

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
GW01	2/4/2010	3400	32	1200	7600	4.5	NA
MW01	6/8/2010	4.2	<1.0	4.4	22	4.02	95.98
	9/3/2010	<1.0	<1.0	<1.0	<1.0	4.32	95.68
	12/6/2010	<1.0	<1.0	<1.0	<1.0	4.50	95.50
	3/1/2011	<1.0	<1.0	<1.0	<1.0	5.71	94.29
	6/21/2011	<1.0	<1.0	5.6	13	3.29	96.71
	9/13/2011	<1.0	<1.0	<1.0	<1.0	2.78	97.22
	12/20/2011	<1.0	<1.0	<1.0	<1.0	3.01	96.99
	3/13/2012	<1.0	<1.0	<1.0	<1.0	4.58	95.42
	6/13/2012	<1.0	<1.0	<1.0	<1.0	4.52	95.48
	9/21/2012	<1.0	<1.0	<1.0	<1.0	3.24	96.76
	12/17/2012	<1.0	<1.0	<1.0	<1.0	3.40	96.60
	3/13/2013	<1.0	<1.0	<1.0	<1.0	3.97	96.03
	6/25/2013	<1.0	<1.0	<1.0	<1.0	3.33	96.67
	9/18/2013	<1.0	<1.0	<1.0	<1.0	0.75	99.25
	11/13/2013	Surveyed - Not Sampled				1.94	97.44
	12/23/2013	<4.0	<4.0	<4.0	<4.0	3.56	96.44
	3/6/2014	<1.0	<1.0	<1.0	<1.0	4.31	95.41
	6/3/2014	<1.0	<1.0	<1.0	<1.0	3.73	96.58
	9/18/2014	<1.0	<1.0	<1.0	<1.0	4.18	96.13
	12/2/2014	<1.0	<1.0	<1.0	<3.0	4.66	95.65
	3/3/2015	<1.0	<1.0	<1.0	<1.0	5.46	94.85
	6/5/2015	<1.0	<1.0	<1.0	<1.0	1.53	98.78
	9/3/2015	<1.0	<1.0	<1.0	<1.0	2.62	97.69
	12/9/2015	<1.0	<1.0	<1.0	<1.0	3.48	96.83
	3/9/2016	Surveyed - Not Sampled				3.73	96.28
	3/30/2016	<1.0	<1.0	<1.0	<1.0	3.52	96.49
	6/27/2016	<1.00	<1.00	<1.00	<1.00	3.20	96.81
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.06	95.95
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.32	95.99
	3/17/2017	<1.00	<1.00	<1.00	<1.00	5.67	94.64
	6/19/2017	<1.00	<1.00	<1.00	<1.00	3.45	96.86
	9/26/2017	<1.00	<1.00	<1.00	<1.00	3.67	96.64
	12/20/2017	<1.00	<1.00	<1.00	<1.00	3.82	96.49

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KERR-MCGEE OIL & GAS ONSHORE, LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.44	94.87
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.33	96.98
	9/17/2018	<1.00	<1.00	<1.00	<1.00	3.90	96.41
	12/18/2018	<1.00	<1.00	<1.00	<1.00	4.92	95.39
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.11	95.20
	6/24/2019	<1.00	<1.00	<1.00	<1.00	5.61	94.70
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.32	94.99
	12/6/2019	<4.00	<4.00	<4.00	<4.00	6.17	94.14
	3/13/2020	<1.00	<1.00	<1.00	<1.00	6.83	93.48
	6/15/2020	<1.00	<1.00	<1.00	<1.00	4.79	95.52
	9/2/2020	<1.00	<1.00	<1.00	<1.00	4.92	95.39
	12/7/2020	<1.00	<1.00	<1.00	<1.00	5.68	94.63
MW02	6/8/2010	<1.0	<1.0	<1.0	<1.0	4.69	94.78
	9/3/2010	<1.0	<1.0	<1.0	<1.0	4.93	94.54
	12/6/2010	<1.0	<1.0	<1.0	<1.0	5.13	94.34
	3/1/2011	<1.0	<1.0	<1.0	<1.0	6.41	93.06
	6/21/2011	<1.0	<1.0	<1.0	<1.0	3.78	95.69
	9/13/2011	<1.0	<1.0	<1.0	<1.0	3.43	96.04
	12/20/2011	<1.0	<1.0	<1.0	<1.0	3.60	95.87
	3/13/2012	<1.0	<1.0	<1.0	<1.0	5.02	94.45
	6/13/2012	<1.0	<1.0	<1.0	<1.0	4.49	94.98
	9/21/2012	<1.0	<1.0	<1.0	<1.0	3.99	95.48
	12/17/2012	<1.0	<1.0	<1.0	<1.0	4.14	95.33
	3/13/2013	<1.0	<1.0	<1.0	<1.0	4.79	94.68
	6/25/2013	<1.0	<1.0	<1.0	<1.0	4.24	95.23
	9/18/2013	<1.0	<1.0	<1.0	<1.0	1.34	98.13
	11/13/2013	Surveyed - Not Sampled				3.16	96.36
	12/23/2013	<4.0	<4.0	<4.0	<4.0	4.19	95.28
	3/6/2014	<1.0	<1.0	<1.0	<1.0	5.16	94.31
	6/3/2014	<1.0	<1.0	<1.0	<1.0	4.09	95.43
	9/18/2014	<1.0	<1.0	<1.0	<1.0	4.51	95.01
	12/2/2014	<1.0	<1.0	<1.0	<3.0	5.02	94.50
	3/3/2015	<1.0	<1.0	<1.0	<1.0	5.91	93.61
	6/5/2015	<1.0	<1.0	<1.0	<1.0	1.63	97.89

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KERR-MCGEE OIL & GAS ONSHORE, LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	9/3/2015	<1.0	<1.0	<1.0	<1.0	4.84	94.82
	12/9/2015	<1.0	<1.0	<1.0	<1.0	3.76	95.90
	3/9/2016	Surveyed - Not Sampled				4.37	95.21
	3/30/2016	<1.0	<1.0	<1.0	<1.0	4.08	95.50
	6/27/2016	<1.00	<1.00	<1.00	<1.00	3.68	95.90
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.38	95.20
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.45	95.21
	3/17/2017	<1.00	<1.00	<1.00	<1.00	6.05	93.61
	6/19/2017	<1.00	<1.00	<1.00	<1.00	3.55	96.11
	9/26/2017	<1.00	<1.00	<1.00	<1.00	3.68	95.98
	12/20/2017	<1.00	<1.00	<1.00	<1.00	4.14	95.52
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.80	93.86
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.69	95.97
	9/17/2018	<1.00	<1.00	<1.00	<1.00	3.90	95.76
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.23	94.43
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.53	94.13
	6/24/2019	<1.00	<1.00	<1.00	<1.00	6.09	93.57
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.60	94.06
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.58	93.08
	3/13/2020	<1.00	<1.00	<1.00	<1.00	7.40	92.26
	6/15/2020	<1.00	<1.00	<1.00	<1.00	5.36	94.30
	9/2/2020	<4.00	<4.00	<4.00	<4.00	5.27	94.39
	12/7/2020	<1.00	<1.00	<1.00	<1.00	6.21	93.45
MW03	6/8/2010	1.7	<1.0	<1.0	<1.0	4.83	94.42
	9/3/2010	<1.0	<1.0	<1.0	<1.0	5.08	94.17
	12/6/2010	<1.0	<1.0	<1.0	<1.0	5.34	93.91
	3/1/2011	1.3	<1.0	<1.0	<1.0	6.55	92.70
	6/21/2011	<1.0	<1.0	<1.0	<1.0	4.19	95.06
	9/13/2011	<1.0	<1.0	<1.0	<1.0	3.68	95.57
	12/20/2011	<1.0	<1.0	<1.0	<1.0	3.94	95.31
	3/13/2012	<1.0	<1.0	<1.0	<1.0	5.27	93.98
	6/13/2012	<1.0	<1.0	<1.0	<1.0	5.15	94.10
	9/21/2012	<1.0	<1.0	<1.0	<1.0	4.25	95.00
	12/17/2012	<1.0	<1.0	<1.0	<1.0	4.36	94.89

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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	3/13/2013	<1.0	<1.0	<1.0	<1.0	4.96	94.26
	6/25/2013	<1.0	<1.0	<1.0	<1.0	4.34	94.91
	9/18/2013	<1.0	<1.0	<1.0	<1.0	1.66	97.59
	11/13/2013	Surveyed - Not Sampled				3.34	95.96
	12/23/2013	<4.0	<4.0	<4.0	<4.0	4.31	94.94
	3/6/2014	<1.0	<1.0	<1.0	<1.0	5.40	93.85
	6/3/2014	102	<1.0	2.0	14.4	4.29	95.01
	9/18/2014	<1.0	<1.0	<1.0	<1.0	4.62	94.68
	12/2/2014	<1.0	<1.0	<1.0	<3.0	5.09	94.21
	3/3/2015	2.9	<1.0	<1.0	<1.0	6.06	93.24
	6/5/2015	<1.0	<1.0	<1.0	<1.0	2.03	97.27
	9/3/2015	<1.0	<1.0	<1.0	<1.0	5.24	94.20
	12/9/2015	<1.0	<1.0	<1.0	<1.0	3.97	95.47
	3/9/2016	Surveyed - Not Sampled				4.53	94.92
	3/30/2016	<1.0	<1.0	<1.0	<1.0	4.32	95.13
	6/27/2016	<1.00	<1.00	<1.00	<1.00	3.92	95.53
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.67	94.78
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.68	94.76
	3/17/2017	<1.00	<1.00	<1.00	<1.00	6.26	93.18
	6/19/2017	<1.00	<1.00	<1.00	<1.00	3.88	95.56
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.04	95.40
	12/20/2017	<1.00	<1.00	<1.00	<1.00	4.29	95.15
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.91	93.53
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.93	95.51
	9/17/2018	<1.00	<1.00	<1.00	<1.00	4.09	95.35
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.38	94.06
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.58	93.86
	6/24/2019	<1.00	<1.00	<1.00	<1.00	6.12	93.32
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.74	93.70
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.63	92.81
	3/13/2020	<1.00	<1.00	<1.00	<1.00	7.36	92.08
	6/15/2020	<1.00	<1.00	<1.00	<1.00	5.67	93.77
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.38	94.06
	12/7/2020	<1.00	<1.00	<1.00	<1.00	6.27	93.17

