URS

August 3, 2012

Mr. Eugene Radcliff
Washington State Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Re: Final Compliance Groundwater Monitoring Report 2012
Former Shell Tumwater Bulk Terminal
7370 Linderson Way
Tumwater, Washington

Dear Mr. Radcliff:

INTRODUCTION

This report presents the results of the first and second quarterly 2012 compliance groundwater monitoring events conducted at the former Shell Oil Products US (Shell) Tumwater Bulk Terminal. The site is located in the commercial and light industrial area at 7370 Linderson Way, Tumwater, Washington (Figure 1). The compliance monitoring is being conducted to monitor the effectiveness of the cleanup action that was conducted during the terminal's closure in the fall of 2010. On December 20, 2011, URS issued a request for an opinion letter on behalf of Shell Oil Products US (Shell) in order to receive a No Further Action (NFA). Ecology responded with a request for two additional quarterly sampling events at monitoring well location MW-31.

URS conducted the field activities for the first quarter on March 27, 2012 and on June 12, 2012 for the second quarter monitoring event. Based on the results of the groundwater compliance sampling, URS requests on behalf of Shell that Ecology issue an NFA opinion for the former Shell Tumwater Bulk Terminal.

BACKGROUND

Two areas were remediated by soil excavation during terminal closure activities: the Heating Oil Excavation Area and the Spill Containment Excavation Area (Figure 2). Details of site closure activities and cleanup actions are presented in the *Remedial Investigation and Cleanup Action Report* dated February 11, 2010.

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On November 19, 2009, URS presented the soil and groundwater data collected during the remedial investigation and cleanup actions to representatives of Shell, the Washington State Department of Ecology (Ecology), and the Port of Olympia during a meeting at the Port of Olympia offices in Olympia, Washington. During the meeting, URS proposed locations for six new compliance monitoring wells at the Heating Oil UST Excavation Area and at the Spill Containment UST Excavation Area. Three monitoring wells (MW-26, MW-27, and MW-28) were proposed for the Heating Oil UST Excavation Area and three monitoring wells (MW-29, MW-30 and MW-31) were proposed for the Spill Containment UST Excavation Area. These six compliance wells were installed in November and December 2009.

URS planned to monitor the six compliance wells, installed in the winter of 2009, for four consecutive quarters in order to achieve MTCA Method A groundwater quality. The agreed analytical program discussed during the November 19, 2009 meeting for the compliance wells are as follows:

- Heating Oil UST Excavation Area and Spill Containment UST Excavation Area (MW-26 through MW-28) – Groundwater samples will be analyzed for diesel- and heavy oil-range TPH by NWTPH-Dx, gasoline-range TPH by NWTPH-Gx, and for benzene, toluene, ethylbenzene, total xylenes (BTEX) and naphthalene by EPA Method EPA Method 8260B.

  Compliance at MW-26 through MW-28 was achieved in September 2011. Subsequently, the December 2011 compliance monitoring event excluded these wells.

- Spill Containment UST Excavation Area (MW-29, MW-30 and MW-31) – Groundwater samples will be analyzed for diesel- and heavy oil-range TPH by NWTPH-Dx, gasoline-range TPH by NWTPH-Gx, and for benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, methyl tert-butyl ether (MTBE), 1,2-dibromoethane (EDB) and 1,2-dichloroethane (EDC) by EPA Method EPA Method 8260B.

  Since sampling began in December 2009, no analytes were detected above the MTCA Method A cleanup levels in the groundwater samples from MW-29 and MW-30. Additionally, MW-31 only had detections of diesel-range TPH above the cleanup levels; the remaining analytes in the groundwater samples from MW-31 were below the MTCA Method A cleanup levels.

SUMMARY OF GROUNDWATER MONITORING ACTIVITIES

Depth to Groundwater Measurements

URS collected depth to groundwater measurements at monitoring well MW-31 prior to sampling. On March 27, 2012, groundwater elevation at MW-31 was 179.66 feet and on June 12, 2012 the groundwater elevation was 179.70 feet. The depths to groundwater and groundwater elevations for the groundwater monitoring events are summarized in Table 1.

Groundwater Sampling

URS collected a groundwater sample from compliance monitoring well MW-31 using a standard low-flow sampling technique. This technique provided representative water quality data, and greatly reduced the amount of purge water requiring storage and disposal. The field data sheets are presented in Attachment A.

URS sampling personnel wore disposable nitrile gloves while collecting and handling the groundwater sample. Samples were submitted to Accutest Laboratories (Accutest) of San Jose, California. URS followed chain of custody procedures from sample collection to sample analysis. A copy of the chain of custody form is included in Attachment B with the laboratory analytical report.

Groundwater Analytical Results

The recent and historical groundwater analytical results are presented in Table 2. During the first and second quarter sampling event, URS submitted the groundwater sample from MW-31 for the analysis for diesel- and heavy oil-range total petroleum hydrocarbons by NWTPH-Dx. Diesel-range TPH was detected in the groundwater sample from MW-31 at a concentration of 182 micrograms per liter (µg/L) (March 27, 2012) and 120 µg/L (June 12, 2012). Both results are below the MTCA Method A cleanup level of 500 µg/L.

CONCLUSIONS

The groundwater data collected from the compliance well MW-31 for the past four quarters has been below the MTCA Method A cleanup levels and compliance has been achieved. URS submitted a request for an option letter to Ecology on December 20, 2011 to close out the environmental file for this project and request a no further action determination for the site.

LIMITATIONS

We have prepared this report for use by Shell Oil Products US. Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions express or implied should be understood.

If you have any questions, please contact one of the undersigned at (503) 222-7200.

Sincerely,
URS Corporation

Brian J. Pletcher
Project Manager

cc: Joanne Snarski, Port of Olympia
Clarita Mattox, Port of Olympia
Perry Pineda, Shell Oil Products US

