CONESTOGA-ROVERS & ASSOCIATES

20818 44th Ave. West, Suite 190
Seattle, Washington 98036
Telephone: (425) 563-6500 Fax: (425) 563-6599
www.CRAworld.com

TRANSMITTAL

DATE: January 18, 2013

REFERENCE NO.: 241739

PROJECT NAME: 6808 196th Street SW, Lynnwood, WA

TO: Department of Ecology - NWRO
Attn: Sonia Fernandez
3190 160th Ave. SE
Bellevue, WA 98008-5452

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☒ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☐ Other

QUANTITY	DESCRIPTION
1	2012 Annual Groundwater Monitoring Report

- ☐ As Requested
- ☒ For Your Use
- ☐ For Review and Comment
- ☐
- ☐

COMMENTS:

Copy to: Mr. Perry Pineda, Shell Oil Products US (Livelink)
Bob Cahill, Heartland Automotive Services, Inc.

Completed by: Caren Warga
[Please Print]

Signed:

2012 ANNUAL GROUNDWATER MONITORING REPORT

FORMER JIFFY LUBE FACILITY
6808 196th STREET SOUTHWEST
LYNNWOOD, WASHINGTON

SAP CODE	**171152**
INCIDENT NO.	**97605410**
AGENCY NO.	**27496218**
VCP NO.	**NW2070**

Prepared by:
Conestoga-Rovers & Associates

20818 44th Avenue West,
Suite 190
Lynnwood, Washington
U.S.A. 98036

Office: 425-563-6500
Fax: 425-563-6599

web: www.CRAworld.com

JANUARY 18, 2013
REF. NO. 241739 (10)
This report is printed on recycled paper.

2012 ANNUAL GROUNDWATER MONITORING REPORT

FORMER JIFFY LUBE FACILITY
6808 196th STREET SOUTHWEST
LYNNWOOD, WASHINGTON

SAP CODE	**171152**
INCIDENT NO.	**97605410**
AGENCY NO.	**27496218**
VCP NO.	**NW2070**

Caren Warga

Christina McClelland

Prepared by:
Conestoga-Rovers & Associates

20818 44th Avenue West,
Suite 190
Lynnwood, Washington
U.S.A. 98036

Office: 425-563-6500
Fax: 425-563-6599

web: www.CRAworld.com

JANUARY 18, 2013
REF. NO. 241739 (10)
This report is printed on recycled paper.

TABLE OF CONTENTS

Page

LIST OF FIGURES
(Following Text)

LIST OF TABLES
(Following Text)

LIST OF APPENDICES

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (SOPUS). This annual report includes all groundwater monitoring data collected in 2012.

1.1 SITE INFORMATION

Site Address	6808 196th Street Southwest, Lynnwood
Site Use	Former Jiffy Lube Facility
Shell Project Manager	Perry Pineda
CRA Project Manager	Christina McClelland
Lead Agency and Contact	Washington State Department of Ecology (Ecology), Libby Goldstein
Agency Case No.	27496218
Shell SAP Code:	171152
Shell Incident No.	97605410
VCP No.	NW2070

The most recent agency correspondence on record is from March 5, 2009.

2.0 SITE ACTIVITIES, FINDINGS, AND DISCUSSION

2.1 CURRENT ACTIVITIES

Blaine Tech Services, Inc. (Blaine) gauged and sampled wells according to the established monitoring program for this site during the 4th quarter of 2012.

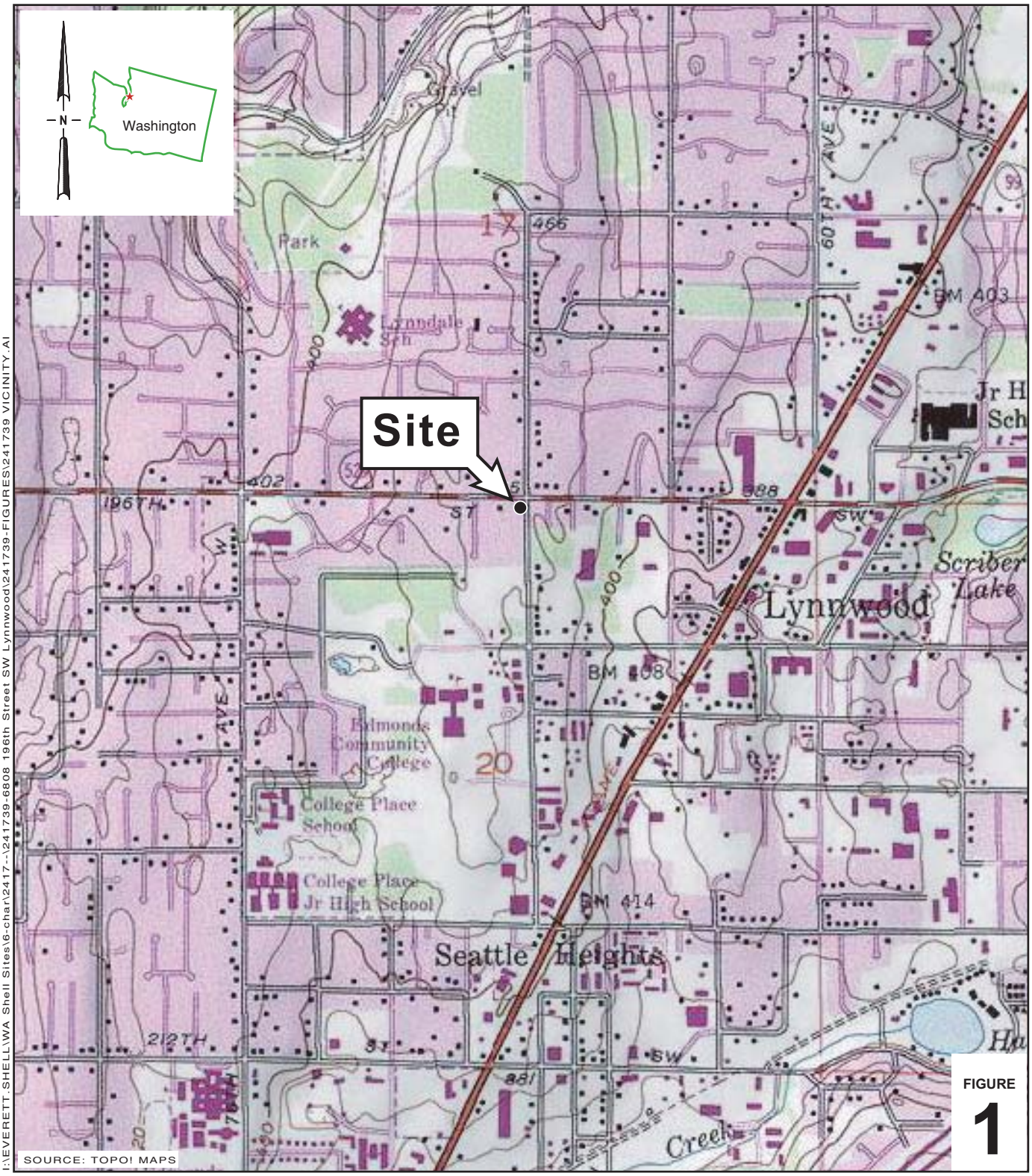
CRA prepared a vicinity map (Figure 1) and a groundwater contour and chemical concentration map (Figure 2). CRA prepared Table 1 summarizing groundwater monitoring data and laboratory analytical results. Field forms and the laboratory analytical report are included as Appendices A and B.

2.2 FINDINGS

Quarter/Date	4th/November 7, 2012
Groundwater Flow Direction	Estimated to the southwest
Hydraulic Gradient	0.02 feet/foot
Depth to Water	9.12 to 12.41 feet below top of well casing

FIGURES

02/03/10



I:\EVERETT.SHELL\WA Shell Sites\6-char\2417--\241739-6808 196th Street SW Lynnwood\241739-FIGURES\241739 VICINITY.AI

