ATC
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GROUNDWATER MONITORING REPORT
(Third Quarter 2015)

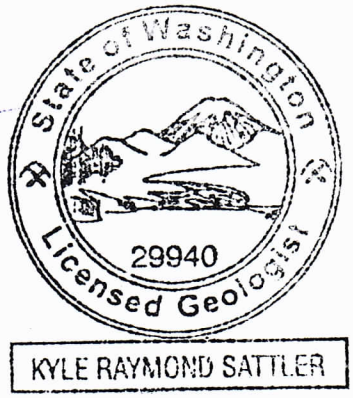
Phillips 66 Facility No. 255353 (AOC #1396)
600 Westlake Avenue North
Seattle, Washington
Washington State Department of Ecology VCP No. NW1714

Submitted to:
Mr. Roger Nye
Washington State Department of Ecology
3190 160th Avenue Southeast
Bellevue, Washington 98008-5452

Submitted on behalf of:
Ed Ralston
Phillips 66 Company
Remediation Management
76 Broadway
Sacramento, California 95818

Submitted by:
ATC Group Services LLC
6347 Seaview Avenue Northwest
Seattle, Washington 98107

Cardno ATC Project No. Z076000073
February 16, 2016



Kyle Sattler, L.G.
Senior Project Manager

GROUNDWATER MONITORING REPORT
(Third Quarter 2015)
Phillips 66 Facility No. 255353 (AOC #1396)
600 Westlake Avenue North
Seattle, Washington

SITE INFORMATION:	
Cardno ATC Contact Person:	Kyle Sattler
Date of previous sampling event:	6/22/15 and 6/23/15
Current remediation technique(s):	Soil Vapor Extraction/Air Sparge (Not active during monitoring and sampling event). On June 23, 2015, Dual Phase Extraction (DPE) conducted on MW-213. Pre- and Post-DPE groundwater samples collected from MW-213.
Ecology VCP Number:	NW1714

FIELD ACTIVITY:	
Date(s) monitored and/or sampled:	9/10/15, 9/11/15, 9/12/15 & 9/13/15
Wells monitored:	Twenty one (MWR-1, MWR-3 through MWR-6, MW-41, MW-45, MW-50, MW-54, MW-209 through MW-219 and SMW-3). Could not locate MWR-2.
Wells sampled:	Same as those monitored.
Purging method:	Wells were purged prior to sampling using low flow pumping via a peristaltic pump and dedicated polyethylene tubing.
Sampling method:	Samples were collected using peristaltic pump and dedicated polyethylene tubing.

SITE HYDROGEOLOGY:	
Minimum depth to groundwater (feet below top of casing [TOC]):	9.45 (MW-210)
Maximum depth to groundwater (feet below TOC):	15.81 (MW-41)
Average groundwater elevation (feet above mean sea level):	17.43
Change in average groundwater elevation since previous monitoring event (feet):	+0.05
Approximate groundwater gradient/flow direction:	0.003 / Northeast beneath site; regionally to the north-northeast
Previous groundwater gradient/flow direction:	0.006 (average) / Southeast beneath site; regionally to the north-northeast

GROUNDWATER CONDITIONS (9/10/15 through 9/13/15):	
Minimum dissolved phase gasoline-range hydrocarbons concentration excluding "non-detects" (micrograms per liter [µg/L]):	150 (MW-45)
Maximum dissolved phase gasoline-range hydrocarbons concentration (µg/L):	10,700 (MWR-5)
Maximum dissolved phase gasoline-range hydrocarbons concentration (µg/L) observed previous sampling event:	14,700 (MWR-5)
Minimum dissolved phase benzene concentration excluding "non-detects" (µg/L):	1.4 (MW-216)
Maximum dissolved phase benzene concentration (µg/L):	35.0 (MWR-5)
Maximum dissolved phase benzene concentration (µg/L) observed previous sampling event:	43.1 (MW-213 - Pre DPE Sample
Minimum dissolved phase ethylbenzene concentration excluding "non-detects" (µg/L):	1.1 (MW-218 and MW-219)
Maximum dissolved phase ethylbenzene concentration (µg/L):	223 (MWR-5)
Maximum dissolved phase ethylbenzene concentration (µg/L) observed previous sampling event:	455 (MWR-5)
Minimum dissolved phase toluene concentration excluding "non-detects" (µg/L):	1.1 (MWR-5)
Maximum dissolved phase toluene concentration (µg/L):	1.1 (MWR-5)
Maximum dissolved phase toluene concentration (µg/L) observed previous sampling event:	1.3 (MW-213 – Pre-DPE Sample)
Minimum dissolved phase total xylenes concentration excluding "non-detects" (µg/L):	11.4 (MW-218 – Pre-DPE Sample)

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Maximum dissolved phase total xylenes concentration (µg/L):	644 (MWR-5)
Maximum dissolved phase total xylenes concentration (µg/L) observed previous sampling event:	843 (MWR-5)

ADDITIONAL INFORMATION AND COMMENTS:

On September 11, 12 and 13, 2015, after groundwater samples had been collected from the monitor wells, High Intensity Targeted (HIT) hydrocarbon source removal events were conducted on monitor wells MW-213, MW-217 and MW-218 using a vacuum truck. The events were conducted for approximately 7 hours. Immediately after the events concluded, post-HIT hydrocarbon source removal event groundwater samples were collected from monitor wells MW-213, MW-217 and MW-218.

Gasoline-range hydrocarbons, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) were either not detected or were detected at concentrations less than the MTCA Method A cleanup levels in all of the samples submitted for analysis during this sampling event, with the following exceptions of gasoline-range hydrocarbons and benzene detected in the sample collected from MWR-5. Gasoline-range hydrocarbons and benzene were detected in MWR-5 at concentrations greater than the MTCA Method A cleanup levels. BTEX compounds were not analyzed on the groundwater sample collected from MW-45 during this sampling event because the analytical laboratory had to use the sample volume for re-analysis of gasoline-range hydrocarbons due to instrument failure during the initial analysis.

Gasoline-range hydrocarbons compounds detected in the groundwater samples collected from MW-213 and MW-218 after the HIT source removal events decreased in concentration compared to the results from the groundwater samples collected from MW-213 and MW-218 prior to the HIT source removal events. Gasoline-range hydrocarbons compounds detected in the groundwater sample collected from MW-217 after the HIT source removal event increased in concentration compared to the results from the groundwater sample collected from MW-217 prior to the HIT source removal event. However, the post-HIT source removal event results are still below the MTCA Method A cleanup levels and are generally consistent with the historic analytical results.

Purge water generated during the September 2015 groundwater monitoring and sampling event and HIT source removal event was placed in the AS/SVE system holding tank, and treated through the liquid carbon vessels prior to discharge to the City's sewer system.

As noted above and shown on Figure 1, the regional groundwater flow direction is toward the north-northeast, consistent with previous monitoring events. The depths to water and groundwater flow direction are likely influenced by the presence of native soil and fill materials on and off-site and the presence of subsurface hydrogeologic barriers installed during the remedial excavation activities completed in 2008.

ATC is continuing to evaluate the recent quarterly groundwater monitoring and sampling data trends and results of the June and September HIT source removal events. Additional HIT source removal events may be implemented at select wells if determined warranted. The next quarterly groundwater monitoring and sampling event is scheduled for December 2015.

ATTACHMENTS:

Table 1 Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Figure 1 Groundwater Conditions Map (9/10/15 and 9/12/15)
Figure 2 Groundwater Analytical Map (9/10/15 through 9/13/15)

Appendix A Laboratory Analytical Data Report and Chain of Custody Document
Appendix B Field Report / Groundwater Gauging & Sampling Logs / Drum Inventory Log / MW Inspection Log

TABLE

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-41	11/05/91	**<1,000**	**<1,000**	--	**67**	<0.5	<0.5	<0.5	--	--	--	--			--	--	--	--	--
27.00	12/29/93	<100	<250	**<750**	4.6	<0.5	<0.5	<0.5	--	--	--	--			--	11.24	0.00	15.76	--
	07/14/94	<100	<250	**<750**	**10**	<0.5	<0.5	<0.5	--	--	--	--			--	10.81	0.00	16.19	--
	10/25/94	<50	**500**	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	13.69	0.00	13.31	--
	03/08/95	<50	<250	**<750**	1.6	<0.5	<0.5	<1.0	--	--	--	--			--	14.72	--	12.28	--
	06/06/95	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	15.02	--	11.98	--
	09/07/95	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	15.00	--	12.00	--
	12/08/95	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	16.30	--	10.70	--
	04/01/96	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	15.02	--	11.98	--
	06/25/96	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.00	--	--	--	--			--	15.07	--	11.93	--
	09/27/96	<50	<250	**<750**	<0.5	<0.5	<0.5	<1.00	--	--	--	--			--	15.42	0.00	11.58	--
	03/28/97	--	--	--	--	--	--	--	--	--	--	--			--	15.27	0.00	11.73	--
	06/30/97	--	--	--	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	06/02/05	<100	<237	<474	<1	<1	<1	<2	<1	--	--	--			--	15.48	0.00	11.52	1.40
	07/26/05	<50	258[c]	**977**	<0.2	<0.2	<0.2	<0.50	<1	<0.5	--	--			--	15.88	0.00	--	5.70
36.25	11/02/05	<50	<238	<476	<0.5	<0.5	<0.5	<3.00	<1	--	--	--	--	--	--	15.89	0.00	20.36	0.80
	02/23/06	<50	<250	<500	<0.5	<0.5	<0.5	<3.00	<1	<1	1.32	--	--	--	--	15.26	0.00	20.99	--
	05/09/06	<50	<253	**<505**	<0.5	<0.5	<0.5	<3.00	<1	<1	1.56	--	--	--	--	15.47	0.00	20.78	0.57
	08/30/06	<80	<240	<481	<0.5	<0.5	<0.5	<3.00	<1	<5	<1	--	--	--	--	15.90	0.00	20.35	0.80
	12/12/06	<50	<243	<485	<0.5	<0.5	<0.5	<3.00	<1	<5	8.79	--	--	--	--	15.81	0.00	20.44	1.42
	03/07/07	<50	<263	**<526**	<0.5	<0.5	<0.5	<3.00	<1	<5	<1	--	--	--	--	15.38	0.00	20.87	0.32
	06/14/07	79.2	<236	<472	<0.5	<0.5	<0.5	<3.00	<1	<5	<1	--	--	--	--	15.45	0.00	20.80	0.53
	09/13/07	<50	<236	<472	<0.5	<0.5	<0.5	<3.00	<1	<5	2.56	--	--	--	--	15.61	0.00	20.64	0.28
	12/18/07	<50	<236	<472	<1	<1	<1	<3	<1	<1	2.73	--	--	--	--	15.46	0.00	20.79	--
	03/17/08	<50	<236	<472	**<236**	<0.5	<0.5	<0.5	<3	<1	<5	<1	--	--	<1	15.33	--	20.92	--
	06/03/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	<1	--	--	<236	15.31	0.00	20.94	--
	08/04/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	<1	--	--	<236	15.59	0.00	20.66	--
	11/04/08	<50.0	<245	<490	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00	--	--	<245	15.80	0.00	20.45	--
	02/24/09	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	--	<5.00	<1.00	<1.00	--	--	<240	15.60	0.00	20.65	--
	05/17/09	<50.0	<250	<500	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	2.05	<1.00	--	--	<250	15.78	0.00	20.47	--
	08/16/09	<50	470	<480	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<5.0	<5.0	--	--	<240	16.25	0.00	20.00	--
	11/15/09	<50	<280	**<560**	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	--	--	--	--	<280	16.50	0.00	19.75	--
	02/21/10	<50.0	98.4	<379	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.8	<0.10	--	--	<75.8	15.50	0.00	20.75	--
	05/23/10	<50.0	<76.9	<385	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.35	<0.10	--	--	<76.9	15.42	0.00	20.83	--
	08/16/10	Unable to gauge and sample; Well damaged.																	--
	11/15/10	<50.0	<77.7	<388	<1.0	1.8	<1.0	<3.0	--	<1.0	<10.0	<10.0	--	--	<77.7	15.24	0.00	21.01	--
	02/28/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--	--	--	<77.7	15.09	0.00	21.16	--
	06/14/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	--	0.51	<0.10	--	--	--	15.13	0.00	21.12	--
	08/29/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<1.0	<0.10	<0.10	--	--	<84.2	15.19	0.00	21.06	--
	12/05/11	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.16	0.11	--	--	<85.1	15.32	0.00	20.93	--
	02/15/12	<50.0	<76.2	<381	<1.0	<1.0	<1.0	<3.0	--	2.0	<10.0	<10.0	--	--	<76.2	15.19	0.00	21.06	--
	05/16/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0	--	--	<81.6	14.92	0.00	21.33	--
	08/14/12	<50.0	<88.9	<444	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0	--	--	<88.9	15.10	0.00	21.15	--
	11/20/12	<50.0	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	14.8	7.1	--	--	<100	15.19	0.00	21.06	--
	11/07/13	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	--	--	--	15.69	0.00	20.56	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.010	<1.0	--	15.72	0.00	20.53	--
36.09	12/09/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0099	<1.0	--	15.70	0.00	20.39	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	15.42	0.00	20.67	--
	06/22/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	15.57	0.00	20.52	--
	09/10/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	15.81	0.00	20.28	--

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Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-45	11/04/91	**17,000**	**2,000**	--		500	**1,000**	370	**2,300**	--	--	--			--	--	--	--	--
18.11	12/29/93	**11,000**	**1,100**	**860**		**2,900**	**760**	680	**3,000**	--	--	--			--	8.79	0.00	9.32	--
	04/07/94	**16,000**	**830**	**<750**		**2,500**	620	580	**2,500**	--	--	--			--	8.22	0.00	-8.22	--
	07/14/94	**25,000**	**850**	**1,100**		**4,000**	**750**	870	**3,600**	--	--	--			--	8.39	0.00	9.72	--
	10/25/94	**19,000**	**1,000**	**<750**		**2,600**	230	920	**3,000**	--	--	--			--	9.10	0.00	9.01	--
	09/07/01[b]	<50	375	**<606**		<0.5	<0.5	<0.5	<1	--	--	--			--	9.80	0.00	8.31	--
	10/10/01	--	--	--		--	--	--	--	--	--	--			--	NM	NM	--	--
	12/28/01	**17,300**	**2,210**	**597**		**2,130**	73.4	**1,330**	**2,970**	--	--	--			--	9.03	0.00	9.08	--
	03/08/02	**15,500**	**2,380**	**686**		**2,090**	38.4	**1,190**	**1,650**	--	--	--			--	9.12	0.00	8.99	--
	06/24/02	**5,100**	**1,920**	**761**		**1,330**	6.39	451	**235**	--	--	--			--	9.00	0.00	9.11	--
	09/26/02[c]	**2,420**	**1,190**	**547**		394	3.41	204	**106**	--	--	--			--	10.20	0.00	7.91	--
	12/12/02	Obstructed by vehicle														NM	NM	--	--
	03/13/03	**3,590**	**2,050**	<500		219	133	99.4	**368**	--	--	--			--	8.05	0.00	10.06	--
	06/12/03	**10,700**	**1,470**	**<575**		**1,350**	10.8	**954**	**631**	--	--	--			--	9.16	0.00	8.95	--
	09/19/03	583	<298	**<595**		1.93	2.25	5.65	**38.6**	--	--	--			--	10.68	0.00	7.43	--
	01/14/04	360	<118	<236		4.97	<0.5	2.48	1.01	--	--	--			--	10.12	0.00	7.99	0.40
	03/30/04	303	234	<240		<1	<1	<1	<2	--	--	--			--	10.19	0.00	7.92	0.84
	06/22/04	151	365	358		<1	<1	<1	<2	--	--	--			--	10.34	0.00	7.77	0.70
	09/29/04	270	<251	**<503**		<0.5	1.5	0.62	7.3	--	--	--			--	10.40	0.00	7.71	0.90
	12/29/04	207	<249	<498		2.90	<1	<1	9.04	--	--	--			--	9.40	0.00	8.71	0.30
	03/17/05	235	<239	<477		5.61	1.08	2.49	19.1	--	--	--			--	9.44	0.00	8.67	1.20
	06/01/05	793	283[i,j]	<491[j]		17.1	37.9	13.9	**83.8**	<1	--	--			--	8.62	0.00	9.49	1.30
	07/25/05	564	<250	**<500**		18.6	14.6	16.7	**113.2**	<1	7.51	--			--	8.98	0.00	--	3.20
27.52	11/01/05	100	<240	<481		<0.200	<0.5	<0.5	<1	<2	--	--			--	9.81	0.00	17.71	NM [o]
	02/21/06	484	<275	**<549**		5.13	<0.5	7.65	**36.5**	<1	3.77	1.30			--	8.83	0.00	18.69	--
	05/08/06	198	**540**	**<500**		1.06	<0.5	0.980	2.70	<1	1.69	<1			--	8.79	0.00	18.73	1.00
	08/30/06	104	<248	<495		<0.5	<0.5	<0.500	<3	<1	<5	<1			--	9.84	0.00	17.68	3.03
	12/12/06	**25,900**	**662**	<485		64.1	23.8	330	**5,020**	<5	**278**	10.8			--	9.13	0.00	18.39	1.49
	03/06/07	**1,680**	<260	**<521**		<0.5	<0.5	22.0	**139**	<1	54	<1			--	8.75	0.00	18.77	0.30
	06/15/07	**12,500**	439	<481 [r]		16.8	2.77	178	**1,590**	<1	**330**	1.77			--	8.85	0.00	18.67	0.24
	09/13/07	**23,400**	328	<481		65.3	16.9	303	**3,740**	<1	**246**	6.85			--	9.07	0.00	18.45	0.15
	12/17/07	Unable to sample, well under water														--	--	--	--
	03/18/08	<50	<236	<472	**<236**	<0.5	<0.5	<0.5	<3	<1	<5	<1			<1	8.30	0.00	19.22	--
	06/03/08	Unable to sample, well under water														--	--	--	--
	08/05/08	64.4	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	1.39	<1			<236	8.90	0.00	18.62	--
	11/03/08	Well under water, unable to sample.														--	--	--	--
	02/22/09	53.2	<236	<472	<0.500	<0.500	<0.500	<3.00	--	15.0	<1.00	<1.00			<236	11.44	0.00	8.38	--
	05/17/09	176.0	428	<476	<0.500	<0.500	<0.500	<3.00	<1.00	97.9	<1.00	<1.00			431	16.67	0.00	10.85	--
	08/16/09	250	**570**	<480	<0.50	<0.50	<0.50	<2.0	<1.0	100	<5.0	<5.0			**1200**	16.92	0.00	10.60	--
	11/15/09	**1000**	**2,200[y]**	<480	3.9	2.2	11	28	<1.0	14	9.2	<1			**2,100[y]**	9.12	0.00	18.40	--
	02/21/10	745	**1,160**	**832**	3.9	<1.0	34	23.2	--	14.5	4.7	<0.10			**566**	8.46	0.00	19.06	--
	05/23/10	398	**692**	**449**	1.3	<1.0	14.5	4	--	7.9	3.1	<0.10			**665**	8.15	0.00	19.37	--
	08/16/10	319	<77.7	<388	<1.0	<1.0	5.8	<3.0	--	7.5	7.2	0.37			177	8.80	0.00	18.72	--
	11/16/10	**1,880**	106	<388	**5.8**	1.3	43.1	212	--	28.4	<10.0	<10.0			**547**	8.15	0.00	19.37	--
	02/28/11	**10,500**	347	<388	**17.6**	3.3	172.0	479	--	150.0	<10.0	--			**2,750**	8.66	0.00	18.86	--
	06/14/11	**3,230**	137	<396	1.7	<1.0	46.8	34	--	--	1.8	<0.10			**--**	8.85	0.00	18.67	--
	08/29/11	**1,790**	119	<421	<1.0	<1.0	5.1	<3.0	--	36.5	0.4	<0.10			489	8.62	0.00	18.90	--
	12/05/11	**19,900**	298	<426	**20.5**	5.7	327	**2,240**	--	**213**	2.1	0.34			**6,960**	7.80	0.00	19.72	--
	02/15/12	**14,000**	219	<404	**11.6**	2.7	203	631	--	**206.0**	<10.0	<10.0			**2,470**	9.05	0.00	18.47	--
	05/15/12	**3,920**	211	<421	<5.0	<5.0	77.0	122	--	75.4	<10.0	<10.0			**1,330**	8.14	0.00	19.38	--
	08/14/12	**1,600**	206	<430	<1.0	<1.0	7.3	<3.0	--	33.7	<10.0	<10.0			**676**	8.78	0.00	18.74	--
	11/20/12	**4,130**	**1,900**	<100	**6.0**	2.8	105	612	--	99.3	3.7	<3.0			**2,500**	4.37	--	23.15	
	11/06/13	281	<400	<400	<1.0	1.3	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	10.50	0.00	Note Z	--
28.06	07/29/14	Well was dry																	
27.91	12/08/14	323	--	--	**6.2**	<1.0	1.6	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	10.95	0.00	16.96	--
	03/23/15	**917**	--	--	**2.0**	<1.0	20.4	53.8	--	--	--	--	--	--	--	9.23	0.00	18.68	--
	06/22/15	474	--	--	**5.1**	<1.0	18.3	<3.0	--	--	--	--	--	--	--	10.57	0.00	17.34	--
	09/10/15	150	--	--	--	--	--	--	--	--	--	--	--	--	--	10.11	0.00	17.80	--