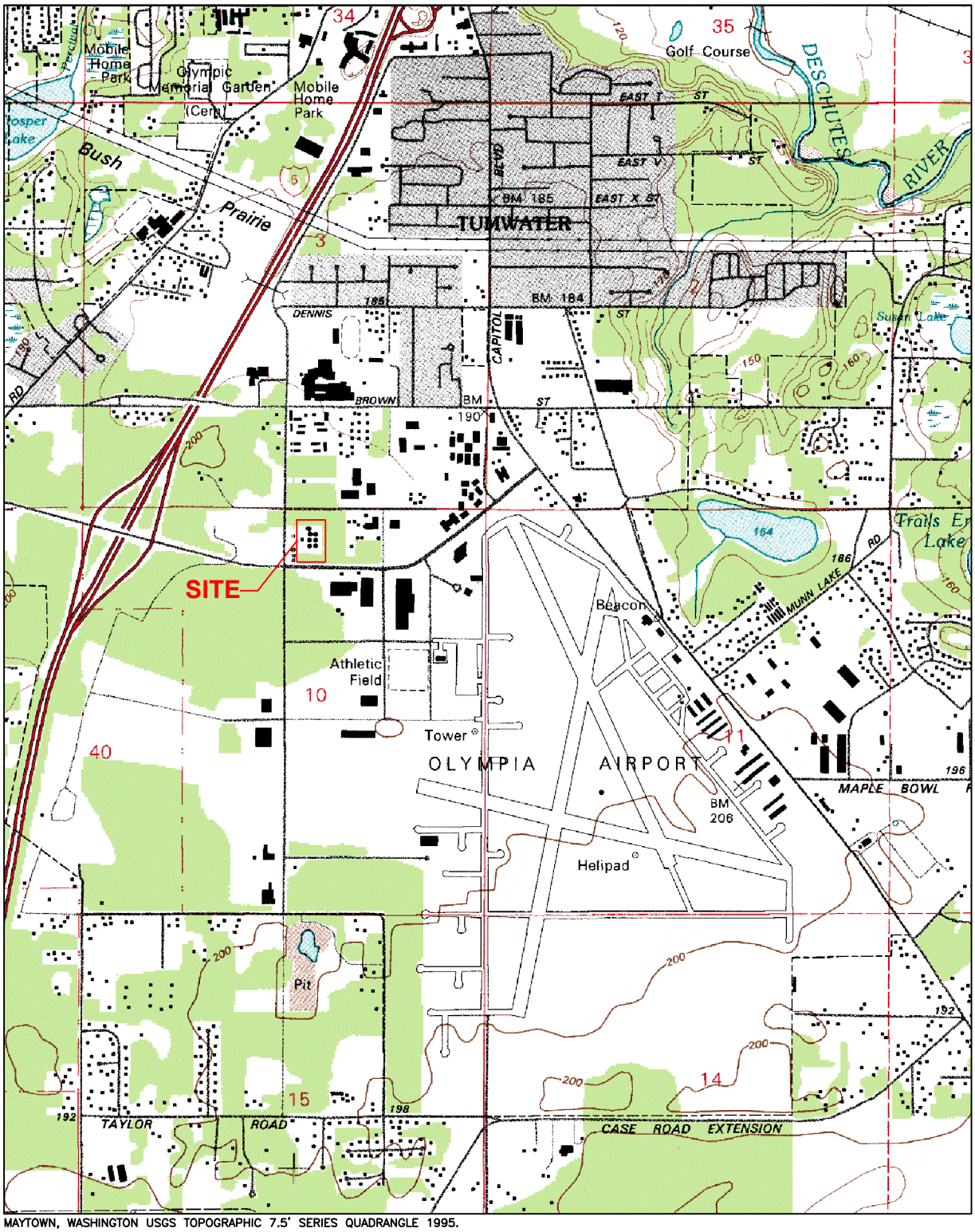
Attachments:

Figure 1 – Site Location Map
Figure 2 – Compliance Monitoring Well Locations

Table 1 - Compliance Well Groundwater Elevation Data
Table 2 - Compliance Well Groundwater Analytical Results

Attachment A - Field Data Sheets
Attachment B - Laboratory Analytical Reports and Chain of Custody

FIGURES



MAYTOWN, WASHINGTON USGS TOPOGRAPHIC 7.5' SERIES QUADRANGLE 1995.

SITE LOCATION MAP

FORMER SHELL TUMWATER BULK TERMINAL
7370 LINDERSON WAY
46194267 TUMWATER,WASHINGTON

URS

FIGURE 1

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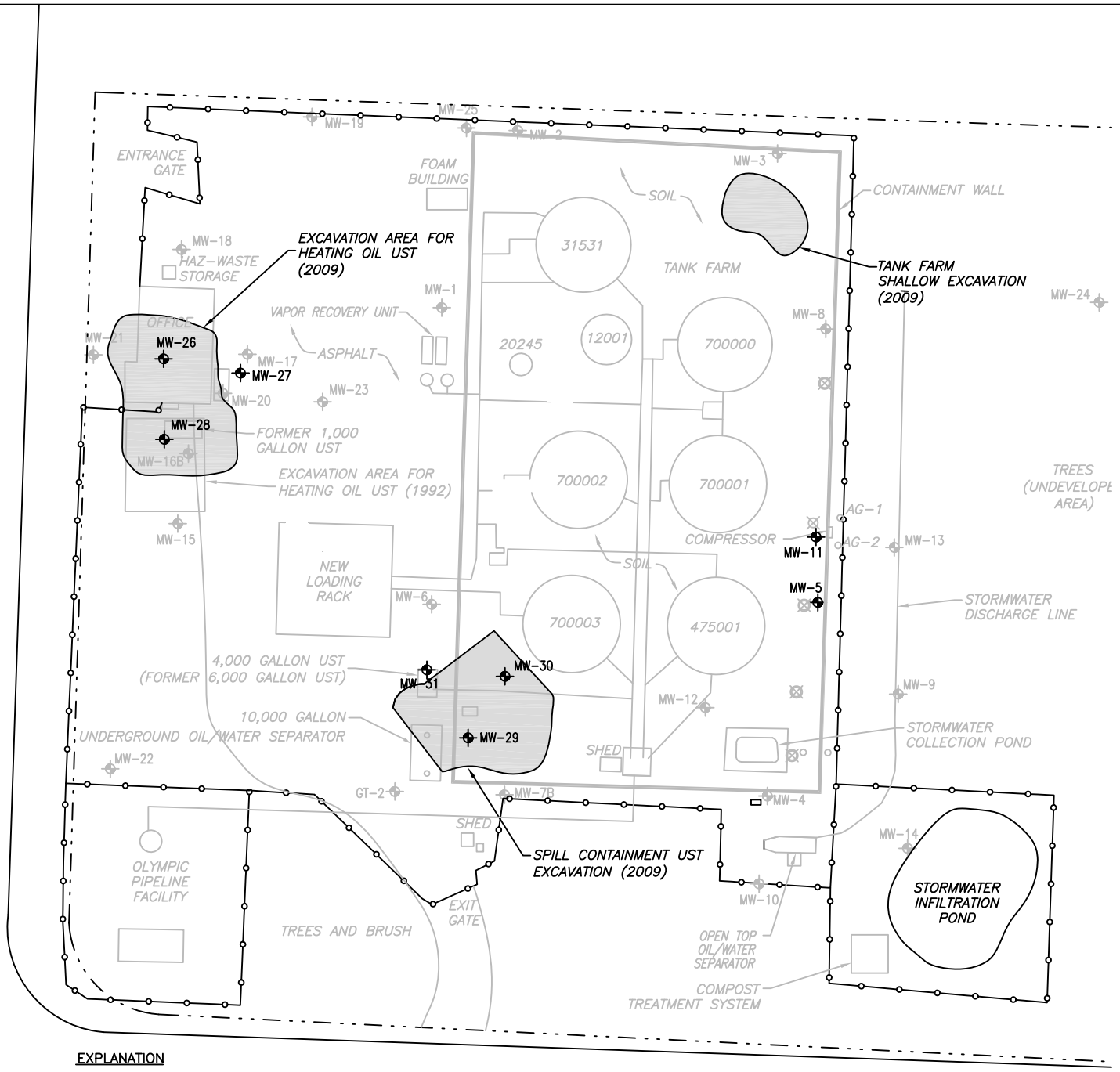


EXPLANATION

- MW-3 — ABANDONED MONITORING WELL LOCATION
- MW-30 — MONITORING WELL LOCATION
- FORMER DRAWDOWN WELL
- FORMER DRAWDOWN AND RECOVERY WELL
- PIPE RUNS (APPROXIMATE)
- APPROXIMATE PROPERTY BOUNDARY
- FENCE
- REMEDIAL EXCAVATION
- (NM) — NOT MEASURED

40 0 40 80

SCALE IN FEET

COMPLIANCE MONITORING WELL LOCATIONS

FORMER SHELL TUMWATER BULK TERMINAL
7370 LINDERSON WAY
TUMWATER, WA.

