



March 16, 2006

(206) 624-9349 Phone
(206) 624-2839 Fax
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Mr. Jeff Goold
Project Engineer
Shell Oil Products US
2555 13th Ave SW
Seattle, WA 98134

**RE: Groundwater Monitoring Submittal – January 2006
2756 NE 45th Street, Seattle, Washington
Shell Oil Products US Incident Number 97540124, SAP Number 169780**

Dear Mr. Goold:

RETEC is pleased to present the first quarter 2006 groundwater monitoring and sampling data for the 2756 NE 45th Street, Seattle, Washington site. A vicinity map is presented on Figure 1.

This event took place on January 10, 2006. During this event, four groundwater monitoring wells were gauged to determine depth-to-water (DTW) and if light nonaqueous phase liquid (LNAPL) was present. A cumulative summary of groundwater elevations is presented in Table 1 and a groundwater elevation contours map is presented on Figure 2.

Groundwater samples were collected using no-flow methodology from MW-1, MW-2, MW-3, and MW-4. A duplicate sample, MW-12-0106, was collected from MW-2. The samples were delivered under chain-of-custody to North Creek Analytical (a TestAmerica Company) in Bothell, Washington, and analyzed for gasoline range hydrocarbons using Washington State Department of Ecology (Ecology) Method NWTPH-Gx. Diesel and oil range hydrocarbons were analyzed using Ecology Method NWTPH-Dx. Benzene, toluene, ethylbenzene, and total xylene (BTEX) concentrations were analyzed using US Environmental Protection Agency Method SW8021B.

Gasoline, diesel, and oil range hydrocarbons were detected in each of the wells. Gasoline range concentrations ranged from 250 $\mu\text{g/L}$ in MW-1 to 1,940 $\mu\text{g/L}$ in MW-4. Diesel range concentrations ranged from 851 $\mu\text{g/L}$ in MW-1 to 2,260 $\mu\text{g/L}$ in MW-3. Oil range concentrations ranged from 654 $\mu\text{g/L}$ in MW-4 to 1,340 $\mu\text{g/L}$ in MW-3.

Benzene and total xylenes were detected in each well. Benzene concentrations ranged from 0.502 $\mu\text{g/L}$ in MW-1 to 11.1 $\mu\text{g/L}$ in MW-4. Total xylene concentrations ranged from 1.62 $\mu\text{g/L}$ in MW-1 to 322 $\mu\text{g/L}$ in MW-4. First quarter 2006 analytical results are shown in Table 2 and on Figure 3. A cumulative summary of groundwater analytical results is presented in Table 3.

Mr. Jeff Goold
March 16, 2006
Page 2

RETEC appreciates the opportunity to be of service to Shell on this project. Should you have any questions regarding the information provided in this report, please contact either me or Chris Houck at (206) 624-9349.

Sincerely,

The RETEC Group, Inc.

Cliff Baines
for Quinn Meehan
Project Manager

Cliff Baines
Cliff Baines, L.G.
Technical Reviewer

Attachments: Table 1 – Cumulative Summary of Groundwater Elevations
Table 2 – Summary of January 2006 Groundwater Analytical Results
Table 3 – Cumulative Summary of Groundwater Analytical Results
Figure 1 – Vicinity Map
Figure 2 – Groundwater Elevations – January 2006
Figure 3 – Groundwater Analytical Results – January 2006
Attachment A – Laboratory Analytical Report
Attachment B – Field Forms

cc: Sunny Becker, Washington State Department of Ecology
RETEC file SHEL5-19233/SHEL-0124

Tables

**Table 1. Cumulative Summary of Groundwater Elevations
2756 NE 45th St, Seattle, Washington
Shell Oil Products US Incident Number 97540124**

Well Number / TOC Elevation	Date of Measurement	Depth To Water (feet)	Depth To Free Product (feet)	Free Product Thickness (feet)	Static Water Level (feet)	Change in Static Water Level (feet)
MW-1 29.85	08/24/04	6.48	--	--	23.37	--
	01/03/05	6.42	--	--	23.43	0.06
	10/25/05	6.54	--	--	23.31	-0.12
	01/10/06	5.36	--	--	24.49	1.18
MW-2 29.76	08/24/04	7.17	--	--	22.59	--
	01/03/05	7.16	--	--	22.60	0.01
	10/25/05	7.08	--	--	22.68	0.08
	01/10/06	5.96	--	--	23.80	1.12
MW-3 29.79	08/24/04	7.29	--	--	22.50	--
	01/03/05	7.29	--	--	22.50	0.00
	10/25/05	7.19	--	--	22.60	0.10
	01/10/06	6.14	--	--	23.65	1.05
MW-4 29.86	08/24/04	6.93	--	--	22.93	--
	01/03/05	7.22	--	--	22.64	-0.29
	10/25/05	7.14	--	--	22.72	0.08
	01/10/06	6.09	--	--	23.77	1.05

Notes:

TOC = Top of casing elevation relative to assigned benchmark.

-- No product detected.

Static water level corrected if free product present; corrected water level.

$$\text{elevation} = \text{TOC} - \text{DTW} + (\text{FPT} \times 0.80).$$

Elevation Benchmark is NE corner of electric vault, estimated elevation at 30 ft above MSL.

**Table 2. Summary of January 2006 Groundwater Analytical Results
2756 NE 45th St, Seattle, Washington
Shell Oil Products US Incident Number 97540124**

Sample ID	Sample Date	BTEX ($\mu\text{g/L}$)				TPH ($\mu\text{g/L}$)		
		Benzene	Toluene	Ethyl- benzene	Total Xylenes	Gasoline	Diesel	Oil
MW-1-0106	01/10/06	0.502	< 0.500	< 0.500	1.62	250	851	715
MW-2-0106	01/10/06	4.15	1.16	2.96	4.00	687	1,280	962
MW-12-0106*	01/10/06	4.07	1.05	2.65	3.71	640	1,210	919
MW-3-0106	01/10/06	1.12	0.835	0.603	2.42	463	2,260	1,340
MW-4-0106	01/10/06	11.1	29.1	72.4	322	1,940	923	654
Trip Blank -0106	01/10/06	< 0.500	< 0.500	< 0.500	< 1.00	< 50.0	NA	NA

Notes:

Bold indicates detected values.

$\mu\text{g/L}$ = Micrograms per liter [parts per billion (ppb)].

< = Not detected at concentration greater than laboratory method reporting limit.