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-50	10/10/01	**8,970**	**2,200**	<606		674	221	382	**779**	--	--	--				11.11	0.00	8.69	--
19.80	12/28/01	**23,200**	**3,460**	<500		1,630	3,690	991	**4,480**	--	--	--				10.45	0.00	9.35	--
	03/08/02	Obstructed by vehicle														NM	NM	--	--
	06/24/02	**8,290**	**1,970**	556		414	23	314	**2,010**	--	--	--				10.84	0.00	8.96	--
	09/26/02	Obstructed by vehicle														NM	NM	--	--
	12/12/02	Obstructed by vehicle														NM	NM	--	--
	03/13/03	**12,200**	**1,810**	<588		733	127	523	**1,100**	--	--	--				9.93	0.00	9.87	--
	06/12/03	**6,450**	**1,740**	<500		448	13.7	299	**286**	--	--	--				11.27	0.00	8.53	--
	09/19/03	**4,440**	<250	<500		51.7	315	26.1	**462**	--	--	--				12.05	0.00	7.75	--
	01/14/04	**29,700**	**1,970**	<258		308	502	312	**6,180**	--	--	--				11.81	0.00	7.99	4.10
	03/30/04	**3,330**	**867**	<241		21.8	<5	21.9	**226.4**	--	--	--				11.65	0.00	8.15	1.69
	06/22/04	**2,130**	**874**	<237		14.2	2.4	27.9	**85.11**	--	--	--				11.79	0.00	8.01	1.10
	09/29/04	**3,600**	**1,330**	<502		92	62	100	**520**	--	--	--				11.71	0.00	8.09	0.20
	12/29/04	**1,570**	**745**	<611		9.69	3.88	9.98	**27.62**	--	--	--				11.01	0.00	8.79	1.50
	03/17/05	**1,420**	**1,060**	506		5.82	2.41	10.6	**30.59**	--	--	--				11.26	0.00	8.54	0.60
	06/01/05	**1,710**	**528** [g]	<503		20.3	10.7	42.3	**84.7**	8.01	--	--				10.58	0.00	9.22	1.30
	07/25/05	**1,500**	<250	<500		16.8	3.23	36.9	**50.11**	4.29	7.04	--				10.90	0.00	--	1.70
29.32	11/01/05	634	380 [g]	<472		15.9	2.49	0.52	2.19	5.62	--	--				10.60	0.00	18.72	NM [o]
	02/21/06	**1,430**	<272	<543		139	15.4	16.7	**28.20**	<5	7.05	1.33				10.56	0.00	18.76	--
	05/08/06	**1,550** [J]	**1,870**	<485		28.4	2.13	24.7	**35.06**	3.88	9.48	<1				10.81	0.00	18.51	<1.00
	08/29/06	264	<248	<495		8.55	0.780	6.87	7.26	4.23	<5	<1				11.58	0.00	17.74	0.47
	12/12/06	**1,650**	<243	<485		80.9	2.75	18.9	41.9	3.93	**17.4**	1.62				10.61	0.00	18.71	0.09
	03/08/07	**1,650**	<240	<481		51.3	1.06	14.1	33.6	2.92	**35.9**	<1				10.53	0.00	18.79	0.30
	06/15/07	**1390** [J]	333	<495 [r]		28.0	1.00	6.46	5.20	1.85	**40.5**	<1				10.74	0.00	18.58	0.35
	09/13/07	439	<240	<481		4.36	<0.5	0.650	<3	1.89	10.3	<1				10.90	0.00	18.42	0.13
	12/18/07	886	<236	<472		1.10	<1	4	<3	<1	6.9	2.94				9.63	0.00	19.69	--
	03/18/08	77.6	<236	<472	<236	1.02	0.58	1.85	<3	<1	<5	<1			<1	11.39	0.00	17.93	--
	06/03/08	Well covered by trailer truck, unable to sample														--	--	--	--
	08/05/08	**1,260**	<236	<472	3.94	0.50	8.42	9.76	2.06	<5	4	<1			494	11.28	0.00	18.04	--
	11/03/08	**1,250**	<236	<472	<0.500	<0.500	3.69	4.84	<1.00	<5.00	<1.00	<1.00			478	10.79	0.00	18.53	--
	11/18/08	Thought to be Decommissioned														--	--	--	--
	11/15/09	630	**2,900** [Y]	<490	2.3	0.74	0.65	<2.0	<1.0	660 [H]	1.1	<1			**3000**	11.88	0.00	17.44	--
	02/21/10	<50.0	**1,280**	457	<1.0	<1.0	<1.0	4.9	--	62.8	0.61	<0.10			392	11.02	0.00	18.30	--
	05/23/10	57.4	**1320**	433	<1.0	<1.0	<1.0	<3.0	--	60.4	0.92	<0.10			**1080**	10.72	0.00	18.60	--
	08/16/10	<50.0	158	<392	<1.0	<1.0	<1.0	<3.0	--	33.4	0.63	0.18			181	11.07	0.00	18.25	--
	11/16/10	<50.0	102	<388	<1.0	<1.0	<1.0	<3.0	--	35.6	<10.0	<10.0			102	10.43	0.00	18.89	--
	02/28/11	74.8	102	<388	<1.0	<1.0	<1.0	<3.0	--	19.2	<10.0	--			114	10.75	0.00	18.57	--
	06/14/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	--	0.52	<0.10			--	10.06	0.00	19.26	--
	08/29/11	65.1	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	15	0.19	0.12			88.2	10.65	0.00	18.67	--
	12/05/11	71.6	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	10.2	0.53	<0.10			<86.0	10.15	0.00	19.17	--
	02/15/12	85.0	110	<426	<1.0	<1.0	<1.0	<3.0	--	20.5	<10.0	<10.0			154	11.35	0.00	17.97	--
	05/15/12	97.9	<80.0	<400	<1.0	<1.0	<1.0	<3.0	--	16.1	<10.0	<10.0			87.3	10.36	0.00	18.96	--
	08/14/12	138	117	<430	<1.0	<1.0	<1.0	<3.0	--	11.4	<10.0	<10.0			143	10.75	0.00	18.57	
	11/20/12	183	180	<100	<1.0	<1.0	<1.0	<3.0	--	6.5	6.4	<3.0			250	8.88	0.00	20.44	
	11/06/13	185	**540**	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			**530**	12.55	0.00	16.77	--
	07/29/14	Well contained approximately 0.05 foot of water in well cap; well was not sampled.																	
29.00	12/08/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	14.0	<10.0	<0.0098	<1.0	--	14.07	0.00	14.93	--
	03/27/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.05	0.00	16.95	--
	06/22/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.79	0.00	16.21	--
	09/10/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.54	0.00	16.46	--

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-54	06/16/05	206	130[f]	410	4.82	<1	2.09	10.27	<1	--	--	--			--	9.09	0.00	18.91	1.40
28.00	07/25/05	177	<250	<500	**5.26**	0.280	0.680	3.11	<1	0.990	--	--			--	9.51	0.00	18.49	0.20
	11/18/05	75.8	<243	<485	0.560	0.530	4.19	10.8	<1	--	--	--			--	9.73	0.00	18.27	0.39
	02/23/06	<50	**695**	<472	<0.5	<0.5	<0.5	<0.5	<1	<1	1.04	--			--	9.44	0.00	18.56	--
	05/08/06	<50	328[p]	<500	<0.5	<0.5	<0.5	<3	<1	<1	1.41	--			--	9.31	0.00	18.69	0.97
	08/29/06	<80	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	10.33	0.00	17.67	0.53
	12/12/06	<50	<248	<495	<0.5	<0.5	<0.5	<3	<1	<5	2.69	--			--	9.69	0.00	18.31	1.99
	03/06/07	<50	<263	**<526**	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	9.40	0.00	18.60	0.83
	06/15/07	<50	<243	<485[r]	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	9.25	0.00	18.75	0.38
	09/13/07	<50	<245	<490	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	9.59	0.00	18.41	0.20
	12/18/07	<50	<236	<472	<1	<1	<1	<3	<1	<1	1.13	--			--	8.53	0.00	19.47	
	03/18/08	<50	<236	<472	**<236**	<0.5	<0.5	<0.5	<3	<1	<5	<1			<1	9.06		18.94	--
	06/03/08	Unable to sample, well under water														--	--	--	--
	08/05/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	2.37	<1			<236	9.68	0.00	18.32	--
	11/03/08	<50	<236	<472	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	8.64	<1.00			<236	8.72	0.00	19.28	--
	02/22/09	Well inaccessible: buried under garbage containers.														--	--	--	--
	05/17/09	Well inaccessible: buried under garbage containers.														--	--	--	--
	08/16/09	280	<240	<480	<0.50	<0.50	1.4	2.5	<1.0	<5.0	<5.0	<5.0			310	11.78	0.00	16.22	--
	11/15/09	<50	<240	<470	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	1.8	<1			<240	9.78	0.00	18.22	--
	02/21/10	<50.0	178	434	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.1	0.24			<75.8	9.20	0.00	18.80	--
	05/23/10	<50.0	144	384	<1.0	<1.0	<1.0	<3.0	--	<1.0	4.4	0.12			92.8	8.64	0.00	19.36	--
	08/16/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	5.7	0.21			<77.7	9.30	0.00	18.70	--
	11/17/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	8.76	0.00	19.24	--
	02/28/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	9.23	0.00	18.77	--
	06/14/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	--	1.2	<0.10			--	8.50	0.00	19.50	--
	08/29/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.58	<0.10			<84.2	9.13	0.00	18.87	--
	12/05/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.70	0.18			<84.2	8.90	0.00	19.10	--
	02/16/12	<50.0	<75.8	<379	<1.0	<1.0	<1.0	<3.0	--	2.4	<10.0	<10.0			<75.8	9.98	0.00	18.02	--
	05/15/12	<50.0	<75.5	<377	<1.0	<1.0	<1.0	<3.0	--	4.0	<10.0	<10.0			<75.5	8.38	0.00	19.62	--
	08/14/12	<50.0	<87.9	<440	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<87.9	9.40	0.00	18.60	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	6.89	0.00	21.11	--
	11/06/13	281	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	10.43	0.00	Note Z	--
28.05	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	14.81	0.00	13.24	--
27.88	12/08/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	11.40	0.00	16.48	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.91	0.00	17.97	--
	06/22/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	10.43	0.00	17.45	--
	09/10/15	<100	--	--	2.1	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	10.59	0.00	17.29	--

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Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-209	11/05/08	<50.0	<238	<476	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00			<238	9.22	0.00	17.78	--
27.00	02/23/09	Inaccessible														--	--	--	--
	05/17/09	Inaccessible														--	--	--	--
	08/17/09	Inaccessible														--	--	--	--
	11/17/09	Inaccessible														--	--	--	--
	02/22/10	<50.0	251	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.3	<0.10			<77.7	9.30	0.00	17.70	--
	05/24/10	<50.0	192	<396	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.1	<0.10			137	8.04	0.00	18.96	--
	08/18/10	<50.0	86.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	1.3	<0.10			<77.7	8.86	0.00	18.14	--
	11/16/10	<50.0	85.1	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	9.45	0.00	17.55	--
	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	9.26	0.00	17.74	--
	06/15/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	--	0.19	<0.10			--	8.10	0.00	18.90	--
	08/30/11	<50.0	<80.0	<400	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.35	0.17			--	9.09	0.00	17.91	--
	12/06/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.12	0.18			<82.5	9.50	0.00	17.50	--
	02/15/12	<50.0	103	<412	<1.0	<1.0	<1.0	<3.0	--	2.1	<10.0	<10.0			<82.5	9.70	0.00	17.30	--
	05/16/12	<50.0	<79.2	<396	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<79.2	8.08	0.00	18.92	--
	08/15/12	<50.0	117	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			85.6	8.80	0.00	18.20	
	11/21/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.00	0.00	18.00	
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	9.66	0.00	17.34	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	10.36	0.00	16.64	--
26.88	12/09/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	9.61	0.00	17.27	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	8.90	0.00	17.98	--
	06/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	8.98	0.00	17.90	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.75	0.00	17.13	--
MW-210	11/05/08	<50.0	<243	<485	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00			<243	8.60	0.00	18.10	--
26.70	02/25/09	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	--	<5.00	<1.00	<1.00			<240	5.90	0.00	20.80	--
	05/17/09	<50.0	<245	<490	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00			<245	8.61	0.00	18.09	--
	08/17/09	<50	<240	<280	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<5.0	<5.0			<240	9.60	0.00	17.10	--
	11/17/09	<50	<240	<490	<0.50	<0.50	<0.50[H]	<2.0	<1.0	<5.0	1.3	<1			<240	8.15	0.00	18.55	--
	02/22/10	<50.0	154	<381	<1.0	<1.0	<1.0	5.5	--	<1.0	0.31	0.21			<76.2	8.73	0.00	17.97	--
	05/24/10	<50.0	190	<385	<1.0	<1.0	<1.0	<3.0	--	<1.0	.45	<0.10			150	7.65	0.00	19.05	--
	08/18/10	<50.0	<78.4	<392	<1.0	<1.0	<1.0	<3.0	--	<1.0	.36	<0.10			<78.4	8.54	0.00	18.16	--
	11/16/10	<50.0	85.1	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	8.81	0.00	17.89	--
	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	8.77	0.00	17.93	--
	06/15/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	--	0.27	<0.10			--	7.73	0.00	18.97	--
	08/30/11	<50.0	<87.0	<435	<1.0	<1.0	<1.0	<3.0	--	<1.0	<0.10	<0.10			<87.0	8.67	0.00	18.03	--
	12/06/11	<50.0	<86.2	<412	<1.0	<1.0	<1.0	<3.0	--	<1.0	<0.10	0.22			<82.5	8.95	0.00	17.75	--
	02/15/12	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	2.1	<10.0	<10.0			<82.5	9.20	0.00	17.50	--
	05/16/12	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<83.3	7.64	0.00	19.06	--
	08/15/12	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<85.1	8.43	0.00	18.27	--
	11/21/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	6.42	0.00	20.28	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	9.42	0.00	17.28	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.010	<1.0	--	10.72	0.00	15.98	--
26.56	12/09/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0099	<1.0	--	9.39	0.00	17.17	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	8.54	0.00	18.02	--
	06/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	8.76	0.00	17.80	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.45	0.00	17.11	--

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MW-211	11/05/08	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	<1.00	<1.00			<240	7.23	0.00	19.32	--
26.55	02/25/09	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	--	<5.00	<1.00	<1.00			<240	8.19	0.00	18.39	--
	05/17/09	<50.0	<236	<472	<0.500	<0.500	<0.500	<3.00	<1.00	<5.00	4.72	<1.00			<236	9.10	0.00	17.45	--
	08/17/09	<50	<240	<490	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<5.0	<5.0			<240	9.74	0.00	16.81	--
	11/17/09	<50	<240	<480	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<1	<1			<240	8.24	0.00	18.31	--
	02/22/10	<50.0	146	<385	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.42	<0.10			<76.9	7.91	0.00	18.64	--
	05/24/10	<50.0	115	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	.46	.29			85.1	7.56	0.00	18.99	--
	08/18/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	.34	.13			<77.7	8.42	0.00	18.13	--
	11/15/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	8.37	0.00	18.18	--
	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	8.54	0.00	18.01	--
	06/15/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	--	0.12	<0.10			--	5.61	0.00	20.94	--
	08/30/11	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<1.0	<0.10	<0.10			<84.2	8.48	0.00	18.07	--
	12/06/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<10.0	<0.10	0.15			<83.3	8.83	0.00	17.72	--
	02/15/12	<50.0	<75.5	<377	<1.0	<1.0	<1.0	<3.0	--	2.1	<10.0	<10.0			<75.5	9.10	0.00	17.45	--
	05/16/12	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	4.0	<10.0	<10.0			<83.3	7.65	0.00	18.90	--
	08/15/12	<50.0	<88.9	<444	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<88.9	8.42	0.00	18.13	--
	11/21/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	6.70	0.00	19.85	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	9.45	0.00	17.10	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0097	<1.0	--	12.24	0.00	14.31	--
26.48	12/09/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	**28.9**	<10.0	<0.0098	<1.0	--	9.67	0.00	16.81	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	8.77	0.00	17.71	--
	06/22/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	8.91	0.00	17.57	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.51	0.00	16.97	--
MW-212	09/30/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.021	<1.0	--	14.23	0.00	--	--
29.09	12/09/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0097	<1.0	--	12.83	0.00	16.26	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.53	0.00	17.56	--
	06/22/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.15	0.00	16.94	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.87	0.00	17.22	--
MW-213	10/06/14	105	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	11.0	<10.0	<0.020	<1.0	--	11.63	0.00	--	--
27.35	12/08/14	<100	--	--	4.9	<1.0	<1.0	<3.0	<1.0	--	12.8	<10.0	<0.0098	<1.0	--	10.40	0.00	16.95	--
	03/23/15	364	--	--	**70.6**	<1.0	18.7	18.5	--	--	--	--	--	--	--	9.39	0.00	17.96	--
	6/23/2015[aa]	453	--	--	**43.1**	1.3	16.8	27.8	--	--	--	--	--	--	--	9.24	0.00	18.11	--
	6/23/2015[bb]	150	--	--	**9.4**	<1.0	6.1	3.1	--	--	--	--	--	--	--	9.24	0.00	18.11	--
	9/11/2015[cc]	638	--	--	2.2	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.98	0.00	17.37	
	9/11/2015[dd]	<100	--	--	3.4	<1.0	1.4	<3.0	--	--	--	--	--	--	--	9.98	0.00	17.37	
MW-214	10/06/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.021	<1.0	--	12.14	0.00	--	--
27.33	12/08/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.010	<1.0	--	10.84	0.00	16.49	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.45	0.00	17.88	--
	06/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.92	0.00	17.41	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	10.00	0.00	17.33	--
MW-215	10/06/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.020	<1.0	--	12.25	0.00	--	--
27.21	12/08/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0099	<1.0	--	11.14	0.00	16.07	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.82	0.00	17.39	--
	06/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.98	0.00	17.23	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	10.26	0.00	16.95	--
MW-216	10/03/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.020	<1.0	--	21.94	0.00	--	--
29.68	12/09/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0096	<1.0	--	13.97	0.00	15.71	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.43	0.00	17.25	--
	06/22/15	<100	--	--	2.3	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.85	0.00	16.83	--
	09/12/15	<100	--	--	1.4	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.68	0.00	17.00	--
MW-217	10/03/14	<100	--	--	1.8	9.1	1.0	5.3	<1.0	--	<10.0	<10.0	<0.020	<1.0	--	23.64	0.00	--	--
30.08	12/09/14	<100	--	--	**6.1**	<1.0	<1.0	<3.0	<1.0	--	14.7	<10.0	<0.0096	<1.0	--	13.42	0.00	16.66	--
	03/23/15	<100	--	--	4.5	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.87	0.00	17.21	--
	06/22/15	105	--	--	4.8	<1.0	1	<3.0	--	--	--	--	--	--	--	13.13	0.00	16.95	--
	9/12/2015[ee]	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.42	0.00	17.66	--
	9/12/2015[ff]	197	--	--	4.4	<1.0	2.3	<3.0	--	--	--	--	--	--	--	12.42	0.00	17.66	--
MW-218	10/03/14	492	--	--	<1.0	3.0	<1.0	8.4	<1.0	--	<10.0	<10.0	<0.021	<1.0	--	20.62	0.00	--	--
29.64	12/09/14	616	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.010	<1.0	--	13.05	0.00	16.59	--
	03/23/15	353	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.71	0.00	17.93	--
	06/22/15	560	--	--	<1.0	<1.0	<1.0	5.6	--	--	--	--	--	--	--	12.29	0.00	17.35	--
	9/12/2015[gg]	614	--	--	<1.0	<1.0	1.1	11.2	--	--	--	--	--	--	--	11.94	0.00	17.70	--
	9/13/2015[hh]	258	--	--	<1.0	<1.0	1.2	11.4	--	--	--	--	--	--	--	11.94	0.00	17.70	--
MW-219	10/06/14	147	--	--	<1.0	1.2	2.0	4.4	<1.0	--	<10.0	<10.0	<0.020	<1.0	--	14.18	0.00	--	--
27.41	12/09/14	197	--	--	1.0	<1.0	2.4	5.8	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	10.98	0.00	16.43	--
	03/23/15	<100	--	--	1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.91	0.00	17.50	--
	06/22/15	<100	--	--	1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.75	0.00	17.66	--
	09/10/15	<100	--	--	<1.0	<1.0	1.1	<3.0	--	--	--	--	--	--	--	10.52	0.00	16.89	--