46194314

FIGURE 2

TABLES

Table 1. Compliance Well Groundwater Elevation Data
Former Shell Tumwater Bulk Terminal
7370 Linderson Way
Tumwater, Washington

Well Number	Date of Measurement	TOC Elevation (feet)[1]	Depth to Water (feet)	Groundwater Elevation (feet)
MW-5	12/3/2009	188.37	15.04	173.33
	3/22/2010	188.37	11.73	176.64
MW-11	12/3/2009	191.80	18.47	173.33
	3/22/2010	191.80	15.15	176.65
MW-26	12/3/2009	189.97	16.69	173.28
	3/22/2010	189.97	13.30	176.67
	6/14/2010	189.97	13.05	176.92
	9/15/2010	189.97	16.26	173.71
	12/28/2010	189.97	13.62	176.35
	3/14/2011	189.97	10.13	179.84
	6/23/2011	189.97	10.07	179.90
	9/21/2011	189.97	13.81	176.16
MW-27	12/3/2009	189.35	16.08	173.27
	3/22/2010	189.35	12.67	176.68
	6/14/2010	189.35	12.41	176.94
	9/15/2010	189.35	15.66	173.69
	12/28/2010	189.35	13.00	176.35
	3/14/2011	189.35	9.48	179.87
	6/23/2011	189.35	9.44	179.91
	9/21/2011	189.35	13.11	176.24
MW-28	12/3/2009	189.87	16.56	173.31
	3/22/2010	189.87	13.16	176.71
	6/14/2010	189.87	12.90	176.97
	9/15/2010	189.87	16.45	173.42
	12/28/2010	189.87	13.49	176.38
	3/14/2011	189.87	9.97	179.90
	6/23/2011	189.87	9.91	179.96
	9/21/2011	189.87	13.67	176.20
MW-29	12/3/2009	188.93	15.57	173.36
	3/22/2010	188.93	12.19	176.74
	6/14/2010	188.93	11.96	176.97
	9/15/2010	188.93	15.26	173.67
	12/28/2010	188.93	12.48	176.45
	3/14/2011	188.93	8.85	180.08
	6/23/2011	188.93	9.02	179.91
	9/21/2011	188.93	12.82	176.11
	12/13/2011	188.93	13.16	175.77
MW-30	12/3/2009	188.61	15.26	173.35
	3/22/2010	188.61	11.90	176.71
	6/14/2010	188.61	11.64	176.97
	9/15/2010	188.61	14.95	173.66
	12/28/2010	188.61	12.19	176.42
	3/14/2011	188.61	8.59	180.02
	6/23/2011	188.61	8.62	179.99
	9/21/2011	188.61	12.48	176.13
	12/13/2011	188.61	12.86	175.75

Table 1. Compliance Well Groundwater Elevation Data
Former Shell Tumwater Bulk Terminal
7370 Linderson Way
Tumwater, Washington

Well Number	Date of Measurement	TOC Elevation (feet)[1]	Depth to Water (feet)	Groundwater Elevation (feet)
MW-31	3/22/2010	189.01	12.31	176.70
	6/14/2010	189.01	12.05	176.96
	9/15/2010	189.01	15.32	173.69
	12/28/2010	189.01	12.58	176.43
	3/14/2011	189.01	9.01	180.00
	6/23/2011	189.01	9.03	179.98
	9/21/2011	189.01	12.86	176.15
	12/13/2011	189.01	13.24	175.77
	3/19/2012	189.01	9.35	179.66
	6/11/2012	189.01	9.31	179.70

Notes:
TOC = top of well casing
[1] = Top of casing elevations surveyed by OTAK in December, 2009. Vertical control was based on previous published survey data on MW-5 at an elevation of 188.37.

Table 2. Compliance Well Groundwater Analytical Results
Former Shell Tumwater Bulk Terminal
7370 Linderson Way
Tumwater, Washington

Well Number	Sample Date	Petroleum Hydrocarbons (µg/L)			Volatile Organic Compounds (VOCs) (µg/L)							
		Diesel-Range	Heavy Oil-Range	Gasoline-Range	Benzene	Toluene	Ethylbenzene	Xylene (Total)	Naphthalene	Methyl tert-butyl ether (MTBE)	1,2-Dichloroethane (EDC)	1,2-Dibromoethane (EDB)
MW-11	5/29/2009	**300**	<100	<100	<0.50	<1.0	<1.0	<1.0	-	-	-	-
	8/20/2009	<78	<390	<50.0	<1.00	<1.00	<1.00	<3.00	<1.00	-	-	-
	12/3/2009	<100	<100	-	-	-	-	-	-	-	-	-
	3/22/2010	**230**	**180**	-	-	-	-	-	-	-	-	-
Heating Oil UST Excavation Area												
MW-26	12/3/2009	**870**	<100	**860**	**0.99**	<1.0	**8.9**	**7.9**	**16**	-	-	-
	3/22/2010	-	-	<100	<0.50	<1.0	<1.0	<1.0	**-**	-	-	-
	4/5/2010	**280**	<100	-	-	-	-	-	-	-	-	-
	6/14/2010	**170**	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	9/15/2010	**1,200**	<100	**290**	<0.50	<1.0	**9.6**	**0.68**	**9.0**	-	-	-
	12/28/2010	**120**	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	3/14/2011	**206**	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	-	-	-
	6/23/2011	**254**	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	-	-	-
	9/21/2011	**201**	<190	107 J	<1.0	<1.0	**5.6**	**2.7**	4.9 J	-	-	-
MW-27	12/3/2009	**110**	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	3/22/2010	-	-	<100	<0.50	<1.0	<1.0	<1.0	-	-	-	-
	4/5/2010	<100	<100	-	-	-	-	-	-	-	-	-
	6/14/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	9/15/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	12/28/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	3/14/2011	**114**	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	-	-	-
	6/23/2011	<100	<200	<200	<1.0	<1.0	<1.0	<2.0	<5.0	-	-	-
	9/21/2011	**67.5 J**	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	-	-	-
MW-28	12/3/2009	**210**	<100	150	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	3/22/2010	-	-	<100	<0.50	<1.0	<1.0	<1.0	-	-	-	-
	4/5/2010	**240**	<100	-	-	-	-	-	-	-	-	-
	6/14/2010	**200**	<100	160	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	9/15/2010	**440**	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	12/28/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	-	-	-
	3/14/2011	<94	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	-	-	-
	6/23/2011	**159**	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	-	-	-
	9/21/2011	**241**	<200	<200	<1.0	<1.0	<1.0	<2.0	<5.0	-	-	-
Spill Containment UST Excavation Area												
MW-29	12/3/2009	<100	<100	<100	<0.50	<1.0	< 1.0	<1.0	<10	-	-	-
	3/22/2010	**-**	**-**	<100	<0.50	<1.0	<1.0	<1.0	-	<1.0	<0.50	<0.01
	4/5/2010	**100**	<100	-	-	-	-	-	-	-	-	-
	6/14/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	<1.0	<0.50	<0.01
	9/15/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	<1.0	<0.50	<0.01
	12/28/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	<1.0	<0.50	<0.01
	3/14/2011	<95	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
	6/23/2011	<95	<190	93.7 J	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
	9/21/2011	<96	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0

Table 2. Compliance Well Groundwater Analytical Results

Former Shell Tumwater Bulk Terminal
7370 Linderson Way
Tumwater, Washington

		Petroleum Hydrocarbons (µg/L)			**Volatile Organic Compounds (VOCs)** (µg/L)							
Well Number	**Sample Date**	Diesel-Range	Heavy Oil-Range	Gasoline-Range	Benzene	Toluene	Ethylbenzene	Xylene (Total)	Naphthalene	Methyl tert-butyl ether (MTBE)	1,2-Dichloroethane (EDC)	1,2-Dibromoethane (EDB)
MW-30	12/3/2009	**400**	<100	**110**	<0.50	<1.0	**0.22**	<1.0	<10	-	-	<0.01
	3/22/2010	-	-	<100	<0.50	<1.0	<1.0	<1.0	-	<1.0	<0.50	-
	4/5/2010	**180**	<100	-	-	-	-	-	-	-	-	-
	6/14/2010	**110**	<100	**110**	<0.50	<1.0	<1.0	<1.0	<10	<1.0	<0.50	<0.01
	9/15/2010	**220**	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	**0.36**	<0.50	<0.01
	12/28/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	<1.0	<0.50	<0.01
	3/14/2011	**113**	<200	<200	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
	6/23/2011	51.6 J	<200	<200	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
	9/21/2011	**110**	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
MW-31	12/3/2009	**150**	<100	<100	**6.3**	<1.0	<1.0	<1.0	<10	-	-	-
	3/22/2010	-	-	<100	**0.73**	<1.0	<1.0	<1.0	-	<0.50	<0.50	<0.01
	4/5/2010	<100	<100	-	-	-	-	-	-	-	-	-
	6/14/2010	**650**	<100	<100	**0.83**	<1.0	<1.0	<1.0	<10	<1.0	<0.50	<0.01
	9/15/2010	**640**	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	<1.0	<0.50	<0.01
	12/28/2010	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10	<1.0	<0.50	<0.01
	3/14/2011	<95	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
	6/23/2011	**268**	<190	<200	<1.0	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
	6/23/2011 DUP	**647**	<190	<200	0.32 J	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
	6/23/2011 Average	**458**[3]	-	-	**-**	-	-	-	-	-	-	-
	9/21/2011	**448**	<190	<200	0.39 J	<1.0	<1.0	<2.0	<5.0	<1.0	<1.0	<1.0
	12/12/2011	**453**	<190	-	-	-	-	-	-	-	-	-
	3/21/2012	**182**	<190	-	-	-	-	-	-	-	-	-
	6/11/2012	**120**	<190	-	-	-	-	-	-	-	-	-
MTCA Method A Cleanup Levels[1]		500	500	800 / 1,000[2]	5	1,000	700	1,000	160	20	5	0.01

Notes:

highlight indicates that the detection exceeds a MTCA Method A Cleanup Level

Bold text indicates a detection of the analyte above the MRL

Diesel- and heavy oil-range hydrocarbons analyzed by test Method NWTPH-Dx

Gasoline-range hydrocarbons analyzed by test Method NWTPH-Gx

TPH = total petroleum hydrocarbons

VOCs = volatile organic compounds

VOCs analyzed by EPA test Method 8260B

µg/L = micrograms per liter

- = not analyzed

< = indicates sample was below the laboratory method reporting limit (MRL)

[1] = Model Toxics Control Act (MTCA) Method A Cleanup Levels = Model Toxics Control Act Statute and Regulation - Table 720-1 Method A Cleanup Levels for Ground Water. MTCA Cleanup Regulation Chapter 173-340-900 WAC

[2] = 800 / 1,000 = MTCA Cleanup Level for gasoline-range hydrocarbons is generally 800 µg/L. If benzene is not detected, however, the MTCA Cleanup Level is 1,000 µg/L.

[3] = Average concentration of TPH-Dx for well MW-31

J = indicates an estimated value

ATTACHMENT A

FIELD DATA SHEETS

URS Corporation
GROUNDWATER LEVEL FORM
Shell Tumwater Terminal, Tumwater, WA

Job No: 46194314.GW12U
Date: 3/19/12
Personnel: E&L
Equipment: Solinst Model 122

Well Identification	Time	Depth to Product (ft)	Depth to Water1 (ft)	Product Thickness (ft)	Total Depth	Comments, Repairs Needed	Analysis											
							NWTPH-Dx	NWTPH-Gx	BTEX 8260B	Naphthalene 8260B	MTBE	EDB	EDC	Total Alkalinity	Sulfate	Hardness	Total Iron	Ferrous Iron
MW-26	-	-	-	-	23.18	Not Measured												
MW-27	1030	-	9.80	-	23.49													
MW-28	-	-	-	-	23.60	Not Measured												
MW-29	1039	-	9.23	-	23.20													
MW-30	1044	-	8.96	-	23.33													
MW-31	1045	-	9.35	-	23.31		X											
MW-111	-	-	-	-	-	Field dupe of MW-31												

Notes:
[1]Referenced from Top of Casing.

Trip Blank

Monitoring Well Sampling Field Log

Well Number: MW-31

Page 1 of ___

Date: 3/2/12

Project Information

Project Name: Shell Tumwater

URS Project Number: 46194314.GW12U

Sampling Information

Field Team: Ed Cutler

Purge Method: P. pump

Pump Intake Depth (ft btc): 17

Flow-Through Cell: Y

Sampling Method: P. pump

Decontamination Method:

Purge Water Disposition: Drum on site

Field Conditions: Lt. Rain

Comments:

Well Information

Well Diameter (in)	Screen Interval (ft bgs)	Stick-up or Flush
2"		flush

Well Volume Calculation

Well Depth (ft btc)	DTW (ft btc)	Water Column (ft)	Convert Factor (gal/ft)	One Well Volume (gal)	Three Well Volumes (gal)
23.31	9.35	13.96	0.17	—	—

3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
2	1L Amber	None	NWTPH-Dx	N
3	40mL VOA	HCl	NWTPH-Gx	N
3	40mL VOA	HCl	BTEX + N	N
3	40mL VOA	HCl	MTBE + EDC	N
3	40mL VOA	HCl	EDB	N

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity/Color/ Remarks
1100	Pump On			-	±3%	±10%	±0.1	±10mv	±10%	<= Stabilization Criteria
1103	400	230	9.38	9.45	392	18.09	5.99	65.4	*	C
1110		230	9.38	9.48	353	5.78	6.14	55.4	-	C
1115		230	9.38	9.68	322	4.85	6.71	22.3	-	C
1120		230	9.38	9.79	302	4.07	6.81	14.2	-	C
1125		230	9.38	10.12	295	3.70	6.88	6.1	-	C
1130		230	9.38	10.01	290	3.41	6.85	4.2	-	C
1135		230	9.39	10.17	279	3.12	6.82	2.5	-	C
1140		230	9.38	10.31	272	3.09	6.86	0.0	-	C