NA = Not analyzed.

Benzene, toluene, ethylbenzene, and total xylene (BTEX) analysis by US EPA SW8021B.

TPH-G analysis by NWTPH-Gx. Diesel and oil analysis by NWTPH-Dx.

*MW-12 is a duplicate of MW-2.

**Table 3. Cumulative Summary of Groundwater Analytical Results
2756 NE 45th St, Seattle, Washington
Shell Oil Products US Incident Number 97540124**

Well Location	Sample Date	BTEX ($\mu\text{g/L}$)				TPH ($\mu\text{g/L}$)		
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline	Diesel	Oil
MW-1	08/24/04	3.4	< 1	1.2	3.6	510	510	< 500
	01/03/05	3.2	< 1	< 1	1.9	370	370	800
	10/25/05	< 1	< 1	< 1	1.5	190	300	< 500
	01/10/06	0.502	< 0.500	< 0.500	1.62	250	851	715
MW-2	08/24/04	18	3.3	45	15.2	1,900	1,000	< 500
	01/03/05	6.4	< 5	14	< 5	< 1,200	340	580
	10/25/05	4.7	1.1	2.8	2.1	430	320	< 500
	01/10/06	4.15	1.16	2.96	4.00	687	1,280	962
Duplicate	01/10/06	4.07	1.05	2.65	3.71	640	1,210	919
MW-3	08/24/04	< 1	< 1	< 1	< 1	400	1,500	< 500
	01/03/05	< 5	< 5	< 5	< 5	< 1,200	1,100	1,100
	10/25/05	< 5	< 5	< 5	< 5	320	1,300	630
	01/10/06	1.12	0.835	0.603	2.42	463	2,260	1,340
MW-4	08/24/04	71	20	23	174	1,400	1,300	< 500
	01/03/05	20	50	120	529	3,000	410	610
	10/25/05	14	33	77	360	1,800	400	< 500
	01/10/06	11.1	29.1	72.4	322	1,940	923	654
Duplicate	10/25/05	12	29	68	316	1,600	390	< 500

Notes:

$\mu\text{g/L}$ = Micrograms per liter [parts per billion (ppb)].

< = Not detected at concentration greater than laboratory method reporting limit.

Benzene, toluene, ethylbenzene, and total xylene (BTEX) analysis by US EPA SW8021B.

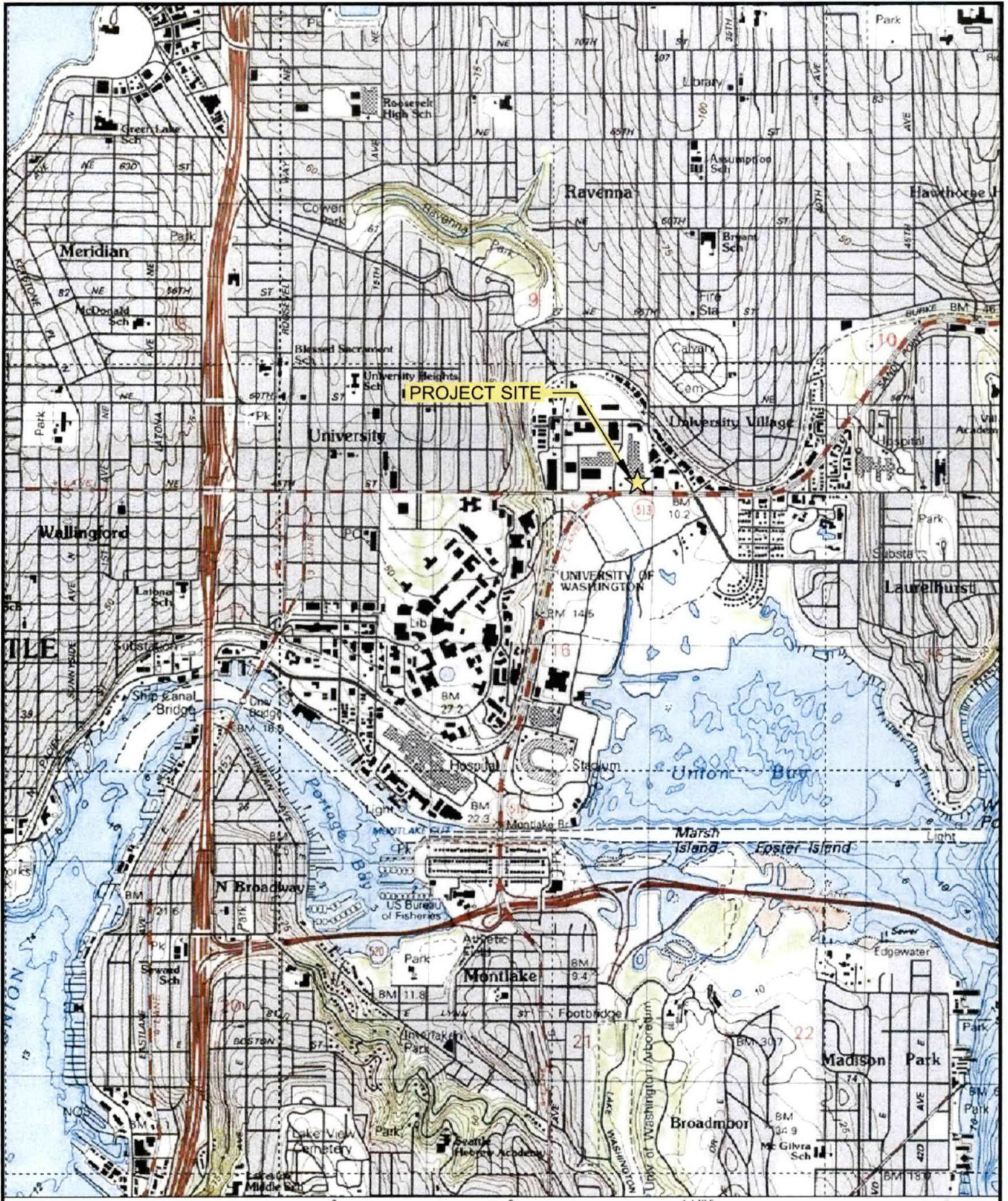
TPH-G analysis by NWTPH-Gx. Diesel and oil analysis by NWTPH-Dx.

January 2006 laboratory analysis conducted by North Creek Analytical (a Test America company).

Analyses prior to January 2006 conducted by Southern Petroleum Laboratories of Houston, Texas.

