

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
GW01	3/27/2008	34	320	24	380	4.0	NA
MW01	4/25/2008	22	2.1	3.7	38	0.65	97.25
	7/2/2008	24	<1.0	33	560	0.40	97.50
	10/2/2008	1.6	<1.0	9.4	120	0.60	97.30
	1/28/2009	<1.0	<1.0	<1.0	<1.0	2.87	95.03
	4/22/2009	<1.0	<1.0	<1.0	2.2	1.12	96.78
	7/23/2009	2.2	<1.0	16	30	0.14	97.76
	10/6/2009	2.5	<1.0	<1.0	<1.0	0.24	97.66
	1/11/2010	<1.0	<1.0	<1.0	<1.0	1.87	96.03
	4/30/2010	<1.0	<1.0	<1.0	<1.0	0.71	97.19
	7/12/2010	3.7	<1.0	14	75	0.30	98.18
	10/25/2010	<1.0	<1.0	<1.0	<1.0	0.31	97.59
	1/18/2011	<1.0	<1.0	<1.0	3.6	2.30	95.60
	4/21/2011	<1.0	<1.0	<1.0	<1.0	0.63	97.27
	7/15/2011	8.0	<1.0	1.1	<1.0	0.29	97.61
	10/10/2011	2.0	<1.0	<1.0	<1.0	0.29	97.61
	1/31/2012	<1.0	<1.0	<1.0	<1.0	0.91	96.99
	4/18/2012	<1.0	<1.0	<1.0	<1.0	0.62	97.28
	7/16/2012	<1.0	<1.0	<1.0	<1.0	0.59	97.31
	10/15/2012	<1.0	<1.0	<1.0	<1.0	0.50	97.40
	1/17/2013	<1.0	<1.0	<1.0	<1.0	PVC Blocked	NA
	4/19/2013	<1.0	<1.0	<1.0	<1.0	1.20	96.70
	7/25/2013	1.2	<1.0	<1.0	<1.0	0.07	97.83
	10/2/2013	<1.0	<1.0	<1.0	<1.0	0.45	97.35
	11/13/2013	Surveyed - Not Sampled				0.77	97.12
	1/28/2014	Frozen - Not Sampled				Frozen	NA
	4/14/2014	<1.0	<1.0	<1.0	<1.0	0.49	97.40
	7/7/2014	2490	140	37.9	227	0.00	97.89
	9/9/2014	1900	<1.0	37.1	59.0	0.25	97.64
	10/20/2014	1930	<1.0	29.2	41.9	0.73	97.16
	1/14/2015	1710	<20.0	<20.0	<20.0	2.09	95.80
	4/6/2015	717	<20.0	<20.0	<20.0	1.33	96.56
	7/16/2015	427	<4.0	12.9	15.0	NM	NA
	10/20/2015	183	<10.0	<10.0	<10.0	0.70	97.19
	1/4/2016	274	<4.0	<4.0	<4.0	NM	NA
	3/8/2016	Surveyed - Not Sampled				1.68	96.15
	4/22/2016	1070	<1.0	2.7	<1.0	0.92	96.91
	7/18/2016	353	<10.0	<10.0	<10.0	0.08	97.75
	10/10/2016	192	<4.00	<4.00	<4.00	0.61	97.28
	1/18/2017	4.96	<4.00	<4.00	<4.00	3.13	94.76



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	4/19/2017	7.44	<4.00	<4.00	<4.00	3.24	94.65
	7/19/2017	1,000	<1.00	5.88	6.80	3.51	94.38
	10/23/2017	253	<10.0	<10.0	<10.0	0.95	96.94
	1/8/2018	6.98	<1.00	<1.00	<1.00	2.72	95.17
	4/26/2018	108	<1.00	<1.00	<1.00	0.68	97.21
<hr/>							
MW02	4/25/2008	46	6.9	160	770	1.03	97.51
	7/2/2008	1.6	<1.0	6.4	99	0.63	97.91
	10/2/2008	4.5	<1.0	9.4	11	0.37	98.17
	1/28/2009	12	<1.0	1.3	2.7	3.25	95.29
	4/22/2009	2.6	<1.0	<1.0	13	1.43	97.11
	7/23/2009	5.5	<1.0	<1.0	<1.0	0.12	98.42
	10/6/2009	1.3	<1.0	<1.0	<1.0	1.82	97.72
	1/11/2010	11	<1.0	<1.0	<1.0	2.23	96.31
	4/30/2010	6.6	<1.0	<1.0	<1.0	1.25	97.29
	7/12/2010	5.4	<1.0	<1.0	<1.0	0.09	98.45
	10/25/2010	1.7	<1.0	<1.0	<1.0	0.93	97.61
	1/18/2011	10	<1.0	7.7	53	2.56	95.98
	4/21/2011	4.8	<1.0	6.6	61	0.86	97.68
	7/15/2011	4.9	<1.0	1.0	6.6	0.70	97.84
	10/10/2011	<1.0	<1.0	<1.0	<1.0	0.74	97.80
	1/31/2012	<1.0	<1.0	<1.0	<1.0	0.90	97.64
	4/18/2012	12	<1.0	2.9	9.3	1.10	97.44
	7/16/2012	1.6	<1.0	<1.0	<1.0	1.08	97.46
	10/15/2012	1.2	<1.0	<1.0	4.0	0.90	97.64
	1/17/2013	3.9	<1.0	20	36	2.78	95.76
	4/19/2013	1.6	<1.0	<1.0	<1.0	1.37	97.17
	7/25/2013	<1.0	<1.0	<1.0	<1.0	0.84	97.70
	10/2/2013	2.2	<1.0	<1.0	<1.0	0.90	97.64
	11/13/2013	Surveyed - Not Sampled				1.13	97.05
	1/28/2014	<4.0	<4.0	28.8	<4.0	Frozen	NA
	4/14/2014	<1.0	<1.0	5.8	<1.0	0.74	97.44
	7/7/2014	3.6	<1.0	32.8	34.0	0.12	98.06
	10/20/2014	<1.0	<1.0	4.6	<1.0	0.95	97.23
	1/14/2015	5.7	<1.0	<1.0	<1.0	2.31	95.87
	4/6/2015	4.2	<1.0	18.1	<1.0	1.57	96.61
	7/16/2015	11.4	<1.0	1.8	5.6	NM	NA
	10/20/2015	3.2	<1.0	4.4	<1.0	0.76	97.56
	1/4/2016	<1.0	<1.0	<1.0	<1.0	NM	NA
	3/8/2016	Surveyed - Not Sampled				1.93	96.25
	4/22/2016	1.4	<1.0	7.2	<1.0	1.26	96.92