FIGURE
1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

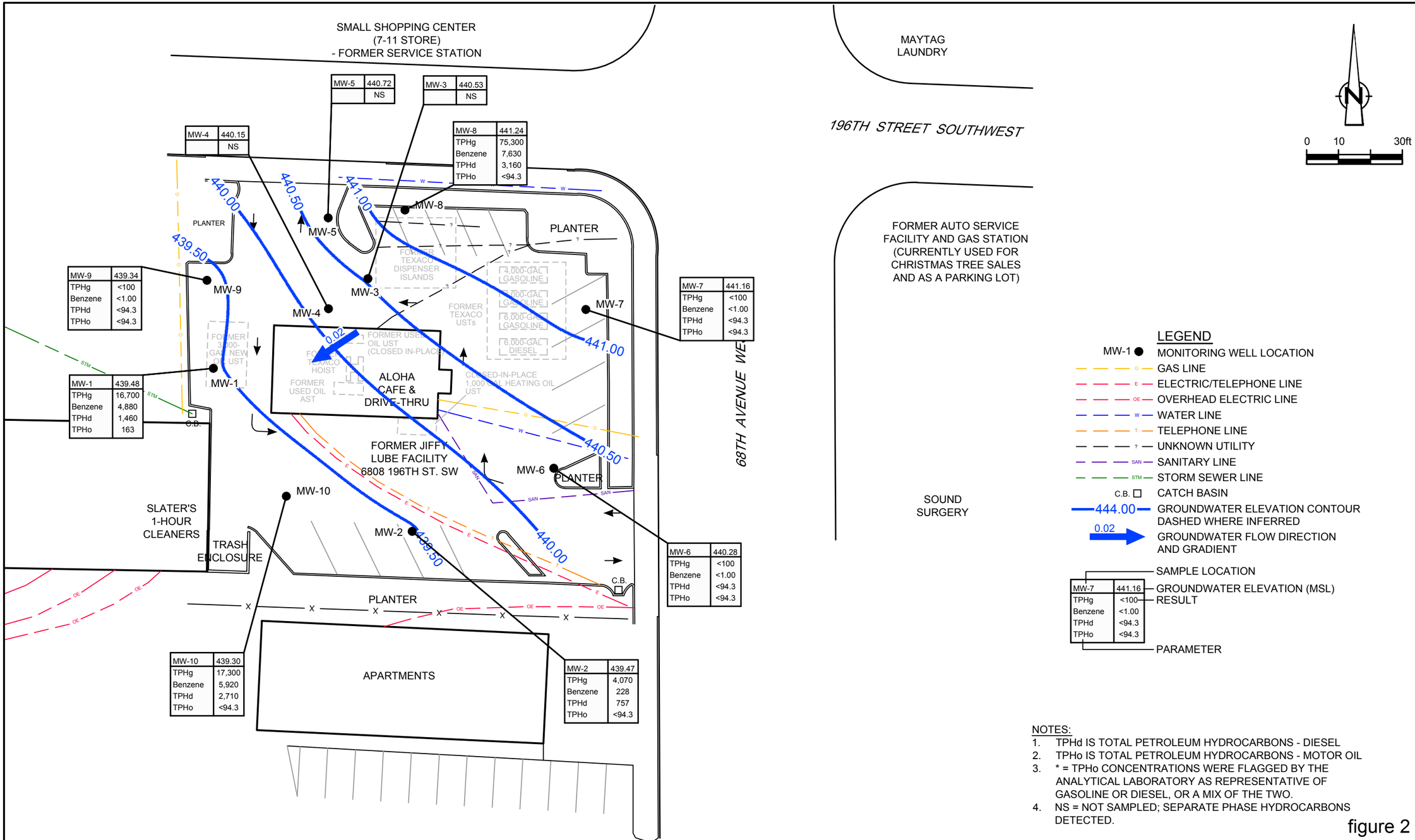
Former Jiffy Lube Facility

6808 196th Street Southwest

Lynnwood, Washington

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



MW-5	440.72
	NS

MW-3	440.53
	NS

MW-4	440.15
	NS

MW-8	441.24
TPHg	75,300
Benzene	7,630
TPHd	3,160
TPHo	<94.3

MW-9	439.34
TPHg	<100
Benzene	<1.00
TPHd	<94.3
TPHo	<94.3

MW-7	441.16
TPHg	<100
Benzene	<1.00
TPHd	<94.3
TPHo	<94.3

MW-1	439.48
TPHg	16,700
Benzene	4,880
TPHd	1,460
TPHo	163

MW-6	440.28
TPHg	<100
Benzene	<1.00
TPHd	<94.3
TPHo	<94.3

MW-10	439.30
TPHg	17,300
Benzene	5,920
TPHd	2,710
TPHo	<94.3

MW-2	439.47
TPHg	4,070
Benzene	228
TPHd	757
TPHo	<94.3

NOTES:
1. TPHd IS TOTAL PETROLEUM HYDROCARBONS - DIESEL
2. TPHo IS TOTAL PETROLEUM HYDROCARBONS - MOTOR OIL
3. * = TPHo CONCENTRATIONS WERE FLAGGED BY THE ANALYTICAL LABORATORY AS REPRESENTATIVE OF GASOLINE OR DIESEL, OR A MIX OF THE TWO.
4. NS = NOT SAMPLED; SEPARATE PHASE HYDROCARBONS DETECTED.

figure 2

GROUNDWATER CONTOUR AND CHEMICAL CONCENTRATION MAP - NOVEMBER 7, 2012
FORMER JIFFY LUBE FACILITY
6808 196TH STREET SOUTHWEST
Lynnwood, Washington

BASEMAP MODIFIED FROM DRAWING PROVIDED BY GEOENGINEERS AND DUNCANSON CO., INC. SURVEYING

241739-95(010)GN-WA001 JAN 2/2013

TABLES

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER JIFFY LUBE FACILITY
6808 196TH STREET SOUTHWEST,
LYNNWOOD, WASHINGTON

						HYDROCARBONS			*PRIMARY VOCs*						*OXYGENATES*					*LEAD*
Sample ID	*Date*	*TOC*	*DTW*	*SPH Thickness*	*GWE*	*TPHg*	*TPHd*	*TPHo*	*B*	*T*	*E*	*X*	*EDB*	*EDC*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Total*
	Model Toxics Control Act Method A Cleanup Levels					800/1000 (ug/L)	500 (ug/L)	500 (ug/L)	5 (ug/L)	1000 (ug/L)	700 (ug/L)	1000 (ug/L)	0.01 (ug/L)	5 (ug/L)	20 (ug/L)	NE (ug/L)	NE (ug/L)	NE (ug/L)	NE (ug/L)	15 (ug/L)
MW-1	12/28/06	451.74	9.75	0.00	441.99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	12/29/06	451.74	9.57	0.00	442.17	**42,100**	<255	<510 m	**9,190**	**2,140**	**1,090**	**4,100**	---	---	---	---	---	---	---	---
MW-1	02/15/07	451.74	10.10	0.00	441.64	**41,200**	<269	<538 m	**9,230**	**1,840**	**938**	**3,710**	---	---	<5.00	54.6	<1.00	<1.00	<1.00	---
MW-1	04/06/07	451.74	10.71	0.00	441.03	**30,200**	<258	<515 m	**7,450**	732	**718**	**2,310**	---	---	---	---	---	---	---	---
MW-1	07/09/07	451.74	10.78	0.00	440.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	07/28/07	451.74	11.01	0.00	440.73	**5,850**	<258	<515 m	**2,400**	32.4	131	190	---	---	---	---	---	---	---	---
MW-1	10/01/07	451.74	13.98	0.00	437.76	**23,900**	**1,540 f,g**	<105	**6,270**	196	653	**1,340**	---	---	---	---	---	---	---	---
MW-1	01/10/08	451.74	9.43	0.00	442.31	**73,000**	<243	<485	**16,500**	**4,010**	**1,610**	**6,790**	---	---	---	---	---	---	---	---
MW-1	07/10/08	451.74	10.81	0.00	440.93	800	**1,400**	<300	**280**	13	2	33	---	---	---	---	---	---	---	---
MW-1	01/06/09	451.74	10.16	0.00	441.58	<100	190	<380	1	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---
MW-1 *	07/13/09	451.74	11.14	0.00	440.60	**7,500**	**2,800 j**	<100	**1,200**	60	220	470	<0.010	<0.29	---	---	---	---	---	3.33
MW-1	07/29/10	451.74	11.10	0.00	440.64	---	320 j	110	**32**	2.9	17	48	---	---	---	---	---	---	---	---
MW-1	01/20/11	451.74	9.59	0.00	442.15	---	**2,550 p**	**725 q**	**13,400**	**3,950**	**1,700**	**7,240**	---	---	<1.00	132	<1.00	<1.00	<1.00	---
MW-1	11/07/12	451.74	12.26	0.00	439.48	**16,700**	**1,460**	163	**4,880**	361	525	**1,530**	---	---	---	---	---	---	---	---
MW-2	12/28/06	450.59	7.26	0.00	443.33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	12/29/06	450.59	7.35	0.00	443.24	**2,640**	<253	<505 m	**21.7**	6.75	55.1	9.91	---	---	---	---	---	---	---	---
MW-2	02/15/07	450.59	8.03	0.00	442.56	249	<278	<556 m	2.06	<0.500	4.36	<1.00	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---
MW-2	04/06/07	450.59	8.50	0.00	442.09	180	<258	<515 m	1.83	0.518	2.61	<1.00	---	---	---	---	---	---	---	---
MW-2	07/09/07	450.59	8.62	0.00	441.97	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	07/28/07	450.59	8.96	0.00	441.63	**3,200**	<255	<510 m	**66.1**	7.86	137	20.4	---	---	---	---	---	---	---	---
MW-2	10/01/07	450.59	12.54	0.00	438.05	**3,980**	**1,080 g,h**	<105	**175**	13.7	331	47.4	---	---	---	---	---	---	---	---
MW-2	01/10/08	450.59	7.88	0.00	442.71	**5,000**	<243	<485	**214**	9.85	502	71.0	---	---	---	---	---	---	---	---
MW-2	07/10/08	450.59	9.98	0.00	440.61	540	<500	<200	4.9	<1	9.4	<1	---	---	---	---	---	---	---	---
MW-2	01/06/09	450.59	8.18	0.00	442.41	**9,200**	<100	<100	**390**	16	**840**	62.0	---	---	<10	<100	<20	<20	<20	---
MW-2	07/13/09	450.59	10.66	0.00	439.93	320	210 j	<100	3.8	<1.0	3.3	<1.0	<0.010	<0.50	---	---	---	---	---	<1.00
MW-2	07/29/10	450.59	10.31	0.00	440.28	---	200 j	<100	2.1	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---
MW-2	01/20/11	450.59	7.11	0.00	443.48	---	**689 r**	402 q	**25.1**	<1.00	54.4	5.42	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---
MW-2	11/07/12	450.59	11.12	0.00	439.47	**4,070**	**757**	<94.3	**228**	4.99	125	40.3	---	---	---	---	---	---	---	---
MW-3	12/28/06	451.69	8.45	0.00	443.24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/29/06	451.69	8.51	0.00	443.18	**171,000**	**608**	<510 m	**28,500**	**29,200**	**2,950**	**15,900**	---	---	---	---	---	---	---	---
MW-3	02/15/07	451.69	9.09	0.00	442.60	**263,000 a, b**	**2,580 c**	<2,750 m	**29,200**	**37,400**	**3,140**	**18,600**	---	---	<500 m	<5,000	<100	<100	<100	---
MW-3	04/06/07	451.69	9.66	0.00	442.03	**214,000**	**867 c**	<495	**26,600**	**37,500**	**2,850**	**16,800**	---	---	---	---	---	---	---	---
MW-3	07/09/07	451.69	9.81	0.00	441.88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/28/07	451.69	10.13	0.00	441.56	**248,000**	**8,340 e**	<5.050 m	**28,600**	**37,400**	**2,810**	**12,800**	---	---	---	---	---	---	---	---
MW-3	10/01/07	451.69	13.96	0.00	437.73	**252,000**	**185,000 g,h**	<10,500 m	**29,300**	**35,200**	**3,260**	**19,300**	---	---	---	---	---	---	---	---
MW-3	01/10/08	451.69	9.34	0.02	442.37 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/14/08	451.69	9.06	0.00	442.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/21/08	451.69	8.27	0.00	443.42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/26/08	451.69	8.40	0.01	443.30 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/10/08	451.69	9.02	0.02	442.69 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER JIFFY LUBE FACILITY
6808 196TH STREET SOUTHWEST,
LYNNWOOD, WASHINGTON