Figures

File: H:\19233\19233S001.dwg Layout: FIGURE 1 User: astenberg Plotted: Feb 03, 2006 - 9:47am Xref's: WA-COUNTIES_NAD83.MF



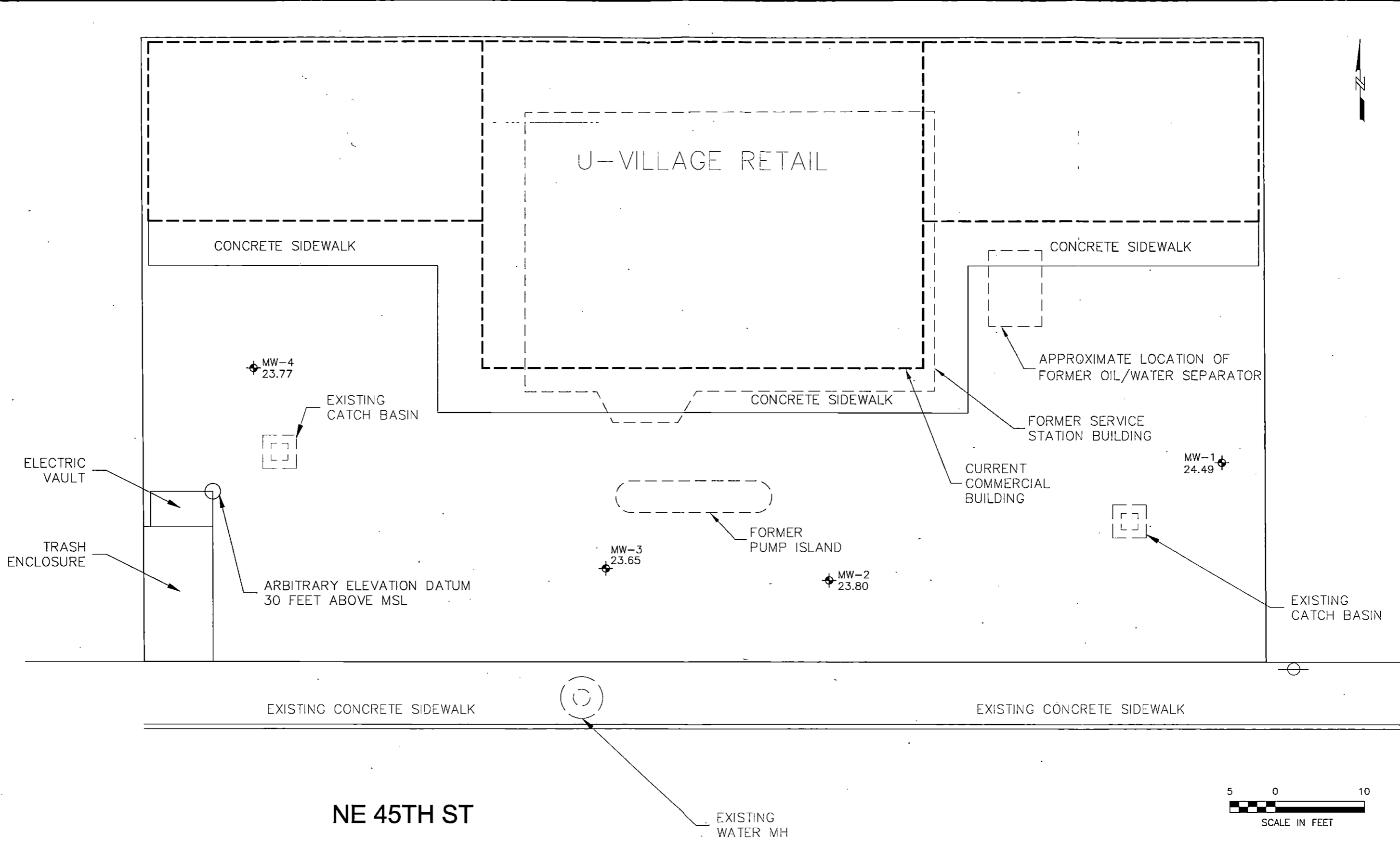
0 5 1 MILE
0 1000 FEET 0 500 1000 METERS
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SHELL OIL PRODUCTS U.S.
FOX CLEANERS SITE
SHEL5-19233-200
DATE: 02/03/06 DRWN: A.S./SEA

