

**TABLE 1**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**HSR-BLANK 15-5/ HSR-CABRAL 16-5**  
**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 Water/ (Product Thickness) (ft bgs)	Relative GW Elev. (ft)
BCW01	8/4/2005	1,700	4,000	500	10,800	5.0	NA
MW01	9/29/2005	<1.0	<1.0	<1.0	<2.0	1.05	NA
	12/13/2005	<1.0	<1.0	<1.0	<2.0	1.05	NA
	3/28/2006	<1.0	<1.0	<1.0	<1.0	1.00	NA
	6/16/2006	<1.0	<1.0	<1.0	<1.0	2.36	NA
	9/21/2006	<1.0	<1.0	<1.0	<1.0	1.55	NA
	12/27/2006	<1.0	<1.0	<1.0	<1.0	0.55	NA
	3/12/2007	<1.0	<1.0	<1.0	<1.0	0.45	NA
	6/14/2007	<1.0	<1.0	<1.0	<1.0	1.50	NA
	9/11/2007	<1.0	<1.0	<1.0	<1.0	1.80	NA
	12/10/2007	<1.0	<1.0	<1.0	<1.0	0.15	NA
	3/6/2008	<1.0	<1.0	<1.0	<1.0	1.08	NA
	6/10/2008	<1.0	<1.0	<1.0	<1.0	1.54	NA
	9/15/2008	<1.0	<1.0	<1.0	<1.0	0.70	NA
	12/11/2008	<1.0	<1.0	<1.0	<1.0	0.69	NA
	3/4/2009	<1.0	<1.0	<1.0	<1.0	1.30	NA
	6/1/2009	<1.0	<1.0	<1.0	<1.0	1.23	NA
	9/21/2009	Removed from monitoring				NM	NA
MW02	9/29/2005	40	<1.0	270	330	2.10	95.90
	12/13/2005	<1.0	<1.0	<1.0	<2.0	1.60	96.40
	3/28/2006	<1.0	<1.0	<1.0	<1.0	1.58	96.42
	6/16/2006	2.3	<1.0	<1.0	<1.0	2.90	95.10
	9/21/2006	<1.0	<1.0	<1.0	<1.0	2.06	95.94
	12/27/2006	<1.0	<1.0	<1.0	<1.0	1.06	96.94
	3/12/2007	<1.0	<1.0	<1.0	<1.0	0.98	97.02
	6/14/2007	1.1	<1.0	1.5	<1.0	2.20	95.80
	9/11/2007	<1.0	<1.0	<1.0	<1.0	2.20	95.30
	12/10/2007	<1.0	<1.0	<1.0	<1.0	0.00	98.00
	3/6/2008	<1.0	<1.0	<1.0	<1.0	1.70	96.30
	6/10/2008	<1.0	<1.0	<1.0	<1.0	2.16	95.84
	9/15/2008	<1.0	<1.0	<1.0	<1.0	1.21	96.79
	12/11/2008	<1.0	<1.0	<1.0	<1.0	1.23	96.77
	3/4/2009	<1.0	<1.0	<1.0	<1.0	1.75	96.25
	6/1/2009	<1.0	<1.0	<1.0	<1.0	1.94	96.06
	9/21/2009	<1.0	<1.0	<1.0	<1.0	1.90	96.10



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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)
	12/4/2009	<1.0	<1.0	<1.0	<1.0	0.94	97.06
	3/4/2010	<1.0	<1.0	<1.0	<1.0	0.96	97.04
	6/9/2010	<1.0	<1.0	<1.0	<1.0	2.39	95.61
	9/13/2010	1.5	<1.0	<1.0	<1.0	3.10	94.90
	12/7/2010	<1.0	<1.0	<1.0	<1.0	1.97	96.03
	3/1/2011	<1.0	<1.0	<1.0	<1.0	1.74	96.26
	6/24/2011	Removed from monitoring				NM	NA
	12/6/2013	Surveyed - Not Sampled				1.80	96.19
MW03	9/29/2005	260	<1.0	94	960	2.30	94.63
	12/13/2005	64	<1.0	6.0	220	1.90	95.13
	3/28/2006	70	<1.0	<1.0	59	1.90	95.13
	6/16/2006	16	<1.0	<1.0	3.6	3.56	93.47
	9/21/2006	2.4	<1.0	<1.0	<1.0	2.49	94.54
	12/27/2006	30	<1.0	1.1	5.8	1.49	95.54
	3/12/2007	610	<1.0	<1.0	22	1.60	95.43
	4/10/2007	410	<1.0	<1.0	5.4	1.83	95.20
	6/14/2007	120	<1.0	<1.0	<1.0	3.00	94.03
	9/11/2007	190	<1.0	8.7	36	3.10	93.93
	12/10/2007	5.1	<1.0	<1.0	<1.0	1.00	96.03
	3/6/2008	<1.0	<1.0	3.8	160	2.49	94.54
	6/10/2008	160	<1.0	<1.0	<1.0	2.85	94.18
	9/15/2008	310	<1.0	<1.0	200	2.53	94.50
	12/11/2008	16	<1.0	12	<1.0	2.39	94.64
	3/4/2009	<1.0	<1.0	<1.0	<1.0	2.51	94.52
	6/1/2009	230	<1.0	4.4	30	2.96	94.07
	9/21/2009	<1.0	<1.0	<1.0	<1.0	2.95	94.08
	12/4/2009	28	<1.0	<1.0	<1.0	2.48	94.55
	3/4/2010	180	<1.0	<1.0	<1.0	2.08	94.95
	6/9/2010	340	<1.0	5.7	2.0	3.33	93.70
	9/13/2010	89	<1.0	1.6	21	3.52	93.51
	12/7/2010	<1.0	<1.0	<1.0	<1.0	1.36	95.67
	3/1/2011	<1.0	<1.0	<1.0	<1.0	1.35	95.68
	6/24/2011	<1.0	<1.0	<1.0	<1.0	3.47	93.56
	9/9/2011	75	<1.0	<1.0	<1.0	3.49	93.54
	12/13/2011	<1.0	<1.0	<1.0	<1.0	PVC Bent	NA
	3/5/2012	240	<1.0	<1.0	49	PVC Bent	NA



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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)
	6/7/2012	16	<1.0	<1.0	2.1	PVC Bent	NA
	9/13/2012	72	<1.0	<1.0	21	PVC Bent	NA
	12/11/2012	15	<1.0	<1.0	13	PVC Bent	NA
	3/12/2013	260	<1.0	3.1	15	PVC Bent	NA
	6/19/2013	<1.0	<1.0	<1.0	<1.0	PVC Bent	NA
	9/17/2013	20	<1.0	<1.0	12	0.19	97.93
	12/6/2013	Surveyed - Not Sampled				2.36	95.78
	12/12/2013	<4.0	<4.0	<4.0	<4.0	PVC Bent	NA
	3/11/2014	394	<1.0	<1.0	<1.0	PVC Bent	NA
	6/6/2014	206	<1.0	<1.0	7.5	PVC Bent	NA
	9/17/2014	<1.0	<1.0	<1.0	<1.0	PVC Bent	NA
	12/1/2014	4.0	<1.0	<1.0	<1.0	PVC Bent	NA
	3/3/2015	<1.0	<1.0	<1.0	<1.0	PVC Blocked	NA
	6/24/2015	447	<1.0	1.1	2.4	2.71	96.48
	7/24/2015	Surveyed - Not Sampled				3.03	96.18
	9/8/2015	<1.0	<1.0	<1.0	<1.0	2.76	96.45
	12/8/2015	5.0	<1.0	<1.0	<1.0	NM	NA
	3/4/2016	91.2	<1.0	<1.0	1.4	2.02	97.19
	6/1/2016	530	<1.00	<1.00	<1.00	2.02	97.19
	9/16/2016	<1.00	<1.00	<1.00	<1.00	2.86	96.35
	12/6/2016	<1.00	<1.00	<1.00	<1.00	PVC Blocked	NA
	3/9/2017	5.58	<1.00	<1.00	<1.00	PVC Blocked	NA
	Destroyed as of 6/2/2017						
MW04	4/24/2006	<1.0	<1.0	<1.0	<1.0	2.50	94.83
	6/16/2006	<1.0	<1.0	<1.0	<1.0	2.80	94.53
	9/21/2006	<1.0	<1.0	<1.0	<1.0	2.00	95.33
	12/27/2006	<1.0	<1.0	<1.0	<1.0	1.00	96.33
	3/12/2007	<1.0	<1.0	<1.0	<1.0	1.05	96.28
	6/14/2007	<1.0	<1.0	<1.0	<1.0	2.00	95.33
	9/11/2007	<1.0	<1.0	<1.0	<1.0	2.18	95.15
	12/10/2007	<1.0	<1.0	<1.0	<1.0	1.38	95.95
	3/6/2008	<1.0	<1.0	<1.0	<1.0	1.35	95.98
	6/10/2008	<1.0	<1.0	<1.0	<1.0	1.81	95.52
	9/15/2008	<1.0	<1.0	<1.0	<1.0	1.08	96.25
	12/11/2008	<1.0	<1.0	<1.0	<1.0	1.16	96.17
	3/4/2009	<1.0	<1.0	<1.0	<1.0	1.54	95.79



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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)
	6/1/2009	<1.0	<1.0	<1.0	<1.0	1.70	95.63
	9/21/2009	<1.0	<1.0	<1.0	<1.0	1.86	95.47
	12/4/2009	<1.0	<1.0	<1.0	<1.0	2.21	95.12
	3/4/2010	<1.0	<1.0	<1.0	<1.0	1.02	96.31
	6/9/2010	<1.0	<1.0	<1.0	<1.0	2.37	94.96
	9/13/2010	<1.0	<1.0	<1.0	<1.0	3.05	94.28
	12/7/2010	<1.0	<1.0	<1.0	<1.0	1.86	95.47
	3/1/2011	<1.0	<1.0	<1.0	<1.0	1.71	95.62
	6/24/2011	<1.0	<1.0	<1.0	<1.0	2.65	94.68
	9/9/2011	<1.0	<1.0	<1.0	<1.0	2.64	94.69
	12/13/2011	<1.0	<1.0	<1.0	<1.0	1.68	95.65
	3/5/2012	<1.0	<1.0	<1.0	<1.0	1.67	95.66
	6/7/2012	<1.0	<1.0	<1.0	<1.0	2.05	95.28
	9/13/2012	Dry - Not Sampled				Dry	NA
	12/11/2012	<1.0	<1.0	<1.0	<1.0	2.28	95.05
	3/12/2013	<1.0	<1.0	<1.0	<1.0	1.61	95.72
	6/19/2013	<1.0	<1.0	<1.0	<1.0	2.96	94.37
	9/17/2013	<1.0	<1.0	<1.0	<1.0	1.18	96.15
	12/6/2013	Surveyed - Not Sampled				1.67	95.49
	12/12/2013	<4.0	<4.0	<4.0	<4.0	1.81	95.52
	3/11/2014	<1.0	<1.0	<1.0	<1.0	1.45	95.88
	6/6/2014	<1.0	<1.0	<1.0	<1.0	1.91	96.68
	9/17/2014	<1.0	<1.0	<1.0	<1.0	2.06	96.53
	12/1/2014	<1.0	<1.0	<1.0	<1.0	1.77	96.82
	3/3/2015	<1.0	<1.0	<1.0	<1.0	1.49	97.10
	6/24/2015	<1.0	<1.0	<1.0	<1.0	2.54	96.05
	7/24/2015	Surveyed - Not Sampled				2.50	95.78
	9/8/2015	<1.0	<1.0	<1.0	<1.0	2.22	96.06
	12/8/2015	<1.0	<1.0	<1.0	<1.0	NM	NA
	3/4/2016	<1.0	<1.0	<1.0	<1.0	1.41	96.87
	6/1/2016	<1.00	<1.00	<1.00	<1.00	1.37	96.91
	9/16/2016	<1.00	<1.00	<1.00	<1.00	2.17	96.11
	12/6/2016	<1.00	<1.00	<1.00	<1.00	2.16	96.60
	3/9/2017	<1.00	<1.00	<1.00	<1.00	2.08	96.68
	6/2/2017	<1.00	<1.00	<1.00	<1.00	1.96	96.80
	9/5/2017	<1.00	<1.00	<1.00	<1.00	2.87	95.89



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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)
MW05	4/24/2006	<1.0	<1.0	<1.0	<1.0	0.75	96.30
	6/16/2006	<1.0	<1.0	<1.0	<1.0	1.90	95.15
	9/21/2006	<1.0	<1.0	<1.0	<1.0	1.15	95.90
	12/27/2006	<1.0	<1.0	<1.0	<1.0	0.15	96.90
	3/12/2007	<1.0	<1.0	<1.0	<1.0	0.42	96.63
	6/14/2007	<1.0	<1.0	<1.0	<1.0	1.93	95.12
	9/11/2007	<1.0	<1.0	<1.0	<1.0	1.24	95.81
	12/10/2007	<1.0	<1.0	<1.0	<1.0	0.04	97.01
	3/6/2008	<1.0	<1.0	<1.0	<1.0	0.52	96.53
	6/10/2008	<1.0	<1.0	<1.0	<1.0	0.98	96.07
	9/15/2008	<1.0	<1.0	<1.0	<1.0	0.60	96.45
	12/11/2008	<1.0	<1.0	<1.0	<1.0	0.62	96.43
	3/4/2009	<1.0	<1.0	<1.0	<1.0	0.90	96.15
	6/1/2009	<1.0	<1.0	<1.0	<1.0	1.04	96.01
	9/21/2009	<1.0	2.2	<1.0	<1.0	1.03	96.02
	12/4/2009	<1.0	<1.0	<1.0	<1.0	1.42	95.63
	3/4/2010	<1.0	<1.0	<1.0	<1.0	0.59	96.46
	6/9/2010	<1.0	<1.0	<1.0	<1.0	1.69	95.36
	9/13/2010	<1.0	<1.0	<1.0	<1.0	2.42	94.63
	12/7/2010	<1.0	<1.0	<1.0	<1.0	0.31	96.74
	3/1/2011	<1.0	<1.0	<1.0	<1.0	PVC Blocked	NA
	6/24/2011	<1.0	<1.0	<1.0	<1.0	2.20	94.85
	9/9/2011	<1.0	<1.0	<1.0	<1.0	2.19	94.86
	12/13/2011	<1.0	<1.0	<1.0	<1.0	1.31	95.74
	3/5/2012	<1.0	<1.0	<1.0	<1.0	1.09	95.96
	6/7/2012	<1.0	<1.0	<1.0	<1.0	1.18	95.87
	9/13/2012	<1.0	<1.0	<1.0	<1.0	3.85	93.20
	12/11/2012	<1.0	<1.0	<1.0	<1.0	1.65	95.40
	3/12/2013	<1.0	<1.0	<1.0	<1.0	1.00	96.05
	6/19/2013	<1.0	<1.0	<1.0	<1.0	2.51	94.54
	9/17/2013	<1.0	<1.0	<1.0	<1.0	1.00	96.05



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	12/6/2013	Surveyed - Not Sampled				0.71	95.76
	12/12/2013	<4.0	<4.0	<4.0	<4.0	1.34	95.71
	3/11/2014	<1.0	<1.0	<1.0	<1.0	0.00	97.05
	6/6/2014	<1.0	<1.0	<1.0	<1.0	1.02	96.60
	9/17/2014	<1.0	<1.0	<1.0	<1.0	1.11	96.51
	12/1/2014	<1.0	<1.0	<1.0	<1.0	0.58	97.04
	3/3/2015	<1.0	<1.0	<1.0	<1.0	0.34	97.28
	6/24/2015	<1.0	<1.0	<1.0	<1.0	1.53	96.09
	7/24/2015	Surveyed - Not Sampled				1.69	95.93
	9/8/2015	<1.0	<1.0	<1.0	<1.0	1.38	96.24
	12/8/2015	<1.0	<1.0	<1.0	<1.0	NM	NA
	3/4/2016	<1.0	<1.0	<1.0	<1.0	0.53	97.09
	6/1/2016	<1.00	<1.00	<1.00	<1.00	0.57	97.05
	9/16/2016	<1.00	<1.00	<1.00	<1.00	1.28	96.34
	12/6/2016	<1.00	<1.00	<1.00	<1.00	1.26	96.94
	3/9/2017	<1.00	<1.00	<1.00	<1.00	1.20	97.00
	6/2/2017	<1.00	<1.00	<1.00	<1.00	1.29	96.91
	9/5/2017	<1.00	<1.00	<1.00	<1.00	2.14	96.06
MW06	3/24/2014	<1.0	<1.0	<1.0	<1.0	1.61	96.61
	6/6/2014	<1.0	<1.0	<1.0	<1.0	3.74	96.48
	9/17/2014	<1.0	<1.0	<1.0	<1.0	3.90	96.32
	12/1/2014	<1.0	<1.0	<1.0	<1.0	3.55	96.67
	3/3/2015	<1.0	<1.0	<1.0	<1.0	3.32	96.90
	6/24/2015	<1.0	<1.0	<1.0	<1.0	4.15	96.07
	7/24/2015	Surveyed - Not Sampled				2.50	95.71
	9/8/2015	<1.0	<1.0	<1.0	<1.0	2.19	96.02
	12/8/2015	<1.0	<1.0	<1.0	<1.0	NM	NA
	3/4/2016	<1.0	<1.0	<1.0	<1.0	1.45	96.76
	6/1/2016	<1.00	<1.00	<1.00	<1.00	1.34	96.87
	9/16/2016	<1.00	<1.00	<1.00	<1.00	2.14	96.07
	12/6/2016	<1.00	<1.00	<1.00	<1.00	1.15	96.47
	3/9/2017	<1.00	<1.00	<1.00	<1.00	1.08	96.54



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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)
	6/2/2017	<1.00	<1.00	<1.00	<1.00	0.90	96.72
	9/5/2017	<1.00	<1.00	<1.00	<1.00	1.70	95.92
<b>COGCC Allowable Levels</b>		<b>5</b>	<b>1000</b>	<b>700</b>	<b>1400</b>		

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 completion of carbon slurry injection.





September 11, 2017

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - HSR-Blank 15-5/HSR-Cabral 16-5** **Project Number - KMG05161/WO #883347**

Attached are your analytical results for KMG - HSR-Blank 15-5/HSR-Cabral 16-5 received by Origins Laboratory, Inc. September 05, 2017. This project is associated with Origins project number Y709045-01.

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: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW04	Y709045-01	Water	September 5, 2017 13:50	09/05/2017 15:53
MW05	Y709045-02	Water	September 5, 2017 13:55	09/05/2017 15:53
MW06	Y709045-03	Water	September 5, 2017 14:00	09/05/2017 15:53

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 4709045

Client: LTE

Client Project ID: KMG-ROK Blank

Checklist Completed by: Don W

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

Date/time completed: 9-6-12 1145

Airbill #: NA

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

Cooler Number/Temperature: 1 / 14.6 °C            /            °C            /            °C (Describe)

Thermometer ID: ROB

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		<u>sample 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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (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 <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)		<input checked="" type="checkbox"/>		
Additional Comments (if any):				

<sup>(1)</sup> 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)                     

9-6-12 1145  
Date/Time Reviewed

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: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

MW04

9/5/2017 1:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y709045-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B710702	09/07/2017	09/07/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121	"	"	"
Surrogate: Toluene-d8	96.6 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	87.8 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

MW05

9/5/2017 1:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y709045-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B710702	09/07/2017	09/07/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	117 %	84-121	"	"	"
Surrogate: Toluene-d8	99.4 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	92.2 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

MW06

9/5/2017 2:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y709045-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B710702	09/07/2017	09/08/2017	U
Toluene	ND	1.00	"	"	"	"	"	U
Ethylbenzene	ND	1.00	"	"	"	"	"	U
Xylenes, total	ND	1.00	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	112 %	84-121	"	"	"
Surrogate: Toluene-d8	102 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	92.9 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

**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
<b>Batch B710702 - EPA 5030B (Water)</b>										
<b>Blank (B710702-BLK1)</b>					Prepared: 09/07/2017 Analyzed: 09/07/2017					
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	70		"	62.5	111		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.7		85-115			
Surrogate: 4-Bromofluorobenzene	56		"	62.5	89.6		84-114			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

**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 B710702 - EPA 5030B (Water)**

**LCS (B710702-BS1)**

Prepared: 09/07/2017 Analyzed: 09/07/2017

Benzene	43.3	1.00	ug/L	50.0		86.6	73.3-129			
Toluene	46.2	1.00	"	50.0		92.4	76.2-123			
Ethylbenzene	45.2	1.00	"	50.0		90.4	73.6-130			
m,p-Xylene	92.8	2.00	"	100		92.8	76.1-126			
o-Xylene	43.9	1.00	"	50.0		87.9	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	71		"	62.5		114	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	54		"	62.5		86.9	84-114			

Origins Laboratory, Inc.



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Brian Sulzberger  
Project Number: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

**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 B710702 - EPA 5030B (Water)**

Matrix Spike (B710702-MS1)		Source: Y709072-01			Prepared: 09/07/2017 Analyzed: 09/07/2017					
Benzene	43.7	1.00	ug/L	50.0	ND	87.4	74-130			
Toluene	47.4	1.00	"	50.0	ND	94.8	73-131			
Ethylbenzene	46.0	1.00	"	50.0	ND	91.9	76-132			
m,p-Xylene	95.2	2.00	"	100	ND	95.2	69-139			
o-Xylene	46.2	1.00	"	50.0	ND	92.4	74-131			
Surrogate: 1,2-Dichloroethane-d4	70		"	62.5		112	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	57		"	62.5		91.8	84-114			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
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Arvada CO 80003

Brian Sulzberger  
Project Number: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

**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 B710702 - EPA 5030B (Water)**

Matrix Spike Dup (B710702-MSD1)		Source: Y709072-01			Prepared: 09/07/2017 Analyzed: 09/07/2017					
Benzene	42.9	1.00	ug/L	50.0	ND	85.9	74-130	1.73	20	
Toluene	46.8	1.00	"	50.0	ND	93.7	73-131	1.17	20	
Ethylbenzene	43.6	1.00	"	50.0	ND	87.2	76-132	5.22	20	
m,p-Xylene	91.2	2.00	"	100	ND	91.2	69-139	4.30	20	
o-Xylene	45.2	1.00	"	50.0	ND	90.4	74-131	2.14	20	
Surrogate: 1,2-Dichloroethane-d4	72		"	62.5		114	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	55		"	62.5		88.4	84-114			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: KMG05161/WO #88334712  
Project: KMG - HSR-Blank 15-5/HSR-Cabral 16-5

### 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.



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