						HYDROCARBONS			*PRIMARY VOCs*						*OXYGENATES*					*LEAD*
Sample ID	*Date*	*TOC*	*DTW*	*SPH Thickness*	*GWE*	*TPHg*	*TPHd*	*TPHo*	*B*	*T*	*E*	*X*	*EDB*	*EDC*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Total*
	Model Toxics Control Act Method A Cleanup Levels					800/1000 (ug/L)	500 (ug/L)	500 (ug/L)	5 (ug/L)	1000 (ug/L)	700 (ug/L)	1000 (ug/L)	0.01 (ug/L)	5 (ug/L)	20 (ug/L)	NE (ug/L)	NE (ug/L)	NE (ug/L)	NE (ug/L)	15 (ug/L)
MW-3	08/26/08	451.69	9.55	0.02	442.16 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/22/08	451.69	10.00	0.03	441.71 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/06/09	451.69	8.47	0.02	443.24 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/29/10	451.69	9.21	0.03	442.50 d	NOT SAMPLED - SPH PRESENT														
MW-3	01/20/11	451.69	7.60	0.00	444.09 d	---	**87,800 r**	**7,690 s**	**12,100**	**23,200**	**3,020**	**19,700**	---	---	<1.00	101	1.24	<1.00	<1.00	---
MW-3	11/07/12	451.69	11.28	0.15	440.53 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/28/06	452.01	9.41	0.00	442.60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/29/06	452.01	9.36	0.00	442.65	**207,000**	**1,810**	<510 m	**32,400**	**39,700**	**3,200**	**18,800**	---	---	---	---	---	---	---	---
MW-4	02/15/07	452.01	9.96	0.00	442.05	**253,000 a, b**	**72,100 c**	<50,000 m	**31,500 a, b**	**40,500 a, b**	**2,990 a, b**	**18,100 a, b**	---	---	<500 m	<5,000	<100	<100	<100	---
MW-4	04/06/07	452.01	10.41	0.04	441.63 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/09/07	452.01	10.47	0.03	441.56 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/28/07	452.01	10.81	0.04	441.23 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-4	10/01/07	452.01	14.24	0.13	437.87 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-4	11/12/07	452.01	13.83	0.16	438.31 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	11/20/07	452.01	13.68	0.14	438.44 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	11/26/07	452.01	13.52	0.11	438.58 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/08/07	452.01	12.87	0.10	439.22 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/14/08	452.01	12.41	0.07	439.66 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/19/07	452.01	12.33	0.05	439.72 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/28/07	452.01	12.24	0.04	439.80 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/10/08	452.01	9.61	0.03	442.42 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/14/08	452.01	9.23	0.02	442.80 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/21/08	452.01	8.07	0.03	443.96 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/26/08	452.01	9.03	0.03	443.00 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/10/08	452.01	9.71	0.14	442.41 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-4	08/26/08	452.01	10.52	0.24	441.68 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/22/08	452.01	11.01	0.34	441.27 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/06/09	452.01	9.24	0.02	442.79 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/29/10	452.01	9.81	0.02	442.22 d	NOT SAMPLED - SPH PRESENT														
MW-4	01/20/11	452.01	8.11	0.00	443.90 d	---	**313,000 t**	<9,520 m	**12,800**	**28,700**	**3,180**	**21,200**	---	---	<1.00	61.8	<1.00	<1.00	<1.00	---
MW-4	11/07/12	452.01	11.98	0.15	440.15 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/28/06	451.38	8.11	---	443.27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/29/06	451.38	8.17	---	443.21	**122,000**	**603**	<515 m	**7,220**	**24,400**	**2,280**	**13,200**	---	---	---	---	---	---	---	---
MW-5	02/15/07	451.38	8.49	---	442.89	**771,000 a, b**	**49,200 c**	<5,000 m	**12,800 a, b**	**43,600 a, b**	**6,000 a, b**	**40,700 a, b**	---	---	<500 m	<5,000	<100	<100	<100	---
MW-5	04/06/07	451.38	9.08	0.03	442.32 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-5	07/09/07	451.38	9.19	0.03	442.21 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	07/28/07	451.38	9.58	0.04	441.83 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-5	10/01/07	451.38	13.16	0.08	438.28 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-5	11/12/07	451.38	12.74	0.06	438.69 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	11/20/07	451.38	12.55	0.08	438.89 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER JIFFY LUBE FACILITY
6808 196TH STREET SOUTHWEST,
LYNNWOOD, WASHINGTON

						HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD
Sample ID	*Date*	*TOC*	*DTW*	*SPH Thickness*	*GWE*	*TPHg*	*TPHd*	*TPHo*	*B*	*T*	*E*	*X*	*EDB*	*EDC*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Total*
	Model Toxics Control Act Method A Cleanup Levels					800/1000 (ug/L)	500 (ug/L)	500 (ug/L)	5 (ug/L)	1000 (ug/L)	700 (ug/L)	1000 (ug/L)	0.01 (ug/L)	5 (ug/L)	20 (ug/L)	NE (ug/L)	NE (ug/L)	NE (ug/L)	NE (ug/L)	15 (ug/L)
MW-5	11/26/07	451.38	12.48	0.06	438.95 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/05/07	451.38	11.74	0.10	439.72 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/14/07	451.38	11.53	0.06	439.90 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/19/07	451.38	11.41	0.04	440.00 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/28/07	451.38	11.29	0.04	440.12 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/10/08	451.38	8.70	0.02	442.70 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/14/08	451.38	8.70	0.00	442.68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/21/08	451.38	8.00	0.20	443.54 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	02/26/08	451.38	8.02	0.17	443.50 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	07/10/08	451.38	8.68	0.34	442.97 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-5	08/26/08	451.38	8.86	0.26	442.73 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/22/08	451.38	9.18	0.20	442.36 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	01/06/09	451.38	7.80	0.02	443.60 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-5	07/29/10	451.38	8.72	0.02	442.68 d	NOT SAMPLED - SPH PRESENT														
MW-5	01/20/11	451.38	7.22	0.00	444.16 d	---	**327,000 t**	**10,900 s**	**3,710**	**16,200**	**2,690**	**15,800**	---	---	<1.00	45.4	<1.00	<1.00	<1.00	---
MW-5	11/07/12	451.38	11.05	0.49	440.72 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-6	07/09/07	449.40	8.33	0.00	441.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	07/28/07	449.40	8.61	0.00	440.79	52.4	<253	<505 m	<0.500	1.25	<0.500	<1.00	---	---	---	---	---	---	---	---
MW-6	10/01/07	449.40	12.22	0.00	437.18	<250	<105	<105	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---
MW-6	01/10/08	449.40	7.86	0.00	441.54	<50.0	<250	<500	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---	---	---	---
MW-6	07/10/08	449.40	7.87	0.00	441.53	<50	<500	<200	<1	<1	<1	<1	---	---	---	---	---	---	---	---
MW-6	01/06/09	449.40	6.10	0.00	443.30	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---
MW-6	07/13/09	449.40	8.47	0.00	440.93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.00
MW-6	07/29/10	449.40	8.17	0.00	441.23	---	<100	190	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---
MW-6	01/20/11	449.40	5.71	0.00	443.69	---	201 s	472 s	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---
MW-6	11/07/12	449.40	9.12	0.00	440.28	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---
MW-7	07/09/07	450.14	7.81	0.00	442.33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	07/28/07	450.14	8.03	0.00	442.11	<50.0	<253	<495	<0.500	<0.500	<0.500	<1.00	---	---	---	---	---	---	---	---
MW-7	10/01/07	450.14	11.71	0.00	438.43	<250	<111	<111	1.78	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---
MW-7	01/10/08	450.14	7.32	0.00	442.82	51.2	<250	<500	**68.4**	1.26	79.7	110	---	---	---	---	---	---	---	---
MW-7	07/10/08	450.14	7.27	0.00	442.87	<50	<500	<200	<1	<1	<1	<1	---	---	---	---	---	---	---	---
MW-7	01/06/09	450.14	7.07	0.00	443.07	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---
MW-7	07/13/09	450.14	7.70	0.00	442.44	---	---	---	2.7	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	<1.00
MW-7	07/29/10	450.14	7.69	0.00	442.45	---	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---
MW-7	01/20/11	450.14	5.40	0.00	444.74	---	119 u	174 u	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---
MW-7	11/07/12	450.14	8.98	0.00	441.16	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---
MW-8	07/09/07	451.31	8.63	0.00	442.68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	07/28/07	451.31	8.97	0.00	442.34	**266,000**	**8,580 e**	<5,210 m	**20,500**	**43,600**	**3,550**	**23,000**	---	---	---	---	---	---	---	---
MW-8	10/01/07	451.31	12.58	0.00	438.73	**181,000**	**6,540 g, i**	<1,110 m	**18,000**	**32,000**	**2,250**	**14,900**	---	---	---	---	---	---	---	---

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER JIFFY LUBE FACILITY
6808 196TH STREET SOUTHWEST,
LYNNWOOD, WASHINGTON

						HYDROCARBONS			*PRIMARY VOCs*						*OXYGENATES*					*LEAD*
Sample ID	***Date***	***TOC***	***DTW***	***SPH Thickness***	***GWE***	***TPHg***	***TPHd***	***TPHo***	***B***	***T***	***E***	***X***	***EDB***	***EDC***	***MTBE***	***TBA***	***DIPE***	***ETBE***	***TAME***	***Total***
	Model Toxics Control Act Method A Cleanup Levels					800/1000 (ug/L)	500 (ug/L)	500 (ug/L)	5 (ug/L)	1000 (ug/L)	700 (ug/L)	1000 (ug/L)	0.01 (ug/L)	5 (ug/L)	20 (ug/L)	NE (ug/L)	NE (ug/L)	NE (ug/L)	NE (ug/L)	15 (ug/L)
MW-8	01/10/08	451.31	8.16	0.00	443.15	**202,000**	**9,190 c**	<4,850 m	**13,400**	**29,600**	**2,200**	**14,000**	---	---	---	---	---	---	---	---
MW-8	07/10/08	451.31	8.14	0.01	443.18 d	NOT SAMPLED - SPH PRESENT			---	---	---	---	---	---	---	---	---	---	---	---
MW-8	08/26/08	451.31	8.30	0.02	443.03 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	09/22/08	451.31	8.80	0.01	442.52 d	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	01/06/09	451.31	7.90	0.00	443.41	**22,000**	**6,900**	440	**2,700**	**6,300**	390	**4,300**	---	---	<20	<200	<40	<40	<40	---
MW-8	07/29/10	451.31	7.92	0.00	443.39	---	**5,300 j**	**2,000 j**	**18,000**	**40,000**	**17,000**	**110,000**	---	---	---	---	---	---	---	---
MW-8	01/20/11	451.31	7.73	0.00	443.58	---	**6,570 r**	**1,550 s**	**13,800**	**31,500**	**3,290**	**21,900**	---	---	<1.00	128	<1.00	<1.00	<1.00	---
MW-8	11/07/12	451.31	10.07	0.00	441.24	**75,300**	**3,160**	<94.3	**7,630**	**15,200**	**1,140**	**6,120**	---	---	---	---	---	---	---	---
MW-9	07/09/07	451.75	10.83	0.00	440.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9	07/28/07	451.75	11.02	0.00	440.73	<50.0	<248	<495	<0.500	<0.500	<0.500	<1.00	---	---	---	---	---	---	---	---
MW-9	10/01/07	451.75	14.07	0.00	437.68	299	174 f,g	<111	**5.52**	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---
MW-9	01/10/08	451.75	9.76	0.00	441.99	<50.0	<238	<476	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---	---	---	---
MW-9	07/10/08	451.75	9.71	0.00	442.04	<50	<500	<1,000 m	<1	<1	<1	<1	---	---	---	---	---	---	---	---
MW-9	01/06/09	451.75	9.35	0.00	442.40	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---
MW-9	07/13/09	451.75	9.94	0.00	441.81	---	---	---	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	<1.00
MW-9	07/29/10	451.75	9.80	0.00	441.95	---	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---
MW-9	01/20/11	451.75	8.81	0.00	442.94	---	141 s	463 s	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---
MW-9	11/07/12	451.75	12.41	0.00	439.34	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---
MW-10	07/09/07	451.43	12.44	0.00	438.99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	07/28/07	451.43	12.77	0.00	438.66	**6,570**	307 c	<505 m	**299**	179	237	615	---	---	---	---	---	---	---	---
MW-10	10/01/07	451.43	14.87	0.00	436.56	**27,100**	**1,820 g,i**	<556 m	**1,510**	**1,220**	**1,210**	**2,650**	---	---	---	---	---	---	---	---
MW-10	01/10/08	451.43	10.52	0.00	440.91	**11,400**	<248	<495	**316**	237	**842**	604	---	---	---	---	---	---	---	---
MW-10	07/10/08	451.43	11.69	0.00	439.74	**1,400**	<500	<1,000 m	**1,400**	**1,200**	**710**	**2,310**	---	---	---	---	---	---	---	---
MW-10	01/06/09	451.43	10.11	0.00	441.32	**29,000**	120	<100	**4,800**	**1,400**	**1,800**	**5,100**	---	---	<10	<100	<20	<20	<20	---
MW-10 *	07/13/09	451.43	12.31	0.00	439.12	**4,800**	<100	<100	**1,600**	260	190	**1,000**	<0.010	<1.5	---	---	---	---	---	1.02
MW-10	07/29/10	451.43	11.86	0.00	439.57	---	<100	<100	**240**	9.9	45	89	---	---	---	---	---	---	---	---
MW-10	01/20/11	451.43	8.12	0.00	443.31	---	**707 r**	394 q	**938**	16.6	108	115	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---
MW-10	11/07/12	451.43	12.13	0.00	439.30	**17,300**	**2,710**	<94.3	**5,920**	78.3	594	**1,060**	---	---	---	---	---	---	---	---
SB-3 n	05/10/10	---	---	0.00	---	360	**1,600 j**	<100	**170**	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---
SB-4 n	05/10/10	---	---	0.00	---	180	**2,400 j**	<100	<0.5	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---

