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GROUNDWATER MONITORING REPORT - THIRD QUARTER 2008

SHELL-BRANDED SERVICE STATION
6808 196TH STREET SOUTHWEST
LYNNWOOD, WASHINGTON

SAP CODE 171152
INCIDENT NO. 97605410
AGENCY NO. 27496218

DECEMBER 2, 2008
REF. NO. 241739 (1)

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**Prepared by:
Conestoga-Rovers
& Associates**

1420 80th Street SW, Suite A
Everett, Washington
U.S.A. 98203

Office: 425-212-5100
Fax: 425-212-5199

web: <http://www.CRAworld.com>

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell).

1.1 SITE INFORMATION

Site Address	6808 196 th Street Southwest, Lynnwood
Site Use	Former Jiffy Lube Service Station
Shell Project Manager	Carol Compagna
CRA Project Manager	Justin Foslien
Lead Agency and Contact	WDOE, John Bails
Agency Case No.	27496218
Shell SAP Code:	171152
Shell Incident No.	97605410

No agency correspondence on record

2.0 SITE ACTIVITIES, FINDINGS, AND DISCUSSION

2.1 CURRENT QUARTER'S ACTIVITIES

Blaine Tech Services, Inc. (Blaine) gauged and sampled wells according to the established monitoring program for this site.

CRA prepared a vicinity map (Figure 1) and a groundwater elevation and chemical concentration map (Figure 2). CRA prepared Tables 1 and 2 summarizing groundwater monitoring data and analytical results. Field forms and the laboratory analytical report are included in Attachments A and B, respectively.

2.2 CURRENT QUARTER'S FINDINGS

Groundwater Flow Direction	Southwest
Hydraulic Gradient	0.035 feet/foot
Depth to Water	7.27 to 11.69 feet below top of well casing

2.3 PROPOSED ACTIVITIES FOR NEXT QUARTER

Blaine will gauge and sample wells during the first month of the first quarter of 2009, according to the established monitoring program for this site.

CRA will insert separate phase hydrocarbon (SPH) absorbent socks in wells MW-3, MW-4, MW-5 and MW-8.

2.4 DISCUSSION

Wells MW-1 through MW-10 were gauged for the depth of water on July 10, 2008. All site wells were sampled except MW-3, MW-4, MW-5 and MW-8, which contained SPH. Groundwater collected from well MW-1 contained concentrations of benzene and total petroleum hydrocarbons (TPH) in the diesel range (TPH-D) above the Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A cleanup levels. TPH in the gasoline range (TPH-G) in groundwater sample from MW-1 equaled the MTCA Method A cleanup level (800 µg/L). Groundwater from well MW-10 contained concentrations of TPH-G, benzene, toluene, ethylbenzene and total xylenes above

7/10/08

MTCA Method A cleanup levels. All other detected analytes were below MTCA cleanup levels. SPH was manually removed on July 10, August 26 and September 22, 2008 from monitoring wells MW-3, MW-4, MW-5 and MW-8. This is the first time that SPH was detected in well MW-8.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES



Jing Song
Staff Geologist

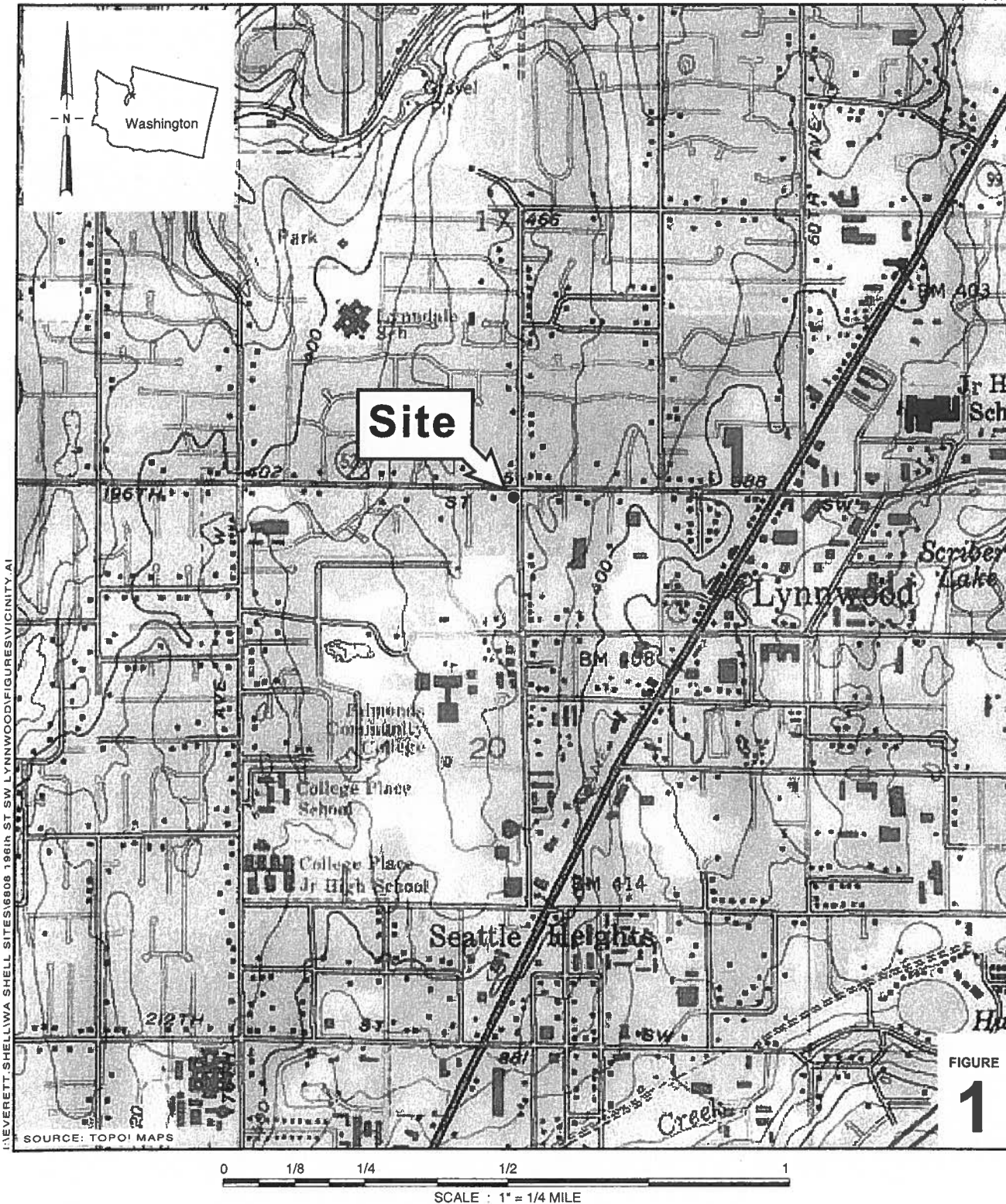


Justin Foslien
Project Manager



cc: Ms. Carol Campagna, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810
Mr. Rick Megenity, Strickland Corporation, P.O. Box 1004, Everett, WA 98206