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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
MW04	6/8/2010	840	<1.0	260	2900	4.38	95.24
	9/3/2010	200	<1.0	71	200	4.51	95.11
	12/6/2010	86	<1.0	3.5	85	4.74	94.88
	3/1/2011	11	<1.0	<1.0	19	5.98	93.64
	6/21/2011	1400	<1.0	400	4300	3.73	95.89
	9/13/2011	2300	<1.0	280	6000	3.20	96.42
	12/20/2011	2100	<1.0	330	5100	3.33	96.29
	3/13/2012	160	<1.0	230	1600	4.70	94.92
	6/13/2012	3100	<1.0	260	4500	4.58	95.04
	9/21/2012	480	<1.0	100	180	3.70	95.92
	12/17/2012	2000	<1.0	120	230	4.36	95.72
	3/13/2013	690	<1.0	66	210	4.28	95.34
	6/25/2013	21	<1.0	1.8	6.6	3.62	96.00
	9/18/2013	720	<1.0	140	210	1.25	98.37
	11/13/2013	Surveyed - Not Sampled				2.86	96.89
	12/23/2013	171	<4.0	18.8	34.9	4.16	95.46
	3/6/2014	39.4	<1.0	1.1	<1.0	4.76	94.86
	6/3/2014	227	<1.0	32.7	93.6	3.77	95.98
	9/18/2014	135	<4.0	<4.0	<4.0	4.08	95.67
	12/2/2014	90.9	<1.0	<1.0	<1.0	4.51	95.24
	3/3/2015	11.3	<1.0	<1.0	<1.0	5.50	94.25
	6/5/2015	1600	<1.0	186	299	PVC Blocked	NA
	9/3/2015	796	<20.0	59.0	<20.0	PVC Blocked	NA
	12/9/2015	Dry - Not Sampled				Dry	NA
	3/9/2016	Surveyed - Not Sampled				PVC Blocked	NA
	3/30/2016	Not Sampled				PVC Blocked	NA
	4/19/2016	15.8	<4.0	6.1	5.8	NM	NA
	6/27/2016	4.28	<1.00	<1.00	<1.00	3.79	96.15
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.54	95.40
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.74	95.34
	3/17/2017	<1.00	<1.00	<1.00	<1.00	6.30	93.78
	6/19/2017	1.90	<1.00	<1.00	<1.00	4.03	96.05
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.18	95.90
	12/20/2017	<1.00	<1.00	<1.00	<1.00	4.23	95.85
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.91	94.17

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COGCC Allowable Levels		5	560	700	1400		
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.69	96.39
	9/17/2018	<1.00	<1.00	<1.00	<1.00	3.89	96.19
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.33	94.75
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.54	94.54
	6/24/2019	<1.00	<1.00	<1.00	<1.00	6.02	94.06
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.74	94.34
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.55	93.53
	3/13/2020	<1.00	<1.00	<1.00	<1.00	7.26	92.82
	6/15/2020	<1.00	<1.00	<1.00	<1.00	5.54	94.54
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.25	94.83
	12/7/2020	2.38	53.6	19.6	186	6.21	93.87
MW05	4/26/2011	36	<1.0	3.5	41	5.27	95.05
	6/21/2011	1500	<1.0	200	1800	3.39	97.03
	9/13/2011	2900	<1.0	180	3200	3.29	97.13
	12/20/2011	2100	<1.0	120	2500	3.58	96.84
	3/13/2012	610	<1.0	170	690	4.75	95.67
	6/13/2012	3900	<1.0	250	3500	4.68	95.74
	9/21/2012	1900	<1.0	150	500	3.77	96.65
	12/17/2012	1500	<1.0	130	1100	3.82	96.60
	3/13/2013	1400	<1.0	56	480	4.44	95.98
	6/25/2013	16	<1.0	1.1	5.6	3.80	96.62
	9/18/2013	1800	<1.0	32	1300	1.30	99.02
	11/13/2013	Surveyed - Not Sampled				2.87	97.57
	12/23/2013	167	<4.0	17.1	93.6	3.86	96.56
	3/6/2014	5.5	<1.0	1.5	11.9	4.86	95.56
	6/3/2014	187	<1.0	12.6	117	3.74	96.70
	9/18/2014	62.0	<4.0	<4.0	8.8	4.04	96.40
	12/2/2014	57.7	<1.0	6.8	22.3	4.47	95.97
	3/3/2015	<1.0	<1.0	<1.0	<1.0	5.48	94.96
	6/5/2015	758	<1.0	16.8	32.9	1.74	98.70
	9/3/2015	685	<4.0	17.6	81.4	2.68	97.76
	12/9/2015	15.3	<4.0	<4.0	19.7	3.44	97.00
	3/9/2016	Surveyed - Not Sampled				4.03	96.46
	3/30/2016	<1.0	<1.0	<1.0	<1.0	3.66	96.83

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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	6/27/2016	48.9	<1.00	2.89	23.3	3.56	96.93
	9/29/2016	2.30	<1.00	2.21	<1.00	4.21	96.28
	12/21/2016	4.75	<1.00	3.58	2.99	4.24	96.20
	3/17/2017	<1.00	<1.00	<1.00	<1.00	5.72	94.72
	6/19/2017	<1.00	<1.00	<1.00	<1.00	3.53	96.91
	9/26/2017	<1.00	<1.00	<1.00	<1.00	3.65	96.79
	12/20/2017	<1.00	<1.00	<1.00	<1.00	3.73	96.71
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.37	95.07
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.14	97.30
	9/17/2018	<1.00	<1.00	<1.00	<1.00	3.35	97.09
	12/18/2018	<1.00	<1.00	<1.00	<1.00	4.75	95.69
	3/26/2019	<1.00	<1.00	<1.00	<1.00	4.96	95.48
	6/24/2019	<1.00	<1.00	<1.00	<1.00	5.42	95.02
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.41	95.03
	12/6/2019	<1.00	<1.00	<1.00	<1.00	5.91	94.53
	3/13/2020	<1.00	<1.00	<1.00	<1.00	6.84	93.60
	6/15/2020	<1.00	<1.00	<1.00	<1.00	4.99	95.45
	9/2/2020	<1.00	<1.00	<1.00	<1.00	4.88	95.56
	12/7/2020	<1.00	<1.00	<1.00	<1.00	5.55	94.89
MW06	4/26/2011	<1.0	<1.0	<1.0	<1.0	6.16	93.52
	6/21/2011	<1.0	<1.0	<1.0	<1.0	4.18	95.34
	9/13/2011	<1.0	<1.0	<1.0	<1.0	3.60	95.92
	12/20/2011	<1.0	<1.0	<1.0	<1.0	3.84	95.68
	3/13/2012	<1.0	<1.0	<1.0	<1.0	5.12	94.40
	6/13/2012	<1.0	<1.0	<1.0	<1.0	5.05	94.47
	9/21/2012	<1.0	<1.0	<1.0	<1.0	4.15	95.37
	12/17/2012	<1.0	<1.0	<1.0	<1.0	4.30	95.22
	3/13/2013	<1.0	<1.0	<1.0	<1.0	4.75	94.77
	6/25/2013	<1.0	<1.0	<1.0	<1.0	4.18	95.34
	9/18/2013	<1.0	<1.0	<1.0	<1.0	1.80	97.82
	11/13/2013	Surveyed - Not Sampled				3.41	96.43
	12/23/2013	<4.0	<4.0	<4.0	<4.0	4.10	95.42
	3/6/2014	<1.0	<1.0	<1.0	<1.0	5.18	94.34
	6/3/2014	<1.0	<1.0	<1.0	<1.0	4.35	95.49

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	9/18/2014	<1.0	<1.0	<1.0	<1.0	4.61	95.23
	12/2/2014	<1.0	<1.0	<1.0	<1.0	5.09	94.75
	3/3/2015	<1.0	<1.0	<1.0	<1.0	6.10	93.74
	6/5/2015	<1.0	<1.0	<1.0	<1.0	2.37	97.47
	9/3/2015	<1.0	<1.0	<1.0	<1.0	3.37	96.57
	12/9/2015	<1.0	<1.0	<1.0	<1.0	3.98	95.96
	3/9/2016	Surveyed - Not Sampled				4.00	95.49
	3/30/2016	<1.0	<1.0	<1.0	<1.0	3.83	95.66
	6/27/2016	<1.00	<1.00	<1.00	<1.00	3.49	96.00
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.23	95.26
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.78	95.15
	3/17/2017	<1.00	<1.00	<1.00	<1.00	6.31	93.62
	6/19/2017	<1.00	<1.00	<1.00	<1.00	4.07	95.86
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.20	95.73
	12/20/2017	<1.00	<1.00	<1.00	<1.00	4.28	95.65
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.93	94.00
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.61	96.32
	9/17/2018	<1.00	<1.00	<1.00	<1.00	3.85	96.08
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.32	94.61
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.50	94.43
	6/24/2019	<1.00	<1.00	<1.00	<1.00	6.06	93.87
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.80	94.13
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.60	93.33
	3/13/2020	<1.00	<1.00	<1.00	<1.00	7.46	92.47
	6/15/2020	<1.00	<1.00	<1.00	<1.00	5.77	94.16
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.43	94.50
	12/7/2020	<1.00	<1.00	<1.00	<1.00	6.23	93.70
<hr/>							
MW07	12/20/2011	<1.0	<1.0	<1.0	<1.0	3.43	97.63
	3/13/2012	<1.0	<1.0	<1.0	<1.0	4.78	96.27
	6/13/2012	<1.0	<1.0	<1.0	<1.0	4.74	96.31
	9/21/2012	<1.0	<1.0	<1.0	<1.0	3.78	97.27
	12/17/2012	<1.0	<1.0	<1.0	<1.0	3.89	97.16
	3/13/2013	<1.0	<1.0	<1.0	<1.0	4.43	96.62
	6/25/2013	<1.0	<1.0	<1.0	<1.0	3.84	97.21

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	9/18/2013	<1.0	<1.0	<1.0	<1.0	1.43	99.62
	11/13/2013	Surveyed - Not Sampled				3.02	98.12
	12/23/2013	<4.0	<4.0	<4.0	<4.0	3.94	97.11
	3/6/2014	<1.0	<1.0	<1.0	<1.0	4.91	96.14
	6/3/2014	<1.0	<1.0	<1.0	<1.0	3.84	97.30
	9/18/2014	<1.0	<1.0	<1.0	<1.0	4.20	96.94
	12/2/2014	<1.0	<1.0	<1.0	<1.0	4.57	96.57
	3/3/2015	<1.0	<1.0	<1.0	<1.0	5.52	95.62
	6/5/2015	<1.0	<1.0	<1.0	<1.0	1.87	99.27
	9/3/2015	<1.0	<1.0	<1.0	<1.0	2.93	98.21
	12/9/2015	<1.0	<1.0	<1.0	<1.0	3.53	97.61
	3/9/2016	Surveyed - Not Sampled				2.51	97.09
	3/30/2016	<1.0	<1.0	<1.0	<1.0	3.74	97.36
	6/27/2016	<1.00	<1.00	<1.00	<1.00	3.54	97.56
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.33	96.77
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.37	96.77
	3/17/2017	<1.00	<1.00	<1.00	<1.00	5.85	95.29
	6/19/2017	<1.00	<1.00	<1.00	<1.00	3.64	97.50
	9/26/2017	<1.00	<1.00	<1.00	<1.00	3.78	97.36
	12/20/2017	<1.00	<1.00	<1.00	<1.00	3.80	97.34
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.41	95.73
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.25	97.89
	9/17/2018	<1.00	<1.00	<1.00	<1.00	3.42	97.72
	12/18/2018	<1.00	<1.00	<1.00	<1.00	4.85	96.29
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.02	96.12
	6/24/2019	<1.00	<1.00	<1.00	<1.00	5.47	95.67
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.34	95.80
	12/6/2019	<1.00	<1.00	<1.00	<1.00	5.99	95.15
	3/13/2020	<1.00	<1.00	<1.00	<1.00	6.90	94.24
	6/15/2020	<1.00	<1.00	<1.00	<1.00	4.92	96.22
	9/2/2020	<1.00	<1.00	<1.00	<1.00	4.97	96.17
	12/7/2020	<1.00	<1.00	<1.00	<1.00	5.61	95.53
MW08	12/20/2011	<1.0	<1.0	<1.0	<1.0	3.94	96.71
	3/13/2012	<1.0	<1.0	<1.0	<1.0	5.29	95.36