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	7/18/2016	<1.00	<1.00	2.01	<1.00	0.05	98.13
	10/10/2016	<1.00	<1.00	<1.00	<1.00	1.16	97.16
	1/18/2017	<1.00	<1.00	<1.00	<1.00	3.13	95.19
	4/19/2017	4.77	<1.00	13.2	<1.00	3.36	94.96
	7/19/2017	<1.00	<1.00	1.00	<1.00	3.57	94.75
	10/23/2017	<1.00	<1.00	<1.00	<1.00	1.16	97.16
	1/8/2018	<1.00	<1.00	<1.00	<1.00	2.82	95.50
	4/26/2018	2.91	<1.00	9.61	<1.00	0.94	97.38
MW03	4/25/2008	11	<1.0	75	61	1.82	NA
	7/2/2008	35	<1.0	62	550	1.10	NA
	10/2/2008	6.1	<1.0	29	19	1.51	NA
	1/28/2009	1.7	<1.0	<1.0	5.7	4.83	NA
	4/22/2009	1.7	<1.0	1.3	39	2.22	NA
	7/23/2009	17	<1.0	52	37	0.74	NA
	10/6/2009	9.2	<1.0	14	7.4	1.84	NA
	1/11/2010	1.8	<1.0	<1.0	<1.0	3.69	NA
	4/30/2010	18	<1.0	13	72	2.30	NA
	7/12/2010	16	<1.0	9.5	4.7	0.73	NA
	10/25/2010	10	<1.0	1.3	4.1	1.86	NA
	1/18/2011	<1.0	<1.0	<1.0	6.7	4.20	NA
	4/21/2011	9.3	<1.0	22	450	1.76	NA
	7/15/2011	12	<1.0	30	23	1.44	NA
	10/10/2011	11	<1.0	17	16	1.65	NA
	1/31/2012	2.4	<1.0	<1.0	<1.0	1.85	NA
	4/18/2012	14	<1.0	12	36	2.00	NA
	7/16/2012	22	<1.0	1.0	<1.0	1.89	NA
	10/15/2012	10	<1.0	20	56	1.80	NA
	1/17/2013	4.2	<1.0	1.2	14	3.78	NA
	4/19/2013	8.9	<1.0	10	37	2.58	NA
	7/25/2013	27	<1.0	1.2	<1.0	1.46	NA
MW03 destroyed as of 10/2/2013							
MW03R	7/16/2015	<1.0	<1.0	<1.0	<1.0	NM	NA
	10/20/2015	<1.0	<1.0	<1.0	<1.0	4.35	99.75
	1/4/2016	<1.0	<1.0	<1.0	<1.0	NM	NA
	3/8/2016	Surveyed - Not Sampled				6.35	97.78
	4/22/2016	1.7	<1.0	<1.0	<1.0	5.04	99.09
	7/18/2016	1.58	<1.00	<1.00	<1.00	3.04	101.09
	10/10/2016	<1.00	<1.00	<1.00	<1.00	5.55	99.44
	1/18/2017	<1.00	<1.00	<1.00	<1.00	9.26	95.73



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	4/19/2017	28.1	<1.00	<1.00	<1.00	9.99	95.00
	7/19/2017	Dry - Not Sampled				Dry	NA
	10/23/2017	30.7	<1.00	<1.00	<1.00	5.84	99.15
	1/8/2018	<1.00	<1.00	<1.00	<1.00	8.81	96.18
	4/26/2018	6.46	<1.00	<1.00	<1.00	5.20	99.79
<hr/>							
MW04	10/2/2008	<1.0	<1.0	1.0	37	0.05	97.06
	1/28/2009	<1.0	<1.0	<1.0	<1.0	2.24	94.87
	4/22/2009	<1.0	<1.0	<1.0	<1.0	0.82	96.29
	7/23/2009	<1.0	<1.0	<1.0	<1.0	0.09	97.02
	10/6/2009	<1.0	<1.0	<1.0	<1.0	0.00	97.11
	1/11/2010	<1.0	<1.0	<1.0	<1.0	PVC Blocked	NA
	4/30/2010	<1.0	<1.0	<1.0	<1.0	0.33	96.78
	7/12/2010	<1.0	<1.0	<1.0	<1.0	0.50	97.61
	10/25/2010	<1.0	<1.0	<1.0	<1.0	0.02	97.09
	1/18/2011	<1.0	<1.0	<1.0	<1.0	1.40	95.71
	4/21/2011	<100	<100	<100	<100	0.05	97.06
	7/15/2011	<1.0	<1.0	<1.0	<1.0	0.03	97.08
	10/10/2011	<1.0	<1.0	<1.0	<1.0	0.00	97.11
	1/31/2012	<1.0	<1.0	<1.0	<1.0	0.33	96.78
	4/18/2012	<1.0	<1.0	<1.0	<1.0	2.10	96.91
	7/16/2012	<1.0	<1.0	<1.0	<1.0	0.20	96.91
	10/15/2012	<1.0	<1.0	<1.0	<1.0	0.00	96.31
	1/17/2013	<1.0	<1.0	<1.0	<1.0	0.68	95.63
	4/19/2013	<1.0	<1.0	<1.0	<1.0	0.00	96.31
	7/25/2013	<1.0	<1.0	<1.0	<1.0	0.00	97.07
	10/2/2013	<1.0	<1.0	<1.0	<1.0	0.00	96.81
	11/13/2013	Surveyed - Not Sampled				0.53	96.70
	1/28/2014	<4.0	<4.0	<4.0	<4.0	Frozen	NA
	4/14/2014	<1.0	<1.0	<1.0	<1.0	0.24	96.99
	7/7/2014	<1.0	<1.0	<1.0	<1.0	-0.25	97.48
	10/20/2014	<1.0	<1.0	<1.0	<1.0	0.39	96.84
	1/14/2015	<1.0	<1.0	<1.0	<1.0	1.37	95.86
	4/6/2015	<1.0	<1.0	<1.0	<1.0	0.87	96.36
	7/16/2015	<1.0	<1.0	<1.0	<1.0	NM	NA
	10/20/2015	<1.0	<1.0	<1.0	<1.0	0.19	97.01
	1/4/2016	<1.0	<1.0	<1.0	<1.0	NM	NA
	3/8/2016	Surveyed - Not Sampled				1.47	95.85
	4/22/2016	<1.0	<1.0	<1.0	<1.0	0.86	96.46
	7/18/2016	<1.00	<1.00	<1.00	<1.00	0.15	97.17
	10/10/2016	<1.00	<1.00	<1.00	<1.00	0.61	96.59