FIGURES



Jiffy Lube No. 2069
 6808 196th Street Southwest
 Lynnwood, Washington



Vicinity Map

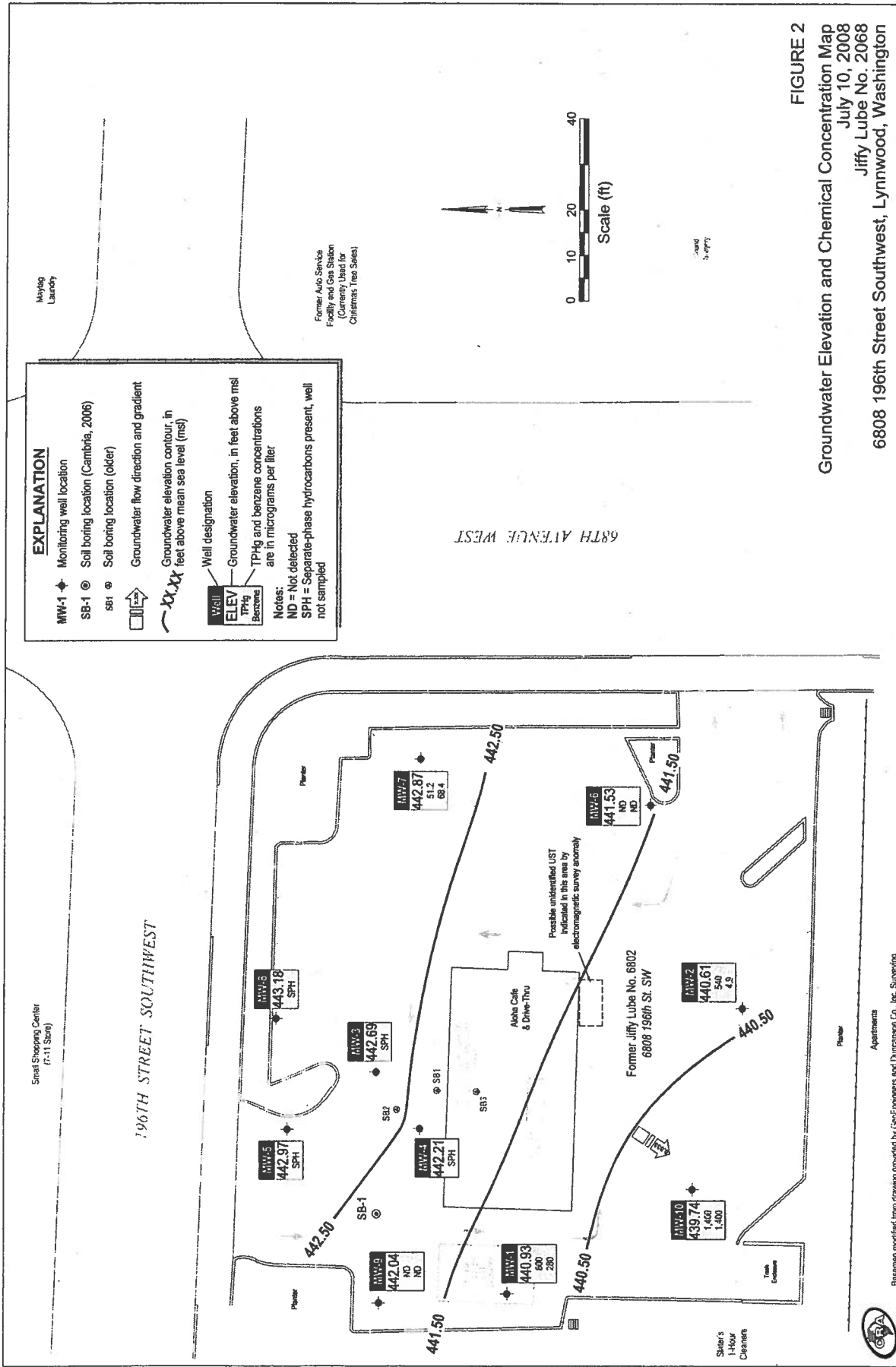


FIGURE 2
 Groundwater Elevation and Chemical Concentration Map
 July 10, 2008
 Jiffy Lube No. 2068
 6808 196th Street Southwest, Lynnwood, Washington

TABLES

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
BETX, MTBE, AND PETROLEUM HYDROCARBONS6808 196TH STREET SW
LYNNWOOD, WASHINGTON

Well Number	Date	TOC (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	SPH Thickness	B (µg/L)	E (µg/L)	T (µg/L)	X (µg/L)	Gasoline-range Hydrocarbons (µg/L)	Diesel Range Hydrocarbons (µg/L)	Heavy Oil Range Hydrocarbons (µg/L)	MTBE (µg/L)
MW-1	12/28/06	451.74	9.75	441.99	0.00	---	---	---	---	---	---	---	---
MW-1	12/29/06	451.74	9.57	442.17	0.00	9,190	1,090	2,140	4,100	42,100	<255	<510	---
MW-1	02/15/07	451.74	10.10	441.64	0.00	9,230	938	1,840	3,710	41,200	<269	<538	<5.00
MW-1	04/06/07	451.74	10.71	441.03	0.00	7,450	718	732	2,310	30,200	<258	<515	---
MW-1	07/09/07	451.74	10.78	440.96	0.00	---	---	---	---	---	---	---	---
MW-1	07/28/07	451.74	11.01	440.73	0.00	2,400	131	32.4	190	5,850	<258	<515	---
MW-1	10/01/07	451.74	13.98	437.76	0.00	6,270	653	196	1,340	23,900	1,540 f,g	<105	---
MW-1	01/10/08	451.74	9.43	442.31	0.00	16,500	1,610	4,010	6,790	73,000	<243	<485	---
MW-1	07/10/08	451.74	10.81	440.93	0.00	280	2	13	33	800	1,400	<300	---
MW-2	12/28/06	450.59	7.26	443.33	0.00	---	---	---	---	---	---	---	---
MW-2	12/29/06	450.59	7.35	443.24	0.00	21.7	55.1	6.75	9.91	2,640	<253	<505	---
MW-2	02/15/07	450.59	8.03	442.56	0.00	2.06	4.36	<0.500	<1.00	249	<278	<556	<5.00
MW-2	04/06/07	450.59	8.50	442.09	0.00	1.83	2.61	0.518	<1.00	180	<258	<515	---
MW-2	07/09/07	450.59	8.62	441.97	0.00	---	---	---	---	---	---	---	---
MW-2	07/28/07	450.59	8.96	441.63	0.00	66.1	137	7.86	20.4	3,200	<255	<510	---
MW-2	10/01/07	450.59	12.54	438.05	0.00	175	331	13.7	47.4	3,980	1,080 g,h	<105	---
MW-2	01/10/08	450.59	7.88	442.71	0.00	214	502	9.85	71.0	5,000	<243	<485	---
MW-2	07/10/08	450.59	9.98	440.61	0.00	4.9	9.4	<1	<1	540	<500	<200	---
MW-3	12/28/06	451.69	8.45	443.24	0.00	---	---	---	---	---	---	---	---
MW-3	12/29/06	451.69	8.51	443.18	0.00	28,500	2,950	29,200	15,900	171,000	608	<510	---
MW-3	02/15/07	451.69	9.09	442.60	0.00	29,200	3,140	37,400	18,600	263,000 a, b	2,580 c	<2,750	<500
MW-3	04/06/07	451.69	9.66	442.03	0.00	26,800	2,850	37,500	16,800	214,000	867 c	<495	---
MW-3	07/09/07	451.69	9.81	441.88	0.00	---	---	---	---	---	---	---	---
MW-3	07/28/07	451.69	10.13	441.56	0.00	28,600	2,810	37,400	12,800	248,000	8,340 e	<5,050	---
MW-3	10/01/07	451.69	13.96	437.73	0.00	29,300	3,260	35,200	19,300	252,000	185,000 g,h	<10,500	---
MW-3	01/10/08	451.69	9.34	442.37 d	0.02	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
MW-3	01/14/08	451.69	9.06	442.63	0.00	---	---	---	---	---	---	---	---
MW-3	01/21/08	451.69	8.27	443.42	0.00	---	---	---	---	---	---	---	---
MW-3	02/26/08	451.69	8.40	443.30 d	0.01	---	---	---	---	---	---	---	---
MW-3	07/10/08	451.69	9.02	442.69 d	0.02	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
MW-3	08/26/08	451.69	9.55	442.16 d	0.02	---	---	---	---	---	---	---	---
MW-3	09/22/08	451.69	10.00	441.71 d	0.03	---	---	---	---	---	---	---	---
MW-4	12/28/06	452.01	9.41	442.60	0.00	---	---	---	---	---	---	---	---
MW-4	12/29/06	452.01	9.36	442.65	0.00	32,400	3,200	39,700	18,800	207,000	1,810	<510	---
MW-4	02/15/07	452.01	9.96	442.05	0.00	31,500 a, b	2,990 a, b	40,500 a, b	18,100 a, b	253,000 a, b	72,100 c	<50,000	<500
MW-4	04/06/07	452.01	10.41	441.63 d	0.04	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
MW-4	07/09/07	452.01	10.47	441.56 d	0.03	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
MW-4	07/28/07	452.01	10.81	441.23 d	0.04	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
MW-4	10/01/07	452.01	14.24	437.87 d	0.13	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
MW-4	11/12/07	452.01	13.83	438.31 d	0.16	---	---	---	---	---	---	---	---
MW-4	11/20/07	452.01	13.68	438.44 d	0.14	---	---	---	---	---	---	---	---
MW-4	11/26/07	452.01	13.52	438.58 d	0.11	---	---	---	---	---	---	---	---

TABLE 1
SUMMARY OF GROUNDWATER MONITORING DATA
BETX, MTBE, AND PETROLEUM HYDROCARBONS
 6808 196TH STREET SW
 LYNNWOOD, WASHINGTON

Well Number	Date	TOC (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	SPH Thickness (feet)	B (µg/L)	E (µg/L)	T (µg/L)	X (µg/L)	Gasoline-range Hydrocarbons (µg/L)	Diesel Range Hydrocarbons (µg/L)	Heavy Oil Range Hydrocarbons (µg/L)	MTBE (µg/L)
MW-4	12/08/07	452.01	12.87	439.22 d	0.10	---	---	---	---	---	---	---	---
MW-4	12/14/08	452.01	12.41	439.66 d	0.07	---	---	---	---	---	---	---	---
MW-4	12/19/07	452.01	12.33	439.72 d	0.05	---	---	---	---	---	---	---	---
MW-4	12/28/07	452.01	12.24	439.80 d	0.04	---	---	---	---	---	---	---	---
MW-4	01/10/08	452.01	9.61	442.42 d	0.03	NOT SAMPLED - SPH PRESENT	---	---	---	---	---	---	---
MW-4	01/14/08	452.01	9.23	442.80 d	0.02	---	---	---	---	---	---	---	---
MW-4	01/21/08	452.01	8.07	443.96 d	0.03	---	---	---	---	---	---	---	---
MW-4	02/26/08	452.01	9.03	443.00 d	0.03	---	---	---	---	---	---	---	---
MW-4	07/10/08	452.01	9.71	442.41 d	0.14	NOT SAMPLED - SPH PRESENT	---	---	---	---	---	---	---
MW-4	08/26/08	452.01	10.52	441.68 d	0.24	---	---	---	---	---	---	---	---
MW-4	09/22/08	452.01	11.01	441.27 d	0.34	---	---	---	---	---	---	---	---
MW-5	12/28/06	451.38	8.11	443.27	---	---	---	---	---	---	---	---	---
MW-5	12/29/06	451.38	8.17	443.21	---	7.220	2.280	24,400	13,200	122,000	603	<515	---
MW-5	02/15/07	451.38	8.49	442.89	---	12,800 a, b	6,000 a, b	43,600 a, b	40,700 a, b	771,000 a, b	49,200 c	<5,000	<500
MW-5	04/06/07	451.38	9.08	442.32 d	0.03	NOT SAMPLED - SPH PRESENT	---	---	---	---	---	---	---
MW-5	07/09/07	451.38	9.19	442.21 d	0.03	---	---	---	---	---	---	---	---
MW-5	07/28/07	451.38	9.58	441.83 d	0.04	NOT SAMPLED - SPH PRESENT	---	---	---	---	---	---	---
MW-5	10/01/07	451.38	13.16	438.28 d	0.08	NOT SAMPLED - SPH PRESENT	---	---	---	---	---	---	---
MW-5	11/12/07	451.38	12.74	438.69 d	0.06	---	---	---	---	---	---	---	---
MW-5	11/20/07	451.38	12.55	438.89 d	0.08	---	---	---	---	---	---	---	---
MW-5	11/26/07	451.38	12.48	438.95 d	0.06	---	---	---	---	---	---	---	---
MW-5	12/05/07	451.38	11.74	439.72 d	0.10	---	---	---	---	---	---	---	---
MW-5	12/14/07	451.38	11.53	439.90 d	0.06	---	---	---	---	---	---	---	---
MW-5	12/19/07	451.38	11.41	440.00 d	0.04	---	---	---	---	---	---	---	---
MW-5	12/28/07	451.38	11.29	440.12 d	0.04	---	---	---	---	---	---	---	---
MW-5	01/10/08	451.38	8.70	442.70 d	0.02	NOT SAMPLED - SPH PRESENT	---	---	---	---	---	---	---
MW-5	01/14/08	451.38	8.70	442.68	0.00	---	---	---	---	---	---	---	---
MW-5	01/21/08	451.38	8.00	443.54 d	0.20	---	---	---	---	---	---	---	---
MW-5	02/26/08	451.38	8.02	443.50 d	0.17	---	---	---	---	---	---	---	---
MW-5	07/10/08	451.38	8.68	442.97 d	0.34	NOT SAMPLED - SPH PRESENT	---	---	---	---	---	---	---
MW-5	08/26/08	451.38	8.86	442.73 d	0.26	---	---	---	---	---	---	---	---
MW-5	09/22/08	451.38	9.18	442.36 d	0.20	---	---	---	---	---	---	---	---
MW-6	07/09/07	449.40	8.33	441.07	0.00	---	---	---	---	---	---	---	---
MW-6	07/28/07	449.40	8.61	440.79	0.00	<0.500	<0.500	1.25	<1.00	52.4	<253	<505	---
MW-6	10/01/07	449.40	12.22	437.18	0.00	<1.00	<1.00	<1.00	<3.00	<250	<105	<105	---
MW-6	01/10/08	449.40	7.86	441.54	0.00	<0.500	<0.500	<0.500	<3.00	<50.0	<250	<500	---
MW-6	07/10/08	449.40	7.87	441.53	0.00	<1	<1	<1	<1	<50	<500	<200	---
MW-7	07/09/07	450.14	7.81	442.33	0.00	---	---	---	---	---	---	---	---
MW-7	07/28/07	450.14	8.03	442.11	0.00	<0.500	<0.500	<0.500	<1.00	<50.0	<253	<495	---
MW-7	10/01/07	450.14	11.71	438.43	0.00	1.78	<1.00	<1.00	<3.00	<250	<111	<111	---
MW-7	01/10/08	450.14	7.32	442.82	0.00	68.4	79.7	1.26	110	51.2	<250	<500	---
MW-7	07/10/08	450.14	7.27	442.87	0.00	<1	<1	<1	<1	<50	<500	<200	---
MW-8	07/09/07	451.31	8.63	442.68	0.00	---	---	---	---	---	---	---	---
MW-8	07/28/07	451.31	8.97	442.34	0.00	20,500	3,550	43,600	23,000	266,000	8,580 e	<5,210	---
MW-8	10/01/07	451.31	12.58	438.73	0.00	19,000	2,250	32,000	14,900	181,000	6,540 g, i	<1,110	---
MW-8	01/10/08	451.31	8.16	443.15	0.00	13,400	2,200	29,600	14,000	202,000	9,190 c	<4,850	---

TABLE 1
SUMMARY OF GROUNDWATER MONITORING DATA
BETX, MTBE, AND PETROLEUM HYDROCARBONS
8808 196TH STREET SW
LYNNWOOD, WASHINGTON

Well Number	Date	TOC (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	SPH Thickness (feet)	B (µg/L)	E (µg/L)	T (µg/L)	X (µg/L)	Gasoline-range Hydrocarbons (µg/L)	Diesel Range Hydrocarbons (µg/L)	Heavy Oil Range Hydrocarbons (µg/L)	MTBE (µg/L)
MW-8	07/10/08	451.31	8.14	443.18 d	0.01	NOT SAMPLED - SPH PRESENT	---	---	---	---	---	---	---
MW-8	08/26/08	451.31	8.30	443.03 d	0.02	---	---	---	---	---	---	---	---
MW-8	09/22/08	451.31	8.80	442.52 d	0.01	---	---	---	---	---	---	---	---
MW-9	07/09/07	451.75	10.83	440.92	0.00	---	---	---	---	---	---	---	---
MW-9	07/28/07	451.75	11.02	440.73	0.00	<0.500	<0.500	<0.500	<1.00	<50.0	<248	<495	---
MW-9	10/01/07	451.75	14.07	437.68	0.00	5.52	<1.00	<1.00	<3.00	299	174 f,g	<111	---
MW-9	01/10/08	451.75	9.76	441.99	0.00	<0.500	<0.500	<0.500	<3.00	<50.0	<238	<476	---
MW-9	07/10/08	451.75	9.71	442.04	0.00	<1	<1	<1	<1	<50	<500	<1000	---
MW-10	07/09/07	451.43	12.44	438.99	0.00	---	---	---	---	---	---	---	---
MW-10	07/28/07	451.43	12.77	438.66	0.00	299	237	179	615	6,570	307 c	<505	---
MW-10	10/01/07	451.43	14.87	436.56	0.00	1,510	1,210	1,220	2,650	27,100	1,820 g,i	<556	---
MW-10	01/10/08	451.43	10.52	440.91	0.00	316	842	237	604	11,400	<248	<495	---
MW-10	07/10/08	451.43	11.69	439.74	0.00	1,400	710	1,200	2,310	1,400	<500	<1000	---
MTCA Method A Cleanup Level													
						5	700	1,000	1,000	800	500	500	20

Abbreviations and Notes:

Well locations are shown in Figure 2.

TOC = Top of Casing.

SPH = Separate Phase Hydrocarbons

Depth to water from top of well casing.

B = benzene, E = ethylbenzene, T = toluene, X = total xylenes. Analyzed using EPA Method 8021B.

Gasoline-range hydrocarbons analyzed using NWTPH-Gx.

Diesel and heavy-oil range hydrocarbons analyzed using NWTPH-Dx with acid/silica gel clean-up

MTBE = Methyl Tertiary butyl ether. By Method 8260B.

µg/L = micrograms per liter

MITCA = Model Toxics Control Act

a = Due to multiple re-shots required for re-analysis, the aliquot of sample analyzed on the instrument was taken from a VOA vial containing headspace.

b = Sample container contained headspace.

c = Results in the diesel organics range are primarily due to overlap from a gasoline-range product.

d = Groundwater elevation formula adjusted for the presence of SPH: (TOC - DTW) + (SPH * 0.80)

e = Hydrocarbon pattern most closely resembles a blend of gasoline and diesel.

f = The primary contamination elutes between C8 and C28, which is in the diesel range.

g = The contamination did not match any standard in our library.

h = The primary contamination elutes between C8 and C14, which is in the mineral spirits range.

i = The primary contamination elutes between C8 and C16, which is in the kerosene range.