VICINITY MAP
2756 NE 45th STREET
SEATTLE, WASHINGTON
FIGURE 1

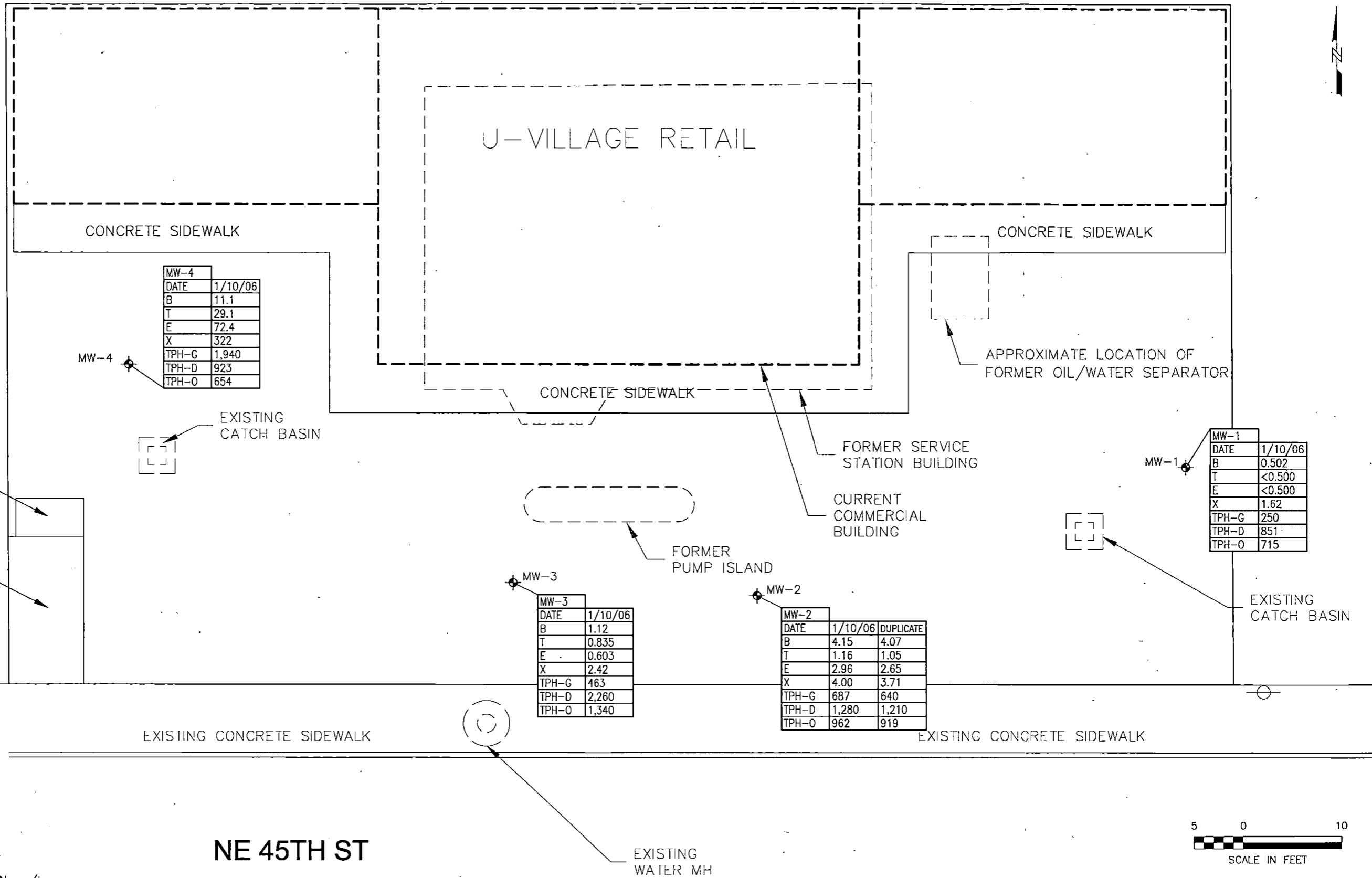
File: H:\19233\192335002.dwg Layout: FIGURE 2 User: ostenberg Plotted: Mar 09, 2006 - 11:51am Xref's: XR_STAMP_XR_PRELIM



SHELL OIL PRODUCTS U.S. - FOX CLEANERS SITE 2756 NE 45th STREET, SEATTLE, WA. SHEL5-19233-200		GROUNDWATER ELEVATIONS JANUARY 2006	
DATE: 02/03/06	DRWN: A.S./SEA	FIGURE 2	



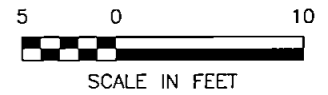
File: H:\19233\192335003.dwg Layout: FIGURE 3 User: astenberg Plotted: Mar 09, 2006 - 11:52am Xref's: XR_STAMP, XR_PRELIM



KEY

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENE
TPH-G	TPH-GAS
TPH-D	TPH-DIESEL
TPH-O	TPH-OIL

ALL CONCENTRATIONS IN µg/L



SHELL OIL PRODUCTS U.S. - FOX CLEANERS SITE 2756 NE 45th STREET, SEATTLE, WA. SHEL5-19233-200		GROUNDWATER ANALYTICAL RESULTS JANUARY 2006
DATE: 02/24/06	DRWN: A.S./SEA	FIGURE 3

Attachment A
Laboratory Analytical Report



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
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541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

19 January 2006

Stacey Patterson
The RETEC Group, Inc.
1011 SW Klickitat Way, Suite 207
Seattle, WA 98134
RE: Shell #169780

Enclosed are the results of analyses for samples received by the laboratory on 01/10/06 15:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kate Haney
Project Manager



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 907.563.9200 fax 907.563.9210

The RETEC Group, Inc.
 1011 SW Klickitat Way, Suite 207
 Seattle, WA 98134

Project: Shell #169780
 Project Number: SHEL5-19233-300
 Project Manager: Stacey Patterson

Reported:
 01/19/06 14:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1-0106	B6A0148-01	Water	01/10/06 12:11	01/10/06 15:40
MW-2-0106	B6A0148-02	Water	01/10/06 12:45	01/10/06 15:40
MW-3-0106	B6A0148-03	Water	01/10/06 11:40	01/10/06 15:40
MW-4-0106	B6A0148-04	Water	01/10/06 13:32	01/10/06 15:40
MW-12-0106	B6A0148-05	Water	01/10/06 13:45	01/10/06 15:40
Trip Blank-0106	B6A0148-06	Water	01/10/06 12:00	01/10/06 15:40

North Creek Analytical - Bothell

Kate Haney, Project Manager

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

North Creek Analytical, Inc.
 Environmental Laboratory Network



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The RETEC Group, Inc.
 1011 SW Klickitat Way, Suite 207
 Seattle, WA 98134

Project: Shell #169780
 Project Number: SHEL5-19233-300
 Project Manager: Stacey Patterson

Reported:
 01/19/06 14:14

Volatile Petroleum Products by NWTPH-Gx
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-0106 (B6A0148-01) Water Sampled: 01/10/06 12:11 Received: 01/10/06 15:40									
Gasoline Range Hydrocarbons	250	50.0	ug/l	1	6A11031	01/11/06	01/12/06	NWTPH-Gx	
Surrogate: 4-BFB (FID)	104 %	58-144			"	"	"	"	
MW-2-0106 (B6A0148-02) Water Sampled: 01/10/06 12:45 Received: 01/10/06 15:40									
Gasoline Range Hydrocarbons	687	50.0	ug/l	1	6A11031	01/11/06	01/11/06	NWTPH-Gx	
Surrogate: 4-BFB (FID)	123 %	58-144			"	"	"	"	
MW-3-0106 (B6A0148-03) Water Sampled: 01/10/06 11:40 Received: 01/10/06 15:40									
Gasoline Range Hydrocarbons	463	50.0	ug/l	1	6A11031	01/11/06	01/11/06	NWTPH-Gx	
Surrogate: 4-BFB (FID)	112 %	58-144			"	"	"	"	
MW-4-0106 (B6A0148-04) Water Sampled: 01/10/06 13:32 Received: 01/10/06 15:40									
Gasoline Range Hydrocarbons	1940	250	ug/l	5	6A11031	01/11/06	01/11/06	NWTPH-Gx	
Surrogate: 4-BFB (FID)	101 %	58-144			"	"	"	"	
MW-12-0106 (B6A0148-05) Water Sampled: 01/10/06 13:45 Received: 01/10/06 15:40									
Gasoline Range Hydrocarbons	640	50.0	ug/l	1	6A11031	01/11/06	01/11/06	NWTPH-Gx	
Surrogate: 4-BFB (FID)	123 %	58-144			"	"	"	"	
Trip Blank-0106 (B6A0148-06) Water Sampled: 01/10/06 12:00 Received: 01/10/06 15:40									
Gasoline Range Hydrocarbons	ND	50.0	ug/l	1	6A11031	01/11/06	01/11/06	NWTPH-Gx	
Surrogate: 4-BFB (FID)	97.2 %	58-144			"	"	"	"	

North Creek Analytical - Bothell

Kate Haney, Project Manager

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

North Creek Analytical, Inc.
 Environmental Laboratory Network



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The RETEC Group, Inc.
 1011 SW Klickitat Way, Suite 207
 Seattle, WA 98134

Project: Shell #169780
 Project Number: SHEL5-19233-300
 Project Manager: Stacey Patterson

Reported:
 01/19/06 14:14

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-0106 (B6A0148-01) Water Sampled: 01/10/06 12:11 Received: 01/10/06 15:40									
Diesel Range Hydrocarbons	0.851	0.243	mg/l	1	6A11005	01/11/06	01/13/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	0.715	0.485	"	"	"	"	"	"	"
Surrogate: 2-FBP	93.4 %	50-150			"	"	"	"	"
Surrogate: Octacosane	84.0 %	50-150			"	"	"	"	"
MW-2-0106 (B6A0148-02) Water Sampled: 01/10/06 12:45 Received: 01/10/06 15:40									
Diesel Range Hydrocarbons	1.28	0.238	mg/l	1	6A11005	01/11/06	01/13/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	0.962	0.476	"	"	"	"	"	"	"
Surrogate: 2-FBP	100 %	50-150			"	"	"	"	"
Surrogate: Octacosane	85.7 %	50-150			"	"	"	"	"
MW-3-0106 (B6A0148-03) Water Sampled: 01/10/06 11:40 Received: 01/10/06 15:40									
Diesel Range Hydrocarbons	2.26	0.238	mg/l	1	6A11005	01/11/06	01/13/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	1.34	0.476	"	"	"	"	"	"	"
Surrogate: 2-FBP	83.6 %	50-150			"	"	"	"	"
Surrogate: Octacosane	88.2 %	50-150			"	"	"	"	"
MW-4-0106 (B6A0148-04) Water Sampled: 01/10/06 13:32 Received: 01/10/06 15:40									
Diesel Range Hydrocarbons	0.923	0.240	mg/l	1	6A11005	01/11/06	01/13/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	0.654	0.481	"	"	"	"	"	"	"
Surrogate: 2-FBP	95.8 %	50-150			"	"	"	"	"
Surrogate: Octacosane	86.2 %	50-150			"	"	"	"	"
MW-12-0106 (B6A0148-05) Water Sampled: 01/10/06 13:45 Received: 01/10/06 15:40									
Diesel Range Hydrocarbons	1.21	0.245	mg/l	1	6A11005	01/11/06	01/13/06	NWTPH-Dx	D-09
Lube Oil Range Hydrocarbons	0.919	0.490	"	"	"	"	"	"	"
Surrogate: 2-FBP	84.5 %	50-150			"	"	"	"	"
Surrogate: Octacosane	82.9 %	50-150			"	"	"	"	"

North Creek Analytical - Bothell

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

Kate Haney, Project Manager

North Creek Analytical, Inc.
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The RETEC Group, Inc.
 1011 SW Klickitat Way, Suite 207
 Seattle, WA 98134

Project: Shell #169780
 Project Number: SHEL5-19233-300
 Project Manager: Stacey Patterson

Reported:
 01/19/06 14:14

BTEX by EPA Method 8021B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-0106 (B6A0148-01) Water Sampled: 01/10/06 12:11 Received: 01/10/06 15:40									
Benzene	0.502	0.500	ug/l	1	6A11031	01/11/06	01/12/06	EPA 8021B	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	1.62	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (PID)	110 %	68-140			"	"	"	"	
MW-2-0106 (B6A0148-02) Water Sampled: 01/10/06 12:45 Received: 01/10/06 15:40									
Benzene	4.15	0.500	ug/l	1	6A11031	01/11/06	01/11/06	EPA 8021B	
Toluene	1.16	0.500	"	"	"	"	"	"	
Ethylbenzene	2.96	0.500	"	"	"	"	"	"	
Xylenes (total)	4.00	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (PID)	117 %	68-140			"	"	"	"	
MW-3-0106 (B6A0148-03) Water Sampled: 01/10/06 11:40 Received: 01/10/06 15:40									
Benzene	1.12	0.500	ug/l	1	6A11031	01/11/06	01/11/06	EPA 8021B	
Toluene	0.835	0.500	"	"	"	"	"	"	
Ethylbenzene	0.603	0.500	"	"	"	"	"	"	
Xylenes (total)	2.42	1.00	"	"	"	"	"	"	
Surrogate: 4-BFB (PID)	111 %	68-140			"	"	"	"	
MW-4-0106 (B6A0148-04) Water Sampled: 01/10/06 13:32 Received: 01/10/06 15:40									
Benzene	11.1	2.50	ug/l	5	6A11031	01/11/06	01/11/06	EPA 8021B	
Toluene	29.1	2.50	"	"	"	"	"	"	
Ethylbenzene	72.4	2.50	"	"	"	"	"	"	
Xylenes (total)	322	5.00	"	"	"	"	"	"	
Surrogate: 4-BFB (PID)	109 %	68-140			"	"	"	"	

North Creek Analytical - Bothell

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

Kate Haney

Kate Haney, Project Manager

North Creek Analytical, Inc.
 Environmental Laboratory Network



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Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
 541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
 907.563.9200 fax 907.563.9210

The RETEC Group, Inc.
 1011 SW Klickitat Way, Suite 207
 Seattle, WA 98134

Project: Shell #169780
 Project Number: SHEL5-19233-300
 Project Manager: Stacey Patterson

Reported:
 01/19/06 14:14

BTEX by EPA Method 8021B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-12-0106 (B6A0148-05) Water Sampled: 01/10/06 13:45 Received: 01/10/06 15:40										
Benzene	4.07	0.500		ug/l	1	6A11031	01/11/06	01/11/06	EPA 8021B	
Toluene	1.05	0.500		"	"	"	"	"	"	
Ethylbenzene	2.65	0.500		"	"	"	"	"	"	
Xylenes (total)	3.71	1.00		"	"	"	"	"	"	
<i>Surrogate: 4-BFB (PID)</i> 117 % 68-140										
Trip Blank-0106 (B6A0148-06) Water Sampled: 01/10/06 12:00 Received: 01/10/06 15:40										
Benzene	ND	0.500		ug/l	1	6A11031	01/11/06	01/11/06	EPA 8021B	
Toluene	ND	0.500		"	"	"	"	"	"	
Ethylbenzene	ND	0.500		"	"	"	"	"	"	
Xylenes (total)	ND	1.00		"	"	"	"	"	"	
<i>Surrogate: 4-BFB (PID)</i> 105 % 68-140										

North Creek Analytical - Bothell

Kate Haney, Project Manager

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North Creek Analytical, Inc.
 Environmental Laboratory Network



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The RETEC Group, Inc.
 1011 SW Klickitat Way, Suite 207
 Seattle, WA 98134

Project: Shell #169780
 Project Number: SHEL5-19233-300
 Project Manager: Stacey Patterson

Reported:
 01/19/06 14:14

Volatile Petroleum Products by NWTPH-Gx - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6A11031: Prepared 01/11/06 Using EPA 5030B (P/T)										
Blank (6A11031-BLK1)										
Gasoline Range Hydrocarbons	ND	50.0	ug/l							
Surrogate: 4-BFB (FID)	50.8		"	60.0		84.7	58-144			
LCS (6A11031-BS1)										
Gasoline Range Hydrocarbons	1110	50.0	ug/l	1000		111	80-120			
Surrogate: 4-BFB (FID)	63.1		"	60.0		105	58-144			
LCS Dup (6A11031-BSD1)										
Gasoline Range Hydrocarbons	1040	50.0	ug/l	1000		104	80-120	6.51	25	
Surrogate: 4-BFB (FID)	64.4		"	60.0		107	58-144			
Matrix Spike (6A11031-MS1) Source: B6A0148-01										
Gasoline Range Hydrocarbons	1220	50.0	ug/l	1000	250	97.0	58-129			
Surrogate: 4-BFB (FID)	70.6		"	60.0		118	58-144			
Matrix Spike Dup (6A11031-MSD1) Source: B6A0148-01										
Gasoline Range Hydrocarbons	1270	50.0	ug/l	1000	250	102	58-129	4.02	25	
Surrogate: 4-BFB (FID)	73.2		"	60.0		122	58-144			

North Creek Analytical - Bothell

Kate Haney, Project Manager

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The RETEC Group, Inc. 1011 SW Klickitat Way, Suite 207 Seattle, WA 98134	Project: Shell #169780 Project Number: SHEL5-19233-300 Project Manager: Stacey Patterson	Reported: 01/19/06 14:14
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Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 6A11005: Prepared 01/11/06 Using EPA 3520C

Blank (6A11005-BLK1)

Diesel Range Hydrocarbons	ND	0.250	mg/l							
Lube Oil Range Hydrocarbons	ND	0.500	"							
Surrogate: 2-FBP	0.248		"	0.250		99.2	50-150			
Surrogate: Octacosane	0.264		"	0.250		106	50-150			

LCS (6A11005-BS1)

Diesel Range Hydrocarbons	1.87	0.250	mg/l	2.00		93.5	58-125			
Surrogate: 2-FBP	0.236		"	0.250		94.4	50-150			

LCS Dup (6A11005-BSD1)

Diesel Range Hydrocarbons	1.84	0.250	mg/l	2.00		92.0	58-125	1.62	40	
Surrogate: 2-FBP	0.242		"	0.250		96.8	50-150			

Duplicate (6A11005-DUP1)

Source: B6A0148-01

Diesel Range Hydrocarbons	0.783	0.240	mg/l		0.851			8.32	40	
Lube Oil Range Hydrocarbons	0.576	0.481	"		0.715			21.5	40	
Surrogate: 2-FBP	0.231		"	0.240		96.2	50-150			
Surrogate: Octacosane	0.204		"	0.240		85.0	50-150			

North Creek Analytical - Bothell

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 1011 SW Klickitat Way, Suite 207
 Seattle, WA 98134

Project: Shell #169780
 Project Number: SHEL5-19233-300
 Project Manager: Stacey Patterson

Reported:
 01/19/06 14:14

BTEX by EPA Method 8021B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 6A11031: Prepared 01/11/06 Using EPA 5030B (P/T)

Blank (6A11031-BLK1)

Benzene	ND	0.500	ug/l							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	1.00	"							
Surrogate: 4-BFB (PID)	60.6		"	60.0		101	68-140			

LCS (6A11031-BS1)

Benzene	12.9	0.500	ug/l	11.3		114	80-120			
Toluene	79.1	0.500	"	84.5		93.6	80-120			
Ethylbenzene	17.1	0.500	"	17.0		101	80-120			
Xylenes (total)	90.9	1.00	"	98.5		92.3	80-120			
Surrogate: 4-BFB (PID)	57.2		"	60.0		95.3	68-140			

LCS Dup (6A11031-BSD1)

Benzene	12.4	0.500	ug/l	11.3		110	80-120	3.95	25	
Toluene	77.1	0.500	"	84.5		91.2	80-120	2.56	25	
Ethylbenzene	16.5	0.500	"	17.0		97.1	80-120	3.57	25	
Xylenes (total)	88.4	1.00	"	98.5		89.7	80-120	2.79	25	
Surrogate: 4-BFB (PID)	59.1		"	60.0		98.5	68-140			

Matrix Spike (6A11031-MS1)

Source: B6A0148-01

Benzene	12.8	0.500	ug/l	11.3	0.502	109	46-130			
Toluene	77.2	0.500	"	84.5	0.451	90.8	60-124			
Ethylbenzene	16.5	0.500	"	17.0	0.479	94.2	56-141			
Xylenes (total)	88.8	1.00	"	98.5	1.62	88.5	66-132			
Surrogate: 4-BFB (PID)	63.1		"	60.0		105	68-140			

Matrix Spike Dup (6A11031-MSD1)