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
SMW-3	03/08/95	<50	400	**2,500**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.25	0.00	--	--
29.03	06/06/95	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.23	0.00	--	--
	09/07/95	<50	300	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.89	0.00	--	--
	12/08/95	<50	300	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.36	0.00	--	--
	04/01/96	**34,000**	**4,000**	**2,300**	**6,400**	42	**2,100**	**3,000**	--	--	--	--			--	10.07	0.00	--	--
	06/25/96	<50	320	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.19	0.00	--	--
	09/27/96	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	11.12	0.00	--	--
	03/28/97	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.19	0.00	--	--
	06/30/97[b]	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.14	0.00	--	--
	09/08/97[b]	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.85	0.00	--	--
	12/19/97[b]	<50	521	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.67	0.00	--	--
	03/16/98[b]	50.1	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.28	0.00	--	--
	06/26/98[b]	<50	500	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	8.87	0.00	--	--
	09/23/98[b]	<50	<250	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.88	0.00	--	--
	12/17/98[b]	<50	293	**<750**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.22	0.00	--	--
	03/31/99[b]	<50	360	**<750**	<0.5	<0.5	0.53	4.97	--	--	--	--			--	9.01	0.00	--	--
	06/30/99[b]	<50	639	**<750**	<0.5	0.609	<0.5	1.32	--	--	--	--			--	9.55	0.00	--	--
	12/08/99[b]	<50	<484	**<1,450**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	8.75	0.00	--	--
	06/20/00[b]	<50	<250	**<750**	<0.5	0.585	<0.5	1.86	--	--	--	--			--	8.89	0.00	--	--
	12/19/00	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	06/15/01[b]	<50	368	**<866**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	7.23	0.00	--	--
	06/26/01	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	09/07/01[b]	<50	385	**<571**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	9.19	0.00	--	--
	10/10/01	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	12/28/01	<50	**1,160**	<500	<0.5	0.902	<0.5	2.78	--	--	--	--			--	8.89	0.00	--	--
	03/08/02	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	06/24/02	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	09/26/02	<100	<250	<500	1.83	<2	<1.00	<1.5	--	--	--	--			--	10.32	0.00	--	--
	12/12/02	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	03/13/03	<50	<250	<500	<0.5	<0.5	<0.5	<1	--	--	--	--			--	10.99	0.00	--	--
	06/12/03	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	09/19/03	<50	<287	**<575**	<0.5	<0.5	<0.5	<1	--	--	--	--			--	11.00	0.00	--	--
	01/14/04	--	--	**--**	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	03/30/04	<100	<119	<238	<1	<1	<1	<2	--	--	--	--			--	10.42	0.00	--	2.10
	06/22/04	--	--	--	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	09/29/04	56	<242	<483	<0.5	<0.5	<0.5	<1.0	--	--	--	--			--	11.67	0.00	--	0.10
	12/29/04	--	--	--	--	--	--	--	--	--	--	--			--	NM	NM	--	--
	03/17/05	<100	<248	<495	<1	<1	<1	<2	--	--	--	--			--	11.68	0.00	--	1.20
	06/01/05	<100	<249	<498	<1	<1	<1	<2	<1	--	--	--			--	10.62	0.00	--	1.30
	07/25/05	<50	<250	<500	<0.2	<0.2	<0.2	<0.5	<1	<0.5	--	--			--	11.19	0.00	--	1.20
29.03	11/08/05	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	--	--	--			--	11.77	0.00	17.26	NM [o]
	02/24/06	<50	<278	**<556**	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	--			--	11.84	0.00	17.19	--
	08/30/06	<80	<243	<485	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--				
	10/11/06	<50	<243	<485	<0.5	<0.5	<0.5	<3	<1	<1	<1	--			--	10.70	0.00	18.33	0.17
	12/13/06	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	12.14	0.00	16.89	1.05
	03/08/07	<50	<250	<500	<0.5	<0.5	<0.5	<3	<1	<5	<1	--			--	11.68	0.00	17.35	1.44
	06/13/07	Not Accessible														--	--	--	--
	09/12/07	Not Accessible														--	--	--	--
	12/17/07	Not Accessible														--	--	--	--
	03/17/08	Unable to locate														--	--	--	--
	03/17/08	Unable to locate														--	--	--	--

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
SMW-3	06/02/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	<1	<1			<236	9.05	0.00	19.98	--
contd.	08/05/08	<50	<236	<472	<0.5	<0.5	<0.5	<3	<1	<5	4.54	<1			<236	7.64	0.00	21.39	--
27.40	11/04/08	<50.0	<238	<476	<0.500	<0.500	<0.500	<3.00		<5.00	5.88	<1.00			<238	9.70	0.00	17.70	--
	02/25/09	<50.0	<240	<481	<0.500	<0.500	<0.500	<3.00	--	<5.00	<1.00	<1.00			<240	9.90	0.00	17.50	--
	05/17/09	Not Accessible														--	--	--	--
	08/17/09	<50	<250	<490	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	<5.0	<5.0			<250	10.10	0.00	17.30	--
	11/17/09	<50	<240	<490	<0.50	<0.50	<0.50	<2.0	<1.0	<5.0	1.2	<1			<240	9.53	0.00	17.87	--
	02/22/10	<50.0	107	**605**	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.26	<0.10			<76.2	9.90	0.00	17.50	--
	05/24/10	<50.0	255	**510**	<1.0	<1.0	<1.0	<3.0	--	<1.0	.42	<0.10			100	8.50	0.00	18.90	--
	08/18/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	.39	<0.10			<77.7	9.29	0.00	18.11	--
	11/16/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	10.11	0.00	17.29	--
	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	9.85	0.00	17.55	--
	06/15/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	--	0.21	<0.10			--	8.55	0.00	18.85	--
	08/30/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.13	0.14			<86.0	9.63	0.00	17.77	--
	12/06/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.13	0.38			<82.5	10.13	0.00	17.27	--
	02/15/12	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	2.1	<10.0	<10.0			<82.5	10.22	0.00	17.18	--
	05/16/12	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	2.9	<10.0	<10.0			<83.3	8.64	0.00	18.76	--
	08/15/12	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<85.1	9.30	0.00	18.10	--
	11/21/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.16	0.00	18.24	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	10.10	0.00	17.30	--
	07/29/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0099	<1.0	--	10.85	0.00	16.55	--
27.32	12/09/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	**119**	<10.0	<0.0098	<1.0	--	9.94	0.00	17.38	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.39	0.00	17.93	--
	06/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	9.39	0.00	17.93	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	10.25	0.00	17.07	--
MWR-1	11/17/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	9.75	0.00	20.16	--
29.91	03/03/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	10.23	0.00	19.68	--
	06/15/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	--	1.5	<0.10			--	10.28	0.00	19.63	--
	08/30/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.51	<0.10			--	10.97	0.00	18.94	--
	12/06/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.68	0.62			<83.3	10.80	0.00	19.11	--
	02/16/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<81.6	10.51	0.00	19.40	--
	05/15/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	3.8	<10.0	<10.0			<81.6	10.20	0.00	19.71	--
	08/15/12	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<85.1	10.65	0.00	19.26	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	8.82	0.00	21.09	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	12.04	0.00	17.87	--
	07/29/14	Well was dry																	
29.86	12/08/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0099	<1.0	--	12.51	0.00	17.35	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.13	0.00	18.73	--
	06/22/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.43	0.00	17.43	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.01	0.00	17.85	--
MWR-2	11/17/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	11.7	<10.0			<77.7	8.08	0.00	20.17	--
28.25	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	16.0	--			<77.7	8.61	0.00	19.64	--
	06/14/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	--	3.1	<0.10			--	8.67	0.00	19.58	--
	08/29/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.35	0			<87.0	9.32	0.00	18.93	--
	12/06/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	<10.0	1.3	<0.10			<86.0	9.09	0.00	19.16	--
	02/16/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	2.0	<10.0	<10.0			<81.6	8.97	0.00	19.28	--
	05/15/12	<50.0	<75.8	<379	<1.0	<1.0	<1.0	<3.0	--	3.8	<10.0	<10.0			<75.8	8.62	0.00	19.63	--
	08/15/12	<50.0	<84.2	<421	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<84.2	9.05	0.00	19.20	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	7.32	0.00	20.93	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	10.33	0.00	17.92	--
	07/29/14	Well contained 0.65 foot of water in well cap; well was not sampled.																	
28.16	12/08/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0099	<1.0	--	12.51	0.00	15.65	--
	03/23/15	Could Not Locate Well																	
	06/22/15	Could Not Locate Well																	
	09/10/15	Could Not Locate Well																	

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data
Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue North
Seattle, Washington

Sample I.D. TOC [a]	Sample Date	TPH-Gasoline (µg/L)	TPH-Diesel (µg/L)	TPH-Oil (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Naphtha-lene (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)	EDB (µg/L)	EDC (µg/L)	Kerosone (µg/L)	DTW (feet)	SPH (feet)	GWE (feet)	DO (mg/L)
MWR-3	11/17/10	<50.0	83.6	<385	<1.0	1.4	<1.0	<3.0	--	<1.0	<10.0	<10.0			**1,140**	9.82	0.00	19.94	--
29.76	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	10.17	0.00	19.59	--
	06/15/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	--	0.74	<0.10			--	10.18	0.00	19.58	--
	08/30/11	<50.0	<88.9	<444	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.38	<0.10			<88.9	10.87	0.00	18.89	--
	12/06/11	<50.0	<86.0	<430	<1.0	<1.0	<1.0	<3.0	--	<10.0	<0.10	<0.10			<86.0	10.63	0.00	19.13	--
	02/16/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	2.0	<10.0	<10.0			<81.6	10.51	0.00	19.25	--
	05/15/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<81.6	10.22	0.00	19.54	--
	08/15/12	<50.0	<87.0	<435	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<87.0	10.56	0.00	19.20	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.86	0.00	19.90	
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	11.52	0.00	18.24	--
	07/29/14	Well was dry																	
29.67	12/08/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	12.52	0.00	17.15	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	10.98	0.00	18.69	--
	06/22/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.37	0.00	17.30	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.99	0.00	17.68	--
MWR-4	11/17/10	141	<76.9	<385	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			140	8.98	0.00	19.90	--
28.88	03/01/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			132	9.44	0.00	19.44	--
	06/14/11	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	--	0.63	<0.10			--	9.32	0.00	19.56	--
	08/29/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.18	0			<82.5	10.02	0.00	18.86	--
	12/06/11	<50.0	<83.3	<417	<1.0	<1.0	<1.0	<3.0	--	<10.0	<0.10	0.29			<83.3	9.78	0.00	19.10	--
	02/16/12	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	2.0	<10.0	<10.0			<82.5	10.72	0.00	18.16	--
	05/15/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	3.8	<10.0	<10.0			<81.6	9.32	0.00	19.56	--
	08/15/12	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<82.5	9.82	0.00	19.06	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.31	0.00	19.57	--
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	11.02	0.00	17.86	--
	07/29/14	Well was dry																	
28.80	12/08/14	<100	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	12.06	0.00	16.74	--
	03/23/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	10.53	0.00	18.27	--
	06/22/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.55	0.00	17.25	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.30	0.00	17.5	--
MWR-5	11/17/10	**15,900**	423	<388	**199**	371	592	**3,710**	--	157	<10.0	<10.0			**5,080**	7.91	0.00	19.36	--
27.27	02/28/11	**21,800**	368	<388	**195**	444	642	**3,430**	--	143	<10.0	--			**4,650**	8.60	0.00	18.67	--
	06/14/11	**22,700**	323	<400	**192**	383	**719**	**4,340**	--	--	4.1	0			**--**	7.82	0.00	19.45	--
	08/29/11	**35,400**	478	<408	**244**	271	**861**	**4,500**	--	**338**	0.95	0.62			**7,060**	8.50	0.00	18.77	--
	12/05/11	**30,500**	235	<412	**211**	450	**1,140**	**5,960**	--	**193**	1.3	0.52			**9,580**	7.75	0.00	19.52	--
	02/16/12	**9,490**	160	<396	**68.7**	9.1	218	**1,090**	--	88.2	<10.0	<10.0			**2,330**	8.93	0.00	18.34	--
	05/15/12	**27,900**	298	<404	**181**	160	**813**	**4,830**	--	**226**	<10.0	<10.0			**4,650**	8.01	0.00	19.26	--
	08/14/12	**7,720**	329	<440	**60.5**	3.80	244	**1,280**	--	81.3	<10.0	<10.0			**2,560**	8.62	0.00	18.65	--
	11/20/12	**35,500**	**15,500**	<100	**306**	471	**1,520**	**10,700**	--	**342**	5.8	<3.0			**20,500**	5.11	0.00	22.16	--
	11/06/13	**3,820**	<400	<400	**23.0**	<1.0	150	286	<1.0	--	<10.0	<10.0			**1,100**	9.45	0.00	17.82	--
	07/29/14	Well was dry																	
27.12	12/08/14	**20,400**	--	--	<1.0	2.1	430	**1,400**	<1.0	--	<10.0	<10.0	<0.010	<1.0	--	10.54	0.00	16.58	--
	03/23/15	**11,900**	--	--	**31.0**	1.4	459	**1,030**	<1.0	--	<10.0	<10.0	<0.010	<1.0	--	8.98	0.00	18.14	--
	06/22/15	**14,700**	--	--	**22.9**	<10.0	455	843	--	--	--	--	--	--	--	9.98	0.00	17.14	--
	09/10/15	**10,700**	--	--	**35.0**	1.1	223	644	--	--	--	--	--	--	--	9.51	0.00	17.61	--
MWR-6	11/16/10	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<77.7	10.10	0.00	19.15	--
29.25	02/28/11	<50.0	<77.7	<388	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	--			<77.7	10.89	0.00	18.36	--
	06/14/11	<50.0	<80.8	<404	<1.0	<1.0	<1.0	<3.0	--	--	1.3	<0.10			--	10.11	0.00	19.14	--
	08/29/11	<50.0	<87.0	<435	<1.0	<1.0	<1.0	<3.0	--	<1.0	0.3	<0.10			--	10.75	0.00	18.50	--
	12/05/11	<50.0	<82.5	<412	<1.0	<1.0	<1.0	<3.0	--	<10.0	0.54	0.11			<82.5	9.48	0.00	19.77	--
	02/16/12	<50.0	<75.5	<377	<1.0	<1.0	<1.0	<3.0	--	2.8	<10.0	<10.0			<75.5	11.90	0.00	17.35	--
	05/15/12	<50.0	<81.6	<408	<1.0	<1.0	<1.0	<3.0	--	3.8	<10.0	<10.0			<81.6	10.26	0.00	18.99	--
	08/14/12	<50.0	<85.1	<426	<1.0	<1.0	<1.0	<3.0	--	<1.0	<10.0	<10.0			<85.1	10.45	0.00	18.80	--
	11/20/12	<100	<100	<100	<1.0	<1.0	<1.0	<3.0	--	<4.0	<3.0	<3.0			<100	9.59	0.00	19.66	
	11/06/13	<400	<400	<400	<1.0	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0			<400	11.77	0.00	17.48	--
	07/29/14	Well was dry																	
29.12	12/08/14	<100	--	--	**5.1**	<1.0	<1.0	<3.0	<1.0	--	<10.0	<10.0	<0.0098	<1.0	--	12.51	0.00	16.61	--
	03/23/15	<100	--	--	1.7	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.66	0.00	17.46	--
	06/22/15	<100	--	--	1.6	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	12.38	0.00	16.74	--
	09/11/15	<100	--	--	<1.0	<1.0	<1.0	<3.0	--	--	--	--	--	--	--	11.98	0.00	17.14	--
																			--
MTCA Method A Cleanup Level for Groundwater		**1000/800[k]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**20**	**160**	**15**	**15**			**500**	**--**	**--**	**--**	**--**

Table 1
Summary of Historical Groundwater Gauging and Laboratory Analytical Data

Phillips 66 Site No. 255353 (AOC 1396)
600 Westlake Avenue N.
Seattle, Washington

NOTES:

µg/L = micrograms per liter
mg/L = milligrams per liter
TOC = Relative top of casing elevation
DTW = Depth to water
SPH = Separate-phase hydrocarbon thickness
GWE = Groundwater table elevation relative to DTW data; corrected for SPH where applicable using a specific gravity of 0.80
<n = Below the detection limit
"--" = Not analyzed, sampled, or reported
NM = Not Measured
TPH as Gasoline - Analysis by Northwest Method NWTPH-Gx
TPH as Diesel and Oil - Analysis by Northwest Method NWTPH-Dx
BTEX Compounds - Analysis by EPA Method 8020A, 8021B or 8260B
Total Lead Analysis via EPA Method 6020.
Values in **BOLD** are detectable concentrations exceeding the MTCA Method A groundwater cleanup level.

[a] Top of casing elevations shown prior to November 2005 based on information provided by a previous consultant. All TOC elevations were re-surveyed between November 1 and November 15, 2005 relative to N.A.V.D. 1988 using a City of Seattle benchmark by Delta Environmental Consultants. All wells were again surveyed on December 8, 2015 by Cardno WRG.