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	6/13/2012	<1.0	<1.0	<1.0	<1.0	5.21	95.44
	9/21/2012	<1.0	<1.0	<1.0	<1.0	4.29	96.36
	12/17/2012	<1.0	<1.0	<1.0	<1.0	4.38	96.27
	3/13/2013	<1.0	<1.0	<1.0	<1.0	4.98	95.67
	6/25/2013	<1.0	<1.0	<1.0	<1.0	4.36	96.29
	9/18/2013	<1.0	<1.0	<1.0	<1.0	2.01	98.69
	11/13/2013	Surveyed - Not Sampled				3.37	97.29
	12/23/2013	<4.0	<4.0	<4.0	<4.0	3.37	97.28
	3/6/2014	<1.0	<1.0	<1.0	<1.0	5.37	95.28
	6/3/2014	<1.0	<1.0	<1.0	<1.0	4.28	96.38
	9/18/2014	<1.0	<1.0	<1.0	<1.0	4.57	96.09
	12/2/2014	<1.0	<1.0	<1.0	<1.0	4.96	95.70
	3/3/2015	<1.0	<1.0	<1.0	<1.0	5.96	94.70
	6/5/2015	<1.0	<1.0	<1.0	<1.0	2.24	98.42
	9/3/2015	<1.0	<1.0	<1.0	<1.0	3.30	97.34
	12/9/2015	<1.0	<1.0	<1.0	<1.0	3.90	96.74
	3/9/2016	Surveyed - Not Sampled				4.61	96.09
	3/30/2016	<1.0	<1.0	<1.0	<1.0	4.22	96.48
	6/27/2016	<1.00	<1.00	<1.00	<1.00	4.00	96.70
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.79	95.91
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.72	95.92
	3/17/2017	<1.00	<1.00	<1.00	<1.00	6.24	94.40
	6/19/2017	<1.00	<1.00	<1.00	<1.00	4.07	96.57
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.18	96.46
	12/20/2017	<1.00	<1.00	<1.00	<1.00	4.19	96.45
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.93	94.71
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.60	97.04
	9/17/2018	<1.00	<1.00	<1.00	<1.00	3.81	96.83
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.27	95.37
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.48	95.16
	6/24/2019	<1.00	<1.00	<1.00	<1.00	5.88	94.76
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.68	94.96
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.46	94.18
	3/13/2020	<1.00	<1.00	<1.00	<1.00	7.38	93.26
	6/15/2020	<1.00	<1.00	<1.00	<1.00	5.52	95.12

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.26	95.38
	12/7/2020	<1.00	<1.00	<1.00	<1.00	6.07	94.57
MW09	12/20/2011	44	<1.0	<1.0	<1.0	4.04	95.27
	3/13/2012	280	<1.0	9.8	73	5.37	93.94
	6/13/2012	81	<1.0	<1.0	<1.0	5.31	94.00
	9/21/2012	1.3	<1.0	<1.0	<1.0	4.37	94.94
	12/17/2012	200	<1.0	3.0	<1.0	4.48	94.83
	3/13/2013	56	<1.0	2.8	11	4.95	94.36
	6/25/2013	150	<1.0	<1.0	<1.0	4.31	95.00
	9/18/2013	<1.0	<1.0	<1.0	<1.0	1.99	97.30
	11/13/2013	Surveyed - Not Sampled				3.47	95.93
	12/23/2013	<4.0	<4.0	<4.0	<4.0	4.40	94.91
	3/6/2014	33.6	<1.0	<1.0	<1.0	5.48	93.83
	6/3/2014	<1.0	<1.0	<1.0	<1.0	4.45	94.95
	9/18/2014	Inaccessible - Not Sampled				NM	NA
	12/2/2014	1.7	<1.0	<1.0	<1.0	5.13	94.27
	3/3/2015	3.1	<1.0	<1.0	<1.0	6.18	93.22
	6/5/2015	2.9	<1.0	<1.0	<1.0	2.31	97.09
	9/3/2015	Inaccessible - Not Sampled				Inaccessible	NA
	12/9/2015	3.9	<1.0	<1.0	<1.0	4.06	95.35
	3/9/2016	Surveyed - Not Sampled				4.64	94.85
	3/30/2016	<1.0	<1.0	<1.0	<1.0	4.47	95.02
	6/27/2016	<1.00	<1.00	<1.00	<1.00	4.10	95.39
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.85	94.64
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.88	94.53
	3/17/2017	<1.00	<1.00	<1.00	<1.00	6.43	92.98
	6/19/2017	<1.00	<1.00	<1.00	<1.00	4.17	95.24
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.33	95.08
	12/20/2017	<1.00	<1.00	<1.00	<1.00	4.40	95.01
	3/29/2018	<1.00	<1.00	<1.00	<1.00	6.09	93.32
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.97	95.44
	9/17/2018	<1.00	<1.00	<1.00	<1.00	4.16	95.25
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.44	93.97
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.64	93.77

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	6/24/2019	<4.00	<4.00	<4.00	<4.00	6.22	93.19
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.89	93.52
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.75	92.66
	3/13/2020	<1.00	<1.00	<1.00	<1.00	7.60	91.81
	6/15/2020	<1.00	<1.00	<1.00	<1.00	5.78	93.63
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.49	93.92
	12/7/2020	<1.00	<1.00	<1.00	<1.00	6.38	93.03
MW10	4/26/2012	190	15	240	7900	3.20	98.17
	6/13/2012	12	<1.0	59	2500	4.50	96.87
	9/21/2012	48	1.4	120	750	3.91	97.46
	12/17/2012	25	<1.0	62	730	3.90	97.47
	3/13/2013	54	1.4	89	1100	4.25	97.12
	6/25/2013	9.6	<1.0	53	600	3.70	97.67
	9/18/2013	31	<1.0	67	870	0.45	100.92
	11/13/2013	Surveyed - Not Sampled				2.39	98.22
	12/23/2013	5.9	<4.0	7.4	85.8	4.10	97.27
	3/6/2014	1.7	<1.0	5.4	88.1	4.77	96.29
	6/3/2014	7.9	<1.0	16.8	284	4.39	97.36
	9/18/2014	20.2	<1.0	35.1	241	4.78	96.97
	12/2/2014	14.7	<1.0	3.7	21.6	5.19	96.56
	3/3/2015	9.4	<1.0	6.2	100	6.02	95.73
	6/5/2015	7.6	<1.0	3.0	14.2	2.44	99.31
	9/3/2015	9.3	<1.0	<1.0	278	3.29	98.49
	12/9/2015	6.4	<1.0	7.2	75.2	4.20	97.58
	3/9/2016	Surveyed - Not Sampled				5.02	96.79
	3/30/2016	65.4	<1.0	<1.0	175	4.56	97.25
	6/27/2016	7.24	<1.00	61.8	1,230	4.37	97.44
	9/29/2016	<1.00	<1.00	3.10	58.2	5.11	96.70
	12/21/2016	<1.00	<1.00	5.82	65.6	4.93	96.85
	3/17/2017	1.33	<1.00	<1.00	7.47	6.27	95.51
	6/19/2017	3.06	<1.00	1.14	<1.00	4.20	97.58
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.34	97.44
	12/20/2017	<1.00	<1.00	<1.00	<1.00	4.34	97.44
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.83	95.95

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	6/25/2018	<1.00	<1.00	1.04	8.40	3.74	98.04
	9/17/2018	<1.00	<1.00	<1.00	<1.00	4.49	97.29
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.47	96.31
	3/26/2019	<1.00	<1.00	<1.00	120	5.68	96.10
	6/24/2019	<1.00	<1.00	<1.00	14.0	6.13	95.65
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.97	95.81
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.29	95.49
	3/13/2020	<1.00	<1.00	<1.00	<1.00	7.54	94.24
	6/15/2020	<1.00	<1.00	<1.00	<1.00	5.47	96.31
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.69	96.09
	12/7/2020	<4.00	<4.00	<4.00	<4.00	6.22	95.56
MW11	4/26/2012	<1.0	<1.0	<1.0	3.1	5.85	93.94
	6/13/2012	<1.0	<1.0	<1.0	<1.0	5.52	94.19
	9/21/2012	<1.0	<1.0	<1.0	<1.0	5.32	94.39
	12/17/2012	<1.0	<1.0	<1.0	<1.0	5.42	94.29
	3/13/2013	<1.0	<1.0	<1.0	<1.0	5.25	94.46
	6/25/2013	<1.0	<1.0	<1.0	<1.0	4.62	95.09
	9/18/2013	<1.0	<1.0	<1.0	<1.0	2.97	96.74
	11/13/2013	Surveyed - Not Sampled				4.23	95.45
	12/23/2013	<4.0	<4.0	<4.0	<4.0	5.23	94.48
	3/6/2014	<1.0	<1.0	<1.0	<1.0	6.40	93.31
	6/3/2014	<1.0	<1.0	<1.0	<1.0	5.22	94.46
	9/18/2014	<1.0	<1.0	<1.0	<1.0	5.40	94.28
	12/2/2014	<1.0	<1.0	<1.0	<1.0	5.88	93.80
	3/3/2015	<1.0	<1.0	<1.0	<1.0	6.98	92.70
	6/5/2015	<1.0	<1.0	<1.0	<1.0	3.24	96.44
	9/3/2015	<1.0	<1.0	<1.0	<1.0	6.32	93.54
	12/9/2015	<1.0	<1.0	<1.0	<1.0	4.80	95.06
	3/9/2016	Surveyed - Not Sampled				5.32	94.54
	3/30/2016	<1.0	<1.0	<1.0	<1.0	5.21	94.65
	6/27/2016	<1.00	<1.00	<1.00	<1.00	4.76	95.10
	9/29/2016	<1.00	<1.00	<1.00	<1.00	5.50	94.36
	12/21/2016	<1.00	<1.00	<1.00	<1.00	5.65	94.21
	3/17/2017	<1.00	<1.00	<1.00	<1.00	7.16	92.70

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	6/19/2017	<1.00	<1.00	<1.00	<1.00	4.96	94.90
	9/26/2017	<1.00	<1.00	<1.00	<1.00	5.04	94.82
	12/20/2017	<1.00	<1.00	<1.00	<1.00	5.21	94.65
	3/29/2018	<1.00	<1.00	<1.00	<1.00	6.86	93.00
	6/25/2018	<1.00	<1.00	<1.00	<1.00	5.09	94.77
	9/17/2018	<1.00	<1.00	<1.00	<1.00	4.99	94.87
	12/18/2018	<1.00	<1.00	<1.00	<1.00	6.22	93.64
	3/26/2019	<1.00	<1.00	<1.00	<1.00	6.41	93.45
	6/24/2019	<1.00	<1.00	<1.00	<1.00	6.98	92.88
	9/16/2019	<1.00	<1.00	<1.00	<1.00	6.67	93.19
	12/6/2019	<1.00	<1.00	<1.00	<1.00	7.60	92.26
	3/13/2020	<1.00	<1.00	<1.00	<1.00	8.36	91.50
	6/15/2020	<1.00	<1.00	<1.00	<1.00	6.75	93.11
	9/2/2020	<1.00	<1.00	<1.00	<1.00	6.25	93.61
	12/7/2020	<1.00	<1.00	<1.00	<1.00	7.22	92.64
MW12	4/26/2012	13	<1.0	<1.0	<1.0	5.44	NA
	6/13/2012	3.2	<1.0	<1.0	<1.0	5.15	NA
	9/21/2012	<1.0	<1.0	<1.0	<1.0	5.03	NA
	12/17/2012	<1.0	<1.0	<1.0	<1.0	5.10	NA
	3/13/2013	<1.0	<1.0	<1.0	<1.0	5.75	NA
	6/25/2013	2.7	<1.0	<1.0	<1.0	5.20	NA
	9/18/2013	Damaged - Not Sampled				NM	NA
	MW12 destroyed as of 9/18/2013						
MW12R	12/23/2013	<4.0	<4.0	<4.0	<4.0	4.99	NA
	3/6/2014	9.2	<1.0	<1.0	<1.0	6.10	NA
	6/3/2014	2.9	<1.0	<1.0	<1.0	7.63	NA
	9/18/2014	<1.0	<1.0	<1.0	<1.0	5.33	NA
	12/2/2014	<1.0	<1.0	<1.0	<1.0	5.73	NA
	3/3/2015	<1.0	<1.0	<1.0	<1.0	6.79	NA
	6/5/2015	<1.0	<1.0	<1.0	<1.0	2.92	NA
	9/3/2015	<1.0	<1.0	<1.0	<1.0	8.76	92.96
	12/9/2015	<1.0	<1.0	<1.0	<1.0	7.38	94.34
	3/9/2016	Surveyed - Not Sampled				5.46	93.69

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	3/30/2016	<1.0	<1.0	<1.0	<1.0	5.11	94.04
	6/27/2016	9.21	<1.00	<1.00	<1.00	4.68	94.47
	7/25/2016	<1.00	<1.00	<1.00	<1.00	NM	NA
	9/29/2016	<1.00	<1.00	<1.00	<1.00	5.34	93.81
	12/21/2016	<1.00	<1.00	<1.00	<1.00	5.37	93.70
	3/17/2017	<1.00	<1.00	<1.00	<1.00	6.98	92.09
	6/19/2017	<1.00	<1.00	<1.00	<1.00	4.71	94.36
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.79	94.28
	12/20/2017	<1.00	<1.00	<1.00	<1.00	4.99	94.08
	3/29/2018	<1.00	<1.00	<1.00	<1.00	6.71	92.36
	6/25/2018	<1.00	<1.00	<1.00	<1.00	4.85	94.22
	9/17/2018	<1.00	<1.00	<1.00	<1.00	4.81	94.26
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.99	93.08
	3/26/2019	<1.00	<1.00	<1.00	<1.00	4.33	NA
	6/24/2019	<1.00	<1.00	<1.00	<1.00	4.21	NA
	8/28/2019	Surveyed - Not Sampled				6.63	92.66
	9/16/2019	<1.00	<1.00	<1.00	<1.00	3.84	92.55
	12/6/2019	<1.00	<1.00	<1.00	<1.00	4.81	91.58
	3/13/2020	<1.00	<1.00	<1.00	<1.00	8.49	90.86
	6/15/2020	<1.00	<1.00	<1.00	<1.00	6.85	92.50
	9/2/2020	<1.00	<1.00	<1.00	<1.00	6.52	92.83
	12/7/2020	<1.00	<1.00	<1.00	<1.00	7.33	92.02
MW13	3/13/2013	820	<1.0	150	3000	4.08	97.59
	6/25/2013	350	1.5	38	440	3.77	97.90
	9/18/2013	4500	2.2	<1.0	7000	0.30	101.37
	11/13/2013	Surveyed - Not Sampled				1.49	98.88
	12/23/2013	94.7	<4.0	33.8	384	3.75	97.92
	3/6/2014	70.8	<1.0	28.6	300	4.09	96.94
	6/3/2014	542	<1.0	44.5	441	4.24	98.08
	9/18/2014	578	<4.0	60.6	724	4.65	97.67
	12/2/2014	133	<1.0	30.8	110	5.01	97.31
	3/3/2015	28.4	<1.0	1.3	27.4	5.90	96.42
	6/5/2015	2270	<10.0	139	1920	2.35	99.97
	9/3/2015	427	<20.0	<20.0	108	3.24	99.10

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	12/9/2015	773	<4.0	88.8	118	4.01	98.33
	3/9/2016	Surveyed - Not Sampled				3.47	98.26
	3/30/2016	92.1	<4.0	<4.0	10.5	3.70	98.03
	6/27/2016	158	<1.00	85.6	206	3.55	98.18
	9/29/2016	22.7	<1.00	7.13	<1.00	4.32	97.41
	12/21/2016	25.0	<1.00	15.0	8.48	4.86	97.48
	3/17/2017	1.06	<1.00	<1.00	52.9	6.23	96.11
	6/19/2017	69.2	<1.00	1.61	<1.00	4.15	98.19
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.26	98.08
	12/20/2017	5.42	<1.00	<1.00	<1.00	4.33	98.01
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.75	96.59
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.93	98.41
	9/17/2018	<1.00	<1.00	<1.00	<1.00	4.53	97.81
	12/18/2018	<1.00	<1.00	<1.00	<1.00	5.38	96.96
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.56	96.78
	6/24/2019	<1.00	<1.00	<1.00	<1.00	6.01	96.33
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.88	96.46
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.17	96.17
	3/13/2020	<1.00	<1.00	<1.00	<1.00	7.26	95.08
	6/15/2020	<1.00	<1.00	<1.00	<1.00	5.20	97.14
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.44	96.90
	12/7/2020	<1.00	<1.00	<1.00	<1.00	6.05	96.29
MW14	12/23/2013	<4.0	<4.0	<4.0	<4.0	3.65	NA
	3/6/2014	<1.0	<1.0	<1.0	<1.0	4.58	NA
	6/3/2014	<1.0	<1.0	<1.0	<1.0	3.46	NA
	9/18/2014	<1.0	<1.0	<1.0	<1.0	3.79	NA
	12/2/2014	<1.0	<1.0	<1.0	<1.0	4.13	NA
	3/3/2015	<1.0	<1.0	<1.0	<1.0	5.07	NA
	6/5/2015	<1.0	<1.0	<1.0	<1.0	1.60	NA
	9/3/2015	<1.0	<1.0	<1.0	<1.0	5.56	99.40
	12/9/2015	<1.0	<1.0	<1.0	<1.0	6.28	98.68
	3/9/2016	Surveyed - Not Sampled				3.85	98.03
	3/30/2016	<1.0	<1.0	<1.0	<1.0	3.28	98.60
	6/27/2016	<1.00	<1.00	<1.00	<1.00	3.38	98.50

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.02	97.86
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.05	97.86
	3/17/2017	<1.00	<1.00	<1.00	<1.00	5.55	96.36
	6/19/2017	<1.00	<1.00	<1.00	<1.00	3.33	98.58
	9/26/2017	<1.00	<1.00	<1.00	<1.00	3.44	98.47
	12/20/2017	<1.00	<1.00	<1.00	<1.00	3.41	98.50
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.01	96.90
	6/25/2018	<1.00	<1.00	<1.00	<1.00	2.77	99.14
	9/17/2018	<1.00	<1.00	<1.00	<1.00	2.92	98.99
	12/18/2018	<1.00	<1.00	<1.00	<1.00	4.52	97.39
	3/26/2019	<1.00	<1.00	<1.00	<1.00	4.71	97.20
	6/24/2019	<1.00	<1.00	<1.00	<1.00	5.01	96.90
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.00	96.91
	12/6/2019	<1.00	<1.00	<1.00	<1.00	5.52	96.39
	3/13/2020	<1.00	<1.00	<1.00	<1.00	6.49	95.42
	6/15/2020	<1.00	<1.00	<1.00	<1.00	4.38	97.53
	9/2/2020	<1.00	<1.00	<1.00	<1.00	4.80	97.11
	12/7/2020	<1.00	<1.00	<1.00	<1.00	5.17	96.74
MW15	12/2/2014	98.9	<1.0	83.6	112	4.33	97.90
	3/3/2015	23.7	<1.0	23.0	249	5.21	97.02
	6/5/2015	215	<4.0	59.6	980	1.62	100.61
	9/3/2015	183	<4.0	5.4	63.4	2.60	99.63
	12/9/2015	87.3	<4.0	10.0	34.6	3.28	98.95
	3/9/2016	Surveyed - Not Sampled				3.83	98.41
	3/30/2016	4.1	<1.0	<1.0	<1.0	3.41	98.83
	6/27/2016	98.0	<1.00	6.72	21.4	3.47	98.77
	9/29/2016	106	<1.00	17.5	13.8	4.21	98.03
	12/21/2016	80.0	<1.00	19.6	<1.00	4.58	98.05
	3/17/2017	73.7	<1.00	14.6	56.4	5.93	96.70
	6/19/2017	6.31	<1.00	2.84	5.43	3.82	98.81
	9/26/2017	<1.00	<1.00	<1.00	<1.00	3.95	98.68
	12/20/2017	8.25	<1.00	<1.00	<1.00	3.93	98.70
	3/29/2018	13.6	<1.00	2.64	130	5.47	97.16
	6/25/2018	10.7	<1.00	<1.00	7.76	3.52	99.11

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	9/17/2018	50.5	<1.00	1.63	<1.00	4.27	98.36
	12/18/2018	13.3	<1.00	2.19	<1.00	5.03	97.60
	3/26/2019	16.5	<1.00	<1.00	132	5.19	97.44
	6/24/2019	10.7	<1.00	<1.00	8.48	6.71	95.92
	9/16/2019	1.86	<1.00	<1.00	<1.00	5.69	96.94
	12/6/2019	5.24	<1.00	<1.00	<1.00	6.15	96.48
	3/13/2020	<1.00	<1.00	<1.00	<1.00	6.99	95.64
	6/15/2020	<1.00	<1.00	<1.00	<1.00	4.70	97.93
	9/2/2020	31.0	<1.00	<1.00	4.82	5.01	97.62
	12/7/2020	3.72	<1.00	<1.00	<1.00	5.75	96.88
MW16	12/2/2014	<1.0	<1.0	<1.0	<1.0	6.41	97.08
	3/3/2015	<1.0	<1.0	<1.0	<1.0	7.30	96.19
	6/5/2015	<1.0	<1.0	<1.0	<1.0	3.79	99.70
	9/3/2015	<1.0	<1.0	<1.0	<1.0	2.48	101.01
	12/9/2015	<1.0	<1.0	<1.0	<1.0	3.46	100.03
	3/9/2016	Surveyed - Not Sampled				3.98	99.55
	3/30/2016	<1.0	<1.0	<1.0	<1.0	3.51	100.02
	6/27/2016	<1.00	<1.00	<1.00	<1.00	3.76	99.77
	9/29/2016	<1.00	<1.00	<1.00	<1.00	4.47	99.06
	12/21/2016	<1.00	<1.00	<1.00	<1.00	4.56	99.17
	3/17/2017	<1.00	<1.00	<1.00	<1.00	5.95	97.78
	6/19/2017	<1.00	<1.00	<1.00	<1.00	3.90	99.83
	9/26/2017	<1.00	<1.00	<1.00	<1.00	4.06	99.67
	12/20/2017	<1.00	<1.00	<1.00	<1.00	3.86	99.87
	3/29/2018	<1.00	<1.00	<1.00	<1.00	5.35	98.38
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.40	100.33
	9/17/2018	<1.00	<1.00	<1.00	<1.00	4.42	99.31
	12/18/2018	<1.00	<1.00	<1.00	<1.00	4.93	98.80
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.14	98.59
	6/24/2019	<1.00	<1.00	<1.00	<1.00	5.58	98.15
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.65	98.08
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.13	97.60
	3/13/2020	<1.00	<1.00	<1.00	<1.00	6.74	96.99
	6/15/2020	<1.00	<1.00	<1.00	<1.00	4.29	99.44

TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.04	98.69
	12/7/2020	<1.00	<1.00	<1.00	<1.00	5.65	98.08
MW17	12/2/2014	<1.0	<1.0	<1.0	<1.0	6.57	96.15
	3/3/2015	<1.0	<1.0	<1.0	<1.0	7.45	95.27
	6/5/2015	1.4	<1.0	1.5	4.3	3.85	98.87
	9/3/2015	<1.0	<1.0	<1.0	<1.0	2.68	100.04
	12/9/2015	3.4	<1.0	<1.0	<1.0	3.38	99.34
	3/9/2016	Surveyed - Not Sampled				3.94	98.81
	3/30/2016	<1.0	<1.0	<1.0	<1.0	3.52	99.23
	6/27/2016	5.41	<1.00	2.82	<1.00	3.64	99.11
	9/29/2016	3.19	<1.00	2.80	2.66	4.38	98.37
	12/21/2016	<1.00	<1.00	1.64	<1.00	4.38	98.51
	3/17/2017	2.45	<1.00	<1.00	<1.00	5.92	96.97
	6/19/2017	<1.00	<1.00	<1.00	<1.00	3.75	99.14
	9/26/2017	<1.00	<1.00	<1.00	<1.00	3.90	98.99
	12/20/2017	<1.00	<1.00	1.29	<1.00	3.77	99.12
	3/29/2018	21.9	<1.00	<1.00	<1.00	5.44	97.45
	6/25/2018	<1.00	<1.00	<1.00	<1.00	3.40	99.49
	9/17/2018	<1.00	<1.00	<1.00	<1.00	4.21	98.68
	12/18/2018	<1.00	<1.00	<1.00	<1.00	4.95	97.94
	3/26/2019	<1.00	<1.00	<1.00	<1.00	5.13	97.76
	6/24/2019	<1.00	<1.00	<1.00	<1.00	5.56	97.33
	9/16/2019	<1.00	<1.00	<1.00	<1.00	5.49	97.40
	12/6/2019	<1.00	<1.00	<1.00	<1.00	6.15	96.74
	3/13/2020	<1.00	<1.00	<1.00	<1.00	6.85	96.04
	6/15/2020	<1.00	<1.00	<1.00	<1.00	4.33	98.56
	9/2/2020	<1.00	<1.00	<1.00	<1.00	5.09	97.80
	12/7/2020	<1.00	<1.00	<1.00	<1.00	5.62	97.27

Notes: COGCC - Colorado Oil and Gas Conservation Commission

µg/L - micrograms per liter

ft bgs - feet below ground surface

< - less than laboratory reporting limit

NA - not analyzed/not available

Excavation groundwater depth is approximate

NM - not measured


Corrected Relative GW Elev. is used when LNAPL is present.



TABLE 1
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-CHAKNOVA 14-5, HSR-MOORHEAD 13-5, HSR-BELL 12-5, HSR-CREASON 11-5
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 to Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
COGCC Allowable Levels		5	560	700	1400		

BOLD = Analytical result is in exceedance of COGCC Table 915-1 groundwater standards.

 = Active remediation implementation period



March 23, 2020

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR - Chaknova 14-5 ,
Moorhead 13-5**

Project Number - [none]

Attached are your analytical results for KMG - HSR - Chaknova 14-5 , Moorhead 13-5 received by Origins Laboratory, Inc. March 13, 2020. This project is associated with Origins project number Y003278-01.

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y003278-01	Water	March 13, 2020 12:13	03/13/2020 16:48
MW02	Y003278-02	Water	March 13, 2020 12:20	03/13/2020 16:48
MW03	Y003278-03	Water	March 13, 2020 12:27	03/13/2020 16:48
MW04	Y003278-04	Water	March 13, 2020 12:38	03/13/2020 16:48
MW05	Y003278-05	Water	March 13, 2020 12:45	03/13/2020 16:48
MW06	Y003278-06	Water	March 13, 2020 12:51	03/13/2020 16:48
MW07	Y003278-07	Water	March 13, 2020 12:58	03/13/2020 16:48
MW08	Y003278-08	Water	March 13, 2020 13:08	03/13/2020 16:48
MW09	Y003278-09	Water	March 13, 2020 13:13	03/13/2020 16:48
MW10	Y003278-10	Water	March 13, 2020 13:20	03/13/2020 16:48
MW11	Y003278-11	Water	March 13, 2020 13:26	03/13/2020 16:48
MW12R	Y003278-12	Water	March 13, 2020 13:32	03/13/2020 16:48
MW13	Y003278-13	Water	March 13, 2020 13:40	03/13/2020 16:48
MW14	Y003278-14	Water	March 13, 2020 13:48	03/13/2020 16:48

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW15	Y003278-15	Water	March 13, 2020 13:53	03/13/2020 16:48
MW16	Y003278-16	Water	March 13, 2020 14:00	03/13/2020 16:48
MW17	Y003278-17	Water	March 13, 2020 14:09	03/13/2020 16:48

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: [none]
Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5

ORIGINS
LABORATORY, INC

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

Project Manager: Brian Sulzberger
Project Number: KMG10619WO #88063082

1 of 2

10032781/2

Client: LT Environmental, Inc.	Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5	Project Number: KMG10619WO #88063082	Project Manager: Brian Sulzberger				
Number	Sample Identification	Matrix	Sample Date	Sample Time	Container	QV	Analyses
01-001	MW01	Water	3/13/20	12:13	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
02-001	MW02	Water		12:20	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
03-001	MW03	Water		12:27	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
04-001	MW04	Water		12:38	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
05-001	MW05	Water		12:45	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
06-001	MW06	Water		12:51	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
07-001	MW07	Water		12:58	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
08-001	MW08	Water		13:08	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
09-001	MW09	Water		13:13	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
10-001	MW10	Water		13:20	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
11-001	MW11	Water		13:26	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C

Relinquished By: [Signature] Date / Time: 3/13/20 16:48

Received By: [Signature] Date / Time: 3/13/20 16:48

Temperature on Receipt: 56

Turn Around Time: ☐ 72-hr ☒ Standard

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

ORIGINS
LABORATORY, INC

10032782 1/2

2 of 2
1725 Elk Place, Denver, CO 80211
Laboratory # - 303.433.1322

12-001	MW12R	Water	3/13/20	13.32	KM	40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
13-001	MW13	Water		13.40		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
14-001	MW14	Water		13.48		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
15-001	MW15	Water		13.53		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
16-001	MW16	Water		14.00		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
17-001	MW17	Water		14.09		40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C

Relinquished By [Signature] Date / Time 3/13/20 16:48
Received By [Signature] Date / Time 3/13/20 16:48

Temperature on Receipt: 5.6
Turn Around Time: ☐ 72-hr ☐ Standard ☐ 48-hr
Same Day: ☐ 24-hr ☐ 48-hr

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: [none]
Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5

Origins Laboratory

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

Origins Work Order: Y003278

Checklist Completed by: JS KPIK

Date/time completed: 03/16/2020

Matrix(s) Received: (Check all that apply): Soil/Solid ☒ Water ☐ Other: (Describe)

Cooler Number/Temperature: 1 / 5.6 °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"/>			
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.

jm Reviewed by (Project Manager) 3-16-20 Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Brian Sulzberger
Project Number: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW01

3/13/2020 12:13:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y003278-01 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	95.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.0 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW02

3/13/2020 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-02 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	95.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW03

3/13/2020 12:27:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-03 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	96.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW04

3/13/2020 12:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-04 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	96.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.2 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW05

3/13/2020 12:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-05 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	98.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.6 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW06

3/13/2020 12:51:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-06 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	96.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW07

3/13/2020 12:58:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-07 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	97.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.3 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW08

3/13/2020 1:08:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-08 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	96.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW09

3/13/2020 1:13:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-09 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.9 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW10

3/13/2020 1:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-10 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	99.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW11

3/13/2020 1:26:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-11 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"
Surrogate: Toluene-d8	98.7 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW12R

3/13/2020 1:32:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-12 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.0 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW13

3/13/2020 1:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-13 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	98.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.7 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW14

3/13/2020 1:48:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-14 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	KDK	03/16/2020	03/22/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	03/20/2020
Surrogate: Toluene-d8	96.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.4 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW15

3/13/2020 1:53:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-15 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	96.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.8 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW16

3/13/2020 2:00:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-16 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	96.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.8 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW17

3/13/2020 2:09:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y003278-17 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0C1604	ZZZ	03/16/2020	03/20/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	99.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	96.9 %	70-130	"	"	"

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0C1604 - EPA 5030B (Water)

Blank (B0C1604-BLK1)

Prepared: 03/16/2020 Analyzed: 03/20/2020

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	64		"	62.5	103		70-130			
Surrogate: Toluene-d8	61		"	62.5	98.3		70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5	104		70-130			

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0C1604 - EPA 5030B (Water)

LCS (B0C1604-BS1)

Prepared: 03/16/2020 Analyzed: 03/20/2020

Benzene	54.0	1.00	ug/L	50.0		108	70-130			
Toluene	56.3	1.00	"	50.0		113	70-130			
Ethylbenzene	55.2	1.00	"	50.0		110	70-130			
m,p-Xylene	109	2.00	"	100		109	70-130			
o-Xylene	54.2	1.00	"	50.0		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5		110	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.6	70-130			

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0C1604 - EPA 5030B (Water)

Matrix Spike (B0C1604-MS1)		Source: Y003278-01			Prepared: 03/16/2020 Analyzed: 03/20/2020					
Benzene	46.8	1.00	ug/L	50.0	ND	93.7	70-130			
Toluene	49.1	1.00	"	50.0	ND	98.1	70-130			
Ethylbenzene	46.2	1.00	"	50.0	0.100	92.2	70-130			
m,p-Xylene	92.0	2.00	"	100	0.280	91.7	70-130			
o-Xylene	48.3	1.00	"	50.0	ND	96.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.4	70-130			
Surrogate: Toluene-d8	65		"	62.5		105	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	70-130			

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0C1604 - EPA 5030B (Water)

Matrix Spike Dup (B0C1604-MSD1)		Source: Y003278-01			Prepared: 03/16/2020 Analyzed: 03/20/2020					
Benzene	52.1	1.00	ug/L	50.0	ND	104	70-130	10.7	20	
Toluene	51.6	1.00	"	50.0	ND	103	70-130	5.01	20	
Ethylbenzene	50.9	1.00	"	50.0	0.100	102	70-130	9.76	20	
m,p-Xylene	101	2.00	"	100	0.280	101	70-130	9.66	20	
o-Xylene	51.9	1.00	"	50.0	ND	104	70-130	7.09	20	
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		95.1	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.3	70-130			

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: [none]
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

Notes and Definitions

U Sample is Non-Detect.

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.



June 22, 2020

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR - Chaknova 14-5 ,
Moorhead 13-5**

Project Number - KMG10619/#88066082

Attached are your analytical results for KMG - HSR - Chaknova 14-5 , Moorhead 13-5 received by Origins Laboratory, Inc. June 15, 2020. This project is associated with Origins project number Y006266-01.

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y006266-01	Water	June 15, 2020 14:28	06/15/2020 16:13
MW02	Y006266-02	Water	June 15, 2020 14:24	06/15/2020 16:13
MW03	Y006266-03	Water	June 15, 2020 14:16	06/15/2020 16:13
MW04	Y006266-04	Water	June 15, 2020 13:34	06/15/2020 16:13
MW05	Y006266-05	Water	June 15, 2020 13:18	06/15/2020 16:13
MW06	Y006266-06	Water	June 15, 2020 13:42	06/15/2020 16:13
MW07	Y006266-07	Water	June 15, 2020 13:05	06/15/2020 16:13
MW08	Y006266-08	Water	June 15, 2020 13:12	06/15/2020 16:13
MW09	Y006266-09	Water	June 15, 2020 13:56	06/15/2020 16:13
MW10	Y006266-10	Water	June 15, 2020 13:22	06/15/2020 16:13
MW11	Y006266-11	Water	June 15, 2020 13:49	06/15/2020 16:13
MW12R	Y006266-12	Water	June 15, 2020 14:06	06/15/2020 16:13
MW13	Y006266-13	Water	June 15, 2020 12:59	06/15/2020 16:13
MW14	Y006266-14	Water	June 15, 2020 12:54	06/15/2020 16:13

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW15	Y006266-15	Water	June 15, 2020 12:47	06/15/2020 16:13
MW16	Y006266-16	Water	June 15, 2020 12:38	06/15/2020 16:13
MW17	Y006266-17	Water	June 15, 2020 12:30	06/15/2020 16:13

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5

ORIGINS
LABORATORY, INC

you6266

1 of 2

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

Client: LT Environmental, Inc. Project Manager: Brian Sulzberger
Project: KMG - HSR-Chaknova 14-5, Moorhead 13-5 Project Number: KMG10619/#88066082

Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analyses
01-001	MW01	Water	6/15/20	14:29	JS	2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
02-001	MW02	Water		14:24		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
03-001	MW03	Water		14:16		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
04-001	MW04	Water		13:34		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
05-001	MW05	Water		13:18		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
06-001	MW06	Water		13:42		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
07-001	MW07	Water		13:05		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
08-001	MW08	Water		13:12		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
09-001	MW09	Water		13:56		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
10-001	MW10	Water		13:22		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
11-001	MW11	Water		13:49		2 40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C

Temperature on Receipt: 5.7
Turn Around Time:
Same Day: ☐ 72-hr: ☒
24-hr: ☐ 48-hr: ☐

Relinquished By: [Signature] Date / Time: 6/15/20 16:13
Received By: [Signature] Date / Time: 6/15/20 16:13

Relinquished By: [Signature] Date / Time: 6/15/20 16:13
Received By: [Signature] Date / Time: 6/15/20 16:13

Origins Laboratory, Inc.

[Signature]

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5

ORIGINS
LABORATORY, INC

you do 266



2012



1725 Elk Place, Denver, CO 80211

Laboratory # - 303.433.1322

12-001	MW12R	Water	6/15/20	14.06	8.8	2.40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
13-001	MW13	Water		12.59		2.40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
14-001	MW14	Water		12.54		2.40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
15-001	MW15	Water		12.47		2.40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
16-001	MW16	Water		12.38		2.40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C
17-001	MW17	Water		12.30		2.40mL Amber VOA Vial - HC	3	BTEX by EPA 8260C

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

Relinquished By:  Date / Time: 6/15/20 16:13
Received By:  Date / Time: 6/15/20 16:13

Relinquished By:  Date / Time: 6/15/20 16:13
Received By:  Date / Time: 6/15/20 16:13

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 7006266

Client: LTE

Client Project ID: HSR Chaknova 14-5, Moorhead 13-5

Checklist Completed by: JG

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 6/16/2020

Airbill #: N/A

Matrix(s) Received: (Check all that apply): Sol/Solid ☒ Water ☐ Other: ☐ (Describe)

Cooler Number/Temperature: 1 / 5.7 °C 1 °C 1 °C 1 °C

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 5°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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) JM

Date/Time Reviewed 6-17-20

Origins Laboratory, Inc.

Jordan A. Merrill

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW01

6/15/2020 2:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-01 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	70-130	"	"	"
Surrogate: Toluene-d8	118 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	81.2 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW02

6/15/2020 2:24:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-02 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	123 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	80.8 %	70-130	"	"	"

Origins Laboratory, Inc.

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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW03

6/15/2020 2:16:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-03 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	115 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	78.8 %	70-130	"	"	"

Origins Laboratory, Inc.

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LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

MW04

6/15/2020 1:34:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y006266-04 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	122 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	82.9 %	70-130	"	"	"

Origins Laboratory, Inc.

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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW05

6/15/2020 1:18:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-05 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	113 %	70-130	"	"	"
Surrogate: Toluene-d8	114 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	80.1 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW06

6/15/2020 1:42:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-06 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130	"	"	"
Surrogate: Toluene-d8	123 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	80.7 %	70-130	"	"	"

Origins Laboratory, Inc.

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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW07

6/15/2020 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-07 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	118 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	82.4 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW08

6/15/2020 1:12:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-08 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	70-130	"	"	"
Surrogate: Toluene-d8	120 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	86.2 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW09

6/15/2020 1:56:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-09 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	110 %	70-130	"	"	"
Surrogate: Toluene-d8	120 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	86.7 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW10

6/15/2020 1:22:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-10 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	118 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	81.3 %	70-130	"	"	"

Origins Laboratory, Inc.

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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW11

6/15/2020 1:49:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-11 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	118 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	79.3 %	70-130	"	"	"

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW12R

6/15/2020 2:06:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y006266-12 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	121 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	79.2 %	70-130	"	"	"

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW13

6/15/2020 12:59:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y006266-13 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	121 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	82.1 %	70-130	"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW14

6/15/2020 12:54:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-14 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	110 %	70-130	"	"	"
Surrogate: Toluene-d8	115 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	81.9 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW15

6/15/2020 12:47:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-15 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	123 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	77.6 %	70-130	"	"	"

Origins Laboratory, Inc.

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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW16

6/15/2020 12:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-16 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	120 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	80.6 %	70-130	"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW17

6/15/2020 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y006266-17 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0F1609	ZZZ	06/16/2020	06/17/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	115 %	70-130	"	"	"
Surrogate: Toluene-d8	119 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	81.7 %	70-130	"	"	"

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0F1609 - EPA 5030B (Water)

Blank (B0F1609-BLK1)

Prepared: 06/16/2020 Analyzed: 06/17/2020

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	69		"	62.5	110		70-130			
Surrogate: Toluene-d8	75		"	62.5	121		70-130			
Surrogate: 4-Bromofluorobenzene	51		"	62.5	81.7		70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0F1609 - EPA 5030B (Water)

LCS (B0F1609-BS1)

Prepared: 06/16/2020 Analyzed: 06/17/2020

Benzene	43.1	1.00	ug/L	50.0		86.1	70-130			
Toluene	57.6	1.00	"	50.0		115	70-130			
Ethylbenzene	53.0	1.00	"	50.0		106	70-130			
m,p-Xylene	105	2.00	"	100		105	70-130			
o-Xylene	52.3	1.00	"	50.0		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	68		"	62.5		108	70-130			
Surrogate: Toluene-d8	80		"	62.5		127	70-130			
Surrogate: 4-Bromofluorobenzene	54		"	62.5		86.6	70-130			

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0F1609 - EPA 5030B (Water)

Matrix Spike (B0F1609-MS1)		Source: Y006266-01			Prepared: 06/16/2020 Analyzed: 06/17/2020					
Benzene	45.6	1.00	ug/L	50.0	ND	91.3	70-130			
Toluene	56.1	1.00	"	50.0	ND	112	70-130			
Ethylbenzene	47.4	1.00	"	50.0	ND	94.8	70-130			
m,p-Xylene	92.8	2.00	"	100	0.220	92.6	70-130			
o-Xylene	50.3	1.00	"	50.0	ND	101	70-130			
Surrogate: 1,2-Dichloroethane-d4	74		"	62.5		118	70-130			
Surrogate: Toluene-d8	74		"	62.5		118	70-130			
Surrogate: 4-Bromofluorobenzene	46		"	62.5		73.6	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0F1609 - EPA 5030B (Water)

Matrix Spike Dup (B0F1609-MSD1)		Source: Y006266-01			Prepared: 06/16/2020 Analyzed: 06/17/2020					
Benzene	44.2	1.00	ug/L	50.0	ND	88.3	70-130	3.32	20	
Toluene	51.0	1.00	"	50.0	ND	102	70-130	9.44	20	
Ethylbenzene	45.7	1.00	"	50.0	ND	91.4	70-130	3.74	20	
m,p-Xylene	96.8	2.00	"	100	0.220	96.5	70-130	4.16	20	
o-Xylene	52.0	1.00	"	50.0	ND	104	70-130	3.46	20	
Surrogate: 1,2-Dichloroethane-d4	76		"	62.5		122	70-130			
Surrogate: Toluene-d8	74		"	62.5		119	70-130			
Surrogate: 4-Bromofluorobenzene	48		"	62.5		77.4	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

Notes and Definitions

U Sample is Non-Detect.

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.



September 11, 2020

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR - Chaknova 14-5 ,
Moorhead 13-5**

Project Number - KMG10619/#88066082

Attached are your analytical results for KMG - HSR - Chaknova 14-5 , Moorhead 13-5 received by Origins Laboratory, Inc. September 02, 2020. This project is associated with Origins project number Y009041-01.

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y009041-01	Water	September 2, 2020 15:21	09/02/2020 15:28
MW02	Y009041-02	Water	September 2, 2020 15:10	09/02/2020 15:28
MW03	Y009041-03	Water	September 2, 2020 15:05	09/02/2020 15:28
MW04	Y009041-04	Water	September 2, 2020 15:24	09/02/2020 15:28
MW05	Y009041-05	Water	September 2, 2020 14:17	09/02/2020 15:28
MW06	Y009041-06	Water	September 2, 2020 14:29	09/02/2020 15:28
MW07	Y009041-07	Water	September 2, 2020 14:10	09/02/2020 15:28
MW08	Y009041-08	Water	September 2, 2020 14:24	09/02/2020 15:28
MW09	Y009041-09	Water	September 2, 2020 12:41	09/02/2020 15:28
MW10	Y009041-10	Water	September 2, 2020 15:28	09/02/2020 15:28
MW11	Y009041-11	Water	September 2, 2020 14:34	09/02/2020 15:28
MW12R	Y009041-12	Water	September 2, 2020 14:57	09/02/2020 15:28
MW13	Y009041-13	Water	September 2, 2020 15:28	09/02/2020 15:28
MW14	Y009041-14	Water	September 2, 2020 14:05	09/02/2020 15:28

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW15	Y009041-15	Water	September 2, 2020 13:40	09/02/2020 15:28
MW16	Y009041-16	Water	September 2, 2020 13:59	09/02/2020 15:28
MW17	Y009041-17	Water	September 2, 2020 13:53	09/02/2020 15:28

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5

ORIGINS
LABORATORY, INC

4009041

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

Client: LT Environmental, Inc.			Project Manager: Brian Sulzberger		
Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5			Project Number: KMG10619/#88066082		
Number	Sample Identification	Matrix	Sample Date	Sample Time	Analyses
01-001	MW001	Water	9/2/20	1521	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
02-001	MW002	Water		1510	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
03-001	MW003	Water		1505	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
04-001	MW004	Water		1524	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
05-001	MW005	Water		1417	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
06-001	MW006	Water		1429	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
07-001	MW007	Water		1410	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
08-001	MW008	Water		1424	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
09-001	MW009	Water		1241	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
10-001	MW010	Water		1530	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3
11-001	MW011	Water		1434	40mL Amber VOA Vial - HC BTEX by EPA 8260C 3

Relinquished By: Wyle Mathis Date / Time: 9/2/20 1528

Received By: [Signature] Date / Time: 9-2-20 1528

Temperature on Receipt: 14.1

Turn Around Time: ☐ Same Day ☐ 72-hr ☒ Standard

☐ 24-hr ☐ 48-hr

Origins Laboratory, Inc.

Jordan A. Merrill

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5

ORIGINS
LABORATORY, INC

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

2012

4009041

Sample ID	Matrix	Date / Time	Volume	Container	Analysis
12-001 MW12R	Water	9/2/20 1457	40mL	Amber VOA Vial - HC	BTEX by EPA 8260C
13-001 MW13	Water	9/2/20 1536	40mL	Amber VOA Vial - HC	BTEX by EPA 8260C
14-001 MW14	Water	9/2/20 1405	40mL	Amber VOA Vial - HC	BTEX by EPA 8260C
15-001 MW15	Water	9/2/20 1340	40mL	Amber VOA Vial - HC	BTEX by EPA 8260C
16-001 MW16	Water	9/2/20 1359	40mL	Amber VOA Vial - HC	BTEX by EPA 8260C
17-001 MW17	Water	9/2/20 1353	40mL	Amber VOA Vial - HC	BTEX by EPA 8260C

Requisitioned By: *[Signature]* Date / Time: 9/2/20 1528

Received By: *[Signature]* Date / Time: 9/2/20 1528

Temperature on Receipt: 14.1

Turn Around Time: ☐ 24-hr ☐ 72-hr ☒ Standard

Origins Laboratory, Inc.

[Signature]

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5, Moorhead 13-5

Origins Laboratory

Sample Receipt Checklist

Origins Work Order: Y009041

Client: LTE

Client Project ID: HSR Chaknova

Checklist Completed by: Jim

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 9/13/20

Airbill #: N/A

Matrix(s) Received: (Check all that apply): Soil/Solid ☒ Water ☐ Other: ☐

Cooler Number/Temperature: 1, 14.1 °C 1 °C 1 °C 1 °C (Describe)

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"/>		same day
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)				
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"/>		<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"/>			HCl
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.

JP
Reviewed by (Project Manager)

9-4-20
Date/Time Reviewed

Origins Laboratory, Inc.

Jordan A. Merrill

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW01

9/2/2020 3:21:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-01 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	96.8 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW02

9/2/2020 3:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-02 (Water)

BTEX by EPA 8260D

Benzene	ND	4.00	ug/L	4	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	4.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	4.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	4.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130	"	"	"
Surrogate: Toluene-d8	98.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.2 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW03

9/2/2020 3:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-03 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	98.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.2 %	70-130	"	"	"

Origins Laboratory, Inc.



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LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW04

9/2/2020 3:24:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y009041-04 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.6 %	70-130	"	"	"

Origins Laboratory, Inc.

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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW05

9/2/2020 2:17:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-05 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130	"	"	"
Surrogate: Toluene-d8	99.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.0 %	70-130	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW06

9/2/2020 2:29:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-06 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.2 %	70-130	"	"	"
Surrogate: Toluene-d8	99.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	96.7 %	70-130	"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW07

9/2/2020 2:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-07 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	99.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.9 %	70-130	"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW08

9/2/2020 2:24:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-08 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130	"	"	"
Surrogate: Toluene-d8	98.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.9 %	70-130	"	"	"

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW09

9/2/2020 12:41:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y009041-09 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130	"	"	"
Surrogate: Toluene-d8	98.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.4 %	70-130	"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW10

9/2/2020 3:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-10 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	KDK	09/03/2020	09/08/2020	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	100 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.6 %	70-130	"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW11

9/2/2020 2:34:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-11 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	ZZZ	09/03/2020	09/09/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.4 %	70-130	"	"	"
Surrogate: Toluene-d8	96.6 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.8 %	70-130	"	"	"

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW12R

9/2/2020 2:57:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y009041-12 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	ZZZ	09/03/2020	09/09/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.3 %	70-130	"	"	"
Surrogate: Toluene-d8	97.3 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.4 %	70-130	"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW13

9/2/2020 3:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-13 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	ZZZ	09/03/2020	09/09/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.1 %	70-130	"	"	"
Surrogate: Toluene-d8	98.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.0 %	70-130	"	"	"

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW14

9/2/2020 2:05:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y009041-14 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	ZZZ	09/03/2020	09/09/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4

98.7 % 70-130

"

"

"

Surrogate: Toluene-d8

96.1 % 70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

99.7 % 70-130

"

"

"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW15

9/2/2020 1:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-15 (Water)

BTEX by EPA 8260D

Benzene	31.0	1.00	ug/L	1	B010307	ZZZ	09/03/2020	09/09/2020	
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	4.82	1.00	"	"	"	ZZZ	"	"	

Surrogate: 1,2-Dichloroethane-d4	98.4 %	70-130			"	"	"
Surrogate: Toluene-d8	98.0 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130			"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW16

9/2/2020 1:59:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-16 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	ZZZ	09/03/2020	09/09/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.4 %	70-130	"	"	"
Surrogate: Toluene-d8	97.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.0 %	70-130	"	"	"

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

MW17

9/2/2020 1:53:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y009041-17 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B010307	ZZZ	09/03/2020	09/09/2020	U
Toluene	ND	1.00	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	1.00	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	1.00	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.1 %	70-130	"	"	"
Surrogate: Toluene-d8	97.6 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.0 %	70-130	"	"	"

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: KMG10619/#88066082

Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I0307 - EPA 5030B (Water)

Blank (B0I0307-BLK1)

Prepared: 09/03/2020 Analyzed: 09/08/2020

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	63		"	62.5	101		70-130			
Surrogate: Toluene-d8	62		"	62.5	99.6		70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	98.0		70-130			

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I0307 - EPA 5030B (Water)

LCS (B0I0307-BS1)

Prepared: 09/03/2020 Analyzed: 09/08/2020

Benzene	49.3	1.00	ug/L	50.0		98.6	70-130			
Toluene	50.8	1.00	"	50.0		102	70-130			
Ethylbenzene	52.5	1.00	"	50.0		105	70-130			
m,p-Xylene	105	2.00	"	100		105	70-130			
o-Xylene	50.6	1.00	"	50.0		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.3	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.5	70-130			

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I0307 - EPA 5030B (Water)

Matrix Spike (B0I0307-MS1)		Source: Y009041-12			Prepared: 09/03/2020 Analyzed: 09/08/2020					
Benzene	40.0	1.00	ug/L	50.0	ND	79.9	70-130			
Toluene	40.6	1.00	"	50.0	ND	81.2	70-130			
Ethylbenzene	41.1	1.00	"	50.0	ND	82.2	70-130			
m,p-Xylene	83.2	2.00	"	100	ND	83.2	70-130			
o-Xylene	42.7	1.00	"	50.0	ND	85.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.7	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	70-130			

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: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead 13-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0I0307 - EPA 5030B (Water)

Matrix Spike Dup (B0I0307-MSD1)		Source: Y009041-12			Prepared: 09/03/2020 Analyzed: 09/08/2020					
Benzene	42.5	1.00	ug/L	50.0	ND	84.9	70-130	6.07	20	
Toluene	43.2	1.00	"	50.0	ND	86.3	70-130	6.09	20	
Ethylbenzene	43.5	1.00	"	50.0	ND	87.0	70-130	5.74	20	
m,p-Xylene	88.5	2.00	"	100	ND	88.5	70-130	6.11	20	
o-Xylene	45.5	1.00	"	50.0	ND	91.0	70-130	6.35	20	
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.1	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.9	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.1	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: KMG10619/#88066082
Project: KMG - HSR - Chaknova 14-5 , Moorhead
13-5

Notes and Definitions

U Sample is Non-Detect.

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.



December 14, 2020

WSP USA

Brian Sulzberger

4600 W. 60th Ave.

Arvada

CO 80003

Project Name - KMG - HSR-Chaknova 14-5

Project Number - KMG10619

Attached are your analytical results for KMG - HSR-Chaknova 14-5 received by Origins Laboratory, Inc. December 07, 2020. This project is associated with Origins project number Y012111-01.

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

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	Y012111-01	Water	December 7, 2020 13:55	12/07/2020 15:00
MW02	Y012111-02	Water	December 7, 2020 12:20	12/07/2020 15:00
MW03	Y012111-03	Water	December 7, 2020 12:30	12/07/2020 15:00
MW04	Y012111-04	Water	December 7, 2020 13:45	12/07/2020 15:00
MW05	Y012111-05	Water	December 7, 2020 13:30	12/07/2020 15:00
MW06	Y012111-06	Water	December 7, 2020 13:12	12/07/2020 15:00
MW07	Y012111-07	Water	December 7, 2020 13:37	12/07/2020 15:00
MW08	Y012111-08	Water	December 7, 2020 13:22	12/07/2020 15:00
MW09	Y012111-09	Water	December 7, 2020 13:00	12/07/2020 15:00
MW10	Y012111-10	Water	December 7, 2020 14:04	12/07/2020 15:00
MW11	Y012111-11	Water	December 7, 2020 12:48	12/07/2020 15:00
MW12R	Y012111-12	Water	December 7, 2020 12:38	12/07/2020 15:00
MW13	Y012111-13	Water	December 7, 2020 14:12	12/07/2020 15:00
MW14	Y012111-14	Water	December 7, 2020 14:20	12/07/2020 15:00

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.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW15	Y012111-15	Water	December 7, 2020 14:28	12/07/2020 15:00
MW16	Y012111-16	Water	December 7, 2020 14:44	12/07/2020 15:00
MW17	Y012111-17	Water	December 7, 2020 14:37	12/07/2020 15:00

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.

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

ORIGINS
LABORATORY, INC

Page 1 of 2

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

Client: WSP USA		Project: KMG - HSR-Chaknova 14-5		Project Manager: Brian Sulzberger		Project: KMG10619	
ct:	Sample Identification	Matrix	Sample Date	Sample Time	Container	Qty	Analyses
01-001	MW01	Water	12-7-20	1355	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
02-001	MW02	Water		1240	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
03-001	MW03	Water		1230	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
04-001	MW04	Water		1345	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
05-001	MW05	Water		1330	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
06-001	MW06	Water		1312	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
07-001	MW07	Water		1337	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
08-001	MW08	Water		1322	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
09-001	MW09	Water		1300	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
10-001	MW10	Water		1404	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
11-001	MW11	Water		1248	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C

Temperature on Receipt: 11.4
Turn Around Time:
Same Day ☐ 72-hr ☐
24-hr ☐ Standard ☒
48-hr ☐

Relinquished By: [Signature] Date / Time: 12/7/20 1500
Received By: [Signature] Date / Time:

Relinquished By: [Signature] Date / Time: 12/7/20 1500
Received By: [Signature] Date / Time:

Origins Laboratory, Inc.

[Signature]

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.

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

ORIGINS
LABORATORY, INC

Page 2 of 2

1725 Elk Place, Denver, CO 80211

Laboratory # - 303.433.1322

12-001	MW12R	Water	12-7-20	12-38	At	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
13-001	MW13	Water		1412		40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
14-001	MW14	Water		1420		40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
15-001	MW15	Water		1428		40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
16-001	MW16	Water		1444		40mL Amber VOA Vial - H	3	BTEX by EPA 8260C
17-001	MW17	Water		1437	✓	40mL Amber VOA Vial - H	3	BTEX by EPA 8260C

Temperature on Receipt 11.4
Turn Around Time:
Same Day ☐ 72-hr ☐
24-hr ☐ Standard ☒
48-hr ☐

Relinquished By *[Signature]* Date / Time 12/7/20 1500
Received By *[Signature]* Date / Time

Relinquished By *[Signature]* 12/1/20 1500 Date / Time
Received By *[Signature]* Date / Time

Origins Laboratory, Inc.

[Signature]

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.

WSP USA

4600 W. 60th Ave.

Arvada

CO

80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y012111

Client: WSP

Client Project ID: Chaknova

Checklist Completed by: JGKDK

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 12/18/20

Airbill #: 515

Matrix(s) Received: (Check all that apply): Soil/Solid ☒ Water ☐ Other: ☐

Cooler Number/Temperature: 1 11.4 °C / °C / °C (Describe) °C

Thermometer ID: 1003

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"/>		Same Day
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: Jm (Project Manager)

Date/Time Reviewed: 12-19-20

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW01

12/7/2020 1:55:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y012111-01 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/10/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	117 %	70-130	"	"	"
Surrogate: Toluene-d8	98.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	87.2 %	70-130	"	"	"

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW02

12/7/2020 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-02 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/10/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130	"	"	"
Surrogate: Toluene-d8	111 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	96.0 %	70-130	"	"	"

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW03

12/7/2020 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-03 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/10/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	117 %	70-130	"	"	"
Surrogate: Toluene-d8	89.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	93.8 %	70-130	"	"	"

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW04

12/7/2020 1:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-04 (Water)

BTEX by EPA 8260D

Benzene	2.38	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020
Toluene	53.6	1.00	"	"	"	TEM	"	"
Ethylbenzene	19.6	1.00	"	"	"	TEM	"	"
Xylenes, total	186	1.00	"	"	"	TEM	"	"

Surrogate: 1,2-Dichloroethane-d4	91.7 %	70-130			"	"	"
Surrogate: Toluene-d8	114 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW05

12/7/2020 1:30:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y012111-05 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	92.1 %	70-130	"	"	"
Surrogate: Toluene-d8	98.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130	"	"	"

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW06

12/7/2020 1:12:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-06 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	93.4 %	70-130	"	"	"
Surrogate: Toluene-d8	99.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.4 %	70-130	"	"	"

Origins Laboratory, Inc.

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WSP USA

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Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW07

12/7/2020 1:37:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y012111-07 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.5 %	70-130	"	"	"
Surrogate: Toluene-d8	98.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.4 %	70-130	"	"	"

Origins Laboratory, Inc.

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Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW08

12/7/2020 1:22:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-08 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.7 %	70-130	"	"	"
Surrogate: Toluene-d8	98.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.3 %	70-130	"	"	"

Origins Laboratory, Inc.

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Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW09

12/7/2020 1:00:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y012111-09 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.3 %	70-130			"	"	"
Surrogate: Toluene-d8	98.8 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	98.2 %	70-130			"	"	"

Origins Laboratory, Inc.

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Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW10

12/7/2020 2:04:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y012111-10 (Water)

BTEX by EPA 8260D

Benzene	ND	4.00	ug/L	4	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	4.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	4.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	4.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.4 %	70-130	"	"	"
Surrogate: Toluene-d8	98.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	99.1 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA

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Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW11

12/7/2020 12:48:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-11 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.4 %	70-130	"	"	"
Surrogate: Toluene-d8	97.8 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.9 %	70-130	"	"	"

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.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW12R

12/7/2020 12:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y012111-12 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.4 %	70-130			"	"	"
Surrogate: Toluene-d8	97.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	97.8 %	70-130			"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW13

12/7/2020 2:12:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y012111-13 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	97.7 %	70-130			"	"	"
Surrogate: Toluene-d8	98.9 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	98.9 %	70-130			"	"	"

Origins Laboratory, Inc.

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WSP USA

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Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW14

12/7/2020 2:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y012111-14 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.0 %	70-130	"	"	"
Surrogate: Toluene-d8	98.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	96.5 %	70-130	"	"	"

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW15

12/7/2020 2:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-15 (Water)

BTEX by EPA 8260D

Benzene	3.72	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4
 Surrogate: Toluene-d8
 Surrogate: 4-Bromofluorobenzene

101 % 70-130
 96.1 % 70-130
 99.1 % 70-130

" "
 " "
 " "

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.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW16

12/7/2020 2:44:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-16 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130	"	"	"
Surrogate: Toluene-d8	95.2 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.6 %	70-130	"	"	"

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

MW17

12/7/2020 2:37:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y012111-17 (Water)

BTEX by EPA 8260D

Benzene	ND	1.00	ug/L	1	B0L0803	TEM	12/08/2020	12/11/2020	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130	"	"	"
Surrogate: Toluene-d8	97.7 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	97.5 %	70-130	"	"	"

Origins Laboratory, Inc.

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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0L0803 - EPA 5030B (Water)

Blank (B0L0803-BLK1)

Prepared: 12/08/2020 Analyzed: 12/10/2020

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		97.2	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.3	70-130			

Origins Laboratory, Inc.



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WSP USA

4600 W. 60th Ave.

Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0L0803 - EPA 5030B (Water)

LCS (B0L0803-BS1)

Prepared: 12/08/2020 Analyzed: 12/10/2020

Benzene	49.2	1.00	ug/L	50.0		98.3	70-130			
Toluene	48.4	1.00	"	50.0		96.9	70-130			
Ethylbenzene	52.0	1.00	"	50.0		104	70-130			
m,p-Xylene	102	2.00	"	100		102	70-130			
o-Xylene	48.8	1.00	"	50.0		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.7	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	70-130			

Origins Laboratory, Inc.



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WSP USA

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Arvada CO 80003

Brian Sulzberger

Project Number: KMG10619

Project: KMG - HSR-Chaknova 14-5

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0L0803 - EPA 5030B (Water)

Matrix Spike (B0L0803-MS1)		Source: Y012111-01			Prepared: 12/08/2020 Analyzed: 12/10/2020					
Benzene	55.7	1.00	ug/L	50.0	ND	111	70-130			
Toluene	54.2	1.00	"	50.0	ND	108	70-130			
Ethylbenzene	56.6	1.00	"	50.0	ND	113	70-130			
m,p-Xylene	112	2.00	"	100	ND	112	70-130			
o-Xylene	54.4	1.00	"	50.0	ND	109	70-130			
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		107	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

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.

WSP USA

4600 W. 60th Ave.

Arvada CO 80003

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Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B0L0803 - EPA 5030B (Water)

Matrix Spike Dup (B0L0803-MSD1)		Source: Y012111-01			Prepared: 12/08/2020 Analyzed: 12/10/2020					
Benzene	54.8	1.00	ug/L	50.0	ND	110	70-130	1.56	20	
Toluene	59.3	1.00	"	50.0	ND	119	70-130	8.99	20	
Ethylbenzene	55.8	1.00	"	50.0	ND	112	70-130	1.46	20	
m,p-Xylene	112	2.00	"	100	ND	112	70-130	0.304	20	
o-Xylene	53.4	1.00	"	50.0	ND	107	70-130	1.82	20	
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		108	70-130			
Surrogate: Toluene-d8	72		"	62.5		115	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.2	70-130			

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Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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