TABLE 2
SUMMARY OF GROUNDWATER MONITORING DATA
OXYGENATES
6808 196TH STREET SW
LYNNWOOD, WASHINGTON

Well Number	Date	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)
MW-1	02/15/07	<1.00	54.6	<1.00	<1.00
MW-2	02/15/07	<1.00	<50.0	<1.00	<1.00
MW-3	02/15/07	<100	<5,000	<100	<100
MW-4	02/15/07	<100	<5,000	<100	<100
MW-5	02/15/07	<100	<5,000	<100	<100

Abbreviations and Notes:

Well locations are shown in Figure 2.

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butanol analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

µg/L = micrograms per liter

APPENDIX A

BLAINE TECH SERVICES, INC. -
FIELD FORMS

Job Clearance Form

Employee Name: <u>BOB BOYD</u>		Work Order Number: <u>088710541</u>	
Position: <u>PTG</u>		Date: <u>7/10/05</u>	
Problem Description: <u>Change 10 well's PAH's</u>		Return Call: <u>yes</u>	
Safety Vest <input checked="" type="checkbox"/>		Hearing Protection <input type="checkbox"/>	
Protective Clothing <input type="checkbox"/>		Respirator <input type="checkbox"/>	
Hard Hat <input checked="" type="checkbox"/>		Other <input type="checkbox"/>	
Safety Glasses <input checked="" type="checkbox"/>		Welding PPE <input type="checkbox"/>	
Safety Glasses/Accessories <input checked="" type="checkbox"/>		Other <input type="checkbox"/>	

Work description requirements Work description: _____ Work location: _____ Work duration: _____ Work start time: _____ Work end time: _____	Safety Requirements Safety glasses: <input type="checkbox"/> (if not required) Safety glasses/Accessories: <input type="checkbox"/> (if not required) Hard hat: <input type="checkbox"/> (if not required) Protective clothing: <input type="checkbox"/> (if not required) Safety vest: <input type="checkbox"/> (if not required) Hearing protection: <input type="checkbox"/> (if not required) Respirator: <input type="checkbox"/> (if not required) Other: _____
SIGN IN Supervisor signature: _____ Employee signature: <u>S. Boyd</u> Date: _____ Time: _____	SIGN OUT Supervisor signature: _____ Employee signature: <u>SB</u> Date: _____ Time: _____

GENERAL SAFETY CHECKS

- Has the job been properly planned?
- Has the job been properly communicated?
- Has the job been properly supervised?
- Has the job been properly documented?
- Has the job been properly reviewed?
- Has the job been properly closed?
- Has the job been properly cleaned up?
- Has the job been properly stored?
- Has the job been properly disposed of?
- Has the job been properly recycled?
- Has the job been properly disposed of?
- Has the job been properly recycled?



Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- CALSCIENCE ()
- EPA, Houston ()
- MEXICO ()
- TEST AMERICA ()
- OTHER ()

Please Check Appropriate Box:

<input checked="" type="checkbox"/> ENV. SERVICES	<input type="checkbox"/> MOTIVA RETUL	<input type="checkbox"/> SHELL RETAIL
<input type="checkbox"/> MOTIVA SMOCK	<input type="checkbox"/> CONSULTANT	<input type="checkbox"/> LURES
<input type="checkbox"/> SHELL PIPELINE	<input type="checkbox"/> OTHER	

Supplier Name: **Blaine Tech Services**

Address: **1688 Rogers Avenues, San Jose, Ca**

Product Contact: **Patrick Woff**

Telephone: **916-925-2913x102** FAX: **916-925-2991**

Website: **blainetech.com**

Turnaround Time (Calendar Days): 3 DAYS 5 DAYS 24 HOURS RESULTS NEEDED ON WEEKEND

LA - RWQB REPORT FORMAT LIST AGENCY

SPECIAL INSTRUCTIONS OR NOTES :

SHELL CONTRACT RATE APPLIES

STATE REIMBURSEMENT RATE APPLIES

SMO NOT NEEDED

RECEIPT VERIFICATION REQUESTED

See SPL P/M for WA Dept. of Ecology MTCA Method A cleanup levels for minimum detection limits

LAB (USE ONLY)	Field Sample Identification	SAMPLING		MATRIX	PRESERVATIVE				No. of CONT.
		DATE	TIME		INCL	WQB	WQB+	HOUSE	
	MW-1	7/10/08	0746	W	X				2
	MW-2	7/10/08	0745	W	X				2
	MW-6	7/10/08	0840	W	X				2
	MW-7	7/10/08	0730	W	X				2
	MW-9	7/10/08	0730	W	X				2
	MW-10	7/10/08	0745	W	X				2

Received by: (Signature) *[Signature]* Date: 7/10/08 Time: 1700

Received by: (Signature) *[Signature]* Date: _____ Time: _____

Received by: (Signature) *[Signature]* Date: _____ Time: _____

Print Bill To Contact Name: **Carol Compagna**

Incident # (ENV. SERVICES): **9 7 6 0 5 4 1 0**

DATE: **7/10/08** PAGE: _____ of _____

PO # _____ SAP # _____

Site Address: Street and City: **8808 196th Street SW, Lynnwood**

State: **WA** ZIP: **98048**

County: **WA**

Customer: **Christiane Schweigert, CRA, Everett**

Phone: **425-212-3100**

Contract #: **425-212-3100**

Customer Email: **cschweigert@ORAworld.com**

Customer Phone: **08070-54**

REQUESTED ANALYSIS

ANALYSIS	TEMPERATURE ON RECEIPT °C
MNTPH-GX	
MNTPH-DX w/ silica Gel Cleanup	
BTEX (826B)	
5 Oxygenates, MTBE, TBA, DPE, TAME, ETBE (826B)	
ED, EDC (826B)	
Total Lead (6020)	
PCBs (8082)	
PAHs (8070 sm)	
VOCs Full list (826B)	
Peak (8080)	
MNTPH-VPH	
MNTPH-EPH	
n-Hexane (8071B)	

TEMPERATURE ON RECEIPT °C

Container PID Readings or Laboratory Notes

WELL GAUGING DATA

Project # 080710-SU Date 7/10/08 Client Shell

Site 6808 196th SW Lynnwood

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0924	2					10.81	24.82	↓	
MW-2	0856	2					9.98	17.40		
MW-3	0957	2	✓	9.00	0.02		9.02	—		
MW-4	1004	2	✓	9.57	0.14		9.57	19.71		
MW-5	1013	2	✓	8.34	0.34		8.68			
MW-6	0832	2					7.87	19.44		
MW-7	0843	2					7.27	19.64		
MW-8	0943	2	✓	8.13	0.01		8.14	19.45		
MW-9	0932	2					9.71	19.92		
MW-10	0908	2					11.69	20.05		

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710-EL</u>	Site: <u>97605410</u>
Sampler: <u>EL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>24.82</u>	Depth to Water (DTW): <u>10.81</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: ~~Bailer~~ Disposable Bailer Positive Air Displacement Electric Submersible
 Water ~~Peristaltic~~ Extraction Pump Other _____

Sampling Method: ~~Bailer~~ Disposable Bailer Extraction Port Dedicated Tubing
 Other: _____

_____ (Gals.) X _____ = _____ Gals.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														
I Case Volume	Specified Volumes	Calculated Volume															

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>0930</u>	<u>58.9</u>	<u>6.69</u>	<u>598</u>	<u>20</u>		

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 7/10/08 Sampling Time: 0930 Depth to Water: _____

Sample I.D.: MW-1 Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710-5L1</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>17.40</u>	Depth to Water (DTW): <u>9.98</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: ~~Bailer~~
~~Disposable Bailer~~
~~Positive Air Displacement~~
~~Electric Submersible~~

~~Waters~~
~~Peristaltic~~
~~Extraction Pump~~
 Other _____

Sampling Method: ~~Bailer~~
~~Disposable Bailer~~
~~Extraction Port~~
~~Dedicated Tubing~~
 Other: _____

(Gals.) X _____ = _____ Gals.
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>0905</u>	<u>59.4</u>	<u>6.29</u>	<u>422</u>	<u>94</u>		

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 7/10/08 Sampling Time: 0905 Depth to Water: _____

Sample I.D.: MW-2 Laboratory: STL SPB Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710SL</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>—</u>	Depth to Water (DTW): <u>9.02</u>
Depth to Free Product: <u>9.00</u>	Thickness of Free Product (feet): <u>0.02</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: ~~Bailer~~
~~Disposable Bailer~~
~~Positive Air Displacement~~
~~Electric Submersible~~

Watertra
Peristaltic
Extraction Pump
Other _____

Sampling Method: ~~Bailer~~
~~Disposable Bailer~~
~~Extraction Port~~
~~Dedicated Tubing~~

Other: _____

_____ (Gals.) X _____	=	_____ Gals.	
1 Case Volume		Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>removed ~ 15ml STP</u>
						<u>+ 1/4 gal H₂O</u>

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 7/10/08 Sampling Time: _____ Depth to Water: _____