[b] Well was not purged prior to sample collection.

[c] TPH-Diesel and TPH-Oil did not resemble chromatogram used for quantitation.

[d] Well casing was trimmed down during monument replacement in December 2004. New TOC elevation surveyed on January 27, 2005.

[e] Quality control failed due to laboratory error. Quantitative analytical results not reported.

[f] Contaminant does not appear to be "typical" product.

[g] Chromatogram suggests that this may be overlap from the gasoline range.

[h] Chromatogram suggests that this may be overlap from the motor oil range.

[H] Anlaysis was performed outside of the method specified holding time

[j] Surrogate recovery outside advisory QC limits due to matrix interference.

[k] MTCA Method A Cleanup Level for TPH-Gasoline is 1,000 ug/L if benzene is not detectable in the groundwater sample. Otherwise, the action level is 800 ug/L.

[l] Samples analyzed using Northwest Method NWTPH-Dx without acid/silica gel cleanup.

[m] Surogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present.

[n] Detected hydrocarbons due mainly to cleanup artifact. There is no diesel present.

[o] DO meter was unavailable.

[p] The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

[q] Analyte had a high bias in the associated calibration verification standard.

[r] Laboratory Control Sample and/or Sample Duplicate recovery was above the laboratory control limits. Analyte not detected, data not impacted.

[s] Dilluted due to matrix effect.

[t] The total hydrocarbon result in this sample is primarily due to an individual compound eluting in the volatile hydrocarbon range.

[u] Due to laboratory error, the samples were not analyzed for EPA 8260B compounds.

[v] Possible field error.

[w] DTW not recorded prior to sampling. Approximate value based on last quarter's initial DTW and when sampling began

[x] The benzene and ethyl benzene concentrations were outside the calibration range of the instrument. A new concentration was measured during a second run, but this run was outside of the holding time for the sample. The laboratory still considers this value to be more accurate than the original estimated value listed in the lab report.

[Y] The Chromatogram response resembles a typical fuel pattern

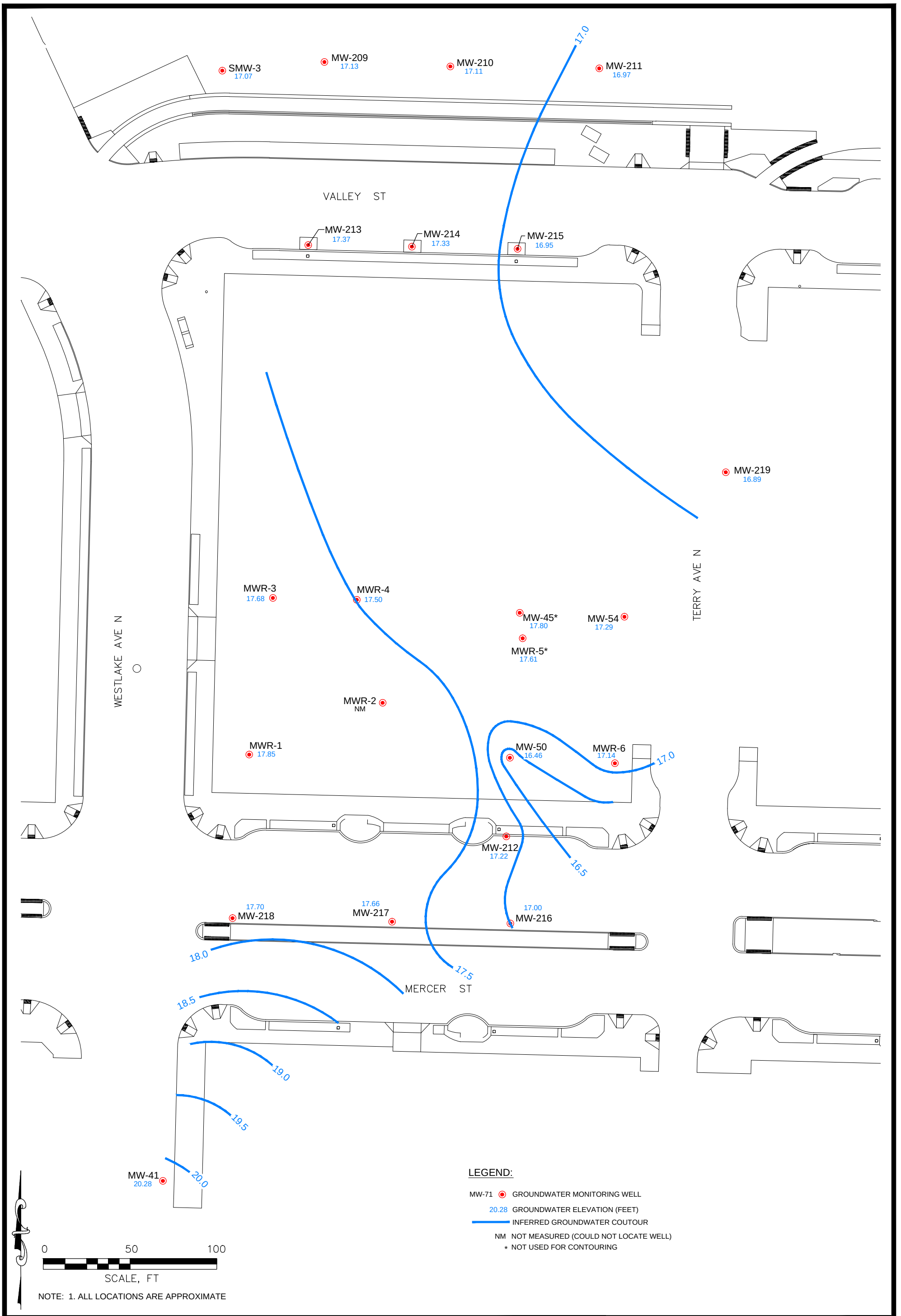
[Z] Well casings for MW-45 and MW-54 were compromised and repaired during installation of remediation conveyance piping. Wells were re-surveyed in July 2014. 2014.

[aa] Sample collected prior to High Intensity Targeted Extraction Event on June 23, 2015.

[bb] Sample collected immediately after High Intensity Targeted Extraction Event on June 23, 2015.

"--[u]" = Due to laboratory error, the samples were not analyzed for EPA 8260B compounds.

FIGURES



LEGEND:

MW-71 GROUNDWATER MONITORING WELL

20.28 GROUNDWATER ELEVATION (FEET)

INFERRED GROUNDWATER COUTOUR

NM NOT MEASURED (COULD NOT LOCATE WELL)

* NOT USED FOR CONTOURING

NOTE: 1. ALL LOCATIONS ARE APPROXIMATE

GROUNDWATER CONDITIONS MAP (09/10/15 & 09/12/15)

PHILLIPS 66 FACILITY NO. 255353 (AOC 1396)

600 WESTLAKE AVENUE N

SEATTLE, WA

PROJECT NUMBER: Z076000073		DATE: 12/4/15	FIGURE 1
APPROVED BY: KS		DRAWN BY: BK	

ATC GROUP SERVICES INC.
5415 SW Westgate Drive, Suite 100
Portland, Oregon 97221-2409
Ph: (503) 419-2500 *** Fax: (503) 419-2600

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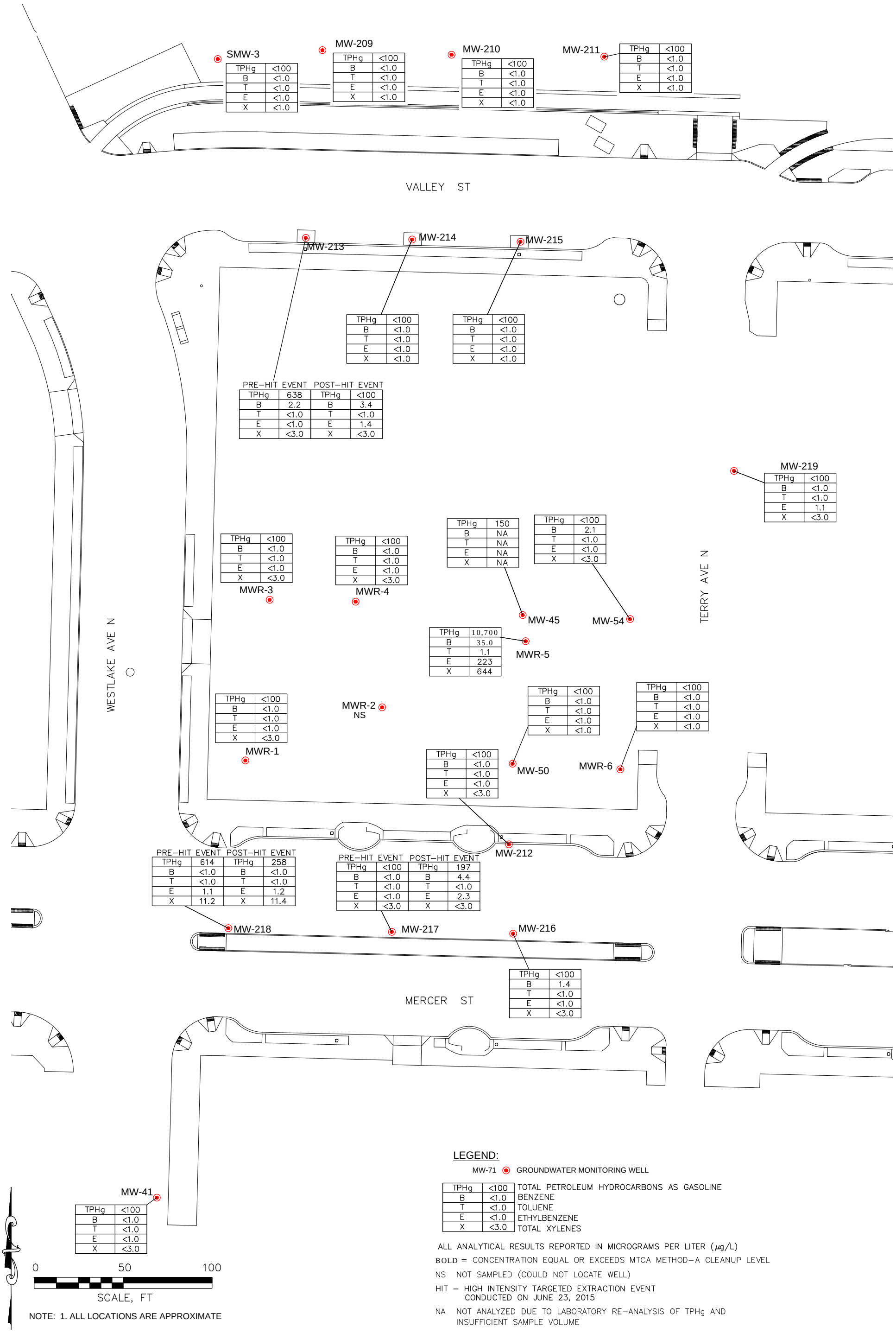

NOTE: 1. ALL LOCATIONS ARE APPROXIMATE

LEGEND:

MW-71 GROUNDWATER MONITORING WELL

TPHg	<100	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	<1.0	BENZENE
T	<1.0	TOLUENE
E	<1.0	ETHYLBENZENE
X	<3.0	TOTAL XYLENES

ALL ANALYTICAL RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L)

BOLD = CONCENTRATION EQUAL OR EXCEEDS MTCA METHOD-A CLEANUP LEVEL

NS NOT SAMPLED (COULD NOT LOCATE WELL)

HIT – HIGH INTENSITY TARGETED EXTRACTION EVENT CONDUCTED ON JUNE 23, 2015

NA NOT ANALYZED DUE TO LABORATORY RE-ANALYSIS OF TPHg AND INSUFFICIENT SAMPLE VOLUME

GROUNDWATER ANALYTICAL MAP (09/10/15 - 09/13/15)

PHILLIPS 66 FACILITY NO. 255353 (AOC 1396)

600 WESTLAKE AVENUE N

SEATTLE, WA

PROJECT NUMBER: Z076000073		DATE: 12/4/15	FIGURE 2
APPROVED BY: KS		DRAWN BY: BK	

ATC GROUP SERVICES INC.
5415 SW Westgate Drive, Suite 100
Portland, Oregon 97221-2409
Ph: (503) 419-2500 *** Fax: (503) 419-2600

APPENDIX A

LABORATORY ANALYTICAL DATA REPORT AND CHAIN OF CUSTODY DOCUMENT

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

September 24, 2015

Kyle Sattler
Cardno ATC
7070 SW Fir Loop
Suite 100
Portland, OR 97223

RE: Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

Dear Kyle Sattler:
Enclosed are the analytical results for sample(s) received by the laboratory on September 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Michael Miller, Cardno ATC

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
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CERTIFICATIONS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10322134001	**MW-216**	Water	09/12/15 09:40	09/15/15 09:50
10322134002	**MW-217**	Water	09/12/15 08:25	09/15/15 09:50
10322134003	**MW-218**	Water	09/12/15 09:00	09/15/15 09:50
10322134004	**Post-MW-217**	Water	09/12/15 16:45	09/15/15 09:50
10322134005	**Post-MW-218**	Water	09/13/15 17:05	09/15/15 09:50

Pace Analytical Services, Inc.
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Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10322134001	**MW-216**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10322134002	**MW-217**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10322134003	**MW-218**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10322134004	**Post-MW-217**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10322134005	**Post-MW-218**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

Sample: MW-216 **Lab ID: 10322134001** Collected: 09/12/15 09:40 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/21/15 16:34		
Surrogates								
a,a,a-Trifluorotoluene (S)	87	%.	50-150	1		09/21/15 16:34	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	**1.4**	ug/L	1.0	1		09/22/15 22:17	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/15 22:17	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 22:17	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 22:17	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/22/15 22:17	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		09/22/15 22:17	2037-26-5	
4-Bromofluorobenzene (S)	110	%.	75-125	1		09/22/15 22:17	460-00-4	

Sample: MW-217 **Lab ID: 10322134002** Collected: 09/12/15 08:25 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/24/15 00:29		
Surrogates								
a,a,a-Trifluorotoluene (S)	80	%.	50-150	1		09/24/15 00:29	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/22/15 23:22	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/15 23:22	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 23:22	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 23:22	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%.	75-125	1		09/22/15 23:22	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/22/15 23:22	2037-26-5	
4-Bromofluorobenzene (S)	109	%.	75-125	1		09/22/15 23:22	460-00-4	

Sample: MW-218 **Lab ID: 10322134003** Collected: 09/12/15 09:00 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	**614**	ug/L	100	1		09/21/15 17:17		
Surrogates								
a,a,a-Trifluorotoluene (S)	86	%.	50-150	1		09/21/15 17:17	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/22/15 23:38	71-43-2	
Ethylbenzene	**1.1**	ug/L	1.0	1		09/22/15 23:38	100-41-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

Sample: MW-218 **Lab ID: 10322134003** Collected: 09/12/15 09:00 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		09/22/15 23:38	108-88-3	
Xylene (Total)	**11.2**	ug/L	3.0	1		09/22/15 23:38	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%.	75-125	1		09/22/15 23:38	17060-07-0	
Toluene-d8 (S)	104	%.	75-125	1		09/22/15 23:38	2037-26-5	
4-Bromofluorobenzene (S)	114	%.	75-125	1		09/22/15 23:38	460-00-4	

Sample: Post-MW-217 **Lab ID: 10322134004** Collected: 09/12/15 16:45 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	**197**	ug/L	100	1		09/24/15 00:07		C0
Surrogates								
a,a,a-Trifluorotoluene (S)	83	%.	50-150	1		09/24/15 00:07	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	**4.4**	ug/L	1.0	1		09/22/15 23:55	71-43-2	
Ethylbenzene	**2.3**	ug/L	1.0	1		09/22/15 23:55	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 23:55	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 23:55	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	115	%.	75-125	1		09/22/15 23:55	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		09/22/15 23:55	2037-26-5	
4-Bromofluorobenzene (S)	110	%.	75-125	1		09/22/15 23:55	460-00-4	

Sample: Post-MW-218 **Lab ID: 10322134005** Collected: 09/13/15 17:05 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	**258**	ug/L	100	1		09/21/15 19:26		
Surrogates								
a,a,a-Trifluorotoluene (S)	87	%.	50-150	1		09/21/15 19:26	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/23/15 00:11	71-43-2	
Ethylbenzene	**1.2**	ug/L	1.0	1		09/23/15 00:11	100-41-4	
Toluene	ND	ug/L	1.0	1		09/23/15 00:11	108-88-3	
Xylene (Total)	**11.4**	ug/L	3.0	1		09/23/15 00:11	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/23/15 00:11	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/23/15 00:11	2037-26-5	
4-Bromofluorobenzene (S)	110	%.	75-125	1		09/23/15 00:11	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

QC Batch: GCV/14438 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10322134001, 10322134003, 10322134005

METHOD BLANK: 2084487 Matrix: Water
Associated Lab Samples: 10322134001, 10322134003, 10322134005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/21/15 12:14	
a,a,a-Trifluorotoluene (S)	%.	91	50-150	09/21/15 12:14	

METHOD BLANK: 2084488 Matrix: Water
Associated Lab Samples: 10322134001, 10322134003, 10322134005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/21/15 12:35	
a,a,a-Trifluorotoluene (S)	%.	89	50-150	09/21/15 12:35	

LABORATORY CONTROL SAMPLE & LCSD: 2084489 2084490

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	967	952	97	95	65-125	2	20	
a,a,a-Trifluorotoluene (S)	%.				106	99	50-150			

MATRIX SPIKE SAMPLE: 2081907

Parameter	Units	10321855004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	150	1000	1110	96	50-150	
a,a,a-Trifluorotoluene (S)	%.				105	50-150	

SAMPLE DUPLICATE: 2084530

Parameter	Units	10322134001 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	87	86	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

QC Batch: GCV/14451 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10322134002, 10322134004

METHOD BLANK: 2087057 Matrix: Water
Associated Lab Samples: 10322134002, 10322134004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/23/15 21:15	
a,a,a-Trifluorotoluene (S)	%.	81	50-150	09/23/15 21:15	

METHOD BLANK: 2087058 Matrix: Water
Associated Lab Samples: 10322134002, 10322134004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/23/15 21:37	
a,a,a-Trifluorotoluene (S)	%.	78	50-150	09/23/15 21:37	

LABORATORY CONTROL SAMPLE & LCSD: 2087059 2087060

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	947	939	95	94	65-125	1	20	
a,a,a-Trifluorotoluene (S)	%.				98	97	50-150			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

QC Batch: MSV/33245 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10322134001, 10322134002, 10322134003, 10322134004, 10322134005

METHOD BLANK: 2086021 Matrix: Water
Associated Lab Samples: 10322134001, 10322134002, 10322134003, 10322134004, 10322134005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/22/15 21:11	
Ethylbenzene	ug/L	ND	1.0	09/22/15 21:11	
Toluene	ug/L	ND	1.0	09/22/15 21:11	
Xylene (Total)	ug/L	ND	3.0	09/22/15 21:11	
1,2-Dichloroethane-d4 (S)	%.	113	75-125	09/22/15 21:11	
4-Bromofluorobenzene (S)	%.	111	75-125	09/22/15 21:11	
Toluene-d8 (S)	%.	100	75-125	09/22/15 21:11	

LABORATORY CONTROL SAMPLE: 2086022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.4	92	71-125	
Ethylbenzene	ug/L	20	17.5	87	75-125	
Toluene	ug/L	20	16.9	85	74-125	
Xylene (Total)	ug/L	60	49.9	83	75-125	
1,2-Dichloroethane-d4 (S)	%.			117	75-125	
4-Bromofluorobenzene (S)	%.			109	75-125	
Toluene-d8 (S)	%.			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2086023 2086024

Parameter	Units	10322134001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	1.4	20	20	21.1	19.7	99	92	53-139	7	30	
Ethylbenzene	ug/L	ND	20	20	19.1	17.6	96	88	55-139	8	30	
Toluene	ug/L	ND	20	20	18.6	17.2	92	85	52-148	7	30	
Xylene (Total)	ug/L	ND	60	60	53.8	50.6	90	84	54-144	6	30	
1,2-Dichloroethane-d4 (S)	%.						116	115	75-125			
4-Bromofluorobenzene (S)	%.						110	110	75-125			
Toluene-d8 (S)	%.						102	101	75-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

C0	Result confirmed by second analysis.

