

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
HSR-AUSTIN 16-26/HSR-ELLIOT 15-26
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Soil Sample ID	Depth (bgs)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)
E01@5'	5'	02/06/2008	NA	NA	NA	NA	<50	<50	<50
E02@5'	5'	02/06/2008	NA	NA	NA	NA	<50	<50	<50
N01@5'	5'	02/06/2008	NA	NA	NA	NA	<50	<50	<50
S01@5'	5'	02/06/2008	NA	NA	NA	NA	290	63	<50
W01@5'	5'	02/06/2008	NA	NA	NA	NA	120	80	<50
W02@5'	5'	02/06/2008	NA	NA	NA	NA	<50	<50	<50
COGCC Allowable Levels			0.17	85	100	175	500*	500*	500*

Notes: bgs - below ground surface

COGCC - Colorado Oil and Gas Conservation Commission

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

NA - not analyzed/not available

ORO - oil range organics

TPH - total petroleum hydrocarbons

* - TPH standard applies to combined DRO-GRO-ORO

< - less than laboratory reporting limit

Bold indicates result exceeds allowable level.



TABLE 2
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-AUSTIN 16-26/HSR-ELLIOT 15-26
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
EGW-01	2/6/2008	1700	2300	730	11000	6	NA
MW01	4/7/2008	<1.0	<1.0	<1.0	<1.0	7.23	90.27
	7/23/2008	<1.0	<1.0	<1.0	<1.0	3.58	94.32
	10/3/2008	<1.0	<1.0	<1.0	<1.0	4.85	93.05
	1/22/2009	<1.0	<1.0	<1.0	<1.0	6.52	91.38
	4/16/2009	<1.0	<1.0	<1.0	<1.0	7.28	90.62
	7/22/2009	<1.0	<1.0	<1.0	<1.0	4.31	93.59
	10/6/2009	<1.0	<1.0	<1.0	<1.0	4.94	92.96
	1/18/2010	<1.0	<1.0	<1.0	<1.0	6.54	91.36
	3/17/2010	<1.0	<1.0	<1.0	<1.0	7.11	90.79
	6/21/2010	<1.0	<1.0	<1.0	<1.0	5.02	92.88
	9/14/2010	<1.0	<1.0	<1.0	<1.0	5.81	92.09
	12/17/2010	<1.0	<1.0	<1.0	<1.0	6.24	91.66
	3/9/2011	<1.0	<1.0	<1.0	<1.0	7.10	90.80
	6/27/2011	<1.0	<1.0	<1.0	<1.0	6.00	91.90
	9/8/2011	<1.0	<1.0	<1.0	<1.0	4.23	93.67
	12/15/2011	<1.0	<1.0	<1.0	<1.0	6.30	91.60
	3/9/2012	<1.0	<1.0	<1.0	<1.0	7.33	90.57
	6/8/2012	<1.0	<1.0	<1.0	<1.0	6.85	91.05
	9/20/2012	<1.0	<1.0	<1.0	<1.0	4.41	90.49
	12/26/2012	<1.0	<1.0	<1.0	<1.0	7.67	90.23
	3/26/2013	<1.0	<1.0	<1.0	<1.0	8.56	89.34
	6/26/2013	<1.0	<1.0	<1.0	<1.0	4.71	93.19
	9/10/2013	9.8	38	67	780	4.73	93.17
	11/4/2013	Surveyed - Not Sampled				5.09	91.91
	12/11/2013	<1.0	6.8	31.6	1.4	6.75	91.15
	3/12/2014	<1.0	49.5	1.7	75.2	7.53	90.37
	6/11/2014	<1.0	430	39.4	436	5.81	91.19
	9/18/2014	<1.0	<1.0	<1.0	<1.0	3.85	93.15
	12/4/2014	<1.0	<1.0	20.7	122	5.36	91.64
	3/4/2015	<1.0	1.1	<1.0	153	6.39	90.61
	6/24/2015	<1.0	<1.0	14.4	180	5.98	91.02
	9/4/2015	<1.0	<1.0	<1.0	<1.0	2.14	94.86
	12/1/2015	<1.0	<1.0	15.3	66.4	5.24	91.76
	3/4/2016	<1.0	<1.0	<1.0	<1.0	5.89	91.11
	6/1/2016	<1.00	<1.00	<1.00	<1.00	6.04	90.96
	9/6/2016	<1.00	<1.00	1.11	<1.00	2.50	94.50
	12/28/2016	<1.00	<1.00	<1.00	<1.00	5.68	91.32
MW02	4/7/2008	<1.0	<1.0	5.3	9.4	6.43	89.93
	7/23/2008	100	<1.0	<1.0	2.4	3.30	93.56
	10/3/2008	4800	3.3	<1.0	83	4.30	92.56
	1/22/2009	57	1.9	<1.0	<1.0	5.84	91.02
	4/16/2009	1.0	<1.0	<1.0	<1.0	6.64	90.22