Notes:

DTW = Depth to Water in feet
GWE = Groundwater Elevation in feet above mean sea level
TOC = Top of Casing in feet above mean sea level
SPH = Separate Phase Hydrocarbons
MTCA = Model Toxics Control Act
All results in micrograms per liter (µg/L) unless otherwise indicated.
TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH-Gx unless otherwise noted. The higher value is based on the assumption that

TABLE 1

SUMMARY OF GROUNDWATER MONITORING DATA
FORMER JIFFY LUBE FACILITY
6808 196TH STREET SOUTHWEST,
LYNNWOOD, WASHINGTON

						HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD
Sample ID	*Date*	*TOC*	*DTW*	*SPH Thickness*	*GWE*	*TPHg*	*TPHd*	*TPHo*	*B*	*T*	*E*	*X*	*EDB*	*EDC*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Total*
Model Toxics Control Act Method A Cleanup Levels						800/1000	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15
						(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)

no benzene is present in the groundwater sample. If any detectable amount of benzene is present in the groundwater sample, then the lower TPHg cleanup level is applicable.
TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH-Dx with silica gel cleanup unless otherwised noted.
TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH-Dx with silica gel cleanup unless otherwised noted.
VOCs = Volatile organic compounds
BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.
Xylenes = o-xylene + m,p-xylene
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B
EDB = 1,2-Dibromoethane analyzed by EPA Method 8011
EDC = 1,2-Dichloroethane 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
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
Total Lead analyzed by EPA Method 6020 unless otherwise noted.
<x = Not detected at laboratory reporting limit x
NE = Not established
--- = Not analyzed
Concentrations in bold type indicate the analyte was detected above MTCA Method A cleanup levels
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 reported 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)+ (SPHT*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.
j = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard.
m = The laboratory reporting limit exceeded the MTCA Method A cleanup level.
n = Grab groundwater sample taken from temporary well. Sample ID is abbreviated from *GW-241739-051010-HB-[Unique ID]* .
p = The hydrocarbon pattern most closely resembles a gasoline & diesel product.
q = The hydrocarbon pattern most closely resembles a diesel product.
r = The hydrocarbon pattern most closely resembles a gasoline product.
s = The contamination did not match any standards in the laboratory's library.
t = The hydrocarbon pattern most closely resembles a gasoline & mineral spirits product.
u = There was insufficient contamination present to perform a pattern match.

* = Sample also analyzed for one or more of the following: carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by EPA Method 8270C-SIM, polychlorinated biphenyls (PCBs) by EPA Method 8082, and halogenated volatile organic compounds (HVOCs) by EPA Method 8260B. For those constituents analyzed, no concentrations exceeded the laboratory MDL. Please see applicable laboratory report(s) for more information.

APPENDIX A

FIELD FORMS

WELL GAUGING DATA

Project # 121107-LB1 Date 11/7/12 Client CRA

Site 6808 196TH ST SW, LYNNWOOD, WA

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	0705	2					12.26	24.67		
MW-2	0700	2					11.12	17.36		
MW-3	0706	2	ODOR	11.13	0.15		11.28	—		
MW-4	0725	2	ODOR	11.83	0.15		11.98	—		
MW-5	0719	2	ODOR	10.56	0.49		11.05	—		
MW-6	0645	2		~			9.12	19.35		
MW-7	0654	2					8.98	19.52		
MW-8	0714	2	ODOR				10.07	18.75		
MW-9	0649	2					12.41	19.89		
MW-10	0710	2					12.13	20.03	↓	

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LBJ	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-1	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 24.67	Depth to Water (ft.): 12.26
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 1019 Flow Rate: 100 mL/MIN Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1025	15.62	7.26	649	18	1.11	-38.7	600	12.31
1028	15.71	7.28	633	15	0.91	-41.3	900	12.34
1031	15.79	7.26	633	13	0.89	-42.0	1200	12.36
1034	15.77	7.25	631	12	0.88	-43.4	1500	12.39
1037	15.76	7.25	631	10	0.87	-44.6	1800	12.42

Did well dewater? Yes (No) Amount actually evacuated: 1.8L

Sampling Time: 1038 Sampling Date: 11/7/12

Sample I.D.: GW-241739-110712-LB-MW-1 Laboratory: TA

Analyzed for: (TPH-G) BTEX MTBE (TPH-D) Other: SEE COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LB1	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-2	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 17.36	Depth to Water (ft.): 11.12
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 0939 Flow Rate: 100 mL/MIN Pump Depth: 13.5'

Time	Temp. (C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0945	14.44	7.24	697	78	1.48	-20.3	600	11.22
0948	14.73	7.28	705	61	1.23	-27.8	900	11.25
0951	14.74	7.29	703	58	0.99	-30.0	1200	11.28
0954	14.74	7.30	702	55	0.98	-31.3	1500	11.30
0957	14.75	7.31	703	53	0.97	-32.4	1800	11.32

Did well dewater? Yes (No) Amount actually evacuated: 1.8 L

Sampling Time: 0958 Sampling Date: 11/7/12

Sample I.D.: GW-241739-110712-LB-MW-2 Laboratory: TA

Analyzed for: (TPH-G) BTEX MTBE (TPH-D) Other: SEE COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LBI	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-3	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): ———	Depth to Water (ft.): 11.28
Depth to Free Product: 11.13	Thickness of Free Product (feet): 0.15
Referenced to: (PVC) Grade	Flow Cell Type: ____

Purge Method: 2" Grundfos Pump / Peristaltic Pump / Bladder Pump
Sampling Method: Dedicated Tubing / New Tubing / Other ____

Start Purge Time: ____ Flow Rate: ____ Pump Depth: ____

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
———	———	———	0.15'	OF SPH	DETECTED	———	———	———
			W/	INTERFACE	PROBE			
———	———	———	No	SAMPLE	TAKEN	———	———	

Did well dewater? Yes No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LB1	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-4	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): ———	Depth to Water (ft.): 11.98
Depth to Free Product: 11.83	Thickness of Free Product (feet): 0.15
Referenced to: PVC Grade	Flow Cell Type: _____

Purge Method: 2" Grundfos Pump / Peristaltic Pump / Bladder Pump
Sampling Method: Dedicated Tubing / New Tubing / Other _____
Start Purge Time: _____ Flow Rate: _____ Pump Depth: _____

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
———	———	0.15'	OF	SPH	DETECTED		———	
			W/	INTERFACE	PROBE			
———	———	———	No	SAMPLE	TAKEN	———	———	

Did well dewater? Yes No — Amount actually evacuated:
Sampling Time: — Sampling Date:
Sample I.D.: — Laboratory:
Analyzed for: TPH-G BTEX MTBE TPH-D — Other:
Equipment Blank I.D.: @ Time — Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LB1	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-5	Well Diameter (in.): Ø 3 4 6 8 ____
Total Well Depth (ft.): ———	Depth to Water (ft.): 11.05
Depth to Free Product: 10.56	Thickness of Free Product (feet): 0.49
Referenced to: PVC Grade	Flow Cell Type: ———

Purge Method: 2" Grundfos Pump / Peristaltic Pump / Bladder Pump
Sampling Method: Dedicated Tubing / New Tubing / Other ____

Start Purge Time: ____ Flow Rate: ____ Pump Depth: ____

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
———	———	0.49'	OF	SPH	DETECTED		———	———
			W/	INTERFACE	PROBE			
———	———	———	No	SAMPLE	TAKEN	———	———	———

Did well dewater? Yes No — Amount actually evacuated:

Sampling Time: — Sampling Date:

Sample I.D.: — Laboratory:

Analyzed for: TPH-G BTEX MTBE TPH-D — Other:

Equipment Blank I.D.: @ Time — Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LB1	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-6	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 19.35	Depth to Water (ft.): 9.12
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 0737 Flow Rate: 100 ML / MIN Pump Depth: 11.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0743	15.56	6.93	594	28	1.46	19.8	600	9.23
0746	15.62	7.01	594	21	1.41	16.2	900	9.25
0749	15.64	7.06	593	16	1.37	13.8	1200	9.28
0752	15.63	7.07	592	15	1.36	12.7	1500	9.31
0755	15.64	7.08	591	13	1.35	11.4	1800	9.33