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322134

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10322134001	**MW-216**	NWTPH-Gx	GCV/14438		
10322134002	**MW-217**	NWTPH-Gx	GCV/14451		
10322134003	**MW-218**	NWTPH-Gx	GCV/14438		
10322134004	**Post-MW-217**	NWTPH-Gx	GCV/14451		
10322134005	**Post-MW-218**	NWTPH-Gx	GCV/14438		
10322134001	**MW-216**	EPA 8260B	MSV/33245		
10322134002	**MW-217**	EPA 8260B	MSV/33245		
10322134003	**MW-218**	EPA 8260B	MSV/33245		
10322134004	**Post-MW-217**	EPA 8260B	MSV/33245		
10322134005	**Post-MW-218**	EPA 8260B	MSV/33245		

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

L0322134

Page: 1 of 1

1844827

Section A Required Client Information:

Company:	Cardno ATC
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Kyle Sattler
Copy To:	
Purchase Order No.:	
Project Name:	P66-1396
Project Number:	

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	6C	BTEX	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	WW	G	9/12/15	9:40				6				X						X	X		001
2	WW	G	9/12/15	8:25				6				X						X	X		002
3	WW	G	9/12/15	9:00				6				X						X	X		003
4	WW	G	9/12/15	1645				6				X						X	X		004
5	WW	G	9/13/15	1705				6				X						X	X		005
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
				Michael Olsen PACE	9/14/15	15:30	5.4	Y	N	Y
	Michael Olsen PACE	9/14/15	1532	Pace	9/15/15	950	5.2	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mark Bruner

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/12/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical®	Document Name: Cooler Transfer Check List	Revised Date: 23Apr2013 Page 1 of 1
	Document Number: F-MN-C-120-rev.01	Issuing Authority: Pace Minnesota Quality Office

Cooler Transfer Check List

Client: Conshohocken ATC

Project Manager: Jenni Gross

Profile/Line #: 33332 #1

Received with Custody Seal: Yes (No)

Custody Seal Intact: Yes No (NA)

	Temp Read	Corrected Temp	Correction Factor
Temperature C:	5.3	5.4	+.1

IR Gun # (IR1) IR2

☑ Samples on ice, cooling process has begun

Rush/Short Hold: no

Containers Intact: (Yes) No

Re-packed and Re-Iced: ✓

Temp Blank Included: (Yes) No

Shipped By/Date: MD 9/14/15

Notes:

Pace Analytical	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: **F-MN-L-213-rev.13**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Cardno ATC

Project #: WO# : 10322134

10322134

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 6451 0864 9691

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☐ Yes ☑ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☐ B88A0143310098 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 5.4 **Cooler Temp Corrected (°C):** 5.2 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** -0.2 **Date and Initials of Person Examining Contents:** JM 9/15/15

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☑ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☑ Yes	☐ No	☐ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14.
Trip Blank Present?	☐ Yes	☑ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Shannon Davis **Date:** 9-16-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

September 25, 2015

Kyle Sattler
Cardno ATC
7070 SW Fir Loop
Suite 100
Portland, OR 97223

RE: Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Dear Kyle Sattler:
Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Michael Miller, Cardno ATC

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10321855001	**MW-50**	Water	09/10/15 16:25	09/12/15 09:20
10321855002	**MW-54**	Water	09/10/15 15:40	09/12/15 09:20
10321855003	**MWR-5**	Water	09/10/15 15:00	09/12/15 09:20
10321855004	**MW-45**	Water	09/10/15 14:25	09/12/15 09:20
10321855005	**MW-41**	Water	09/10/15 10:25	09/12/15 09:20
10321855006	**MW-219**	Water	09/10/15 11:25	09/12/15 09:20
10321855007	**MW-209**	Water	09/11/15 14:35	09/12/15 09:20
10321855008	**SMW-3**	Water	09/11/15 14:05	09/12/15 09:20
10321855009	**MW-215**	Water	09/11/15 13:30	09/12/15 09:20
10321855010	**MW-214**	Water	09/11/15 12:55	09/12/15 09:20
10321855011	**MWR-3**	Water	09/11/15 11:30	09/12/15 09:20
10321855012	**MWR-1**	Water	09/11/15 11:00	09/12/15 09:20
10321855013	**MWR-4**	Water	09/11/15 10:25	09/12/15 09:20
10321855014	**MWR-6**	Water	09/11/15 09:50	09/12/15 09:20
10321855015	**MW-213**	Water	09/11/15 08:15	09/12/15 09:20
10321855016	**Trip Blank**	Water	09/11/15 00:00	09/12/15 09:20

Pace Analytical Services, Inc.
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SAMPLE ANALYTE COUNT

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10321855001	**MW-50**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855002	**MW-54**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855003	**MWR-5**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855004	**MW-45**	NWTPH-Gx	KMZ	2	PASI-M
10321855005	**MW-41**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855006	**MW-219**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855007	**MW-209**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855008	**SMW-3**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855009	**MW-215**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855010	**MW-214**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855011	**MWR-3**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855012	**MWR-1**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855013	**MWR-4**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855014	**MWR-6**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855015	**MW-213**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10321855016	**Trip Blank**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M

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ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Sample: MW-50 **Lab ID: 10321855001** Collected: 09/10/15 16:25 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 17:16		
Surrogates								
a,a,a-Trifluorotoluene (S)	81	%.	50-150	1		09/18/15 17:16	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/22/15 03:52	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/15 03:52	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 03:52	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 03:52	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%.	75-125	1		09/22/15 03:52	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		09/22/15 03:52	2037-26-5	
4-Bromofluorobenzene (S)	109	%.	75-125	1		09/22/15 03:52	460-00-4	

Sample: MW-54 **Lab ID: 10321855002** Collected: 09/10/15 15:40 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 17:37		
Surrogates								
a,a,a-Trifluorotoluene (S)	83	%.	50-150	1		09/18/15 17:37	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	**2.1**	ug/L	1.0	1		09/22/15 04:09	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/15 04:09	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 04:09	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 04:09	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%.	75-125	1		09/22/15 04:09	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		09/22/15 04:09	2037-26-5	
4-Bromofluorobenzene (S)	110	%.	75-125	1		09/22/15 04:09	460-00-4	

Sample: MWR-5 **Lab ID: 10321855003** Collected: 09/10/15 15:00 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	**10700**	ug/L	2500	25		09/21/15 20:09		
Surrogates								
a,a,a-Trifluorotoluene (S)	93	%.	50-150	25		09/21/15 20:09	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	**35.0**	ug/L	1.0	1		09/22/15 04:25	71-43-2	
Ethylbenzene	**223**	ug/L	1.0	1		09/22/15 04:25	100-41-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Sample: MWR-5 **Lab ID: 10321855003** Collected: 09/10/15 15:00 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B							
Toluene	**1.1**	ug/L	1.0	1		09/22/15 04:25	108-88-3	
Xylene (Total)	**644**	ug/L	30.0	10		09/23/15 15:50	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%.	75-125	1		09/22/15 04:25	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/22/15 04:25	2037-26-5	
4-Bromofluorobenzene (S)	105	%.	75-125	1		09/22/15 04:25	460-00-4	

Sample: MW-45 **Lab ID: 10321855004** Collected: 09/10/15 14:25 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	**150**	ug/L	100	1		09/21/15 14:24		
Surrogates								
a,a,a-Trifluorotoluene (S)	91	%.	50-150	1		09/21/15 14:24	98-08-8	

Sample: MW-41 **Lab ID: 10321855005** Collected: 09/10/15 10:25 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 18:42		
Surrogates								
a,a,a-Trifluorotoluene (S)	80	%.	50-150	1		09/18/15 18:42	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/22/15 04:41	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/15 04:41	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 04:41	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 04:41	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%.	75-125	1		09/22/15 04:41	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		09/22/15 04:41	2037-26-5	
4-Bromofluorobenzene (S)	110	%.	75-125	1		09/22/15 04:41	460-00-4	

Sample: MW-219 **Lab ID: 10321855006** Collected: 09/10/15 11:25 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 19:25		
Surrogates								
a,a,a-Trifluorotoluene (S)	81	%.	50-150	1		09/18/15 19:25	98-08-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Sample: MW-219 **Lab ID: 10321855006** Collected: 09/10/15 11:25 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/22/15 04:58	71-43-2	
Ethylbenzene	**1.1**	ug/L	1.0	1		09/22/15 04:58	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 04:58	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 04:58	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%.	75-125	1		09/22/15 04:58	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/22/15 04:58	2037-26-5	
4-Bromofluorobenzene (S)	108	%.	75-125	1		09/22/15 04:58	460-00-4	

Sample: MW-209 **Lab ID: 10321855007** Collected: 09/11/15 14:35 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 19:46		
Surrogates								
a,a,a-Trifluorotoluene (S)	80	%.	50-150	1		09/18/15 19:46	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/22/15 05:14	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/15 05:14	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 05:14	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 05:14	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%.	75-125	1		09/22/15 05:14	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		09/22/15 05:14	2037-26-5	
4-Bromofluorobenzene (S)	110	%.	75-125	1		09/22/15 05:14	460-00-4	

Sample: SMW-3 **Lab ID: 10321855008** Collected: 09/11/15 14:05 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 20:08		
Surrogates								
a,a,a-Trifluorotoluene (S)	80	%.	50-150	1		09/18/15 20:08	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/22/15 05:31	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/15 05:31	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 05:31	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 05:31	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%.	75-125	1		09/22/15 05:31	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/22/15 05:31	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Sample: SMW-3 **Lab ID: 10321855008** Collected: 09/11/15 14:05 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B							
Surrogates								
4-Bromofluorobenzene (S)	109	%.	75-125	1		09/22/15 05:31	460-00-4	

Sample: MW-215 **Lab ID: 10321855009** Collected: 09/11/15 13:30 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 20:29		
Surrogates								
a,a,a-Trifluorotoluene (S)	79	%.	50-150	1		09/18/15 20:29	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/21/15 19:24	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/21/15 19:24	100-41-4	
Toluene	ND	ug/L	1.0	1		09/21/15 19:24	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/21/15 19:24	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/21/15 19:24	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		09/21/15 19:24	2037-26-5	
4-Bromofluorobenzene (S)	109	%.	75-125	1		09/21/15 19:24	460-00-4	

Sample: MW-214 **Lab ID: 10321855010** Collected: 09/11/15 12:55 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 20:51		
Surrogates								
a,a,a-Trifluorotoluene (S)	79	%.	50-150	1		09/18/15 20:51	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/21/15 19:41	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/21/15 19:41	100-41-4	
Toluene	ND	ug/L	1.0	1		09/21/15 19:41	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/21/15 19:41	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/21/15 19:41	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/21/15 19:41	2037-26-5	
4-Bromofluorobenzene (S)	110	%.	75-125	1		09/21/15 19:41	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Sample: MWR-3 **Lab ID: 10321855011** Collected: 09/11/15 11:30 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 21:12		
Surrogates								
a,a,a-Trifluorotoluene (S)	80	%.	50-150	1		09/18/15 21:12	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/21/15 19:57	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/21/15 19:57	100-41-4	
Toluene	ND	ug/L	1.0	1		09/21/15 19:57	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/21/15 19:57	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	115	%.	75-125	1		09/21/15 19:57	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		09/21/15 19:57	2037-26-5	
4-Bromofluorobenzene (S)	109	%.	75-125	1		09/21/15 19:57	460-00-4	

Sample: MWR-1 **Lab ID: 10321855012** Collected: 09/11/15 11:00 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 21:34		
Surrogates								
a,a,a-Trifluorotoluene (S)	80	%.	50-150	1		09/18/15 21:34	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/21/15 20:13	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/21/15 20:13	100-41-4	
Toluene	ND	ug/L	1.0	1		09/21/15 20:13	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/21/15 20:13	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/21/15 20:13	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		09/21/15 20:13	2037-26-5	
4-Bromofluorobenzene (S)	111	%.	75-125	1		09/21/15 20:13	460-00-4	

Sample: MWR-4 **Lab ID: 10321855013** Collected: 09/11/15 10:25 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 21:55		
Surrogates								
a,a,a-Trifluorotoluene (S)	81	%.	50-150	1		09/18/15 21:55	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/21/15 20:30	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/21/15 20:30	100-41-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Sample: MWR-4 **Lab ID: 10321855013** Collected: 09/11/15 10:25 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		09/21/15 20:30	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/21/15 20:30	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	116	%.	75-125	1		09/21/15 20:30	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		09/21/15 20:30	2037-26-5	
4-Bromofluorobenzene (S)	109	%.	75-125	1		09/21/15 20:30	460-00-4	

Sample: MWR-6 **Lab ID: 10321855014** Collected: 09/11/15 09:50 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/18/15 22:17		
Surrogates								
a,a,a-Trifluorotoluene (S)	81	%.	50-150	1		09/18/15 22:17	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/21/15 20:46	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/21/15 20:46	100-41-4	
Toluene	ND	ug/L	1.0	1		09/21/15 20:46	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/21/15 20:46	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/21/15 20:46	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/21/15 20:46	2037-26-5	
4-Bromofluorobenzene (S)	110	%.	75-125	1		09/21/15 20:46	460-00-4	

Sample: MW-213 **Lab ID: 10321855015** Collected: 09/11/15 08:15 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	**638**	ug/L	100	1		09/21/15 14:46		
Surrogates								
a,a,a-Trifluorotoluene (S)	91	%.	50-150	1		09/21/15 14:46	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	**2.2**	ug/L	1.0	1		09/21/15 21:03	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/21/15 21:03	100-41-4	
Toluene	ND	ug/L	1.0	1		09/21/15 21:03	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/21/15 21:03	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/21/15 21:03	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1		09/21/15 21:03	2037-26-5	
4-Bromofluorobenzene (S)	109	%.	75-125	1		09/21/15 21:03	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Sample: Trip Blank **Lab ID: 10321855016** Collected: 09/11/15 00:00 Received: 09/12/15 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/21/15 14:02		
Surrogates								
a,a,a-Trifluorotoluene (S)	89	%.	50-150	1		09/21/15 14:02	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/21/15 19:08	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/21/15 19:08	100-41-4	
Toluene	ND	ug/L	1.0	1		09/21/15 19:08	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/21/15 19:08	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	41	%.	75-125	1		09/21/15 19:08	17060-07-0	S0
Toluene-d8 (S)	114	%.	75-125	1		09/21/15 19:08	2037-26-5	
4-Bromofluorobenzene (S)	143	%.	75-125	1		09/21/15 19:08	460-00-4	S3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

QC Batch: GCV/14434 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10321855001, 10321855002, 10321855005, 10321855006, 10321855007, 10321855008, 10321855009, 10321855010, 10321855011, 10321855012, 10321855013, 10321855014

METHOD BLANK: 2081903 Matrix: Water
Associated Lab Samples: 10321855001, 10321855002, 10321855005, 10321855006, 10321855007, 10321855008, 10321855009, 10321855010, 10321855011, 10321855012, 10321855013, 10321855014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/18/15 10:49	
a,a,a-Trifluorotoluene (S)	%.	76	50-150	09/18/15 10:49	

METHOD BLANK: 2081904 Matrix: Water
Associated Lab Samples: 10321855001, 10321855002, 10321855005, 10321855006, 10321855007, 10321855008, 10321855009, 10321855010, 10321855011, 10321855012, 10321855013, 10321855014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/18/15 11:35	
a,a,a-Trifluorotoluene (S)	%.	80	50-150	09/18/15 11:35	

LABORATORY CONTROL SAMPLE & LCSD: 2081905 2081906

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	933	942	93	94	65-125	1	20	
a,a,a-Trifluorotoluene (S)	%.				94	107	50-150			

SAMPLE DUPLICATE: 2081908

Parameter	Units	10321855005 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	80	80	0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

QC Batch: GCV/14438 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10321855003, 10321855004, 10321855015, 10321855016

METHOD BLANK: 2084487 Matrix: Water
Associated Lab Samples: 10321855003, 10321855004, 10321855015, 10321855016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/21/15 12:14	
a,a,a-Trifluorotoluene (S)	%.	91	50-150	09/21/15 12:14	

METHOD BLANK: 2084488 Matrix: Water
Associated Lab Samples: 10321855003, 10321855004, 10321855015, 10321855016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/21/15 12:35	
a,a,a-Trifluorotoluene (S)	%.	89	50-150	09/21/15 12:35	

LABORATORY CONTROL SAMPLE & LCSD: 2084489 2084490

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	967	952	97	95	65-125	2	20	
a,a,a-Trifluorotoluene (S)	%.				106	99	50-150			

MATRIX SPIKE SAMPLE: 2081907

Parameter	Units	10321855004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	150	1000	1110	96	50-150	
a,a,a-Trifluorotoluene (S)	%.				105	50-150	

SAMPLE DUPLICATE: 2084530

Parameter	Units	10322134001 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	87	86	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

QC Batch: MSV/33223 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10321855001, 10321855002, 10321855003, 10321855005, 10321855006, 10321855007, 10321855008

METHOD BLANK: 2085036 Matrix: Water
Associated Lab Samples: 10321855001, 10321855002, 10321855003, 10321855005, 10321855006, 10321855007, 10321855008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/22/15 02:14	
Ethylbenzene	ug/L	ND	1.0	09/22/15 02:14	
Toluene	ug/L	ND	1.0	09/22/15 02:14	
Xylene (Total)	ug/L	ND	3.0	09/22/15 02:14	
1,2-Dichloroethane-d4 (S)	%.	112	75-125	09/22/15 02:14	
4-Bromofluorobenzene (S)	%.	109	75-125	09/22/15 02:14	
Toluene-d8 (S)	%.	100	75-125	09/22/15 02:14	

LABORATORY CONTROL SAMPLE: 2085037

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.3	92	71-125	
Ethylbenzene	ug/L	20	17.9	89	75-125	
Toluene	ug/L	20	17.4	87	74-125	
Xylene (Total)	ug/L	60	50.8	85	75-125	
1,2-Dichloroethane-d4 (S)	%.			112	75-125	
4-Bromofluorobenzene (S)	%.			108	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2085038 2085039

Parameter	Units	10321855001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	20	20	21.4	18.5	106	92	53-139	14	30	
Ethylbenzene	ug/L	ND	20	20	19.8	17.8	99	89	55-139	11	30	
Toluene	ug/L	ND	20	20	19.5	17.3	97	86	52-148	12	30	
Xylene (Total)	ug/L	ND	60	60	56.5	50.4	94	84	54-144	12	30	
1,2-Dichloroethane-d4 (S)	%.						116	110	75-125			
4-Bromofluorobenzene (S)	%.						109	109	75-125			
Toluene-d8 (S)	%.						100	102	75-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

QC Batch: MSV/33224 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10321855009, 10321855010, 10321855011, 10321855012, 10321855013, 10321855014, 10321855015, 10321855016

METHOD BLANK: 2085041 Matrix: Water
Associated Lab Samples: 10321855009, 10321855010, 10321855011, 10321855012, 10321855013, 10321855014, 10321855015, 10321855016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/21/15 18:06	
Ethylbenzene	ug/L	ND	1.0	09/21/15 18:06	
Toluene	ug/L	ND	1.0	09/21/15 18:06	
Xylene (Total)	ug/L	ND	3.0	09/21/15 18:06	
1,2-Dichloroethane-d4 (S)	%.	115	75-125	09/21/15 18:06	
4-Bromofluorobenzene (S)	%.	109	75-125	09/21/15 18:06	
Toluene-d8 (S)	%.	99	75-125	09/21/15 18:06	

LABORATORY CONTROL SAMPLE: 2085042

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.2	86	71-125	
Ethylbenzene	ug/L	20	16.6	83	75-125	
Toluene	ug/L	20	16.5	82	74-125	
Xylene (Total)	ug/L	60	48.7	81	75-125	
1,2-Dichloroethane-d4 (S)	%.			115	75-125	
4-Bromofluorobenzene (S)	%.			108	75-125	
Toluene-d8 (S)	%.			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2085043 2085044

Parameter	Units	10322519001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	20	20	19.2	20.5	96	103	53-139	7	30	
Ethylbenzene	ug/L	ND	20	20	18.7	19.7	93	99	55-139	6	30	
Toluene	ug/L	ND	20	20	18.4	19.9	92	100	52-148	8	30	
Xylene (Total)	ug/L	ND	60	60	52.6	56.4	88	94	54-144	7	30	
1,2-Dichloroethane-d4 (S)	%.						115	111	75-125			
4-Bromofluorobenzene (S)	%.						107	107	75-125			
Toluene-d8 (S)	%.						102	102	75-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M	Pace Analytical Services - Minneapolis

WORKORDER QUALIFIERS

WO: 10321855

[1]	Sample MW-45 was not analyzed for 8260, due to multiple re-runs for NWTPHGx.