Ed Cutler

Start Sampling 1142

End Sampling 1158

Sample Number: MW-31

9.38

Note: bgs= below ground surface btc=below top of casing DTW=depth to water

Clarity: VC=very cloudy Cl=cloudy SC=slightly cloudy AC=almost clear C=clear CC=crystal clear

* Turbidity meter cal error

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- ☐ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☐ TEST AMERICA (_____)
- ☒ OTHER (Accutest)

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

Print Bill To Contact Name:

INCIDENT # (ENV.SERVICES): 3 0 0 0 5 3 ☐ CHECK IF NO INCIDENT # APPLIES

PO. #:

SAP #: 3 5 7 0 8 3

DATE: 3/21/12

PAGE: 1 of 1

SAMPLING COMPANY: URS	LOG CODE:	SITE ADDRESS: Street and City: 7370 Linderson Way SW, Tumwater	State: Wa
ADDRESS: 111 SW Columbia, Suite 1500, Portland Oregon 97201		EDF DELIVERABLE TO (Name, Company, Office Location): Brian Pletcher	PHONE NO: 503-222-7200
PROJECT CONTACT (Hardcopy or PDF Report to): Brian Pletcher		E-MAIL: 503-222-4292	CONSULTANT PROJECT NO: 46194314.GW12U
TELEPHONE: 503-222-7200	FAX: 503-222-4292	E-MAIL: brian_pletcher@urscorp.com	SAMPLER NAME(S) (Print): Edward Le Cocq

GLOBAL ID NO:

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 :

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

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	Napthalene (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	NWTPH-Gx	NWTPH-Dx(silica gel cleanup)	EDC (8260B)	Total Alkalinity	Sulfate	Hardness	Total Iron	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
	MW-31	3/21	1142	W				X																	X						

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

05/2/06 Revision

URS Corporation
GROUNDWATER LEVEL FORM
Shell Tumwater Terminal, Tumwater, WA

Job No: 46194314.GW12U
Date: 6/11/12
Personnel: Edward LeCoq
Equipment: Geotech oi/H2O Int.

Well Identification	Time	Depth to Product (ft)	Depth to Water1 (ft)	Product Thickness (ft)	Total Depth	Comments, Repairs Needed	Analysis: NWTPH-Dx	NWTPH-Gx	BTEX 8260B	Naphthalene 8260B	MTBE	EDB	EDC	Total Alkalinity	Sulfate	Hardness	Total Iron	Ferrous Iron
MW-26	-	-	-	-	23.18	Not Measured												
MW-27	-	-	-	-	23.49	-												
MW-28	-	-	-	-	23.60	Not Measured												
MW-29	-	-	-	-	23.20	-												
MW-30	-	-	-	-	23.33	-												
MW-31	1314	-	9.31	-	23.31		X											
MW-111	-	-	-	-	-	Field dupe of MW-31												

Notes:
[1]Referenced from Top of Casing.

Trip Blank

Monitoring Well Sampling Field Log

Well Number: MW-31

Page 1 of ___

Date: 6/11/12

Project Information

Project Name: Shell Tumwater

URS Project Number: 46194314.GW12U

Sampling Information

Field Team:

Purge Method: P. pump

Pump Intake Depth (ft btc): 16'

Flow-Through Cell: Y

Sampling Method: P. pump

Decontamination Method: Alconox / DI water

Purge Water Disposition: Drum on site

Field Conditions: clear

Comments:

Well Information

Well Diameter (in)	Screen Interval (ft bgs)	Stick-up or Flush
2"		

Well Volume Calculation

Well Depth (ft btc)	DTW (ft btc)	Water Column (ft)	Convert Factor (gal/ft)	One Well Volume (gal)	Three Well Volumes (gal)
23.31	9.31	14			

3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
2	1L Amber	None	NWTPH-Dx	N
3	~~40mL VOA~~	HCl	~~NWTPH-Gx~~	N
3	~~40mL VOA~~	HCl	~~BTEX + N~~	N
3	~~40mL VOA~~	HCl	~~MTBE + EDC~~	N
3	~~40mL VOA~~	HCl	EDB	N

Well Purge Data

Time	Volume Purged (gal.)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity/Color/ Remarks
	Pump On		Initial	-	±3%	±10%	±0.1	±10mv	±10%	<= Stabilization Criteria
1327	-	325	9.31	-	-	-	-	-	-	- C
1329	1,625	325	9.34	13.8	0.461	2.74	6.00	-	412	~~413~~ C
1334	3,250	325	9.34	12.5	0.471	0.90	5.85	-	277	~~279~~ C
1339	4,875	325	9.36	11.8	0.470	0.37	5.60	-	217	C
1344	6,500	325	9.36	11.5	0.452	0.32	6.25	-	103	C
1349	8,125	325	9.35	11.4	0.446	0.30	5.80	-	87	C
1354	9,750	325	9.36	11.5	0.435	0.35	4.91	-	72	C
1359	11,375	325	9.35	11.5	0.422	0.47	4.62	-	72	C
1404	13,000	325	9.35	11.2	0.420	0.76	4.61	-	70	C
1409	14,625	325	9.35	11.0	0.416	0.71	4.58	-	67	C

Start Sampling 1411

End Sampling 1416

Final 9.35

Sample Number: MW-31

Note: bgs= below ground surface btc=below top of casing DTW=depth to water

Clarity: VC=very cloudy Cl=cloudy SC=slightly cloudy AC=almost clear C=clear CC=crystal clear

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- ☐ CALSCIENCE (_____)
- ☐ SPL (_____)
- ☐ XENCO (_____)
- ☐ TEST AMERICA (_____)
- ☒ OTHER (ACCUTEST)

Please Check Appropriate Box:

- ☐ ENV. SERVICES
- ☐ MOTIVA RETAIL
- ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM
- ☐ CONSULTANT
- ☐ LUBES
- ☐ SHELL PIPELINE
- ☐ OTHER _____

Print Bill To Contact Name:

INCIDENT # (ENV SERVICES): 3 0 0 0 5 3 ☐ CHECK IF NO INCIDENT # APPLIES

DATE: 6/11/12

PO. #:

SAP #: 3 5 7 0 8 3

PAGE: 1 of 1

SAMPLING COMPANY: URS	LOG CODE:	SITE ADDRESS: Street and City: 7370 Linderson Way SW, Tumwater	State: Wa
ADDRESS: 111 SW Columbia, Suite 1500, Portland Oregon 97201		EDF DELIVERABLE TO (Name, Company, Office Location): Brian Pletcher	PHONE NO: 503-222-7200
PROJECT CONTACT (Hardcopy or PDF Report to): Brian Pletcher		E-MAIL: 503-222-4292	CONSULTANT PROJECT NO: 46194314.GW12U
TELEPHONE: 503-222-7200	FAX: 503-222-4292	E-MAIL: brian_pletcher@urscorp.com	SAMPLER NAME(S) (Print): Edward Le Cocq

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 :

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

LAB USE ONLY

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	Napthalene (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	NWTPH-Gx	NWTPH-Dx(silica gel cleanup)	EDC (8260B)	Total Alkalinity	Sulfate	Hardness	Total Iron	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
	MW-31	6/11	1411	W				X																	X						

Relinquished by: (Signature) Edward Le Cocq	Received by: (Signature)	Date: Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: Time:

05/2/06 Revision

ATTACHMENT B

LABORATORY ANALYTICAL REPORT AND CHAIN OF CUSTODY

Northern California ACCUTEST LABORATORIES

04/02/12

Technical Report for

Shell Oil Products

URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

46194314.GW12U

Accutest Job Number: C20984

Sampling Date: 03/21/12

Report to:

URS Corporation
111 SW Columbia, Suite 1500
Portland, OR 97201-5850
brian_pletcher@urscorp.com

ATTN: Brian Pletcher

Total number of pages in report: **13**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Kesavalu M. Bagawandoss, Ph.D., J.D., Lab Director

Client Service contact: Vincent Vancil 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

Sections: 1 2 3 4

Table of Contents

Section 1: Sample Summary **3**
Section 2: Sample Results **4**
2.1: C20984-1: MW-31 5
Section 3: Misc. Forms **6**
3.1: Chain of Custody 7
Section 4: GC Semi-volatiles - QC Data Summaries **9**
4.1: Method Blank Summary 10
4.2: Blank Spike/Blank Spike Duplicate Summary 11
4.3: Matrix Spike/Matrix Spike Duplicate Summary 12
4.4: Duplicate Summary 13

Sample Summary

Shell Oil Products

Job No: C20984

URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA
Project No: 46194314.GW12U

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C20984-1	03/21/12	11:42	ELC	03/22/12	AQ	Ground Water	MW-31

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-31		
Lab Sample ID:	C20984-1	**Date Sampled:**	03/21/12
Matrix:	AQ - Ground Water	**Date Received:**	03/22/12
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH021275.D	1	03/27/12	JH	03/26/12	OP5648	GHH702
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.182	0.097	0.049	mg/l	
	TPH (Motor Oil)	ND	0.19	0.097	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	85%		50-150%

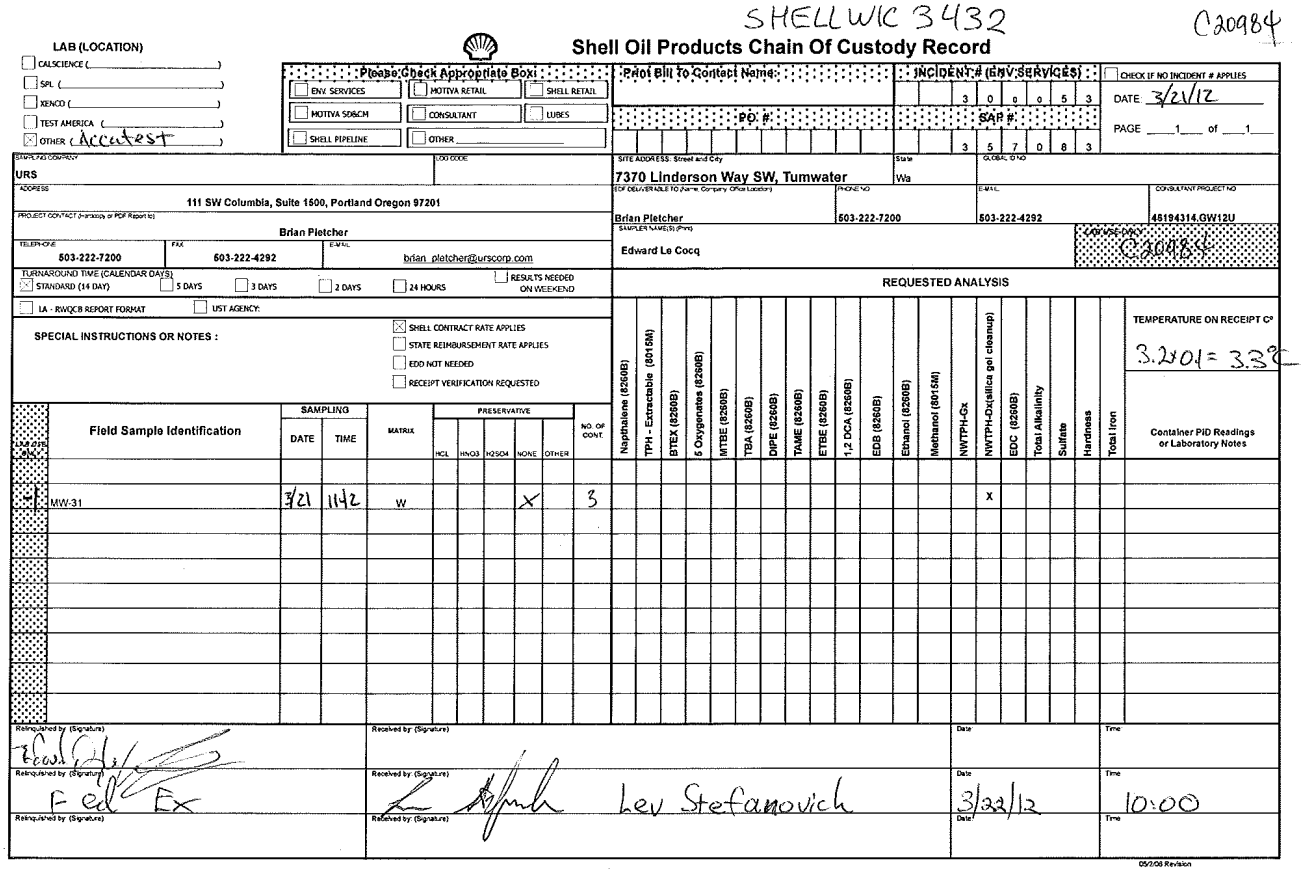
ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



SHELLWIC 3432

C20984

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- [ ] CALSCIENCE (_____)
- [ ] SPL (_____)
- [ ] XENCO (_____)
- [ ] TEST AMERICA (_____)
- [x] OTHER (Accutest)

Please Check Appropriate Box:
- [ ] ENV. SERVICES
- [ ] MOTIVA RETAIL
- [ ] SHELL RETAIL
- [ ] MOTIVA SD&CM
- [ ] CONSULTANT
- [ ] LUBES
- [ ] SHELL PIPELINE
- [ ] OTHER

Print Bill to Contact Name:

INCIDENT # (ENV. SERVICES): 3 0 0 0 5 3

PO #:

SAP #: 3 5 7 0 8 3

[ ] CHECK IF NO INCIDENT # APPLIES

DATE: 3/21/12

PAGE 1 of 1

SAMPLING COMPANY: URS

LOG CODE:

SITE ADDRESS: Street and City: 7370 Linderson Way SW, Tumwater

State: Wa

GLOBAL ID NO:

ADDRESS: 111 SW Columbia, Suite 1500, Portland Oregon 97201

(EDF DELIVERABLE TO (Name, Company, Office Location)): Brian Pletcher

PHONE NO: 503-222-7200

E-MAIL: 503-222-4292

CONSULTANT PROJECT NO: 48194314.GW12U

PROJECT CONTACT (hardcopy or PDF Report to): Brian Pletcher

TELEPHONE: 503-222-7200

FAX: 503-222-4292

E-MAIL: brian_pletcher@urscorp.com

SAMPLER NAME(S) (Print): Edward Le Cocq

COOLER ID(S): C20984

TURNAROUND TIME (CALENDAR DAYS):
- [x] 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 :
- [x] SHELL CONTRACT RATE APPLIES
- [ ] STATE REIMBURSEMENT RATE APPLIES
- [ ] EDD NOT NEEDED
- [ ] RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

TEMPERATURE ON RECEIPT C°: 3.2 + 0.1 = 3.3°C

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	Naphthalene (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	NWTPH-Gx	NWTPH-Dx silica gel cleanup	EDC (8260B)	Total Alkalinity	Sulfate	Hardness	Total Iron	Container PID Readings or Laboratory Notes
-1	MW-31	3/21	1142	W				X		3															X						

Relinquished by (Signature)	Received by (Signature)	Date	Time
Edward Le Cocq			
Fed Ex	Lev Stefanovich	3/22/12	10:00

05/2/08 Revision

C20984: Chain of Custody
Page 1 of 2

Accutest Laboratories Northern California Sample Receiving Check List

Job# : C20984 Initial: LS

Review Chain of Custody — **Chain of Custody is to be complete and legible.**

- ☑ Are these regulatory (NPDES) samples? CWA — (Yes) / No
- ☑ Is pH requested? — Yes / (No)
  - ☐ Was Client informed that hold time is 15 min? Yes / No — Continue Yes / No
  - ☐ Was ortho-Phosphate filtered with in 15 min? Yes / No — Continue Yes / No
- ☑ Are sample within hold time? — (Yes) / No
  - Are sample in danger of exceeding hold-time — Yes / (No)
- ☑ Existing Client? (Yes) / No — Existing Project? (Yes) / No
  - **If No:** Is Report to info complete and legible, including;
    - ☐ deliverable ☐ Name ☐ Address ☐ phone ☐ e-mail
    - Is Bill to info complete and legible, including;
    - ☐ PO# ☐ Credit card ☐ Contact address ☐ phone ☐ e-mail
    - Is Contact and/or Project Manager identified, including;
    - ☐ phone ☐ e-mail
    - ☐ Project name / number
- ☑ Special requirements? — Yes / (No)
- ☑ Sample IDs / date & time of collection provided? — (Yes) / No
- ☑ Is Matrix listed and correct? — (Yes) / No
- ☑ Analyses listed, we do, or client has authorized a subcontract? — (Yes) / No
- ☑ Chain is signed and dated by both client and sample custodian? — (Yes) / No
- ☑ TAT requested available? (Yes) / No — Approved by PM

Review Coolers:

- ☑ Were all Coolers temperatures measured at ≤6°C? — (Yes) / No
  - • If cooler is outside the ≤6°C; note down the affected bottles in that cooler on the left
- ☑ Are samples on Ice? — (Yes) / No

Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)

- ☑ Shipment Received Method Fed Ex
- ☑ Custody Seals: Present: Yes / (No) — If Yes; Unbroken: Yes / No

Review of Sample Bottles: If you answer no, explain to the side

- ☑ Chain matches bottle labels? (Yes) / No — ☑ Sample bottle intact? (Yes) / No
- ☑ Is there enough sample volume in proper bottle for requested analyses? (Yes) / No
- ☐ Proper Preservatives? Yes / No
  - Check pH on preserved samples except 1664, 625, 8270 and VOAs; make notes on left.
- ☐ Headspace-VOAs? **Greater than 6mm in diameter** — Yes / No
  - **List sample ID and affected container**

Client Sample ID	pH Check	Other Comments/Issues
-1		3x 1000ml ag /np

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\Accunca.accutest.com\depts\qa\sops\sop_completelist_2010\current_active_sop_oct_2010\sc001f1_0_form1_samplecontrol_samplereceivingchecklist_2009-01-01.doc

C20984: Chain of Custody
Page 2 of 2

Northern California ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C20984
Account: SHELLWIC Shell Oil Products
Project: URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5648-MB	HH021272.D	1	03/27/12	JH	03/26/12	OP5648	GHH702

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C20984-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.10	0.050	mg/l	
	TPH (Motor Oil)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
630-01-3	Hexacosane	91%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C20984
Account: SHELLWIC Shell Oil Products
Project: URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5648-BS	HH021273.D	1	03/27/12	JH	03/26/12	OP5648	GHH702
OP5648-BSD	HH021274.D	1	03/27/12	JH	03/26/12	OP5648	GHH702

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C20984-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.502	50	0.530	53	5	45-140/30
	TPH (Motor Oil)	1	0.728	73	0.740	74	2	45-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	81%	87%	50-150%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C20984
Account: SHELLWIC Shell Oil Products
Project: URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5648-MS	HH021277.D	1	03/27/12	JH	03/26/12	OP5648	GHH702
OP5648-MSD	HH021278.D	1	03/27/12	JH	03/26/12	OP5648	GHH702
C20984-1	HH021275.D	1	03/27/12	JH	03/26/12	OP5648	GHH702

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C20984-1

CAS No.	Compound	C20984-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	0.182		1.92	1.12	49	1.10	48	2	45-140/25
	TPH (Motor Oil)	ND		1.92	1.58	82	1.46	76	8	45-140/25

CAS No.	Surrogate Recoveries	MS	MSD	C20984-1	Limits
630-01-3	Hexacosane	86%	87%	85%	50-150%

Duplicate Summary

Job Number: C20984
Account: SHELLWIC Shell Oil Products
Project: URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5648-DUP	HH021367.D	1	03/30/12	JH	03/26/12	OP5648	GHH705
C20984-1	HH021275.D	1	03/27/12	JH	03/26/12	OP5648	GHH702

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C20984-1

CAS No.	Compound	C20984-1 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	0.182		0.179		2	25
	TPH (Motor Oil)	ND		ND		nc	25

CAS No.	Surrogate Recoveries	DUP	C20984-1	Limits
630-01-3	Hexacosane	89%	85%	50-150%

Northern California ACCUTEST LABORATORIES

06/18/12

Technical Report for

Shell Oil Products

URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

46194314.GW12U

Accutest Job Number: C22247

Sampling Date: 06/11/12

Report to:

URS Corporation
111 SW Columbia, Suite 1500
Portland, OR 97201-5850
brian_pletcher@urscorp.com

ATTN: Brian Pletcher

Total number of pages in report: **12**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Kesavalu M. Bagawandoss, Ph.D., J.D., Lab Director

Client Service contact: Vincent Vancil 408-588-0200

Certifications: CA (08258CA) AZ (AZ0762) DoD/ISO/IEC 17025:2005 (L2242)

Sections: 1 2 3 4

Table of Contents

Section 1: Sample Summary **3**
Section 2: Sample Results **4**
2.1: C22247-1: MW-31 5
Section 3: Misc. Forms **6**
3.1: Chain of Custody 7
Section 4: GC Semi-volatiles - QC Data Summaries **9**
4.1: Method Blank Summary 10
4.2: Blank Spike/Blank Spike Duplicate Summary 11
4.3: Duplicate Summary 12

Sample Summary

Shell Oil Products

Job No: C22247

URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA
Project No: 46194314.GW12U

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C22247-1	06/11/12	14:11	EL	06/12/12	AQ	Ground Water	MW-31

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-31		
Lab Sample ID:	C22247-1	**Date Sampled:**	06/11/12
Matrix:	AQ - Ground Water	**Date Received:**	06/12/12
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH023273.D	1	06/16/12	JH	06/13/12	OP6102	GHH748
Run #2							

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.120	0.097	0.049	mg/l	
	TPH (Motor Oil)	ND	0.19	0.097	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	79%		50-150%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SHELLWIC3432

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
- CALSCIENCE (_____)
- SPL (_____)
- XENCO (_____)
- TEST AMERICA (_____)
- OTHER (ACCutest)

Please Check Appropriate Box: ENV. SERVICES | MOTIVA RETAIL | SHELL RETAIL | MOTIVA SOBCH | CONSULTANT | LUBES | SHELL PIPELINE | OTHER

Print Bill To Contact Name:

INCIDENT # (ENV SERVICES): 3 0 0 0 5 3

CHECK IF NO INCIDENT # APPLIES

DATE: 6/11/12

PO #:

SAP #: 3 5 7 0 8 3

PAGE: 1 of 1

EMPLOYED COMPANY: URS

LOG CODE:

SITE ADDRESS: Street and City: 7370 Linderson Way SW, Tumwater

State: Wa

GLOBAL ID NO:

ADDRESS: 111 SW Columbia, Suite 1500, Portland Oregon 97201

EDF DELIVERABLE TO (Name, Company, Office Location): Brian Pletcher

PHONE NO: 503-222-7200

E-MAIL: 503-222-4292

CONSULTANT PROJECT NO: 46194314.GW12U

PROJECT CONTACT (Hardcopy or PDF Report to): Brian Pletcher

TELEPHONE: 503-222-7200

FAX: 503-222-4292

E-MAIL: brian_pletcher@urscorp.com

SAMPLER NAME(S) (Print): Edward Le Cocq

LAB WORK ORDER: C22247

TURNAROUND TIME (CALENDAR DAYS): [X] 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 :

[X] SHELL CONTRACT RATE APPLIES
[ ] STATE REIMBURSEMENT RATE APPLIES
[ ] EDD NOT NEEDED
[ ] RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

TEMPERATURE ON RECEIPT C°: 2.4 - 0.4 = 2.0

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	Napthalene (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	NWTPH-Gx	NWTPH-Dx(silica gel cleanup)	EDC (8260B)	Total Alkalinity	Sulfate	Hardness	Total Iron	Container PID Readings or Laboratory Notes
~1	MW-31	6/11	1411	W				X		2															X						

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Edward Le Cocq			
FEDEX	Lee Bair	6/12/12	0850

05/2006 Revision

C22247: Chain of Custody
Page 1 of 2

Accutest Laboratories Northern California Sample Receiving Check List Job# : C2 22447 Initial: LB

Review Chain of Custody — **Chain of Custody is to be complete and legible.**

- ☑ Are these regulatory (NPDES) samples? CWA — Yes / No
- ☑ Is pH requested? — Yes / No
  - ☐ Was Client informed that hold time is 15 min? Yes / No — Continue Yes / No
  - ☐ Was ortho-Phosphate filtered with in 15 min? Yes / No — Continue Yes / No
- ☑ Are sample within hold time? — Yes / No
  - Are sample in danger of exceeding hold-time — Yes / No
- ☑ Existing Client? Yes / No — Existing Project? Yes / No
  - If No: Is Report to Info complete and legible, including;
    - ☐ deliverable ☐ Name ☐ Address ☐ phone ☐ e-mail
    - Is Bill to Info complete and legible, including;
    - ☐ PO# ☐ Credit card ☐ Contact address ☐ phone ☐ e-mail
    - Is Contact and/or Project Manager identified, including;
    - ☐ phone ☐ e-mail
    - ☐ Project name / number
- ☑ Special requirements? — Yes / No
- ☑ Sample IDs / date & time of collection provided? — Yes / No
- ☑ Is Matrix listed and correct? — Yes / No
- ☑ Analyses listed, we do, or client has authorized a subcontract? — Yes / No
- ☑ Chain is signed and dated by both client and sample custodian? — Yes / No
- ☑ TAT requested available? Yes / No — Approved by PM

Review Coolers:

- ☑ Were all Coolers temperatures measured at ≤6°C? — Yes / No
  - If cooler is outside the ≤6°C; note down the affected bottles in that cooler on the left
- ☑ Are samples on Ice? — Yes / No

Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)

- ☑ Shipment Received Method FEDEX
- ☑ Custody Seals: Present: Yes / No — If Yes; Unbroken: Yes / No

Review of Sample Bottles; If you answer no, explain to the side

- ☑ Chain matches bottle labels? Yes / No — ☑ Sample bottle intact? Yes / No
- ☑ Is there enough sample volume in proper bottle for requested analyses? Yes / No
- ☑ Proper Preservatives? Yes / No N/A LB
  - Check pH on preserved samples except 1664, 625, 8270 and VOAs; make notes on left.
- ☐ Headspace-VOAs? **Greater than 6mm in diameter** — Yes / No N/A LB
  - **List sample ID and affected container**

Client Sample ID	pH Check	Other Comments/Issues
1		2 x 1 LITER AG / N/P

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\Accunca.accutest.com\depts\qa\sops\sop_completelist_2010\current_active_sop_oct_2010\sc001f1_0_form1_samplecontrol_samplereceivingchecklist_2009-01-01.doc

C22247: Chain of Custody
Page 2 of 2

Northern California ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C22247
Account: SHELLWIC Shell Oil Products
Project: URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6102-MB	HH023264.D	1	06/16/12	JH	06/13/12	OP6102	GHH748

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C22247-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.10	0.050	mg/l	
	TPH (Motor Oil)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
630-01-3	Hexacosane	78%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C22247
Account: SHELLWIC Shell Oil Products
Project: URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6102-BS	HH023262.D	1	06/16/12	JH	06/13/12	OP6102	GHH748
OP6102-BSD	HH023263.D	1	06/16/12	JH	06/13/12	OP6102	GHH748

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C22247-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.647	65	0.622	62	4	45-140/30
	TPH (Motor Oil)	1	0.849	85	0.808	81	5	45-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	83%	84%	50-150%

Duplicate Summary

Job Number: C22247
Account: SHELLWIC Shell Oil Products
Project: URSORP:INC#300053-7370 Linderson Way SW, Tumwater, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6102-DUP1	HH023274.D	1	06/16/12	JH	06/13/12	OP6102	GHH748
C22247-1	HH023273.D	1	06/16/12	JH	06/13/12	OP6102	GHH748

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C22247-1

CAS No.	Compound	C22247-1 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	0.120		0.103		15	25
	TPH (Motor Oil)	ND		ND		nc	25

CAS No.	Surrogate Recoveries	DUP	C22247-1	Limits
630-01-3	Hexacosane	78%	79%	50-150%