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	1/18/2017	<1.00	<1.00	<1.00	<1.00	2.39	94.81
	4/19/2017	<1.00	<1.00	<1.00	<1.00	2.47	94.73
	7/19/2017	<1.00	<1.00	<1.00	<1.00	2.84	94.36
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.72	96.48
	1/8/2018	<1.00	<1.00	<1.00	<1.00	2.09	95.11
	4/26/2018	<1.00	<1.00	<1.00	<1.00	0.56	96.64
MW05	10/2/2008	80	<1.0	580	6800	0.17	NA
	1/28/2009	32	<1.0	270	1900	3.09	NA
	4/22/2009	17	<1.0	380	4500	0.94	NA
	7/23/2009	34	<1.0	370	5500	0.13	NA
	10/6/2009	25	<1.0	400	5900	0.85	NA
	1/11/2010	35	<1.0	51	8400	2.17	NA
	4/30/2010	23	<1.0	270	5900	1.07	NA
	7/12/2010	35	<1.0	400	6400	0.16	NA
	10/25/2010	26	<1.0	630	9000	0.63	NA
	1/18/2011	Damaged - Not Sampled				PVC Bent	NA
	4/21/2011	21	<1.0	260	4000	0.88	NA
	MW05 destroyed as of 7/15/2011						
MW05R	10/10/2011	13	<1.0	220	200	0.30	NA
	1/31/2012	27	<1.0	270	190	0.59	NA
	MW05R destroyed as of 4/18/2012						
MW05R2	5/18/2012	100	<3.0	3200	55000	0.61	97.65
	7/16/2012	33	<1.0	470	17000	0.70	97.43
	10/15/2012	<1.0	<1.0	<1.0	<1.0	0.62	97.51
	1/17/2013	33	<1.0	610	5600	2.75	95.38
	4/19/2013	34	<1.0	610	6400	2.10	96.03
	7/25/2013	17	<1.0	570	3300	0.34	96.79
	10/2/2013	23	<1.0	450	2700	0.80	97.33
	11/13/2013	Surveyed - Not Sampled				1.20	97.03
	1/28/2014	13.8	<4.0	372	1110	1.33	96.80
	4/14/2014	49.6	<4.0	1430	6860	1.00	97.23
	7/7/2014	117	<20.0	352	1250	0.25	97.98
	10/20/2014	504	<50.0	704	1240	0.89	97.34
	1/14/2015	311	<10.0	278	543	2.60	95.63
	4/6/2015	560	<10.0	249	493	1.72	96.51
	7/16/2015	1650	<1.0	323	325	NM	NA
	10/20/2015	2430	<4.0	278	240	0.20	97.50
	1/4/2016	3030	<20.0	399	593	NM	NA



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	3/8/2016	Surveyed - Not Sampled				1.87	96.30
	4/22/2016	1080	<20.0	168	328	1.10	97.07
	7/18/2016	1,780	<10.0	255	211	-0.03	98.20
	10/10/2016	2,950	<10.0	391	82.2	0.24	97.46
	1/18/2017	1,190	<20.0	188	<20.0	3.67	94.03
	4/19/2017	3,370	<50.0	355	246	3.87	93.83
	7/19/2017	1,780	<20.0	363	118	4.28	93.42
	10/23/2017	3,080	<10.0	344	20.1	0.64	97.06
	1/8/2018	4,360	<1.00	606	159	2.70	95.00
	4/26/2018	3,750	<10.0	668	509	0.43	97.27
MW06	10/2/2008	<1.0	<1.0	<1.0	<1.0	0.21	96.75
	1/28/2009	<1.0	<1.0	<1.0	<1.0	2.22	94.74
	4/22/2009	<1.0	<1.0	<1.0	<1.0	0.84	96.12
	7/23/2009	<1.0	<1.0	<1.0	<1.0	0.12	96.84
	10/6/2009	<1.0	<1.0	<1.0	<1.0	0.38	96.58
	1/11/2010	<1.0	<1.0	<1.0	<1.0	1.38	95.58
	4/30/2010	<1.0	<1.0	<1.0	<1.0	0.72	96.24
	7/12/2010	<1.0	<1.0	<1.0	<1.0	0.12	96.84
	10/25/2010	<1.0	<1.0	<1.0	<1.0	0.44	96.52
	1/18/2011	<1.0	<1.0	<1.0	<1.0	1.70	95.22
	4/21/2011	<1.0	<1.0	<1.0	<1.0	0.65	96.31
	7/15/2011	<1.0	<1.0	<1.0	<1.0	0.43	96.53
	10/10/2011	<1.0	<1.0	<1.0	<1.0	0.25	96.71
	1/31/2012	<1.0	<1.0	<1.0	<1.0	0.41	96.55
	4/18/2012	<1.0	<1.0	<1.0	<1.0	0.72	96.24
	7/16/2012	<1.0	<1.0	<1.0	<1.0	0.68	96.28
	10/15/2012	<1.0	<1.0	<1.0	<1.0	0.50	96.46
	1/17/2013	<1.0	<1.0	<1.0	<1.0	2.10	94.86
	4/19/2013	<1.0	<1.0	<1.0	<1.0	0.86	96.10
	7/25/2013	<1.0	<1.0	<1.0	<1.0	0.39	96.57
	10/2/2013	<1.0	<1.0	<1.0	<1.0	0.50	96.46
	11/13/2013	Surveyed - Not Sampled				1.06	96.22
	1/28/2014	Frozen - Not Sampled				Frozen	NA
	4/14/2014	<1.0	<1.0	<1.0	<1.0	0.59	96.39
	7/7/2014	<1.0	<1.0	<1.0	<1.0	0.21	96.77
	10/20/2014	<1.0	<1.0	<1.0	<1.0	0.69	96.29
	1/14/2015	<1.0	<1.0	<1.0	<1.0	1.58	95.40
	4/6/2015	<1.0	<1.0	<1.0	<1.0	1.37	95.61
	7/16/2015	81.6	<1.0	<1.0	<1.0	NM	NA
	10/20/2015	<1.0	<1.0	<1.0	<1.0	0.44	96.51