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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	7/22/2009	<1.0	<1.0	<1.0	<1.0	3.91	92.95
	10/6/2009	3.0	<1.0	<1.0	<1.0	4.38	92.48
	1/18/2010	2.8	<1.0	<1.0	<1.0	5.89	90.97
	3/17/2010	<1.0	<1.0	<1.0	<1.0	6.41	90.45
	6/21/2010	1.5	<1.0	<1.0	<1.0	4.41	92.45
	9/14/2010	<1.0	<1.0	<1.0	<1.0	4.23	92.63
	12/17/2010	<1.0	<1.0	<1.0	<1.0	5.64	91.22
	3/9/2011	<1.0	<1.0	<1.0	<1.0	6.42	90.44
	6/27/2011	<1.0	<1.0	<1.0	<1.0	5.95	90.91
	9/8/2011	<1.0	<1.0	<1.0	<1.0	3.71	93.15
	12/15/2011	<1.0	<1.0	<1.0	<1.0	5.64	91.22
	3/9/2012	<1.0	<1.0	<1.0	<1.0	6.68	90.18
	6/8/2012	<1.0	<1.0	<1.0	<1.0	6.55	90.31
	9/20/2012	<1.0	<1.0	<1.0	<1.0	6.92	89.94
	12/26/2012	<1.0	<1.0	<1.0	<1.0	7.09	89.77
	3/26/2013	<1.0	<1.0	<1.0	<1.0	7.96	88.90
	6/26/2013	<1.0	<1.0	<1.0	11	4.43	92.43
	9/10/2013	220	<1.0	5.4	<1.0	4.60	92.26
	11/4/2013	Surveyed - Not Sampled				4.64	91.42
	12/11/2013	2.0	4.6	16.0	31.4	6.12	90.74
	3/12/2014	112	262	9.9	105	6.86	90.00
	6/11/2014	269	421	41.7	323	5.34	90.72
	9/18/2014	<1.0	<1.0	<1.0	<1.0	3.34	92.72
	12/4/2014	<1.0	<1.0	<1.0	<1.0	4.87	91.19
	3/4/2015	<1.0	<1.0	<1.0	<1.0	5.91	90.15
	6/24/2015	<1.0	<1.0	<1.0	<1.0	5.36	90.70
	9/4/2015	<1.0	<1.0	<1.0	<1.0	1.96	94.10
	12/1/2015	<1.0	<1.0	<1.0	<1.0	4.76	91.30
	3/4/2016	<1.0	<1.0	<1.0	<1.0	5.38	90.68
	6/1/2016	<1.00	<1.00	<1.00	<1.00	5.46	90.60
	9/6/2016	<1.00	<1.00	<1.00	<1.00	2.20	93.86
	12/28/2016	<1.00	<1.00	<1.00	<1.00	5.19	90.87
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MW03	4/7/2008	3.1	230	96	1300	7.90	89.84
	7/23/2008	4.5	<1.0	130	1700	4.49	93.81
	10/3/2008	5.8	<1.0	9.6	3.8	5.67	92.63
	1/22/2009	39	<1.0	<1.0	2.2	7.19	91.11
	4/16/2009	6.7	<1.0	<1.0	2.0	7.94	90.36
	7/22/2009	1.8	<1.0	4.8	3.9	5.32	92.98
	10/6/2009	54	<1.0	<1.0	<1.0	5.68	92.62
	1/18/2010	32	1.3	<1.0	<1.0	7.28	91.02
	3/17/2010	330	<1.0	2.8	<1.0	7.87	90.43
	6/21/2010	1500	<1.0	11	24	5.74	92.56
	9/14/2010	5900	220	49	310	5.59	92.71
	12/17/2010	1500	57	71	1300	6.96	91.34



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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	3/9/2011	260	<1.0	130	1100	7.76	90.54
	6/27/2011	250	<1.0	<1.0	33	6.36	91.94
	9/8/2011	210	<1.0	28	170	5.20	93.10
	12/15/2011	3.7	<1.0	<1.0	3.7	7.12	91.18
	3/9/2012	100	<1.0	8.0	12	PVC Blocked	NA
	4/17/2012	11	<1.0	<1.0	43	6.53	90.99
	6/8/2012	480	<1.0	<1.0	210	PVC Blocked	NA
	9/20/2012	7.1	<1.0	<1.0	8500	7.95	90.35
	12/26/2012	20	<1.0	<1.0	50	7.43	90.87
	3/26/2013	<1.0	<1.0	<1.0	310	8.98	89.32
	6/26/2013	<1.0	<1.0	<1.0	<1.0	5.30	93.00
	9/10/2013	6300	3.8	20	1300	5.09	93.21
	11/4/2013	Surveyed - Not Sampled				5.82	91.68
	12/11/2013	747	<1.0	<1.0	927	7.27	91.03
	3/12/2014	3370	<4.0	5.9	955	7.94	90.36
	6/11/2014	1400	<20.0	<20.0	786	6.31	91.19
	9/18/2014	3220	<20.0	<20.0	249	4.49	93.01
	12/4/2014	<1.0	<1.0	<1.0	<1.0	5.94	91.56
	3/4/2015	<1.0	<1.0	<1.0	<1.0	7.07	90.43
	6/24/2015	<1.0	<1.0	<1.0	<1.0	6.48	91.02
	9/4/2015	92.6	<1.0	<1.0	<1.0	3.12	94.38
	12/1/2015	39.6	<1.0	<1.0	<1.0	5.90	91.60
	3/4/2016	<1.0	<1.0	<1.0	<1.0	6.54	90.96
	6/1/2016	<1.00	<1.00	<1.00	<1.00	6.71	90.79
	9/6/2016	<1.00	<1.00	<1.00	<1.00	3.58	93.92
	12/28/2016	<1.00	<1.00	<1.00	<1.00	6.45	91.05
MW04	4/7/2008	<1.0	2.7	14	14	6.61	NA
	MW04 destroyed as of 7/23/2008						
MW04R	10/3/2008	<1.0	<1.0	<1.0	<1.0	3.38	NA
	1/22/2009	<1.0	<1.0	<1.0	<1.0	4.99	NA
	4/16/2009	<1.0	<1.0	<1.0	<1.0	5.87	NA
	MW04R destroyed as of 7/22/2009						
MW04R2	3/17/2010	970	390	180	1200	5.82	89.81
	6/21/2010	48	4.7	7.7	24	3.82	91.81
	9/14/2010	180	<1.0	9.9	2.1	3.78	91.85
	12/17/2010	2.8	<1.0	<1.0	2.5	4.91	90.72
	3/9/2011	2.0	<1.0	<1.0	<1.0	5.55	90.08
	6/27/2011	<1.0	<1.0	<1.0	<1.0	4.45	91.18
	9/8/2011	2.3	<1.0	<1.0	<1.0	3.32	92.31
	11/2/2011	2.2	<1.0	<1.0	<1.0	NM	NA
	12/15/2011	2.9	<1.0	<1.0	<1.0	4.91	90.72
	3/9/2012	3.5	<1.0	<1.0	<1.0	5.83	89.80



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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	6/8/2012	<1.0	<1.0	<1.0	<1.0	5.49	90.14
	9/20/2012	<1.0	<1.0	<1.0	<1.0	6.23	89.40
	12/26/2012	<1.0	<1.0	<1.0	<1.0	6.32	89.31
	3/26/2013	<1.0	<1.0	<1.0	<1.0	6.92	88.71
	6/26/2013	<1.0	<1.0	<1.0	<1.0	3.99	91.64
	9/10/2013	39	<1.0	<1.0	24	4.32	91.31
	11/4/2013	Surveyed - Not Sampled				5.25	90.65
	12/11/2013	<1.0	<1.0	<1.0	<1.0	5.31	90.32
	3/12/2014	<1.0	<1.0	<1.0	<1.0	5.93	89.70
	6/11/2014	<1.0	<1.0	<1.0	<1.0	5.57	90.33
	9/18/2014	19.6	<1.0	<1.0	<1.0	3.88	92.02
	12/4/2014	32.3	<1.0	<1.0	<1.0	5.20	90.70
	3/4/2015	55.8	<1.0	<1.0	<1.0	6.16	89.74
	6/24/2015	<1.0	<1.0	<1.0	<1.0	5.59	90.31
	9/4/2015	<1.0	<1.0	<1.0	<1.0	3.00	92.90
	12/1/2015	<1.0	<1.0	<1.0	<1.0	5.05	90.85
	3/4/2016	<1.0	<1.0	<1.0	<1.0	5.67	90.23
	6/1/2016	<1.00	<1.00	<1.00	<1.00	5.74	90.16
	9/6/2016	<1.00	<1.00	<1.00	<1.00	3.09	92.81
	12/28/2016	<1.00	<1.00	<1.00	<1.00	5.57	90.33
MW05	4/7/2008	<1.0	<1.0	<1.0	<1.0	6.31	NA
	MW05 destroyed as of 7/23/2008						
MW05R	10/3/2008	1900	<1.0	<1.0	20	2.95	NA
	1/22/2009	32	<1.0	6.5	11	4.57	NA
	4/16/2009	1.5	<1.0	<1.0	<1.0	5.31	NA
	MW05R destroyed as of 7/22/2009						
MW05R2	3/17/2010	4.4	5.0	59	330	5.52	89.93
	6/21/2010	1.5	<1.0	21	110	3.39	92.06
	9/14/2010	<1.0	<1.0	18	72	3.35	92.10
	12/17/2010	<1.0	<1.0	3.7	22	4.57	90.88
	3/9/2011	1.4	<1.0	15	75	5.32	90.13
	6/27/2011	<1.0	<1.0	<1.0	66	4.70	90.75
	9/8/2011	<1.0	<1.0	1.3	6.8	2.87	92.58
	12/15/2011	<1.0	<1.0	<1.0	<1.0	4.58	90.87
	3/9/2012	40	<1.0	8.8	40	5.58	89.87
	6/8/2012	<1.0	<1.0	<1.0	<1.0	5.44	90.01
	9/20/2012	<1.0	<1.0	<1.0	3.0	5.85	89.60
	12/26/2012	<1.0	<1.0	<1.0	<1.0	5.97	89.48
	3/26/2013	<1.0	<1.0	<1.0	<1.0	6.72	88.73
	6/26/2013	<1.0	<1.0	<1.0	<1.0	3.57	91.88
	9/10/2013	260	<1.0	<1.0	<1.0	3.91	91.54
	11/4/2013	Surveyed - Not Sampled				4.73	90.99



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Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	12/11/2013	2.3	<1.0	<1.0	<1.0	5.05	90.40
	3/12/2014	160	<1.0	<1.0	<1.0	5.71	89.74
	6/11/2014	22.1	<1.0	<1.0	<1.0	5.27	90.45
	9/18/2014	9.2	<1.0	<1.0	<1.0	3.46	92.26
	12/4/2014	Not Sampled				5.30	NA
	12/12/2014	<1.0	<1.0	<1.0	<1.0	5.94	89.78
	3/4/2015	<1.0	<1.0	<1.0	<1.0	5.87	89.85
	6/24/2015	<1.0	<1.0	<1.0	<1.0	5.26	90.46
	9/4/2015	<1.0	<1.0	<1.0	<1.0	2.46	93.26
	12/1/2015	Not Sampled				PVC Blocked	NA
	12/31/2015	<1.0	<1.0	<1.0	<1.0	5.25	90.47
	3/4/2016	<4.0	<4.0	<4.0	<4.0	5.30	90.42
	6/1/2016	<1.00	<1.00	<1.00	<1.00	5.39	90.33
	9/6/2016	<1.00	<1.00	<1.00	<1.00	2.65	93.07
	12/28/2016	<1.00	<1.00	<1.00	<1.00	5.29	90.43
MW06	4/7/2008	<1.0	<1.0	<1.0	<1.0	6.43	NA
	MW06 destroyed as of 7/23/2008						
MW06R	10/3/2008	<1.0	<1.0	<1.0	<1.0	3.18	NA
	1/22/2009	<1.0	<1.0	<1.0	<1.0	5.03	NA
	4/16/2009	<1.0	<1.0	<1.0	<1.0	5.78	NA
	MW06R destroyed as of 7/22/2009						
MW06R2	3/17/2010	<1.0	12	2.4	14	5.59	NA
	6/21/2010	<1.0	<1.0	<1.0	<1.0	3.91	NA
	9/14/2010	<1.0	<1.0	<1.0	<1.0	3.19	NA
	12/17/2010	<1.0	<1.0	<1.0	<1.0	4.63	NA
	3/9/2011	<1.0	<1.0	<1.0	<1.0	5.44	NA
	6/27/2011	<1.0	<1.0	<1.0	<1.0	4.74	NA
	9/8/2011	<1.0	<1.0	<1.0	<1.0	2.64	NA
	12/15/2011	Damaged - Not Sampled				Damaged	NA
	MW06R2 destroyed as of 3/9/2012						
TMW01	3/17/2010	<1.0	83	12	58	NM	NA
	TMW01 destroyed as of 6/21/2010						
TMW02	3/17/2010	<1.0	1.4	3.4	4.5	NM	NA
	10/27/2010	<1.0	<1.0	<1.0	<1.0	4.29	NA
	12/17/2010	<1.0	<1.0	<1.0	<1.0	4.94	NA
	3/9/2011	<1.0	<1.0	<1.0	<1.0	5.73	NA
	10/24/2011	<1.0	<1.0	<1.0	<1.0	4.47	NA
	1/31/2012	<1.0	<1.0	<1.0	<1.0	5.69	NA
	3/9/2012	<1.0	<1.0	<1.0	<1.0	6.16	NA
	12/26/2012	Removed from monitoring				NM	NA



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WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	4/29/2015	<1.0	<1.0	<1.0	<1.0	NM	NA
	12/31/2015	<1.0	<1.0	<1.0	<1.0	7.34	89.96
	1/13/2016	Surveyed - Not Sampled				5.28	89.82
	3/4/2016	<1.0	<1.0	<1.0	<1.0	5.16	89.94
	6/1/2016	<1.00	<1.00	<1.00	<1.00	4.76	90.34
	12/28/2016	<1.00	<1.00	<1.00	<1.00	5.37	89.47
TMW03	4/9/2010	1.3	<1.0	8.6	35	NM	NA
	10/27/2010	<1.0	<1.0	<1.0	<1.0	4.28	NA
	12/17/2010	<1.0	<1.0	<1.0	<1.0	5.08	NA
	3/9/2011	<1.0	<1.0	<1.0	<1.0	PVC Blocked	NA
	10/24/2011	<1.0	<1.0	<1.0	<1.0	4.85	NA
	1/31/2012	<1.0	<1.0	<1.0	<1.0	5.94	NA
	3/9/2012	<1.0	<1.0	<1.0	<1.0	6.38	NA
	12/26/2012	Removed from monitoring				NM	NA
TMW04	4/9/2010	36	<1.0	1.1	6.6	NM	NA
	10/27/2010	<1.0	<1.0	<1.0	<1.0	4.05	NA
	12/17/2010	<1.0	<1.0	<1.0	<1.0	5.19	NA
	3/9/2011	1.6	<1.0	<1.0	<1.0	5.60	NA
	10/24/2011	<1.0	<1.0	<1.0	<1.0	4.80	NA
	1/31/2012	<1.0	<1.0	<1.0	<1.0	6.00	NA
	3/9/2012	<1.0	<1.0	<1.0	<1.0	6.48	NA
	12/26/2012	Removed from monitoring				NM	NA
TMW05	10/27/2010	<1.0	<1.0	<1.0	<1.0	4.11	NA
	12/17/2010	<1.0	<1.0	<1.0	<1.0	5.46	NA
	3/9/2011	<1.0	<1.0	<1.0	<1.0	6.33	NA
	10/24/2011	<1.0	<1.0	<1.0	<1.0	5.83	NA
	1/31/2012	<1.0	<1.0	<1.0	<1.0	6.88	NA
	3/9/2012	<1.0	<1.0	<1.0	<1.0	7.23	NA
	12/26/2012	Removed from monitoring				NM	NA
TMW06	10/27/2010	<1.0	<1.0	54	390	4.59	NA
	12/17/2010	3.7	<1.0	9.7	63	6.08	NA
	3/9/2011	<1.0	<1.0	<1.0	6.7	6.77	NA
	10/24/2011	<1.0	1.4	<1.0	<1.0	5.30	NA
	1/31/2012	<1.0	<1.0	<1.0	<1.0	6.39	NA
	3/9/2012	<1.0	<1.0	<1.0	<1.0	6.96	NA
	12/26/2012	Removed from monitoring				NM	NA
TMW07	4/29/2015	5.7	1.7	11.5	159	NM	NA
	12/31/2015	<1.0	<1.0	27.6	522	8.86	89.41
	1/13/2016	Surveyed - Not Sampled				5.53	89.36
	3/4/2016	<4.0	<4.0	<4.0	<4.0	5.46	89.43



TABLE 2
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HSR-AUSTIN 16-26/HSR-ELLIOT 15-26
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

Well Name	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Depth Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
	6/1/2016	<1.00	<1.00	<1.00	<1.00	PVC Blocked	NA
	12/28/2016	<1.00	<1.00	<1.00	<1.00	5.59	89.15
COGCC Allowable Levels		5	1000	700	1400		

Notes: COGCC - Colorado Oil and Gas Conservation Commission

Elev. - elevation

ft bgs - feet below ground surface

GW - groundwater

NA - not analyzed/not available

NM - not measured

µg/L - micrograms per liter

< - less than laboratory reporting limit

Bold indicates result exceeds allowable level

Excavation groundwater depth is approximate

Results in red indicate data from samples collected after the initial carbon slurry injection.



March 09, 2016

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR Austin 16-26/Elliot
15-26**

Project Number - KMG08355/WO #884385

Attached are your analytical results for KMG - HSR Austin 16-26/Elliot 15-26 received by Origins Laboratory, Inc. March 04, 2016. This project is associated with Origins project number X603093-01.

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	X603093-01	Water	March 4, 2016 13:00	03/04/2016 14:40
MW02	X603093-02	Water	March 4, 2016 13:05	03/04/2016 14:40
MW03	X603093-03	Water	March 4, 2016 13:10	03/04/2016 14:40
MW04R2	X603093-04	Water	March 4, 2016 13:15	03/04/2016 14:40
MW05R2	X603093-05	Water	March 4, 2016 13:20	03/04/2016 14:40
TMW02	X603093-06	Water	March 4, 2016 13:25	03/04/2016 14:40
TMW07	X603093-07	Water	March 4, 2016 13:30	03/04/2016 14:40

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliott 15-26

ORIGINS
LABORATORY, INC

X603093

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

Client: LT Environmental, Inc.		Project Manager: John Cocroft						
Project: KMG - HSR Austin 16-26/Elliott 15-26		Project Number: KMG08355/WO #88438556						
Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analyses
01-001	MMW01	Water	3/4/16	1300	DS	01_40ml, Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
02-001	MMW02	Water		1305		01_40ml, Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
03-001	MMW03	Water		1310		01_40ml, Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
04-001	MMW04R2	Water		1315		01_40ml, Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
05-001	MMW05R2	Water		1320		01_40ml, Clear Vial Cool to 4° C	1 X	BTEX by EPA 8260C Filter sample
06-001	TMW02	Water		1325		01_40ml, Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
07-001	TMW07	Water		1330		01_40ml, Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample

Draw Sample 3/4/16 1440
Relinquished By [Signature] Date / Time 3/4/16 1140
Received By [Signature] Date / Time 3/4/16 1140

Temperature on Receipt: 11.2
Ice present? / Yes No
Turn Around Time: Same Day: 24-hr 72-hr 48-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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: **X603093**

Client: **LTE**

Client Project ID: **KMG-HSR Austin/Elliot**

Checklist Completed by: **Jesse Smith**

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

Date/time completed: **3/7/16**

Airbill #: **N/A**

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

Cooler Number/Temperature: **1** / **11.2** °C _____ °C _____ °C (Describe)

Thermometer ID: **5003**

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"/>		<i>Sampled Same Day</i>
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)	<i>3/7/16</i> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Additional Comments (if any):				

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

Reviewed by (Project Manager)

03/08/16
Date/Time Reviewed

Origins Laboratory, Inc.

Jesse 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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW01

3/4/2016 1:00:00PM

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

Origins Laboratory, Inc. X603093-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6C0710	03/07/2016	03/08/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW02

3/4/2016 1:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. X603093-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6C0710	03/07/2016	03/08/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW03

3/4/2016 1:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X603093-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6C0710	03/07/2016	03/08/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.8 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	95.7 %	84-114	"	"	"

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW04R2

3/4/2016 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X603093-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6C0710	03/07/2016	03/08/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW05R2

3/4/2016 1:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X603093-05 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	B6C0710	03/07/2016	03/08/2016	U
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	ND	4.0	"	"	"	"	"	U
Xylenes, total	ND	4.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.9 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.8 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.6 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

TMW02
3/4/2016 1:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X603093-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	B6C0710	03/07/2016	03/08/2016	U
Toluene	ND	1.0	"	"	"	"	"	U
Ethylbenzene	ND	1.0	"	"	"	"	"	U
Xylenes, total	ND	1.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	96.3 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

TMW07
3/4/2016 1:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X603093-07 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	B6C0710	03/07/2016	03/08/2016	U
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	ND	4.0	"	"	"	"	"	U
Xylenes, total	ND	4.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	95.4 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.9 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6C0710 - EPA 5030B (Water)										
Blank (B6C0710-BLK1)					Prepared: 03/07/2016 Analyzed: 03/08/2016					
Benzene	ND	1.0	ug/L							U
Toluene	ND	1.0	"							U
Ethylbenzene	ND	1.0	"							U
Xylenes, total	ND	1.0	"							U
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.1	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.5	84-114			

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6C0710 - EPA 5030B (Water)

LCS (B6C0710-BS1)

Prepared: 03/07/2016 Analyzed: 03/08/2016

Benzene	52.8	1.0	ug/L	50.0	106	73.3-129
Toluene	52.9	1.0	"	50.0	106	76.2-123
Ethylbenzene	53.2	1.0	"	50.0	106	73.6-130
m,p-Xylene	106	2.0	"	100	106	76.1-126
o-Xylene	51.6	1.0	"	50.0	103	76.6-124
Surrogate: 1,2-Dichloroethane-d4	55		"	62.5	87.9	84-121
Surrogate: Toluene-d8	62		"	62.5	100	85-115
Surrogate: 4-Bromofluorobenzene	60		"	62.5	95.7	84-114

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

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

Batch B6C0710 - EPA 5030B (Water)

Matrix Spike (B6C0710-MS1)		Source: X603061-01			Prepared: 03/07/2016 Analyzed: 03/08/2016					
Benzene	57.8	1.0	ug/L	50.0	ND	116	74-130			
Toluene	58.2	1.0	"	50.0	ND	116	73-131			
Ethylbenzene	58.3	1.0	"	50.0	ND	117	76-132			
m,p-Xylene	117	2.0	"	100	ND	117	69-139			
o-Xylene	58.2	1.0	"	50.0	ND	116	74-131			
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		88.9	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.7	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.6	84-114			

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6C0710 - EPA 5030B (Water)

Matrix Spike Dup (B6C0710-MSD1)		Source: X603061-01			Prepared: 03/07/2016 Analyzed: 03/08/2016					
Benzene	48.4	1.0	ug/L	50.0	ND	96.8	74-130	17.8	20	
Toluene	48.8	1.0	"	50.0	ND	97.6	73-131	17.6	20	
Ethylbenzene	47.8	1.0	"	50.0	ND	95.5	76-132	19.8	20	
m,p-Xylene	97.4	2.0	"	100	ND	97.4	69-139	18.7	20	
o-Xylene	50.3	1.0	"	50.0	ND	101	74-131	14.5	20	
Surrogate: 1,2-Dichloroethane-d4	55		"	62.5		87.7	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.4	84-114			

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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 06, 2016

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR Austin 16-26/Elliot
15-26**

Project Number - KMG08355/WO #884385

Attached are your analytical results for KMG - HSR Austin 16-26/Elliot 15-26 received by Origins Laboratory, Inc. June 01, 2016. This project is associated with Origins project number X606020-01.

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	X606020-01	Water	June 1, 2016 12:00	06/01/2016 14:50
MW02	X606020-02	Water	June 1, 2016 12:05	06/01/2016 14:50
MW03	X606020-03	Water	June 1, 2016 12:10	06/01/2016 14:50
MW04R2	X606020-04	Water	June 1, 2016 12:15	06/01/2016 14:50
MW05R2	X606020-05	Water	June 1, 2016 12:20	06/01/2016 14:50
TMW02	X606020-06	Water	June 1, 2016 12:25	06/01/2016 14:50
TMW07	X606020-07	Water	June 1, 2016 12:30	06/01/2016 14:50

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliott 15-26

ORIGINS
LABORATORY, INC

X0606020

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

Client: LT Environmental, Inc.		Project Manager: John Cocroft						
Project: KMG - HSR Austin 16-26/Elliott 15-26		Project Number: KMG08355/WO #88438556						
Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analyses
01-001	MW01	Water	6/1/16	1200	CT	01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
02-001	MW02	Water		1205		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
03-001	MW03	Water		1210		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
04-001	MW04R2	Water		1215		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
05-001	MW05R2	Water		1220		01_40mL Clear Vial Cool to 4° C	2	BTEX by EPA 8260C Filter sample
06-001	TW02	Water		1225		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
07-001	TW07	Water		1230		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample

Relinquished By CLZ Date / Time 6/1/16 1450

Received By CLZ Date / Time 6/1/16 1450

Temperature on Receipt: 10.1

Ice present? Yes ☐ No ☒

Turn Around Time: Same Day ☐ 24-hr ☐ 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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliott 15-26

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X606020

Client: LTE

Client Project ID: HSR Austin 16-26

Checklist Completed by: Jeff Smith

Shipped Via: H/D
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 6/1/16

Airbill #: NA

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

Cooler Number/Temperature: 1 / 10.1 °C 1 / 1 °C 1 / 1 °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"/>		<u>Sampled Some Day</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) / (pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with Na ₂ SO ₂ +NaOH, ZnAc+NaOH)		<input checked="" type="checkbox"/>		
Additional Comments (if any):				

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

Reviewed by (Project Manager) Jeff Smith

Date/Time Reviewed 6/3/16

Origins Laboratory, Inc.

Jeff 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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW01
6/1/2016 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X606020-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6F0201	06/02/2016	06/03/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.4 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW02
6/1/2016 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X606020-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6F0201	06/02/2016	06/03/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.7 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW03
6/1/2016 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X606020-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6F0201	06/02/2016	06/03/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW04R2

6/1/2016 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X606020-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6F0201	06/02/2016	06/03/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121	"	"	"
Surrogate: Toluene-d8	99.0 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	98.2 %	84-114	"	"	"

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW05R2
6/1/2016 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X606020-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6F0201	06/02/2016	06/03/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

TMW02
6/1/2016 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X606020-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6F0201	06/02/2016	06/03/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121	"	"	"
Surrogate: Toluene-d8	99.6 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	97.9 %	84-114	"	"	"

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

TMW07
6/1/2016 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X606020-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6F0201	06/02/2016	06/03/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6F0201 - EPA 5030B (Water)

Blank (B6F0201-BLK1)

Prepared: 06/02/2016 Analyzed: 06/03/2016

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	52		"	62.5	83.5		84-121			
Surrogate: Toluene-d8	69		"	62.5	110		85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5	99.6		84-114			

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6F0201 - EPA 5030B (Water)										
LCS (B6F0201-BS1)					Prepared: 06/02/2016 Analyzed: 06/03/2016					
Benzene	48.5	1.00	ug/L	50.0		96.9	73.3-129			
Toluene	53.0	1.00	"	50.0		106	76.2-123			
Ethylbenzene	54.4	1.00	"	50.0		109	73.6-130			
m,p-Xylene	107	2.00	"	100		107	76.1-126			
o-Xylene	52.3	1.00	"	50.0		105	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	52		"	62.5		83.8	84-121			
Surrogate: Toluene-d8	67		"	62.5		107	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.5	84-114			

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6F0201 - EPA 5030B (Water)

Matrix Spike (B6F0201-MS1)		Source: X606013-01			Prepared: 06/02/2016 Analyzed: 06/03/2016					
Benzene	48.1	1.00	ug/L	50.0	ND	96.2	74-130			
Toluene	48.1	1.00	"	50.0	ND	96.2	73-131			
Ethylbenzene	47.5	1.00	"	50.0	ND	95.0	76-132			
m,p-Xylene	94.0	2.00	"	100	ND	94.0	69-139			
o-Xylene	49.0	1.00	"	50.0	ND	98.1	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.5	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.7	84-114			

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6F0201 - EPA 5030B (Water)										
Matrix Spike Dup (B6F0201-MSD1)					Source: X606013-01					Prepared: 06/02/2016 Analyzed: 06/03/2016
Benzene	50.6	1.00	ug/L	50.0	ND	101	74-130	5.07	20	
Toluene	49.9	1.00	"	50.0	ND	99.8	73-131	3.61	20	
Ethylbenzene	49.2	1.00	"	50.0	ND	98.4	76-132	3.51	20	
m,p-Xylene	97.2	2.00	"	100	ND	97.2	69-139	3.34	20	
o-Xylene	51.1	1.00	"	50.0	ND	102	74-131	4.11	20	
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		96.8	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	84-114			

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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.

Jen Pellegrini For Noelle Doyle Mathis, President



September 09, 2016

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR Austin 16-26/Elliot
15-26**

Project Number - KMG08355/WO #884385

Attached are your analytical results for KMG - HSR Austin 16-26/Elliot 15-26 received by Origins Laboratory, Inc. September 06, 2016. This project is associated with Origins project number X609057-01.

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	X609057-01	Water	September 6, 2016 14:15	09/06/2016 16:05
MW02	X609057-02	Water	September 6, 2016 14:20	09/06/2016 16:05
MW03	X609057-03	Water	September 6, 2016 14:25	09/06/2016 16:05
MW04R2	X609057-04	Water	September 6, 2016 14:30	09/06/2016 16:05
MW05R2	X609057-05	Water	September 6, 2016 14:35	09/06/2016 16:05

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliott 15-26

ORIGINS
LABORATORY, INC

X609057

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

Client: LT Environmental, Inc.		Project Manager: John Cocroft						
Project: KMG - HSR Austin 16-26/Elliott 15-26		Project Number: KMG08355/WO #88438556						
Number	Sample Identification	Matrix	Sample Date	Sample Time	Sampled By	Container	Qty	Analyses
01-001	MW01	Water	9/6/16	1415	CT	01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
02-001	MW02	Water		1420		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
03-001	MW03	Water		1425		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
04-001	MW04R2	Water		1430		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
05-001	MW05R2	Water		1435		01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
06-001	TNW02 Abrasive Sediment	Water				01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample
07-001	TNW07 Abrasive Sediment	Water				01_40mL Clear Vial Cool to 4° C	3	BTEX by EPA 8260C Filter sample

Relinquished By: ALZ Date / Time: 9/16/16 1605

Received By: _____ Date / Time: _____

Relinquished By: John Cocroft Date / Time: 9/16/16 1605

Received By: _____ Date / Time: _____

Temperature on Receipt: 32

Ice present? Yes ☐ No ☒

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

Origins Laboratory, Inc.

Jefe Pellegrini

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X609057
 Client: LTE
 Client Project ID: KMG-HSR Austin 16-26/Elliot
 Checklist Completed by: Jeff Smith
 Shipped Via: HD
 Date/time completed: 9/8/16
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: NA
 Matrix(s) Received: (Check all that apply): Soil/Solid X Water Other:
 Cooler Number/Temperature: 1 / 3.2 °C 1 / 1 °C 1 / 1 °C (Describe)
 Thermometer ID: TOC3

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		X		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		X		
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)		X		
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.

Jeff Smith
Reviewed by (Project Manager)

9/8/16
Date/Time Reviewed

Origins Laboratory, Inc.

Jeff 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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW01
9/6/2016 2:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X609057-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B610802	09/08/2016	09/08/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	1.11	1.00	"	"	"	"	"	
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	84-121			"	"	"	
Surrogate: Toluene-d8	96.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	115 %	84-114			"	"	" S-07	

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW02
9/6/2016 2:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X609057-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6I0802	09/08/2016	09/08/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	95.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW03

9/6/2016 2:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. X609057-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6I0802	09/08/2016	09/08/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	104 %	84-121			"	"	"	
Surrogate: Toluene-d8	94.9 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW04R2

9/6/2016 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X609057-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6I0802	09/08/2016	09/08/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	84-121	"	"	"
Surrogate: Toluene-d8	93.9 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	84-114	"	"	"

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW05R2

9/6/2016 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X609057-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B610802	09/08/2016	09/08/2016	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	84-121	"	"	"
Surrogate: Toluene-d8	95.3 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	84-114	"	"	"

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6I0802 - EPA 5030B (Water)										
Blank (B6I0802-BLK1)					Prepared: 09/08/2016 Analyzed: 09/08/2016					
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	66		"	62.5	106		84-121			
Surrogate: Toluene-d8	60		"	62.5	96.6		85-115			
Surrogate: 4-Bromofluorobenzene	72		"	62.5	115		84-114			

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6I0802 - EPA 5030B (Water)

LCS (B6I0802-BS1)

Prepared: 09/08/2016 Analyzed: 09/08/2016

Benzene	53.7	1.00	ug/L	50.0	107	73.3-129
Toluene	51.9	1.00	"	50.0	104	76.2-123
Ethylbenzene	54.2	1.00	"	50.0	108	73.6-130
m,p-Xylene	108	2.00	"	100	108	76.1-126
o-Xylene	53.5	1.00	"	50.0	107	76.6-124
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5	107	84-121
Surrogate: Toluene-d8	62		"	62.5	98.7	85-115
Surrogate: 4-Bromofluorobenzene	69		"	62.5	111	84-114

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6I0802 - EPA 5030B (Water)

Matrix Spike (B6I0802-MS1)		Source: X609057-01			Prepared: 09/08/2016 Analyzed: 09/08/2016					
Benzene	54.1	1.00	ug/L	50.0	ND	108	74-130			
Toluene	52.3	1.00	"	50.0	ND	105	73-131			
Ethylbenzene	56.3	1.00	"	50.0	1.11	110	76-132			
m,p-Xylene	111	2.00	"	100	ND	111	69-139			
o-Xylene	54.8	1.00	"	50.0	ND	110	74-131			
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		106	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.4	85-115			
Surrogate: 4-Bromofluorobenzene	69		"	62.5		111	84-114			

Origins Laboratory, Inc.



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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

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

Batch B6I0802 - EPA 5030B (Water)

Matrix Spike Dup (B6I0802-MSD1)		Source: X609057-01			Prepared: 09/08/2016 Analyzed: 09/08/2016					
Benzene	53.0	1.00	ug/L	50.0	ND	106	74-130	2.15	20	
Toluene	50.2	1.00	"	50.0	ND	100	73-131	4.18	20	
Ethylbenzene	53.1	1.00	"	50.0	1.11	104	76-132	5.87	20	
m,p-Xylene	105	2.00	"	100	ND	105	69-139	5.54	20	
o-Xylene	52.9	1.00	"	50.0	ND	106	74-131	3.55	20	
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		106	84-121			
Surrogate: Toluene-d8	61		"	62.5		98.3	85-115			
Surrogate: 4-Bromofluorobenzene	69		"	62.5		110	84-114			

Origins Laboratory, Inc.



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

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

John Cocroft
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliott 15-26

Notes and Definitions

U Sample is Non-Detect.

S-07 High surrogate in sample, however sample is non-detect. High surrogate indicates result values are biased high.

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.



January 04, 2017

LT Environmental, Inc.

Justin Solomon

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR Austin 16-26/Elliot
15-26**

Project Number - KMG08355/WO #884385

Attached are your analytical results for KMG - HSR Austin 16-26/Elliot 15-26 received by Origins Laboratory, Inc. December 28, 2016. This project is associated with Origins project number X612308-01.

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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	X612308-01	Water	December 28, 2016 12:00	12/28/2016 14:30
MW02	X612308-02	Water	December 28, 2016 12:05	12/28/2016 14:30
MW03	X612308-03	Water	December 28, 2016 12:10	12/28/2016 14:30
MW04R2	X612308-04	Water	December 28, 2016 12:15	12/28/2016 14:30
MW05R2	X612308-05	Water	December 28, 2016 12:20	12/28/2016 14:30
TMW02	X612308-06	Water	December 28, 2016 12:25	12/28/2016 14:30
TMW07	X612308-07	Water	December 28, 2016 12:30	12/28/2016 14:30

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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliott 15-26

ORIGINS
LABORATORY, INC

X612308

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

Client: LT Environmental, Inc.		Project Manager: Justin Solomon		Project Number: KMG08355/WO #88438556	
Project: KMG - HSR Austin 16-26/Elliott 15-26		Sample Date		Sample Time	
Number	Sample Identification	Matrix	Sample Date	Sample Time	Container
01-001	MW01	Water	12/28/16	1200	40mL Clear Vial Cool to 4°
02-001	MW02	Water		1205	40mL Clear Vial Cool to 4°
03-001	MW03	Water		1210	40mL Clear Vial Cool to 4°
04-001	MW04R2	Water		1215	40mL Clear Vial Cool to 4°
05-001	MW05R2	Water		1220	40mL Clear Vial Cool to 4°
06-001	TW02	Water		1225	40mL Clear Vial Cool to 4°
07-001	TW07	Water		1230	40mL Clear Vial Cool to 4°

Analyses	Qty
BTEX by EPA 8260C	3
Filter sample	
BTEX by EPA 8260C	3
Filter sample	
BTEX by EPA 8260C	3
Filter sample	
BTEX by EPA 8260C	3
Filter sample	
BTEX by EPA 8260C	3
Filter sample	
BTEX by EPA 8260C	3
Filter sample	
BTEX by EPA 8260C	3
Filter sample	

Temperature on Receipt: 6.8
Turn Around Time:
Same Day: ☐ 24-hr: ☐ 48-hr: ☒

Relinquished By: [Signature] Date / Time: 12/28/16 1430
Received By: [Signature] Date / Time: 12/28/16 1430

Relinquished By: [Signature] Date / Time: 12/28/16 1430
Received By: [Signature] Date / Time: 12/28/16 1430

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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliott 15-26

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X012308

Client: LTE

Client Project ID: KMG-HSR-Austin 16-26

Checklist Completed by: Jen Pellegrini

Shipped Via: 4D

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 12/28/10

Airbill #: NA

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

Cooler Number/Temperature: 1 / 10.2 °C 1 / 10.2 °C 1 / 10.2 °C (Describe)

Thermometer ID: TOCB

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

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

Reviewed by (Project Manager)

Date/Time Reviewed 12/29/10

Origins Laboratory, Inc.

Jen Pellegrini

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

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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW01

12/28/2016 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X612308-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6L3003	12/30/2016	01/03/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.8 %	84-121	"	"	"
Surrogate: Toluene-d8	102 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	97.6 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW02

12/28/2016 12:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. X612308-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6L3003	12/30/2016	01/03/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.5 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW03

12/28/2016 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. X612308-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6L3003	12/30/2016	01/03/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.2 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW04R2

12/28/2016 12:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X612308-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6L3003	12/30/2016	01/03/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.4 %	84-114			"	"	"	

Origins Laboratory, Inc.



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4600 West 60th Avenue
Arvada CO 80003

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

MW05R2

12/28/2016 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X612308-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6L3003	12/30/2016	01/03/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.8 %	84-114			"	"	"	

Origins Laboratory, Inc.



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4600 West 60th Avenue
Arvada CO 80003

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

TMW02

12/28/2016 12:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X612308-06 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6L3003	12/30/2016	01/03/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	
Surrogate: Toluene-d8	103 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.1 %	84-114			"	"	"	

Origins Laboratory, Inc.



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4600 West 60th Avenue
Arvada CO 80003

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

TMW07

12/28/2016 12:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X612308-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B6L3003	12/30/2016	01/03/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"
Surrogate: Toluene-d8	101 %	85-115			"	"	"
Surrogate: 4-Bromofluorobenzene	96.9 %	84-114			"	"	"

Origins Laboratory, Inc.



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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6L3003 - EPA 5030B (Water)

Blank (B6L3003-BLK1)

Prepared: 12/30/2016 Analyzed: 01/03/2017

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	66		"	62.5	105		84-121			
Surrogate: Toluene-d8	64		"	62.5	103		85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5	105		84-114			

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

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6L3003 - EPA 5030B (Water)

Blank (B6L3003-BLK2)

Prepared: 12/30/2016 Analyzed: 01/03/2017

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		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.1		85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5	102		84-114			

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Arvada CO 80003

Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6L3003 - EPA 5030B (Water)

LCS (B6L3003-BS1)

Prepared: 12/30/2016 Analyzed: 01/03/2017

Benzene	41.1	1.00	ug/L	50.0		82.3	73.3-129
Toluene	41.8	1.00	"	50.0		83.6	76.2-123
Ethylbenzene	41.2	1.00	"	50.0		82.4	73.6-130
m,p-Xylene	80.4	2.00	"	100		80.4	76.1-126
o-Xylene	43.2	1.00	"	50.0		86.3	76.6-124
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		105	84-121
Surrogate: Toluene-d8	64		"	62.5		102	85-115
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	84-114

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Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6L3003 - EPA 5030B (Water)

LCS (B6L3003-BS2)

Prepared: 12/30/2016 Analyzed: 01/03/2017

Benzene	43.6	1.00	ug/L	50.0		87.2	73.3-129
Toluene	44.6	1.00	"	50.0		89.2	76.2-123
Ethylbenzene	43.4	1.00	"	50.0		86.8	73.6-130
m,p-Xylene	86.0	2.00	"	100		86.0	76.1-126
o-Xylene	45.8	1.00	"	50.0		91.5	76.6-124
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		103	84-121
Surrogate: Toluene-d8	62		"	62.5		99.7	85-115
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114

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Justin Solomon
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Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6L3003 - EPA 5030B (Water)

Matrix Spike (B6L3003-MS1)		Source: X612306-01			Prepared: 12/30/2016 Analyzed: 01/03/2017					
Benzene	45.8	1.00	ug/L	50.0	ND	91.6	74-130			
Toluene	46.0	1.00	"	50.0	ND	92.0	73-131			
Ethylbenzene	45.4	1.00	"	50.0	ND	90.7	76-132			
m,p-Xylene	90.0	2.00	"	100	ND	90.0	69-139			
o-Xylene	47.1	1.00	"	50.0	ND	94.2	74-131			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.4	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	84-114			

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Justin Solomon
Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6L3003 - EPA 5030B (Water)

Matrix Spike (B6L3003-MS2)		Source: X612306-02			Prepared: 12/30/2016 Analyzed: 01/03/2017					
Benzene	46.9	1.00	ug/L	50.0	ND	93.8	74-130			
Toluene	47.5	1.00	"	50.0	ND	95.0	73-131			
Ethylbenzene	46.0	1.00	"	50.0	ND	92.0	76-132			
m,p-Xylene	90.8	2.00	"	100	ND	90.8	69-139			
o-Xylene	48.4	1.00	"	50.0	ND	96.7	74-131			
Surrogate: 1,2-Dichloroethane-d4	66		"	62.5		105	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	84-114			

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Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6L3003 - EPA 5030B (Water)

Matrix Spike Dup (B6L3003-MSD1)		Source: X612306-01			Prepared: 12/30/2016 Analyzed: 01/03/2017					
Benzene	46.1	1.00	ug/L	50.0	ND	92.1	74-130	0.544	20	
Toluene	45.8	1.00	"	50.0	ND	91.7	73-131	0.370	20	
Ethylbenzene	46.0	1.00	"	50.0	ND	92.1	76-132	1.49	20	
m,p-Xylene	91.8	2.00	"	100	ND	91.8	69-139	1.98	20	
o-Xylene	48.3	1.00	"	50.0	ND	96.7	74-131	2.58	20	
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		100	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.1	85-115			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	84-114			

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Arvada CO 80003

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Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6L3003 - EPA 5030B (Water)

Matrix Spike Dup (B6L3003-MSD2)		Source: X612306-02			Prepared: 12/30/2016 Analyzed: 01/03/2017					
Benzene	46.5	1.00	ug/L	50.0	ND	93.1	74-130	0.835	20	
Toluene	46.5	1.00	"	50.0	ND	93.1	73-131	2.06	20	
Ethylbenzene	45.1	1.00	"	50.0	ND	90.1	76-132	2.06	20	
m,p-Xylene	91.2	2.00	"	100	ND	91.2	69-139	0.363	20	
o-Xylene	48.0	1.00	"	50.0	ND	96.1	74-131	0.685	20	
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		102	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.9	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	84-114			

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Project Number: KMG08355/WO #88438556
Project: KMG - HSR Austin 16-26/Elliot 15-26

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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