ANALYTE QUALIFIERS

S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10321855

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10321855001	**MW-50**	NWTPH-Gx	GCV/14434		
10321855002	**MW-54**	NWTPH-Gx	GCV/14434		
10321855003	**MWR-5**	NWTPH-Gx	GCV/14438		
10321855004	**MW-45**	NWTPH-Gx	GCV/14438		
10321855005	**MW-41**	NWTPH-Gx	GCV/14434		
10321855006	**MW-219**	NWTPH-Gx	GCV/14434		
10321855007	**MW-209**	NWTPH-Gx	GCV/14434		
10321855008	**SMW-3**	NWTPH-Gx	GCV/14434		
10321855009	**MW-215**	NWTPH-Gx	GCV/14434		
10321855010	**MW-214**	NWTPH-Gx	GCV/14434		
10321855011	**MWR-3**	NWTPH-Gx	GCV/14434		
10321855012	**MWR-1**	NWTPH-Gx	GCV/14434		
10321855013	**MWR-4**	NWTPH-Gx	GCV/14434		
10321855014	**MWR-6**	NWTPH-Gx	GCV/14434		
10321855015	**MW-213**	NWTPH-Gx	GCV/14438		
10321855016	**Trip Blank**	NWTPH-Gx	GCV/14438		
10321855001	**MW-50**	EPA 8260B	MSV/33223		
10321855002	**MW-54**	EPA 8260B	MSV/33223		
10321855003	**MWR-5**	EPA 8260B	MSV/33223		
10321855005	**MW-41**	EPA 8260B	MSV/33223		
10321855006	**MW-219**	EPA 8260B	MSV/33223		
10321855007	**MW-209**	EPA 8260B	MSV/33223		
10321855008	**SMW-3**	EPA 8260B	MSV/33223		
10321855009	**MW-215**	EPA 8260B	MSV/33224		
10321855010	**MW-214**	EPA 8260B	MSV/33224		
10321855011	**MWR-3**	EPA 8260B	MSV/33224		
10321855012	**MWR-1**	EPA 8260B	MSV/33224		
10321855013	**MWR-4**	EPA 8260B	MSV/33224		
10321855014	**MWR-6**	EPA 8260B	MSV/33224		
10321855015	**MW-213**	EPA 8260B	MSV/33224		
10321855016	**Trip Blank**	EPA 8260B	MSV/33224		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10321855

Page: 1 of 2

1844825

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Cardno ATC	Report To: Kyle Sattler	Attention:
Address: 6347 Seaview Ave	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: P66-7396	Pace Project Manager: Jenni Gross
Requested Due Date/TAT:	Project Number:	Pace Profile #: 33332 #1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: WA

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	Analysis Test ↓	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-50				9/10/15	16:25								6					X	X	001
2	MW-54				9/10/15	15:40															002
3	MWR-5				9/10/15	15:00															003
4	MW-45				9/10/15	14:25															004
5	MW-41				9/10/15	10:25															005
6	MW-219				9/10/15	11:25															006
7	MW-209				9/11/15	14:35															007
8	MW-3					14:05															008
9	MW-215					13:30															009
10	MW-214					12:55															010
11	MWR-3					11:30															011
12	MWP-1					11:00															012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	M Cardno	9/11/15	11:45	ATC	9/11/15	1445	3.9	Y	N	Y
	Richardson PACE	9/11/15	1700	Pace	9/12/15	920	7.2	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Monty Memmott

SIGNATURE of SAMPLER: M

DATE Signed (MM/DD/YY): 9/11/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10321855

Page: 2 of 2

1844826

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Cardno ATC	Report To: Kyle Sattler	Attention:
Address: 6347 Seaview	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: P66-1396	Pace Project Manager: Jenni Gross
Requested Due Date/TAT: Standard	Project Number:	Pace Profile #: 33332-#1

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: WA

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test ↓ Y/N	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MWR-4	GW	G	9/1/15	10:25								X					Y		013
2	MWR-6	GW			9:50													Y		014
3	MW-213	GW			8:15													Y		015
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Cardno	9/1/15	14:45	KATE	9/1/15	1445	3.4	Y	N	Y
	Pace	9/1/15	2400	Pace	9/2/15	920	3.2	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mark Glennon

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/1/15

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical	Document Name: Cooler Transfer Check List	Revised Date: 23Apr2013 Page 1 of 1
	Document Number: F-MN-C-120-rev.01	Issuing Authority: Pace Minnesota Quality Office

Cooler Transfer Check List

Client: Pb6-Cardno

Project Manager: Jenni Gross

Profile/Line #: 33332 #1

Received with Custody Seal: Yes (No)

Custody Seal Intact: Yes No (NA)

	Temp Read	Corrected Temp	Correction Factor
Temperature C:	3.8	3.9	+0.1

IR Gun # (IR1) IR2

☐ Samples on ice, cooling process has begun

Rush/Short Hold: NO

Containers Intact: (Yes) No

Re-packed and Re-Iced: ✓

Temp Blank Included: (Yes) No

Shipped By/Date: ge 9/11/15

Notes: ACOOES NWTPHGX & 8260

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Cardno ATC

Project #: WO#: 10321855

10321855

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client
[ ] Commercial [ ] Pace [ ] SpeeDee [ ] Other:
Tracking Number: 6451 0864 4593

Custody Seal on Cooler/Box Present? [X] Yes [ ] No Seals Intact? [X] Yes [ ] No

Optional: Proj. Due Date: Proj. Name:

Packing Material: [ ] Bubble Wrap [X] Bubble Bags [ ] None [ ] Other: Temp Blank? [X] Yes [ ] No

Thermometer Used: [ ] B88A9130516413 [X] B88A912167504 [ ] B88A0143310098 Type of Ice: [X] Wet [ ] Blue [ ] None [ ] Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.4 Cooler Temp Corrected (°C): 3.2 Biological Tissue Frozen? [ ] Yes [ ] No [X] N/A

Temp should be above freezing to 6°C Correction Factor: -0.2 Date and Initials of Person Examining Contents: BM 9/12/15

USDA Regulated Soil ([X] N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? [ ] Yes [ ] No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? [ ] Yes [ ] No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	[X] Yes	[ ] No	[ ] N/A	1.
Chain of Custody Filled Out?	[X] Yes	[ ] No	[ ] N/A	2.
Chain of Custody Relinquished?	[X] Yes	[ ] No	[ ] N/A	3.
Sampler Name and/or Signature on COC?	[X] Yes	[ ] No	[ ] N/A	4.
Samples Arrived within Hold Time?	[X] Yes	[ ] No	[ ] N/A	5.
Short Hold Time Analysis (<72 hr)?	[ ] Yes	[X] No	[ ] N/A	6.
Rush Turn Around Time Requested?	[ ] Yes	[X] No	[ ] N/A	7.
Sufficient Volume?	[X] Yes	[ ] No	[ ] N/A	8.
Correct Containers Used?	[X] Yes	[ ] No	[ ] N/A	9.
-Pace Containers Used?	[X] Yes	[ ] No	[ ] N/A	
Containers Intact?	[X] Yes	[ ] No	[ ] N/A	10.
Filtered Volume Received for Dissolved Tests?	[ ] Yes	[ ] No	[X] N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	[X] Yes	[ ] No	[ ] N/A	12.
All containers needing acid/base preservation have been checked?	[ ] Yes	[ ] No	[X] N/A	13. [ ] HNO_3 [ ] H_2SO_4 [ ] NaOH [ ] HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) BM 9/12/15	[X] Yes	[ ] No	[ ] N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	[X] Yes	[ ] No	[ ] N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	[ ] Yes	[X] No	[ ] N/A	14.
Trip Blank Present?	[X] Yes	[ ] No	[ ] N/A	15.
Trip Blank Custody Seals Present?	[X] Yes	[ ] No	[ ] N/A	
Pace Trip Blank Lot # (if purchased): 071315-3B2A				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? [ ] Yes [X] No

Person Contacted: Kyle Sattler Date/Time: 9/14/15 10:05 via email

Comments/Resolution: Analyze Trip Blanks for 6x / BTEX by 8260. BM 9/14/15 11:22

Project Manager Review: ENM Grant Date: 9/14/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical	Document Name: Sample Container Count	Document Revised: 30Jul2014 Page 1 of 1
	Document No.: P-MN-C-090-Rev.04	Issuing Authority: Pace Minnesota Quality Office

1157

Client: Rde-Cardno Project #: 10321855 COC ID: 1844825/1844826 COC Page: 1/2 of 2/2

Sample Line Item	BP1U	BP2U	BP3U	BP3S	BP3N	AG1U	AG1H	AG3S	AGIT	JGFU	JGCU	BJFU	WPDU	VG9M	VG9H	GN	SP5T	DWC
☐	Check the box to the left to indicate that the container(s) received for line items - are identical to the container(s) documented for line item 1 for this CoC.																	
1-15 1															6			
16 2															4 TB			
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Comments:

Container Codes:

AG1H	1 L amber glass HCL	BP1N	1 L plastic HNO3	DG9C	40 mL vial with ascorbic acid	VG9B	40 mL clear VOA vial Na Bisulfate
AG1S	1 L amber glass H2SO4	BP1S	1 L plastic H2SO4	DG9T	40 mL amber VOA vial Na Thio	VG9H	40 mL clear VOA vial HCl
AG1T	1 L amber glass Na Thiosulfate	BP1U	1 L plastic unpreserved	DG9U	40 mL amber VOA vial	VG9M	40 mL clear VOA vial MeOH
AG1U	1 L amber glass unpreserved	BP1Z	1 L plastic NaOH, Zn Ac	DWC	Dry weight container	VG9S	40 mL clear VOA vial H2SO4
AG2H	500 mL amber glass HCl	BP2A	500 mL plastic NaOH	EZH	25 g Encore	VG9T	40 mL clear VOA vial Na Thiosulfate
AG2N	500 mL amber glass HNO3	BP2N	500 mL plastic HNO3	GJ	1 Gallon jug	VG9U	40 mL clear VOA vial
AG2S	500 mL amber glass H2SO4	BP2S	500 mL plastic H2SO4	GN	General unpreserved	VG9W	40 mL clear VOA vial DI Water/stir bar
AG2U	500 mL amber unpreserved	BP2U	500 mL plastic unpreserved	GNN	General preserved with Nitric Acid	VSG	Headspace septa vial and HCl
AG3H	250 mL amber glass HCl	BP2Z	500 mL NaOH, Zn Ac	GNS	General with H_2SO_4	WGFX	4 oz wide jar and wipe Hexane
AG3S	250 mL amber glass H2SO4	BP3A	250 mL plastic NaOH, Asc Acid	JGCU	8 oz clear wide jar	WPDU	16 oz clear wide mouth jar
AG3U	250 mL amber glass unpreserved	BP3N	250 mL plastic HNO3	JGFM	4 oz amber wide jar MeOH	XAD	XAD trap
AG4S	120 mL amber glass H2SO4	BP3S	250 mL plastic H2SO4	JGFU	4 oz wide jar		
AG4U	125 mL amber glass unpreserved	BP3U	250 mL plastic unpreserved	PB	Clear zip-lock bag		
BJFM	4 oz clear jar MeOH	BP3Z	250 mL plastic NaOH, Zn Ac	PUF	Polyurethane Foam		
BJFU	4 oz amber tared weight	BP4N	125 mL plastic HNO3	SP5T	120 mL Coliform NA Thiosulfate		
BJTM	2 oz clear MeOH	BP4U	125 mL plastic unpreserved	T	Tedlar Bag		
BJTU	2 oz clear wide jar	C	Air Cassettes	TDT	Thermal desorption tube		
BP1A	1 L plastic NaOH	DG9H	40 mL amber VOA vial HCl	U	Summa Can		

Pace Analytical Services, Inc.
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September 28, 2015

Kyle Sattler
Cardno ATC
7070 SW Fir Loop
Suite 100
Portland, OR 97223

RE: Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

Dear Kyle Sattler:
Enclosed are the analytical results for sample(s) received by the laboratory on September 15, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Michael Miller, Cardno ATC

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CERTIFICATIONS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10322335001	**MW-210**	Water	09/11/15 15:10	09/15/15 09:50
10322335002	**MW-211**	Water	09/11/15 15:35	09/15/15 09:50
10322335003	**MW-212**	Water	09/11/15 16:40	09/15/15 09:50
10322335004	**POST MW-213**	Water	09/11/15 16:10	09/15/15 09:50
10322335005	**Trip Blank**	Water	09/11/15 00:00	09/15/15 09:50

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SAMPLE ANALYTE COUNT

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10322335001	**MW-210**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10322335002	**MW-211**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10322335003	**MW-212**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10322335004	**POST MW-213**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M
10322335005	**Trip Blank**	NWTPH-Gx	KMZ	2	PASI-M
		EPA 8260B	AH2	7	PASI-M

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ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

Sample: MW-210 **Lab ID: 10322335001** Collected: 09/11/15 15:10 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/21/15 15:07		
Surrogates								
a,a,a-Trifluorotoluene (S)	85	%.	50-150	1		09/21/15 15:07	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/23/15 02:39	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/23/15 02:39	100-41-4	
Toluene	ND	ug/L	1.0	1		09/23/15 02:39	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/15 02:39	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	115	%.	75-125	1		09/23/15 02:39	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/23/15 02:39	2037-26-5	
4-Bromofluorobenzene (S)	112	%.	75-125	1		09/23/15 02:39	460-00-4	

Sample: MW-211 **Lab ID: 10322335002** Collected: 09/11/15 15:35 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/21/15 15:29		
Surrogates								
a,a,a-Trifluorotoluene (S)	83	%.	50-150	1		09/21/15 15:29	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/23/15 02:55	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/23/15 02:55	100-41-4	
Toluene	ND	ug/L	1.0	1		09/23/15 02:55	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/15 02:55	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	115	%.	75-125	1		09/23/15 02:55	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		09/23/15 02:55	2037-26-5	
4-Bromofluorobenzene (S)	111	%.	75-125	1		09/23/15 02:55	460-00-4	

Sample: MW-212 **Lab ID: 10322335003** Collected: 09/11/15 16:40 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/21/15 15:50		
Surrogates								
a,a,a-Trifluorotoluene (S)	82	%.	50-150	1		09/21/15 15:50	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/23/15 03:11	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/23/15 03:11	100-41-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

Sample: MW-212 **Lab ID: 10322335003** Collected: 09/11/15 16:40 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV UST	Analytical Method: EPA 8260B							
Toluene	ND	ug/L	1.0	1		09/23/15 03:11	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/15 03:11	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/23/15 03:11	17060-07-0	
Toluene-d8 (S)	101	%.	75-125	1		09/23/15 03:11	2037-26-5	
4-Bromofluorobenzene (S)	112	%.	75-125	1		09/23/15 03:11	460-00-4	

Sample: POST MW-213 **Lab ID: 10322335004** Collected: 09/11/15 16:10 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/21/15 16:12		
Surrogates								
a,a,a-Trifluorotoluene (S)	88	%.	50-150	1		09/21/15 16:12	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	**3.4**	ug/L	1.0	1		09/23/15 03:28	71-43-2	
Ethylbenzene	**1.4**	ug/L	1.0	1		09/23/15 03:28	100-41-4	
Toluene	ND	ug/L	1.0	1		09/23/15 03:28	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/23/15 03:28	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	114	%.	75-125	1		09/23/15 03:28	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/23/15 03:28	2037-26-5	
4-Bromofluorobenzene (S)	111	%.	75-125	1		09/23/15 03:28	460-00-4	

Sample: Trip Blank **Lab ID: 10322335005** Collected: 09/11/15 00:00 Received: 09/15/15 09:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV	Analytical Method: NWTPH-Gx							
TPH as Gas	ND	ug/L	100	1		09/21/15 13:41		
Surrogates								
a,a,a-Trifluorotoluene (S)	90	%.	50-150	1		09/21/15 13:41	98-08-8	
8260B MSV UST	Analytical Method: EPA 8260B							
Benzene	ND	ug/L	1.0	1		09/22/15 14:05	71-43-2	
Ethylbenzene	ND	ug/L	1.0	1		09/22/15 14:05	100-41-4	
Toluene	ND	ug/L	1.0	1		09/22/15 14:05	108-88-3	
Xylene (Total)	ND	ug/L	3.0	1		09/22/15 14:05	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	112	%.	75-125	1		09/22/15 14:05	17060-07-0	
Toluene-d8 (S)	100	%.	75-125	1		09/22/15 14:05	2037-26-5	
4-Bromofluorobenzene (S)	111	%.	75-125	1		09/22/15 14:05	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

QC Batch: GCV/14438 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10322335001, 10322335002, 10322335003, 10322335004, 10322335005

METHOD BLANK: 2084487 Matrix: Water
Associated Lab Samples: 10322335001, 10322335002, 10322335003, 10322335004, 10322335005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/21/15 12:14	
a,a,a-Trifluorotoluene (S)	%.	91	50-150	09/21/15 12:14	

METHOD BLANK: 2084488 Matrix: Water
Associated Lab Samples: 10322335001, 10322335002, 10322335003, 10322335004, 10322335005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/21/15 12:35	
a,a,a-Trifluorotoluene (S)	%.	89	50-150	09/21/15 12:35	

LABORATORY CONTROL SAMPLE & LCSD: 2084489 2084490

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	967	952	97	95	65-125	2	20	
a,a,a-Trifluorotoluene (S)	%.				106	99	50-150			

MATRIX SPIKE SAMPLE: 2081907

Parameter	Units	10321855004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
TPH as Gas	ug/L	150	1000	1110	96	50-150	
a,a,a-Trifluorotoluene (S)	%.				105	50-150	

SAMPLE DUPLICATE: 2084530

Parameter	Units	10322134001 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	87	86	2		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

QC Batch: MSV/33238
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10322335005