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	1/4/2016	<1.0	<1.0	<1.0	<1.0	NM	NA
	3/8/2016	Surveyed - Not Sampled				1.15	95.62
	4/22/2016	13.9	<1.0	<1.0	<1.0	0.62	96.15
	7/18/2016	<1.00	<1.00	<1.00	<1.00	0.09	96.68
	10/10/2016	<1.00	<1.00	<1.00	<1.00	0.70	96.25
	1/18/2017	<1.00	<1.00	<1.00	<1.00	2.55	94.40
	4/19/2017	<1.00	<1.00	<1.00	<1.00	2.58	94.37
	7/19/2017	<1.00	<1.00	<1.00	<1.00	3.12	93.83
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.90	96.05
	1/8/2018	<1.00	<1.00	<1.00	<1.00	2.25	94.70
	4/26/2018	<1.00	<1.00	<1.00	<1.00	0.89	96.06
MW07	10/2/2008	100	<1.0	280	3000	0.05	NA
	1/28/2009	94	<1.0	190	1100	1.44	NA
	4/22/2009	43	<1.0	280	3200	0.34	NA
	7/23/2009	61	<1.0	170	1200	0.17	NA
	10/6/2009	76	<1.0	150	1600	0.09	NA
	MW07 destroyed as of 1/11/2010						
MW07R	5/13/2016	6.5	<1.0	36.3	<1.0	0.32	95.96
	7/18/2016	<1.00	<1.00	<1.00	<1.00	NM	NA
	10/10/2016	<1.00	<1.00	<1.00	<1.00	NM	NA
	4/19/2017	Damaged - Not Sampled				NM	NA
	7/19/2017	Damaged - Not Sampled				NM	NA
	10/23/2017	<1.00	<1.00	<1.00	<1.00	PVC Blocked	NA
	1/8/2018	Insufficient Water - Not Sampled				NM	NA
	4/26/2018	1.26	<1.00	<1.00	<1.00	0.54	96.12
MW08	1/28/2009	4.8	<1.0	7.5	220	2.14	NA
	MW08 destroyed as of 4/1/2009						
MW08R	4/22/2009	<1.0	<1.0	<1.0	<1.0	0.60	NA
	7/23/2009	<1.0	<1.0	<1.0	21	0.10	NA
	MW08R destroyed as of 10/6/2009						
MW08R2	4/30/2010	<1.0	<1.0	<1.0	2.1	NM	NA
	7/12/2010	<1.0	<1.0	<1.0	<1.0	0.01	96.09
	10/25/2010	<1.0	<1.0	<1.0	<1.0	0.41	95.69
	1/18/2011	<1.0	<1.0	<1.0	<1.0	1.64	94.46
	4/21/2011	<1.0	<1.0	<1.0	<1.0	0.82	95.28
	7/15/2011	<1.0	<1.0	<1.0	<1.0	0.17	95.93



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	10/10/2011	<1.0	<1.0	<1.0	<1.0	0.06	96.04
	1/31/2012	<1.0	<1.0	<1.0	<1.0	0.22	95.88
	4/18/2012	<1.0	<1.0	<1.0	<1.0	0.82	95.28
	7/16/2012	<1.0	<1.0	<1.0	<1.0	0.75	95.35
	10/15/2012	<1.0	<1.0	<1.0	<1.0	0.50	95.60
	1/17/2013	<1.0	<1.0	<1.0	<1.0	2.15	93.95
	4/19/2013	<1.0	<1.0	<1.0	<1.0	0.70	95.40
	7/25/2013	<1.0	<1.0	<1.0	<1.0	0.30	95.80
	10/2/2013	<1.0	<1.0	<1.0	<1.0	0.35	95.75
	11/13/2013	Surveyed - Not Sampled				0.51	95.61
	1/28/2014	Frozen - Not Sampled				Frozen	NA
	4/14/2014	<1.0	<1.0	<1.0	<1.0	0.54	95.58
	7/7/2014	1.4	<1.0	<1.0	<1.0	0.06	96.06
	10/20/2014	<1.0	<1.0	<1.0	<1.0	0.30	95.82
	1/14/2015	<1.0	<1.0	<1.0	<1.0	1.17	94.95
	4/6/2015	10.8	<1.0	<1.0	<1.0	1.32	94.80
	7/16/2015	1.4	<1.0	<1.0	<1.0	NM	NA
	10/20/2015	<1.0	2.1	<1.0	<1.0	0.18	95.67
	1/4/2016	3.1	<1.0	<1.0	<1.0	NM	NA
	3/8/2016	Surveyed - Not Sampled				1.29	94.85
	4/22/2016	502	<1.0	<1.0	<1.0	0.81	95.33
	7/18/2016	<1.00	<1.00	<1.00	<1.00	0.22	95.92
	10/10/2016	<4.00	<4.00	<4.00	<4.00	0.33	95.74
	1/18/2017	<1.00	<1.00	<1.00	<1.00	2.37	93.70
	4/19/2017	<1.00	<1.00	<1.00	<1.00	2.55	93.52
	7/19/2017	<1.00	<1.00	<1.00	<1.00	3.15	92.92
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.78	95.29
	1/8/2018	<1.00	<1.00	<1.00	<1.00	PVC Blocked	NA
	4/26/2018	1.73	<1.00	<1.00	<1.00	0.88	95.19
MW09	1/28/2009	26	<1.0	80	170	1.41	NA
	MW09 destroyed as of 4/1/2009						
MW09R	7/12/2010	<1.0	<1.0	<1.0	<1.0	0.09	NA
	10/25/2010	<1.0	<1.0	<1.0	<1.0	PVC Bent	NA
	MW09R destroyed as of 1/18/2011						
MW09R2	7/15/2011	<1.0	<1.0	<1.0	<1.0	0.16	94.44
	10/10/2011	<1.0	<1.0	<1.0	<1.0	0.01	94.59
	1/31/2012	<1.0	<1.0	<1.0	<1.0	0.20	94.40
	4/18/2012	<1.0	<1.0	<1.0	<1.0	0.65	93.95



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	7/16/2012	<1.0	420	<1.0	<1.0	0.58	94.02
	10/15/2012	<1.0	<1.0	<1.0	<1.0	0.05	94.65
	1/17/2013	Dry - Not Sampled				Dry	NA
	4/19/2013	Insufficient Water - Not Sampled				0.05	94.55
	7/25/2013	<1.0	2.8	<1.0	<1.0	0.00	95.19
	8/28/2013	Removed from monitoring				NM	NA
	11/13/2013	Surveyed - Not Sampled				0.52	95.06
	3/8/2016	Surveyed - Not Sampled				0.67	94.91
	4/22/2016	<1.0	<1.0	<1.0	<1.0	0.32	95.26
	7/18/2016	Damaged - Not Sampled				NM	NA
	MW09R2 destroyed as of 10/10/2016						
MW09R3	1/18/2017	<1.00	<1.00	<1.00	<1.00	1.68	94.12
	4/19/2017	<1.00	<1.00	<1.00	<1.00	2.05	93.83
	7/19/2017	<1.00	<1.00	<1.00	<1.00	2.43	93.45
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.58	95.30
	1/8/2018	<1.00	<1.00	<1.00	<1.00	1.54	94.34
	4/26/2018	<1.00	<1.00	<1.00	<1.00	0.72	95.16
MW10	1/28/2009	<1.0	<1.0	<1.0	<1.0	0.41	NA
	MW10 destroyed as of 4/1/2009						
MW10R	4/22/2009	<1.0	<1.0	<1.0	<1.0	0.20	95.24
	7/23/2009	<1.0	<1.0	<1.0	<1.0	0.05	95.39
	10/6/2009	<1.0	<1.0	<1.0	<1.0	0.00	95.44
	1/11/2010	<1.0	<1.0	<1.0	<1.0	PVC Blocked	NA
	4/30/2010	<1.0	<1.0	<1.0	<1.0	0.19	95.25
	7/12/2010	2.1	<1.0	<1.0	<1.0	0.13	95.51
	10/25/2010	<1.0	<1.0	<1.0	<1.0	0.06	95.42
	1/18/2011	Frozen - Not Sampled				Frozen	NA
	4/21/2011	<1.0	<1.0	<1.0	<1.0	0.15	95.23
	7/15/2011	<1.0	<1.0	<1.0	<1.0	0.05	95.33
	10/10/2011	<1.0	<1.0	<1.0	<1.0	0.00	95.38
	1/31/2012	<1.0	<1.0	<1.0	<1.0	0.04	95.34
	4/18/2012	<1.0	<1.0	<1.0	<1.0	2.45	95.19
	7/16/2012	<1.0	<1.0	<1.0	<1.0	0.14	95.24
	10/15/2012	<1.0	<1.0	<1.0	<1.0	0.44	94.94
	1/17/2013	<1.0	<1.0	<1.0	<1.0	PVC Blocked	NA
	4/19/2013	<1.0	<1.0	<1.0	<1.0	0.54	94.84
	7/25/2013	<1.0	<1.0	<1.0	<1.0	0.07	95.31
	10/2/2013	<1.0	<1.0	<1.0	<1.0	0.00	95.54



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	11/13/2013	Surveyed - Not Sampled				0.02	95.40
	1/28/2014	Frozen - Not Sampled				Frozen	NA
	4/14/2014	<1.0	<1.0	<1.0	<1.0	0.20	95.22
	7/7/2014	<1.0	<1.0	<1.0	<1.0	-0.07	95.49
	10/20/2014	<1.0	<1.0	<1.0	<1.0	0.04	95.38
	1/14/2015	Frozen - Not Sampled				Frozen	NA
	4/6/2015	<1.0	<1.0	<1.0	<1.0	0.48	94.94
	7/16/2015	97.4	<1.0	<1.0	<1.0	NM	NA
	8/28/2015	Removed from monitoring				NM	NA
	1/27/2016	<1.0	<1.0	<1.0	<1.0	0.35	95.08
	3/8/2016	Surveyed - Not Sampled				0.26	95.12
	4/22/2016	<1.0	<1.0	<1.0	<1.0	0.10	95.28
	7/18/2016	2.16	<1.00	<1.00	<1.00	-0.25	95.63
	10/10/2016	<1.00	<1.00	<1.00	<1.00	NM	NA
	1/18/2017	<1.00	<1.00	<1.00	<1.00	NM	NA
	4/19/2017	<1.00	<1.00	<1.00	<1.00	1.34	94.04
	7/19/2017	4.92	<1.00	<1.00	<1.00	1.84	93.54
	10/23/2017	<1.00	<1.00	<1.00	<1.00	-0.07	95.45
	1/8/2018	<1.00	<1.00	<1.00	<1.00	1.74	93.64
	4/26/2018	<1.00	<1.00	<1.00	<1.00	0.13	95.25
MW11	4/22/2009	<1.0	<1.0	<1.0	<1.0	1.98	NA
	7/23/2009	<1.0	1.6	<1.0	<1.0	0.08	NA
	10/6/2009	<1.0	<1.0	<1.0	<1.0	NM	NA
	1/11/2010	Frozen - Not Sampled				Frozen	NA
	4/30/2010	<1.0	<1.0	<1.0	<1.0	0.18	NA
	7/12/2010	<1.0	<1.0	<1.0	<1.0	0.01	NA
	10/25/2010	<1.0	<1.0	<1.0	<1.0	0.14	NA
	1/18/2011	Frozen - Not Sampled				Frozen	NA
	4/21/2011	Removed from monitoring				NM	NA
	1/27/2016	<1.0	<1.0	<1.0	<1.0	2.11	94.17
	3/8/2016	Surveyed - Not Sampled				0.22	94.09
	4/22/2016	<1.0	<1.0	<1.0	<1.0	0.30	94.01
	MW11 destroyed as of 5/3/2016						
MW11R	5/13/2016	<1.0	<1.0	<1.0	<1.0	0.11	94.40
	7/18/2016	<1.00	<1.00	<1.00	<1.00	0.73	93.58
	10/10/2016	<1.00	<1.00	<1.00	<1.00	0.76	94.66
	1/18/2017	<1.00	<1.00	<1.00	<1.00	NM	NA
	4/19/2017	<1.00	<1.00	<1.00	<1.00	1.17	94.25
	7/19/2017	Insufficient Water - Not Sampled				1.18	94.24



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.94	94.48
	1/8/2018	Dry - Not sampled				Dry	NA
	4/26/2018	<1.00	<1.00	<1.00	<1.00	1.08	94.34
MW12	4/22/2009	<1.0	<1.0	<1.0	<1.0	0.36	NA
	7/23/2009	<1.0	<1.0	<1.0	<1.0	0.04	NA
	10/6/2009	<1.0	<1.0	<1.0	<1.0	NM	NA
	1/11/2010	Frozen - Not Sampled				Frozen	NA
	MW12 destroyed as of 4/30/2010						
MW12R	7/12/2010	<1.0	<1.0	<1.0	<1.0	0.00	94.88
	10/25/2010	<1.0	<1.0	<1.0	<1.0	0.11	94.77
	1/18/2011	<1.0	<1.0	<1.0	<1.0	0.97	93.91
	4/21/2011	<1.0	<1.0	<1.0	<1.0	0.53	94.35
	7/15/2011	Removed from monitoring				NM	NA
	11/13/2013	Surveyed - Not Sampled				0.09	94.69
	1/18/2017	Damaged - Not Sampled				NM	NA
	4/19/2017	PVC Blocked				PVC Blocked	NA
	MW12R destroyed as of 7/19/2017						
MW13	7/16/2015	50.4	<1.0	1.3	37.6	NM	NA
	10/20/2015	132	<1.0	5.6	<1.0	2.40	96.30
	1/27/2016	Not Sampled				PVC Blocked	NA
	3/8/2016	Surveyed - Not Sampled				1.10	95.52
	4/22/2016	352	<1.0	64.1	160	0.43	96.19
	7/18/2016	27.0	<1.00	<1.00	5.23	-0.08	96.70
	10/10/2016	20.7	<4.00	<4.00	<4.00	0.47	96.18
	1/18/2017	262	<1.00	19.1	<1.00	2.69	93.96
	4/19/2017	220	<1.00	31.2	12.7	3.07	93.58
	7/19/2017	53.0	<4.00	<4.00	<4.00	3.38	93.27
	10/23/2017	49.0	<1.00	<1.00	<1.00	0.72	95.93
	1/8/2018	98.6	<1.00	1.03	<1.00	2.35	94.30
	4/26/2018	768	<1.00	107	12.7	0.75	95.90
MW14	1/27/2016	<1.0	<1.0	351	4940	3.07	95.51
	3/8/2016	Surveyed - Not Sampled				1.54	95.43
	4/22/2016	<1.0	<1.0	228	2860	0.85	96.12
	7/18/2016	<4.00	<4.00	146	2,100	0.02	96.95
	10/10/2016	<4.00	<4.00	142	2,410	0.66	96.35
	1/18/2017	<1.00	<1.00	191	2,730	3.26	93.75
	4/19/2017	<4.00	<4.00	122	32,800	3.34	93.67



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	7/19/2017	<4.00	<4.00	37.4	416	3.73	93.28
	10/23/2017	<4.00	<4.00	176	2,500	1.09	95.92
	1/8/2018	<1.00	<1.00	205	2,650	2.93	94.08
	4/26/2018	<4.00	<4.00	240	3,810	1.02	95.99
<hr/>							
MW15	1/27/2016	<1.0	<1.0	<1.0	2.1	3.43	94.85
	3/8/2016	Surveyed - Not Sampled				0.94	94.77
	4/22/2016	<1.0	<1.0	<1.0	4.3	0.35	95.36
	7/18/2016	<1.00	<1.00	<1.00	<1.00	0.04	95.67
	10/10/2016	<1.00	<1.00	<1.00	<1.00	0.25	95.46
	1/18/2017	<1.00	<1.00	<1.00	<1.00	2.29	93.42
	4/19/2017	3.93	<1.00	<1.00	<1.00	2.55	93.16
	7/19/2017	<1.00	<1.00	<1.00	<1.00	2.85	92.86
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.62	95.09
	1/8/2018	<1.00	<1.00	<1.00	<1.00	2.01	93.70
	4/26/2018	<1.00	<1.00	<1.00	<1.00	0.73	94.98
<hr/>							
MW16	1/27/2016	<1.0	<1.0	<1.0	<1.0	3.51	95.52
	3/8/2016	Surveyed - Not Sampled				1.80	95.46
	4/22/2016	<1.0	<1.0	<1.0	1.3	1.09	96.17
	7/18/2016	<1.00	<1.00	<1.00	<1.00	0.23	97.03
	10/10/2016	<1.00	<1.00	<1.00	<1.00	0.73	96.49
	1/18/2017	<1.00	<1.00	<1.00	<1.00	3.58	93.64
	4/19/2017	<1.00	<1.00	<1.00	<1.00	3.62	93.60
	7/19/2017	<1.00	<1.00	<1.00	<1.00	3.88	93.34
	10/23/2017	<1.00	<1.00	<1.00	<1.00	1.16	96.06
	1/8/2018	<1.00	<1.00	<1.00	<1.00	3.12	94.10
	4/26/2018	<1.00	<1.00	<1.00	<1.00	1.13	96.09
<hr/>							
MW17	1/27/2016	<1.0	<1.0	<1.0	<1.0	4.65	95.03
	3/8/2016	Surveyed - Not Sampled				1.33	94.99
	4/22/2016	<1.0	<1.0	<1.0	<1.0	0.75	95.57
	7/18/2016	<1.00	<1.00	<1.00	<1.00	0.24	96.08
	10/10/2016	<1.00	<1.00	<1.00	<1.00	0.35	96.51
	1/18/2017	<1.00	<1.00	<1.00	<1.00	2.94	93.73
	4/19/2017	<1.00	<1.00	<1.00	<1.00	3.12	93.55
	7/19/2017	<1.00	<1.00	<1.00	<1.00	3.51	93.16
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.94	95.73
	1/8/2018	<1.00	<1.00	<1.00	<1.00	2.58	94.09
	4/26/2018	<1.00	<1.00	<1.00	<1.00	0.94	95.73



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-DIEFENBACH 10-34/HSR-ENGSTROM 15-34/SHUTT 20-34
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
MW18	1/27/2016	<1.0	<1.0	<1.0	<1.0	3.05	94.71
	3/8/2016	Surveyed - Not Sampled				1.01	94.53
	4/22/2016	55.9	<1.0	<1.0	<1.0	0.59	94.95
	7/18/2016	96.4	<1.00	<1.00	<1.00	0.67	94.87
	10/10/2016	<1.00	<1.00	<1.00	<1.00	0.43	95.02
	1/18/2017	<1.00	<1.00	<1.00	<1.00	2.02	93.43
	4/19/2017	<1.00	<1.00	<1.00	<1.00	2.10	93.35
	7/19/2017	<1.00	<1.00	<1.00	<1.00	2.59	92.86
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.65	94.80
	1/8/2018	<1.00	<1.00	<1.00	<1.00	2.53	92.92
	4/26/2018	<1.00	<1.00	<1.00	<1.00	0.60	94.85
MW19	5/13/2016	<1.0	<1.0	<1.0	<1.0	-0.34	95.00
	7/18/2016	Damaged - Not Sampled				NM	NA
	10/10/2016	<1.00	<1.00	<1.00	<1.00	NM	NA
	1/18/2017	Damaged - Not Sampled				NM	NA
	4/19/2017	PVC Blocked				PVC Blocked	NA
	7/19/2017	PVC Blocked				PVC Blocked	NA
	10/23/2017	<1.00	<1.00	<1.00	<1.00	-0.41	94.99
	1/8/2018	<1.00	<1.00	<1.00	<1.00	0.02	94.56
MW20	4/26/2018	<1.00	<1.00	<1.00	<1.00	0.24	94.34
	1/18/2017	<1.00	<1.00	<1.00	<1.00	1.63	92.89
	4/19/2017	<1.00	<1.00	<1.00	<1.00	2.19	92.38
	7/19/2017	<1.00	<1.00	<1.00	<1.00	2.69	91.88
	10/23/2017	<1.00	<1.00	<1.00	<1.00	0.53	94.04
	1/8/2018	<1.00	<1.00	<1.00	<1.00	1.33	93.24
		4/26/2018	<1.00	<1.00	<1.00	0.59	93.98
COGCC Allowable Levels		5	1000	700	1400		

Notes: COGCC - Colorado Oil and Gas Conservation Commission

Elev. - elevation

ft bgs - feet below ground surface

GW - groundwater

NA - not analyzed/not available

NM - not measured

µg/L - micrograms per liter

< - less than laboratory reporting limit

Bold indicates result exceeds allowable level

Excavation groundwater depth is approximate



May 02, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - HSR Diefenbach 10-34/HSR Engstrom 15-34 **Project Number - KMG08372/WO#883346**

Attached are your analytical results for KMG - HSR Diefenbach 10-34/HSR Engstrom 15-34 received by Origins Laboratory, Inc. April 26, 2018. This project is associated with Origins project number Y804428-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y804428-01	Water	April 26, 2018 12:00	04/26/2018 16:40
MW02	Y804428-02	Water	April 26, 2018 12:05	04/26/2018 16:40
MW03R	Y804428-03	Water	April 26, 2018 12:10	04/26/2018 16:40
MW04	Y804428-04	Water	April 26, 2018 12:15	04/26/2018 16:40
MW05R2	Y804428-05	Water	April 26, 2018 12:20	04/26/2018 16:40
MW06	Y804428-06	Water	April 26, 2018 12:25	04/26/2018 16:40
MW07R	Y804428-07	Water	April 26, 2018 12:30	04/26/2018 16:40
MW08R2	Y804428-08	Water	April 26, 2018 12:35	04/26/2018 16:40
MW09R3	Y804428-09	Water	April 26, 2018 12:40	04/26/2018 16:40
MW10R	Y804428-10	Water	April 26, 2018 12:45	04/26/2018 16:40
MW11R	Y804428-11	Water	April 26, 2018 12:50	04/26/2018 16:40
MW13	Y804428-12	Water	April 26, 2018 12:55	04/26/2018 16:40
MW14	Y804428-13	Water	April 26, 2018 13:00	04/26/2018 16:40
MW15	Y804428-14	Water	April 26, 2018 13:05	04/26/2018 16:40

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW16	Y804428-15	Water	April 26, 2018 13:10	04/26/2018 16:40
MW17	Y804428-16	Water	April 26, 2018 13:15	04/26/2018 16:40
MW18	Y804428-17	Water	April 26, 2018 13:20	04/26/2018 16:40
MW19	Y804428-18	Water	April 26, 2018 13:25	04/26/2018 16:40
MW20	Y804428-19	Water	April 26, 2018 13:30	04/26/2018 16:40

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR Engstrom 15-34

ORIGINS
LABORATORY, INC

1404424

1725 Elk Place, Denver, CO 80211
Laboratory # - 303.433.1322

Client: LT Environmental, Inc. Project Manager: Brian Sulzberger
Project: KMG - HSR Diefenbach 10-34/HSR Engstrom 15-34 Project Number: KMG08372/WO#88334625

Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analyses
01-001	MW01	Water	4/26-18	1200	JS	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
02-001	MW02	Water		1305		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
03-001	MW03R	Water		1310		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
04-001	MW04	Water		1315		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
05-001	MW05R2	Water		1320		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
06-001	MW06	Water		1335		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
07-001	MW07R	Water		1350		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
08-001	MW08R2	Water		1355		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
09-001	MW09R3	Water		1340		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
10-001	MW10R	Water		1345		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
11-001	MW11R	Water		1350		12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C

Temperature on Receipt: 21.4

Turn Around Time:

Same Day: ☐ 72-hr: ☐ Standard: ☐ 24-hr: ☐ 48-hr: ☐

Date / Time

4/26/18 1640

Date / Time

Relinquished By

Received By

Date / Time

Date / Time

Origins Laboratory, Inc.

Jefe Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR Engstrom 15-34



ORIGINS
LABORATORY, INC



Y804428

1725 Elk Place, Denver, CO 80211
Laboratory # - 303.433.1322

12-001	MW13	Water	1255	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
13-001	MW14	Water	1300	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
14-001	MW15	Water	1305	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
15-001	MW16	Water	1310	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
16-001	MW17	Water	1315	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
17-001	MW18	Water	1330	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
18-001	MW19	Water	1335	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C
19-001	MW20	Water	1340	12_40mL Amber VOA Vial - HCL	3	BTEX by EPA 8260C

Temperature on Receipt: 21.4
Turn Around Time: ☒ 72-hr ☐ Standard ☐ 48-hr
Same Day: ☐ 24-hr ☐ 48-hr

Relinquished By:  Date / Time: 4/26/18 1640
Received By:  Date / Time: 4/26/18 1640

Relinquished By:  Date / Time: 4-26-18 / 1640
Received By:  Date / Time: 4-26-18 / 1640

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: 460428 Client: LTE
Client Project ID: KMG-HSR Diefenbach 10-34/HSR
Checklist Completed by: JG Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
Date/time completed: 4/27/2018 Airbill #: N/A
Matrix(s) Received: (Check all that apply): X Soil/Solid X Water Other: (Describe)
Cooler Number/Temperature: 1, 21.4 °C / °C / °C / °C
Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?		<input checked="" type="checkbox"/>		<u>Sampled Same Day</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)		<input checked="" type="checkbox"/>		
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) JG

Date/Time Reviewed 4/27/18

Origins Laboratory, Inc.

Jen Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW01

4/26/2018 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-01 (Water)

BTEX by EPA 8260C

Benzene	108	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	95.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW02

4/26/2018 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-02 (Water)

BTEX by EPA 8260C

Benzene	2.91	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	9.61	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	95.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW03R

4/26/2018 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-03 (Water)

BTEX by EPA 8260C

Benzene	6.46	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	97.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	104 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.5 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW04

4/26/2018 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW05R2

4/26/2018 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-05 (Water)

BTEX by EPA 8260C

Benzene	3750	100	ug/L	100	B8D3009	04/30/2018	05/02/2018	
Toluene	ND	10.0	"	10	"	"	05/01/2018	U
Ethylbenzene	668	10.0	"	"	"	"	"	
Xylenes, total	509	10.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	93.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.5 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW06

4/26/2018 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.7 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW07R

4/26/2018 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-07 (Water)

BTEX by EPA 8260C

Benzene	1.26	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	98.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW08R2

4/26/2018 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-08 (Water)

BTEX by EPA 8260C

Benzene	1.73	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	98.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW09R3

4/26/2018 12:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.3 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW10R

4/26/2018 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.0 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW11R

4/26/2018 12:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-11 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.0 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW13

4/26/2018 12:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-12 (Water)

BTEX by EPA 8260C

Benzene	768	20.0	ug/L	20	B8D3009	04/30/2018	05/02/2018	
Toluene	ND	1.00	"	1	"	"	05/01/2018	U
Ethylbenzene	107	1.00	"	"	"	"	"	
Xylenes, total	12.7	1.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	87.1 %	84-121			"	"	"	
Surrogate: Toluene-d8	105 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW14

4/26/2018 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-13 (Water)

BTEX by EPA 8260C

Benzene	ND	4.00	ug/L	4	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	240	4.00	"	"	"	"	"	
Xylenes, total	3810	20.0	"	20	"	"	05/02/2018	

Surrogate: 1,2-Dichloroethane-d4	98.4 %	84-121			"	"	05/01/2018	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.9 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW15

4/26/2018 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-14 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.8 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.0 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW16

4/26/2018 1:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc. Y804428-15 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW17

4/26/2018 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-16 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.1 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW18

4/26/2018 1:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-17 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.6 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW19

4/26/2018 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-18 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

MW20
4/26/2018 1:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	-------

Origins Laboratory, Inc.
Y804428-19 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8D3009	04/30/2018	05/01/2018	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.3 %	84-114			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8D3009 - EPA 5030B (Water)										
Blank (B8D3009-BLK1)					Prepared: 04/30/2018 Analyzed: 05/01/2018					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.4	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.1	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8D3009 - EPA 5030B (Water)

Blank (B8D3009-BLK2)

Prepared: 04/30/2018 Analyzed: 05/01/2018

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5	97.9		84-121			
Surrogate: Toluene-d8	64		"	62.5	103		85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5	96.8		84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8D3009 - EPA 5030B (Water)

LCS (B8D3009-BS1)

Prepared: 04/30/2018 Analyzed: 05/01/2018

Benzene	49.3	1.00	ug/L	50.0		98.6	73.3-129
Toluene	51.8	1.00	"	50.0		104	76.2-123
Ethylbenzene	54.1	1.00	"	50.0		108	73.6-130
m,p-Xylene	107	2.00	"	100		107	76.1-126
o-Xylene	52.2	1.00	"	50.0		104	76.6-124
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		92.3	84-121
Surrogate: Toluene-d8	65		"	62.5		104	85-115
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	84-114

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8D3009 - EPA 5030B (Water)

LCS (B8D3009-BS2)

Prepared: 04/30/2018 Analyzed: 05/01/2018

Benzene	51.0	1.00	ug/L	50.0		102	73.3-129			
Toluene	54.4	1.00	"	50.0		109	76.2-123			
Ethylbenzene	56.3	1.00	"	50.0		113	73.6-130			
m,p-Xylene	111	2.00	"	100		111	76.1-126			
o-Xylene	55.9	1.00	"	50.0		112	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	55		"	62.5		88.1	84-121			
Surrogate: Toluene-d8	66		"	62.5		105	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.9	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8D3009 - EPA 5030B (Water)

Matrix Spike (B8D3009-MS1)		Source: Y804428-01			Prepared: 04/30/2018 Analyzed: 05/01/2018					
Benzene	138	1.00	ug/L	50.0	108	59.5	74-130			QM-07
Toluene	57.1	1.00	"	50.0	ND	114	73-131			
Ethylbenzene	58.9	1.00	"	50.0	0.090	118	76-132			
m,p-Xylene	117	2.00	"	100	0.260	116	69-139			
o-Xylene	58.8	1.00	"	50.0	ND	118	74-131			
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.0	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.4	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8D3009 - EPA 5030B (Water)

Matrix Spike (B8D3009-MS2)		Source: Y804428-02			Prepared: 04/30/2018 Analyzed: 05/01/2018					
Benzene	57.6	1.00	ug/L	50.0	2.91	109	74-130			
Toluene	57.7	1.00	"	50.0	ND	115	73-131			
Ethylbenzene	67.2	1.00	"	50.0	9.61	115	76-132			
m,p-Xylene	118	2.00	"	100	0.170	118	69-139			
o-Xylene	59.5	1.00	"	50.0	ND	119	74-131			
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		90.0	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8D3009 - EPA 5030B (Water)

Matrix Spike Dup (B8D3009-MSD1)		Source: Y804428-01			Prepared: 04/30/2018 Analyzed: 05/01/2018					
Benzene	137	1.00	ug/L	50.0	108	57.4	74-130	0.756	20	QM-07
Toluene	56.0	1.00	"	50.0	ND	112	73-131	1.87	20	
Ethylbenzene	57.9	1.00	"	50.0	0.090	116	76-132	1.83	20	
m,p-Xylene	115	2.00	"	100	0.260	114	69-139	1.80	20	
o-Xylene	57.4	1.00	"	50.0	ND	115	74-131	2.50	20	
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.7	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.2	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8D3009 - EPA 5030B (Water)

Matrix Spike Dup (B8D3009-MSD2)		Source: Y804428-02			Prepared: 04/30/2018 Analyzed: 05/01/2018					
Benzene	58.9	1.00	ug/L	50.0	2.91	112	74-130	2.11	20	
Toluene	58.9	1.00	"	50.0	ND	118	73-131	2.08	20	
Ethylbenzene	68.1	1.00	"	50.0	9.61	117	76-132	1.35	20	
m,p-Xylene	119	2.00	"	100	0.170	119	69-139	1.30	20	
o-Xylene	60.6	1.00	"	50.0	ND	121	74-131	1.85	20	
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		90.0	84-121			
Surrogate: Toluene-d8	65		"	62.5		104	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: KMG08372/WO#88334625
Project: KMG - HSR Diefenbach 10-34/HSR
Engstrom 15-34

Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.