Did well dewater? Yes (NO)	Amount actually evacuated: 1.8L
Sampling Time: 0756	Sampling Date: 11/7/12
Sample I.D.: GW-241739-110712-LB-MW-6	Laboratory: TA
Analyzed for: TPH-G (BTEX) MTBE TPH-D	Other: SEE COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LB1	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-7	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 19.52	Depth to Water (ft.): 8.98
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 0858 Flow Rate: 100 mL/MIN Pump Depth: 11.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0904	14.51	7.02	439	118	0.89	23.9	600	9.07
0907	14.77	7.05	437	98	0.88	20.8	900	9.09
0910	14.74	7.04	434	81	0.81	18.5	1200	9.11
0913	14.74	7.03	431	78	0.80	17.4	1500	9.13
0916	14.74	7.02	430	76	0.79	16.8	1800	9.14

Did well dewater? Yes (No) Amount actually evacuated: 1.8 L

Sampling Time: ~~0914~~ LB 0917 Sampling Date: 11/7/12

Sample I.D.: GW-2411739-110712-LB-MW-9 Laboratory: TA

Analyzed for: (TPH-G) BTEX MTBE (TPH-D) Other: SEE COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LBI	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-8	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 18.75	Depth to Water (ft.): 10.07
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 1133 Flow Rate: 100 mL/min Pump Depth: 13'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1139	14.91	7.05	694	118	0.98	-17.5	600	10.11
1142	14.96	7.11	695	110	0.78	-21.0	900	10.14
1145	14.95	7.13	696	111	0.76	-25.4	1200	10.16
1148	14.96	7.14	697	110	0.75	-26.8	1500	10.19
1151	14.96	7.15	698	109	0.74	-27.4	1800	10.22

Did well dewater? Yes (No)	Amount actually evacuated: 1.8L
Sampling Time: 1152	Sampling Date: 11/7/12
Sample I.D.: GW-241739-110712-LB-MW-8	Laboratory: TA
Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D)	Other: See COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LB1	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-9	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 19.89	Depth to Water (ft.): 12.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 0819 Flow Rate: 100 ML/MIN Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL.)	Depth to Water (ft.)
0825	15.46	6.99	557	18	1.52	38.2	600	12.49
0828	15.59	7.01	529	11	1.49	33.2	900	12.52
0831	15.61	7.01	526	10	1.47	32.7	1200	12.54
0834	15.60	7.02	525	9	1.46	31.4	1500	12.57
0837	15.59	7.02	524	9	1.44	30.6	1800	12.59

Did well dewater? Yes (No)	Amount actually evacuated: 1.8L
Sampling Time: 0838	Sampling Date: 11/7/12
Sample I.D.: GW-241739-110712-LB-MW-9	Laboratory: TA
Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D)	Other: see COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 121107-LB1	Client: CRA
Sampler: LB	Gauging Date: 11/7/12
Well I.D.: MW-10	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 20.03	Depth to Water (ft.): 12.13
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated Tubing | New Tubing | Other ____

Start Purge Time: 1057 Flow Rate: 100 mL/min Pump Depth: 14.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1103	15.11	7.14	746	15	1.23	-12.1	600	12.18
1106	15.25	7.15	749	10	1.02	-13.8	900	12.21
1109	15.32	7.14	752	9	6.97	-14.4	1200	12.23
1112	15.33	7.14	753	9	0.95	-15.6	1500	12.26
1115	15.31	7.14	755	10	0.93	-16.3	1800	12.27

Did well dewater? Yes (No) Amount actually evacuated: 1.8L

Sampling Time: 1116 Sampling Date: 11/7/12

Sample I.D.: GW-241739-110712-LB-MW-10 Laboratory: TA

Analyzed for: (TPH-G) (BTEX) MTBE (TPH-D) Other: SVOC

Equipment Blank I.D.: @ Time Duplicate I.D.:

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- ☐ CALSCIENCE (_____)
- ☐ SPL Houston (_____)
- ☐ XENCO (_____)
- ☑ TEST AMERICA (_____)
- ☐ OTHER (_____)

Please Check Appropriate Box:
☐ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CH ☑ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Christina McClelland - 241739.2012.02

INCIDENT # (ENV SERVICES): 9 7 6 0 5 4 1 0 ☐ CHECK IF NO INCIDENT # APPLIES

PO #:

SAP #: 1 7 1 1 5 2

DATE: 11/7/12

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services

LOG CODE:

ADDRESS: 20735 Belshaw Avenue, Carson, CA 90746

PROJECT CONTACT (Hardcopy or PDF Report to): Lorin King

TELEPHONE: (310) 885-4455 x 108

FAX: (310) 637-5802

E-MAIL: lking@blainetech.com

SITE ADDRESS: Street and City: 6808 196th St. SW, Lynnwood

State: WA

GLOBAL ID NO.: NA

EDF DELIVERABLE TO (Name, Company, Office Location): CRA, Seattle, WA

PHONE NO.: 425-563-6500

E-MAIL: Shell-US-LabDataManagement@CRAworld.com

CONSULTANT PROJECT NO.: 112107-LB)

SAMPLER NAME(S) (Print): LEE BURES

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☒ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES:
1) Please upload the "CRA EQuIS 4-file EDD" to the CRA Website (http://cralabeddupload.craworld.com/equis/default.aspx) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder. 2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

Copy final report to Shell.Lab.Billing@craworld.com, Shell.results@craworld.com, and Shell-US-LabDataManagement@CRAworld.com

Email invoice to Shell.Lab.Billing@craworld.com
See Laboratory PM for WA Dept. of Ecology MTCA Method A cleanup levels for minimum detection limits.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED

Matrix Codes - WG (groundwater), WS (surface water), WP (drinking water source), W (Trip or Temp Blank)

REQUESTED ANALYSIS

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	SAMPLE ID	PROJECT NUMBER	DATE (MMDDYY)	SAMPLER INITIALS	WELL ID	TIME	MATRIX	PRESERVATIVE: HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx w/Silica Gel Cleanup	BTEX (8260B)	5 Oxygenates, MTBE, TBA, DIPE, TAME, ETBE (8260B)	EDC (8260B)	EDC (8011)	Total Lead (6020)	PCBs (8082)	PAHs (8070 SIM)	VOCs Full list (8260B)	Pest (8080)	NWTPH-VPH	NWTPH-EPH		TPH-O	MTBE (8260B)					Container PID Readings or Laboratory Notes
	GW	241739	110712	LB	MW-1	1038	WG	X					8	X	X	X												X						
	GW	241739	110712	LB	MW-2	0958	WG	X					8	X	X	X												X						
	GW	241739	110712	LB	MW-6	0756	WG	X					8	X	X	X												X						
	GW	241739	110712	LB	MW-7	0917	WG	X					8	X	X	X												X						
	GW	241739	110712	LB	MW-8	1152	WG	X					8	X	X	X												X						
	GW	241739	110712	LB	MW-9	0838	WG	X					8	X	X	X												X						
	GW	241739	110712	LB	MW-10	1116	WG	X					8	X	X	X												X						

Relinquished by: (Signature)

Received by: (Signature) SHIPPED VIA FEDEX

Date: 11/7/12

Time:

Relinquished by: (Signature)

Received by: (Signature)

Date:

Time:

Relinquished by: (Signature)

Received by: (Signature)

Date:

Time:

ENVIRONMENTAL WELL, REMEDIATION COMPOUND, AND SITE INSPECTION FORM

INCIDENT # 97605410

ADDRESS 6808 196TH ST SW

DATE: 11/7/12

CITY & STATE LYNNWOOD, WA

Well ID	Observations Upon Arrival: Manway Cover, Type, Condition & Size					Well Labeled / Painted Properly*		Well Cap (Gripper) Condition		Well Lock Condition			Well Pad / Surface Condition		Note Repairs Made Detailed Explanation of Maintenance Recommended and Performed	Photos of Well Condition		Repair Date and PM Initials
MW-1	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-2	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-3	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-4	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-5	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-6	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-7	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-8	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-9	Standpipe	Flush	G	P	Size (inch) 8	Y	N	G	R	G	R	NL	G	P		Y	N	
MW-10	Standpipe	Flush	G	P	Size (inch) 6	Y	N	G	R	G	R	NL	G	P		Y	N	
	Standpipe	Flush	G	P	Size (inch)	Y	N	G	R	G	R	NL	G	P		Y	N	
TOTAL # CAPS REPLACED =								0		0	= TOTAL # OF LOCKS REPLACED							

Condition of Soil Boring Patches or Abandoned Monitoring Wells	G	P	N/A	If POOR, Borings/Well IDs or Location Description	Y	N	
			N/A				

Remediation Compound Type (Check boxes that apply)		Condition of Enclosure			Condition of Area Inside Enclosure			Compound Security			Emergency Contact Info Visible			Cleaning / Repairs Recommended and Conducted	Photos of Condition		Repair Date and PM Initials
NA	X	G	P	N/A	G	P	N/A	G	P	N/A	Y	N	N/A		Y	N	
Building																	
Building w/ Fence Comp.																	
Fenced Compound																	
Trailer																	

Number of Drums On-site	Does the Label Reveal the Source of the Contents			Labeled Correctly and Writing Legible			Drum Condition			Confirm Drums Related to Environmental		Drums Located to Min Business Interference			Detailed Explanation of Any Issues Resolved	Photos of Drum Condition		Date Drums Removed from Site and PM Initials
6	Y	N	N/A	Y	N	N/A	G	P	N/A	Y	N	Y	N	N/A		Y	N	

G = Good (Acceptable) R = Replaced

P = Poor (needs attention) NL = No Lock Required

Note: All repairs other than locks and grippers require Shell PM approval prior to repair.

* = Groundwater monitoring well covers must be painted and labeled in accordance with applicable regulations.

Version 2.4, March 2008

All environmental wells and the remediation compound were in good condition, locked, and secured upon my departure (unless otherwise noted above).

LEE BURRES | BTS

Print or type Name of Field Personnel & Consultant Company

Job Clearance Form

CONTRACTOR INSTRUCTIONS PRIOR TO START OF WORK: 1. Review form, check appropriate boxes, read and sign at the bottom of this form. 2. Inform owner, manager or site representative of the job to be performed and potential safety concerns and obtain signature.

Station #: 97608410	Station Address: 6808 196TH ST SW, LYNNWOOD, WA		Work Order Number: 121107-LB1	Date: 11/7/12
Contractor Company Name: BLAINE TECH SERVICES	Contractor person in charge (print name): LEE BURES	Number of Workers: 1	JSA Reference Number: (if required) / Start Time: 0640 / End Time: 1215	Labor: / Travel Time: / Travel Distance:

Problem/Work Description:

GAUGE, PURGE, + SAMPLE 10 GROUNDWATER WELLS

Return Call: yes / no

Damage Claim: yes / no

PPE REQUIRED (CHECK AND/OR FILL BLANK SPACE):

- [x] SAFETY VEST
- [x] PROTECTIVE CLOTHING
- [x] HARD HAT
- [x] GLOVES
- [x] SHOES & BOOTS
- [x] SAFETY GLASSES/GOGGLES
- [ ] HEARING PROTECTION
- [ ] WELDING PPE
- [ ] RESPIRATOR
- [ ] OTHER ____________

TASK STEP	Hazards not covered by JSA	How to reduce or eliminate risk - Include PPE to be Worn
GAUGE		
PURGE		
SAMPLE		

Work documentation requirements: Lower Risk - no JSA required; Medium Risk / Higher Risk tasks - JSA required; Higher Risk - JSA required & appropriate checklist completed (see below)

Examples of Higher / Medium tasks:

- [ ] Work at heights: in all cases on open sites - on closed sites if no JSA present
- [ ] Trenching or excavation related to underground tank / product line
- [ ] Heavy lifting
- [ ] Work in confined spaces (e.g. tank, interceptor or deep manhole entry)
- [ ] Hot work with risk of product or vapor ignition
- [ ] LPG system degassing, installation or maintenance

This form must be completed for each job and updated and re-signed if circumstances change or additional hazards identified.

SIGN IN

Operating sites: to be signed by the Site Representative

Non operating sites: to be signed by Contractor Representative only

GENERAL SAFETY CHECKS

- Have all site personnel been informed?
- Has fuel delivery service been informed?
- Is a fuel delivery due?
- Have isolation procedures been agreed - lock out tag out?
- Are work areas cordoned off to protect workers, site staff & public?
- Other

Contractor representative name	Signature
LEE BURES	[signature]
Site representative name	Signature
I have discussed job clearance form with contractor	
NO SITE REP	________

SIGN OUT

GENERAL SAFETY CHECKS

- Has the work area been left tidy and safe?
- Are site personnel aware of status of work including remaining isolation?
- Are changes to equipment documented and communicated?
- All incidents, near incidents, unsafe situations reported?
- Other

Contractor signature
[signature]

Site representative name	Signature
I have discussed job clearance form with contractor	
________	________

PARTS - Ordered, Replaced and/or Disposed Of (include model and serial as appropriate)

The contractor through its authorized representative shall sign, issue and be solely responsible for all job clearance forms and the obligations arising there under applicable to the work.

This form covers important reminders and is not intended to relieve the contractor from safely performing the work in compliance with all applicable laws and regulations.
The Site Representative may require the contractor to stop work if it appears that the contractor or any of its workers are failing to comply with the requirements in the applicable items of this form or other applicable safety requirements.

Revision No.: 1.0
Date Issued: May 2007

SHELL BILL OF LADING

SAMPLE

SOURCE RECORD **BILL OF LADING**

FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT SHELL FACILITIES IN THE STATE OF WASHINGTON OR OREGON. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS, IS MADE UP INTO LOADS OF APPROPRIATE SIZE TO BE TRANSPORTED & PROCESSED BY A SHELL APPROVED WASTE HAULER.

The contractor performing this work is BLAINE TECH SERVICES, INC. 22727 72ND Ave South, Suite D – 102, Kent, WA 98032. Blaine Tech Services, Inc. is authorized by SHELL OIL COMPANY (SHELL) to recover, collect, apportion into loads, and haul the Non-Hazardous Well Purgewater that is drawn from wells at the SHELL facility indicated below and to deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one Shell facility to BTS; from one Shell facility to BTS via another Shell facility; or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of SHELL.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the SHELL facility described below:

97605410 — INCIDENT #

Perry Pineda — Shell Engineer

6608 | 196TH ST SW, | LYNNWOOD, | WA

street number | street name | city | state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-1	0.5		
MW-2	0.5		
MW-6	0.5		
MW-7	0.5		
MW-8	0.5		
MW-9	0.5		
MW-10	0.5		

added equip. rinse water / 10

any other adjustments /

TOTAL GALS. RECOVERED 13.5

loaded onto BTS vehicle # 90

BTS event # 121107-LB1 | time 1215 | date 11/7/12

signature

****

RECEIVED AT BTS Kent | time | date

unloaded by signature

APPENDIX B

LABORATORY ANALYTICAL REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-11116-1
TestAmerica Sample Delivery Group: SAP 171152 / 241739
Client Project/Site: 6808 196th St. SW, Lynnwood, WA

For:
Conestoga-Rovers & Associates, Inc.
20818 44th Ave W
Suite 190
Lynnwood, Washington 98036

Attn: Christina McClelland

Authorized for release by:
11/26/2012 3:32:46 PM

Ryan Fitzwater
Senior Project Manager
ryan.fitzwater@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

Table of Contents

Sample Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-11116-1	GW-241739-110712-LB-MW-1	Water	11/07/12 10:38	11/08/12 08:30
490-11116-2	GW-241739-110712-LB-MW-2	Water	11/07/12 09:58	11/08/12 08:30
490-11116-3	GW-241739-110712-LB-MW-6	Water	11/07/12 07:56	11/08/12 08:30
490-11116-4	GW-241739-110712-LB-MW-7	Water	11/07/12 09:17	11/08/12 08:30
490-11116-5	GW-241739-110712-LB-MW-8	Water	11/07/12 11:52	11/08/12 08:30
490-11116-6	GW-241739-110712-LB-MW-9	Water	11/07/12 08:38	11/08/12 08:30
490-11116-7	GW-241739-110712-LB-MW-10	Water	11/07/12 11:16	11/08/12 08:30

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Job ID: 490-11116-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-11116-1

Comments
No additional comments.

Receipt
The samples were received on 11/8/2012 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8º C.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: GW-241739-110712-LB-MW-10 (490-11116-7), GW-241739-110712-LB-MW-8 (490-11116-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed at a 1X level.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 36283.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 36620.

No other analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Job ID: 490-11116-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-11116-2

Comments
No additional comments.

Receipt
The samples were received on 11/8/2012 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8º C.

GC VOA
Method(s) NWTPH-Gx: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 36320. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) NWTPH-Dx: The following sample(s) contained a hydrocarbon pattern which most closely resembles the Gasoline and Diesel Fuel #2 patterns used by the laboratory for qualitative purposes: GW-241739-110712-LB-MW-1 (490-11116-1).

Method(s) NWTPH-Dx: The following sample(s) contained a hydrocarbon pattern which most closely resembles the Gasoline pattern used by the laboratory for qualitative purposes: GW-241739-110712-LB-MW-2 (490-11116-2).

Method(s) NWTPH-Dx: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated

Job ID: 490-11116-2 (Continued)

Laboratory: TestAmerica Nashville (Continued)

with batch 35887.

Method(s) NWTPH-Dx: The following sample(s) contained a hydrocarbon pattern which most closely resembles the Gasoline pattern used by the laboratory for qualitative purposes: GW-241739-110712-LB-MW-10 (490-11116-7), GW-241739-110712-LB-MW-8 (490-11116-5).

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: GW-241739-110712-LB-MW-1

Lab Sample ID: 490-11116-1

Date Collected: 11/07/12 10:38

Matrix: Water

Date Received: 11/08/12 08:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4880		100		ug/L			11/16/12 13:49	100
Ethylbenzene	525		10.0		ug/L			11/16/12 13:24	10
Xylenes, Total	1530		30.0		ug/L			11/16/12 13:24	10
Toluene	361		10.0		ug/L			11/16/12 13:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*		*11/16/12 13:24*	*10*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*11/16/12 13:49*	*100*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*11/16/12 13:24*	*10*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*11/16/12 13:49*	*100*
Toluene-d8 (Surr)	*95*		*70 - 130*		*11/16/12 13:24*	*10*
Toluene-d8 (Surr)	*95*		*70 - 130*		*11/16/12 13:49*	*100*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*11/16/12 13:24*	*10*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*11/16/12 13:49*	*100*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	16700		1000		ug/L			11/15/12 12:52	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*85*		*50 - 150*		*11/15/12 12:52*	*10*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	1460		94.3		ug/L		11/14/12 06:57	11/14/12 21:33	1
C24-C40	163		94.3		ug/L		11/14/12 06:57	11/14/12 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*11/14/12 06:57*	*11/14/12 21:33*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Client Sample ID: GW-241739-110712-LB-MW-2
Date Collected: 11/07/12 09:58
Date Received: 11/08/12 08:30

Lab Sample ID: 490-11116-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	228		5.00		ug/L			11/16/12 12:59	5
Ethylbenzene	125		1.00		ug/L			11/16/12 12:33	1
Xylenes, Total	40.3		3.00		ug/L			11/16/12 12:33	1
Toluene	4.99		1.00		ug/L			11/16/12 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*		*11/16/12 12:33*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*11/16/12 12:59*	*5*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*11/16/12 12:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*11/16/12 12:59*	*5*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/16/12 12:33*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/16/12 12:59*	*5*
Dibromofluoromethane (Surr)	*89*		*70 - 130*		*11/16/12 12:33*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*11/16/12 12:59*	*5*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4070		100		ug/L			11/14/12 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*85*		*50 - 150*		*11/14/12 03:09*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	757		94.3		ug/L		11/14/12 06:57	11/14/12 21:52	1
C24-C40	ND		94.3		ug/L		11/14/12 06:57	11/14/12 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*11/14/12 06:57*	*11/14/12 21:52*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Client Sample ID: GW-241739-110712-LB-MW-6
Date Collected: 11/07/12 07:56
Date Received: 11/08/12 08:30

Lab Sample ID: 490-11116-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			11/15/12 18:22	1
Ethylbenzene	ND		1.00		ug/L			11/15/12 18:22	1
Xylenes, Total	ND		3.00		ug/L			11/15/12 18:22	1
Toluene	ND		1.00		ug/L			11/15/12 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*11/15/12 18:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*11/15/12 18:22*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/15/12 18:22*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*11/15/12 18:22*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			11/14/12 03:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*50 - 150*		*11/14/12 03:39*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		94.3		ug/L		11/14/12 06:57	11/14/12 22:12	1
C24-C40	ND		94.3		ug/L		11/14/12 06:57	11/14/12 22:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*11/14/12 06:57*	*11/14/12 22:12*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Client Sample ID: GW-241739-110712-LB-MW-7
Date Collected: 11/07/12 09:17
Date Received: 11/08/12 08:30

Lab Sample ID: 490-11116-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			11/15/12 18:47	1
Ethylbenzene	ND		1.00		ug/L			11/15/12 18:47	1
Xylenes, Total	ND		3.00		ug/L			11/15/12 18:47	1
Toluene	ND		1.00		ug/L			11/15/12 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*11/15/12 18:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*11/15/12 18:47*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*11/15/12 18:47*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*11/15/12 18:47*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			11/14/12 04:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*50 - 150*		*11/14/12 04:09*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		94.3		ug/L		11/14/12 06:57	11/14/12 22:31	1
C24-C40	ND		94.3		ug/L		11/14/12 06:57	11/14/12 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*78*		*50 - 150*	*11/14/12 06:57*	*11/14/12 22:31*	*1*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Client Sample ID: GW-241739-110712-LB-MW-8
Date Collected: 11/07/12 11:52
Date Received: 11/08/12 08:30

Lab Sample ID: 490-11116-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7630		250		ug/L			11/16/12 15:31	250
Ethylbenzene	1140		25.0		ug/L			11/16/12 15:06	25
Xylenes, Total	6120		75.0		ug/L			11/16/12 15:06	25
Toluene	15200		250		ug/L			11/16/12 15:31	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*11/16/12 15:06*	*25*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*		*11/16/12 15:31*	*250*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*11/16/12 15:06*	*25*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*11/16/12 15:31*	*250*
Toluene-d8 (Surr)	*95*		*70 - 130*		*11/16/12 15:06*	*25*
Toluene-d8 (Surr)	*95*		*70 - 130*		*11/16/12 15:31*	*250*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*11/16/12 15:06*	*25*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*11/16/12 15:31*	*250*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	75300		2000		ug/L			11/15/12 13:22	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*84*		*50 - 150*		*11/15/12 13:22*	*20*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	3160		377		ug/L		11/14/12 06:57	11/15/12 13:05	4
C24-C40	ND		94.3		ug/L		11/14/12 06:57	11/14/12 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*50 - 150*	*11/14/12 06:57*	*11/14/12 22:50*	*1*
o-Terphenyl	*85*		*50 - 150*	*11/14/12 06:57*	*11/15/12 13:05*	*4*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Client Sample ID: GW-241739-110712-LB-MW-9
Date Collected: 11/07/12 08:38
Date Received: 11/08/12 08:30

Lab Sample ID: 490-11116-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			11/16/12 11:42	1
Ethylbenzene	ND		1.00		ug/L			11/16/12 11:42	1
Xylenes, Total	ND		3.00		ug/L			11/16/12 11:42	1
Toluene	ND		1.00		ug/L			11/16/12 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*11/16/12 11:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*11/16/12 11:42*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/16/12 11:42*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*11/16/12 11:42*	*1*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			11/15/12 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*89*		*50 - 150*		*11/15/12 12:22*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		94.3		ug/L		11/14/12 06:57	11/14/12 23:10	1
C24-C40	ND		94.3		ug/L		11/14/12 06:57	11/14/12 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*50 - 150*	*11/14/12 06:57*	*11/14/12 23:10*	*1*

Client Sample ID: GW-241739-110712-LB-MW-10

Lab Sample ID: 490-11116-7

Date Collected: 11/07/12 11:16

Matrix: Water

Date Received: 11/08/12 08:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5920		100		ug/L			11/16/12 14:40	100
Ethylbenzene	594		10.0		ug/L			11/16/12 14:15	10
Xylenes, Total	1060		30.0		ug/L			11/16/12 14:15	10
Toluene	78.3		1.00		ug/L			11/15/12 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*11/15/12 20:03*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*11/16/12 14:15*	*10*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*		*11/16/12 14:40*	*100*
1,2-Dichloroethane-d4 (Surr)	*69*	*X*	*70 - 130*		*11/15/12 20:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*11/16/12 14:15*	*10*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*11/16/12 14:40*	*100*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/15/12 20:03*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/16/12 14:15*	*10*
Toluene-d8 (Surr)	*95*		*70 - 130*		*11/16/12 14:40*	*100*
Dibromofluoromethane (Surr)	*89*		*70 - 130*		*11/15/12 20:03*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*11/16/12 14:15*	*10*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*11/16/12 14:40*	*100*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	17300		500		ug/L			11/14/12 05:39	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*81*		*50 - 150*		*11/14/12 05:39*	*5*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	2710		377		ug/L		11/14/12 06:57	11/15/12 13:24	4
C24-C40	ND		94.3		ug/L		11/14/12 06:57	11/14/12 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*11/14/12 06:57*	*11/14/12 23:29*	*1*
o-Terphenyl	*72*		*50 - 150*	*11/14/12 06:57*	*11/15/12 13:24*	*4*

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-36283/7
Matrix: Water
Analysis Batch: 36283

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			11/15/12 12:01	1
Ethylbenzene	ND		1.00		ug/L			11/15/12 12:01	1
Xylenes, Total	ND		3.00		ug/L			11/15/12 12:01	1
Toluene	ND		1.00		ug/L			11/15/12 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*		*11/15/12 12:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*11/15/12 12:01*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*11/15/12 12:01*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*11/15/12 12:01*	*1*

Lab Sample ID: LCS 490-36283/3
Matrix: Water
Analysis Batch: 36283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	45.96		ug/L		92	80 - 121		
Ethylbenzene			50.0	44.36		ug/L		89	80 - 130		
Xylenes, Total			150	130.4		ug/L		87	80 - 132		
Toluene			50.0	41.58		ug/L		83	80 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*
Dibromofluoromethane (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 490-36283/4
Matrix: Water
Analysis Batch: 36283

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			50.0	45.92		ug/L		92	80 - 121	0	17
Ethylbenzene			50.0	44.43		ug/L		89	80 - 130	0	15
Xylenes, Total			150	132.1		ug/L		88	80 - 132	1	15
Toluene			50.0	42.41		ug/L		85	80 - 126	2	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-36620/7
Matrix: Water
Analysis Batch: 36620

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00		ug/L			11/16/12 11:17	1
Ethylbenzene	ND		1.00		ug/L			11/16/12 11:17	1
Xylenes, Total	ND		3.00		ug/L			11/16/12 11:17	1
Toluene	ND		1.00		ug/L			11/16/12 11:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*		*11/16/12 11:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*11/16/12 11:17*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*11/16/12 11:17*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*11/16/12 11:17*	*1*

Lab Sample ID: LCS 490-36620/3
Matrix: Water
Analysis Batch: 36620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	49.16		ug/L		98	80 - 121		
Ethylbenzene			50.0	45.60		ug/L		91	80 - 130		
Xylenes, Total			150	133.0		ug/L		89	80 - 132		
Toluene			50.0	43.71		ug/L		87	80 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 490-36620/4
Matrix: Water
Analysis Batch: 36620

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			50.0	47.40		ug/L		95	80 - 121	4	17
Ethylbenzene			50.0	44.22		ug/L		88	80 - 130	3	15
Xylenes, Total			150	128.9		ug/L		86	80 - 132	3	15
Toluene			50.0	42.42		ug/L		85	80 - 126	3	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-35581/25
Matrix: Water
Analysis Batch: 35581

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			11/13/12 22:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*50 - 150*		*11/13/12 22:07*	*1*

Lab Sample ID: MB 490-35581/7
Matrix: Water
Analysis Batch: 35581

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			11/13/12 12:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*89*		*50 - 150*		*11/13/12 12:03*	*1*

Lab Sample ID: LCS 490-35581/23
Matrix: Water
Analysis Batch: 35581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	927.3		ug/L		93	39 - 143		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*74*		*50 - 150*

Lab Sample ID: LCSD 490-35581/24
Matrix: Water
Analysis Batch: 35581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			1000	893.7		ug/L		89	39 - 143	4	18

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*79*		*50 - 150*

Lab Sample ID: 490-10976-E-2 DU
Matrix: Water
Analysis Batch: 35581

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
C6-C12	154			ND		ug/L				NC	18

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*92*		*50 - 150*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: MB 490-36320/7
Matrix: Water
Analysis Batch: 36320

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	ND		100		ug/L			11/15/12 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*50 - 150*		*11/15/12 10:51*	*1*

Lab Sample ID: LCS 490-36320/5
Matrix: Water
Analysis Batch: 36320

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			1000	1023		ug/L		102	39 - 143		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*77*		*50 - 150*

Lab Sample ID: LCSD 490-36320/6
Matrix: Water
Analysis Batch: 36320

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			1000	1011		ug/L		101	39 - 143	1	18

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*78*		*50 - 150*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 490-35887/1-A
Matrix: Water
Analysis Batch: 36064

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C24	ND		100		ug/L		11/14/12 06:57	11/14/12 20:51	1
C24-C40	ND		100		ug/L		11/14/12 06:57	11/14/12 20:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*11/14/12 06:57*	*11/14/12 20:51*	*1*

Lab Sample ID: LCS 490-35887/2-A
Matrix: Water
Analysis Batch: 36064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35887

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C24			1000	621.3		ug/L		62	51 - 132		

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 490-35887/2-A
Matrix: Water
Analysis Batch: 36064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35887

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	82		50 - 150

GC/MS VOA

Analysis Batch: 36283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-11116-3	GW-241739-110712-LB-MW-6	Total/NA	Water	8260B	
490-11116-4	GW-241739-110712-LB-MW-7	Total/NA	Water	8260B	
490-11116-7	GW-241739-110712-LB-MW-10	Total/NA	Water	8260B	
LCS 490-36283/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-36283/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-36283/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 36620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-11116-1	GW-241739-110712-LB-MW-1	Total/NA	Water	8260B	
490-11116-1	GW-241739-110712-LB-MW-1	Total/NA	Water	8260B	
490-11116-2	GW-241739-110712-LB-MW-2	Total/NA	Water	8260B	
490-11116-2	GW-241739-110712-LB-MW-2	Total/NA	Water	8260B	
490-11116-5	GW-241739-110712-LB-MW-8	Total/NA	Water	8260B	
490-11116-5	GW-241739-110712-LB-MW-8	Total/NA	Water	8260B	
490-11116-6	GW-241739-110712-LB-MW-9	Total/NA	Water	8260B	
490-11116-7	GW-241739-110712-LB-MW-10	Total/NA	Water	8260B	
490-11116-7	GW-241739-110712-LB-MW-10	Total/NA	Water	8260B	
LCS 490-36620/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 490-36620/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 490-36620/7	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 35581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10976-E-2 DU	Duplicate	Total/NA	Water	NWTPH-Gx	
490-11116-2	GW-241739-110712-LB-MW-2	Total/NA	Water	NWTPH-Gx	
490-11116-3	GW-241739-110712-LB-MW-6	Total/NA	Water	NWTPH-Gx	
490-11116-4	GW-241739-110712-LB-MW-7	Total/NA	Water	NWTPH-Gx	
490-11116-7	GW-241739-110712-LB-MW-10	Total/NA	Water	NWTPH-Gx	
LCS 490-35581/23	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-35581/24	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 490-35581/25	Method Blank	Total/NA	Water	NWTPH-Gx	
MB 490-35581/7	Method Blank	Total/NA	Water	NWTPH-Gx	

Analysis Batch: 36320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-11116-1	GW-241739-110712-LB-MW-1	Total/NA	Water	NWTPH-Gx	
490-11116-5	GW-241739-110712-LB-MW-8	Total/NA	Water	NWTPH-Gx	
490-11116-6	GW-241739-110712-LB-MW-9	Total/NA	Water	NWTPH-Gx	
LCS 490-36320/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 490-36320/6	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 490-36320/7	Method Blank	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 35887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-11116-1	GW-241739-110712-LB-MW-1	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 35887 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-11116-2	GW-241739-110712-LB-MW-2	Total/NA	Water	3510C	
490-11116-3	GW-241739-110712-LB-MW-6	Total/NA	Water	3510C	
490-11116-4	GW-241739-110712-LB-MW-7	Total/NA	Water	3510C	
490-11116-5	GW-241739-110712-LB-MW-8	Total/NA	Water	3510C	
490-11116-6	GW-241739-110712-LB-MW-9	Total/NA	Water	3510C	
490-11116-7	GW-241739-110712-LB-MW-10	Total/NA	Water	3510C	
LCS 490-35887/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 490-35887/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 36064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-11116-1	GW-241739-110712-LB-MW-1	Total/NA	Water	NWTPH-Dx	35887
490-11116-2	GW-241739-110712-LB-MW-2	Total/NA	Water	NWTPH-Dx	35887
490-11116-3	GW-241739-110712-LB-MW-6	Total/NA	Water	NWTPH-Dx	35887
490-11116-4	GW-241739-110712-LB-MW-7	Total/NA	Water	NWTPH-Dx	35887
490-11116-5	GW-241739-110712-LB-MW-8	Total/NA	Water	NWTPH-Dx	35887
490-11116-5	GW-241739-110712-LB-MW-8	Total/NA	Water	NWTPH-Dx	35887
490-11116-6	GW-241739-110712-LB-MW-9	Total/NA	Water	NWTPH-Dx	35887
490-11116-7	GW-241739-110712-LB-MW-10	Total/NA	Water	NWTPH-Dx	35887
490-11116-7	GW-241739-110712-LB-MW-10	Total/NA	Water	NWTPH-Dx	35887
LCS 490-35887/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	35887
MB 490-35887/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	35887

Client Sample ID: GW-241739-110712-LB-MW-1

Lab Sample ID: 490-11116-1

Date Collected: 11/07/12 10:38

Matrix: Water

Date Received: 11/08/12 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	36620	11/16/12 13:24	WC	TAL NSH
Total/NA	Analysis	8260B		100	36620	11/16/12 13:49	WC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		10	36320	11/15/12 12:52	AC	TAL NSH
Total/NA	Prep	3510C			35887	11/14/12 06:57	RH	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	36064	11/14/12 21:33	JJ	TAL NSH

Client Sample ID: GW-241739-110712-LB-MW-2

Lab Sample ID: 490-11116-2

Date Collected: 11/07/12 09:58

Matrix: Water

Date Received: 11/08/12 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	36620	11/16/12 12:33	WC	TAL NSH
Total/NA	Analysis	8260B		5	36620	11/16/12 12:59	WC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	35581	11/14/12 03:09	GM	TAL NSH
Total/NA	Prep	3510C			35887	11/14/12 06:57	RH	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	36064	11/14/12 21:52	JJ	TAL NSH

Client Sample ID: GW-241739-110712-LB-MW-6

Lab Sample ID: 490-11116-3

Date Collected: 11/07/12 07:56

Matrix: Water

Date Received: 11/08/12 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	36283	11/15/12 18:22	WC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	35581	11/14/12 03:39	GM	TAL NSH
Total/NA	Prep	3510C			35887	11/14/12 06:57	RH	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	36064	11/14/12 22:12	JJ	TAL NSH

Client Sample ID: GW-241739-110712-LB-MW-7

Lab Sample ID: 490-11116-4

Date Collected: 11/07/12 09:17

Matrix: Water

Date Received: 11/08/12 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	36283	11/15/12 18:47	WC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	35581	11/14/12 04:09	GM	TAL NSH
Total/NA	Prep	3510C			35887	11/14/12 06:57	RH	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	36064	11/14/12 22:31	JJ	TAL NSH

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Client Sample ID: GW-241739-110712-LB-MW-8

Lab Sample ID: 490-11116-5

Date Collected: 11/07/12 11:52
Matrix: Water
Date Received: 11/08/12 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		25	36620	11/16/12 15:06	WC	TAL NSH
Total/NA	Analysis	8260B		250	36620	11/16/12 15:31	WC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		20	36320	11/15/12 13:22	AC	TAL NSH
Total/NA	Prep	3510C			35887	11/14/12 06:57	RH	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	36064	11/14/12 22:50	JJ	TAL NSH
Total/NA	Analysis	NWTPH-Dx		4	36064	11/15/12 13:05	JJ	TAL NSH

Client Sample ID: GW-241739-110712-LB-MW-9

Lab Sample ID: 490-11116-6

Date Collected: 11/07/12 08:38
Matrix: Water
Date Received: 11/08/12 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	36620	11/16/12 11:42	WC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	36320	11/15/12 12:22	AC	TAL NSH
Total/NA	Prep	3510C			35887	11/14/12 06:57	RH	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	36064	11/14/12 23:10	JJ	TAL NSH

Client Sample ID: GW-241739-110712-LB-MW-10

Lab Sample ID: 490-11116-7

Date Collected: 11/07/12 11:16
Matrix: Water
Date Received: 11/08/12 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	36283	11/15/12 20:03	WC	TAL NSH
Total/NA	Analysis	8260B		10	36620	11/16/12 14:15	WC	TAL NSH
Total/NA	Analysis	8260B		100	36620	11/16/12 14:40	WC	TAL NSH
Total/NA	Analysis	NWTPH-Gx		5	35581	11/14/12 05:39	GM	TAL NSH
Total/NA	Prep	3510C			35887	11/14/12 06:57	RH	TAL NSH
Total/NA	Analysis	NWTPH-Dx		1	36064	11/14/12 23:29	JJ	TAL NSH
Total/NA	Analysis	NWTPH-Dx		4	36064	11/15/12 13:24	JJ	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL NSH
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL NSH

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: Conestoga-Rovers & Associates, Inc.
Project/Site: 6808 196th St. SW, Lynnwood, WA

TestAmerica Job ID: 490-11116-1
SDG: SAP 171152 / 241739

Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Washington	State Program	10	C789	07-19-13

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	Benzene
8260B		Water	Ethylbenzene
NWTPH-Dx	3510C	Water	C10-C24
NWTPH-Dx	3510C	Water	C24-C40
NWTPH-Gx		Water	C6-C12

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-11116 Chain of Custody

Cooler Received/Opened On 11/8/2012 @ 8:30

1. Tracking # 1035 (last 4 digits, FedEx)

Courier: Fed-ex IR Gun ID 17960358

2. Temperature of rep. sample or temp blank when opened: 0.8 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) EA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? ~~Bubblewrap~~ ~~Plastic bag~~ Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA - Soil

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) JH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) JH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) JH

I certify that I attached a label with the unique LIMS number to each container (intial) JH

21. Were there Non-Conformance issues at login? YES...NO Was a PIPE generated? YES...NO...#_____

BIS = Broken in shipment

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- ☐ CALSCIENCE (_____)
- ☐ SPL Houston (_____)
- ☐ XENCO (_____)
- ☑ TEST AMERICA (_____)
- ☐ OTHER (_____)

Please Check Appropriate Box:
- ☐ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM
- ☑ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER _____

Print Bill To Contact Name: Christina McClelland - 241739.2012.02

PO #:

INCIDENT # (ENV SERVICES): 9 7 6 0 5 4 1 0

SAP #: 1 7 1 1 5 2

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 11/7/12

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services

LOG CODE:

SITE ADDRESS: Street and City: 6808 196th St. SW, Lynnwood

State: WA

GLOBAL ID NO.: NA

ADDRESS: 20735 Belshaw Avenue, Carson, CA 90746

EDF DELIVERABLE TO (Name, Company, Office Location): CRA, Seattle, WA

PHONE NO.: 425-563-6500

E-MAIL: Shell-US-LabDataManagement@CRAworld.com

CONSULTANT PROJECT NO.: 121107-L81

PROJECT CONTACT (Hardcopy or PDF Report to): Lorin King

SAMPLER NAME(S) (Print): LEE BURES

LAB USE ONLY

TELEPHONE: (310) 885-4455 x 108

FAX: (310) 637-5802

E-MAIL: lking@blainetech.com

TURNAROUND TIME (CALENDAR DAYS):
☒ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

REQUESTED ANALYSIS

TEMPERATURE ON RECEIPT C°

Loc: 490
11116

SPECIAL INSTRUCTIONS OR NOTES:
1) Please upload the "CRA EQuIS 4-file EDD" to the CRA Website (http://cralabedduplod.craworld.com/equis/default.aspx) and/or send it to the Shell-US-LabDataManagement@CRAworld.com email folder. 2) Please indicate that you have uploaded the EDD by including "EDD Uploaded to CRA website" in the body of the email used to deliver the final PDF report to the Shell-US-LabDataManagement@CRAworld.com email folder.

Copy final report to Shell.Lab.Billing@craworld.com, Shell.results@craworld.com, and Shell-US-LabDataManagement@CRAworld.com

Email invoice to Shell.Lab.Billing@craworld.com
See Laboratory PM for WA Dept. of Ecology MTCA Method A cleanup levels for minimum detection limits.

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☐ RECEIPT VERIFICATION REQUESTED

Matrix Codes - WG (groundwater), WS (surface water), WP (drinking water source), W (Trip or Temp Blank)

LAB USE ONLY	SAMPLE ID: PROJECT NUMBER	DATE (MMDDYY)	SAMPLER INITIALS	WELL ID	TIME	MATRIX	PRESERVATIVE: HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx w/Silica Gel Cleanup	BTEX (8260B)	5 Oxygenates, MTBE, TBA, DIPE, TAME, ETBE (8260B)	EDC (8260B)	EDC (8011)	Total Lead (6020)	PCBs (8082)	PAHs (8070 SIM)	VOCs Full list (8260B)	Pest (8080)	NWTPH-VPH	NWTPH-EPH		TPH-O	MTBE (8260B)				Container PID Readings or Laboratory Notes
1	GW - 241739	110712	LB	MW-1	1038	WG	X					8	X	X	X												X				
2	GW - 241739	110712	LB	MW-2	0958	WG	X					8	X	X	X												X				
3	GW - 241739	110712	LB	MW-6	0756	WG	X					8	X	X	X												X				
4	GW - 241739	110712	LB	MW-7	0917	WG	X					8	X	X	X												X				
5	GW - 241739	110712	LB	MW-8	1152	WG	X					8	X	X	X												X				
6	GW - 241739	110712	LB	MW-9	0838	WG	X					8	X	X	X												X				
7	GW - 241739	110712	LB	MW-10	1116	WG	X					8	X	X	X												X				
	-	-	-	-																											
	-	-	-	-																											
	-	-	-	-																											

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	SHIPPED VIA FEDEX	11/7/12	
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	TAN Temp 0.6	11/8/12	08:30
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 490-11116-1
SDG Number: SAP 171152 / 241739

Login Number: 11116
List Number: 1
Creator: Himelick, John

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	