Sample I.D.: MW- Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Org's 1,2-DCA EDB Other _____

EB I.D. (if applicable): _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Org's 1,2-DCA EDB Other _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710-51</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>9.71</u>
Depth to Free Product: <u>9.57</u>	Thickness of Free Product (feet): <u>0.14</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
 Other

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other

(Gals.) X _____ = _____ Gals.	
1 Case Volume Specified Volumes Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
						removed ~ 60ml SPH + 1/2 gal H ₂ O

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 7/10/08 Sampling Time: _____ Depth to Water: _____

Sample I.D.: MW- Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710-5L1</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>9.0</u>	Depth to Water (DTW): <u>8.68</u>
Depth to Free Product: <u>8.34</u>	Thickness of Free Product (feet): <u>0.34</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: ~~Bailer~~ ~~Disposable Bailer~~ ~~Positive Air Displacement~~ ~~Electric Submersible~~ Waterra Peristaltic Extraction Pump Other _____

Sampling Method: ~~Bailer~~ ~~Disposable Bailer~~ ~~Extraction Port~~ ~~Dedicated Tubing~~ Other _____

_____ (Gals.) X _____ = _____ Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>removed ~ 130 ml SPH + 1 gpd H₂O</u>

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 7/10/08 Sampling Time: _____ Depth to Water: _____

Sample I.D.: MW- Laboratory: STL SPE Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:		mg/L	Post-purge:		mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:		mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710-21</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>19.44</u>	Depth to Water (DTW): <u>7.87</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

(Gals.) X _____ = _____ Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>0840</u>	<u>60.1</u>	<u>6.12</u>	<u>460</u>	<u>22</u>		

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 7/10/08 Sampling Time: 0840 Depth to Water: _____

Sample I.D.: MW-6 Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710-5L</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-7</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>19.64</u>	Depth to Water (DTW): <u>7.27</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

_____ (Gals.) X _____ = _____ Gals.
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>0850</u>	<u>59.0</u>	<u>6.35</u>	<u>446</u>	<u>38</u>		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 7/10/08 Sampling Time: 0850 Depth to Water:

Sample I.D.: MW-7 Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

EB I.D. (if applicable): @ Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710SL</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-8</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>19.45</u>	Depth to Water (DTW): <u>8.14</u>
Depth to Free Product: <u>8.13</u>	Thickness of Free Product (feet): <u>0.01</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Water <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
---	---	--

_____ (Gals.) X _____ = _____ Gals.	Well Diameter	Multiplier	Well Diameter	Multiplier
1 Case Volume Specified Volumes Calculated Volume	1"	0.04	4"	0.65
	2"	0.16	6"	1.47
	3"	0.37	Other:	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS on <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>0950</u>						<u>SPH encountered in bailer → odor removed ✓ 10ml SPH + 1/4 gal H₂O → No sample</u>

Did well dewater? Yes No	Gallons actually evacuated: _____
Sampling Date: <u>7/10/08</u> Sampling Time: <u>0950</u>	Depth to Water: _____
Sample I.D.: <u>MW-8</u>	Laboratory: STL <u>SPC</u> Other _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:	
EB I.D. (if applicable): @ _____	Duplicate I.D. (if applicable): _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710SL1</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-9</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>19.92</u>	Depth to Water (DTW): <u>9.71</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other _____

_____ (Gals.) X _____ = _____ Gals. Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS on <u>US</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>0940</u>	<u>59.8</u>	<u>6.80</u>	<u>241</u>	<u>13</u>		

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 7/10/08 Sampling Time: 0940 Depth to Water: _____

Sample I.D.: MW-9 Laboratory: STL SPE Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080710-SL</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>7/10/08</u>
Well I.D.: <u>MW-10</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>20.05</u>	Depth to Water (DTW): <u>11.69</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: ~~Bailer~~
~~Disposable Bailer~~
~~Positive Air Displacement~~
~~Electric Submersible~~

Water
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: ~~Bailer~~
~~Disposable Bailer~~
 Extraction Port
 Dedicated Tubing

Other: _____

_____ (Gals.) X _____	= _____ Gals.	
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS on <u>US</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>0915</u>	<u>58.4</u>	<u>6.38</u>	<u>493</u>	<u>206</u>		

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 7/10/08 Sampling Time: 0915 Depth to Water: _____

Sample I.D.: MW-10 Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Org's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Org's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

JOB CLEARANCE FORM

EMPLOYEE INFORMATION
 Employee Name: PTC Employee ID: 6808 176th Position: SYNCHRO
 Department: PTC Job Title: SALE Date: 8/26/08
 Product/Model Description: SALE Region Code: 1000 Plant Code: 1000

SAFETY VISIT
 SAFETY VISIT
 PROTECTIVE CLOTHING
 HARD HAT
 SAFETY GLASSES/GOOGLES
 HEARING PROTECTION
 RESPIRATOR
 OTHER

GENERAL SAFETY CHECKS
 1. Has the worker been trained in the safe use of the equipment?
 Yes No
 2. Has the worker been trained in the safe use of the equipment?
 Yes No
 3. Has the worker been trained in the safe use of the equipment?
 Yes No
 4. Has the worker been trained in the safe use of the equipment?
 Yes No
 5. Has the worker been trained in the safe use of the equipment?
 Yes No
 6. Has the worker been trained in the safe use of the equipment?
 Yes No
 7. Has the worker been trained in the safe use of the equipment?
 Yes No
 8. Has the worker been trained in the safe use of the equipment?
 Yes No
 9. Has the worker been trained in the safe use of the equipment?
 Yes No
 10. Has the worker been trained in the safe use of the equipment?
 Yes No

SIGNATURES
 Supervisor: [Signature]
 Employee: [Signature]
 Other: [Signature]

REMARKS
 This form must be completed for each job and updated and re-signed if circumstances change or as recommended.
 Date Issued: May 2007

WELL GAUGING DATA

Project # 07092647 Date 8/26/08 Client Shell

Site 6808 195th St. LYNNWOOD

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOP or TOC	Notes
MW-3	1433	2	✓	9.57	0.02	5ml	9.55		↓	
MW-4	1436	2	✓	10.28	0.24	25ml	10.52			
MW-5	1436	2	✓	8.60	0.26	10ml	8.86			
MW-8	1416	2	✓	8.28	0.02	5ml	8.30			

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080826-502</u>	Site: <u>97609410</u>
Sampler: <u>GL</u>	Date: <u>8/26/08</u>
Well I.D.: <u>MW-8</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>8.30</u>
Depth to Free Product: <u>8.22</u>	Thickness of Free Product (feet): <u>0.02</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other _____

(Gals.) X _____ = _____ Gals.					
1 Case Volume	Specified Volumes	Calculated Volume	Well Diameter	Multiplier	Well Diameter
			1"	0.04	4"
			2"	0.16	6"
			3"	0.37	Other
					radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>removed 5 ml SPL</u>
						<u>14.37L H2O</u>

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: _____ Sampling Time: _____ Depth to Water: _____

Sample I.D.: _____ Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080826-512</u>	Site: <u>9780540</u>
Sampler: <u>SL</u>	Date: <u>8/26/08</u>
Well I.D.: <u>MINS</u>	Well Diameter: <u>3</u> 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>8.86</u>
Depth to Free Product: <u>8.60</u>	Thickness of Free Product (feet): <u>0.26</u>
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer
 Disposable Bailer
 Positive Air Displacement
 Electric Submersible

Water
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

(Gals.) X _____ = _____ Gals.	Well Diameter Multiplier	Well Diameter Multiplier
I Case Volume Specified Volumes Calculated Volume	1" 0.04	4" 0.65
	2" 0.16	6" 1.47
	3" 0.37	Other radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>removed 150 ml SP4 + 197L H₂O</u>

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: _____ Sampling Time: _____ Depth to Water: _____

Sample I.D.: _____ Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mV	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>060826-512</u>	Site: <u>97605410</u>
Sampler: <u>SL</u>	Date: <u>8/26/08</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>10.52</u>
Depth to Free Product: <u>10.28</u>	Thickness of Free Product (feet): <u>0.24</u>
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Watera Peristaltic Extraction Pump Other _____

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____

	(Gals.) X _____ = _____ Gals.		
1 Case Volume	Specified Volumes	Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: _____ Sampling Time: _____ Depth to Water: _____

Sample I.D.: _____ Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other _____

EB I.D. (if applicable): @ _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other _____

D.O. (if req'd):	Pre-purge:		mg/L	Post-purge:		mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:		mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080876-922</u>	Site: <u>9705410</u>
Sampler: <u>SL</u>	Date: <u>8/26/08</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>9.57</u>	Depth to Water (DTW): <u>9.55</u>
Depth to Free Product: <u>9.57</u>	Thickness of Free Product (feet): <u>0.01</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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_____ (Gals.) X _____ = _____ Gals. I Case Volume: Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>removed 5 ml SPH</u>
						<u>+ 1/4 gal H₂O</u>

Did well dewater? Yes No	Gallons actually evacuated: _____
Sampling Date: _____	Sampling Time: _____
Sample I.D.: _____	Depth to Water: _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____	Laboratory: STL SPL Other: _____
EB I.D. (if applicable): _____ @ _____	Duplicate I.D. (if applicable): _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

Job Clearance Form

Customer Address: 6808 19th Ave SW, Lynnwood, WA 98037
 Customer Name: S.T.S. S. BAR
 Problem Work Description: HAZARDOUS WASTE

Work Order Number: 08022-513
 Date: 9/22/08
 Return Call: per job
 Damage Charge: per job

SAFETY VEST HEARING PROTECTION
 PROTECTIVE CLOTHING WELDING PPE
 HARD HAT GOGGLES RESPIRATOR
 OTHER

Work description requirements:
 Work in confined spaces (e.g. tank, hopper or deep vaulted entry)
 Hot work with risk of product fire/explosion
 LPG gases, liquefied, bottled, or contained

Examples of Work/Hazard/Health:
 Lenses (goggles) - not required
 Medium Risk / Hazard / Health - not required
 Lenses (goggles) - not required
 Medium Risk / Hazard / Health - not required

SIGN IN
 Operator representative name: [Signature]
 Signature: [Signature]

SIGN OUT
 Operator representative name: [Signature]
 Signature: [Signature]

GENERAL SAFETY CHECKS
 Has the work been fully set up?
 Has the personnel areas of tasks of work including pre-work briefing?
 Are changes to equipment documented and communicated?
 All ladders, rear ladders, trench situations reported?
 Other:

GENERAL SAFETY CHECKS
 Has all the personnel been informed?
 Has the delivery service been informed?
 Is a full delivery done?
 Have incident procedures been agreed - lock calling out?
 Are work areas cordoned off to protect workers, site and a public?
 Other:

SAFETY - Critical, Immediate action required or hazardous work should be stopped!

The contractor through its authorized representative and sign, issue and be solely responsible for all job clearance forms and the obligations arising there under applicable to the work. This form assesses important risk factors and is not intended to release the contractor from liability or any other obligations. The contractor must ensure that the requirements of this form are fully met. The contractor must ensure that the requirements of this form are fully met. The contractor must ensure that the requirements of this form are fully met.

WELLHEAD INSPECTION FORM

Client: Shell Site: 97605410 Date: 9/22/08
 Job #: 08092747 Technician: CJL Page 1 of 1

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency										Well Not Inspected (explain in notes)	Notes <small>(list if cap or lock replaced, if there are access issues associated with repairs, if traffic control is required, if stand pipe damaged, or any specific details not covered by checklist)</small>	
		Cap non-functional	Lock non-functional	Lock missing	Bolts missing (list qty.)	Tabs stripped (list qty.)	Tabs broken (list qty.)	Annular seal incomplete	Apron damaged	Rim / Lid broken	Trip Hazard			Below Grade
MW-3														
MW-4	X													
MW-5	X													
MW-6	X													

Added MW-2

Notes: _____

WELL GAUGING DATA

Project # 080922513 Date 9/22/08 Client She 11

Site 6808 196th St. SW Lynnwood

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOG</u>	Notes
MW-3	1615	2	✓	9.97	0.03		10.00	—	↓	
MW-4	1620	2	✓	10.67	0.34		11.01			
MW-5	1630	2	✓	8.98	0.20		9.18			
MW-6	1610	2	✓	8.79	0.01		8.80	—		

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080922503</u>	Site: <u>97609410</u>
Sampler: <u>SL</u>	Date: <u>9/22/08</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>10.00</u>
Depth to Free Product: <u>9.97</u>	Thickness of Free Product (feet): <u>0.03</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

1615

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Water: Peristaltic Extraction Pump Other _____

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing

Other: _____

(Gals.) X _____ = _____ Gals.
I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1615		<u>7.4</u>	<u>492</u>	<u>25 ml SPL + H₂O</u>		

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 9/22/08 Sampling Time: _____ Depth to Water: _____

Sample I.D.: _____ Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Ony's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Ony's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080922-53</u>	Site: <u>97609410</u>
Sampler: <u>SL</u>	Date: <u>9/22/08</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>11.01</u>
Depth to Free Product: <u>10.67</u>	Thickness of Free Product (feet): <u>0.34</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible	Water: <u>Peristaltic</u> Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	---

_____ (Gals.) X _____ = _____ Gals. Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1620</u>		<u>Failed</u>	<u>300mL</u>	<u>SPH</u>		
		<u>+ 1 gal</u>	<u>H₂O</u>			

Did well dewater? Yes No	Gallons actually evacuated:
Sampling Date: <u>9/22/08</u>	Sampling Time: _____ Depth to Water: _____
Sample I.D.: _____	Laboratory: STL SPL Other _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:	
EB I.D. (if applicable): _____ @ _____	Duplicate I.D. (if applicable): _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other:	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>08092253</u>	Site: <u>97609410</u>
Sampler: <u>SL</u>	Date: <u>9/22/08</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>9.18</u>
Depth to Free Product: <u>8.98</u>	Thickness of Free Product (feet): <u>0.20</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Water: Peristaltic Extraction Pump Other _____

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing

Other: _____

_____ (Gals.) X _____ = _____ Gals. Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multplier</th> <th>Well Diameter</th> <th>Multplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multplier	Well Diameter	Multplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multplier	Well Diameter	Multplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1630</u>		<u>removed</u>	<u>u</u>	<u>150ml</u>	<u>SPL</u>	
		<u>1/2 gal</u>		<u>H₂O</u>		

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 9/22/08 Sampling Time: _____ Depth to Water: _____

Sample I.D.: _____ Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Orp's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Orp's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: <u>080922-53</u>	Site: <u>97609410</u>
Sampler: <u>SL</u>	Date: <u>9/22/08</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>8.80</u>
Depth to Free Product: <u>8.79</u>	Thickness of Free Product (feet): <u>0.01</u>
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible

Water: Waterra Peristaltic Extraction Pump Other _____

Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing

Other: _____

(Gals.) X _____ = _____ Gals.

1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other:	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1610</u>						<u>Bailed ~ 10ml spill + 1/4 gal H₂O</u>

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Date: 9/22/08 Sampling Time: _____ Depth to Water: _____

Sample I.D.: _____ Laboratory: STL SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

EB I.D. (if applicable): _____ @ _____ Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxy's 1,2-DCA EDB Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

APPENDIX B

LABORATORY ANALYSIS REPORT



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Shell Products US - Environmental Services

Certificate of Analysis Number:

08070664

Report To: Conestoga Rovers and Associates Christine Schweigert 526 Commerce Center - Bldg. B 1420 80th Street SW, Suite A Everett WA 98203- ph: (425) 212-5100 fax:	Project Name: INC# 97605410 SAP# NA Site: 6808 196th Street SW Site Address: PO Number: 4700002340 State: Washington State Cert. No.: C1350 Date Reported: 7/29/2008
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This Report Contains A Total Of 17 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

7/30/2008

Date



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Case Narrative for:
Shell Products US - Environmental Services

Certificate of Analysis Number:

08070664

<p>Report To:</p> <p>Conestoga Rovers and Associates Christine Schweigert 526 Commerce Center - Bldg. B 1420 80th Street SW, Suite A Everett WA 98203- ph: (425) 212-5100 fax:</p>	<p>Project Name: INC# 97605410 SAP# NA</p> <p>Site: 6808 196th Street SW</p> <p>Site Address:</p> <p>PO Number: 4700002340</p> <p>State: Washington</p> <p>State Cert. No.: C1350</p> <p>Date Reported: 7/29/2008</p>
---	--

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg/kg-dry " or " ug/kg-dry ").