METHOD BLANK: 2085451 Matrix: Water
Associated Lab Samples: 10322335005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/22/15 13:32	
Ethylbenzene	ug/L	ND	1.0	09/22/15 13:32	
Toluene	ug/L	ND	1.0	09/22/15 13:32	
Xylene (Total)	ug/L	ND	3.0	09/22/15 13:32	
1,2-Dichloroethane-d4 (S)	%.	114	75-125	09/22/15 13:32	
4-Bromofluorobenzene (S)	%.	110	75-125	09/22/15 13:32	
Toluene-d8 (S)	%.	102	75-125	09/22/15 13:32	

LABORATORY CONTROL SAMPLE: 2085452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.3	91	71-125	
Ethylbenzene	ug/L	20	17.8	89	75-125	
Toluene	ug/L	20	17.4	87	74-125	
Xylene (Total)	ug/L	60	50.5	84	75-125	
1,2-Dichloroethane-d4 (S)	%.			115	75-125	
4-Bromofluorobenzene (S)	%.			109	75-125	
Toluene-d8 (S)	%.			103	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2085901 2085900

Parameter	Units	10321741001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	21.0	20	20	43.2	42.7	111	108	53-139	1	30	
Ethylbenzene	ug/L	ND	20	20	18.8	19.9	94	100	55-139	6	30	
Toluene	ug/L	1.0	20	20	17.5	19.5	82	92	52-148	11	30	
Xylene (Total)	ug/L	ND	60	60	51.1	55.8	85	93	54-144	9	30	
1,2-Dichloroethane-d4 (S)	%.						116	115	75-125			
4-Bromofluorobenzene (S)	%.						110	110	75-125			
Toluene-d8 (S)	%.						102	103	75-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

QC Batch: MSV/33245 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV UST-WATER
Associated Lab Samples: 10322335001, 10322335002, 10322335003, 10322335004

METHOD BLANK: 2086021 Matrix: Water
Associated Lab Samples: 10322335001, 10322335002, 10322335003, 10322335004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	09/22/15 21:11	
Ethylbenzene	ug/L	ND	1.0	09/22/15 21:11	
Toluene	ug/L	ND	1.0	09/22/15 21:11	
Xylene (Total)	ug/L	ND	3.0	09/22/15 21:11	
1,2-Dichloroethane-d4 (S)	%.	113	75-125	09/22/15 21:11	
4-Bromofluorobenzene (S)	%.	111	75-125	09/22/15 21:11	
Toluene-d8 (S)	%.	100	75-125	09/22/15 21:11	

LABORATORY CONTROL SAMPLE: 2086022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.4	92	71-125	
Ethylbenzene	ug/L	20	17.5	87	75-125	
Toluene	ug/L	20	16.9	85	74-125	
Xylene (Total)	ug/L	60	49.9	83	75-125	
1,2-Dichloroethane-d4 (S)	%.			117	75-125	
4-Bromofluorobenzene (S)	%.			109	75-125	
Toluene-d8 (S)	%.			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2086023 2086024

Parameter	Units	10322134001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	1.4	20	20	21.1	19.7	99	92	53-139	7	30	
Ethylbenzene	ug/L	ND	20	20	19.1	17.6	96	88	55-139	8	30	
Toluene	ug/L	ND	20	20	18.6	17.2	92	85	52-148	7	30	
Xylene (Total)	ug/L	ND	60	60	53.8	50.6	90	84	54-144	6	30	
1,2-Dichloroethane-d4 (S)	%.						116	115	75-125			
4-Bromofluorobenzene (S)	%.						110	110	75-125			
Toluene-d8 (S)	%.						102	101	75-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AOC 1396 Westlake/ Mercer
Pace Project No.: 10322335

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10322335001	**MW-210**	NWTPH-Gx	GCV/14438		
10322335002	**MW-211**	NWTPH-Gx	GCV/14438		
10322335003	**MW-212**	NWTPH-Gx	GCV/14438		
10322335004	**POST MW-213**	NWTPH-Gx	GCV/14438		
10322335005	**Trip Blank**	NWTPH-Gx	GCV/14438		
10322335001	**MW-210**	EPA 8260B	MSV/33245		
10322335002	**MW-211**	EPA 8260B	MSV/33245		
10322335003	**MW-212**	EPA 8260B	MSV/33245		
10322335004	**POST MW-213**	EPA 8260B	MSV/33245		
10322335005	**Trip Blank**	EPA 8260B	MSV/33238		

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

L0322335

Page: 1 of 1

Section A
Required Client Information:

Company:	Cardno ATC
Address:	6347 S.W. Macadam Ave Suite 100, Portland, OR 97221
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	Standard

Section B
Required Project Information:

Report To:	Kyle Sattler
Copy To.	
Purchase Order No.:	
Project Name:	PLL-1376
Project Number:	

Section C
Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #.	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☒ UST ☐ RCRA ☐ OTHER

Site Location STATE: WA

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	TPH-Dx - Gx	BTEX (8260c)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-210	WT	G	9/11/15	15:10				6				X						X	X		001
2	MW-211	WT	G	9/11/15	15:35				6				X						X	X		002
3	MW-212	WT	G	9/11/15	16:40				6				X						X	X		003
4	PEST MW-213	WT	G	9/11/15	16:10				6				X						X	X		004
5																						005
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
				Pace	9/15/15	950	5.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mark Newman

SIGNATURE of SAMPLER: | DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pace Analytical®	Document Name: **Sample Condition Upon Receipt Form**	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: **F-MN-L-213-rev.13**	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Cardno ATC

Project #: WO# : 10322335

10322335

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client
☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: 6451 0864

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No **Seals Intact?** ☑ Yes ☐ No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☑ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☐ B88A0143310098 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 5.4 **Cooler Temp Corrected (°C):** 5.2 **Biological Tissue Frozen?** ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C **Correction Factor:** -0.2 **Date and Initials of Person Examining Contents:** JM 9/15/15

USDA Regulated Soil (☑ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished? JM 9/15/15	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☑ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☑ Yes	☐ No	☐ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): 071315-3BZA				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Shawn Davis **Date:** 9-17-15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

APPENDIX B

FIELD REPORT/GROUNDWATER GAUGING & SAMPLING LOGS

Cardno ATC
Shaping the Future

Field Report

FLD-100
Revision 0.0
Jan-13

ATC Branch: Seattle	Date: 9/10/15	Page 1 of
ATC Representative(s): Mark Newman	Project: Phillips 66 AOC #1396	
Role:	Location: Westlake and Mercer Ave. Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.751181396	Task No:
Scope of Work:	Weather: Clear	Temperature:
___ Monitoring ___ Assessment ___ Remediation ___ Closure	Contractor: Emerald, TCS	

Time:	Comments:
8:30	Cardno ATC representative Mark Newman arrives at Project Site in Seattle, WA. Meet with Traffic Control Services (TCS), conduct Health and Safety Meeting. Prep Sampling equipment and calibrate YSI.
9:00	Mob to North bound lane of Westlake Ave N. Delivery truck is parked in a position that prevents traffic control from setting up.
9:45	Delivery truck departs work area. TCS begins setting up traffic control.
10:00	mob into MW-41, begin purging and sampling.
10:25	Collect MW-41. Wrap up and mob to enclosure area while TCS tears down and sets up on MW-219.
11:00	Begin Purging and Sampling MW-219.
11:25	Collect MW-219. Wrap up and TCS tears down.
12:00	TCS departs site. Pace analytical arrives at Project Site to deliver Teflar bags. Cardno ATC begins gauging all onsite and offsite wells that do not require traffic control. Car parked over MW-212, will return later.
14:00	Finish gauging wells. Setup to begin sampling MW-5 and MWR-45.
	Continue sampling wells; MW-5 and MW-50, ~~and MW-6~~.

Equipment Used:

Contractor Hours (per Person):	Staff / Technician Hours:	Mileage:
Copies To:	Project Manager:	
	Reviewed By:	

Cardno ATC
Shaping the Future

Field Report

FLD-100
Revision 0.0
Jan-13

ATC Branch: **Seattle**	Date: 9/10/15	Page 2 of 2
ATC Representative(s): Mark Newman	Project: **Phillips 66 AOC #1396**	
Role:	Location: **Westlake and Mercer Ave. Seattle, WA**	
Contact Information: **206-781-1449**	Project No: **76.751181396**	Task No:
Scope of Work:	Weather:	Temperature:
___ Monitoring X Assessment ___ Remediation ___ Closure	Contractor:	

Time:	Comments:
16:45	Finish Sampling MW-50. Begin pack up and decon.
17:00	Depart Site for office.

Equipment Used:

Contractor Hours (per Person):	Staff / Technician Hours:	Mileage:
Copies To:	Project Manager:	
	Reviewed By:	

Cardno ATC
Shaping the Future

Field Report

FLD-100
Revision 0.0
Jan-13

ATC Branch: **Seattle**	Date: 9/11/13	Page 1 of 2
ATC Representative(s): Mark Neumeu	Project: **Phillips 66 AOC #1396**	
Role: Scientist	Location: **Westlake and Mercer Ave. Seattle, WA**	
Contact Information: **206-781-1449**	Project No: **76.751181396**	Task No:
Scope of Work:	Weather:	Temperature:
___ Monitoring ___ Assessment ___ Remediation ___ Closure	Contractor:	

Time:	Comments:
7:00	Cardno ATC representative Mark Neumeu arrives at Project S.t.
	Begin set up for sampling MW-213.
7:30	Emerald environmental and Cardno ERI arrives at Project
	Site. Conduct health and Safety Meeting. Review JSA for
	Vac-Truck operation.
7:55	Cardno ATC begins purging and sampling MW-213.
8:25	Finish sampling MW-213, pack up equipment to mob to enclosed site.
	Assist emerald services and ERI with parking large vehicles
	and prepping for HIT event.
9:15	ERI and Emerald begin pumping on MW-213. ATC sets up on
	MWB-6.
9:25	Begin purging and sampling MWB-6.
10:00	Continue sampling wells on site.
12:00	Finish onsite wells. Pack up equipment and mob to North
	area along Valley St. Begin purging and sampling
	MW-214 and MW-215.
13:30	Mob to ~~Sc60-5~~ North side of Valley St. Begin purging
	~~MW~~ SMW-3.
14:45	Pace Analytical arrives at Project Site to courier samples to
	lab. Continue sampling wells offsite.
16:10	HIT event is completed, collect Post MW-213

Equipment Used:

Contractor Hours (per Person):	Staff / Technician Hours:	Mileage:
Copies To:	Project Manager:	
	Reviewed By:	

Cardno ATC
Shaping the Future

Field Report

FLD-100
Revision 0.0
Jan-13

ATC Branch: Seattle	Date: 8/11/15	Page 2 of 2
ATC Representative(s): Mark Newman	Project: Phillips 66 AOC #1396	
Role:	Location: Westlake and Mercer Ave. Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.751181396	Task No:
Scope of Work:	Weather:	Temperature:
___ Monitoring ___ Assessment ___ Remediation ___ Closure	Contractor:	

Time:	Comments:
16:40	Collect MW-212 on North side of Mercer Street.
	Assist ERI with drying vac truck.
17:15	Depart site.

Equipment Used:

Contractor Hours (per Person):	Staff / Technician Hours:	Mileage:
Copies To:	Project Manager:	
	Reviewed By:	

Cardno ATC
Shaping the Future

Field Report

FLD-100
Revision 0.0
Jan-13

ATC Branch: Seattle	Date: 9/12/15	Page 1 of 1
ATC Representative(s): Mark Newman	Project: Phillips 66 AOC #1396	
Role:	Location: Westlake and Mercer Ave. Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.751181396	Task No:
Scope of Work:	Weather:	Temperature:
___ Monitoring ___ Assessment ___ Remediation ___ Closure	Contractor:	

Time:	Comments:
6:45	Mark Newman of Cardno ATC arrives at Project Site.
	Meet with Traffic Control Services and police
	officers. Conduct Health and Safety Meeting.
7:00	Begin setting up traffic control along Mercer
	Street.
7:30	Gauge MW-216, 217, and 218.
8:00	Begin purging and sampling MW-217.
9:00	Mob emerald Services Vac Truck into Mercer St. MN
	begins purging and sampling MW-218.
10:00	Finish sampling MW-216. Pack up equipment,
	fill out COC and prep ERI for "Post" sampling.
10:30	Depart site for office.

Equipment Used:		
Contractor Hours (per Person):	Staff / Technician Hours:	Mileage:
Copies To:	Project Manager:	
	Reviewed By:	

Cardno ATC
Shaping the Future

Monitor Well Gauging Log

FLD-102
Revision 0.0
Jul-08

ATC Branch:	Date: 9/10/15	Page 1 of 2
ATC Representative(s): Mark Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No:
	Weather: —	Temperature:
Water Level Meter Model/ID: Envriotech Water Level Meter	Interface Probe Model/ID:	

Well ID	Casing Diameter (inches) / Type	Time of Well Cap Removal*	Time of Gauging*	Depth To LNAPL (feet)	Depth To Water (feet)	LNAPL Thickness (feet)	Total Well Depth (feet)	Other (DTW, DO, ORP, Temp, etc)
MW-41					15.81 (MW)		19.50	
MWR-1				12.01	~~11.99~~		17.50	
MWR-3					11.99		17.10	
MWR-4					11.30		16.20	
MWR-5					9.51		16.50	
MWR-6					11.98		16.50	
MW-45					10.11		19.50	
MW-50					12.54		19.35	
MW-54					10.59		19.20	
MW-219					10.52		19.80	
MW-209					9.75		19.50	
MW-210					9.45		19.20	
MW-211					9.51		20.00	
MW-212					11.87		17.20	
MW-213					9.98		20.20	
MW-214					10.00		17.20	

Comments:

5" from
Remark,
6" from
angle

Notes:

* If top of screen is submerged, allow at least 15 minutes for well equilibration following well cap removal.
All measurements to be reported to nearest 0.01 ft.

ID = Identification.
LNAPL = Light Non-Aqueous Phase Liquid.
Sheen = Discontinuous, non-measurable thickness of LNAPL (less than 0.01 ft).
Trace = Continuous, non-measurable thickness of LNAPL.

10.51

Cardno ATC
Shaping the Future

Monitor Well Gauging Log

FLD-102
Revision 0.0
Jul-08

ATC Branch:	Date: 9/10/15	Page 2 of
ATC Representative(s): Mark Neuman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: —
	Weather: —	Temperature: —
Water Level Meter Model/ID: Envriotech Water Level Meter	Interface Probe Model/ID:	

Well ID	Casing Diameter (inches) / Type	Time of Well Cap Removal*	Time of Gauging*	Depth To LNAPL (feet)	Depth To Water (feet)	LNAPL Thickness (feet)	Total Well Depth (feet)	Other (DTW, DO, ORP,Temp, etc)
MW-215					10.26			17.20
MW-216					12.68			25.20
MW-217					12.12			24.60
MW-218					11.94			24.80
~~MW-214~~								19.80
SMW-3					10.25			14.05

Comments:

Notes:

* If top of screen is submerged, allow at least 15 minutes for well equilibration following well cap removal.
All measurements to be reported to nearest 0.01 ft.

ID = Identification.
LNAPL = Light Non-Aqueous Phase Liquid.
Sheen = Discontinuous, non-measurable thickness of LNAPL (less than 0.01 ft).
Trace = Continuous, non-measurable thickness of LNAPL.

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of

1844825

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company:	Report To: Kyle Smith	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name:	Pace Project Manager:
Requested Due Date/TAT:	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location
STATE: _____

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-50				11/19/5	11:45															X	
2	MW-54																					
3	MW-8-5																					
4																						
5																						
6																						
7	MW-59																					
8																						
9																						
10	MW-56																					
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

3

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of

1844826

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: [illegible] ATC	Report To: Kyle Sattler	Attention:
Address: 6 [illegible]	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: / Fax:	Project Name: PCE-1396	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number:	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Preservatives: NaOH	Preservatives: $Na_2S_2O_3$	Preservatives: Methanol	Preservatives: Other	Y/N	Analysis Test										Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-4	WT	G	9/15	1035								X															
2	MW-6	WT	G		1120								X															
3	MW-3	WT	G		1315								X															
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[illegible]			[illegible] PACE	9/16/15	1444	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible] DATE Signed (MM/DD/YY): 9/15

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

3

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cardno ATC
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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/10/15	Page 1 of 1
ATC Representative(s): Mark Neuman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
	Contractor: N/A	
MW - 50	Weather: clear	Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter
Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS
Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 14.50
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —
Depth to Water (DTW)(feet): 12.54
LNAPL Thickness (ft): ←
Total Well Depth (feet): 19.35
Water Column (WC)(feet): 6.81
Purging Start Time: 16:00

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
16:15	12.58	0.15	23.59	2252	clear	0.36	6.89	-74.4	
16:18	12.60	0.18	23.61	2242	"	0.35	6.90	-75.1	
16:21	12.62	0.21	23.62	2249	"	0.35	6.90	-76.0	
16:24	12.63	0.24	23.63	2248	"	0.34	6.90	-77.2	

Sample Data

Sample ID: MW-50
Time of Sample: 16:25

Container Types, Volumes, & Quantities:	Filtered (yes/no)	Preservatives	Analytical Parameters
6 - 40ml VOAs	N	HCl	6200B/8260

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 12.63
Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow
% Recovery = 100
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

Cardno ATC
Shaping the Future

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/10/15	Page of
ATC Representative(s): M. Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-54	Contractor: N/A	
	Weather:	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 12.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information	Purging Calculations
Casing Diameter (Circle): 2" 4" 6" Other	Casing Volumes (CV): —
Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 19.20
Depth to Water (DTW)(feet): 10.59	Water Column (WC)(feet): 8.61
LNAPL Thickness (ft): —	Purging Start Time: 15:20

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
15:30	10.64	0.10	22.94	581	clear	0.56	7.02	-153.6	
15:33	10.66	0.13	22.92	581	"	0.55	7.02	-150.1	
15:36	10.68	0.16	22.92	581	"	0.54	7.02	-146.5	
15:39	10.70	0.19	22.85	581	"	0.53	7.02	-143.6	

Sample Data

Sample ID: MW-54	Time of Sample: 15:40	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
6 - 40 ml VOAs		N	HCl	6x/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 10.70	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/10/15	Page of
ATC Representative(s): Mark Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MWR-5	Contractor: N/A	
	Weather: —	Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow ____ Micro Purge ____ Intake Depth (feet below TOC) 14.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer ____ Dedicated Tubing Other: ____

Casing Volume Information				Purging Calculations
Casing Diameter (Circle):	2"	4"	6"	Other — Casing Volumes (CV): —
Casing Multiplier (CM)(gallons/foot):	0.16	0.65	1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 16.50
Depth to Water (DTW)(feet): 9.51	Water Column (WC)(feet): 6.99
LNAPL Thickness (ft): —	Purging Start Time: 14:35

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
14:50	9.54	0.15	20.48	613	clear	1.41	7.09	-182.7	
14:53	9.54	0.18	20.43	613	"	1.29	7.08	-185.3	
14:56	9.55	0.21	20.39	613	"	1.16	7.09	-187.0	
14:59	9.56	0.24	20.32	613	"	1.01	7.09	-188.1	

Sample Data

Sample ID: MWR-5	Time of Sample: 15:00	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
6-40 ml VOAs		N	HCl	6x/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 9.56	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA
Date: 9/10/15
Page 1 of 1

ATC Representative(s): M. Neuman
Project: P66-1396
Location: 600 Westlake Avenue, Seattle, WA
Contact Information: 206-781-1449
Project No: 76.75118.1396
Task No: 7601
Contractor: N/A
MW-45
Weather: —
Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter
Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS
Decontamination Method: Alconox/DI
Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 12.00
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —
Total Well Depth (feet): 19.50
Depth to Water (DTW)(feet): 10.11
Water Column (WC)(feet): 9.39
LNAPL Thickness (ft): —
Purging Start Time: 14:00

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
14:15	10.14	0.10	20.76	786	clear	1.22	7.16	-186.8	
14:18	10.15	0.13	20.74	786	"	1.12	7.14	-187.8	
14:21	10.16	0.16	20.71	786	"	1.04	7.14	-188.8	
14:24	10.17	0.19	20.65	786	"	0.99	7.15	-192.5	

Sample Data

Sample ID: MW-45
Time of Sample: 14:25

Container Types, Volumes, & Quantities:	Filtered (yes/no)	Preservatives	Analytical Parameters
6-40ml VOAs	N	HCl	8260/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet):
Approximate Flow Rate (GPM): 0.01
Recovery Type: ____ Fast ____ Slow
% Recovery =

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/10/15	Page of
ATC Representative(s): Mark Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-41	Contractor: N/A	
	Weather: —	Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 17.50

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information	Purging Calculations
Casing Diameter (Circle): (2") 4" 6" Other	Casing Volumes (CV): —
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 19.50
Depth to Water (DTW)(feet): 15.81	Water Column (WC)(feet): 3.31
LNAPL Thickness (ft): —	Purging Start Time: 10:00

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
10:15	15.83	0.15	18.08	1078	clear	0.98	7.28	-80.8	
10:18	15.87	0.18	18.10	1077	"	0.95	7.27	-79.7	
10:21	15.90	0.21	18.11	1076	"	0.93	7.27	-78.6	
10:24	15.91	0.24	18.11	1075	"	0.90	7.27	-77.7	

Sample Data

Sample ID: MW-41	Time of Sample: ~~1100~~ 10:25	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities: 6-40ml VOAs		N	HCl	6x/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 15.91	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/10/15	Page of
ATC Representative(s): M. Neuman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-219	Contractor: N/A	
	Weather:	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 12.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 19.80
Depth to Water (DTW)(feet): 10.52	Water Column (WC)(feet): 9.28
LNAPL Thickness (ft): —	Purging Start Time: 11:00

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
11:15	10.53	0.15	18.65	1044	clear	1.07	7.19	-200.7	
11:18	10.55	0.18	18.64	1044	"	1.03	7.18	-200.5	
11:21	10.56	0.21	18.63	1044	"	1.01	7.18	-199.5	
11:24	10.58	0.24	18.63	1045	"	0.96	7.17	-198.9	

Sample Data

Sample ID: MW-219	Time of Sample: 11:25	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
6-40ml VOAs		N	HCl	6x/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 10.58	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/11/15	Page 1 of 1
ATC Representative(s): M. Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-209	Contractor: N/A	
	Weather: —	Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 11.50

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 19.50
Depth to Water (DTW)(feet): 9.75	Water Column (WC)(feet): ~~10.75~~ 9.75
LNAPL Thickness (ft): —	Purging Start Time: 14:15

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
14:25	9.85	0.10	19.07	1200	clear	0.79	7.35	-108.7	
14:28	9.86	0.13	19.12	1194	"	0.71	7.34	-108.5	
14:31	9.87	0.16	19.17	1188	"	0.66	7.34	-108.2	
14:34	9.88	0.19	19.24	1182	"	0.61	7.33	-108.4	

Sample Data

Sample ID: MW-209	Time of Sample: 14:35	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities: 6-40ml VOAs		N	HCl	8260/BTEX

Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 9.88	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 108

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/11/15	Page 1 of 1
ATC Representative(s): M. Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
SMW-3	Contractor: N/A	
	Weather: —	Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 12.0

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 14.05
Depth to Water (DTW)(feet): 10.25	Water Column (WC)(feet): 3.80
LNAPL Thickness (ft): —	Purging Start Time: 13:45

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
13:55	10.29	0.10	21.04	790	clear	0.68	7.50	-154.2	
13:58	10.31	0.13	21.02	790	"	0.61	7.50	-152.8	
14:01	10.32	0.16	21.00	790	"	0.58	7.50	-151.5	
14:04	10.33	0.19	20.97	791	"	0.53	7.49	-150.0	

Sample Data

Sample ID: SMW-3	Time of Sample: 14:05	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities: 6-40ml		N	HCl	6x/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 10.33	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/12/15	Page 1 of 1
ATC Representative(s): M. Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-216	Contractor: N/A	
	Weather: —	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 15.5

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information	Purging Calculations
Casing Diameter (Circle): 2" 4" 6" Other	Casing Volumes (CV): —
Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 25.20
Depth to Water (DTW)(feet): 12.68	Water Column (WC)(feet): 12.52
LNAPL Thickness (ft): —	Purging Start Time: 9:15

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
9:30	12.78	0.15	19.14	1836	clear	0.88	7.06	-37.0	
9:33	12.82	0.18	19.20	1836	"	0.82	7.06	-32.0	
9:36	12.84	0.21	19.22	1836	"	0.79	7.06	-36.8	
9:39	12.86	0.24	19.23	1837	"	0.78	7.06	-36.7	

Sample Data

Sample ID: MW-216	Time of Sample: 9:40	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
6-40 ml VOAs		N	HCl	Gx/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 12.86	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

Cardno ATC
Shaping the Future

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/12/15	Page 1 of 1
ATC Representative(s): Mark Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-218	Contractor: N/A	
	Weather: Clear	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 14.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information	Purging Calculations
Casing Diameter (Circle): (2") 4" 6" Other	Casing Volumes (CV): —
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 24.90
Depth to Water (DTW)(feet): 11.99	Water Column (WC)(feet): ~~11.91~~ 13.91
LNAPL Thickness (ft): —	Purging Start Time: 8:35

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
8:50	12.02	0.15	18.31	1567	Clear	0.81	7.23	-135.6	
8:53	12.05	0.18	18.32	1568	"	0.80	7.23	-135.7	
8:56	12.05	0.21	18.32	1567	"	0.77	7.23	-136.8	
8:59	12.06	0.24	18.33	1567	"	0.74	7.23	136.3	

Sample Data

Sample ID: MW-218	Time of Sample: 9:00	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
6-40 ml VOAs		N	HCl	6/151

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 12.06	Approximate Flow Rate (GPM): 0.01
Recovery Type: Y Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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ATC Branch: Seattle, WA
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ATC Representative(s): M. Newman
Project: P66-1396
Location: 600 Westlake Avenue, Seattle, WA

Contact Information: 206-781-1449
Project No: 76.75118.1396
Task No: 7601

MW-217
Contractor: N/A
Weather:
Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter
Interface Probe (Model/ID): NA

Water Quality Meter (Model/ID): YSI 556 MPS
Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 15.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —
Total Well Depth (feet): 24.60

Depth to Water (DTW)(feet): 12.92
Water Column (WC)(feet): 11.68

LNAPL Thickness (ft): —
Purging Start Time: 8:00

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
8:15	13.02	0.15	18.38	1739	clear	0.71	7.24	-91.8	
8:18	13.06	0.18	18.36	1740	"	0.66	7.24	-95.8	
8:21	13.08	0.21	18.35	1740	"	0.60	7.24	-98.8	
8:24	13.10	0.24	18.35	1740	"	0.61	7.25	-102.5	

Sample Data

Sample ID: MW-217
Time of Sample: 8:25

Container Types, Volumes, & Quantities: 6 - 40 ml VOAs

Filtered (yes/no)	Preservatives	Analytical Parameters
N	HCl	6x/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 13.10
Approximate Flow Rate (GPM): 0.01

Recovery Type: X Fast ____ Slow
% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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ATC Branch: Seattle, WA	Date: 9/11/15	Page 1 of 1
ATC Representative(s): Mark Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-212	Contractor: N/A	
	Weather: —	Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 13.50

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 17.20
Depth to Water (DTW)(feet): 11.87	Water Column (WC)(feet): 5.33
LNAPL Thickness (ft): —	Purging Start Time: 16:20

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
16:30	11.89	0.10	19.89	1392	Clear	0.76	7.09	-157.6	
16:33	11.91	0.13	19.97	1392	"	0.72	7.09	-156.9	
16:36	11.92	0.16	19.98	1392	"	0.70	7.09	-156.0	
16:39	11.93	0.19	19.98	1393	"	0.68	7.09	-155.4	

Sample Data

Sample ID: MW-212	Time of Sample: 16:40	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities: 6-40ml VOAs		N	HCl	8260/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 11.93	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

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ATC Branch: Seattle, WA	Date: 9/11/15	Page of
ATC Representative(s): M. Neuman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-21	Contractor: N/A	
	Weather: —	Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 11.51

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information	Purging Calculations
Casing Diameter (Circle): (2") 4" 6" Other	Casing Volumes (CV): —
Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 20.00
Depth to Water (DTW)(feet): 9.51	Water Column (WC)(feet): ~~4.9~~ 10.49
LNAPL Thickness (ft): —	Purging Start Time: 15:20

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
15:35	9.56	0.15	19.36	791	clear	0.89	7.31	-151.1	
15:38	9.61	0.18	19.43	791	"	0.85	7.31	-151.9	
15:41	9.64	0.21	19.43	791	"	0.83	7.31	-154.2	
15:44	9.67	0.24	19.47	790	"	0.81	7.32	-161.9	

Sample Data

Sample ID: MW-21	Time of Sample: 15:35	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities: 6-40ml VOAs		N	HCl	6x/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 9.67	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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ATC Representative(s): M. Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-210	Contractor: N/A	
	Weather:	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 11.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information	Purging Calculations
Casing Diameter (Circle): (2") 4" 6" Other	Casing Volumes (CV): ____
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47	WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 19.20
Depth to Water (DTW)(feet): 9.45	Water Column (WC)(feet): 9.75
LNAPL Thickness (ft): —	Purging Start Time: 14:50

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
15:00	9.58	0.10	20.40	663	Clear	0.35	7.06	-108.8	
15:03	9.62	0.13	20.51	662	"	0.35	7.05	-106.1	
15:06	9.63	0.16	20.46	664	"	0.32	7.04	-105.2	
15:09	9.64	0.19	20.49	664	"				

Sample Data

Sample ID: MW-210	Time of Sample: 15:10	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities: 6-40 ml VOAs		N	HCl	6260/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 9.64	Approximate Flow Rate (GPM): 0.04
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

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ATC Branch: Seattle, WA
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ATC Representative(s): M. Newman
Project: P66-1396
Location: 600 Westlake Avenue, Seattle, WA
Contact Information: 206-781-1449
Project No: 76.75118.1396
Task No: 7601
Contractor: N/A
MW-214
Weather: —
Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter
Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS
Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 12.00
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer Y Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —
Total Well Depth (feet): 17.20
Depth to Water (DTW)(feet): 10.10
Water Column (WC)(feet): 7.20
LNAPL Thickness (ft): —
Purging Start Time: 12:30

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
12:45	10.14	0.15	21.40	880	clear	0.88	7.27	-40.0	
12:48	10.14	0.18	21.39	879	"	0.85	7.26	-40.3	
12:51	10.18	0.21	21.40	879	"	0.82	7.26	-40.7	
12:54	10.22	0.24	21.44	878	"	0.80	7.25	-41.5	

Sample Data

Sample ID: MW-214
Time of Sample: 12:55

Container Types, Volumes, & Quantities:	Filtered (yes/no)	Preservatives	Analytical Parameters
6-40ml VOAs	N	HCl	6+/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 10.27
Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow
% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

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ATC Branch: Seattle, WA	Date: 9/11/15	Page of
ATC Representative(s): M. Meuman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MWR-3	Contractor: N/A	
	Weather:	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 14.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): 2" 4" 6" Other

Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 17.10
Depth to Water (DTW)(feet): 11.99	Water Column (WC)(feet): 5.11
LNAPL Thickness (ft): —	Purging Start Time: 11:10

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
11:20	12.03	0.10	19.71	868	Clear	0.90	7.69	-260.9	
11:23	12.06	0.13	19.61	865	"	0.75	7.68	-259.7	
11:26	12.07	0.16	19.47	864	"	0.72	7.66	-246.6	
11:29	12.08	0.19	19.39	863	"	0.68	7.65	-245	

Sample Data

Sample ID: MWR-3	Time of Sample: 11:30	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities:				
6-40ml VOAs		N	HCl	BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 12.08	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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Monitoring Well Purging and Sampling Log

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ATC Branch: Seattle, WA	Date: 9/11/15	Page 1 of 1
ATC Representative(s): Mark Meuman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MWR-1	Contractor: N/A	
	Weather: Clear	Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 14.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 17.50
Depth to Water (DTW)(feet): 12.01	Water Column (WC)(feet): 5.49
LNAPL Thickness (ft): —	Purging Start Time: 10:35

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
10:50	12.07	0.15	22.21	985	Clear	0.71	7.45	-220.1	
10:53	12.10	0.18	22.22	985	"	0.70	7.45	-219.7	
10:56	12.14	0.21	22.15	988	"	0.70	7.44	-219.2	
10:59	12.16	0.24	22.03	989	"	0.67	7.46	-221.2	

Sample Data

Sample ID: MWR-1	Time of Sample: 11:00	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities: 6-40ml VOAs		N	HCl	6x/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 12.16	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

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ATC Branch: Seattle, WA
Date: 9/11/15
ATC Representative(s): ~~MWB-4~~ Mark Newman
Project: P66-1396
Location: 600 Westlake Avenue, Seattle, WA
Project No: 76.75118.1396
Task No: 7601
Contact Information: 206-781-1449
Contractor: N/A
MW-4
Weather: —
Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter
Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS
Decontamination Method: Alconox/DI
Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 13.30
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): 2" 4" 6" Other
Casing Multiplier (CM)(gallons/foot): 0.16 0.65 1.47

Purging Calculations

Casing Volumes (CV): —
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —
Depth to Water (DTW)(feet): 11.30
LNAPL Thickness (ft): —
Total Well Depth (feet): 16.20
Water Column (WC)(feet): 4.90
Purging Start Time: 10:00

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
10:15	11.35	0.15	19.04	816	Clear	0.81	7.47	-177.8	
10:18	11.38	0.18	19.05	816	"	0.78	7.46	-178.6	
10:21	11.40	0.21	19.01	818	"	0.71	7.46	-172.4	
10:24	11.41	0.24	19.96	817	"	0.68	7.45	-171.5	

Sample Data

Sample ID: MW3-4
Time of Sample: 10:25
Container Types, Volumes, & Quantities: 6-40ml VOAs

Filtered (yes/no)	Preservatives	Analytical Parameters
N	HCl	8260/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 11.41
Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow
% Recovery = 100
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):
Comments:

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Monitoring Well Purging and Sampling Log

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ATC Branch: Seattle, WA
Date: 9/11/13
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ATC Representative(s): M. Newman
Project: P66-1396
Location: 600 Westlake Avenue, Seattle, WA
Contact Information: 206-781-1449
Project No: 76.75118.1396
Task No: 7601
Contractor: N/A
MW-6
Weather: —
Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter
Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS
Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 14.00
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —
Total Well Depth (feet): 16.50
Depth to Water (DTW)(feet): 11.98
Water Column (WC)(feet): 4.52
LNAPL Thickness (ft): —
Purging Start Time: 9:25

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
9:40	12.03	0.15	22.60	1343	Clear	0.81	7.19	-135.8	
9:43	12.02	0.18	22.63	1342	"	0.75	7.14	-134.3	
9:46	12.09	0.21	22.64	1341	"	0.72	7.14	-137.2	
9:49	12.11	0.24	22.55	1340	"	0.69	7.15	-140.5	

Sample Data

Sample ID	Time of Sample	Container Types, Volumes, & Quantities	Filtered (yes/no)	Preservatives	Analytical Parameters
MW-6	9:50	6. 40ml VOAs	N	HCl	8260/BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 12.11
Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow
% Recovery = 100
Purge Water Disposition (Attach Drum Inventory Log - FLD 108):
Comments:

Cardno ATC
Shaping the Future

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA	Date: 9/11/15	Page of
ATC Representative(s): M. Newman	Project: P66-1396	
	Location: 600 Westlake Avenue, Seattle, WA	
Contact Information: 206-781-1449	Project No: 76.75118.1396	Task No: 7601
MW-213	Contractor: N/A	
	Weather:	Temperature:

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter	Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS	Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____

3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 10.00

Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other

Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —

WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —	Total Well Depth (feet): 20.20
Depth to Water (DTW)(feet): 9.99	Water Column (WC)(feet): 10.21
LNAPL Thickness (ft): —	Purging Start Time: 7:55

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
8:05	10.03	0.10	19.54	876	Clear	1.09	7.63	-38.7	
8:08	10.09	0.13	19.56	876	"	1.04	7.63	-38.8	
8:11	10.11	0.16	19.58	875	"	1.00	7.63	-39.2	
8:14	10.13	0.19	19.58	875	"	0.99	7.62	-39.7	

Sample Data

Sample ID: MW-213	Time of Sample: 8:15	Filtered (yes/no)	Preservatives	Analytical Parameters
Container Types, Volumes, & Quantities: 6 - 40 ml VOAs		N	HCl	6+ / BTEX

Well Recovery Data

Maximum Drawdown (DTWm)(feet): 10.14	Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow	% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments:

Cardno ATC
Shaping the Future

Monitoring Well Purging and Sampling Log

FLD-103
Revision 1.0
Jul-08

ATC Branch: Seattle, WA
Date: 9/11/15
Page of

ATC Representative(s): M. Newman
Project: P66-1396
Location: 600 Westlake Avenue, Seattle, WA
Contact Information: 206-781-1449
Project No: 76.75118.1396
Task No: 7601
Contractor: N/A

MW-215
Weather: —
Temperature: —

Purging & Sampling Instrumentation & Method

Water Level Meter (Model/ID): Envirotech Water Level Meter
Interface Probe (Model/ID): NA
Water Quality Meter (Model/ID): YSI 556 MPS
Decontamination Method: Alconox/DI

Purging Method: ____ PVC Bailer ____ Vacuum Truck ____ Submersible Pump X Peristaltic Pump Other: ____
3 Well Volumes ____ Low Flow X Micro Purge ____ Intake Depth (feet below TOC) 12.50
Sampling Method: ____ Teflon Bailer ____ Disposable Bailer X Dedicated Tubing Other: ____

Casing Volume Information

Casing Diameter (Circle): (2") 4" 6" Other
Casing Multiplier (CM)(gallons/foot): (0.16) 0.65 1.47

Purging Calculations

Casing Volumes (CV): —
WC ____ x CM ____ = ____ (CV)(gal) x 3.0 CV (gal) = ____ PV

Monitoring Measurements

Depth to LNAPL (feet): —
Depth to Water (DTW)(feet): ~~10.48~~ 10.32
LNAPL Thickness (ft): —
Total Well Depth (feet): 17.20
Water Column (WC)(feet): 6.88
Purging Start Time: 13:05

Purging Data

Time (24 Hours)	DTW (Feet)	Cum. Vol. Purged (Gallons)	Temp (°C) (± 1°)	Specific Cond. (uS/cm) (± 5%)	Turbidity NTU	Dissolved Oxygen (mg/L) (± 10%)	pH (± 0.1)	ORP (mV) (± 10 mV)	Other
13:20	10.38	0.15	20.34	876	Clear	0.86	6.98	-167.0	
13:23	10.41	0.18	20.34	874	"	0.75	6.96	-168.5	
13:26	10.42	0.21	20.37	874	"	0.72	6.95	-166.4	
13:29	10.44	0.24	20.22	874	"	0.67	6.94	-168.4	

Sample Data

Sample ID: MW-215
Time of Sample: 13:30

Container Types, Volumes, & Quantities:	Filtered (yes/no)	Preservatives	Analytical Parameters
6-40ml VOAs	Y	HCl	6a/BTEX

Well Recovery Data

Maximum Drawdown (DTW*m*)(feet): 10.44
Approximate Flow Rate (GPM): 0.01
Recovery Type: X Fast ____ Slow
% Recovery = 100

Purge Water Disposition (Attach Drum Inventory Log - FLD 108):

Comments: