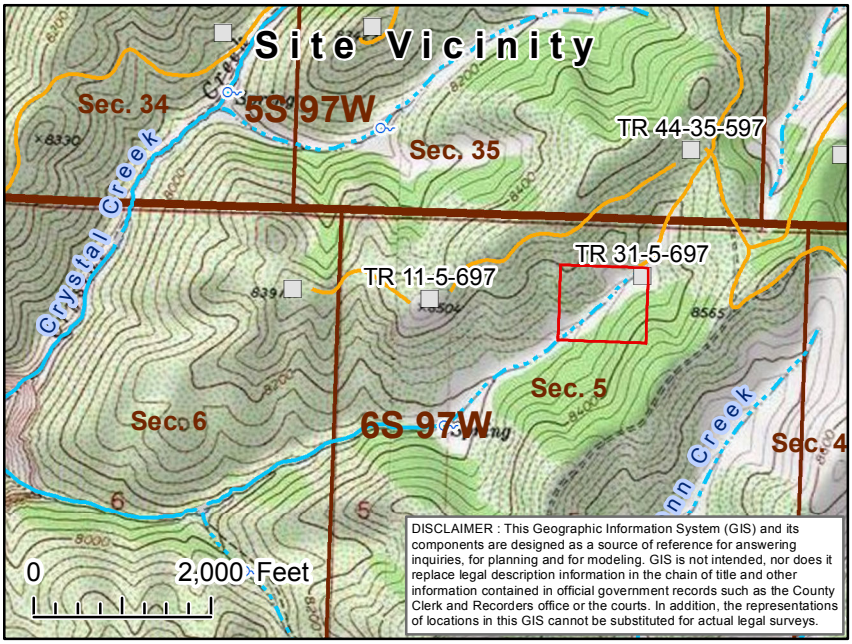

Proposed Monitoring Wells

Location: TR 31-5-697

WPX Energy Rocky Mountain, LLC

Legend

- Reclaimed Area
- WPX Access Roads

Monitoring Well

- Existing
- Proposed

Hydrographic Features

- Perennial Stream
- Intermittent Stream

PLSS

- Township
- Section

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ENVIRONMENTAL CONSULTANTS

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Revision Date: 8/14/2013 6:05:15 PM

Table 1

TR 31-5-697 Groundwater Analytical Results

Sample ID:		COGCC Table 910-1 Standards	MW 1	MW 1	MW 1	MW 1	MW 1	MW 1	MW 1	MW 1	MW 2	MW 2	MW 2	MW 2	MW 2
Date Sampled:			10/19/2011	4/9/2012	7/12/2012	9/18/2012	12/5/2012	3/27/2013	5/15/2013	7/26/2013	10/19/2011	4/9/2012	7/12/2012	9/18/2012	12/5/2012
Depth to Water (ft.)			22.51	22.07	NT	24.09	24.26	23.65	23.637	24.42	26.41	25.87	NT	28.35	30.75
8260B)															
DRO	mg/L		0.18	ND	ND	ND	ND	ND	ND	ND	1.1	1.6	ND	3.4	120
GRO	mg/L		ND	ND	ND	ND	ND	ND	ND	ND	7	4.8	2.5	10	28
Benzene	ug/l	5 ug/l	ND	ND	ND	ND	ND	ND	ND	ND	120	70	98	63	110
Ethylbenzene	ug/l	700 ug/l	ND	ND	ND	ND	ND	ND	ND	ND	92	58	56	84	590
Toluene	ug/l	560 ug/l	ND	ND	ND	ND	ND	ND	ND	ND	2.2	ND	2.6	ND	36
Xylene (total)	ug/l	1400 ug/l	ND	ND	ND	ND	ND	ND	ND	ND	1600	1200	470	1400	17,000
8270C)															
1-Methylnaphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	7.5	ND	ND	ND	230
2-Chloronaphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	600
Acenaphthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	13	7	ND	5.6	230
Phenanthrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals Analysis															
Calcium	mg/l		87	64	78	71	68	73	84	76	7.7	54	71	46	59
Iron	mg/l		0.12	ND	1.1	0.55	0.12	1.3	ND	ND	ND	0.13	0.44	0.098	0.2
Magnesium	mg/l		43	32	37	34	33	37	42	38	39	28	34	29	30
Manganese	mg/l		ND	ND	0.036	0.024	0.023	1	0.29	0.042	0.95	0.47	0.53	0.092	0.45
Potassium	mg/l		1.1	0.64	0.9	0.98	0.74	14	1.1	0.73	1.2	0.79	1.6	0.66	0.98
Sodium	mg/l		68	49	56	74	51	570	59	56	85	59	83	150	73
General Chemistry															
Bromide	mg/l		0.34	0.28	0.3	0.33	0.26	0.34	0.41	0.33	0.41	0.34	0.45	0.47	0.47
Chloride	mg/l	1.25 x bkgd	42	52	45	47	41	44	57	48	53	45	53	61	54
Nitrogen, Nitrate	mg/l		1.1	1.5	1.1	0.7	0.64	1.2	1.2	0.94	0.047	0.18	ND	ND	ND
Nitrogen, Nitrite	mg/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrogen, Nitrate-Nitrite			1.1	1.5	1.1	0.7	0.64	1.2	1.2	0.94	0.047	0.1	ND	ND	ND
Sulfate	mg/l	1.25 x bkgd	130	110	120	130	120	110	120	120	67	74	26	35	28
Fluoride	mg/l		0.19	0.17	0.24	0.18	0.16	0.19	0.16	0.13	0.19	0.18	0.27	0.21	0.2
TDS	mg/l	1.25 x bkgd	652	624	NT	601	575	563	586	602	618	627	NT	640	607

Table 1

TR 31-5-697 Groundwater Analytical Results

Sample ID:		COGCC Table 910-1 Standards	MW 2	MW 2	MW 2	MW 3	MW 3	MW 3	MW 3	MW 3	MW 3	MW 3	MW 3	MW 4	MW 4
Date Sampled:			3/27/2013	5/15/2013	7/11/2013	10/19/2011	4/9/2012	7/12/2012	9/18/2012	12/5/2012	3/27/2013	5/15/2013	7.11/2013	10/19/2011	4/9/2012
Depth to Water (ft.)			28.21	26.64	29.48	33.38	33.02	NT	33.04	34.3	32.74	30.31	32.64	28.83	27.56
8260B)															
DRO	mg/L		39	46	22	40	1.1	ND	1.5	2	69	7.6	5.4	3.1	0.9
GRO	mg/L		21	62	9.5	4.8	3	1.4	1.8	1.7	1.9	1.4	1.6	4.7	2.3
Benzene	ug/l	5 ug/l	150	60	37	55	25	8.1	4.4	ND	4.1	1.3	ND	67	17
Ethylbenzene	ug/l	700 ug/l	190	120	61	97	95	28	12	7.1	12	8.6	3.9	96	72
Toluene	ug/l	560 ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	ug/l	1400 ug/l	2,800	2,900	1,000	600	520	140	100	84	100	29	22	470	160
8270C)															
1-Methylnaphthalene	ug/l		22	42	29	ND	ND	ND	ND	5.7	17	ND	ND	6.6	ND
2-Chloronaphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	ug/l		52	110	77	ND	ND	ND	ND	11	10	5.7	ND	8.4	ND
Acenaphthene	ug/l		ND	ND	11	ND	ND	ND	ND	ND	5.7	ND	ND	ND	ND
Acenaphthylene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ug/l		23	60	19	ND	ND	ND	ND	ND	ND	ND	ND	5.9	ND
Phenanthrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals Analysis															
Calcium	mg/l		78	99	79	79	99	87	75	69	870	110	83	78	74
Iron	mg/l		0.12	0.29	0.37	0.12	1.1	0.53	0.64	0.18	4	0.22	ND	ND	ND
Magnesium	mg/l		39	50	41	37	42	36	35	33	410	50	40	37	34
Manganese	mg/l		0.59	0.7	0.46	1.7	3.2	1.9	0.61	2.5	6.1	1.4	0.68	1.7	1.6
Potassium	mg/l		1.2	1.5	1.3	1.1	1.6	1.7	1	0.74	9.7	1.2	0.88	1.1	0.84
Sodium	mg/l		90	82	83	89	130	81	59	52	730	88	61	100	87
General Chemistry															
Bromide	mg/l		0.42	0.36	0.45	0.55	2.5	0.68	0.36	0.31	0.52	1	0.37	0.47	0.84
Chloride	mg/l	1.25 x bkgd	51	53	58	72	300	95	45	38	61	130	51	63	75
Nitrogen, Nitrate	mg/l		0.14	0.044	ND	ND	ND	ND	ND	ND	0.051	0.023	ND	ND	ND
Nitrogen, Nitrite	mg/l		ND	ND	0.038	ND	ND	ND	ND	ND	ND	ND	0.032	ND	ND
Nitrogen, Nitrate-Nitrite			0.14	0.044	0.038	ND	ND	ND	ND	ND	0.051	0.023	0.032	ND	ND
Sulfate	mg/l	1.25 x bkgd	24	41	50	61	7.1	39	110	110	73	85	93	2.7	10
Fluoride	mg/l		0.18	0.16	0.14	0.22	0.15	0.23	0.17	0.16	0.18	0.14	0.11	0.2	0.18
TDS	mg/l	1.25 x bkgd	605	601	721	640	1,190	NT	603	581	621	620	699	623	689

Table 1

TR 31-5-697 Groundwater Analytical Results

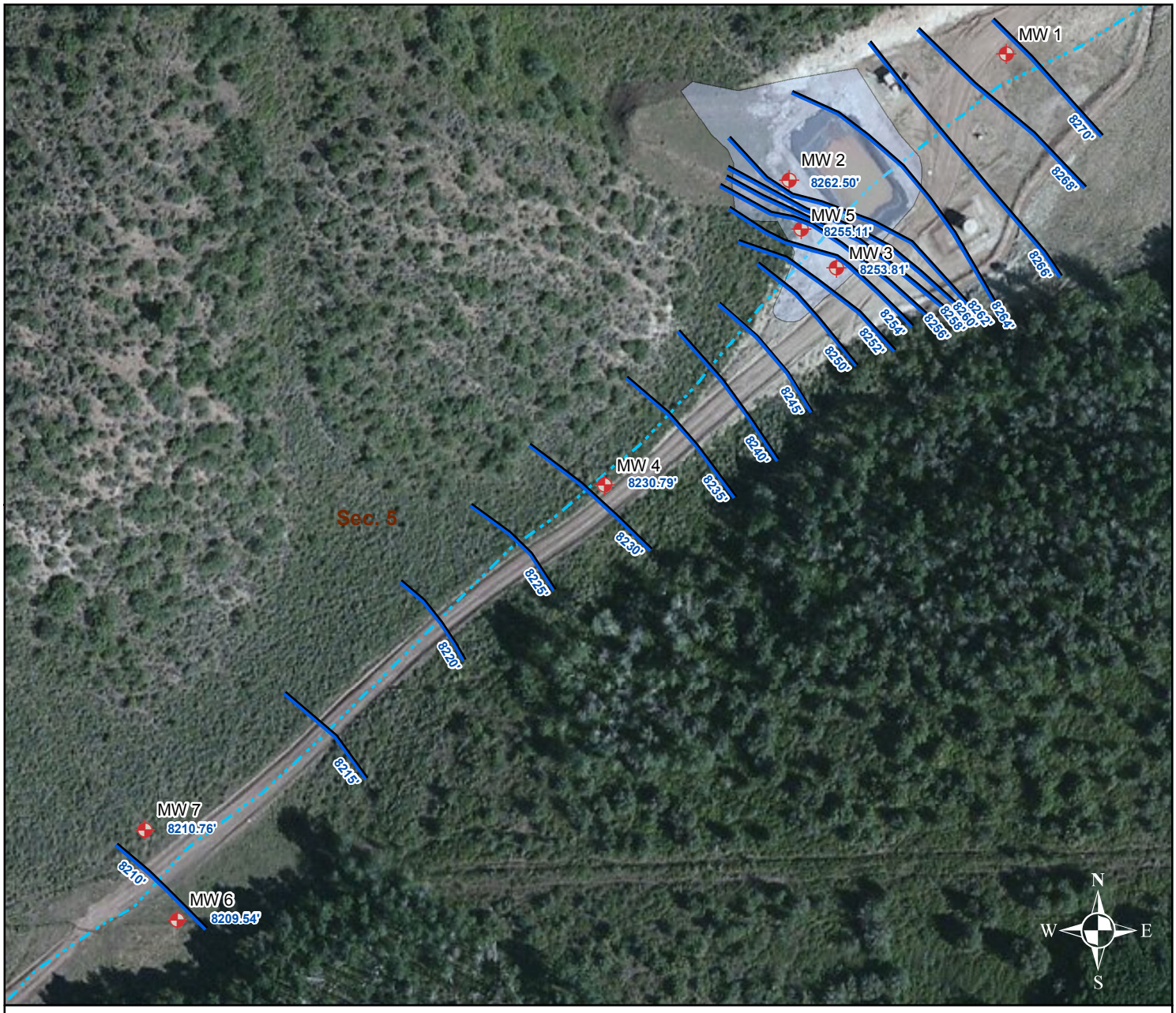
Sample ID:		COGCC Table 910-1 Standards	MW 4	MW 4	MW 4	MW 4	MW 4	MW 4	MW 5	MW 6	MW 7
Date Sampled:			7/12/2012	9/18/2012	12/5/2012	3/27/2013	5/15/2013	7/11/2013	7/11/2013	7/11/2013	7/11/2013
Depth to Water (ft.)			NT	32.74	33.02	32.36	31.01	32.48	29.47	25.35	28.42
8260B)											
DRO	mg/L		7.3	0.87	1.3	1.4	1.3	0.65	ND	ND	ND
GRO	mg/L		1.6	1.1	0.34	0.9	0.72	0.92	ND	ND	ND
Benzene	ug/l	5 ug/l	27	16	9	2	13	14	ND	1.5	ND
Ethylbenzene	ug/l	700 ug/l	44	13	2.4	ND	14	15	ND	ND	ND
Toluene	ug/l	560 ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	ug/l	1400 ug/l	130	44	7.8	3.2	56	69	ND	ND	ND
8270C)											
1-Methylnaphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	ug/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals Analysis											
Calcium	mg/l		79	80	68	910	99	88	63	76	63
Iron	mg/l		0.17	ND	0.091	1.1	0.17	ND	ND	0.12	ND
Magnesium	mg/l		35	34	31	430	47	41	31	36	31
Manganese	mg/l		1.8	0.92	1.3	17	0.19	1.8	31	0.77	0.032
Potassium	mg/l		0.98	0.79	0.77	9.1	1.2	0.91	0.032	1	1.2
Sodium	mg/l		82	100	71	900	92	83	69	76	69
General Chemistry											
Bromide	mg/l		0.38	0.48	0.45	0.55	0.59	0.5	ND	0.31	ND
Chloride	mg/l	1.25 x bkgd	64	61	52	62	84	68	17	48	17
Nitrogen, Nitrate	mg/l		ND	ND	ND	0.05	ND	ND	ND	ND	ND
Nitrogen, Nitrite	mg/l		ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrogen, Nitrate-Nitrite			ND	ND	ND	0.05	ND	ND	ND	ND	ND
Sulfate	mg/l	1.25 x bkgd	12	49	49	74	21	9.7	110	53	110
Fluoride	mg/l		0.23	0.16	0.16	0.18	0.14	0.11	0.15	0.11	0.15
TDS	mg/l	1.25 x bkgd	NT	634	601	605	610	715	589	625	635

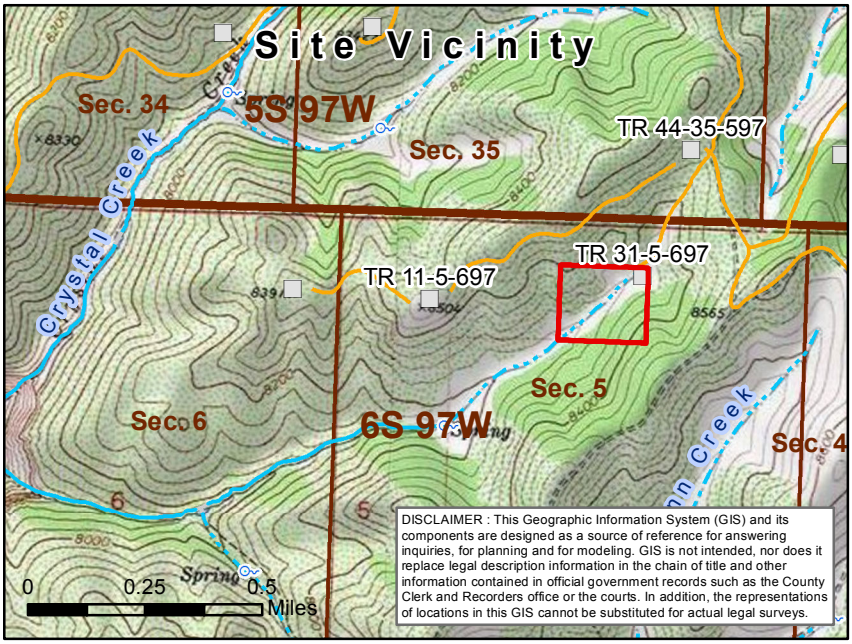
Table 2 Field Data

YSI 556 Field Parameters →→			Temperature	Conductivity	Conductivity	Resistivity	TDS	Salinity	Dissolved Oxygen (DO)	Dissolved Oxygen (DO)
Sample Location	Media	Sampling Date	°C	mS/cm²	mS/cm	Ω/cm	g/L		%	mg/L
MW-1	Groundwater	10/19/2011	8.88	0.914	0.633	1579.00	0.652	0.450	97.30	11.23
MW-1	Groundwater	4/9/2012	8.26	0.965	0.655	1527.50	0.624	0.47	140.20	16.19
MW-1	Groundwater	7/12/2012								
MW-1	Groundwater	9/18/2012	9.84	0.925	0.657	1521.00	0.601	0.46	65.10	7.35
MW-1	Groundwater	12/5/2012	7.14	0.885	0.582	1714.90	0.575	0.44	62.00	7.48
MW-1	Groundwater	3/27/2013	6.28	0.962	0.624	1659.40	0.563	0.46	67.20	7.95
MW-1	Groundwater	5/15/2013	5.36	0.962	0.617	1697.70	0.586	0.49	67.10	7.00
MW-1	Groundwater	7/26/2013	9.14	0.926	0.646	1548.30	0.602	0.46	94.70	10.87
MW-2	Groundwater	10/19/2011	9.35	0.951	0.667	1499.20	0.618	0.47	17.90	2.02
MW-2	Groundwater	4/9/2012	10.73	0.964	0.701	1426.90	0.627	0.48	38.30	4.20
MW-2	Groundwater	7/12/2012								
MW-2	Groundwater	9/18/2012	12.77	0.985	0.755	1324.50	0.640	0.49	2.80	0.29
MW-2	Groundwater	12/5/2012	7.13	0.933	0.579	1726.10	0.607	0.46	31.70	4.03
MW-2	Groundwater	3/27/2013	6.36	0.932	0.548	1721.30	0.605	0.48	31.85	4.69
MW-2	Groundwater	5/15/2013	5.20	0.913	0.564	1643.40	0.601	0.49	29.30	3.10
MW-2	Groundwater	7/11/2013	10.10	1.111	0.795	1257.60	0.721	0.55	52.70	5.70
MW-3	Groundwater	10/19/2011	8.46	0.985	0.674	1484.40	0.640	0.49	16.20	1.88
MW-3	Groundwater	4/9/2012	10.65	1.834	1.333	750.25	1.190	0.93	29.20	3.15
MW-3	Groundwater	7/12/2012								
MW-3	Groundwater	9/18/2012	13.57	0.928	0.725	1378.90	0.603	0.46	4.50	0.47
MW-3	Groundwater	12/5/2012	7.65	0.894	0.513	1949.12	0.581	0.44	57.00	7.72
MW-3	Groundwater	3/27/2013	6.36	0.897	0.525	1886.30	0.621	0.46	36.10	4.97
MW-3	Groundwater	5/15/2013	5.89	0.868	0.534	1786.45	0.620	0.47	31.23	2.95
MW-3	Groundwater	7/11/2013	10.10	1.073	0.768	1301.80	0.699	0.54	46.80	5.00
MW-4	Groundwater	10/19/2011	7.80	0.958	0.644	1554.20	0.623	0.47	25.10	2.95
MW-4	Groundwater	4/9/2012	10.35	1.06	0.76	1315.70	0.689	0.53	58.60	6.50
MW-4	Groundwater	7/12/2012								
MW-4	Groundwater	9/18/2012	9.84	0.975	0.693	1442.90	0.634	0.48	8.30	0.94
MW-4	Groundwater	12/5/2012	7.80	9.925	0.554	1805.60	0.601	0.45	23.90	3.12
MW-4	Groundwater	3/27/2013	6.45	1.003	0.561	1801.90	0.605	0.46	36.31	4.61
MW-4	Groundwater	5/15/2013	5.74	0.978	0.578	1807.70	0.610	0.50	30.14	3.19
MW-4	Groundwater	7/11/2013	8.96	1.1	0.763	1309.20	0.715	0.55	31.70	3.62
MW-5	Groundwater	7.11.2013	10.35	0.91	0.697	1437.10	0.589	0.45	37.00	3.88
MW-6	Groundwater	7/11/2013	8.81	0.959	0.67	1495.10	0.625	0.48	28.90	3.33
MW-7	Groundwater	7/11/2013	8.40	0.976	0.666	1500.40	0.635	0.48	30.70	3.58

Table 2 Field Data

YSI 556 Field Parameters →→			pH	pH	ORP	Water Levels
Sample Location	**Media**	**Sampling Date**		**m/V**		**TOC (ft)**
MW-1	Groundwater	10/19/2011	7.91	-64.30	60.3	22.51
MW-1	Groundwater	4/9/2012	7.80	-84.1	-30.30	22.07
MW-1	Groundwater	7/12/2012				
MW-1	Groundwater	9/18/2012	7.67	-37.3	234.00	24.09
MW-1	Groundwater	12/5/2012	7.48	-53.7	138.40	24.26
MW-1	Groundwater	3/27/2013	7.51	-53.8	135.30	23.65
MW-1	Groundwater	5/15/2013	7.69	-53.7	134.90	23.67
MW-1	Groundwater	7/26/2013	7.42	-54.2	120.50	25.85
MW-2	Groundwater	10/19/2011	10.39	-188.0	-251.80	26.41
MW-2	Groundwater	4/9/2012	7.24	-54.9	127.80	25.87
MW-2	Groundwater	7/12/2012				
MW-2	Groundwater	9/18/2012	7.72	-40.7	-198.60	28.35
MW-2	Groundwater	12/5/2012	7.80	-69.6	17.50	30.75
MW-2	Groundwater	3/27/2013	7.79	-68.4	-130.50	28.21
MW-2	Groundwater	5/15/2013	7.81	-68.6	-125.00	26.64
MW-2	Groundwater	7/11/2013	7.79	NS	-85.20	29.48
MW-3	Groundwater	10/19/2011	9.90	-163.5	-221.50	33.28
MW-3	Groundwater	4/9/2012	7.45	-66.0	-143.80	33.02
MW-3	Groundwater	7/12/2012				
MW-3	Groundwater	9/18/2012	7.67	-38.1	-148.80	33.04
MW-3	Groundwater	12/5/2012	7.56	-57.3	32.40	34.30
MW-3	Groundwater	3/27/2013	7.43	-61.7	-112.50	32.74
MW-3	Groundwater	5/15/2013	7.49	-60.3	-107.30	30.31
MW-3	Groundwater	7/11/2013	7.64	NT	-152.40	32.64
MW-4	Groundwater	10/19/2011	9.09	-122.5	-146.20	28.83
MW-4	Groundwater	4/9/2012	7.25	-55.7	-103.90	27.56
MW-4	Groundwater	7/12/2012				
MW-4	Groundwater	9/18/2012	7.75	-41.8	-143.60	32.74
MW-4	Groundwater	12/5/2012	7.71	-65.1	4.90	33.02
MW-4	Groundwater	3/27/2013	7.64	-65.7	-97.30	32.36
MW-4	Groundwater	5/15/2013	7.51	-64.1	-97.20	31.01
MW-4	Groundwater	7/11/2013	7.63	NT	-108.60	32.48
MW-5	Groundwater	7.11.2013	7.74	NT	107.50	29.47
MW-6	Groundwater	7/11/2013	7.87	NT	-61.80	25.35
MW-7	Groundwater	7/11/2013	7.86	NT	7.10	28.42





DISCLAIMER : This Geographic Information System (GIS) and its components are designed as a source of reference for answering inquiries, for planning and for modeling. GIS is not intended, nor does it replace legal description information in the chain of title and other information contained in official government records such as the County Clerk and Recorders office or the courts. In addition, the representations of locations in this GIS cannot be substituted for actual legal surveys.

July 2013 Potentiometric Map

Location: TR 31-5-697

WPX Energy Rocky Mountain, LLC

Legend

- Reclaimed Area
- Potentiometric Contour

Monitoring Well
- Existing
- Proposed

Transportation
- WPX Access Roads

Hydrographic Features
- Perennial Stream
- Intermittent Stream

PLSS
- Township
- Section

0 100 200 Feet

HCSI ENVIRONMENTAL CONSULTANTS

T:\Client_Specific\2008\Williams_EP\Pit Closures\2011\TR 31-5\TR 31-5-697 July 2013 Potentiometric Map 08-21-2013.mxd HCSI_mspinelli

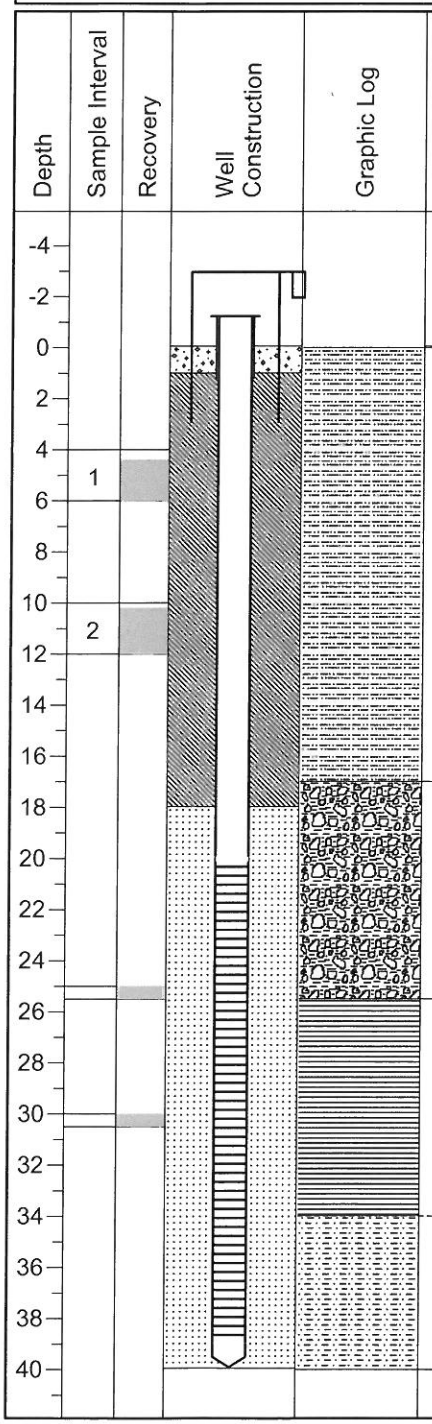
Revision Date: 8/21/2013 6:12:48 PM

Well Summary

744 Horizon Court, Ste. 140
Grand Junction, CO 81501
970-243-3271

Project: TR 31-5-697 Pit Closure
Location: TR 31-5-697 Well Pad
Date(s): 6/20/2013
Contractor: HCSI Drilling Services
Rig Type: CME 55 LC Track Rig
Drilling Method: 4.25 in. Hollow Stem Auger
Sample Type: Split Spoon/Cuttings

Well Name: MW-5
Total Depth: 40 Feet
Elevation TOC: 8284.58 Feet
Elevation Ground: 8281.80 Feet
Latitude: 39.560813N
Longitude: -108.241624W
Logged By: M.E.Mumby



Material Description

Ground Surface

Cl Clayey Silt
Brown to very dark brown, moist, soft, abundant organic debris and root pores to 7 ft., decreasing rapidly below 7 feet, some scattered fine grained sand and occasional small gravels, no hydrocarbon odors.

Completion Information
Screened Interval 20-40 Feet
Hydrated Bentonite 1-18 Feet
TOS 18 Feet
TOB 1 Foot
Steel Protective Cover 3.0 Foot Stickup

Clayey Gravel
Yellowish brown, firm, moist, common gravles to 1 in. and larger, grades to a light greenish gray at approximately 22 feet, slight hydrocarbon odor.

Weathered Shale
Medium gray, very platy, brittle, fractured, saturated, becoming fairly competent by 36 feet, starting to see some interbedded siltstone below 36 feet, definite decrease in fractures based on the penetration rate.

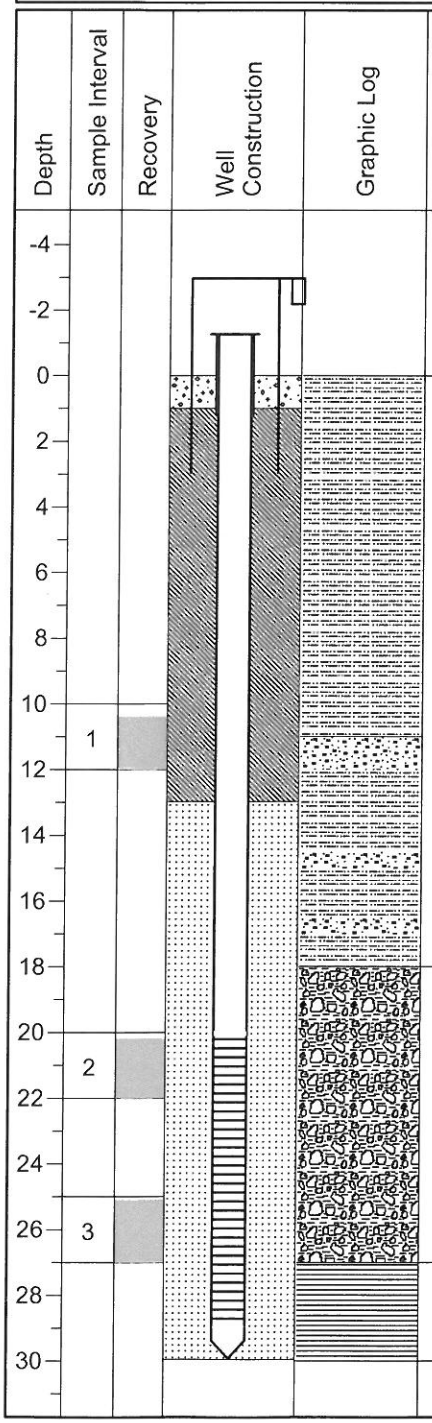
Interbedded Shale and Siltstone
Light to medium gray with the shales exhibiting a platy texture and the siltstone exhibiting more of a blocky texture, becomes dry below 36 feet, drilled to 40 feet and no additional water bearing zones were encounterd,

Well Summary

744 Horizon Court, Ste. 140
Grand Junction, CO 81501
970-243-3271

Project: TR 31-5-697 Pit Closure
Location: TR 31-5-697 Well Pad
Date(s): 6/19/2013
Contractor: HCSI Drilling Services
Rig Type: CME 55 LC Track Rig
Drilling Method: 4.25 in. Hollow Stem Auger
Sample Type: Split Spoon/Cuttings

Well Name: MW-6
Total Depth: 30 Feet
Elevation TOC: 8234.89 Feet
Elevation Ground: 8231.50 Feet
Latitude: 39.5592233N
Longitude: -108.243501W
Logged By: M.E.Mumby



Material Description

Ground Surface

Cl Clayey Silt
Brown to very dark brown, moist, soft, abundant organic debris, some scattered fine grained sand and occasional small gravels, interbedded sand/gravel lenses below 11 feet, no hydrocarbon odors.

Completion Information
Screened Interval 15-30 Feet
Hydrated Bentonite 1-13 Feet
TOS 13 Feet
TOB 1 Foot
Steel Protective Cover 3.0 Foot Stickup

GM Gravel/Sand/Silt
Yellowish brown, loose, moist, becoming wet at approximately 20 feet, gravels range in size from .5 to greater than 1 inch in a fine to medium grained sand/silt matrix, increasing weathered shale fragments below 25.5 feet, no visible sheen or hydrocarbon odor.

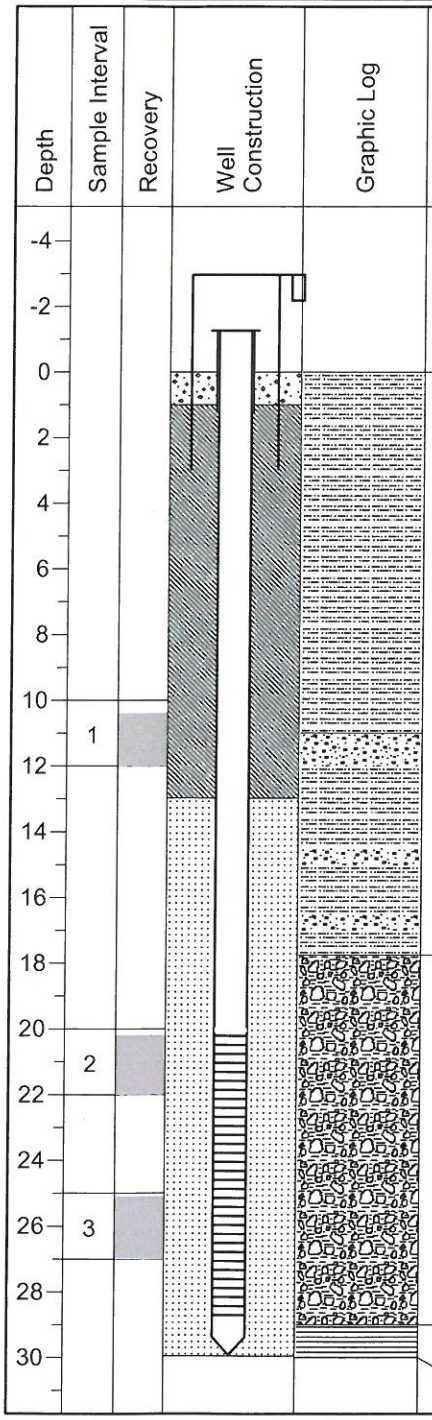
Shale
Light to medium gray, very platy, brittle, hard, dry.

Well Summary

744 Horizon Court, Ste. 140
Grand Junction, CO 81501
970-243-3271

Project: TR 31-5-697 Pit Closure
Location: TR 31-5-697 Well Pad
Date(s): 6/19,20/2013
Contractor: HCSI Drilling Services
Rig Type: CME 55 LC Track Rig
Drilling Method: 4.25 in. Hollow Stem Auger
Sample Type: Split Spoon/Cuttings

Well Name: MW-7
Total Depth: 30 Feet
Elevation TOC: 8239.18 Feet
Elevation Ground: 8235.70 Feet
Latitude: 39.559430N
Longitude: -108.243598W
Logged By: M.E.Mumby



Material Description

Ground Surface

Cl Clayey Silt
Brown to very dark brown, moist, soft, abundant organic debris, some scattered fine grained sand and occasional small gravels, interbedded sandysilt/gravel lenses below 11 feet, no hydrocarbon odors.

Completion Information
Screened Interval 15-30 Feet
Hydrated Bentonite 1-13 Feet
TOS 13 Feet
TOB 1 Foot
Steel Protective Cover 3.0 Foot Stickup

GC Clayey Gravel
Yellowish brown, firm, moist, becoming wet at approximately 25 feet, gravels range in size from .5 to greater than 1 inch in a somewhat sandy/silty clay matrix, increasing weathered shale fragments below 27 feet, no visible sheen or hydrocarbon odor.

Shale
Light to medium gray, very platy, brittle, hard, dry.

26-May-2013

Mark Mumby
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX TR 31-5 MW 5/15/13** Work Order: **1305719**

Dear Mark,

ALS Environmental received 4 samples on 17-May-2013 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 31.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Group An ALS Limited Company

ALS Group USA, Corp

Date: 26-May-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13
Work Order: **1305719**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1305719-01	MW 1	Water		5/15/2013 14:15	5/17/2013 09:30	☐
1305719-02	MW-3	Water		5/15/2013 15:30	5/17/2013 09:30	☐
1305719-03	MW-4	Water		5/15/2013 15:14	5/17/2013 09:30	☐
1305719-04	MW-2	Water		5/15/2013 16:30	5/17/2013 09:30	☐

ALS Group USA, Corp

Date: 26-May-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13
Work Order: 1305719

Case Narrative

Batch 48561 The LCS recovery for Naphthalene was below the lower control limit and is considered a Sporadic Marginal Exceedence allowed by the SOP. The LCS recoveries for Chrysene and Fluorene were above the upper control limit. All sample results in the batch were non-detect. No qualification is necessary for Chrysene or Fluorene. Sample MW 1 MS/MSD recoveries for a few PAH compounds were above control limits. The corresponding results in the parent sample were non-detect. No qualification is required for Chrysene or Benzo(k)fluoranthene. The MS/MSD recoveries for Naphthalene were below the control limits. The corresponding reporting limit in the parent sample may be biased low for Naphthalene. The MSD recovery for 2-Methynaphthalene was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for 2-Methynaphthalene.

ALS Group USA, Corp

Date: 26-May-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13
WorkOrder: **1305719**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group USA, Corp

Date: *26-May-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13 **Work Order:** 1305719
Sample ID: MW 1 **Lab ID:** 1305719-01
Collection Date: 5/15/2013 02:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/21/2013**	Analyst: **CW**
DRO (C10-C28)	ND		0.10	mg/L	1	5/21/2013 05:38 PM
Surr: 4-Terphenyl-d14	*62.4*		*21-90*	*%REC*	1	5/21/2013 05:38 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		0.20	mg/L	1	5/18/2013 04:10 AM
Surr: Toluene-d8	*113*		*70-130*	*%REC*	1	5/18/2013 04:10 AM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**84**		**0.50**	**mg/L**	1	5/22/2013 07:48 PM
Iron	ND		0.080	mg/L	1	5/22/2013 07:48 PM
Magnesium	**42**		**0.20**	**mg/L**	1	5/22/2013 07:48 PM
Manganese	**0.29**		**0.0050**	**mg/L**	1	5/22/2013 07:48 PM
Potassium	**1.1**		**0.20**	**mg/L**	1	5/22/2013 07:48 PM
Sodium	**59**		**0.20**	**mg/L**	1	5/22/2013 07:48 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **5/21/2013**	Analyst: **HL**
1-Methylnaphthalene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Acenaphthene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Acenaphthylene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Anthracene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Chrysene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Fluoranthene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Fluorene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Naphthalene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Phenanthrene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Pyrene	ND		5.0	µg/L	1	5/22/2013 04:29 PM
Surr: 2-Fluorobiphenyl	*96.7*		*20-122*	*%REC*	1	5/22/2013 04:29 PM
Surr: 4-Terphenyl-d14	*129*		*22-172*	*%REC*	1	5/22/2013 04:29 PM
Surr: Nitrobenzene-d5	*114*		*8-115*	*%REC*	1	5/22/2013 04:29 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	ND		1.0	µg/L	1	5/18/2013 08:35 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13 **Work Order:** 1305719
Sample ID: MW 1 **Lab ID:** 1305719-01
Collection Date: 5/15/2013 02:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	ND		1.0	µg/L	1	5/18/2013 08:35 AM
m,p-Xylene	ND		2.0	µg/L	1	5/18/2013 08:35 AM
o-Xylene	ND		1.0	µg/L	1	5/18/2013 08:35 AM
Toluene	ND		1.0	µg/L	1	5/18/2013 08:35 AM
Xylenes, Total	ND		3.0	µg/L	1	5/18/2013 08:35 AM
Surr: 1,2-Dichloroethane-d4	*93.2*		*70-120*	*%REC*	1	5/18/2013 08:35 AM
Surr: 4-Bromofluorobenzene	*94.6*		*75-120*	*%REC*	1	5/18/2013 08:35 AM
Surr: Dibromofluoromethane	*92.6*		*85-115*	*%REC*	1	5/18/2013 08:35 AM
Surr: Toluene-d8	*90.4*		*85-120*	*%REC*	1	5/18/2013 08:35 AM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.41**		**0.10**	**mg/L**	1	5/23/2013 03:17 PM
Chloride	**57**		**5.0**	**mg/L**	5	5/23/2013 01:04 PM
Fluoride	**0.16**		**0.10**	**mg/L**	1	5/23/2013 03:17 PM
Sulfate	**120**		**10**	**mg/L**	10	5/23/2013 05:18 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **JB**
Nitrogen, Nitrite	ND		0.020	mg/L	1	5/17/2013 04:00 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	**1.2**		**0.020**	**mg/L**	1	5/22/2013 02:08 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *26-May-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13 **Work Order:** 1305719
Sample ID: MW-3 **Lab ID:** 1305719-02
Collection Date: 5/15/2013 03:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/21/2013**	Analyst: **CW**
DRO (C10-C28)	**7.6**		**0.10**	**mg/L**	1	5/22/2013 07:21 AM
Surr: 4-Terphenyl-d14	*65.3*		*21-90*	*%REC*	1	5/22/2013 07:21 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	**1.4**		**0.20**	**mg/L**	1	5/18/2013 04:59 AM
Surr: Toluene-d8	*118*		*70-130*	*%REC*	1	5/18/2013 04:59 AM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**110**		**0.50**	**mg/L**	1	5/22/2013 08:03 PM
Iron	**0.22**		**0.080**	**mg/L**	1	5/22/2013 08:03 PM
Magnesium	**50**		**0.20**	**mg/L**	1	5/22/2013 08:03 PM
Manganese	**1.4**		**0.0050**	**mg/L**	1	5/22/2013 08:03 PM
Potassium	**1.2**		**0.20**	**mg/L**	1	5/22/2013 08:03 PM
Sodium	**88**		**0.20**	**mg/L**	1	5/22/2013 08:03 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **5/21/2013**	Analyst: **HL**
1-Methylnaphthalene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
2-Methylnaphthalene	**5.7**		**5.0**	**µg/L**	1	5/22/2013 06:29 PM
Acenaphthene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Acenaphthylene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Anthracene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Chrysene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Fluoranthene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Fluorene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Naphthalene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Phenanthrene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Pyrene	ND		5.0	µg/L	1	5/22/2013 06:29 PM
Surr: 2-Fluorobiphenyl	*68.2*		*20-122*	*%REC*	1	5/22/2013 06:29 PM
Surr: 4-Terphenyl-d14	*124*		*22-172*	*%REC*	1	5/22/2013 06:29 PM
Surr: Nitrobenzene-d5	*122*	S	*8-115*	*%REC*	1	5/22/2013 06:29 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	**1.3**		**1.0**	**µg/L**	1	5/23/2013 02:42 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *26-May-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13 **Work Order:** 1305719
Sample ID: MW-3 **Lab ID:** 1305719-02
Collection Date: 5/15/2013 03:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	**8.6**		**1.0**	**µg/L**	1	5/23/2013 02:42 AM
m,p-Xylene	**28**		**2.0**	**µg/L**	1	5/23/2013 02:42 AM
o-Xylene	ND		1.0	µg/L	1	5/23/2013 02:42 AM
Toluene	ND		1.0	µg/L	1	5/23/2013 02:42 AM
Xylenes, Total	**29**		**3.0**	**µg/L**	1	5/23/2013 02:42 AM
Surr: 1,2-Dichloroethane-d4	*95.2*		*70-120*	*%REC*	1	5/23/2013 02:42 AM
Surr: 4-Bromofluorobenzene	*95.0*		*75-120*	*%REC*	1	5/23/2013 02:42 AM
Surr: Dibromofluoromethane	*96.4*		*85-115*	*%REC*	1	5/23/2013 02:42 AM
Surr: Toluene-d8	*107*		*85-120*	*%REC*	1	5/23/2013 02:42 AM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**1.0**		**0.10**	**mg/L**	1	5/23/2013 02:56 PM
Chloride	**130**		**10**	**mg/L**	10	5/23/2013 01:25 PM
Fluoride	**0.14**		**0.10**	**mg/L**	1	5/23/2013 02:56 PM
Sulfate	**85**		**10**	**mg/L**	10	5/23/2013 01:25 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **JB**
Nitrogen, Nitrite	ND		0.020	mg/L	1	5/17/2013 04:00 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	**0.023**		**0.020**	**mg/L**	1	5/22/2013 02:08 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *26-May-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13 **Work Order:** 1305719
Sample ID: MW-4 **Lab ID:** 1305719-03
Collection Date: 5/15/2013 03:14 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/21/2013**	Analyst: **CW**
DRO (C10-C28)	**1.3**		**0.10**	**mg/L**	1	5/23/2013 12:40 PM
Surr: 4-Terphenyl-d14	*64.8*		*21-90*	*%REC*	1	5/23/2013 12:40 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	**0.72**		**0.20**	**mg/L**	1	5/18/2013 04:34 AM
Surr: Toluene-d8	*119*		*70-130*	*%REC*	1	5/18/2013 04:34 AM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**99**		**0.50**	**mg/L**	1	5/22/2013 08:29 PM
Iron	**0.17**		**0.080**	**mg/L**	1	5/22/2013 08:29 PM
Magnesium	**47**		**0.20**	**mg/L**	1	5/22/2013 08:29 PM
Manganese	**0.19**		**0.0050**	**mg/L**	1	5/23/2013 12:25 PM
Potassium	**1.2**		**0.20**	**mg/L**	1	5/22/2013 08:29 PM
Sodium	**92**		**0.20**	**mg/L**	1	5/22/2013 08:29 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **5/21/2013**	Analyst: **HL**
1-Methylnaphthalene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Acenaphthene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Acenaphthylene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Anthracene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Chrysene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Fluoranthene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Fluorene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Naphthalene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Phenanthrene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Pyrene	ND		5.0	µg/L	1	5/22/2013 07:08 PM
Surr: 2-Fluorobiphenyl	*108*		*20-122*	*%REC*	1	5/22/2013 07:08 PM
Surr: 4-Terphenyl-d14	*127*		*22-172*	*%REC*	1	5/22/2013 07:08 PM
Surr: Nitrobenzene-d5	*116*	S	*8-115*	*%REC*	1	5/22/2013 07:08 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	**13**		**1.0**	**µg/L**	1	5/18/2013 09:00 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *26-May-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13 **Work Order:** 1305719
Sample ID: MW-4 **Lab ID:** 1305719-03
Collection Date: 5/15/2013 03:14 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	**14**		**1.0**	**µg/L**	1	5/18/2013 09:00 AM
m,p-Xylene	**56**		**2.0**	**µg/L**	1	5/18/2013 09:00 AM
o-Xylene	ND		1.0	µg/L	1	5/18/2013 09:00 AM
Toluene	ND		1.0	µg/L	1	5/18/2013 09:00 AM
Xylenes, Total	**56**		**3.0**	**µg/L**	1	5/18/2013 09:00 AM
Surr: 1,2-Dichloroethane-d4	*89.2*		*70-120*	*%REC*	1	5/18/2013 09:00 AM
Surr: 4-Bromofluorobenzene	*97.8*		*75-120*	*%REC*	1	5/18/2013 09:00 AM
Surr: Dibromofluoromethane	*89.4*		*85-115*	*%REC*	1	5/18/2013 09:00 AM
Surr: Toluene-d8	*87.5*		*85-120*	*%REC*	1	5/18/2013 09:00 AM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.59**		**0.10**	**mg/L**	1	5/23/2013 03:57 PM
Chloride	**84**		**5.0**	**mg/L**	5	5/23/2013 01:45 PM
Fluoride	**0.14**		**0.10**	**mg/L**	1	5/23/2013 03:57 PM
Sulfate	**21**		**5.0**	**mg/L**	5	5/23/2013 01:45 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **JB**
Nitrogen, Nitrite	ND		0.020	mg/L	1	5/17/2013 04:00 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	ND		0.020	mg/L	1	5/22/2013 02:08 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *26-May-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13 **Work Order:** 1305719
Sample ID: MW-2 **Lab ID:** 1305719-04
Collection Date: 5/15/2013 04:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **5/21/2013**	Analyst: **CW**
DRO (C10-C28)	**46**		**0.10**	**mg/L**	1	5/23/2013 01:11 AM
Surr: 4-Terphenyl-d14	*66.3*		*21-90*	*%REC*	1	5/23/2013 01:11 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	**62**		**2.0**	**mg/L**	10	5/18/2013 05:26 AM
Surr: Toluene-d8	*109*		*70-130*	*%REC*	10	5/18/2013 05:26 AM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**99**		**0.50**	**mg/L**	1	5/22/2013 08:34 PM
Iron	**0.29**		**0.080**	**mg/L**	1	5/22/2013 08:34 PM
Magnesium	**50**		**0.20**	**mg/L**	1	5/22/2013 08:34 PM
Manganese	**0.70**		**0.0050**	**mg/L**	1	5/22/2013 08:34 PM
Potassium	**1.5**		**0.20**	**mg/L**	1	5/22/2013 08:34 PM
Sodium	**82**		**0.20**	**mg/L**	1	5/22/2013 08:34 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **5/21/2013**	Analyst: **HL**
1-Methylnaphthalene	**42**		**5.0**	**µg/L**	1	5/22/2013 07:48 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
2-Methylnaphthalene	**110**		**5.0**	**µg/L**	1	5/22/2013 07:48 PM
Acenaphthene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Acenaphthylene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Anthracene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Chrysene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Fluoranthene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Fluorene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Naphthalene	**60**		**5.0**	**µg/L**	1	5/22/2013 07:48 PM
Phenanthrene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Pyrene	ND		5.0	µg/L	1	5/22/2013 07:48 PM
Surr: 2-Fluorobiphenyl	*62.7*		*20-122*	*%REC*	1	5/22/2013 07:48 PM
Surr: 4-Terphenyl-d14	*117*		*22-172*	*%REC*	1	5/22/2013 07:48 PM
Surr: Nitrobenzene-d5	*130*	S	*8-115*	*%REC*	1	5/22/2013 07:48 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	**60**		**10**	**µg/L**	10	5/21/2013 08:10 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *26-May-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 MW 5/15/13 **Work Order:** 1305719
Sample ID: MW-2 **Lab ID:** 1305719-04
Collection Date: 5/15/2013 04:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	**120**		**10**	**µg/L**	10	5/21/2013 08:10 AM
m,p-Xylene	**2,700**		**200**	**µg/L**	100	5/18/2013 09:51 AM
o-Xylene	**140**		**10**	**µg/L**	10	5/21/2013 08:10 AM
Toluene	ND		10	µg/L	10	5/21/2013 08:10 AM
Xylenes, Total	**2,900**		**300**	**µg/L**	100	5/18/2013 09:51 AM
Surr: 1,2-Dichloroethane-d4	*93.4*		*70-120*	*%REC*	10	5/21/2013 08:10 AM
Surr: 1,2-Dichloroethane-d4	*93.4*		*70-120*	*%REC*	100	5/18/2013 09:51 AM
Surr: 4-Bromofluorobenzene	*103*		*75-120*	*%REC*	10	5/21/2013 08:10 AM
Surr: 4-Bromofluorobenzene	*98.2*		*75-120*	*%REC*	100	5/18/2013 09:51 AM
Surr: Dibromofluoromethane	*94.5*		*85-115*	*%REC*	10	5/21/2013 08:10 AM
Surr: Dibromofluoromethane	*96.8*		*85-115*	*%REC*	100	5/18/2013 09:51 AM
Surr: Toluene-d8	*95.0*		*85-120*	*%REC*	100	5/18/2013 09:51 AM
Surr: Toluene-d8	*99.8*		*85-120*	*%REC*	10	5/21/2013 08:10 AM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.36**		**0.10**	**mg/L**	1	5/23/2013 03:37 PM
Chloride	**53**		**3.0**	**mg/L**	3	5/23/2013 02:05 PM
Fluoride	**0.16**		**0.10**	**mg/L**	1	5/23/2013 03:37 PM
Sulfate	**41**		**3.0**	**mg/L**	3	5/23/2013 02:05 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **JB**
Nitrogen, Nitrite	**0.044**		**0.020**	**mg/L**	1	5/17/2013 04:00 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	ND		0.020	mg/L	1	5/22/2013 02:08 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-May-13

Client: HRL Compliance Solutions

QC BATCH REPORT

Work Order: 1305719

Project: WPX TR 31-5 MW 5/15/13

Batch ID: **48560** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKW1-48560-48560** Units: **mg/L** Analysis Date: **5/21/2013 03:36 PM**

Client ID: Run ID: **GC8_130521B** SeqNo: **2327530** Prep Date: **5/21/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
Surr: 4-Terphenyl-d14	*0.07643*	0	*0.1143*	0	*66.9*	*21-90*	0			

LCS Sample ID: **DLCSW1-48560-48560** Units: **mg/L** Analysis Date: **5/21/2013 04:06 PM**

Client ID: Run ID: **GC8_130521B** SeqNo: **2327532** Prep Date: **5/21/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	6.392	0.10	11.43	0	55.9	44-116	0			
Surr: 4-Terphenyl-d14	*0.07687*	0	*0.1143*	0	*67.3*	*21-90*	0			

MS Sample ID: **1305719-01B MS** Units: **mg/L** Analysis Date: **5/21/2013 04:37 PM**

Client ID: **MW 1** Run ID: **GC8_130521B** SeqNo: **2327534** Prep Date: **5/21/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	22.86	0.35	40	0	57.2	44-116	0			
Surr: 4-Terphenyl-d14	*0.2721*	0	*0.4*	0	*68*	*21-90*	0			

MSD Sample ID: **1305719-01B MSD** Units: **mg/L** Analysis Date: **5/21/2013 05:07 PM**

Client ID: **MW 1** Run ID: **GC8_130521B** SeqNo: **2327536** Prep Date: **5/21/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	22.38	0.35	40	0	56	44-116	22.86	2.12	30	
Surr: 4-Terphenyl-d14	*0.2806*	0	*0.4*	0	*70.2*	*21-90*	0.2721	*3.1*	*30*	

The following samples were analyzed in this batch: 1305719-01B 1305719-02B 1305719-03B 1305719-04B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R121004** Instrument ID **GC10** Method: **SW8015**

MBLK Sample ID: **GBLK1-130517-R121004** Units: **µg/L** Analysis Date: **5/17/2013 09:14 PM**
Client ID: Run ID: **GC10_130517A** SeqNo: **2324487** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
Surr: Toluene-d8	*110.4*	0	*100*	0	*110*	*70-130*	0			

LCS Sample ID: **GLCS1-130517-R121004** Units: **µg/L** Analysis Date: **5/17/2013 08:50 PM**
Client ID: Run ID: **GC10_130517A** SeqNo: **2324485** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8647	200	10000	0	86.5	70-130	0			
Surr: Toluene-d8	*119.5*	0	*100*	0	*119*	*70-130*	0			

MS Sample ID: **1305684-08A MS** Units: **µg/L** Analysis Date: **5/18/2013 05:50 AM**
Client ID: Run ID: **GC10_130517A** SeqNo: **2324502** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	9230	200	10000	0	92.3	70-130	0			
Surr: Toluene-d8	*117.1*	0	*100*	0	*117*	*70-130*	0			

MSD Sample ID: **1305684-08A MSD** Units: **µg/L** Analysis Date: **5/18/2013 06:15 AM**
Client ID: Run ID: **GC10_130517A** SeqNo: **2324504** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	9086	200	10000	0	90.9	70-130	9230	1.57	30	
Surr: Toluene-d8	*121.3*	0	*100*	0	*121*	*70-130*	117.1	*3.53*	*30*	

The following samples were analyzed in this batch: 1305719-01A 1305719-02A 1305719-03A 1305719-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R121180A** Instrument ID **ICPMS2** Method: **SW6020A** **(Dissolve)**

MS Sample ID: **1305719-01DMS** Units: **mg/L** Analysis Date: **5/22/2013 07:53 PM**
Client ID: **MW 1** Run ID: **ICPMS2_130522A** SeqNo: **2329023** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	96.09	0.50	10	84.2	119	75-125	0			O
Iron	11.4	0.080	10	0.03109	114	75-125	0			
Magnesium	54.28	0.20	10	42.21	121	75-125	0			O
Manganese	0.3945	0.0050	0.1	0.2876	107	75-125	0			
Potassium	13.59	0.20	10	1.103	125	75-125	0			
Sodium	70.11	0.20	10	59.18	109	75-125	0			O

MSD Sample ID: **1305719-01DMSD** Units: **mg/L** Analysis Date: **5/22/2013 07:58 PM**
Client ID: **MW 1** Run ID: **ICPMS2_130522A** SeqNo: **2329024** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	94.5	0.50	10	84.2	103	75-125	96.09	1.67	20	O
Iron	11.17	0.080	10	0.03109	111	75-125	11.4	2.04	20	
Magnesium	53.73	0.20	10	42.21	115	75-125	54.28	1.02	20	O
Manganese	0.3914	0.0050	0.1	0.2876	104	75-125	0.3945	0.789	20	
Potassium	13.25	0.20	10	1.103	121	75-125	13.59	2.53	20	
Sodium	68.76	0.20	10	59.18	95.8	75-125	70.11	1.94	20	O

The following samples were analyzed in this batch: 1305719-01D 1305719-02D 1305719-03D 1305719-04D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **48561** Instrument ID **SVMS4** Method: **SW8270**

MBLK Sample ID: **SBLKW1-48561-48561** Units: **µg/L** Analysis Date: **5/22/2013 05:09 PM**
Client ID: Run ID: **SVMS4_130522A** SeqNo: **2328856** Prep Date: **5/21/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	5.0								
2-Chloronaphthalene	ND	5.0								
2-Methylnaphthalene	ND	5.0								
Acenaphthene	ND	5.0								
Acenaphthylene	ND	5.0								
Anthracene	ND	5.0								
Benzo(a)anthracene	ND	5.0								
Benzo(a)pyrene	ND	5.0								
Benzo(b)fluoranthene	ND	5.0								
Benzo(g,h,i)perylene	ND	5.0								
Benzo(k)fluoranthene	ND	5.0								
Chrysene	ND	5.0								
Dibenzo(a,h)anthracene	ND	5.0								
Fluoranthene	ND	5.0								
Fluorene	ND	5.0								
Indeno(1,2,3-cd)pyrene	ND	5.0								
Naphthalene	ND	5.0								
Phenanthrene	ND	5.0								
Pyrene	ND	5.0								
Surr: 2-Fluorobiphenyl	*108*	0	*114*	0	*94.7*	*20-122*	0			
Surr: 4-Terphenyl-d14	*152.6*	0	*114*	0	*134*	*22-172*	0			
Surr: Nitrobenzene-d5	*133.7*	0	*114*	0	*117*	*8-115*	0			*S*

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **48561** Instrument ID **SVMS4** Method: **SW8270**

LCS Sample ID: **SLCSW1-48561-48561** Units: **µg/L** Analysis Date: **5/22/2013 02:30 PM**
Client ID: Run ID: **SVMS4_130522A** SeqNo: **2328852** Prep Date: **5/21/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	30.86	5.0	45.7	0	67.5	60-140	0			
2-Chloronaphthalene	43.43	5.0	45.7	0	95	60-140	0			
2-Methylnaphthalene	29.71	5.0	45.7	0	65	60-140	0			
Acenaphthene	56	5.0	45.7	0	123	60-140	0			
Acenaphthylene	57.71	5.0	45.7	0	126	60-140	0			
Anthracene	52.57	5.0	45.7	0	115	60-140	0			
Benzo(a)anthracene	45.14	5.0	45.7	0	98.8	60-140	0			
Benzo(a)pyrene	53.71	5.0	45.7	0	118	60-140	0			
Benzo(b)fluoranthene	59.43	5.0	45.7	0	130	60-140	0			
Benzo(g,h,i)perylene	54.29	5.0	45.7	0	119	60-140	0			
Benzo(k)fluoranthene	50.86	5.0	45.7	0	111	60-140	0			
Chrysene	69.14	5.0	45.7	0	151	60-140	0			S
Dibenzo(a,h)anthracene	56.57	5.0	45.7	0	124	60-140	0			
Fluoranthene	56	5.0	45.7	0	123	60-140	0			
Fluorene	68	5.0	45.7	0	149	60-140	0			S
Indeno(1,2,3-cd)pyrene	56.57	5.0	45.7	0	124	60-140	0			
Naphthalene	26.29	5.0	45.7	0	57.5	60-140	0			S
Phenanthrene	53.71	5.0	45.7	0	118	60-140	0			
Pyrene	59.43	5.0	45.7	0	130	60-140	0			
Surr: 2-Fluorobiphenyl	*104.6*	0	*114*	0	*91.7*	*20-122*	0			
Surr: 4-Terphenyl-d14	*144.6*	0	*114*	0	*127*	*22-172*	0			
Surr: Nitrobenzene-d5	*132*	0	*114*	0	*116*	*8-115*	0			*S*

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **48561** Instrument ID **SVMS4** Method: **SW8270**

MS Sample ID: **1305719-01B MS** Units: **µg/L** Analysis Date: **5/22/2013 03:10 PM**
Client ID: **MW 1** Run ID: **SVMS4_130522A** SeqNo: **2328853** Prep Date: **5/21/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	98	18	160	0	61.3	60-140	0			
2-Chloronaphthalene	144	18	160	0	90	60-140	0			
2-Methylnaphthalene	98	18	160	0	61.3	60-140	0			
Acenaphthene	188	18	160	0	118	60-140	0			
Acenaphthylene	212	18	160	0	133	60-140	0			
Anthracene	196	18	160	0	123	60-140	0			
Benzo(a)anthracene	174	18	160	0	109	60-140	0			
Benzo(a)pyrene	198	18	160	0	124	60-140	0			
Benzo(b)fluoranthene	162	18	160	0	101	60-140	0			
Benzo(g,h,i)perylene	202	18	160	0	126	60-140	0			
Benzo(k)fluoranthene	238	18	160	0	149	60-140	0			S
Chrysene	260	18	160	0	163	60-140	0			S
Dibenzo(a,h)anthracene	208	18	160	0	130	60-140	0			
Fluoranthene	204	18	160	0	128	60-140	0			
Fluorene	232	18	160	0	145	60-140	0			S
Indeno(1,2,3-cd)pyrene	210	18	160	0	131	60-140	0			
Naphthalene	76	18	160	0	47.5	60-140	0			S
Phenanthrene	202	18	160	0	126	60-140	0			
Pyrene	216	18	160	0	135	60-140	0			
Surr: 2-Fluorobiphenyl	*298*	0	*399*	0	*74.7*	*20-122*	0			
Surr: 4-Terphenyl-d14	*480*	0	*399*	0	*120*	*22-172*	0			
Surr: Nitrobenzene-d5	*444*	0	*399*	0	*111*	*8-115*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **48561** Instrument ID **SVMS4** Method: **SW8270**

MSD Sample ID: **1305719-01B MSD** Units: **µg/L** Analysis Date: **5/22/2013 03:50 PM**
Client ID: **MW 1** Run ID: **SVMS4_130522A** SeqNo: **2328854** Prep Date: **5/21/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	96	18	160	0	60	60-140	98	2.06	30	
2-Chloronaphthalene	138	18	160	0	86.3	60-140	144	4.26	30	
2-Methylnaphthalene	94	18	160	0	58.8	60-140	98	4.17	30	S
Acenaphthene	182	18	160	0	114	60-140	188	3.24	30	
Acenaphthylene	198	18	160	0	124	60-140	212	6.83	30	
Anthracene	186	18	160	0	116	60-140	196	5.24	30	
Benzo(a)anthracene	166	18	160	0	104	60-140	174	4.71	30	
Benzo(a)pyrene	190	18	160	0	119	60-140	198	4.12	30	
Benzo(b)fluoranthene	152	18	160	0	95	60-140	162	6.37	30	
Benzo(g,h,i)perylene	192	18	160	0	120	60-140	202	5.08	30	
Benzo(k)fluoranthene	236	18	160	0	148	60-140	238	0.844	30	S
Chrysene	248	18	160	0	155	60-140	260	4.72	30	S
Dibenzo(a,h)anthracene	198	18	160	0	124	60-140	208	4.93	30	
Fluoranthene	200	18	160	0	125	60-140	204	1.98	30	
Fluorene	218	18	160	0	136	60-140	232	6.22	30	
Indeno(1,2,3-cd)pyrene	200	18	160	0	125	60-140	210	4.88	30	
Naphthalene	74	18	160	0	46.3	60-140	76	2.67	30	S
Phenanthrene	192	18	160	0	120	60-140	202	5.08	30	
Pyrene	206	18	160	0	129	60-140	216	4.74	30	
Surr: 2-Fluorobiphenyl	*296*	0	*399*	0	*74.2*	*20-122*	298	*0.673*	*30*	
Surr: 4-Terphenyl-d14	*452*	0	*399*	0	*113*	*22-172*	480	*6.01*	*30*	
Surr: Nitrobenzene-d5	*418*	0	*399*	0	*105*	*8-115*	444	*6.03*	*30*	

The following samples were analyzed in this batch: 1305719-01B 1305719-02B 1305719-03B 1305719-04B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R120975A** Instrument ID **VMS7** Method: **SW8260**

MBLK Sample ID: **VBLKW2-130517-R120975A** Units: **µg/L** Analysis Date: **5/18/2013 06:03 AM**
Client ID: Run ID: **VMS7_130517B** SeqNo: **2324507** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*19.02*	0	*20*	0	*95.1*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.5*	0	*20*	0	*97.5*	*75-120*	0			
Surr: Dibromofluoromethane	*18.34*	0	*20*	0	*91.7*	*85-115*	0			
Surr: Toluene-d8	*18.26*	0	*20*	0	*91.3*	*85-120*	0			

LCS Sample ID: **VLCSW2-130517-R120975A** Units: **µg/L** Analysis Date: **5/18/2013 05:12 AM**
Client ID: Run ID: **VMS7_130517B** SeqNo: **2324503** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.29	1.0	20	0	106	80-120	0			
Ethylbenzene	20.61	1.0	20	0	103	75-125	0			
m,p-Xylene	39.85	2.0	40	0	99.6	75-130	0			
o-Xylene	20.38	1.0	20	0	102	80-120	0			
Toluene	20.49	1.0	20	0	102	75-120	0			
Xylenes, Total	60.23	3.0	60	0	100	75-130	0			
Surr: 1,2-Dichloroethane-d4	*18.22*	0	*20*	0	*91.1*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.16*	0	*20*	0	*101*	*75-120*	0			
Surr: Dibromofluoromethane	*19.24*	0	*20*	0	*96.2*	*85-115*	0			
Surr: Toluene-d8	*18.45*	0	*20*	0	*92.2*	*85-120*	0			

MS Sample ID: **1305596-01B MS** Units: **µg/L** Analysis Date: **5/18/2013 01:38 PM**
Client ID: Run ID: **VMS7_130517B** SeqNo: **2324538** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.91	1.0	20	0	99.6	80-120	0			
Ethylbenzene	19.2	1.0	20	0	96	75-125	0			
m,p-Xylene	37.74	2.0	40	0	94.4	75-130	0			
o-Xylene	19.09	1.0	20	0	95.4	80-120	0			
Toluene	19.51	1.0	20	0	97.6	75-120	0			
Xylenes, Total	56.83	3.0	60	0	94.7	75-130	0			
Surr: 1,2-Dichloroethane-d4	*17.51*	0	*20*	0	*87.6*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.26*	0	*20*	0	*96.3*	*75-120*	0			
Surr: Dibromofluoromethane	*18.09*	0	*20*	0	*90.4*	*85-115*	0			
Surr: Toluene-d8	*17.85*	0	*20*	0	*89.2*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R120975A** Instrument ID **VMS7** Method: **SW8260**

MSD Sample ID: **1305596-01B MSD** Units: **µg/L** Analysis Date: **5/18/2013 02:03 PM**
Client ID: Run ID: **VMS7_130517B** SeqNo: **2324541** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.67	1.0	20	0	98.4	80-120	19.91	1.21	30	
Ethylbenzene	18.73	1.0	20	0	93.6	75-125	19.2	2.48	30	
m,p-Xylene	36.33	2.0	40	0	90.8	75-130	37.74	3.81	30	
o-Xylene	18.49	1.0	20	0	92.4	80-120	19.09	3.19	30	
Toluene	19.09	1.0	20	0	95.4	75-120	19.51	2.18	30	
Xylenes, Total	54.82	3.0	60	0	91.4	75-130	56.83	3.6	30	
Surr: 1,2-Dichloroethane-d4	*18.25*	0	*20*	0	*91.2*	*70-120*	17.51	*4.14*	*30*	
Surr: 4-Bromofluorobenzene	*20.06*	0	*20*	0	*100*	*75-120*	19.26	*4.07*	*30*	
Surr: Dibromofluoromethane	*18.43*	0	*20*	0	*92.2*	*85-115*	18.09	*1.86*	*30*	
Surr: Toluene-d8	*18.3*	0	*20*	0	*91.5*	*85-120*	17.85	*2.49*	*30*	

The following samples were analyzed in this batch: 1305719-01A 1305719-02A 1305719-03A 1305719-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R121062A** Instrument ID **VMS8** Method: **SW8260**

MBLK Sample ID: **VBLKW2-130520-R121062A** Units: **µg/L** Analysis Date: **5/21/2013 12:19 PM**
Client ID: Run ID: **VMS8_130520B** SeqNo: **2326199** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	*19.29*	0	*20*	0	*96.4*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.35*	0	*20*	0	*102*	*75-120*	0			
Surr: Dibromofluoromethane	*18.73*	0	*20*	0	*93.6*	*85-115*	0			
Surr: Toluene-d8	*19.22*	0	*20*	0	*96.1*	*85-120*	0			

LCS Sample ID: **VLCSW2-130520-R121062A** Units: **µg/L** Analysis Date: **5/20/2013 11:31 PM**
Client ID: Run ID: **VMS8_130520B** SeqNo: **2326175** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	18.8	1.0	20	0	94	80-120	0			
Ethylbenzene	19.09	1.0	20	0	95.4	75-125	0			
o-Xylene	19.28	1.0	20	0	96.4	80-120	0			
Toluene	19.01	1.0	20	0	95	75-120	0			
Surr: 1,2-Dichloroethane-d4	*19.33*	0	*20*	0	*96.6*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.98*	0	*20*	0	*105*	*75-120*	0			
Surr: Dibromofluoromethane	*19.44*	0	*20*	0	*97.2*	*85-115*	0			
Surr: Toluene-d8	*19.26*	0	*20*	0	*96.3*	*85-120*	0			

MS Sample ID: **1305641-01A MS** Units: **µg/L** Analysis Date: **5/21/2013 08:34 AM**
Client ID: Run ID: **VMS8_130520B** SeqNo: **2326196** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.11	1.0	20	0	101	80-120	0			
Ethylbenzene	19.88	1.0	20	0	99.4	75-125	0			
o-Xylene	20.06	1.0	20	0	100	80-120	0			
Toluene	19.77	1.0	20	0	98.8	75-120	0			
Surr: 1,2-Dichloroethane-d4	*19.5*	0	*20*	0	*97.5*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*21.12*	0	*20*	0	*106*	*75-120*	0			
Surr: Dibromofluoromethane	*19.75*	0	*20*	0	*98.8*	*85-115*	0			
Surr: Toluene-d8	*19.62*	0	*20*	0	*98.1*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R121062A** Instrument ID **VMS8** Method: **SW8260**

MSD	Sample ID: **1305641-01A MSD**				Units: **µg/L**			Analysis Date: **5/21/2013 08:58 AM**		
Client ID:		Run ID: **VMS8_130520B**			SeqNo: **2326197**		Prep Date:		DF: **1**	

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.78	1.0	20	0	98.9	80-120	20.11	1.65	30	
Ethylbenzene	19.66	1.0	20	0	98.3	75-125	19.88	1.11	30	
o-Xylene	19.67	1.0	20	0	98.4	80-120	20.06	1.96	30	
Toluene	19.49	1.0	20	0	97.4	75-120	19.77	1.43	30	
Surr: 1,2-Dichloroethane-d4	*19.74*	0	*20*	0	*98.7*	*70-120*	19.5	*1.22*	*30*	
Surr: 4-Bromofluorobenzene	*21.19*	0	*20*	0	*106*	*75-120*	21.12	*0.331*	*30*	
Surr: Dibromofluoromethane	*19.91*	0	*20*	0	*99.6*	*85-115*	19.75	*0.807*	*30*	
Surr: Toluene-d8	*19.38*	0	*20*	0	*96.9*	*85-120*	19.62	*1.23*	*30*	

The following samples were analyzed in this batch: 1305719-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R121198** Instrument ID **VMS7** Method: **SW8260**

MBLK Sample ID: **VBLKW2-130522-R121198** Units: **µg/L** Analysis Date: **5/22/2013 06:40 PM**
Client ID: Run ID: **VMS7_130522A** SeqNo: **2329520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*19.21*	0	*20*	0	*96*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.98*	0	*20*	0	*99.9*	*75-120*	0			
Surr: Dibromofluoromethane	*19.6*	0	*20*	0	*98*	*85-115*	0			
Surr: Toluene-d8	*19.48*	0	*20*	0	*97.4*	*85-120*	0			

LCS Sample ID: **VLCSW1-130522-R121198** Units: **µg/L** Analysis Date: **5/22/2013 05:49 PM**
Client ID: Run ID: **VMS7_130522A** SeqNo: **2329519** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.55	1.0	20	0	97.8	80-120	0			
Ethylbenzene	20.96	1.0	20	0	105	75-125	0			
m,p-Xylene	41.04	2.0	40	0	103	75-130	0			
o-Xylene	20.85	1.0	20	0	104	80-120	0			
Toluene	20.18	1.0	20	0	101	75-120	0			
Xylenes, Total	61.89	3.0	60	0	103	75-130	0			
Surr: 1,2-Dichloroethane-d4	*19.42*	0	*20*	0	*97.1*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.94*	0	*20*	0	*99.7*	*75-120*	0			
Surr: Dibromofluoromethane	*20.7*	0	*20*	0	*104*	*85-115*	0			
Surr: Toluene-d8	*19.99*	0	*20*	0	*100*	*85-120*	0			

MS Sample ID: **1305808-05A MS** Units: **µg/L** Analysis Date: **5/23/2013 03:34 AM**
Client ID: Run ID: **VMS7_130522A** SeqNo: **2329535** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1860	100	2000	0	93	80-120	0			
Ethylbenzene	1913	100	2000	0	95.6	75-125	0			
m,p-Xylene	3775	200	4000	0	94.4	75-130	0			
o-Xylene	1939	100	2000	0	97	80-120	0			
Toluene	1844	100	2000	0	92.2	75-120	0			
Xylenes, Total	5714	300	6000	0	95.2	75-130	0			
Surr: 1,2-Dichloroethane-d4	*1940*	0	*2000*	0	*97*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*1963*	0	*2000*	0	*98.2*	*75-120*	0			
Surr: Dibromofluoromethane	*2046*	0	*2000*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*2003*	0	*2000*	0	*100*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R121198** Instrument ID **VMS7** Method: **SW8260**

MSD	Sample ID: **1305808-05A MSD**			Units: **µg/L**			Analysis Date: **5/23/2013 03:59 AM**			
Client ID:		Run ID: **VMS7_130522A**		SeqNo: **2329536**		Prep Date:		DF: **100**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1804	100	2000	0	90.2	80-120	1860	3.06	30	
Ethylbenzene	1877	100	2000	0	93.8	75-125	1913	1.9	30	
m,p-Xylene	3678	200	4000	0	92	75-130	3775	2.6	30	
o-Xylene	1866	100	2000	0	93.3	80-120	1939	3.84	30	
Toluene	1825	100	2000	0	91.2	75-120	1844	1.04	30	
Xylenes, Total	5544	300	6000	0	92.4	75-130	5714	3.02	30	
Surr: 1,2-Dichloroethane-d4	*1924*	0	*2000*	0	*96.2*	*70-120*	1940	*0.828*	*30*	
Surr: 4-Bromofluorobenzene	*1994*	0	*2000*	0	*99.7*	*75-120*	1963	*1.57*	*30*	
Surr: Dibromofluoromethane	*1978*	0	*2000*	0	*98.9*	*85-115*	2046	*3.38*	*30*	
Surr: Toluene-d8	*1988*	0	*2000*	0	*99.4*	*85-120*	2003	*0.752*	*30*	

The following samples were analyzed in this batch: 1305719-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R120959** Instrument ID **WETCHEM** Method: **A4500-NO2 B**

MBLK Sample ID: **WBLKW1-130517-R120959** Units: **mg/L** Analysis Date: **5/17/2013 04:00 PM**
Client ID: Run ID: **WETCHEM_130517K** SeqNo: **2323446** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrite	ND	0.020								

LCS Sample ID: **WLCSW1-130517-R120959** Units: **mg/L** Analysis Date: **5/17/2013 04:00 PM**
Client ID: Run ID: **WETCHEM_130517K** SeqNo: **2323447** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrite	0.2183	0.020	0.2	0	109	80-120	0			

MS Sample ID: **1305122-18A MS** Units: **mg/L** Analysis Date: **5/17/2013 04:00 PM**
Client ID: Run ID: **WETCHEM_130517K** SeqNo: **2323450** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrite	0.2341	0.020	0.2	0.0569	88.6	75-125	0			

MSD Sample ID: **1305122-18A MSD** Units: **mg/L** Analysis Date: **5/17/2013 04:00 PM**
Client ID: Run ID: **WETCHEM_130517K** SeqNo: **2323451** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrite	0.2495	0.020	0.2	0.0569	96.3	75-125	0.2341	6.37	20	

The following samples were analyzed in this batch:

1305719-01D	1305719-02D	1305719-03D
1305719-04D		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R121214** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK Sample ID: **WBLKW1-130522-R121214** Units: **mg/L** Analysis Date: **5/22/2013 02:08 PM**
Client ID: Run ID: **LACHAT2_130522B** SeqNo: **2329312** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate	ND	0.020								

LCS Sample ID: **WLCSW1-130522-R121214** Units: **mg/L** Analysis Date: **5/22/2013 02:08 PM**
Client ID: Run ID: **LACHAT2_130522B** SeqNo: **2329313** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate	5.12	0.020	5	0	102	80-120	0			

MS Sample ID: **1305750-05C MS** Units: **mg/L** Analysis Date: **5/22/2013 02:08 PM**
Client ID: Run ID: **LACHAT2_130522B** SeqNo: **2329334** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate	7.119	0.020	5	2.3	96.4	75-125	0			

MSD Sample ID: **1305750-05C MSD** Units: **mg/L** Analysis Date: **5/22/2013 02:08 PM**
Client ID: Run ID: **LACHAT2_130522B** SeqNo: **2329335** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate	7.18	0.020	5	2.3	97.6	75-125	7.119	0.853	20	

The following samples were analyzed in this batch:

1305719-01E 1305719-02E 1305719-03E
1305719-04E

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1305719
Project: WPX TR 31-5 MW 5/15/13

QC BATCH REPORT

Batch ID: **R121282** Instrument ID **IC3** Method: **SW9056**

MBLK Sample ID: **MBLK-R121282** Units: **mg/L** Analysis Date: **5/23/2013 07:51 AM**
Client ID: Run ID: **IC3_130523A** SeqNo: **2330803** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	ND	0.10								
Chloride	ND	1.0								
Fluoride	ND	0.10								
Sulfate	ND	1.0								

LCS Sample ID: **LCS-R121282** Units: **mg/L** Analysis Date: **5/23/2013 07:31 AM**
Client ID: Run ID: **IC3_130523A** SeqNo: **2330802** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.04	0.10	2	0	102	88-113	0			
Chloride	9.653	1.0	10	0	96.5	88-107	0			
Fluoride	1.875	0.10	2	0	93.7	86-111	0			
Sulfate	9.844	1.0	10	0	98.4	85-110	0			

MS Sample ID: **1305719-01D MS** Units: **mg/L** Analysis Date: **5/23/2013 05:38 PM**
Client ID: **MW 1** Run ID: **IC3_130523A** SeqNo: **2330827** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	10.85	1.0	10	0	109	75-125	0			
Chloride	107.2	10	50	55.39	104	75-125	0			
Fluoride	9.977	1.0	10	0	99.8	75-125	0			
Sulfate	169.8	10	50	115	109	75-125	0			

MSD Sample ID: **1305719-01D MSD** Units: **mg/L** Analysis Date: **5/23/2013 05:58 PM**
Client ID: **MW 1** Run ID: **IC3_130523A** SeqNo: **2330828** Prep Date: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	10.52	1.0	10	0	105	75-125	10.85	3.14	20	
Chloride	104.9	10	50	55.39	99.1	75-125	107.2	2.18	20	
Fluoride	9.812	1.0	10	0	98.1	75-125	9.977	1.67	20	
Sulfate	168.5	10	50	115	107	75-125	169.8	0.772	20	

The following samples were analyzed in this batch: 1305719-01D 1305719-02D 1305719-03D 1305719-04D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1305719

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

PROJECT NAME	WPX TR 31-5 Monitor Well Samples	SAMPLER	Dan Pinegar
PROJECT No.		SITE ID	TR 31-5 Well Pad
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance Solutions, Inc.	BILL TO COMPANY	WPX
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney
ADDRESS	2385 F 1/2 Rd.	ADDRESS	1058 County Rd. 215
CITY / STATE / ZIP	Grand Junction, CO. 81505	CITY / STATE / ZIP	Parachute CO, 81635
PHONE	970-243-3271	PHONE	970-285-9377
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com	E-MAIL	karolina.blaney@wpx.com

DATE 5/15/2012

TURNAROUND Std. 5 days

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	GRO	DRO	Semi Vols -PAH	Dissolved Metals -Cations	Anions
1	MW 1	WATER	5/15/2012	1415	10	1,8		X	X	X	X	X	X
2	MW 3	WATER	5/15/2012	1530	10	1,8		X	X	X	X	X	X
3	MW 4	WATER	5/15/2012	1514	10	1,8		X	X	X	X	X	X
4	MW 2	WATER	5/15/2012	1630	10	1,8		X	X	X	X	X	X

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Dan Pinegar	5-16-13	10:00
RECEIVED BY		N. Chan	5-16	1000
RELINQUISHED BY			5-16	1170
RECEIVED BY		KEITH WIERENGA	5/17/13	0930
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **17-May-13 09:30**

Work Order: **1305719** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 17-May-13 (Date) Reviewed by: Ann Preston (eSignature) 21-May-13 (Date)

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.8 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	5/17/2013 3:21:01 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (970) 424-4749
Lab Hub, LLC

127 E First Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J13111302120326

Ship Date: 16MAY13
ActWgt: 55.0 LB
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code

Ref # 1001-051613-1
Invoice #
PO #
Dept #

SHIP TO: (616) 399-6070

BILL RECIPIENT

Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

FRI - 17 MAY 3:00P
STANDARD OVERNIGHT

TRK# 0201 7997 8041 2326

XX GRRA

49424
MI-US
GRR

518G1/9983/93AB

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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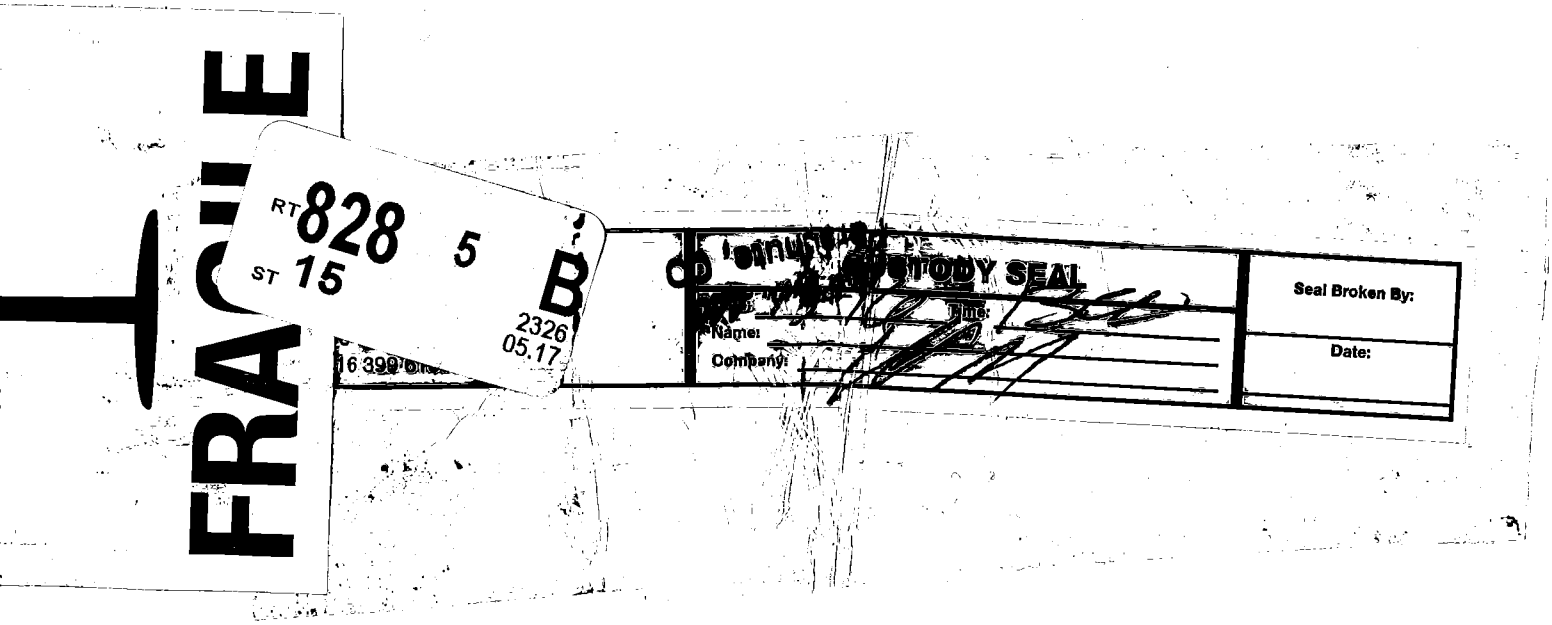

23-Jul-2013

Mark Mumby
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX TR 31-5-697 MW Sampling 7/11/13** Work Order: **1307451**

Dear Mark,

ALS Environmental received 7 samples on 13-Jul-2013 09:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 36.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185
ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

ALS Group USA, Corp

Date: 23-Jul-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13
Work Order: **1307451**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1307451-01	MW-6	Water		7/11/2013 13:05	7/13/2013	☐
1307451-02	MW-5	Water		7/11/2013 13:30	7/13/2013	☐
1307451-03	MW-7	Water		7/11/2013 13:15	7/13/2013	☐
1307451-04	MW-3	Water		7/11/2013 12:20	7/13/2013	☐
1307451-05	MW-4	Water		7/11/2013 14:30	7/13/2013	☐
1307451-06	MW-2	Water		7/11/2013 14:00	7/13/2013	☐
1307451-07	Trip Blank	Water		7/11/2013	7/13/2013	☐

ALS Group USA, Corp

Date: 23-Jul-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13
Work Order: 1307451

Case Narrative

Batch 49701 sample MW-6 MSD recoveries for 2-Chloronaphthalene and Fluorene were outside of the control limits. However, the MS recoveries and the RPDs between the MS and MSD were in control. No qualification is required for 2-Chloronaphthalene and Fluorene.

Batch R123525 pH analyses for samples 1307451-01 through 1307451-06 is considered a "field test" and, as such, the recommended sample holding time expired prior to sample receipt.

ALS Group USA, Corp

Date: 23-Jul-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13
WorkOrder: **1307451**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
s.u.	Standard Units

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-6 **Lab ID:** 1307451-01
Collection Date: 7/11/2013 01:05 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **RD**
DRO (C10-C28)	ND		0.10	mg/L	1	7/15/2013 06:43 PM
Surr: 4-Terphenyl-d14	*66.8*		*21-90*	*%REC*	1	7/15/2013 06:43 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		0.20	mg/L	1	7/15/2013 07:44 PM
Surr: Toluene-d8	*101*		*70-130*	*%REC*	1	7/15/2013 07:44 PM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**76**		**0.50**	**mg/L**	1	7/19/2013 01:38 PM
Iron	**0.12**		**0.080**	**mg/L**	1	7/19/2013 01:38 PM
Magnesium	**36**		**0.20**	**mg/L**	1	7/19/2013 01:38 PM
Manganese	**0.77**		**0.0050**	**mg/L**	1	7/19/2013 01:38 PM
Potassium	**1.0**		**0.20**	**mg/L**	1	7/19/2013 01:38 PM
Sodium	**76**		**0.20**	**mg/L**	1	7/19/2013 01:38 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
1-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Acenaphthene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Acenaphthylene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Anthracene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Chrysene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Fluoranthene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Fluorene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Naphthalene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Phenanthrene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Pyrene	ND		5.0	µg/L	1	7/19/2013 09:37 PM
Surr: 2-Fluorobiphenyl	*91.9*		*20-140*	*%REC*	1	7/19/2013 09:37 PM
Surr: 4-Terphenyl-d14	*169*		*22-172*	*%REC*	1	7/19/2013 09:37 PM
Surr: Nitrobenzene-d5	*79.6*		*8-140*	*%REC*	1	7/19/2013 09:37 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **RS**
Benzene	**1.5**		**1.0**	**µg/L**	1	7/17/2013 04:56 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-6 **Lab ID:** 1307451-01
Collection Date: 7/11/2013 01:05 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	ND		1.0	µg/L	1	7/17/2013 04:56 AM
m,p-Xylene	ND		2.0	µg/L	1	7/17/2013 04:56 AM
o-Xylene	ND		1.0	µg/L	1	7/17/2013 04:56 AM
Toluene	ND		1.0	µg/L	1	7/17/2013 04:56 AM
Xylenes, Total	ND		3.0	µg/L	1	7/17/2013 04:56 AM
Surr: 1,2-Dichloroethane-d4	*95.4*		*70-120*	*%REC*	1	7/17/2013 04:56 AM
Surr: 4-Bromofluorobenzene	*95.0*		*75-120*	*%REC*	1	7/17/2013 04:56 AM
Surr: Dibromofluoromethane	*95.8*		*85-115*	*%REC*	1	7/17/2013 04:56 AM
Surr: Toluene-d8	*94.8*		*85-120*	*%REC*	1	7/17/2013 04:56 AM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.31**		**0.10**	**mg/L**	1	7/16/2013 03:58 PM
Chloride	**48**		**4.0**	**mg/L**	4	7/16/2013 07:20 PM
Fluoride	**0.11**		**0.10**	**mg/L**	1	7/17/2013 10:21 AM
Sulfate	**53**		**4.0**	**mg/L**	4	7/16/2013 07:20 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **EE**
Nitrogen, Nitrite	ND		0.020	mg/L	1	7/13/2013 01:15 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	ND		0.020	mg/L	1	7/15/2013 02:02 PM
PH			**SW9040**			Analyst: **EE**
pH (laboratory)	**7.87**			**s.u.**	1	7/13/2013 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-5 **Lab ID:** 1307451-02
Collection Date: 7/11/2013 01:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **RD**
DRO (C10-C28)	ND		0.10	mg/L	1	7/15/2013 07:13 PM
Surr: 4-Terphenyl-d14	*65.1*		*21-90*	*%REC*	1	7/15/2013 07:13 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		0.20	mg/L	1	7/15/2013 08:09 PM
Surr: Toluene-d8	*104*		*70-130*	*%REC*	1	7/15/2013 08:09 PM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**63**		**0.50**	**mg/L**	1	7/19/2013 01:43 PM
Iron	ND		0.080	mg/L	1	7/19/2013 01:43 PM
Magnesium	**31**		**0.20**	**mg/L**	1	7/19/2013 01:43 PM
Manganese	**0.032**		**0.0050**	**mg/L**	1	7/19/2013 01:43 PM
Potassium	**1.2**		**0.20**	**mg/L**	1	7/19/2013 01:43 PM
Sodium	**69**		**0.20**	**mg/L**	1	7/19/2013 01:43 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
1-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Acenaphthene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Acenaphthylene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Anthracene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Chrysene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Fluorene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Naphthalene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Phenanthrene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Pyrene	ND		5.0	µg/L	1	7/19/2013 10:04 PM
Surr: 2-Fluorobiphenyl	*96.7*		*20-140*	*%REC*	1	7/19/2013 10:04 PM
Surr: 4-Terphenyl-d14	*161*		*22-172*	*%REC*	1	7/19/2013 10:04 PM
Surr: Nitrobenzene-d5	*79.9*		*8-140*	*%REC*	1	7/19/2013 10:04 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **RS**
Benzene	ND		1.0	µg/L	1	7/17/2013 05:21 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13
Work Order: 1307451
Sample ID: MW-5
Lab ID: 1307451-02
Collection Date: 7/11/2013 01:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	ND		1.0	µg/L	1	7/17/2013 05:21 AM
m,p-Xylene	ND		2.0	µg/L	1	7/17/2013 05:21 AM
o-Xylene	ND		1.0	µg/L	1	7/17/2013 05:21 AM
Toluene	ND		1.0	µg/L	1	7/17/2013 05:21 AM
Xylenes, Total	ND		3.0	µg/L	1	7/17/2013 05:21 AM
Surr: 1,2-Dichloroethane-d4	*92.0*		*70-120*	*%REC*	1	7/17/2013 05:21 AM
Surr: 4-Bromofluorobenzene	*96.0*		*75-120*	*%REC*	1	7/17/2013 05:21 AM
Surr: Dibromofluoromethane	*95.3*		*85-115*	*%REC*	1	7/17/2013 05:21 AM
Surr: Toluene-d8	*96.0*		*85-120*	*%REC*	1	7/17/2013 05:21 AM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	ND		0.10	mg/L	1	7/16/2013 04:18 PM
Chloride	**17**		**1.0**	**mg/L**	1	7/16/2013 04:18 PM
Fluoride	**0.15**		**0.10**	**mg/L**	1	7/17/2013 10:42 AM
Sulfate	**110**		**10**	**mg/L**	10	7/16/2013 07:40 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **EE**
Nitrogen, Nitrite	ND		0.020	mg/L	1	7/13/2013 01:15 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	ND		0.020	mg/L	1	7/15/2013 02:02 PM
PH			**SW9040**			Analyst: **EE**
pH (laboratory)	**7.74**			**s.u.**	1	7/13/2013 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-7 **Lab ID:** 1307451-03
Collection Date: 7/11/2013 01:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **RD**
DRO (C10-C28)	ND		0.10	mg/L	1	7/15/2013 07:42 PM
Surr: 4-Terphenyl-d14	*61.9*		*21-90*	*%REC*	1	7/15/2013 07:42 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	ND		0.20	mg/L	1	7/15/2013 08:33 PM
Surr: Toluene-d8	*104*		*70-130*	*%REC*	1	7/15/2013 08:33 PM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**71**		**0.50**	**mg/L**	1	7/19/2013 01:51 PM
Iron	ND		0.080	mg/L	1	7/19/2013 01:51 PM
Magnesium	**35**		**0.20**	**mg/L**	1	7/19/2013 01:51 PM
Manganese	**0.44**		**0.0050**	**mg/L**	1	7/19/2013 01:51 PM
Potassium	**0.88**		**0.20**	**mg/L**	1	7/19/2013 01:51 PM
Sodium	**80**		**0.20**	**mg/L**	1	7/19/2013 01:51 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
1-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Acenaphthene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Acenaphthylene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Anthracene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Chrysene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Fluorene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Naphthalene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Phenanthrene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Pyrene	ND		5.0	µg/L	1	7/19/2013 10:31 PM
Surr: 2-Fluorobiphenyl	*91.4*		*20-140*	*%REC*	1	7/19/2013 10:31 PM
Surr: 4-Terphenyl-d14	*162*		*22-172*	*%REC*	1	7/19/2013 10:31 PM
Surr: Nitrobenzene-d5	*77.7*		*8-140*	*%REC*	1	7/19/2013 10:31 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **RS**
Benzene	ND		1.0	µg/L	1	7/17/2013 05:48 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-7 **Lab ID:** 1307451-03
Collection Date: 7/11/2013 01:15 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	ND		1.0	µg/L	1	7/17/2013 05:48 AM
m,p-Xylene	ND		2.0	µg/L	1	7/17/2013 05:48 AM
o-Xylene	ND		1.0	µg/L	1	7/17/2013 05:48 AM
Toluene	ND		1.0	µg/L	1	7/17/2013 05:48 AM
Xylenes, Total	ND		3.0	µg/L	1	7/17/2013 05:48 AM
Surr: 1,2-Dichloroethane-d4	*110*		*70-120*	*%REC*	1	7/17/2013 05:48 AM
Surr: 4-Bromofluorobenzene	*112*		*75-120*	*%REC*	1	7/17/2013 05:48 AM
Surr: Dibromofluoromethane	*113*		*85-115*	*%REC*	1	7/17/2013 05:48 AM
Surr: Toluene-d8	*110*		*85-120*	*%REC*	1	7/17/2013 05:48 AM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.34**		**0.10**	**mg/L**	1	7/16/2013 04:38 PM
Chloride	**47**		**4.0**	**mg/L**	4	7/16/2013 08:00 PM
Fluoride	**0.11**		**0.10**	**mg/L**	1	7/17/2013 11:02 AM
Sulfate	**35**		**4.0**	**mg/L**	4	7/16/2013 08:00 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **EE**
Nitrogen, Nitrite	ND		0.020	mg/L	1	7/13/2013 01:15 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	ND		0.020	mg/L	1	7/15/2013 02:02 PM
PH			**SW9040**			Analyst: **EE**
pH (laboratory)	**7.86**			**s.u.**	1	7/13/2013 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-3 **Lab ID:** 1307451-04
Collection Date: 7/11/2013 12:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **RD**
DRO (C10-C28)	**5.4**		**0.10**	**mg/L**	1	7/15/2013 08:12 PM
Surr: 4-Terphenyl-d14	*64.7*		*21-90*	*%REC*	1	7/15/2013 08:12 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	**1.6**		**0.20**	**mg/L**	1	7/15/2013 08:58 PM
Surr: Toluene-d8	*109*		*70-130*	*%REC*	1	7/15/2013 08:58 PM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**83**		**0.50**	**mg/L**	1	7/19/2013 01:56 PM
Iron	ND		0.080	mg/L	1	7/19/2013 01:56 PM
Magnesium	**40**		**0.20**	**mg/L**	1	7/19/2013 01:56 PM
Manganese	**0.68**		**0.0050**	**mg/L**	1	7/19/2013 01:56 PM
Potassium	**0.88**		**0.20**	**mg/L**	1	7/19/2013 01:56 PM
Sodium	**61**		**0.20**	**mg/L**	1	7/19/2013 01:56 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
1-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Acenaphthene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Acenaphthylene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Anthracene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Chrysene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Fluoranthene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Fluorene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Naphthalene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Phenanthrene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Pyrene	ND		5.0	µg/L	1	7/19/2013 10:58 PM
Surr: 2-Fluorobiphenyl	*95.2*		*20-140*	*%REC*	1	7/19/2013 10:58 PM
Surr: 4-Terphenyl-d14	*158*		*22-172*	*%REC*	1	7/19/2013 10:58 PM
Surr: Nitrobenzene-d5	*65.3*		*8-140*	*%REC*	1	7/19/2013 10:58 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **RS**
Benzene	ND		1.0	µg/L	1	7/17/2013 09:52 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-3 **Lab ID:** 1307451-04
Collection Date: 7/11/2013 12:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	**3.9**		**1.0**	**µg/L**	1	7/17/2013 09:52 PM
m,p-Xylene	**22**		**2.0**	**µg/L**	1	7/17/2013 09:52 PM
o-Xylene	ND		1.0	µg/L	1	7/17/2013 09:52 PM
Toluene	ND		1.0	µg/L	1	7/17/2013 09:52 PM
Xylenes, Total	**22**		**3.0**	**µg/L**	1	7/17/2013 09:52 PM
Surr: 1,2-Dichloroethane-d4	*92.1*		*70-120*	*%REC*	1	7/17/2013 09:52 PM
Surr: 4-Bromofluorobenzene	*94.8*		*75-120*	*%REC*	1	7/17/2013 09:52 PM
Surr: Dibromofluoromethane	*94.9*		*85-115*	*%REC*	1	7/17/2013 09:52 PM
Surr: Toluene-d8	*100*		*85-120*	*%REC*	1	7/17/2013 09:52 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.37**		**0.10**	**mg/L**	1	7/16/2013 04:58 PM
Chloride	**51**		**10**	**mg/L**	10	7/16/2013 09:01 PM
Fluoride	**0.11**		**0.10**	**mg/L**	1	7/17/2013 11:22 AM
Sulfate	**93**		**10**	**mg/L**	10	7/16/2013 09:01 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **EE**
Nitrogen, Nitrite	**0.032**		**0.020**	**mg/L**	1	7/13/2013 01:15 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	ND		0.020	mg/L	1	7/15/2013 02:02 PM
PH			**SW9040**			Analyst: **EE**
pH (laboratory)	**7.64**			**s.u.**	1	7/13/2013 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-4 **Lab ID:** 1307451-05
Collection Date: 7/11/2013 02:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **RD**
DRO (C10-C28)	**0.65**		**0.10**	**mg/L**	1	7/15/2013 08:42 PM
Surr: 4-Terphenyl-d14	*64.1*		*21-90*	*%REC*	1	7/15/2013 08:42 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	**0.92**		**0.20**	**mg/L**	1	7/15/2013 09:22 PM
Surr: Toluene-d8	*109*		*70-130*	*%REC*	1	7/15/2013 09:22 PM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**88**		**0.50**	**mg/L**	1	7/19/2013 02:01 PM
Iron	ND		0.080	mg/L	1	7/19/2013 02:01 PM
Magnesium	**41**		**0.20**	**mg/L**	1	7/19/2013 02:01 PM
Manganese	**1.8**		**0.0050**	**mg/L**	1	7/19/2013 02:01 PM
Potassium	**0.91**		**0.20**	**mg/L**	1	7/19/2013 02:01 PM
Sodium	**83**		**0.20**	**mg/L**	1	7/19/2013 02:01 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
1-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Acenaphthene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Acenaphthylene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Anthracene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Chrysene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Fluoranthene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Fluorene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Naphthalene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Phenanthrene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Pyrene	ND		5.0	µg/L	1	7/19/2013 11:26 PM
Surr: 2-Fluorobiphenyl	*96.5*		*20-140*	*%REC*	1	7/19/2013 11:26 PM
Surr: 4-Terphenyl-d14	*163*		*22-172*	*%REC*	1	7/19/2013 11:26 PM
Surr: Nitrobenzene-d5	*75.7*		*8-140*	*%REC*	1	7/19/2013 11:26 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **RS**
Benzene	**14**		**1.0**	**µg/L**	1	7/17/2013 10:17 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-4 **Lab ID:** 1307451-05
Collection Date: 7/11/2013 02:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	**15**		**1.0**	**µg/L**	1	7/17/2013 10:17 PM
m,p-Xylene	**69**		**2.0**	**µg/L**	1	7/17/2013 10:17 PM
o-Xylene	ND		1.0	µg/L	1	7/17/2013 10:17 PM
Toluene	ND		1.0	µg/L	1	7/17/2013 10:17 PM
Xylenes, Total	**69**		**3.0**	**µg/L**	1	7/17/2013 10:17 PM
Surr: 1,2-Dichloroethane-d4	*92.9*		*70-120*	*%REC*	1	7/17/2013 10:17 PM
Surr: 4-Bromofluorobenzene	*94.5*		*75-120*	*%REC*	1	7/17/2013 10:17 PM
Surr: Dibromofluoromethane	*97.4*		*85-115*	*%REC*	1	7/17/2013 10:17 PM
Surr: Toluene-d8	*92.7*		*85-120*	*%REC*	1	7/17/2013 10:17 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.50**		**0.10**	**mg/L**	1	7/16/2013 05:19 PM
Chloride	**68**		**10**	**mg/L**	10	7/16/2013 09:21 PM
Fluoride	**0.11**		**0.10**	**mg/L**	1	7/17/2013 11:42 AM
Sulfate	**9.7**		**1.0**	**mg/L**	1	7/16/2013 05:19 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **EE**
Nitrogen, Nitrite	ND		0.020	mg/L	1	7/13/2013 01:15 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	ND		0.020	mg/L	1	7/15/2013 02:02 PM
PH			**SW9040**			Analyst: **EE**
pH (laboratory)	**7.63**			**s.u.**	1	7/13/2013 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13 **Work Order:** 1307451
Sample ID: MW-2 **Lab ID:** 1307451-06
Collection Date: 7/11/2013 02:00 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/15/2013**	Analyst: **RD**
DRO (C10-C28)	**22**		**0.10**	**mg/L**	1	7/15/2013 09:42 PM
Surr: 4-Terphenyl-d14	*76.8*		*21-90*	*%REC*	1	7/15/2013 09:42 PM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **RD**
GRO (C6-C10)	**9.5**		**0.20**	**mg/L**	1	7/15/2013 09:46 PM
Surr: Toluene-d8	*111*		*70-130*	*%REC*	1	7/15/2013 09:46 PM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**79**		**0.50**	**mg/L**	1	7/19/2013 02:06 PM
Iron	**0.37**		**0.080**	**mg/L**	1	7/19/2013 02:06 PM
Magnesium	**41**		**0.20**	**mg/L**	1	7/19/2013 02:06 PM
Manganese	**0.46**		**0.0050**	**mg/L**	1	7/19/2013 02:06 PM
Potassium	**1.3**		**0.20**	**mg/L**	1	7/19/2013 02:06 PM
Sodium	**83**		**0.20**	**mg/L**	1	7/19/2013 02:06 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/15/2013**	Analyst: **RM**
1-Methylnaphthalene	**29**		**5.0**	**µg/L**	1	7/19/2013 11:53 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
2-Methylnaphthalene	**77**		**5.0**	**µg/L**	1	7/19/2013 11:53 PM
Acenaphthene	**11**		**5.0**	**µg/L**	1	7/19/2013 11:53 PM
Acenaphthylene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Anthracene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Chrysene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Fluoranthene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Fluorene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Naphthalene	**19**		**5.0**	**µg/L**	1	7/19/2013 11:53 PM
Phenanthrene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Pyrene	ND		5.0	µg/L	1	7/19/2013 11:53 PM
Surr: 2-Fluorobiphenyl	*121*		*20-140*	*%REC*	1	7/19/2013 11:53 PM
Surr: 4-Terphenyl-d14	*167*		*22-172*	*%REC*	1	7/19/2013 11:53 PM
Surr: Nitrobenzene-d5	*116*		*8-140*	*%REC*	1	7/19/2013 11:53 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **RS**
Benzene	**37**		**10**	**µg/L**	10	7/17/2013 10:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13
Work Order: 1307451
Sample ID: MW-2
Lab ID: 1307451-06
Collection Date: 7/11/2013 02:00 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	**61**		**10**	**µg/L**	10	7/17/2013 10:41 PM
m,p-Xylene	**940**		**20**	**µg/L**	10	7/17/2013 10:41 PM
o-Xylene	**59**		**10**	**µg/L**	10	7/17/2013 10:41 PM
Toluene	ND		10	µg/L	10	7/17/2013 10:41 PM
Xylenes, Total	**1,000**		**30**	**µg/L**	10	7/17/2013 10:41 PM
Surr: 1,2-Dichloroethane-d4	*92.6*		*70-120*	*%REC*	10	7/17/2013 10:41 PM
Surr: 4-Bromofluorobenzene	*94.0*		*75-120*	*%REC*	10	7/17/2013 10:41 PM
Surr: Dibromofluoromethane	*97.8*		*85-115*	*%REC*	10	7/17/2013 10:41 PM
Surr: Toluene-d8	*94.8*		*85-120*	*%REC*	10	7/17/2013 10:41 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.45**		**0.10**	**mg/L**	1	7/16/2013 05:39 PM
Chloride	**58**		**10**	**mg/L**	10	7/16/2013 09:41 PM
Fluoride	**0.14**		**0.10**	**mg/L**	1	7/17/2013 12:02 PM
Sulfate	**50**		**10**	**mg/L**	10	7/16/2013 09:41 PM
NITROGEN, NITRITE			**A4500-NO2 B**			Analyst: **EE**
Nitrogen, Nitrite	**0.038**		**0.020**	**mg/L**	1	7/13/2013 01:15 PM
NITROGEN, NITRATE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate	ND		0.020	mg/L	1	7/15/2013 02:02 PM
PH			**SW9040**			Analyst: **EE**
pH (laboratory)	**7.79**			**s.u.**	1	7/13/2013 11:15 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *23-Jul-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5-697 MW Sampling 7/11/13
Work Order: 1307451
Sample ID: Trip Blank
Lab ID: 1307451-07
Collection Date: 7/11/2013
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **RS**
Benzene	ND		1.0	µg/L	1	7/16/2013 11:16 PM
Ethylbenzene	ND		1.0	µg/L	1	7/16/2013 11:16 PM
m,p-Xylene	ND		2.0	µg/L	1	7/16/2013 11:16 PM
o-Xylene	ND		1.0	µg/L	1	7/16/2013 11:16 PM
Toluene	ND		1.0	µg/L	1	7/16/2013 11:16 PM
Xylenes, Total	ND		3.0	µg/L	1	7/16/2013 11:16 PM
Surr: 1,2-Dichloroethane-d4	*97.6*		*70-120*	*%REC*	1	7/16/2013 11:16 PM
Surr: 4-Bromofluorobenzene	*96.2*		*75-120*	*%REC*	1	7/16/2013 11:16 PM
Surr: Dibromofluoromethane	*99.0*		*85-115*	*%REC*	1	7/16/2013 11:16 PM
Surr: Toluene-d8	*96.9*		*85-120*	*%REC*	1	7/16/2013 11:16 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

QC BATCH REPORT

Batch ID: **49700** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKW1-49700-49700** Units: **mg/L** Analysis Date: **7/15/2013 02:14 PM**

Client ID: Run ID: **GC8_130715B** SeqNo: **2380190** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
Surr: 4-Terphenyl-d14	*0.0688*	0	*0.1143*	0	*60.2*	*21-90*	0			

LCS Sample ID: **DLCSW1-49700-49700** Units: **mg/L** Analysis Date: **7/15/2013 02:44 PM**

Client ID: Run ID: **GC8_130715B** SeqNo: **2380191** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	5.313	0.10	11.43	0	46.5	44-116	0			
Surr: 4-Terphenyl-d14	*0.07337*	0	*0.1143*	0	*64.2*	*21-90*	0			

MS Sample ID: **1307411-02C MS** Units: **mg/L** Analysis Date: **7/15/2013 04:13 PM**

Client ID: Run ID: **GC8_130715B** SeqNo: **2380193** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	21.63	0.35	40	0	54.1	44-116	0			
Surr: 4-Terphenyl-d14	*0.2807*	0	*0.4*	0	*70.2*	*21-90*	0			

MSD Sample ID: **1307411-02C MSD** Units: **mg/L** Analysis Date: **7/15/2013 04:43 PM**

Client ID: Run ID: **GC8_130715B** SeqNo: **2380194** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	21.28	0.35	40	0	53.2	44-116	21.63	1.65	30	
Surr: 4-Terphenyl-d14	*0.2966*	0	*0.4*	0	*74.2*	*21-90*	0.2807	*5.51*	*30*	

The following samples were analyzed in this batch:

1307451-01B 1307451-02B 1307451-03B
1307451-04B 1307451-05B 1307451-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123613** Instrument ID **GC10** Method: **SW8015**

MBLK Sample ID: **GBLK1-130715-R123613** Units: **µg/L** Analysis Date: **7/15/2013 03:12 PM**
Client ID: Run ID: **GC10_130715A** SeqNo: **2379226** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
Surr: Toluene-d8	*104.4*	0	*100*	0	*104*	*70-130*	0			

LCS Sample ID: **GLCS1-130715-R123613** Units: **µg/L** Analysis Date: **7/15/2013 02:47 PM**
Client ID: Run ID: **GC10_130715A** SeqNo: **2379225** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7204	200	10000	0	72	70-130	0			
Surr: Toluene-d8	*108.6*	0	*100*	0	*109*	*70-130*	0			

MS Sample ID: **1307451-02A MS** Units: **µg/L** Analysis Date: **7/15/2013 11:00 PM**
Client ID: **MW-5** Run ID: **GC10_130715A** SeqNo: **2379234** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7536	200	10000	0	75.4	70-130	0			
Surr: Toluene-d8	*103.9*	0	*100*	0	*104*	*70-130*	0			

MSD Sample ID: **1307451-02A MSD** Units: **µg/L** Analysis Date: **7/15/2013 11:24 PM**
Client ID: **MW-5** Run ID: **GC10_130715A** SeqNo: **2379235** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	7382	200	10000	0	73.8	70-130	7536	2.07	30	
Surr: Toluene-d8	*106.2*	0	*100*	0	*106*	*70-130*	103.9	*2.19*	*30*	

The following samples were analyzed in this batch:

1307451-01A	1307451-02A	1307451-03A
1307451-04A	1307451-05A	1307451-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **49827** Instrument ID **ICPMS2** Method: **SW6020A** **(Dissolve)**

MS Sample ID: **1307555-07CMS** Units: **mg/L** Analysis Date: **7/18/2013 05:41 PM**
Client ID: Run ID: **ICPMS2_130718A** SeqNo: **2384026** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	87.03	0.50	10	77.76	92.7	75-125	0			O
Iron	9.722	0.080	10	0.05608	96.7	75-125	0			
Magnesium	42.37	0.20	10	33.14	92.3	75-125	0			
Manganese	0.1264	0.0050	0.1	0.03057	95.8	75-125	0			
Potassium	13.06	0.20	10	3.156	99	75-125	0			
Sodium	47.11	0.20	10	38.04	90.7	75-125	0			

MSD Sample ID: **1307555-07CMSD** Units: **mg/L** Analysis Date: **7/18/2013 05:46 PM**
Client ID: Run ID: **ICPMS2_130718A** SeqNo: **2384027** Prep Date: **7/18/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	87.04	0.50	10	77.76	92.8	75-125	87.03	0.0115	20	O
Iron	9.791	0.080	10	0.05608	97.3	75-125	9.722	0.707	20	
Magnesium	42.77	0.20	10	33.14	96.3	75-125	42.37	0.94	20	
Manganese	0.1273	0.0050	0.1	0.03057	96.7	75-125	0.1264	0.709	20	
Potassium	13.09	0.20	10	3.156	99.3	75-125	13.06	0.229	20	
Sodium	46.98	0.20	10	38.04	89.4	75-125	47.11	0.276	20	

The following samples were analyzed in this batch:

1307451-01C	1307451-02C	1307451-03C
1307451-04C	1307451-05C	1307451-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **49701** Instrument ID **SVMS6** Method: **SW8270**

MBLK Sample ID: **SBLKW1-49701-49701** Units: **µg/L** Analysis Date: **7/19/2013 07:48 PM**
Client ID: Run ID: **SVMS6_130719A** SeqNo: **2386516** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	5.0								
2-Chloronaphthalene	ND	5.0								
2-Methylnaphthalene	ND	5.0								
Acenaphthene	ND	5.0								
Acenaphthylene	ND	5.0								
Anthracene	ND	5.0								
Benzo(a)anthracene	ND	5.0								
Benzo(a)pyrene	ND	5.0								
Benzo(b)fluoranthene	ND	5.0								
Benzo(g,h,i)perylene	ND	5.0								
Benzo(k)fluoranthene	ND	5.0								
Chrysene	ND	5.0								
Dibenzo(a,h)anthracene	ND	5.0								
Fluoranthene	ND	5.0								
Fluorene	ND	5.0								
Indeno(1,2,3-cd)pyrene	ND	5.0								
Naphthalene	ND	5.0								
Phenanthrene	ND	5.0								
Pyrene	ND	5.0								
Surr: 2-Fluorobiphenyl	*103.2*	0	*114*	0	*90.6*	*20-140*	0			
Surr: 4-Terphenyl-d14	*184.7*	0	*114*	0	*162*	*22-172*	0			
Surr: Nitrobenzene-d5	*93.92*	0	*114*	0	*82.4*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **49701** Instrument ID **SVMS6** Method: **SW8270**

LCS Sample ID: **SLCSW1-49701-49701** Units: **µg/L** Analysis Date: **7/19/2013 08:15 PM**
Client ID: Run ID: **SVMS6_130719A** SeqNo: **2386517** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	54.95	5.0	45.7	0	120	50-140	0			
2-Chloronaphthalene	24.34	5.0	45.7	0	53.3	50-140	0			
2-Methylnaphthalene	57.74	5.0	45.7	0	126	50-140	0			
Acenaphthene	33.17	5.0	45.7	0	72.6	60-140	0			
Acenaphthylene	37.19	5.0	45.7	0	81.4	60-140	0			
Anthracene	50.45	5.0	45.7	0	110	60-140	0			
Benzo(a)anthracene	52.59	5.0	45.7	0	115	60-140	0			
Benzo(a)pyrene	45.92	5.0	45.7	0	100	60-140	0			
Benzo(b)fluoranthene	49.03	5.0	45.7	0	107	60-140	0			
Benzo(g,h,i)perylene	35.57	5.0	45.7	0	77.8	60-140	0			
Benzo(k)fluoranthene	43.25	5.0	45.7	0	94.6	60-140	0			
Chrysene	42.29	5.0	45.7	0	92.5	60-140	0			
Dibenzo(a,h)anthracene	33.1	5.0	45.7	0	72.4	60-140	0			
Fluoranthene	54.42	5.0	45.7	0	119	60-140	0			
Fluorene	58.56	5.0	45.7	0	128	60-140	0			
Indeno(1,2,3-cd)pyrene	48.57	5.0	45.7	0	106	60-140	0			
Naphthalene	18.47	5.0	45.7	0	40.4	40-140	0			
Phenanthrene	46.65	5.0	45.7	0	102	60-140	0			
Pyrene	44.55	5.0	45.7	0	97.5	60-140	0			
Surr: 2-Fluorobiphenyl	*106.2*	0	*114*	0	*93.2*	*20-140*	0			
Surr: 4-Terphenyl-d14	*148.7*	0	*114*	0	*130*	*22-172*	0			
Surr: Nitrobenzene-d5	*79.98*	0	*114*	0	*70.2*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **49701** Instrument ID **SVMS6** Method: **SW8270**

MS Sample ID: **1307451-01B MS** Units: **µg/L** Analysis Date: **7/19/2013 08:42 PM**
Client ID: **MW-6** Run ID: **SVMS6_130719A** SeqNo: **2386518** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	139.7	18	160	0	87.3	50-140	0			
2-Chloronaphthalene	80.32	18	160	0	50.2	50-140	0			
2-Methylnaphthalene	143	18	160	0	89.4	50-140	0			
Acenaphthene	118.5	18	160	0	74.1	60-140	0			
Acenaphthylene	129	18	160	0	80.6	60-140	0			
Anthracene	187.8	18	160	0	117	60-140	0			
Benzo(a)anthracene	197.6	18	160	0	124	60-140	0			
Benzo(a)pyrene	171.8	18	160	0	107	60-140	0			
Benzo(b)fluoranthene	185.7	18	160	0	116	60-140	0			
Benzo(g,h,i)perylene	133.7	18	160	0	83.6	60-140	0			
Benzo(k)fluoranthene	160.2	18	160	0	100	60-140	0			
Chrysene	156	18	160	0	97.5	60-140	0			
Dibenzo(a,h)anthracene	121.7	18	160	0	76.1	60-140	0			
Fluoranthene	200.8	18	160	0	126	60-140	0			
Fluorene	223.1	18	160	0	139	60-140	0			
Indeno(1,2,3-cd)pyrene	179.5	18	160	0	112	60-140	0			
Naphthalene	65.6	18	160	0	41	40-140	0			
Phenanthrene	174.3	18	160	0	109	60-140	0			
Pyrene	168	18	160	0	105	60-140	0			
Surr: 2-Fluorobiphenyl	*392.4*	0	*399*	0	*98.3*	*20-140*	0			
Surr: 4-Terphenyl-d14	*521.9*	0	*399*	0	*131*	*22-172*	0			
Surr: Nitrobenzene-d5	*271.1*	0	*399*	0	*67.9*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **49701** Instrument ID **SVMS6** Method: **SW8270**

MSD Sample ID: **1307451-01B MSD** Units: **µg/L** Analysis Date: **7/19/2013 09:10 PM**
Client ID: **MW-6** Run ID: **SVMS6_130719A** SeqNo: **2386519** Prep Date: **7/15/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	134.6	18	160	0	84.2	50-140	139.7	3.67	30	
2-Chloronaphthalene	76.96	18	160	0	48.1	50-140	80.32	4.27	30	S
2-Methylnaphthalene	139.8	18	160	0	87.4	50-140	143	2.32	30	
Acenaphthene	115.9	18	160	0	72.5	60-140	118.5	2.18	30	
Acenaphthylene	126.5	18	160	0	79.1	60-140	129	1.94	30	
Anthracene	193.5	18	160	0	121	60-140	187.8	3.02	30	
Benzo(a)anthracene	198.3	18	160	0	124	60-140	197.6	0.364	30	
Benzo(a)pyrene	175.6	18	160	0	110	60-140	171.8	2.21	30	
Benzo(b)fluoranthene	185	18	160	0	116	60-140	185.7	0.345	30	
Benzo(g,h,i)perylene	136.9	18	160	0	85.6	60-140	133.7	2.37	30	
Benzo(k)fluoranthene	168.2	18	160	0	105	60-140	160.2	4.87	30	
Chrysene	157.3	18	160	0	98.3	60-140	156	0.817	30	
Dibenzo(a,h)anthracene	126.8	18	160	0	79.3	60-140	121.7	4.12	30	
Fluoranthene	203.4	18	160	0	127	60-140	200.8	1.31	30	
Fluorene	225.4	18	160	0	141	60-140	223.1	0.999	30	S
Indeno(1,2,3-cd)pyrene	184.9	18	160	0	116	60-140	179.5	2.94	30	
Naphthalene	66.64	18	160	0	41.7	40-140	65.6	1.57	30	
Phenanthrene	177.8	18	160	0	111	60-140	174.3	1.95	30	
Pyrene	167.9	18	160	0	105	60-140	168	0.0476	30	
Surr: 2-Fluorobiphenyl	*374.9*	0	*399*	0	*94*	*20-140*	392.4	*4.57*	*30*	
Surr: 4-Terphenyl-d14	*526.5*	0	*399*	0	*132*	*22-172*	521.9	*0.87*	*30*	
Surr: Nitrobenzene-d5	*265.3*	0	*399*	0	*66.5*	*8-140*	271.1	*2.18*	*30*	

The following samples were analyzed in this batch:

1307451-01B	1307451-02B	1307451-03B
1307451-04B	1307451-05B	1307451-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123688** Instrument ID **VMS7** Method: **SW8260**

MBLK Sample ID: **VBLKW2-130716-R123688** Units: **µg/L** Analysis Date: **7/16/2013 10:52 PM**
Client ID: Run ID: **VMS7_130716B** SeqNo: **2381331** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*19.34*	0	*20*	0	*96.7*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*18.94*	0	*20*	0	*94.7*	*75-120*	0			
Surr: Dibromofluoromethane	*19.34*	0	*20*	0	*96.7*	*85-115*	0			
Surr: Toluene-d8	*19.15*	0	*20*	0	*95.8*	*85-120*	0			

LCS Sample ID: **VLCSW2-130716-R123688** Units: **µg/L** Analysis Date: **7/16/2013 09:39 PM**
Client ID: Run ID: **VMS7_130716B** SeqNo: **2381330** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.61	1.0	20	0	103	80-120	0			
Ethylbenzene	19.59	1.0	20	0	98	75-125	0			
m,p-Xylene	38.83	2.0	40	0	97.1	75-130	0			
o-Xylene	19.38	1.0	20	0	96.9	80-120	0			
Toluene	19.48	1.0	20	0	97.4	75-120	0			
Xylenes, Total	58.21	3.0	60	0	97	75-130	0			
Surr: 1,2-Dichloroethane-d4	*19.02*	0	*20*	0	*95.1*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*18.89*	0	*20*	0	*94.4*	*75-120*	0			
Surr: Dibromofluoromethane	*19.63*	0	*20*	0	*98.2*	*85-115*	0			
Surr: Toluene-d8	*18.95*	0	*20*	0	*94.8*	*85-120*	0			

MS Sample ID: **1307451-05A MS** Units: **µg/L** Analysis Date: **7/17/2013 08:03 AM**
Client ID: **MW-4** Run ID: **VMS7_130716B** SeqNo: **2381345** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1802	100	2000	0	90.1	80-120	0			
Ethylbenzene	1714	100	2000	0	85.7	75-125	0			
m,p-Xylene	3460	200	4000	73	84.7	75-130	0			
o-Xylene	1701	100	2000	0	85	80-120	0			
Toluene	1713	100	2000	0	85.6	75-120	0			
Xylenes, Total	5161	300	6000	73	84.8	75-130	0			
Surr: 1,2-Dichloroethane-d4	*1872*	0	*2000*	0	*93.6*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*1907*	0	*2000*	0	*95.4*	*75-120*	0			
Surr: Dibromofluoromethane	*1901*	0	*2000*	0	*95*	*85-115*	0			
Surr: Toluene-d8	*1897*	0	*2000*	0	*94.8*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123688** Instrument ID **VMS7** Method: **SW8260**

MSD Sample ID: **1307451-05A MSD** Units: **µg/L** Analysis Date: **7/17/2013 08:27 AM**
Client ID: **MW-4** Run ID: **VMS7_130716B** SeqNo: **2381346** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	1775	100	2000	0	88.8	80-120	1802	1.51	30	
Ethylbenzene	1647	100	2000	0	82.4	75-125	1714	3.99	30	
m,p-Xylene	3275	200	4000	73	80	75-130	3460	5.49	30	
o-Xylene	1659	100	2000	0	83	80-120	1701	2.5	30	
Toluene	1666	100	2000	0	83.3	75-120	1713	2.78	30	
Xylenes, Total	4934	300	6000	73	81	75-130	5161	4.5	30	
Surr: 1,2-Dichloroethane-d4	*1848*	0	*2000*	0	*92.4*	*70-120*	1872	*1.29*	*30*	
Surr: 4-Bromofluorobenzene	*1877*	0	*2000*	0	*93.8*	*75-120*	1907	*1.59*	*30*	
Surr: Dibromofluoromethane	*1906*	0	*2000*	0	*95.3*	*85-115*	1901	*0.263*	*30*	
Surr: Toluene-d8	*1863*	0	*2000*	0	*93.2*	*85-120*	1897	*1.81*	*30*	

The following samples were analyzed in this batch:

1307451-01A	1307451-02A	1307451-03A
1307451-04A	1307451-05A	1307451-06A
1307451-07A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123754** Instrument ID **VMS7** Method: **SW8260**

MBLK Sample ID: **VBLKW1-130717-R123754** Units: **µg/L** Analysis Date: **7/17/2013 05:00 PM**
Client ID: Run ID: **VMS7_130717A** SeqNo: **2382425** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*19.37*	0	*20*	0	*96.8*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.4*	0	*20*	0	*97*	*75-120*	0			
Surr: Dibromofluoromethane	*19.45*	0	*20*	0	*97.2*	*85-115*	0			
Surr: Toluene-d8	*18.27*	0	*20*	0	*91.4*	*85-120*	0			

LCS Sample ID: **VLCSW1-130717-R123754** Units: **µg/L** Analysis Date: **7/17/2013 03:46 PM**
Client ID: Run ID: **VMS7_130717A** SeqNo: **2382424** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.4	1.0	20	0	97	80-120	0			
Ethylbenzene	18.57	1.0	20	0	92.8	75-125	0			
m,p-Xylene	36.36	2.0	40	0	90.9	75-130	0			
o-Xylene	18.38	1.0	20	0	91.9	80-120	0			
Toluene	18.37	1.0	20	0	91.8	75-120	0			
Xylenes, Total	54.74	3.0	60	0	91.2	75-130	0			
Surr: 1,2-Dichloroethane-d4	*18.34*	0	*20*	0	*91.7*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.3*	0	*20*	0	*96.5*	*75-120*	0			
Surr: Dibromofluoromethane	*19.59*	0	*20*	0	*98*	*85-115*	0			
Surr: Toluene-d8	*18.77*	0	*20*	0	*93.8*	*85-120*	0			

MS Sample ID: **1307437-05A MS** Units: **µg/L** Analysis Date: **7/18/2013 01:31 AM**
Client ID: Run ID: **VMS7_130717A** SeqNo: **2382447** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	110.4	5.0	100	0	110	80-120	0			
Ethylbenzene	103.3	5.0	100	0	103	75-125	0			
m,p-Xylene	202.6	10	200	0	101	75-130	0			
o-Xylene	102.6	5.0	100	0	103	80-120	0			
Toluene	103.8	5.0	100	0	104	75-120	0			
Xylenes, Total	305.3	15	300	0	102	75-130	0			
Surr: 1,2-Dichloroethane-d4	*105.6*	0	*100*	0	*106*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*108.9*	0	*100*	0	*109*	*75-120*	0			
Surr: Dibromofluoromethane	*110.9*	0	*100*	0	*111*	*85-115*	0			
Surr: Toluene-d8	*106.4*	0	*100*	0	*106*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123754** Instrument ID **VMS7** Method: **SW8260**

MSD Sample ID: **1307437-05A MSD** Units: **µg/L** Analysis Date: **7/18/2013 01:55 AM**
Client ID: Run ID: **VMS7_130717A** SeqNo: **2382448** Prep Date: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	107.4	5.0	100	0	107	80-120	110.4	2.8	30	
Ethylbenzene	102.2	5.0	100	0	102	75-125	103.3	1.12	30	
m,p-Xylene	199.4	10	200	0	99.7	75-130	202.6	1.62	30	
o-Xylene	98.8	5.0	100	0	98.8	80-120	102.6	3.82	30	
Toluene	101.4	5.0	100	0	101	75-120	103.8	2.39	30	
Xylenes, Total	298.2	15	300	0	99.4	75-130	305.3	2.35	30	
Surr: 1,2-Dichloroethane-d4	*101.4*	0	*100*	0	*101*	*70-120*	105.6	*4.01*	*30*	
Surr: 4-Bromofluorobenzene	*106.4*	0	*100*	0	*106*	*75-120*	108.9	*2.28*	*30*	
Surr: Dibromofluoromethane	*108.2*	0	*100*	0	*108*	*85-115*	110.9	*2.51*	*30*	
Surr: Toluene-d8	*104.7*	0	*100*	0	*105*	*85-120*	106.4	*1.66*	*30*	

The following samples were analyzed in this batch: 1307451-04A 1307451-05A 1307451-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123525** Instrument ID **WETCHEM** Method: **SW9040**

LCS Sample ID: **WLCSW1-071313-R123525** Units: **s.u.** Analysis Date: **7/13/2013 11:15 AM**
Client ID: Run ID: **WETCHEM_130713C** SeqNo: **2377392** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH (laboratory)	4.33	0	4.4	0	98.4	90-110	0			

LCS Sample ID: **WLCSW1-071313-R123525** Units: **s.u.** Analysis Date: **7/13/2013 11:15 AM**
Client ID: Run ID: **WETCHEM_130713C** SeqNo: **2377402** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH (laboratory)	4.33	0	4.4	0	98.4	90-110	0			

DUP Sample ID: **1307451-01C DUP** Units: **s.u.** Analysis Date: **7/13/2013 11:15 AM**
Client ID: **MW-6** Run ID: **WETCHEM_130713C** SeqNo: **2377394** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH (laboratory)	7.89	0	0	0	0	0-0	7.87	0.254	20	

The following samples were analyzed in this batch:

1307451-01C	1307451-02C	1307451-03C
1307451-04C	1307451-05C	1307451-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123527** Instrument ID **WETCHEM** Method: **A4500-NO2 B**

MBLK Sample ID: **WBLKW1-071313-R123527** Units: **mg/L** Analysis Date: **7/13/2013 01:15 PM**
Client ID: Run ID: **WETCHEM_130713D** SeqNo: **2377408** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrite	ND	0.020								

LCS Sample ID: **WLCSW1-071313-R123527** Units: **mg/L** Analysis Date: **7/13/2013 01:15 PM**
Client ID: Run ID: **WETCHEM_130713D** SeqNo: **2377409** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrite	0.2054	0.020	0.2	0	103	80-120	0			

MS Sample ID: **1307451-04C MS** Units: **mg/L** Analysis Date: **7/13/2013 01:15 PM**
Client ID: **MW-3** Run ID: **WETCHEM_130713D** SeqNo: **2377414** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrite	0.218	0.020	0.2	0.0319	93	75-125	0			

MSD Sample ID: **1307451-04C MSD** Units: **mg/L** Analysis Date: **7/13/2013 01:15 PM**
Client ID: **MW-3** Run ID: **WETCHEM_130713D** SeqNo: **2377415** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrite	0.2241	0.020	0.2	0.0319	96.1	75-125	0.218	2.76	20	

The following samples were analyzed in this batch:

1307451-01C	1307451-02C	1307451-03C
1307451-04C	1307451-05C	1307451-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123608** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK Sample ID: **WBLKW1-130715-R123608** Units: **mg/L** Analysis Date: **7/15/2013 02:02 PM**
Client ID: Run ID: **LACHAT2_130715F** SeqNo: **2378854** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate	ND	0.020								

LCS Sample ID: **WLCSW1-130715-R123608** Units: **mg/L** Analysis Date: **7/15/2013 02:02 PM**
Client ID: Run ID: **LACHAT2_130715F** SeqNo: **2378855** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate	5.287	0.020	5	0	106	80-120	0			

MS Sample ID: **1307451-02D MS** Units: **mg/L** Analysis Date: **7/15/2013 02:02 PM**
Client ID: **MW-5** Run ID: **LACHAT2_130715F** SeqNo: **2378858** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate	5.021	0.020	5	0	100	75-125	0			

MSD Sample ID: **1307451-02D MSD** Units: **mg/L** Analysis Date: **7/15/2013 02:02 PM**
Client ID: **MW-5** Run ID: **LACHAT2_130715F** SeqNo: **2378859** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate	5.092	0.020	5	0	102	75-125	5.021	1.4	20	

The following samples were analyzed in this batch:

1307451-01D	1307451-02D	1307451-03D
1307451-04D	1307451-05D	1307451-06D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123729** Instrument ID **IC3** Method: **SW9056**

MBLK Sample ID: **CCB/MBLK-R123729** Units: **mg/L** Analysis Date: **7/16/2013 03:17 PM**
Client ID: Run ID: **IC3_130716B** SeqNo: **2381519** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	ND	0.10								
Chloride	ND	1.0								
Sulfate	ND	1.0								

LCS Sample ID: **LCS-R123729** Units: **mg/L** Analysis Date: **7/16/2013 03:38 PM**
Client ID: Run ID: **IC3_130716B** SeqNo: **2381520** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.062	0.10	2	0	103	88-113	0			
Chloride	9.748	1.0	10	0	97.5	88-107	0			
Sulfate	10.18	1.0	10	0	102	85-110	0			

MS Sample ID: **1307451-03C MS** Units: **mg/L** Analysis Date: **7/16/2013 05:59 PM**
Client ID: **MW-7** Run ID: **IC3_130716B** SeqNo: **2381530** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.56	0.10	2	0.3353	111	75-125	0			

MS Sample ID: **1307451-03C MS** Units: **mg/L** Analysis Date: **7/16/2013 08:20 PM**
Client ID: **MW-7** Run ID: **IC3_130716B** SeqNo: **2381548** Prep Date: DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	56.39	4.0	10	46.95	94.4	75-125	0			O
Sulfate	44.31	4.0	10	35.05	92.6	75-125	0			

MSD Sample ID: **1307451-03C MSD** Units: **mg/L** Analysis Date: **7/16/2013 06:19 PM**
Client ID: **MW-7** Run ID: **IC3_130716B** SeqNo: **2381532** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.308	0.10	2	0.3353	98.6	75-125	2.56	10.4	20	

MSD Sample ID: **1307451-03C MSD** Units: **mg/L** Analysis Date: **7/16/2013 08:41 PM**
Client ID: **MW-7** Run ID: **IC3_130716B** SeqNo: **2381551** Prep Date: DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	56.82	4.0	10	46.95	98.7	75-125	56.39	0.766	20	O
Sulfate	44.74	4.0	10	35.05	96.8	75-125	44.31	0.965	20	

The following samples were analyzed in this batch:

1307451-01C	1307451-02C	1307451-03C
1307451-04C	1307451-05C	1307451-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1307451
Project: WPX TR 31-5-697 MW Sampling 7/11/13

QC BATCH REPORT

Batch ID: **R123764** Instrument ID **IC3** Method: **SW9056**

MBLK Sample ID: **CCB/MBLK-R123764** Units: **mg/L** Analysis Date: **7/17/2013 09:41 AM**
Client ID: Run ID: **IC3_130717A** SeqNo: **2382261** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	ND	0.10								

LCS Sample ID: **LCS-R123764** Units: **mg/L** Analysis Date: **7/17/2013 10:01 AM**
Client ID: Run ID: **IC3_130717A** SeqNo: **2382262** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	1.965	0.10	2	0	98.2	86-111	0			

MS Sample ID: **1307451-03C MS** Units: **mg/L** Analysis Date: **7/17/2013 12:23 PM**
Client ID: **MW-7** Run ID: **IC3_130717A** SeqNo: **2382269** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.313	0.10	2	0.1072	110	75-125	0			

MSD Sample ID: **1307451-03C MSD** Units: **mg/L** Analysis Date: **7/17/2013 12:43 PM**
Client ID: **MW-7** Run ID: **IC3_130717A** SeqNo: **2382270** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.007	0.10	2	0.1072	95	75-125	2.313	14.2	20	

The following samples were analyzed in this batch:

1307451-01C	1307451-02C	1307451-03C
1307451-04C	1307451-05C	1307451-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1307451

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

PROJECT NAME	WPX TR 31-5 Monitor Well Sampling	SAMPLER	Reed Wold
PROJECT No.		SITE ID	TR 31-5-697
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance	BILL TO COMPANY	WPX
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney
ADDRESS	2385 F 1/2 Rd	ADDRESS	1058 Co Rd 215
CITY / STATE / ZIP	Grand Junction, CO 81506	CITY / STATE / ZIP	Parachure CO 81635
PHONE	970-243-3271	PHONE	970-683-2295
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com rwold@hrlcomp.com	E-MAIL	Karolina.blaney@wpxenergy.com

DATE 7/12/2013

TURNAROUND 5 day

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	GRO	DRO	Semi Vols PAH	Disolved Metals	Anions Cl, F, Br, SO4, HCO3
1	~~MW-6~~ MW	W	7/11/2013	13:05	8	8,1		X	X	X	X	X	X
2	MW-5	W	7/11/2013	13:30	8	8,1		X	X	X	X	X	X
3	MW-7	W	7/11/2013	13:15	8	8,1		X	X	X	X	X	X
4	MW-3	W	7/11/2013	12:20	8	8,1		X	X	X	X	X	X
5	MW-4	W	7/11/2013	14:30	8	8,1		X	X	X	X	X	X
6	MW-2	W	7/11/2013	14:00	8	8,1		X	X	X	X	X	X
7	Trip Blank												

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: 3.4°c

QC PACKAGE (check below)	
X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY			7/12/13	1030
RECEIVED BY			7-12-13	1030
RELINQUISHED BY			7-12-13	1100
RECEIVED BY		Diane F Shaw	7/13/13	0945
RELINQUISHED BY				
RECEIVED BY				

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **13-Jul-13 09:45**

Work Order: **1307451** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 13-Jul-13 (Date) Reviewed by: Ann Preston (eSignature) 15-Jul-13 (Date)

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.4 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/13/2013 11:15:19 AM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (970) 424-4749
Lab Hub, LLC

127 E First Street

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J13111302120326

SHIP TO: (616) 399-6070

BILL RECIPIENT

Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

Ship Date: 12JUL13
ActWgt: 70.0 LB
CAD: 10392349/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code

Ref # 1001-071213-1
Invoice #
PO #
Dept #

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 0201 7962 1876 8178

X0 GRRA

49424
MI-US
GRR

518G1/AA04/S3AE

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Lab Hub LLC. Custody seal

Date 7-7-13

Time: 4:[illegible]

05-Aug-2013

Mark Mumby
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX TR 31-5 Monitor Well Samples 7/26/13** Work Order: **13071061**

Dear Mark,

ALS Environmental received 1 sample on 27-Jul-2013 10:45 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 21.

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

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN 532786

Report of Laboratory Analysis

ALS Group USA, Corp

Date: 05-Aug-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5 Monitor Well Samples 7/26/13
Work Order: **13071061**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
13071061-01	MW 1	Water		7/26/2013 13:30	7/27/2013 10:45	☐

ALS Group USA, Corp

Date: 05-Aug-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5 Monitor Well Samples 7/26/13
Work Order: 13071061

Case Narrative

Batch R124422 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

ALS Group USA, Corp

Date: 05-Aug-13

Client: HRL Compliance Solutions
Project: WPX TR 31-5 Monitor Well Samples 7/26/13
WorkOrder: **13071061**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group USA, Corp

Date: *05-Aug-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 Monitor Well Samples 7/26/13 **Work Order:** 13071061
Sample ID: MW 1 **Lab ID:** 13071061-01
Collection Date: 7/26/2013 01:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **7/29/2013**	Analyst: **RD**
DRO (C10-C28)	ND		0.10	mg/L	1	7/30/2013 02:16 AM
Surr: 4-Terphenyl-d14	*59.0*		*21-90*	*%REC*	1	7/30/2013 02:16 AM
GASOLINE RANGE ORGANICS BY GC-FID			**SW8015**			Analyst: **CW**
GRO (C6-C10)	ND		0.20	mg/L	1	7/29/2013 02:05 PM
Surr: Toluene-d8	*112*		*70-130*	*%REC*	1	7/29/2013 02:05 PM
METALS BY ICP-MS (DISSOLVED)			**SW6020A**			Analyst: **RH**
Calcium	**76**		**0.50**	**mg/L**	1	7/31/2013 11:04 PM
Iron	ND		0.080	mg/L	1	7/31/2013 11:04 PM
Magnesium	**38**		**0.20**	**mg/L**	1	7/31/2013 11:04 PM
Manganese	**0.042**		**0.0050**	**mg/L**	1	7/31/2013 11:04 PM
Potassium	**0.73**		**0.20**	**mg/L**	1	7/31/2013 11:04 PM
Sodium	**56**		**0.20**	**mg/L**	1	7/31/2013 11:04 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270**		Prep Date: **7/29/2013**	Analyst: **RM**
1-Methylnaphthalene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
2-Chloronaphthalene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
2-Methylnaphthalene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Acenaphthene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Acenaphthylene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Anthracene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Benzo(a)anthracene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Benzo(a)pyrene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Benzo(b)fluoranthene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Benzo(g,h,i)perylene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Benzo(k)fluoranthene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Chrysene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Fluoranthene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Fluorene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Indeno(1,2,3-cd)pyrene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Naphthalene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Phenanthrene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Pyrene	ND		5.0	µg/L	1	8/1/2013 10:05 PM
Surr: 2-Fluorobiphenyl	*56.8*		*20-140*	*%REC*	1	8/1/2013 10:05 PM
Surr: 4-Terphenyl-d14	*43.2*		*22-172*	*%REC*	1	8/1/2013 10:05 PM
Surr: Nitrobenzene-d5	*47.3*		*8-140*	*%REC*	1	8/1/2013 10:05 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	ND		1.0	µg/L	1	8/1/2013 11:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *05-Aug-13*

Client: HRL Compliance Solutions
Project: WPX TR 31-5 Monitor Well Samples 7/26/13 **Work Order:** 13071061
Sample ID: MW 1 **Lab ID:** 13071061-01
Collection Date: 7/26/2013 01:30 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethylbenzene	ND		1.0	µg/L	1	8/1/2013 11:15 PM
m,p-Xylene	ND		2.0	µg/L	1	8/1/2013 11:15 PM
o-Xylene	ND		1.0	µg/L	1	8/1/2013 11:15 PM
Toluene	ND		1.0	µg/L	1	8/1/2013 11:15 PM
Xylenes, Total	ND		3.0	µg/L	1	8/1/2013 11:15 PM
Surr: 1,2-Dichloroethane-d4	*99.0*		*70-120*	*%REC*	1	8/1/2013 11:15 PM
Surr: 4-Bromofluorobenzene	*105*		*75-120*	*%REC*	1	8/1/2013 11:15 PM
Surr: Dibromofluoromethane	*98.2*		*85-115*	*%REC*	1	8/1/2013 11:15 PM
Surr: Toluene-d8	*98.8*		*85-120*	*%REC*	1	8/1/2013 11:15 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Bromide	**0.33**		**0.10**	**mg/L**	1	7/30/2013 03:27 PM
Chloride	**48**		**10**	**mg/L**	10	7/30/2013 06:49 PM
Fluoride	**0.13**		**0.10**	**mg/L**	1	7/31/2013 10:30 AM
Sulfate	**120**		**10**	**mg/L**	10	7/30/2013 06:49 PM
NITROGEN, NITRATE-NITRITE			**E353.2 R2.0**			Analyst: **JJG**
Nitrogen, Nitrate-Nitrite	**0.94**		**0.020**	**mg/L**	1	7/31/2013 12:13 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

QC BATCH REPORT

Batch ID: **50088** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKW1-50088-50088** Units: **mg/L** Analysis Date: **7/29/2013 04:46 PM**

Client ID: Run ID: **GC8_130729A** SeqNo: **2395085** Prep Date: **7/29/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
Surr: 4-Terphenyl-d14	*0.0669*	0	*0.1143*	0	*58.5*	*21-90*	0			

LCS Sample ID: **DLCSW1-50088-50088** Units: **mg/L** Analysis Date: **7/29/2013 05:17 PM**

Client ID: Run ID: **GC8_130729A** SeqNo: **2395086** Prep Date: **7/29/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	5.909	0.10	11.43	0	51.7	44-116	0			
Surr: 4-Terphenyl-d14	*0.07211*	0	*0.1143*	0	*63.1*	*21-90*	0			

MS Sample ID: **13071043-02A MS** Units: **mg/L** Analysis Date: **7/29/2013 05:47 PM**

Client ID: Run ID: **GC8_130729A** SeqNo: **2395087** Prep Date: **7/29/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	20.47	0.35	40	0	51.2	44-116	0			
Surr: 4-Terphenyl-d14	*0.2578*	0	*0.4*	0	*64.5*	*21-90*	0			

MSD Sample ID: **13071043-02A MSD** Units: **mg/L** Analysis Date: **7/29/2013 06:17 PM**

Client ID: Run ID: **GC8_130729A** SeqNo: **2395088** Prep Date: **7/29/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	22.22	0.35	40	0	55.6	44-116	20.47	8.22	30	
Surr: 4-Terphenyl-d14	*0.2682*	0	*0.4*	0	*67*	*21-90*	0.2578	*3.92*	*30*	

The following samples were analyzed in this batch: 13071061-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **R124315** Instrument ID **GC9** Method: **SW8015**

MBLK Sample ID: **GBLK1-130729-R124315** Units: **µg/L** Analysis Date: **7/29/2013 10:46 AM**
Client ID: Run ID: **GC9_130729A** SeqNo: **2394888** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
Surr: Toluene-d8	*111.3*	0	*100*	0	*111*	*70-130*	0			

LCS Sample ID: **GLCS1-130729-R124315** Units: **µg/L** Analysis Date: **7/29/2013 10:21 AM**
Client ID: Run ID: **GC9_130729A** SeqNo: **2394887** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	8209	200	10000	0	82.1	70-130	0			
Surr: Toluene-d8	*106.1*	0	*100*	0	*106*	*70-130*	0			

MS Sample ID: **13071051-03A MS** Units: **µg/L** Analysis Date: **7/29/2013 07:30 PM**
Client ID: Run ID: **GC9_130729A** SeqNo: **2394895** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	10560	200	10000	0	106	70-130	0			
Surr: Toluene-d8	*107.9*	0	*100*	0	*108*	*70-130*	0			

MSD Sample ID: **13071051-03A MSD** Units: **µg/L** Analysis Date: **7/29/2013 07:55 PM**
Client ID: Run ID: **GC9_130729A** SeqNo: **2394896** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	10300	200	10000	0	103	70-130	10560	2.49	30	
Surr: Toluene-d8	*114.5*	0	*100*	0	*114*	*70-130*	107.9	*5.9*	*30*	

The following samples were analyzed in this batch: 13071061-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **R124422** Instrument ID **ICPMS2** Method: **SW6020A** **(Dissolve)**

MS Sample ID: **1307971-01BMS** Units: **mg/L** Analysis Date: **7/31/2013 10:10 PM**
Client ID: Run ID: **ICPMS2_130731A** SeqNo: **2398259** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	142.8	0.50	10	137.2	56	75-125	0			SO
Iron	9.766	0.080	10	0.1581	96.1	75-125	0			
Magnesium	93.15	0.20	10	85.79	73.6	75-125	0			SO
Manganese	0.0977	0.0050	0.1	0.003824	93.9	75-125	0			
Potassium	13.55	0.20	10	3.825	97.2	75-125	0			

MSD Sample ID: **1307971-01BMSD** Units: **mg/L** Analysis Date: **7/31/2013 10:15 PM**
Client ID: Run ID: **ICPMS2_130731A** SeqNo: **2398260** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	143.1	0.50	10	137.2	59	75-125	142.8	0.21	20	SO
Iron	9.897	0.080	10	0.1581	97.4	75-125	9.766	1.33	20	
Magnesium	94.64	0.20	10	85.79	88.5	75-125	93.15	1.59	20	O
Manganese	0.09931	0.0050	0.1	0.003824	95.5	75-125	0.0977	1.63	20	
Potassium	13.78	0.20	10	3.825	99.6	75-125	13.55	1.68	20	

The following samples were analyzed in this batch: 13071061-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **50078** Instrument ID **SVMS6** Method: **SW8270**

MBLK Sample ID: **SBLKW1-50078-50078** Units: **µg/L** Analysis Date: **8/1/2013 02:34 PM**
Client ID: Run ID: **SVMS6_130801A** SeqNo: **2400402** Prep Date: **7/29/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	5.0								
2-Chloronaphthalene	ND	5.0								
2-Methylnaphthalene	ND	5.0								
Acenaphthene	ND	5.0								
Acenaphthylene	ND	5.0								
Anthracene	ND	5.0								
Benzo(a)anthracene	ND	5.0								
Benzo(a)pyrene	ND	5.0								
Benzo(b)fluoranthene	ND	5.0								
Benzo(g,h,i)perylene	ND	5.0								
Benzo(k)fluoranthene	ND	5.0								
Chrysene	ND	5.0								
Dibenzo(a,h)anthracene	ND	5.0								
Fluoranthene	ND	5.0								
Fluorene	ND	5.0								
Indeno(1,2,3-cd)pyrene	ND	5.0								
Naphthalene	ND	5.0								
Phenanthrene	ND	5.0								
Pyrene	ND	5.0								
Surr: 2-Fluorobiphenyl	*81.69*	0	*114*	0	*71.7*	*20-140*	0			
Surr: 4-Terphenyl-d14	*53.12*	0	*114*	0	*46.6*	*22-172*	0			
Surr: Nitrobenzene-d5	*63.68*	0	*114*	0	*55.9*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **50078** Instrument ID **SVMS6** Method: **SW8270**

LCS Sample ID: **SLCSW1-50078-50078** Units: **µg/L** Analysis Date: **8/1/2013 03:27 PM**
Client ID: Run ID: **SVMS6_130801A** SeqNo: **2400405** Prep Date: **7/29/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	39.27	5.0	45.7	0	85.9	50-140	0			
2-Chloronaphthalene	39.04	5.0	45.7	0	85.4	50-140	0			
2-Methylnaphthalene	38.99	5.0	45.7	0	85.3	50-140	0			
Acenaphthene	39.38	5.0	45.7	0	86.2	60-140	0			
Acenaphthylene	45.17	5.0	45.7	0	98.8	60-140	0			
Anthracene	52.55	5.0	45.7	0	115	60-140	0			
Benzo(a)anthracene	54.83	5.0	45.7	0	120	60-140	0			
Benzo(a)pyrene	53.39	5.0	45.7	0	117	60-140	0			
Benzo(b)fluoranthene	56.69	5.0	45.7	0	124	60-140	0			
Benzo(g,h,i)perylene	53.99	5.0	45.7	0	118	60-140	0			
Benzo(k)fluoranthene	50.79	5.0	45.7	0	111	60-140	0			
Chrysene	53.39	5.0	45.7	0	117	60-140	0			
Dibenzo(a,h)anthracene	54.63	5.0	45.7	0	120	60-140	0			
Fluoranthene	51.82	5.0	45.7	0	113	60-140	0			
Fluorene	45.14	5.0	45.7	0	98.8	60-140	0			
Indeno(1,2,3-cd)pyrene	54.67	5.0	45.7	0	120	60-140	0			
Naphthalene	38.49	5.0	45.7	0	84.2	40-140	0			
Phenanthrene	51.77	5.0	45.7	0	113	60-140	0			
Pyrene	54.58	5.0	45.7	0	119	60-140	0			
Surr: 2-Fluorobiphenyl	*49.37*	0	*114*	0	*43.3*	*20-140*	0			
Surr: 4-Terphenyl-d14	*50.86*	0	*114*	0	*44.6*	*22-172*	0			
Surr: Nitrobenzene-d5	*48.02*	0	*114*	0	*42.1*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **50078** Instrument ID **SVMS6** Method: **SW8270**

MS Sample ID: **13071043-02A MS** Units: **µg/L** Analysis Date: **8/1/2013 04:47 PM**
Client ID: Run ID: **SVMS6_130801A** SeqNo: **2400410** Prep Date: **7/29/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	80.64	18	160	0	50.4	50-140	0			
2-Chloronaphthalene	82.72	18	160	0	51.7	50-140	0			
2-Methylnaphthalene	83.76	18	160	0	52.4	50-140	0			
Acenaphthene	103.5	18	160	0	64.7	60-140	0			
Acenaphthylene	114.6	18	160	0	71.7	60-140	0			
Anthracene	167.2	18	160	0	105	60-140	0			
Benzo(a)anthracene	167.2	18	160	0	105	60-140	0			
Benzo(a)pyrene	167.4	18	160	0	105	60-140	0			
Benzo(b)fluoranthene	169.7	18	160	0	106	60-140	0			
Benzo(g,h,i)perylene	169.5	18	160	0	106	60-140	0			
Benzo(k)fluoranthene	167.2	18	160	0	105	60-140	0			
Chrysene	168.9	18	160	0	106	60-140	0			
Dibenzo(a,h)anthracene	170.2	18	160	0	106	60-140	0			
Fluoranthene	164.4	18	160	0	103	60-140	0			
Fluorene	138.2	18	160	0	86.4	60-140	0			
Indeno(1,2,3-cd)pyrene	170.6	18	160	0	107	60-140	0			
Naphthalene	136.2	18	160	0	85.2	40-140	0			
Phenanthrene	163.5	18	160	0	102	60-140	0			
Pyrene	168.8	18	160	0	106	60-140	0			
Surr: 2-Fluorobiphenyl	*159.1*	0	*399*	0	*39.9*	*20-140*	0			
Surr: 4-Terphenyl-d14	*168.6*	0	*399*	0	*42.2*	*22-172*	0			
Surr: Nitrobenzene-d5	*156.2*	0	*399*	0	*39.2*	*8-140*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **50078** Instrument ID **SVMS6** Method: **SW8270**

MSD Sample ID: **13071043-02A MSD** Units: **µg/L** Analysis Date: **8/1/2013 05:13 PM**
Client ID: Run ID: **SVMS6_130801A** SeqNo: **2400412** Prep Date: **7/29/2013** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	87.04	18	160	0	54.4	50-140	80.64	7.63	30	
2-Chloronaphthalene	84.64	18	160	0	52.9	50-140	82.72	2.29	30	
2-Methylnaphthalene	80.32	18	160	0	50.2	50-140	83.76	4.19	30	
Acenaphthene	99.52	18	160	0	62.2	60-140	103.5	3.94	30	
Acenaphthylene	112.6	18	160	0	70.4	60-140	114.6	1.83	30	
Anthracene	170	18	160	0	106	60-140	167.2	1.66	30	
Benzo(a)anthracene	172.4	18	160	0	108	60-140	167.2	3.06	30	
Benzo(a)pyrene	170.5	18	160	0	107	60-140	167.4	1.8	30	
Benzo(b)fluoranthene	169.6	18	160	0	106	60-140	169.7	0.0472	30	
Benzo(g,h,i)perylene	171.8	18	160	0	107	60-140	169.5	1.36	30	
Benzo(k)fluoranthene	173	18	160	0	108	60-140	167.2	3.39	30	
Chrysene	171.9	18	160	0	107	60-140	168.9	1.78	30	
Dibenzo(a,h)anthracene	172.8	18	160	0	108	60-140	170.2	1.49	30	
Fluoranthene	168.2	18	160	0	105	60-140	164.4	2.26	30	
Fluorene	143.4	18	160	0	89.7	60-140	138.2	3.69	30	
Indeno(1,2,3-cd)pyrene	173.4	18	160	0	108	60-140	170.6	1.63	30	
Naphthalene	134.5	18	160	0	84.1	40-140	136.2	1.3	30	
Phenanthrene	167.8	18	160	0	105	60-140	163.5	2.56	30	
Pyrene	172.8	18	160	0	108	60-140	168.8	2.34	30	
Surr: 2-Fluorobiphenyl	*156.6*	0	*399*	0	*39.3*	*20-140*	159.1	*1.57*	*30*	
Surr: 4-Terphenyl-d14	*169.9*	0	*399*	0	*42.6*	*22-172*	168.6	*0.804*	*30*	
Surr: Nitrobenzene-d5	*137.4*	0	*399*	0	*34.4*	*8-140*	156.2	*12.9*	*30*	

The following samples were analyzed in this batch: 13071061-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **R124519** Instrument ID **VMS8** Method: **SW8260**

MBLK Sample ID: **VBLKW1-130801-R124519** Units: **µg/L** Analysis Date: **8/1/2013 05:30 PM**
Client ID: Run ID: **VMS8_130801A** SeqNo: **2400042** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*19.63*	0	*20*	0	*98.2*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.94*	0	*20*	0	*105*	*75-120*	0			
Surr: Dibromofluoromethane	*18.99*	0	*20*	0	*95*	*85-115*	0			
Surr: Toluene-d8	*19.69*	0	*20*	0	*98.4*	*85-120*	0			

LCS Sample ID: **VLCSW1-130801-R124519** Units: **µg/L** Analysis Date: **8/1/2013 04:16 PM**
Client ID: Run ID: **VMS8_130801A** SeqNo: **2400041** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21	1.0	20	0	105	80-120	0			
Ethylbenzene	22.22	1.0	20	0	111	75-125	0			
m,p-Xylene	43.84	2.0	40	0	110	75-130	0			
o-Xylene	21.86	1.0	20	0	109	80-120	0			
Toluene	21.88	1.0	20	0	109	75-120	0			
Xylenes, Total	65.7	3.0	60	0	110	75-130	0			
Surr: 1,2-Dichloroethane-d4	*21.05*	0	*20*	0	*105*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.17*	0	*20*	0	*101*	*75-120*	0			
Surr: Dibromofluoromethane	*21.25*	0	*20*	0	*106*	*85-115*	0			
Surr: Toluene-d8	*21.33*	0	*20*	0	*107*	*85-120*	0			

MS Sample ID: **1307897-25A MS** Units: **µg/L** Analysis Date: **8/2/2013 02:07 AM**
Client ID: Run ID: **VMS8_130801A** SeqNo: **2400048** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.02	1.0	20	0	100	80-120	0			
Ethylbenzene	21.76	1.0	20	0	109	75-125	0			
m,p-Xylene	42.64	2.0	40	0	107	75-130	0			
o-Xylene	21.73	1.0	20	0	109	80-120	0			
Toluene	20.32	1.0	20	0	102	75-120	0			
Xylenes, Total	64.37	3.0	60	0	107	75-130	0			
Surr: 1,2-Dichloroethane-d4	*20.6*	0	*20*	0	*103*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*21*	0	*20*	0	*105*	*75-120*	0			
Surr: Dibromofluoromethane	*20.58*	0	*20*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*19.94*	0	*20*	0	*99.7*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **R124519** Instrument ID **VMS8** Method: **SW8260**

MSD	Sample ID: **1307897-25A MSD**				Units: **µg/L**			Analysis Date: **8/2/2013 02:31 AM**		
Client ID:		Run ID: **VMS8_130801A**			SeqNo: **2400049**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.82	1.0	20	0	99.1	80-120	20.02	1	30	
Ethylbenzene	21.11	1.0	20	0	106	75-125	21.76	3.03	30	
m,p-Xylene	41.52	2.0	40	0	104	75-130	42.64	2.66	30	
o-Xylene	20.85	1.0	20	0	104	80-120	21.73	4.13	30	
Toluene	19.97	1.0	20	0	99.8	75-120	20.32	1.74	30	
Xylenes, Total	62.37	3.0	60	0	104	75-130	64.37	3.16	30	
Surr: 1,2-Dichloroethane-d4	*20.05*	0	*20*	0	*100*	*70-120*	20.6	*2.71*	*30*	
Surr: 4-Bromofluorobenzene	*19.96*	0	*20*	0	*99.8*	*75-120*	21	*5.08*	*30*	
Surr: Dibromofluoromethane	*20.01*	0	*20*	0	*100*	*85-115*	20.58	*2.81*	*30*	
Surr: Toluene-d8	*19.6*	0	*20*	0	*98*	*85-120*	19.94	*1.72*	*30*	

The following samples were analyzed in this batch: 13071061-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **R124419** Instrument ID **IC3** Method: **SW9056**

MBLK Sample ID: **CCB/MBLK-R124419** Units: **mg/L** Analysis Date: **7/30/2013 02:21 PM**
Client ID: Run ID: **IC3_130730B** SeqNo: **2397477** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	ND	0.10								
Chloride	0.1901	1.0								J
Sulfate	ND	1.0								

LCS Sample ID: **LCS-R124419** Units: **mg/L** Analysis Date: **7/30/2013 02:41 PM**
Client ID: Run ID: **IC3_130730B** SeqNo: **2397478** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.115	0.10	2	0	106	88-113	0			
Chloride	10.16	1.0	10	0	102	88-107	0			
Sulfate	9.62	1.0	10	0	96.2	85-110	0			

MS Sample ID: **13071064-03C MS** Units: **mg/L** Analysis Date: **7/30/2013 05:08 PM**
Client ID: Run ID: **IC3_130730B** SeqNo: **2397485** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.296	0.10	2	0	115	75-125	0			
Chloride	10.41	1.0	10	0.4629	99.4	75-125	0			
Sulfate	11.99	1.0	10	1.626	104	75-125	0			

MSD Sample ID: **13071064-03C MSD** Units: **mg/L** Analysis Date: **7/30/2013 05:29 PM**
Client ID: Run ID: **IC3_130730B** SeqNo: **2397486** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromide	2.031	0.10	2	0	102	75-125	2.296	12.2	20	
Chloride	10.2	1.0	10	0.4629	97.4	75-125	10.41	1.96	20	
Sulfate	11.84	1.0	10	1.626	102	75-125	11.99	1.3	20	

The following samples were analyzed in this batch: 13071061-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **R124437** Instrument ID **LACHAT2** Method: **E353.2 R2.0**

MBLK Sample ID: **WBLKW1-130731-R124437** Units: **mg/L** Analysis Date: **7/31/2013 12:13 PM**
Client ID: Run ID: **LACHAT2_130731E** SeqNo: **2397900** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	ND	0.020								

LCS Sample ID: **WLCSW1-130731-R124437** Units: **mg/L** Analysis Date: **7/31/2013 12:13 PM**
Client ID: Run ID: **LACHAT2_130731E** SeqNo: **2397901** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	4.702	0.020	5	0	94	80-120	0			

MS Sample ID: **13071087-01B MS** Units: **mg/L** Analysis Date: **7/31/2013 12:13 PM**
Client ID: Run ID: **LACHAT2_130731E** SeqNo: **2397904** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	6.799	0.020	5	2.224	91.5	75-125	0			

MSD Sample ID: **13071087-01B MSD** Units: **mg/L** Analysis Date: **7/31/2013 12:13 PM**
Client ID: Run ID: **LACHAT2_130731E** SeqNo: **2397905** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate-Nitrite	6.777	0.020	5	2.224	91.1	75-125	6.799	0.324	20	

The following samples were analyzed in this batch: 13071061-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 13071061
Project: WPX TR 31-5 Monitor Well Samples 7/26/13

QC BATCH REPORT

Batch ID: **R124459** Instrument ID **IC3** Method: **SW9056**

MBLK Sample ID: **CCB/MBLK-R124459** Units: **mg/L** Analysis Date: **7/31/2013 09:11 AM**
Client ID: Run ID: **IC3_130731A** SeqNo: **2398447** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	ND	0.10								

LCS Sample ID: **LCS-R124459** Units: **mg/L** Analysis Date: **7/31/2013 09:31 AM**
Client ID: Run ID: **IC3_130731A** SeqNo: **2398448** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	1.972	0.10	2	0	98.6	86-111	0			

MS Sample ID: **13071064-03C MS** Units: **mg/L** Analysis Date: **7/31/2013 11:31 AM**
Client ID: Run ID: **IC3_130731A** SeqNo: **2398453** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.371	0.10	2	0.1079	113	75-125	0			

MSD Sample ID: **13071064-03C MSD** Units: **mg/L** Analysis Date: **7/31/2013 11:51 AM**
Client ID: Run ID: **IC3_130731A** SeqNo: **2398454** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.14	0.10	2	0.1079	102	75-125	2.371	10.2	20	

The following samples were analyzed in this batch: 13071061-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER # 1307101

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

PROJECT NAME	WPX TR 31-5 Monitor Well Samples	SAMPLER	Dan Pinegar
PROJECT No.		SITE ID	TR 31-5 Well Pad
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	HRL Compliance Solutions, Inc.	BILL TO COMPANY	WPX
SEND REPORT TO	Mark Mumby	INVOICE ATTN TO	Karolina Blaney
ADDRESS	2385 F 1/2 Rd.	ADDRESS	1058 County Rd. 215
CITY / STATE / ZIP	Grand Junction, CO. 81505	CITY / STATE / ZIP	Parachute CO, 81635
PHONE	970-243-3271	PHONE	970-285-9377
FAX	970-243-3280	FAX	
E-MAIL	mmumby@hrlcomp.com	E-MAIL	karolina.blaney@wpx.com

DATE 7/26/2013

TURNAROUND Std. 5 days

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	BTEX	GRO	DRO	Semi Vols -PAH	Dissolved Metals -Cations	Anions
01	MW 1	WATER	7/26/2013	1:30PM	9	8		X	X	X	X	X	X

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)	
X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Dan Pinegar	7/26/2013	14:25
RECEIVED BY			7-26	14:30
RELINQUISHED BY			7-26	1445
RECEIVED BY		Ashley Bem	7/27	1045
RELINQUISHED BY				
RECEIVED BY				

A.C

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **27-Jul-13 10:45**

Work Order: **13071061** Received by: **AB**

Checklist completed by Ashley Beard eSignature 27-Jul-13 Date Reviewed by: Ann Preston eSignature 29-Jul-13 Date

Matrices: water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.0		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	7/27/2013 2:13:52 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

From: (970) 424-4749
Lab Hub, LLC
127 E First Street
PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J13111302120326

Ship Date: 26JUL13
ActWgt: 64.0 LB
CAD: 103923490/INET3370

Dims: 25 X 14 X 15 IN

Delivery Address Bar Code

Ref # 1001-072613-2
Invoice #
PO #
Dept #

SHIP TO: (616) 399-6070
Sample recieving
ALS Holland
3352 128TH AVE

HOLLAND, MI 49424

BILL RECIPIENT

SATURDAY 12:00P
PRIORITY OVERNIGHT

TRK# 0201 7963 3041 4070

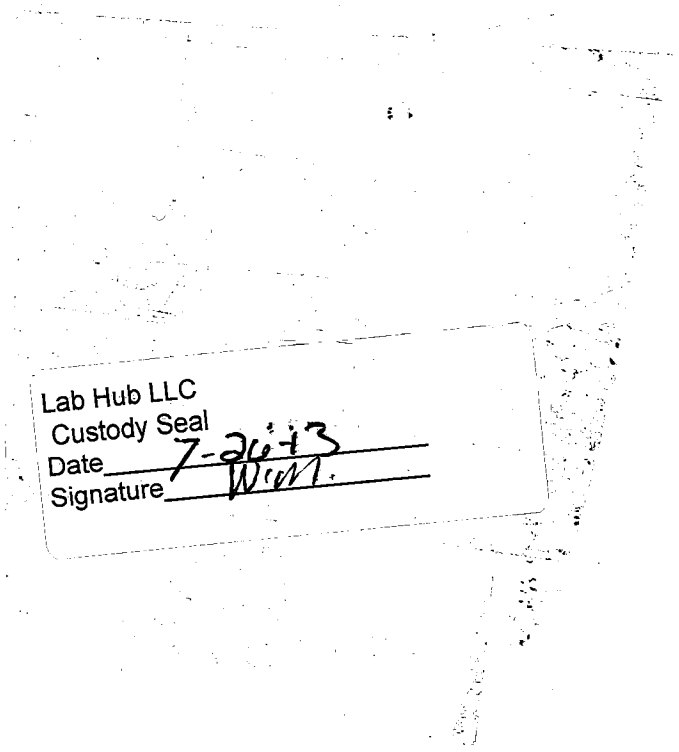
X0 GRRA

49424
MI-US
GRR

518G1/AA04/3AB

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation,unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



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