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Due to limited sample volume, a Matrix Spike (MS) or Matrix Spike Duplicate (MSD) was not extracted with Batch ID:81616 for the Diesel Range Organics analysis by Method NWTPH-Dx. A Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) were extracted with the analytical batch and serve as the batch quality control (QC). The LCS and LCSD recovered acceptably and precision criteria were met.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

08070664 Page 1

7/30/2008

Erica Cardenas
 Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

Date



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Shell Products US - Environmental Services

Certificate of Analysis Number:

08070664

Report To: Conestoga Rovers and Associates
 Christine Schweigert
 526 Commerce Center - Bldg. B
 1420 80th Street SW, Suite A
 Everett
 WA
 98203-
 ph: (425) 212-5100 fax: (425) 212-5199

Project Name: INC# 97605410 SAP# NA
Site: 6808 196th Street SW
Site Address:
PO Number: 4700002340
State: Washington
State Cert. No.: C1350
Date Reported: 7/29/2008

Fax To:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-1	08070664-01	Water	7/10/2008 9:40:00 AM	7/11/2008 9:30:00 AM		<input type="checkbox"/>
MW-2	08070664-02	Water	7/10/2008 9:05:00 AM	7/11/2008 9:30:00 AM		<input type="checkbox"/>
MW-6	08070664-03	Water	7/10/2008 8:40:00 AM	7/11/2008 9:30:00 AM		<input type="checkbox"/>
MW-7	08070664-04	Water	7/10/2008 8:50:00 AM	7/11/2008 9:30:00 AM		<input type="checkbox"/>
MW-9	08070664-05	Water	7/10/2008 9:30:00 AM	7/11/2008 9:30:00 AM		<input type="checkbox"/>
MW-10	08070664-06	Water	7/10/2008 9:15:00 AM	7/11/2008 9:30:00 AM		<input type="checkbox"/>

Erica Cardenas

7/30/2008

Erica Cardenas
 Project Manager

Date

Richard R. Reed
 Laboratory Director

Ted Yen
 Quality Assurance Officer



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: MW-2 Collected: 07/10/2008 9:05 SPL Sample ID: 08070664-02

Site: 6808 196th Street SW

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	NWTPH-DX	Units: mg/L	
Diesel Range Organics (C12-C24)	ND		0.5	1	07/23/08 8:59	NW	4585771
Oil Range Organics (C24-C32)	ND		0.2	1	07/23/08 8:59	NW	4585771
Surr: n-Pentacosane	84.4		% 20-150	1	07/23/08 8:59	NW	4585771

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C/3630	07/15/2008 10:26	N_M	2.00

GASOLINE RANGE ORGANICS				MCL	NWTPH-GX	Units: mg/L	
Gasoline Range Organics	0.54		0.05	1	07/22/08 4:59	WLV	4585208
Surr: 1,4-Difluorobenzene	117		% 60-155	1	07/22/08 4:59	WLV	4585208
Surr: 4-Bromofluorobenzene	110		% 50-158	1	07/22/08 4:59	WLV	4585208

VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	4.9		1	1	07/21/08 15:28	DY	4582707
Ethylbenzene	9.4		1	1	07/21/08 15:28	DY	4582707
Toluene	ND		1	1	07/21/08 15:28	DY	4582707
m,p-Xylene	ND		1	1	07/21/08 15:28	DY	4582707
o-Xylene	ND		1	1	07/21/08 15:28	DY	4582707
Xylenes, Total	ND		1	1	07/21/08 15:28	DY	4582707
Surr: 1,2-Dichloroethane-d4	115		% 71-140	1	07/21/08 15:28	DY	4582707
Surr: 4-Bromofluorobenzene	95.4		% 70-130	1	07/21/08 15:28	DY	4582707
Surr: Toluene-d8	107		% 61-121	1	07/21/08 15:28	DY	4582707

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: MW-7 Collected: 07/10/2008 8:50 SPL Sample ID: 08070664-04

Site: 6808 196th Street SW

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	NWTPH-DX	Units: mg/L	
Diesel Range Organics (C12-C24)	ND		0.5	1	07/23/08 9:41	NW	4585773
Oil Range Organics (C24-C32)	ND		0.2	1	07/23/08 9:41	NW	4585773
Surr: n-Pentacosane	49.6		% 20-150	1	07/23/08 9:41	NW	4585773

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C/3630	07/15/2008 10:26	N_M	2.00

GASOLINE RANGE ORGANICS				MCL	NWTPH-GX	Units: mg/L	
Gasoline Range Organics	ND		0.05	1	07/22/08 5:54	WLV	4585210
Surr: 1,4-Difluorobenzene	99.6		% 60-155	1	07/22/08 5:54	WLV	4585210
Surr: 4-Bromofluorobenzene	108		% 50-158	1	07/22/08 5:54	WLV	4585210

VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		1	1	07/21/08 16:12	DY	4582709
Ethylbenzene	ND		1	1	07/21/08 16:12	DY	4582709
Toluene	ND		1	1	07/21/08 16:12	DY	4582709
m,p-Xylene	ND		1	1	07/21/08 16:12	DY	4582709
o-Xylene	ND		1	1	07/21/08 16:12	DY	4582709
Xylenes, Total	ND		1	1	07/21/08 16:12	DY	4582709
Surr: 1,2-Dichloroethane-d4	116		% 71-140	1	07/21/08 16:12	DY	4582709
Surr: 4-Bromofluorobenzene	93.9		% 70-130	1	07/21/08 16:12	DY	4582709
Surr: Toluene-d8	106		% 61-121	1	07/21/08 16:12	DY	4582709

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: MW-9 Collected: 07/10/2008 9:30 SPL Sample ID: 08070664-05

Site: 6808 196th Street SW

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	NWTPH-DX	Units: mg/L	
Diesel Range Organics (C12-C24)	ND		0.5	1	07/23/08 10:03	NW	4585774
Oil Range Organics (C24-C32)	ND		1	1	07/23/08 10:03	NW	4585774
Surr: n-Pentacosane	108		% 20-150	1	07/23/08 10:03	NW	4585774

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C/3630	07/15/2008 10:26	N_M	2.00

GASOLINE RANGE ORGANICS				MCL	NWTPH-GX	Units: mg/L	
Gasoline Range Organics	ND		0.05	1	07/22/08 6:22	WLW	4585211
Surr: 1,4-Difluorobenzene	98.5		% 60-155	1	07/22/08 6:22	WLW	4585211
Surr: 4-Bromofluorobenzene	106		% 50-158	1	07/22/08 6:22	WLW	4585211

VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	ND		1	1	07/21/08 16:34	DY	4582710
Ethylbenzene	ND		1	1	07/21/08 16:34	DY	4582710
Toluene	ND		1	1	07/21/08 16:34	DY	4582710
m,p-Xylene	ND		1	1	07/21/08 16:34	DY	4582710
o-Xylene	ND		1	1	07/21/08 16:34	DY	4582710
Xylenes, Total	ND		1	1	07/21/08 16:34	DY	4582710
Surr: 1,2-Dichloroethane-d4	115		% 71-140	1	07/21/08 16:34	DY	4582710
Surr: 4-Bromofluorobenzene	92.1		% 70-130	1	07/21/08 16:34	DY	4582710
Surr: Toluene-d8	105		% 61-121	1	07/21/08 16:34	DY	4582710

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Client Sample ID: MW-10 Collected: 07/10/2008 9:15 SPL Sample ID: 08070664-06

Site: 6808 196th Street SW

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	NWTPH-DX	Units: mg/L	
Diesel Range Organics (C12-C24)	ND		0.5	1	07/23/08 10:24	NW	4585775
Oil Range Organics (C24-C32)	ND		1	1	07/23/08 10:24	NW	4585775
Surr: n-Pentacosane	71.0		% 20-150	1	07/23/08 10:24	NW	4585775

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C/3630	07/15/2008 10:26	N M	2.00

GASOLINE RANGE ORGANICS				MCL	NWTPH-GX	Units: mg/L	
Gasoline Range Organics	14		0.5	10	07/24/08 19:43	WLV	4590269
Surr: 1,4-Difluorobenzene	106		% 60-155	10	07/24/08 19:43	WLV	4590269
Surr: 4-Bromofluorobenzene	112		% 50-158	10	07/24/08 19:43	WLV	4590269

VOLATILE ORGANICS BY METHOD 8260B				MCL	SW8260B	Units: ug/L	
Benzene	1400		10	10	07/21/08 17:19	DY	4582712
Ethylbenzene	710		10	10	07/21/08 17:19	DY	4582712
Toluene	1200		10	10	07/21/08 17:19	DY	4582712
m,p-Xylene	1900		10	10	07/21/08 17:19	DY	4582712
o-Xylene	410		10	10	07/21/08 17:19	DY	4582712
Xylenes,Total	2310		10	10	07/21/08 17:19	DY	4582712
Surr: 1,2-Dichloroethane-d4	115		% 71-140	10	07/21/08 17:19	DY	4582712
Surr: 4-Bromofluorobenzene	94.7		% 70-130	10	07/21/08 17:19	DY	4582712
Surr: Toluene-d8	108		% 61-121	10	07/21/08 17:19	DY	4582712

Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)
 B/V - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution
 * - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference
 J - Estimated Value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 TNTC - Too numerous to count

Quality Control Documentation



Quality Control Report

HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Shell Products US - Environmental Services
 INC# 97605410 SAP# NA

Analysis: Diesel Range Organics
 Method: NWTPH-Dx

WorkOrder: 08070664
 Lab Batch ID: 81616

Method Blank

Samples in Analytical Batch:

RunID: TH_X_080723B-4585767 Units: mg/L
 Analysis Date: 07/23/2008 7:33 Analyst: NW
 Preparation Date: 07/15/2008 10:26 Prep By: N_M Method SW3510C/3630

Lab Sample ID	Client Sample ID
08070664-01C	MW-1
08070664-02C	MW-2
08070664-03C	MW-6
08070664-04C	MW-7
08070664-05C	MW-9
08070664-06C	MW-10

Analyte	Result	Rep Limit
Diesel Range Organics (C12-C24)	ND	0.25
Oil Range Organics (C24-C32)	ND	0.10
Surr: n-Pentacosane	136.2	20-150

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: TH_X_080723B-4585768 Units: mg/L
 Analysis Date: 07/23/2008 7:55 Analyst: NW
 Preparation Date: 07/15/2008 10:26 Prep By: N_M Method SW3510C/3630

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Diesel Range Organics (C12-C24)	1.00	1.17	117	1.00	0.898	89.8	26.5	30	21	175
Oil Range Organics (C24-C32)	1.00	1.07	107	1.00	0.842	84.2	23.4	30	40	160
Surr: n-Pentacosane	0.0500	0.0589	118	0.0500	0.0442	88.4	28.5	30	20	150

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
 B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
 J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
 E - Estimated Value exceeds calibration curve
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
 TNTC - Too numerous to count



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Shell Products US - Environmental Services

INC# 97605410 SAP# NA

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08070664
Lab Batch ID: R245760

Method Blank

Samples in Analytical Batch:

RunID: MSDVOA1_080721A-4582694 Units: ug/L
Analysis Date: 07/21/2008 12:04 Analyst: DY
Preparation Date: 07/21/2008 12:04 Prep By: Method

Lab Sample ID Client Sample ID
08070664-01A MW-1
08070664-02A MW-2
08070664-03A MW-6
08070664-04A MW-7
08070664-05A MW-9
08070664-06A MW-10

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various surrogates.