Source: B6A0148-01

Benzene	12.7	0.500	ug/l	11.3	0.502	108	46-130	0.784	40	
Toluene	77.2	0.500	"	84.5	0.451	90.8	60-124	0.00	40	
Ethylbenzene	16.6	0.500	"	17.0	0.479	94.8	56-141	0.604	40	
Xylenes (total)	89.4	1.00	"	98.5	1.62	89.1	66-132	0.673	40	
Surrogate: 4-BFB (PID)	63.9		"	60.0		106	68-140			

North Creek Analytical - Bothell

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Kate Haney

Kate Haney, Project Manager

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The RETEC Group, Inc.
 1011 SW Klickitat Way, Suite 207
 Seattle, WA 98134

Project: Shell #169780
 Project Number: SHEL5-19233-300
 Project Manager: Stacey Patterson

Reported:
 01/19/06 14:14

Notes and Definitions

- D-09 Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

North Creek Analytical - Bothell

Kate Haney, Project Manager

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North Creek Analytical, Inc.
 Environmental Laboratory Network

Attachment B
Field Forms



RETEC

Field Activity Log

Project Name: SHELL Fox Cleaners Completed By: Quinn Mehan

Project Number: SHELS-19233-300 Date: 1/10/06

1100 AM ON SITE put cones over wells

put on PPE go over HASP / H&S

1110 Calibrate YSI 556 (from FEF).

PH: 7.00/7.00 4.00/4.00 9.94/10.00

Cond: 1.409 ms/cm / 1.409 ms/cm

DO: 99.9% / 100.0%

1120 Set up on MW-3

1140 Sample MW-3

1211 Sample MW-1

1245 Sample MW-2; collect blind field duplicate

MW-12-0106; "sample time" of dup. = 1345

1332 Sample MW-4

1345 Decon. and load up equipment, Ice/prop

samples for lab.

1400 AM writes COC

1413 AM off site, mob. to 45th st. site

to dump purge H₂O in oil/H₂O sep.

1420 Dump purge H₂O in 45st. oil/H₂O sep

1425 AM mob. to lab to drop off samples.

Quinn Mehan

GROUNDWATER SAMPLING LOG

Project name Shell Fox Cleaners
 Project No. SHEL5-19233-300
 Date 1/10/2006

Well No. MW-1
 Sampled By Quinn Meehan
 weather 50°F overcast

WELL INFORMATION		
Time:	<u>1200</u>	(24-hr)
depth to water:	<u>5.36</u>	(ft. TOC)
depth of well:	<u>20.13</u>	(ft. BGS)
well diameter:	<u>2</u>	(in)
top of screen	<u>5</u>	(ft. BGS)
bottom of screen	<u>20</u>	(ft. BGS)
well condition:	<u>good</u>	

COMMENTS
<u>Tubing inlet @ 13'</u>
<u>Start purging @ 1105</u>

*Slight odor
No sken*

GW Parameters		
NO FLOW		
One set of parameters are taken using a flow through cell after 5 minutes of purging. The sample is collected after parameters have been logged.		
time	(24-hr)	<u>ND</u>
pH	(units)	<u>6.13</u>
conductivity	(mS/cm)	<u>1.122</u>
temperature	(deg C)	<u>15.01</u>
D.O.	(mg/L)	<u>0.72</u>
ORP	(mv)	<u>-75.2</u>
water color		<u>Clear colorless</u>
additional observations		<u>purge H2O has moderate TPH odor</u>
sample equip.		<u>Peristaltic pump and PE disposable tubing</u>

SAMPLE INFORMATION					
sample number	time	analysis	container	# bottles	preservative
<u>MW-1-0106</u>	<u>1211</u>	<u>NWTPH-G/BTEX</u>	<u>40 mL vial</u>	<u>3</u>	<u>HCL</u>
<u>11</u>	<u>11</u>	<u>NWTPH-Dx</u>	<u>1L glass amber</u>	<u>2</u>	<u>HCL</u>

BGS = Below ground surface TOC = From top of casing

GROUNDWATER SAMPLING LOG

Project name Shell Fox Cleaners
 Project No. SHEL5-19233-300
 Date 1/10/2006

Well No. MW-2
 Sampled By Quinn Meehan
 weather 50 °F overcast

WELL INFORMATION

Time:	<u>1233</u>	(24-hr)
depth to water:	<u>5.96</u>	(ft. TOC)
depth of well:	<u>20.14</u>	(ft. BGS)
well diameter:	<u>2</u>	(in)
top of screen	<u>5</u>	(ft. BGS)
bottom of screen	<u>20</u>	(ft. BGS)
well condition:	<u>Good</u>	

No screen
 slight odor

COMMENTS

<u>Tubing Inlet @ 13.0'</u>
<u>Start purging @ 1239</u>
<u>* Collect Blind Field duplicate MW-12-0106</u>

GW Parameters

NO FLOW

One set of parameters are taken using a flow through cell after 5 minutes of purging.
 The sample is collected after parameters have been logged.

time	(24-hr)	<u>1244</u>
pH	(units)	<u>6.43</u>
conductivity	(mS/cm)	<u>0.962</u>
temperature	(deg C)	<u>15.57</u>
D.O.	(mg/L)	<u>1.1</u>
ORP	(mv)	<u>-66.9</u>
water color		<u>clear/colorless</u>
additional observations		<u>medium purged H2O has moderate color</u>
sample equip.		<u>Peristaltic pump and PE disposable tubing</u>

SAMPLE INFORMATION

sample number	time	analysis	container	# bottles	preservative
<u>MW-2-0106</u>	<u>1245</u>	<u>NWTPH-G/BTEX</u>	<u>40 mL vial</u>	<u>3</u>	<u>HCL</u>
<u> </u>	<u> </u>	<u>NWTPH-Dx</u>	<u>1L glass amber</u>	<u>2</u>	<u>HCL</u>
<u>Dup- MW-12-0106</u>	<u>1345</u>	<u>NWTPH-6/BTEX</u>	<u>40 mL vial</u>	<u>3</u>	<u>HCL</u>
<u> </u>	<u> </u>	<u>NWTPH-Dx</u>	<u>1L glass amber</u>	<u>2</u>	<u> </u>

BGS = Below ground surface

TOC = From top of casing

GROUNDWATER SAMPLING LOG

Project name Shell Fox Cleaners
 Project No. SHEL5-19223-300
 Date 1/10/2006

Well No. MW-3
 Sampled By Quinn Meehan
 weather 50 °F overcast

WELL INFORMATION

Time:	<u>1128</u>	(24-hr)
depth to water:	<u>6.14</u>	(ft. TOC)
depth of well:	<u>20.32</u>	(ft. BGS)
well diameter:	<u>2"</u>	(in)
top of screen	<u>5</u>	(ft. BGS)
bottom of screen	<u>20</u>	(ft. BGS)
well condition:	<u>good</u>	

No odor
No skin

COMMENTS

<u>Tubing Inlet @ 13'</u>
<u>orange flocculant on WL probe tip</u>
<u>Start purging @ 1134</u>

GW Parameters

NO FLOW

One set of parameters are taken using a flow through cell after 5 minutes of purging.
 The sample is collected after parameters have been logged.

time	(24-hr)	<u>1134</u>
pH	(units)	<u>6.74</u>
conductivity	(mS/cm)	<u>0.972</u>
temperature	(deg C)	<u>15.08</u>
D.O.	(mg/L)	<u>1.17</u>
ORP	(mv)	<u>-50.7</u>
water color	<u>clear / colorless</u>	
additional observations	<u>orange flocculant initially pumped up. Purge H2O has slight TPH odor</u>	
sample equip.	<u>Peristaltic pump and PE disposable tubing</u>	

SAMPLE INFORMATION

sample number	time	analysis	container	# bottles	preservative
<u>MW-3-0106</u>	<u>1146</u>	<u>NWTPH-G/BTEX</u>	<u>40 mL vial</u>	<u>3</u>	<u>HCL</u>
<u> </u>	<u> </u>	<u>NWTPH-Dx</u>	<u>1L glass amber</u>	<u>2</u>	<u>HCL</u>

BGS = Below ground surface

TOC = From top of casing

GROUNDWATER SAMPLING LOG

Project name Shell Fox Cleaners
 Project No. SHEL5-19233-300
 Date 1/10/2006

Well No. MW-4
 Sampled By Quinn Meehan
 weather 50 °F overcast

WELL INFORMATION		
Time:	<u>1322</u>	(24-hr)
depth to water:	<u>6.09</u>	(ft. TOC)
depth of well:	<u>20.33</u>	(ft. BGS)
well diameter:	<u>2</u>	(in)
top of screen	<u>5</u>	(ft. BGS)
bottom of screen	<u>20</u>	(ft. BGS)
well condition:	<u>Good</u>	

COMMENTS
<u>Tubing inlet @ 13.0'</u>
<u>Start purging @ 1326</u>

*Slight ed
No screen*

GW Parameters	
NO FLOW	
One set of parameters are taken using a flow through cell after 5 minutes of purging. The sample is collected after parameters have been logged.	
time (24-hr)	<u>1331</u>
pH (units)	<u>6.32</u>
conductivity (mS/cm)	<u>1,160</u>
temperature (deg C)	<u>14.62</u>
D.O. (mg/L)	<u>0.68</u>
ORP (mv)	<u>-58.71</u>
water color	<u>clear / colorless</u>
additional observations	<u>purge H2O has slight TPH odor</u>
sample equip.	<u>Peristaltic pump and PE disposable tubing</u>

SAMPLE INFORMATION					
sample number	time	analysis	container	# bottles	preservative
<u>MW-4-D106</u>	<u>1332</u>	<u>NWTPH-G/BTEX</u>	<u>40 mL vial</u>	<u>3</u>	<u>HCL</u>
<u>11</u>	<u>11</u>	<u>NWTPH-Dx</u>	<u>1L glass amber</u>	<u>2</u>	<u>HCL</u>

BGS = Below ground surface TOC = From top of casing

TEST AMERICA



Shell Oil Products US Chain Of Custody Record

- 11720 North Creek Pkwy #400, Bothell, WA
- 9405 S. W. Kimbarr Ave., Beaverton, OR 97008
- East 11115 Montgomery, Suite B, Spokane, WA 99206

SOP US Project Manager to be invoiced:

SCIENCE & ENGINEERING

TECHNICAL SERVICES

CRMT HOUSTON

BILL CONSULTANT

INCIDENT # (SHE ONLY): 977540124

NAME OF PM TO BILL: SHELL / Jeff Good

NAME OF TS TO BILL:

SAP OF CRMT # (TS/CRMT):

169780

DATE: 1/10/06

PAGE: 1 of 1

CONSULTANT COMPANY: The RETEC Group Inc

ADDRESS: 1011 SW Klickitat way suite 207

CITY: Seattle WA 98134-1162

TELEPHONE: (206) 624-7349 FAX: (206) 624-2839 EMAIL: spatterson@retec.com

TURNAROUND TIME (CALENDAR DAYS):

STANDARD (10 DAY) 5 DAYS 3 DAYS 2 DAYS 24 HOURS RESULTS NEEDED ON WEEKEND

SITE ADDRESS (Street and City): Fox cleaners 2756 NE 45th St Seattle WA 98105-5001

PROJECT CONTACT (PRINT): Stacy Patterson

CONSULTANT PROJECT NO: SHEL5-19233-300

SAMPLER NAME(S) (PRINT): Quinn Meehan

LAB USE ONLY:

TEMPERATURE ON RECEIPT C°

SPECIAL INSTRUCTIONS OR NOTES:

REQUESTED ANALYSIS if more than one method is listed, circle one

LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	PRESERVATIVE					NO. OF CONT.	TPH - Purgeable (P105) CHL	TPH - Non-purgeable (N105) CHL	TEX (TEX) (METHANOLEXTRACTABLE)	BTEX (METH) + OXYGENATED (M100)	VOCs (METH) + OXYGENATED (M100)	PCRA (METH)	ARCA Metals (As, Cd, Cr, Pb)	Mercury (specify)	NWTPH-G	NWTPH-Dx	Container PID Readings or Laboratory Notes	
			DATE	TIME		HCL	HN03	H2SO4	NONE	OTHER													
			DATE	TIME		HCL	HN03	H2SO4	NONE	OTHER													
	MW-1-0106		1/10	1211	H2O	X							X						X	X			
	MW-2-0106			1245		X							X						X	X			
	MW-3-0106			1140		X							X						X	X			
	MW-4-0106			1332		X							X						X	X			
	MW-12-0106			1345		X							X						X	X			
	Trip Blank-0106					X							X						X	X			

Relinquished by: (Signature) Quinn Meehan (RETEC)	Received by: (Signature) Joan Vozz	Date: 1/10/06	Time: 15:40
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time: