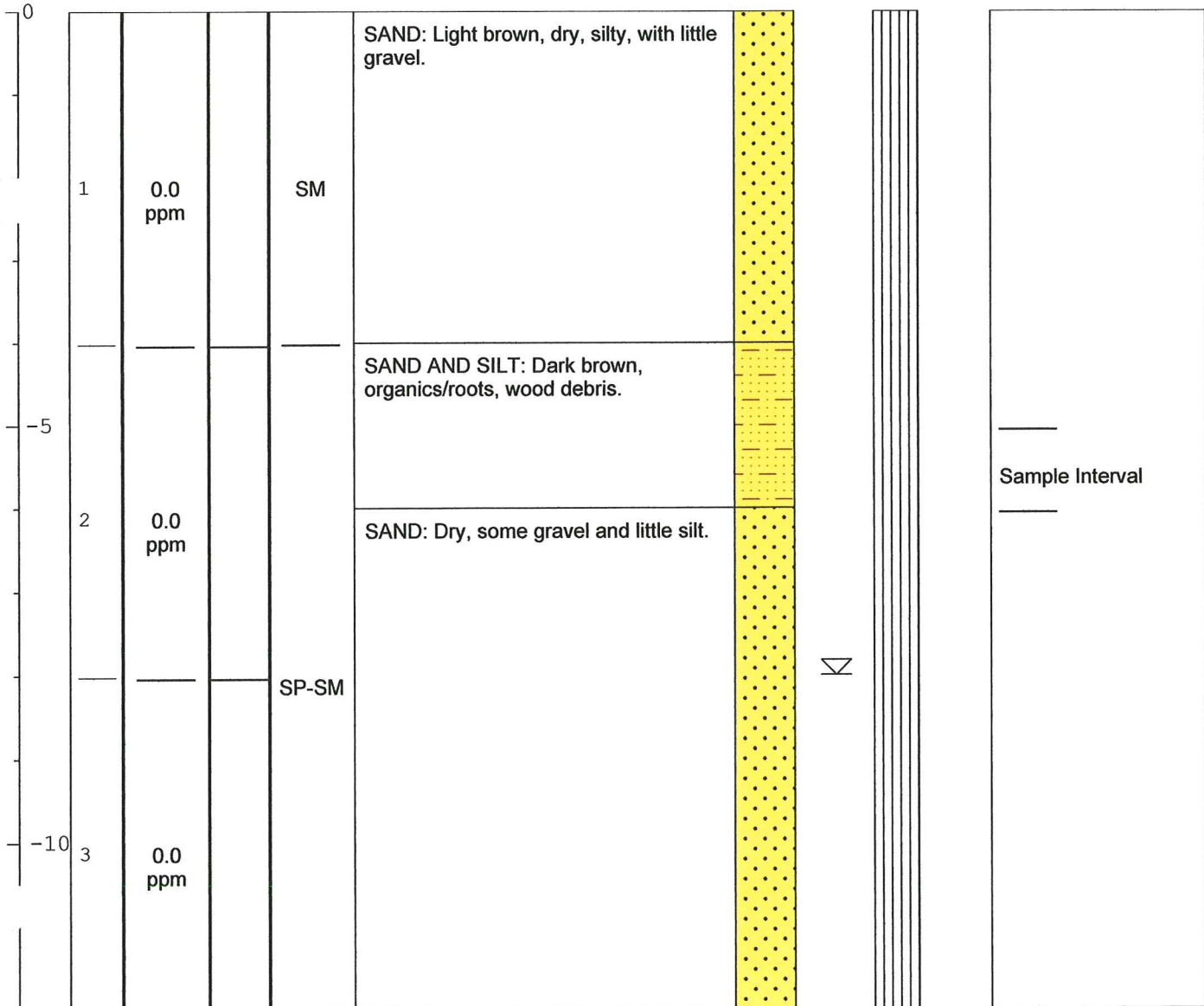
NOTES:

☒ Water level during drilling

☑ Water level in completed well

Page 1 of 1

DEPTH	SAMP. #	PID (ppm)	Sample Recovery	USCS	SOIL DESCRIPTION	Graphic Log	WELL COMPLETION	SAMPLE INTERVAL
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FIELD BOREHOLE LOG

BOREHOLE NO.: **B-7**

TOTAL DEPTH: **5 feet**

PROJECT INFORMATION

PROJECT: **John Michael**
 SITE LOCATION: **Cashmere, WA**
 JOB NO.: **6984.001**
 LOGGED BY: **Randy Dyer**
 PROJECT MANAGER: **Jeremy Raye**
 DATE DRILLED: **12/1/04**

DRILLING INFORMATION

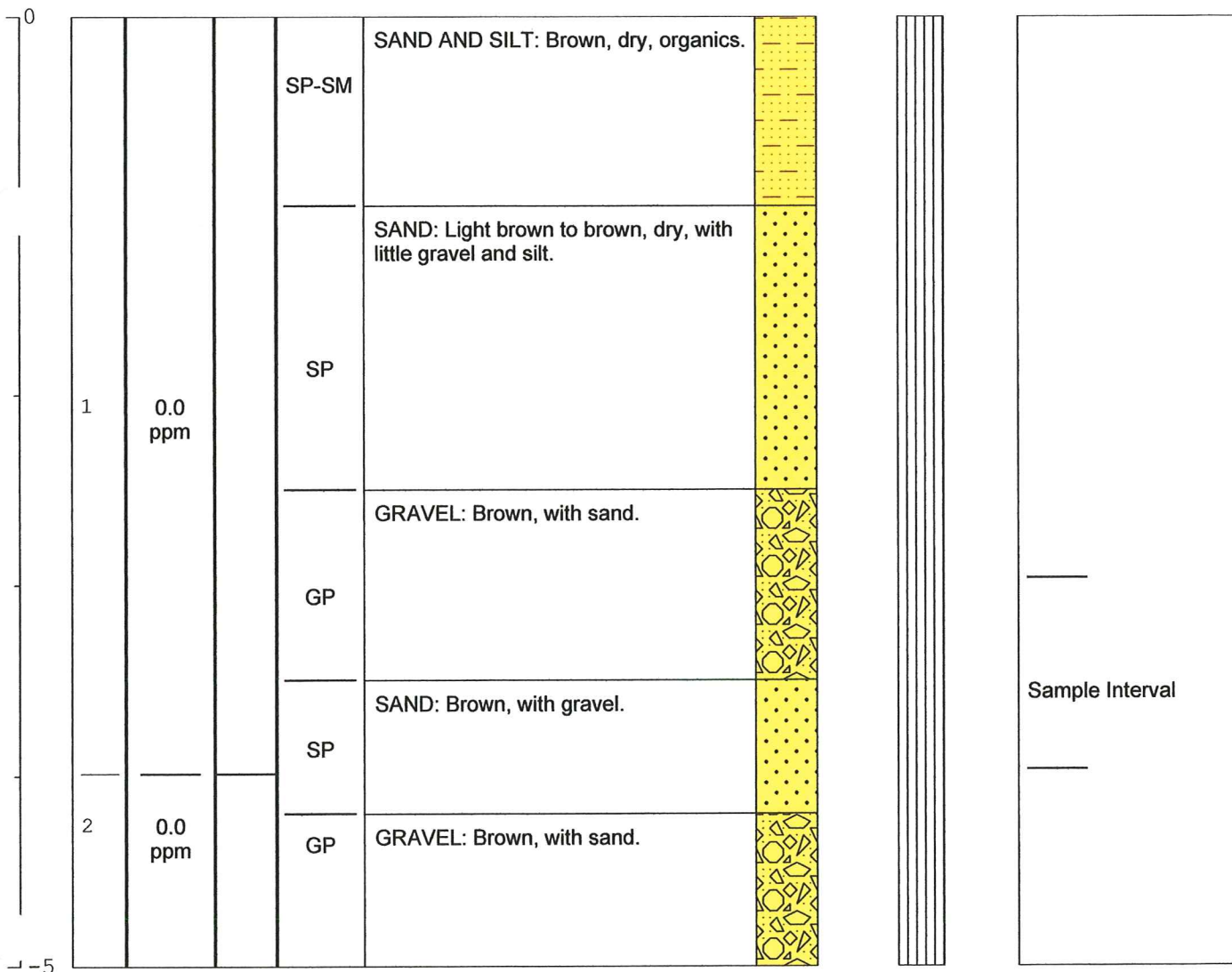
DRILLING CO.: **EMR, Inc.**
 DRILLER: **Randy Dyer**
 RIG TYPE: **Geoprobe CH-40**
 METHOD OF DRILLING: **Direct Push**
 SAMPLING METHODS: **2" macrocore**
 HAMMER WT./DROP **Pneumatic**

NOTES:

⚡ Water level during drilling

⚡ Water level in completed well

DEPTH	SAMP. #	PID (ppm)	Sample Recovery	USCS	SOIL DESCRIPTION	Graphic Log	WELL COMPLETION	SAMPLE INTERVAL
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FIELD BOREHOLE LOG

BOREHOLE NO.: **B-8**

TOTAL DEPTH: **8 feet**

PROJECT INFORMATION

DRILLING INFORMATION

PROJECT: **John Michael**
 SITE LOCATION: **Cashmere, WA**
 JOB NO.: **6984.001**
 LOGGED BY: **Randy Dyer**
 PROJECT MANAGER: **Jeremy Raye**
 DATE DRILLED: **12/1/04**

DRILLING CO.: **EMR, Inc.**
 DRILLER: **Randy Dyer**
 RIG TYPE: **Geoprobe CH-40**
 METHOD OF DRILLING: **Direct Push**
 SAMPLING METHODS: **2" macrocore**
 HAMMER WT./DROP **Pneumatic**

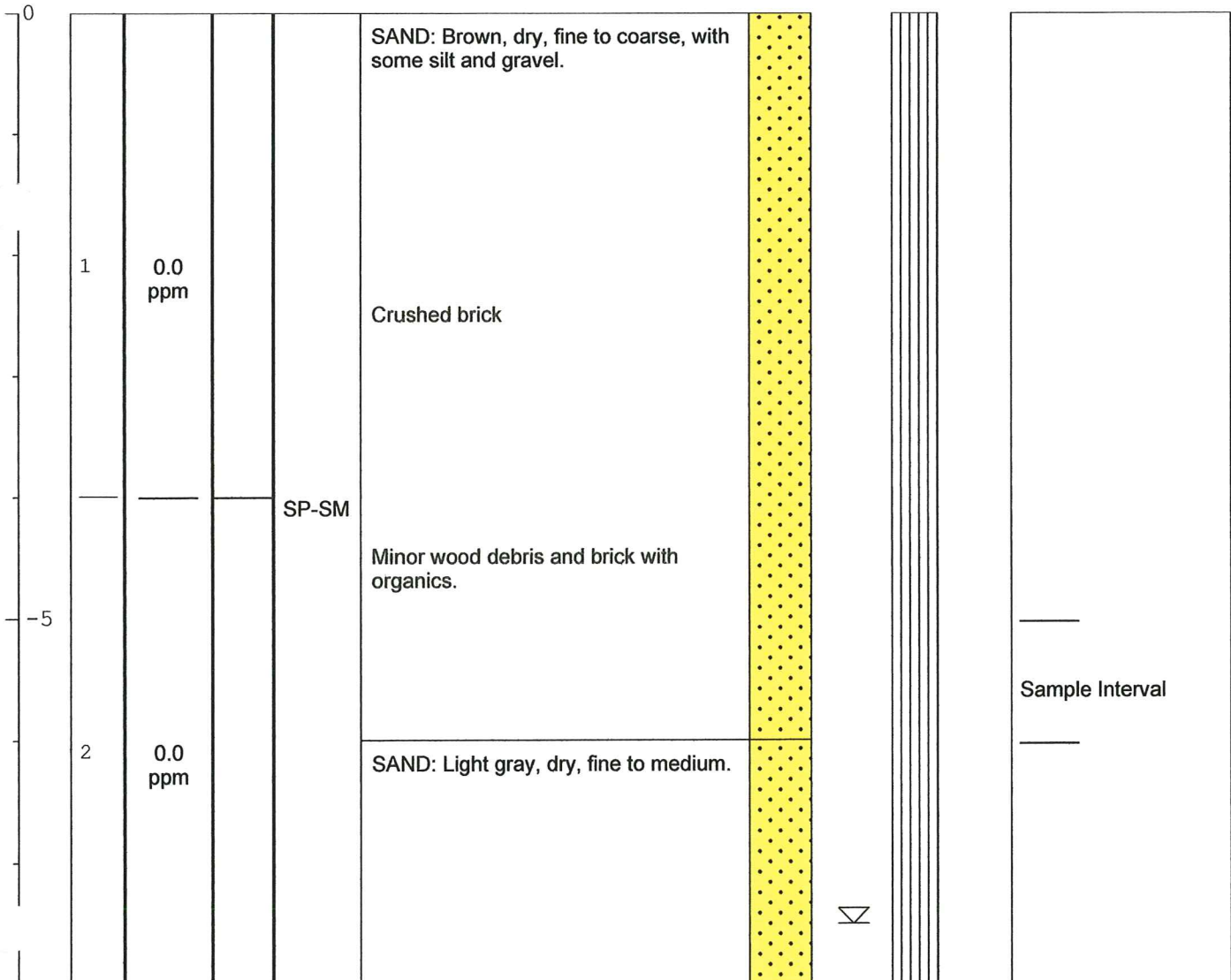
NOTES:

∞ Water level during drilling

∇ Water level in completed well

Page 1 of 1

DEPTH	SAMP. #	PID (ppm)	Sample Recovery	USCS	SOIL DESCRIPTION	Graphic Log	WELL COMPLETION	SAMPLE INTERVAL
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STL Seattle
5755 8th Street East
Tacoma, WA 98424

Tel: 253 922 2310
Fax: 253 922 5047
www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: December 28, 2004

TO: Jeremy Raye
EMR, Inc
1310 Wakrusa Drive, Suite A
Lawrence, KS 66049

PROJECT: John Michael - Cashmere, WA

REPORT NUMBER: 125189

TOTAL NUMBER OF PAGES: 59

Enclosed are the test results for eleven samples received at STL Seattle on December 3, 2004.

Analytical Narrative NWTPH-Dx: The BSD percent recovery for motor oil failed high. The BS percent recovery for motor oil was acceptable. All other quality control parameters were within acceptance range.

Analytical Narrative Volatiles: The BS/BSD percent recovery for Toluene, Ethylbenzene and Xylenes failed slightly high. All samples were ND for these parameters. Ethylbenzene recovery failed high in the MS. The pentafluorobenzene surrogate in the method blank analysis failed slightly high.

Samples for the volatile organics analysis were received in 44ml VOA pre-tared vials that had contained methanol. The contents were removed and placed into pre-cleaned 4 oz. jars for sample homogenization and preparation. Dry weights were performed using the samples submitted for the semivolatiles analysis. All other quality control parameters were within acceptance range.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

STL Seattle is a part of Severn Trent Laboratories, Inc.

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender immediately at 253-922-2310 and destroy this report immediately.

STL Seattle

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,



Katie Downie
Project Manager



STL Seattle is a part of Severn Trent Laboratories, Inc.

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STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
125189-1	B-1-4	12-01-04 16:00	solid
125189-2	B-2-8	12-01-04 15:30	solid
125189-3	B-3-6	12-01-04 10:00	solid
125189-4	B-4-6	12-01-04 13:00	solid
125189-5	B-5-8	12-01-04 12:30	solid
125189-6	B-6-5	12-01-04 11:00	solid
125189-7	B-7-3	12-01-04 10:30	solid
125189-8	B-8-5	12-01-04 09:00	solid
125189-9	B-5	12-01-04 14:00	liquid
125189-10	B-6	12-01-04 15:00	liquid
125189-11	B-8	12-01-04 09:00	liquid

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STL Seattle

Client Name:	EMR, Inc
Client ID:	B-1-4
Lab ID:	125189-01
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	96.61
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	95.2		50	150
1-Chloro-3-fluorobenzene	109		50	150
Bromofluorobenzene	109		50	150
Pentafluorobenzene	84.9		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	ND	4.13	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-1-4
Lab ID:	125189-01
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	96.61
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	128		47	158
1-Chloro-3-fluorobenzene	132		76	137
Bromofluorobenzene	133	X9	79	132
Pentafluorobenzene	154	X9	76	142

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	ND	0.0206	
Toluene	ND	0.0413	
Ethylbenzene	ND	0.0413	
m&p-Xylene	ND	0.0825	
o-Xylene	ND	0.0413	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-1-4 - dup
Lab ID:	125189R01
Date Received:	-
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	96.61
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	97.1		50	150
1-Chloro-3-fluorobenzene	110		50	150
Bromofluorobenzene	109		50	150
Pentafluorobenzene	84.9		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	ND	4.12	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-2-8
Lab ID:	125189-02
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	93.71
Dilution Factor	100

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	-	X8	50	150
1-Chloro-3-fluorobenzene	112		50	150
Bromofluorobenzene	111		50	150
Pentafluorobenzene	85.8		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	795	421	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-2-8
Lab ID:	125189-02
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	93.71
Dilution Factor	100

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	-	X8	47	158
1-Chloro-3-fluorobenzene	139	X9	76	137
Bromofluorobenzene	138	X9	79	132
Pentafluorobenzene	154	X9	76	142

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	ND	2.11	
Toluene	ND	4.21	
Ethylbenzene	ND	4.21	
m&p-Xylene	ND	8.42	
o-Xylene	ND	4.21	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-3-6
Lab ID:	125189-03
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	93.63
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	94		50	150
1-Chloro-3-fluorobenzene	109		50	150
Bromofluorobenzene	108		50	150
Pentafluorobenzene	84.5		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	ND	4.26	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-3-6
Lab ID:	125189-03
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	93.63
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	127		47	158
1-Chloro-3-fluorobenzene	133		76	137
Bromofluorobenzene	136	X9	79	132
Pentafluorobenzene	150	X9	76	142

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	ND	0.0213	
Toluene	ND	0.0426	
Ethylbenzene	ND	0.0426	
m&p-Xylene	ND	0.0853	
o-Xylene	ND	0.0426	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-4-6
Lab ID:	125189-04
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	80.41
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	92.3		50	150
1-Chloro-3-fluorobenzene	110		50	150
Bromofluorobenzene	110		50	150
Pentafluorobenzene	85		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	ND	4.75	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-4-6
Lab ID:	125189-04
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	80.41
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	123		47	158
1-Chloro-3-fluorobenzene	134		76	137
Bromofluorobenzene	136	X9	79	132
Pentafluorobenzene	153	X9	76	142

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	ND	0.0237	
Toluene	ND	0.0475	
Ethylbenzene	ND	0.0475	
m&p-Xylene	ND	0.0949	
o-Xylene	ND	0.0475	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-5-8
Lab ID:	125189-05
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	89.97
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	93.3		50	150
1-Chloro-3-fluorobenzene	109		50	150
Bromofluorobenzene	107		50	150
Pentafluorobenzene	84.7		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	38.7	4.21	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-5-8
Lab ID:	125189-05
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	89.97
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	125		47	158
1-Chloro-3-fluorobenzene	132		76	137
Bromofluorobenzene	136	X9	79	132
Pentafluorobenzene	148	X9	76	142

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Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	0.0294	0.021	
Toluene	ND	0.0421	
Ethylbenzene	ND	0.0421	
m&p-Xylene	ND	0.0841	
o-Xylene	ND	0.0421	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-6-5
Lab ID:	125189-06
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	79.06
Dilution Factor	.1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	84.8		50	150
1-Chloro-3-fluorobenzene	111		50	150
Bromofluorobenzene	110		50	150
Pentafluorobenzene	85.5		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	ND	4.85	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-6-5
Lab ID:	125189-06
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	79.06
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	111		47	158
1-Chloro-3-fluorobenzene	135		76	137
Bromofluorobenzene	140	X9	79	132
Pentafluorobenzene	154	X9	76	142

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	ND	0.0243	
Toluene	ND	0.0485	
Ethylbenzene	ND	0.0485	
m&p-Xylene	ND	0.097	
o-Xylene	ND	0.0485	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-7-3
Lab ID:	125189-07
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids:	92.95
Dilution Factor:	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	95.2		50	150
1-Chloro-3-fluorobenzene	111		50	150
Bromofluorobenzene	110		50	150
Pentafluorobenzene	85.4		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	ND	4.24	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-7-3
Lab ID:	125189-07
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	92.95
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	129		47	158
1-Chloro-3-fluorobenzene	136		76	137
Bromofluorobenzene	139	X9	79	132
Pentafluorobenzene	152	X9	76	142

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	ND	0.0212	
Toluene	ND	0.0424	
Ethylbenzene	ND	0.0424	
m&p-Xylene	ND	0.0848	
o-Xylene	ND	0.0424	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-8-5
Lab ID:	125189-08
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	89.85
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	95		50	150
1-Chloro-3-fluorobenzene	110		50	150
Bromofluorobenzene	110		50	150
Pentafluorobenzene	84.8		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	ND	4.42	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-8-5
Lab ID:	125189-08
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	89.85
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	129		47	158
1-Chloro-3-fluorobenzene	139	X9	76	137
Bromofluorobenzene	140	X9	79	132
Pentafluorobenzene	152	X9	76	142

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	ND	0.0221	
Toluene	ND	0.0442	
Ethylbenzene	ND	0.0442	
m&p-Xylene	ND	0.0883	
o-Xylene	ND	0.0442	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-8-5 - ms
Lab ID:	125189S08
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	89.85
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	123		47	158
1-Chloro-3-fluorobenzene	136		76	137
Bromofluorobenzene	136	X9	79	132
Pentafluorobenzene	140		76	142

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	0.643	0.0221	
Toluene	4.6	0.0443	
Ethylbenzene	1.04	0.0443	
m&p-Xylene	3.4	0.0886	
o-Xylene	1.34	0.0443	

STL Seattle

Client Name: EMR, Inc
Client ID: B-5
Lab ID: 125189-09
Date Received: 12/3/04
Date Prepared: 12/8/04
Date Analyzed: 12/8/04
% Solids: -
Dilution Factor: 1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	91.9		50	150
1-Chloro-3-fluorobenzene	96.1		50	150
Bromofluorobenzene	94.9		50	150
Pentafluorobenzene	78.6		50	150

Analyte	Result (mg/L)	RL	Flags
Gasoline by NWTPH-G	ND	0.1	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-5
Lab ID:	125189-09
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	-
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5030/8021B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	116		84	122
1-Chloro-3-fluorobenzene	110		80	120
Bromofluorobenzene	105		80	120
Pentafluorobenzene	114		81	126

Analyte	Result (mg/L)	RL	Flags
Benzene	0.0261	0.0005	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	
Naphthalene	0.00264	0.001	B1

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-6
Lab ID:	125189-10
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	-
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	92.2		50	150
1-Chloro-3-fluorobenzene	95		50	150
Bromofluorobenzene	93.5		50	150
Pentafluorobenzene	79.7		50	150

Analyte	Result (mg/L)	RL	Flags
Gasoline by NWTPH-G	ND	0.1	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-6
Lab ID:	125189-10
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	-
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5030/8021B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	118		84	122
1-Chloro-3-fluorobenzene	110		80	120
Bromofluorobenzene	105		80	120
Pentafluorobenzene	115		81	126

Analyte	Result (mg/L)	RL	Flags
Benzene	ND	0.0005	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	
Naphthalene	0.00128	0.001	B1

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-8
Lab ID:	125189-11
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	-
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	72.6		50	150
1-Chloro-3-fluorobenzene	75.5		50	150
Bromofluorobenzene	74.6		50	150
Pentafluorobenzene	69.7		50	150

Analyte	Result (mg/L)	RL	Flags
Gasoline by NWTPH-G	ND	0.1	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-8
Lab ID:	125189-11
Date Received:	12/3/04
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	-
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5030/8021B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	91.7		84	122
1-Chloro-3-fluorobenzene	86.3		80	120
Bromofluorobenzene	82.5		80	120
Pentafluorobenzene	88.1		81	126

Analyte	Result (mg/L)	RL	Flags
Benzene	ND	0.0005	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	
Naphthalene	0.00112	0.001	B1

STL Seattle

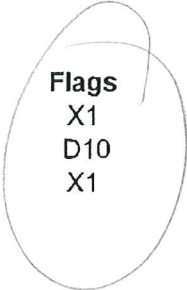
Client Name:	EMR, Inc
Client ID:	B-1-4
Lab ID:	125189-01
Date Received:	12/3/2004
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	96.61
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	88.6		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	446	24	X1
Motor Oil	7610	479	D10
Kerosene	78.3	24	X1



X1 - Chromatogram suggests this might be overlap from the motor oil range

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-1-4 - dup
Lab ID:	125189R01
Date Received:	-
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	96.61
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	97.9		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	491	24.6	X1
Motor Oil	8640	491	D10
Kerosene	83.8	24.6	X1

X1 - Chromatogram suggests this might be overlap from the motor oil range

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-2-8
Lab ID:	125189-02
Date Received:	12/3/2004
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	93.71
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	61.5		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	3620	24.6	X1
Motor Oil	7380	492	X1 D10
Kerosene	1130	24.6	X1

X1 - Chromatogram suggests this might be fuel oil #6 or similar product

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-3-6
Lab ID:	125189-03
Date Received:	12/3/2004
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	93.63
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	92.8		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	ND	24.8	
Motor Oil	ND	49.5	
Kerosene	ND	24.8	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-4-6
Lab ID:	125189-04
Date Received:	12/3/2004
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	80.41
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	71.7		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	46.5	28.4	X1
Motor Oil	286	56.9	
Kerosene	ND	28.4	

X1 - Chromatogram suggests this might be overlap from the motor oil range

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-5-8
Lab ID:	125189-05
Date Received:	12/3/2004
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	89.97
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	71.7		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	397	25.8	X1
Motor Oil	989	51.6	X1
Kerosene	85.1	25.8	X1

X1 - Chromatogram suggests this might be fuel oil #6 or similar product

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-6-5
Lab ID:	125189-06
Date Received:	12/3/2004
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	79.06
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	66.7		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	35.9	31	X1
Motor Oil	320	62	
Kerosene	ND	31	

X1 - Chromatogram suggests this might be fuel oil #6 or similar product

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-7-3
Lab ID:	125189-07
Date Received:	12/3/2004
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	92.95
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	82.9		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	ND	24.5	
Motor Oil	ND	48.9	
Kerosene	ND	24.5	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-8-5
Lab ID:	125189-08
Date Received:	12/3/2004
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	89.85
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	91.8		50	150

Sample results are on a dry weight basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	433	25.5	X1
Motor Oil	6320	511	D10
Kerosene	ND	25.5	

X1 - Chromatogram suggests this might be fuel oil #6 or similar product

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-5
Lab ID:	125189-09
Date Received:	12/3/2004
Date Prepared:	12/8/2004
Date Analyzed:	12/13/2004
% Solids	-
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx with Silica Gel Cleanup Modified

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	122		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	1.29	0.252	X1
Motor Oil	2.16	0.503	X1
Kerosene	0.352	0.252	X1

X1 - Chromatogram suggests this might be fuel oil #6 or similar product

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-6
Lab ID:	125189-10
Date Received:	12/3/2004
Date Prepared:	12/8/2004
Date Analyzed:	12/13/2004
% Solids	-
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx with Silica Gel Cleanup Modified

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	85.7		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.254	
Motor Oil	ND	0.507	
Kerosene	ND	0.254	

STL Seattle

Client Name:	EMR, Inc
Client ID:	B-8
Lab ID:	125189-11
Date Received:	12/3/2004
Date Prepared:	12/8/2004
Date Analyzed:	12/13/2004
% Solids	-
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx with Silica Gel Cleanup Modified

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	93.2		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.252	
Motor Oil	ND	0.505	
Kerosene	ND	0.252	

STL Seattle

Lab ID: Method Blank - GB4032
Date Received: -
Date Prepared: 12/8/04
Date Analyzed: 12/8/04
% Solids
Dilution Factor 1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	105		50	150
1-Chloro-3-fluorobenzene	110		50	150
Bromofluorobenzene	108		50	150
Pentafluorobenzene	85.3		50	150

Sample results are on an as received basis.

Analyte	Result (mg/kg)	RL	Flags
Gasoline by NWTPH-G	ND	4	

STL Seattle

Lab ID:	Method Blank - GB4032
Date Received:	-
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	149		47	158
1-Chloro-3-fluorobenzene	130		76	137
Bromofluorobenzene	130		79	132
Pentafluorobenzene	151	N	76	142

Sample results are on an as received basis.

Analyte	Result (mg/kg)	RL	Flags
Benzene	ND	0.02	
Toluene	ND	0.04	
Ethylbenzene	ND	0.04	
m&p-Xylene	ND	0.08	
o-Xylene	ND	0.04	

STL Seattle

Lab ID:	Method Blank - GB4034
Date Received:	-
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	-
Dilution Factor	1

Gasoline Range Organics by Method NWTPH-Gx

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	88.1		50	150
1-Chloro-3-fluorobenzene	93.5		50	150
Bromofluorobenzene	93.4		50	150
Pentafluorobenzene	77.7		50	150

Analyte	Result (mg/L)	RL	Flags
Gasoline by NWTPH-G	ND	0.1	

STL Seattle

Lab ID:	Method Blank - GB4034
Date Received:	-
Date Prepared:	12/8/04
Date Analyzed:	12/8/04
% Solids	-
Dilution Factor	1

Volatile Aromatic Hydrocarbons by EPA Method 5030/8021B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
a,a,a-Trifluorotoluene	110		84	122
1-Chloro-3-fluorobenzene	107		80	120
Bromofluorobenzene	104		80	120
Pentafluorobenzene	107		81	126

Analyte	Result (mg/L)	RL	Flags
Benzene	ND	0.0005	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	
Naphthalene	0.00343	0.001	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: GB4032
Date Prepared: 12/8/04
Date Analyzed: 12/8/04
QC Batch ID: GB4032

Gasoline Range Organics by Method NWTPH-Gx

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
Gasoline by NWTPH-G	0	50	50.6	101	53.1	106	4.8	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: GB4032
Date Prepared: 12/8/04
Date Analyzed: 12/8/04
QC Batch ID: GB4032

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
Benzene	0	0.736	0.663	90	0.718	97.6	8.1	
Toluene	0	3.54	4.89	138	5.17	146	5.6	N
Ethylbenzene	0	0.791	0.986	125	1.01	128	2.4	N
m&p-Xylene	0	2.92	3.54	121	3.87	133	9.4	N
o-Xylene	0	1.15	1.4	123	1.48	129	4.8	N

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: GB4034
Date Prepared: 12/8/04
Date Analyzed: 12/8/04
QC Batch ID: GB4034

Gasoline Range Organics by Method NWTPH-Gx

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	BSD Result (mg/L)	BSD % Rec.	RPD	Flag
Gasoline by NWTPH-G	0	1.25	1.18	94.1	1.2	96	2	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: GB4034
Date Prepared: 12/8/04
Date Analyzed: 12/8/04
QC Batch ID: GB4034

Gasoline Range Organics by Method NWTPH-Gx

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	BSD Result (mg/L)	BSD % Rec.	RPD	Flag
Gasoline by NWTPH-G	0	1.25	1.18	94.1	1.2	96	2	

STL Seattle

Duplicate Report

Client Sample ID: B-1-4
Lab ID: 125189-01
Date Prepared: 12/8/04
Date Analyzed: 12/8/04
QC Batch ID: GB4032

Gasoline Range Organics by Method NWTPH-Gx

Parameter Name	Sample Result (mg/kg)	Duplicate Result (mg/kg)	RPD %	Flag
Gasoline by NWTPH-G	0	0	NC	

STL Seattle

Matrix Spike Report

Client Sample ID: B-8-5
Lab ID: 125189-08
Date Prepared: 12/8/04
Date Analyzed: 12/8/04
QC Batch ID: GB4032

Volatile Aromatic Hydrocarbons by EPA Method 5035/8260B

Compound Name	Sample Result (mg/kg)	Spike Amount (mg/kg)	MS Result (mg/kg)	MS % Rec.	Flag
Benzene	0	0.815	0.643	78.8	
Toluene	0	3.91	4.6	118	
Ethylbenzene	0	0.875	1.04	119	N
m&p-Xylene	0	3.23	3.4	105	
o-Xylene	0	1.27	1.34	106	

STL Seattle

Lab ID:	Method Blank - DS1356
Date Received:	-
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	86.5		50	150

Sample results are on an as received basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	ND	25	
Motor Oil	ND	50	
Kerosene	ND	25	

STL Seattle

Lab ID:	Method Blank - DS1356
Date Received:	-
Date Prepared:	12/7/2004
Date Analyzed:	12/9/2004
% Solids	
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	87.6		50	150

Sample results are on an as received basis.

Analyte	Result (mg/kg)	RL	Flags
#2 Diesel	ND	25	
Motor Oil	ND	50	
Kerosene	ND	25	

STL Seattle

Lab ID:	Method Blank - DW0707
Date Received:	-
Date Prepared:	12/8/2004
Date Analyzed:	12/13/2004
% Solids	-
Dilution Factor	1

Diesel and Motor Oil by NWTPH-Dx with Silica Gel Cleanup Modified

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	119		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.25	
Motor Oil	ND	0.5	
Kerosene	ND	0.25	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DS1356
Date Prepared: 12/7/2004
Date Analyzed: 12/9/2004
QC Batch ID: DS1356

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
#2 Diesel	11	500	474	92.5	507	99.3	7.1	
Motor Oil	0	500	547	109	588	118	7.9	N

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DS1356
Date Prepared: 12/7/2004
Date Analyzed: 12/9/2004
QC Batch ID: DS1356

Diesel and Motor Oil by NWTPH-Dx Modified

Compound Name	Blank Result (mg/kg)	Spike Amount (mg/kg)	BS Result (mg/kg)	BS % Rec.	BSD Result (mg/kg)	BSD % Rec.	RPD	Flag
#2 Diesel	0	500	515	103	563	112	8.4	
Motor Oil	0	500	521	104	588	118	13	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID: DW0707
Date Prepared: 12/8/2004
Date Analyzed: 12/13/2004
QC Batch ID: DW0707

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel Cleanup

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	BSD Result (mg/L)	BSD % Rec.	RPD	Flag
#2 Diesel	0.083	5	6.08	120	5.8	114	-5.1	
Motor Oil	0.0078	5	5.91	118	5.24	105	-12	

STL Seattle

Duplicate Report

Client Sample ID: #1 UST PIT BOTTOM - 5.4BGS
Lab ID: 125196-01
Date Prepared: 12/7/2004
Date Analyzed: 12/9/2004
QC Batch ID: DS1356

Diesel and Motor Oil by NWTPH-Dx Modified

Parameter Name	Sample Result (mg/kg)	Duplicate Result (mg/kg)	RPD %	Flag
#2 Diesel	453	618	-31.0	
Motor Oil	90.9	86	5.5	

STL Seattle

Duplicate Report

Client Sample ID: B-1-4
Lab ID: 125189-01
Date Prepared: 12/7/2004
Date Analyzed: 12/9/2004
QC Batch ID: DS1356

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel and Sulfuric Acid Cleanup

Parameter Name	Sample Result (mg/kg)	Duplicate Result (mg/kg)	RPD %	Flag
#2 Diesel	446	491	-9.6	
Motor Oil	7610	8640	-13.0	
Kerosene	78.3	83.8	-6.8	

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____.
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- ?: Surrogate recovery was not determined due to the required dilution.
- ^9: Surrogate recovery outside advisory QC limits due to matrix interference.