Laboratory Control Sample (LCS)

RunID: MSDVOA1_080721A-45826 Units: ug/L
Analysis Date: 07/21/2008 10:58 Analyst: DY
Preparation Date: 07/21/2008 10:58 Prep By: Method SW5030B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene, Xylenes, Total, and various surrogates.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070969-01
RunID: MSDVOA1_080721A-45827 Units: ug/L
Analysis Date: 07/22/2008 5:03 Analyst: DY

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Shell Products US - Environmental Services
INC# 97605410 SAP# NA

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08070664
Lab Batch ID: R245760

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	24.7	20	43.6	94.3	20	40.8	80.4	6.61	20	67	202
Ethylbenzene	ND	20	18.2	91.1	20	17.1	85.7	6.13	20	49	165
Toluene	ND	20	20.5	102	20	18.9	94.7	7.77	20	48	162
m,p-Xylene	ND	40	38.5	95.4	40	36.3	89.8	5.97	20	44	167
o-Xylene	ND	20	19.4	97.1	20	18.3	91.4	6.08	20	54	158
Xylenes, Total	ND	60	57.9	96.0	60	54.6	90.3	6.01	20	44	167
Surr: 1,2-Dichloroethane-d4	ND	50	56.9	114	50	56.9	114	0.00668	30	71	140
Surr: 4-Bromofluorobenzene	ND	50	47.3	94.5	50	47.2	94.4	0.171	30	70	130
Surr: Toluene-d8	ND	50	53.7	107	50	54.0	108	0.573	30	61	121

Qualifiers: ND/U - Not Detected at the Reporting Limit
 B/V - Analyte detected in the associated Method Blank
 J - Estimated value between MDL and PQL
 E - Estimated Value exceeds calibration curve
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
 TNTC - Too numerous to count

MI - Matrix Interference
 D - Recovery Unreportable due to Dilution
 * - Recovery Outside Advisable QC Limits



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Shell Products US - Environmental Services

INC# 97605410 SAP# NA

Analysis: Gasoline Range Organics
Method: NWTPH-Gx

WorkOrder: 08070664
Lab Batch ID: R245878

Method Blank

Samples in Analytical Batch:

RunID: HP_U_080722A-4585207 Units: mg/L
Analysis Date: 07/22/2008 4:31 Analyst: WLV
Preparation Date: 07/22/2008 4:31 Prep By: Method SW5030B

Lab Sample ID Client Sample ID
08070664-01B MW-1
08070664-02B MW-2
08070664-03B MW-6
08070664-04B MW-7
08070664-05B MW-9

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, and Surr: 4-Bromofluorobenzene.

Laboratory Control Sample (LCS)

RunID: HP_U_080722A-4585206 Units: mg/L
Analysis Date: 07/22/2008 4:03 Analyst: WLV
Preparation Date: 07/22/2008 4:03 Prep By: Method SW5030B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, and Surr: 4-Bromofluorobenzene.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070664-01
RunID: HP_U_080722A-4585214 Units: mg/L
Analysis Date: 07/22/2008 7:45 Analyst: WLV

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Gasoline Range Organics, Surr: 1,4-Difluorobenzene, and Surr: 4-Bromofluorobenzene.

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count



Quality Control Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Shell Products US - Environmental Services

INC# 97605410 SAP# NA

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08070664
Lab Batch ID: R245912

Method Blank

Samples in Analytical Batch:

RunID: MSDVOA1_080722B-4585431 Units: ug/L
Analysis Date: 07/22/2008 11:57 Analyst: DY
Preparation Date: 07/22/2008 11:57 Prep By: Method

Lab Sample ID: 08070664-01A
Client Sample ID: MW-1

Table with 3 columns: Analyte, Result, Rep Limit. Rows include Benzene, Surr: 1,2-Dichloroethane-d4, Surr: 4-Bromofluorobenzene, Surr: Toluene-d8.

Laboratory Control Sample (LCS)

RunID: MSDVOA1_080722B-45854 Units: ug/L
Analysis Date: 07/22/2008 10:50 Analyst: DY
Preparation Date: 07/22/2008 10:50 Prep By: Method SW5030B

Table with 6 columns: Analyte, Spike Added, Result, Percent Recovery, Lower Limit, Upper Limit. Rows include Benzene, Surr: 1,2-Dichloroethane-d4, Surr: 4-Bromofluorobenzene, Surr: Toluene-d8.

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070969-01
RunID: MSDVOA1_080722B-45883 Units: ug/L
Analysis Date: 07/23/2008 18:01 Analyst: DY

Table with 12 columns: Analyte, Sample Result, MS Spike Added, MS Result, MS % Recovery, MSD Spike Added, MSD Result, MSD % Recovery, RPD, RPD Limit, Low Limit, High Limit. Rows include Benzene, Surr: 1,2-Dichloroethane-d4, Surr: 4-Bromofluorobenzene, Surr: Toluene-d8.

Qualifiers: ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



Quality Control Report

HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Shell Products US - Environmental Services
 INC# 97605410 SAP# NA

Analysis: Gasoline Range Organics
Method: NWTPH-Gx

WorkOrder: 08070664
Lab Batch ID: R246149

Method Blank

Samples in Analytical Batch:

RunID: HP_U_080724A-4590251 Units: mg/L
 Analysis Date: 07/24/2008 12:28 Analyst: WLV
 Preparation Date: 07/24/2008 12:28 Prep By: Method SW5030B

Lab Sample ID Client Sample ID
 08070664-06B MW-10

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	92.4	60-155
Surr: 4-Bromofluorobenzene	106.4	50-158

Laboratory Control Sample (LCS)

RunID: HP_U_080724A-4590249 Units: mg/L
 Analysis Date: 07/24/2008 12:00 Analyst: WLV
 Preparation Date: 07/24/2008 12:00 Prep By: Method SW5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	0.934	93.4	64	131
Surr: 1,4-Difluorobenzene	0.100	0.0994	99.4	60	155
Surr: 4-Bromofluorobenzene	0.100	0.11	110	50	158

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08071109-01
 RunID: HP_U_080724A-4590257 Units: mg/L
 Analysis Date: 07/24/2008 14:39 Analyst: WLV

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	1	0.955	90.9	1	0.893	84.8	6.65	36	36	140
Surr: 1,4-Difluorobenzene	ND	0.1	0.0996	99.6	0.1	0.0989	98.9	0.705	30	60	155
Surr: 4-Bromofluorobenzene	ND	0.1	0.112	112	0.1	0.110	110	0.991	30	50	158

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
 B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
 J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
 E - Estimated Value exceeds calibration curve
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
 TNTC - Too numerous to count

*Sample Receipt Checklist
And
Chain of Custody*



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TX 77054
 (713) 660-0901

Sample Receipt Checklist

Workorder:	08070664	Received By:	L_C
Date and Time Received:	7/11/2008 9:30:00 AM	Carrier name:	Fedex-Standard Overnight
Temperature:	3.5°C	Chilled by:	Water Ice

1. Shipping container/cooler in good condition? Yes No Not Present
2. Custody seals intact on shipping container/cooler? Yes No Not Present
3. Custody seals intact on sample bottles? Yes No Not Present
4. Chain of custody present? Yes No
5. Chain of custody signed when relinquished and received? Yes No
6. Chain of custody agrees with sample labels? Yes No
7. Samples in proper container/bottle? Yes No
8. Sample containers intact? Yes No
9. Sufficient sample volume for indicated test? Yes No
10. All samples received within holding time? Yes No
11. Container/Temp Blank temperature in compliance? Yes No
12. Water - VOA vials have zero headspace? Yes No VOA Vials Not Present
13. Water - Preservation checked upon receipt (except VOA*)? Yes No Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:

Client Instructions:

