P.O. Box 3483, MD 48-6
Tulsa, OK 74101

April 14, 2016

Randolph Bayliss
Hydrologist, Districts III and IV
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Online Submission of 2016 Annual Groundwater Reports

Dear Mr. Bayliss,

LT Environmental (LTE), Inc., on behalf of Williams Four Corners LLC (Williams), is electronically submitting the attached 2016 annual groundwater monitoring reports covering the period from January 1, 2016 to December 31, 2016 for the following sites:

- Davis #1 (3RP-311-0);
- Dogie East Pit (3RP-312-0);
- Florance #40 (3RP-315-0);
- Florance #47X (3RP-317-0);
- Jicarilla Contract #147-6 (3RP-325-0); and
- Pritchard #2A (3RP-339-0).

If you have any questions regarding these reports please contact Brooke Herb with LTE at 970-385-1096 or BHerb@LTEnv.com or Aaron Galer with Williams at 801-584-6746 or Aaron.Galer@Williams.com.

Sincerely,

Aaron Galer

Aaron Galer
Environmental Specialist IV
Williams Companies

cc:
Attachments (6)

2016 ANNUAL GROUNDWATER REPORT

JICARILLA CONTRACT 147-6
ADMINISTRATIVE/ENVIRONMENTAL
ORDER NUMBER 3RP-325-0

APRIL 2017

Prepared for:

WILLIAMS FOUR CORNERS LLC
Salt Lake City, Utah

2016 ANNUAL GROUNDWATER REPORT

JICARILLA CONTRACT 147-6
ADMINISTRATIVE/ENVIRONMENTAL
ORDER NUMBER 3RP-325-0

APRIL 2017

Prepared for:

WILLIAMS FOUR CORNERS LLC
295 Chipeta Way
Salt Lake City, Utah 84108

Prepared by:

LT ENVIRONMENTAL, INC.
848 East Second Avenue
Durango, Colorado 81301
(970) 385-1096

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EXECUTIVE SUMMARY

Groundwater at the Jicarilla Contract 147-6 natural gas production well (Site), Administrative/ Environmental Order Number 3RP-325-0, is impacted by petroleum hydrocarbons exceeding the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards for benzene, toluene, ethylbenzene, and total xylenes (BTEX) due to a release from a former unlined dehydrator pit operated by the Gas Company of New Mexico (GCNM).

Impacted soil was excavated in 1998, and five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) were installed in 1999 to assess groundwater quality. Based on the results of initial groundwater sampling, four additional monitoring wells were installed downgradient (MW-6, MW-7, MW-8, and MW-9) and one monitoring well was installed upgradient (MW-10) of the former unlined dehydrator pit. Over time, three monitoring wells (MW-4, MW-5, and MW-7) located near a wash adjacent to the Site were destroyed by erosion. Williams Four Corners LLC (Williams) purchased the GCNM facility from Public Service Company of New Mexico (PNM) in 2000 and assumed environmental liability for the Site. Since 2000, Williams has monitored groundwater quality. In 2013, Williams installed two additional monitoring wells (MW-11 and MW-12) to better understand current site conditions. LT Environmental, Inc. (LTE) was retained by Williams to conduct annual groundwater monitoring in June 2016. LTE measured depth to water in nine existing monitoring wells and sampled groundwater from monitoring wells MW-3, MW-6, and MW-12 in June 2016. In June 2016, monitoring well MW-3 contained benzene, toluene, and total xylene concentrations exceeding the NMWQCC groundwater standards and MW-6 contained benzene concentrations exceeding the NMWQCC groundwater standards.

Impacted groundwater, which is downgradient from the original source area, is defined by monitoring wells MW-3 and MW-6 near the wash adjacent to the Site. Williams will continue to monitor groundwater elevations and for the presence of phase-separated hydrocarbons (PSH) in the existing monitoring wells and sample monitoring wells MW-3, MW-6, MW-9, MW-11, and and MW-12 for the 2017 annual sampling event.

1.0 INTRODUCTION

LT Environmental, Inc. (LTE) has prepared this report on behalf of Williams Four Corners LLC (Williams) detailing groundwater monitoring activities completed in June 2016 at the Jicarilla Contract 147-6 natural gas production well (Site), Administrative/Environmental Order Number 3RP-325-0. The scope of work for this project was continued monitoring of petroleum hydrocarbon impacts to groundwater resulting from a release from a former unlined dehydrator pit.

1.1 LOCATION

The Site is located at latitude 36.433803 and longitude -107.403562 in Unit C, Section 6, Township 25 North, Range 5 West (Figure 1). The Site is adjacent to a tributary to Tapacito Creek, which drains into Largo Wash, in the San Juan Basin of Rio Arriba County, New Mexico.

1.2 HISTORY

The source of groundwater impact is a former unlined dehydrator pit operated by the Gas Company of New Mexico (GCNM). In July 1998, over 12,000 cubic yards of impacted soil were excavated from the Site. A groundwater sample collected from the excavation at approximately 26 feet below ground surface (bgs) contained 1,400 micrograms per liter (µg/L) of benzene, 4,500 µg/L of toluene, 580 µg/L of ethylbenzene, and 6,800 µg/L of total xylenes. In January 1999, five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) were installed. Based on the analytical results of groundwater sampling, an additional five monitoring wells (MW-6, MW-7, MW-8, MW-9, and MW-10) were installed in 1999 and 2000. Over time, three monitoring wells (MW-4, MW-5, and MW-7) located near a wash adjacent to the Site were destroyed by erosion. Records regarding these activities are in previous groundwater reports submitted to the New Mexico Oil Conservation Division (NMOCD). Williams purchased the GCNM facility from Public Service Company of New Mexico (PNM) in 2000 and assumed environmental liability for the former unlined dehydrator pit. Between 2000 and December 2012, Williams monitored groundwater quality in the monitoring wells at the Site. Williams installed two monitoring wells (MW-11 and MW-12) on October 21, 2013, to better understand current site conditions.

2.0 METHODOLOGY

2.1 SCOPE OF WORK

LTE monitored groundwater in June 2016. Groundwater monitoring consisted of measuring groundwater elevations in the nine existing monitoring wells and sampling groundwater in monitoring wells MW-3 and MW-6 and MW-12. Monitoring wells MW-1, MW-2, MW-8, and MW-9 were not sampled since there are eight previous quarters of sampling documenting benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations compliant with New Mexico Water Quality Control Commission (NMWQCC) standards. Monitoring well MW-10 is an upgradient monitoring well that has never contained concentrations of BTEX exceeding NMWQCC standards. A small thickness of phase-separated hydrocarbons (PSH) was detected during one sampling event in 2013; however, previous and subsequent sampling results suggest

the oil/water interface probe malfunctioned at that time. Monitoring well MW-11 did not contain BTEX exceeding NMWQCC standards upon installation, so it has not been sampled since 2013.

2.2 WATER LEVEL MEASUREMENTS

LTE measured depth to groundwater in the monitoring wells and investigated the presence of PSH with a Keck oil/water interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. These data are summarized in Table 1.

2.3 GROUNDWATER SAMPLING

Prior to sampling groundwater, LTE measured depth to groundwater and total depth of monitoring wells with a Keck oil/water interface probe. The volume of water in each monitoring well was calculated, and a minimum of three well casing volumes of water was purged from each well using a new disposable polyvinyl chloride (PVC) bailer. As water was removed from the monitoring well, pH, electrical conductivity, and temperature were monitored. Monitoring wells were purged until these properties stabilized, indicating the purge water was representative of aquifer conditions, or until the well was purged dry. Stabilization was defined as three consecutive stable readings for each water property (plus or minus (±) 0.4 units for pH, ±10 percent for electrical conductivity, and ±2 degrees (º) Celsius for temperature). Purge water was containerized and disposed of at a facility designated by Williams. A copy of the 2016 field notes is presented in Appendix A.

Once each monitoring well was properly purged, groundwater samples were collected by filling three 40-milliliter (ml) glass vials. The laboratory-supplied vials were filled and capped with no air inside to prevent degradation of the sample. Samples were labeled with the date and time of collection, monitoring well designation, project name, collector's name, and parameters to be analyzed. They were immediately sealed, packed on ice, and transferred to Hall Environmental Analysis Laboratory (HEAL) under chain-of-custody (COC) procedures for analysis of BTEX using United States Environmental Protection Agency Method 8021. COC forms were completed documenting the date and time sampled, sample number, type of sample, sampler's name, preservative used (if any), analyses required, and sampler's signature. The COC forms are included in the laboratory analytical report in Appendix B.

2.4 GROUNDWATER CONTOUR MAPS

LTE used existing top of casing well elevations and measured groundwater elevations to draft groundwater contours and determine groundwater flow direction for the June 2016 monitoring event (Figure 2). Contours were inferred based on groundwater elevations obtained and observations of physical characteristics at the Site, such as topography and proximity to irrigation ditches.

3.0 RESULTS

Groundwater elevations and depth to water data are presented in Table 1. Groundwater flow direction is to the north-northwest as depicted on Figure 2.

In June 2016, monitoring well MW-3 contained benzene, toluene, and total xylene concentrations exceeding the NMWQCC groundwater standards and MW-6 contained benzene exceeding the NMWQCC groundwater standards. Monitoring well MW-12 contained benzene and ethylbenzene but concentrations did not exceed the NMWQCC groundwater standards. Table 2 summarizes the groundwater analytical results, and a copy of the laboratory report is in Appendix B.

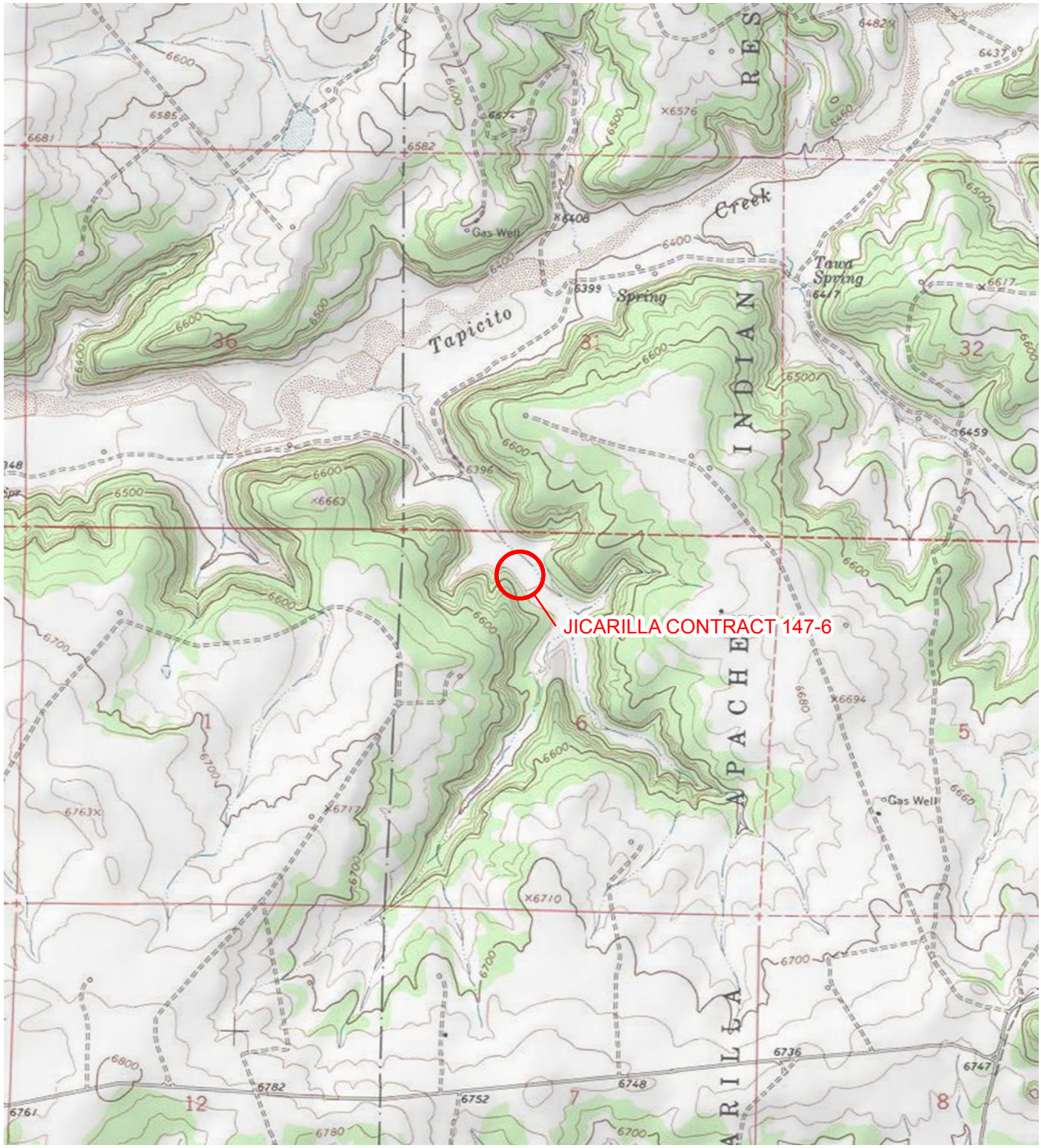
4.0 CONCLUSIONS

BTEX impacted groundwater is present in monitoring wells MW-3 and MW-6 at levels exceeding the NMWQCC groundwater standards.

5.0 MONITORING PLAN

Williams will continue to monitor groundwater elevations and for the presence of phase-separated hydrocarbons (PSH) in the existing monitoring wells and continue to sample monitoring wells MW-3, MW-6, and MW-12 annually. Additionally, Williams will sample monitoring wells MW-9 and MW-11 to confirm the groundwater plume has not migrated downgradient. Using data from 2014, 2015, 2016, and 2017, Williams will evaluate potential remediation options to address the dissolved-phase BTEX plume.

FIGURES



LEGEND

SITE LOCATION

IMAGE COURTESY OF ESRI/BING MAPS

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Feet

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FIGURE 1
SITE LOCATION MAP
JICARILLA CONTRACT 147-6
RIO ARRIBA COUNTY, NEW MEXICO

WILLIAMS FOUR CORNERS LLC

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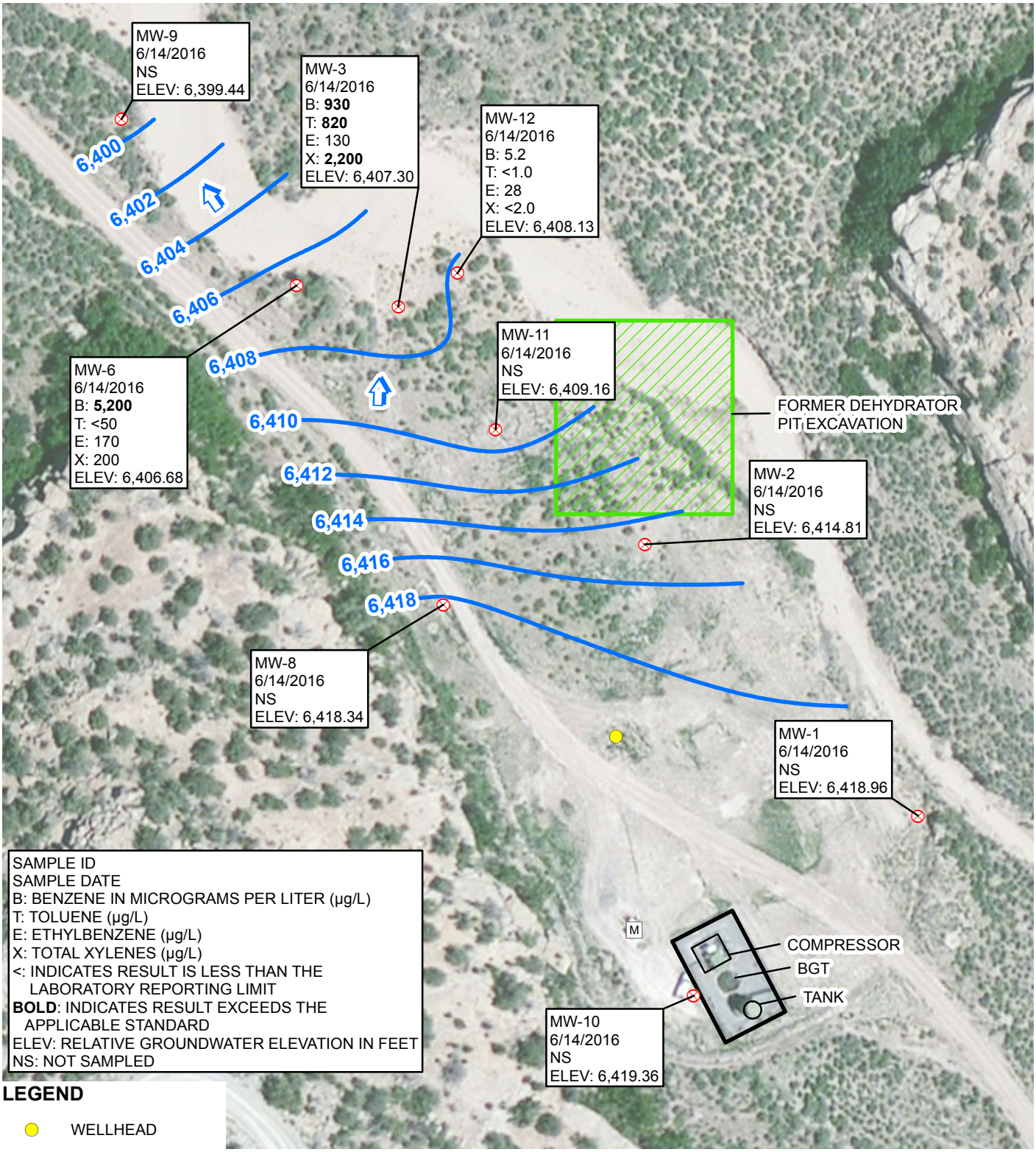

FIGURE 2
GROUNDWATER ELEVATION & ANALYTICAL RESULTS (JUNE 2016)
JICARILLA CONTRACT 147-6
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

P:\Williams Field Services\GIS\MXD\034013010_JICARILLA_CONTACT147\34016002_JICARILLA_FIG03_GWE_GWA_2016_Q2.mxd

TABLES

TABLE 1
GROUNDWATER ELEVATIONS SUMMARY

JICARILLA CONTRACT 147-6
SAN JUAN COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well ID	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-1	3/4/2013	6,435.75	21.85	NP	NP	6,413.90
MW-1**	6/25/2013	6,440.95	22.51	NP	NP	6,418.44
MW-1	12/2/2013	6,440.95	21.11	NP	NP	6,419.84
MW-1	6/16/2014	6,440.95	21.82	NP	NP	6,419.13
MW-1	12/2/2014	6,440.95	21.76	NP	NP	6,419.19
MW-1	6/18/2015	6,440.95	21.90	NP	NP	6,419.05
MW-1	9/25/2015	6,440.95	21.72	NP	NP	6,419.23
MW-1	12/18/2015	6,440.95	21.61	NP	NP	6,419.34
MW-1	6/14/2016	6,440.95	21.99	NP	NP	6,418.96
MW-2*	3/4/2013	6,432.70	22.34	22.33	0.01	6,411.17
MW-2**	6/25/2013	6,437.27	22.90	NP	NP	6,414.37
MW-2	12/2/2013	6,437.27	21.76	NP	NP	6,415.51
MW-2	6/16/2014	6,437.27	22.39	NP	NP	6,414.88
MW-2	12/2/2014	6,437.27	22.33	NP	NP	6,414.94
MW-2	6/18/2015	6,437.27	22.41	NP	NP	6,414.86
MW-2	9/25/2015	6,437.27	22.76	NP	NP	6,414.51
MW-2	12/18/2015	6,437.27	22.31	NP	NP	6,414.96
MW-2	6/14/2016	6,437.27	22.46	NP	NP	6,414.81
MW-3	3/4/2013	6,422.80	21.26	NP	NP	6,401.54
MW-3**	6/25/2013	6,427.87	21.37	NP	NP	6,406.50
MW-3	12/2/2013	6,427.87	21.44	NP	NP	6,406.43
MW-3	6/16/2014	6,427.87	20.73	NP	NP	6,407.14
MW-3	12/9/2014	6,427.87	21.59	NP	NP	6,406.28
MW-3	6/18/2015	6,427.87	20.58	NP	NP	6,407.29
MW-3	9/25/2015	6,427.87	21.61	NP	NP	6,406.26
MW-3	12/18/2015	6,427.87	21.38	NP	NP	6,406.49
MW-3	6/14/2016	6,427.87	20.57	NP	NP	6,407.30
MW-4	3/4/2013	DEST	DEST	DEST	DEST	DEST
MW-5	3/4/2013	DEST	DEST	DEST	DEST	DEST
MW-6	3/4/2013	6,426.77	25.61	NP	NP	6,401.16
MW-6**	6/25/2013	6,431.94	26.14	NP	NP	6,405.80
MW-6	12/2/2013	6,431.94	26.08	NP	NP	6,405.86
MW-6	6/16/2014	6,431.94	25.39	NP	NP	6,406.55
MW-6	12/2/2014	6,431.94	26.31	NP	NP	6,405.63
MW-6	6/18/2015	6,431.94	25.21	NP	NP	6,406.73
MW-6	9/25/2015	6,431.94	26.47	NP	NP	6,405.47
MW-6	12/18/2015	6,431.94	26.09	NP	NP	6,405.85
MW-6	6/14/2016	6,431.94	25.26	NP	NP	6,406.68
MW-7	3/4/2013	DEST	DEST	DEST	DEST	DEST

TABLE 1
GROUNDWATER ELEVATIONS SUMMARY

JICARILLA CONTRACT 147-6
SAN JUAN COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well ID	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-8	3/4/2013	6,430.33	16.36	NP	NP	6,413.97
MW-8**	6/25/2013	6,435.14	17.31	NP	NP	6,417.83
MW-8	12/2/2013	6,435.14	17.65	NP	NP	6,417.49
MW-8	6/16/2014	6,435.14	16.82	NP	NP	6,418.32
MW-8	12/2/2014	6,435.14	16.79	NP	NP	6,418.35
MW-8	6/18/2015	6,435.14	16.62	NP	NP	6,418.52
MW-8	9/25/2015	6,435.14	17.35	NP	NP	6,417.79
MW-8	12/18/2015	6,435.14	16.58	NP	NP	6,418.56
MW-8	6/14/2016	6,435.14	16.80	NP	NP	6,418.34
MW-9	3/4/2013	6,423.04	28.55	NP	NP	6,394.49
MW-9**	6/25/2013	6,428.08	28.83	NP	NP	6,399.25
MW-9	12/2/2013	6,428.08	28.65	NP	NP	6,399.43
MW-9	6/16/2014	6,428.08	28.08	NP	NP	6,400.00
MW-9	12/2/2014	6,428.08	28.45	NP	NP	6,399.63
MW-9	6/18/2015	6,428.08	27.83	NP	NP	6,400.25
MW-9	9/25/2015	6,428.08	28.86	NP	NP	6,399.22
MW-9	12/18/2015	6,428.08	28.52	NP	NP	6,399.56
MW-9	6/14/2016	6,428.08	28.64	NP	NP	6,399.44
MW-10*	3/4/2013	6,435.38	20.90	20.89	0.01	6,415.29
MW-10**	6/25/2013	6,440.48	21.59	NP	NP	6,418.89
MW-10	12/2/2013	6,440.48	20.93	NP	NP	6,419.55
MW-10	6/16/2014	6,440.48	21.14	NP	NP	6,419.34
MW-10	12/2/2014	6,440.48	21.17	NP	NP	6,419.31
MW-10	6/18/2015	6,440.48	21.01	NP	NP	6,419.47
MW-10	9/25/2015	6,440.48	21.56	NP	NP	6,418.92
MW-10	12/18/2015	6,440.48	21.01	NP	NP	6,419.47
MW-10	6/14/2016	6,440.48	21.12	NP	NP	6,419.36
MW-11	12/2/2013	6,433.46	24.38	NP	NP	6,409.08
MW-11	6/16/2014	6,433.46	24.35	NP	NP	6,409.11
MW-11	12/2/2014	6,433.46	24.46	NP	NP	6,409.00
MW-11	6/18/2015	6,433.46	24.30	NP	NP	6,409.16
MW-11	9/25/2015	6,433.46	24.68	NP	NP	6,408.78
MW-11	12/18/2015	6,433.46	24.32	NP	NP	6,409.14
MW-11	6/14/2016	6,433.46	24.30	NP	NP	6,409.16

TABLE 1
GROUNDWATER ELEVATIONS SUMMARY

JICARILLA CONTRACT 147-6
SAN JUAN COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well ID	Date	Top of Casing Elevation (feet AMSL)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Groundwater Elevation (feet AMSL)
MW-12	12/2/2013	6,429.62	21.87	NP	NP	6,407.75
MW-12	6/16/2014	6,429.62	21.65	NP	NP	6,407.97
MW-12	12/2/2014	6,429.62	22.20	NP	NP	6,407.42
MW-12	6/18/2015	6,429.62	21.50	NP	NP	6,408.12
MW-12	9/25/2015	6,429.62	22.38	NP	NP	6,407.24
MW-12	12/18/2015	6,429.62	22.03	NP	NP	6,407.59
MW-12	6/14/2016	6,429.62	21.49	NP	NP	6,408.13

Notes:

* - Interface probe appeared to be malfuntioning and presence of product is unlikely

** - Top of casing elevation was resurveyed on 6/19/13

AMSL - above mean sea level

BTOC - below top of casing

DEST - well has been destroyed

NP - no product

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

JICARILLA CONTRACT 147-6
SAN JUAN COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		**10**	**750**	**750**	**620**
MW-1	1/28/1999	<0.5	1.5	<0.5	2.6
MW-1	4/14/1999	<0.5	<0.5	<0.5	<1.5
MW-1	9/27/1999	<0.5	<0.5	<0.5	<1.5
MW-1	11/15/1999	<0.5	<0.5	<0.5	<1.5
MW-1	2/13/2001	<1	<1	<1	<1
MW-1	5/9/2001	<1	<1	<1	<1
MW-1	11/2/2001	<1.0	3.1	<2.0	<2.0
MW-1	3/20/2010	<1.0	<1.0	<1.0	<3.0
MW-1	6/22/2010	<1.0	<1.0	<1.0	<3.0
MW-1	9/16/2010	<1.0	<1.0	<1.0	<3.0
MW-1	12/8/2010	<1.0	<1.0	<1.0	<3.0
MW-1	3/10/2011	<1.0	<1.0	<1.0	<3.0
MW-1	6/15/2011	<1.0	<1.0	<1.0	<3.0
MW-1	9/13/2011	<1.0	<1.0	<1.0	<3.0
MW-1	1/6/2012	<1.0	<1.0	<1.0	<3.0
MW-1	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-1	6/12/2012	<1.0	<1.0	<1.0	<3.0
MW-1	9/27/2012	<1.0	<1.0	<1.0	<3.0
MW-1	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-1	3/4/2013	<1.0	<1.0	<1.0	<2.0
MW-1	6/25/2013	<2.0	<2.0	<2.0	<4.0
MW-2	1/28/1999*	**490**	38	<5	**1700**
MW-2	4/14/1999*	**230**	<5	<5	**671**
MW-2	10/14/1999	**55**	<0.5	2.6	**196.5**
MW-2	11/15/1999	**130**	<0.5	15	**272**
MW-2	3/20/2000	**140**	5.3	120	**440***
MW-2	6/6/2000	**52**	<0.5	48	46
MW-2	2/13/2001	**124**	14.8	72.3	**681**
MW-2	5/9/2001	**35.4**	15.1	27	23
MW-2	11/2/2001	**150**	3.4	120	**1200**
MW-2	9/24/2003	**2.8**	5.1	2.8	<5.0
MW-2	12/17/2003	**2.5**	5.9	<2.0	<5.0
MW-2	9/19/2004	<2.0	3.2	<2.0	<5.0
MW-2	12/4/2004	<2.0	2.4	<2.0	<5.0
MW-2	3/9/2005*	**23**	13	<10	<25
MW-2	9/17/2005	**<2.0**	<2.0	4.3	<5.0
MW-2	12/1/2005	<2.0	2.8	<2.0	<5.0
MW-2	3/20/2010	<1.0	<1.0	<1.0	<3.0
MW-2	6/22/2010	<1.0	<1.0	<1.0	<3.0
MW-2	9/16/2010	<1.0	<1.0	<1.0	4.8
MW-2	12/8/2010	<1.0	<1.0	<1.0	<3.0
MW-2	3/10/2011	<1.0	<1.0	<1.0	<3.0
MW-2	6/15/2011	<1.0	<1.0	<1.0	<3.0
MW-2	9/13/2011	<1.0	<1.0	<1.0	17.8
MW-2	1/6/2012	<1.0	<1.0	<1.0	<3.0
MW-2	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-2	6/12/2012	<1.0	<1.0	<1.0	<3.0
MW-2	9/27/2012	<1.0	<1.0	<1.0	18.5
MW-2	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-2	3/4/2013	NSP	NSP	NSP	NSP
MW-2	6/25/2013	<2.0	<2.0	8.1	19
MW-3	1/28/1999	**7,100**	**5,900**	260	**4,130**
MW-3	4/14/1999	**6,700**	**3,100**	220	**3,360**
MW-3	9/27/1999*	**5,800**	**2,800**	260	**3,560**

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

JICARILLA CONTRACT 147-6
SAN JUAN COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		**10**	**750**	**750**	**620**
MW-3	11/15/1999*	**5,200**	**1,800**	200	**2,970**
MW-3	3/20/2000*	**3,900**	**460**	230	**1,710**
MW-3	6/7/2000*	**4,400**	**64**	190	**1,232**
MW-3	2/13/2001	**7,250**	**1,660**	305	**5,800**
MW-3	5/9/2001	**7,810**	**1,860**	531	**7,610**
MW-3	11/2/2001	**6,700**	**7,400**	420	**7,900**
MW-3	9/24/2003*	**5,800**	**7,300**	320	**5,700**
MW-3	12/17/2003	**4,900**	**5,300**	280	**5,200**
MW-3	9/19/2004*	**5,400**	**9,500**	310	**6,500**
MW-3	12/4/2004*	**5,700**	**11,000**	330	**7,100**
MW-3	3/9/2005*	**4,700**	**7,900**	280	**5,600**
MW-3	6/16/2005*	**6,100**	**9,800**	380	**6,600**
MW-3	9/17/2005	**4,500**	**10,000**	260	**5,900**
MW-3	12/1/2005*	**5,570**	**9,970**	324	**6,760**
MW-3	3/20/2010	**3,590**	**1,990**	252	**2,310**
MW-3	6/22/2010	**2,710**	**1,080**	191	**1,170**
MW-3	9/16/2010	**3,240**	**3,630**	219	**2,210**
MW-3	12/8/2010	**2,950**	**3,380**	229	**1,900**
MW-3	3/10/2011	**1,800**	729	122	**1,900**
MW-3	6/15/2011	**2,150**	**1,710**	124	**1,000**
MW-3	9/13/2011	**3,460**	**4,500**	330	**4,670**
MW-3	1/6/2012	**1,790**	**1,970**	144	**1,400**
MW-3	4/6/2012	**1,900**	127	**955**	**1,040**
MW-3	6/12/2012	**2,700**	203	**4,990**	**2,890**
MW-3	9/27/2012	**2,070**	194	**4,380**	**2,690**
MW-3	12/7/2012	**1,650**	145	**1,810**	**1,630**
MW-3	3/4/2013	**1,200**	720	88	**680**
MW-3	6/25/2013	**2,300**	**3,300**	250	**4,000**
MW-3	12/2/2013	**2,900**	**7,700**	350	**5,700**
MW-3	6/16/2014	**1,700**	**1,400**	120	**3,100**
MW-3	12/2/2014	**910**	**600**	110	**1,500**
MW-3	6/18/2015	**2,300**	**7,300**	300	**6,000**
MW-3	6/14/2016	**930**	**820**	130	**2,200**
MW-4	1/28/1999*	**1500**	**10,000**	**810**	**9,300**
MW-4	4/14/1999*	**280**	30	5.0	500
MW-4	9/27/1999	**56**	<0.5	3.6	22
MW-4	11/15/1999	**120**	<0.5	8.1	41.5
MW-4	3/20/2000	**250**	<0.5	45	47
MW-4	6/7/2000	**270**	1.6	5.6	10.2
MW-4	2/13/2001	**353**	3.85	69.5	59.8
MW-4	5/9/2001	**684**	6.10	110	97.2
MW-4	11/2/2001	**480**	7.9	84	34
MW-4	9/24/2003	**190**	45	57	60
MW-4	12/17/2003	**200**	2.9	58	<5.0
MW-4	12/4/2004	**170**	<2.0	49	<5.0
MW-4	9/19/2004	**55**	<2.0	14	<5.0
MW-4	3/9/2005	**68**	<2.0	22	18
MW-4	6/16/2005	**130**	<2.0	40	<5.0
MW-4	9/17/2005	**100**	<2.0	38	55
MW-4	12/6/2005	**100**	<2.0	36.6	<5.0
MW-4	4/6/2012	NS	NS	NS	NS
MW-4	6/12/2012	NS	NS	NS	NS
MW-4	9/27/2012	NS	NS	NS	NS
MW-4	12/7/2012	NS	NS	NS	NS
MW-4**	3/4/2013	<2.0	<2.0	<2.0	<4.0

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

JICARILLA CONTRACT 147-6
SAN JUAN COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		**10**	**750**	**750**	**620**
MW-4**	6/25/2013	DEST	DEST	DEST	DEST
MW-5	1/28/1999*	**1,600**	**10,000**	**820**	**9,500**
MW-5	4/14/1999*	**310**	**26**	**3.6**	**479**
MW-5	9/27/1999	<0.5	<0.5	1.5	2
MW-5	11/15/1999*	<2.5	6	39.0	<3.0
MW-5	3/20/2000	5.1	<0.5	210.0	8.0
MW-5	6/7/2000	1.5	<0.5	3.3	2.9
MW-5	2/13/2001	3.49	<1	222	31.5
MW-5	5/9/2001	4.68	20.8	244	28.7
MW-5	11/2/2001	2.8	<2.0	200	13
MW-5	3/4/2013	DEST	DEST	DEST	DEST
MW-6	9/27/1999*	**16,000**	460.0	280	**1,299**
MW-6	11/15/1999*	**20,000**	940	330	**1,640**
MW-6	3/20/2000*	**18,000**	630	380	**1,530**
MW-6	6/7/2000*	**19,000**	820	370	**1,960**
MW-6	2/13/2001	**22,300**	60	358	**1,560**
MW-6	5/9/2001	**33,900**	**2,310**	577	**3,820**
MW-6	11/2/2001	**31,000**	**2,200**	730	**4,500**
MW-6	9/24/2003*	**18,000**	**1,200**	370	**2,000**
MW-6	12/17/2003*	**21,000**	<400	500	**2,200**
MW-6	12/4/2004*	**16,000**	120	360	**1,800**
MW-6	9/19/2004*	**18,000**	**1,900**	380	**2,300**
MW-6	3/9/2005*	**19,000**	**810**	410	**2,100**
MW-6	6/16/2005*	**24,000**	<400	620	**2,500**
MW-6	9/17/2005	**15,000**	370	380	**1,400**
MW-6	12/1/2005*	**15,600**	**957**	460	**2,580**
MW-6	3/20/2010	**19,400**	**10,900**	570	**3,330**
MW-6	6/22/2010	**13,500**	<100	411	**16,740**
MW-6	9/16/2010	**10,200**	**2,190**	280	**1,410**
MW-6	12/8/2010	**10,000**	495	380	**1,510**
MW-6	3/10/2011	**13,000**	**4,260**	380	**1,740**
MW-6	6/15/2011	**14,400**	518	364	**1,450**
MW-6	9/13/2011	**12,300**	**2,570**	498	**2,730**
MW-6	1/6/2012	**11,600**	730	339	**1,660**
MW-6	4/6/2012	**13,800**	333	**3,070**	**1,590**
MW-6	6/12/2012	**13,000**	406	**1,010**	**1,560**
MW-6	9/27/2012	**10,300**	360	**3,430**	**2,070**
MW-6	12/7/2012	**10,200**	315	**1,540**	**1,760**
MW-6	3/4/2013	**7,900**	180	5.4	300
MW-6	6/25/2013	**10,000**	270	340	**920**
MW-6	12/2/2013	**8,400**	250	250	**930**
MW-6	6/16/2014	**9,300**	<100	270	350
MW-6	12/2/2014	**6,600**	120	210	**700**
MW-6	6/18/2015	**5,600**	<10	<10	120
MW-6	12/18/2015	NS	NS	NS	NS
MW-6	6/14/2016	**5,200**	<50	170	200
MW-7	10/14/1999	**30**	120	8.9	165
MW-7	11/15/1999	0.5	1.3	0.5	4.6
MW-7	3/20/2000	5.5	0.8	0.9	4.7
MW-7	6/7/2000	<0.5	<0.5	<0.5	<1.5
MW-7	2/13/2001	<1	<1	<1	<1
MW-7	5/9/2001	4.00	<1	<1	<1
MW-7	11/2/2001	**16**	<2.0	<2.0	2

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

JICARILLA CONTRACT 147-6
SAN JUAN COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		**10**	**750**	**750**	**620**
MW-7	4/6/2012	NS	NS	NS	NS
MW-7	6/12/2012	NS	NS	NS	NS
MW-7	9/27/2012	NS	NS	NS	NS
MW-7	12/7/2012	NS	NS	NS	NS
MW-7	3/4/2013	DEST	DEST	DEST	DEST
MW-8	3/20/2000*	**2,400**	**2,300**	55.0	540
MW-8	6/7/2000*	**1,100**	**130**	27.0	106.7
MW-8	2/13/2001	**613**	16.2	13.0	12.4
MW-8	5/9/2001	**182**	3.65	6.98	2.41
MW-8	11/2/2001	**370**	<2.0	8.9	2.0
MW-8	9/24/2003	**78**	2.2	4.2	<5.0
MW-8	12/17/2003	**55**	<2.0	3.2	<5.0
MW-8	12/4/2004	**19**	<2.0	<2.0	<5.0
MW-8	9/19/2004	**81**	<2.0	2.8	<5.0
MW-8	3/9/2005	**210***	4.6	5.2	8.6
MW-8	6/16/2005	**43**	<2.0	<2.0	<5.0
MW-8	9/17/2005	**38**	<2.0	<2.0	<5.0
MW-8	12/1/2005	**23**	<2.0	<2.0	<5.0
MW-8	3/20/2010	6.3	<1.0	<1.0	<3.0
MW-8	6/22/2010	3.0	<1.0	<1.0	<3.0
MW-8	9/16/2010	**22.9**	<1.0	<1.0	<3.0
MW-8	12/8/2010	<1.0	<1.0	<1.0	<3.0
MW-8	3/10/2011	2	<1.0	<1.0	<3.0
MW-8	6/15/2011	4.1	<1.0	<1.0	<3.0
MW-8	9/13/2011	1.9	<1.0	<1.0	<3.0
MW-8	1/6/2012	2.4	<1.0	<1.0	<3.0
MW-8	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-8	6/12/2012	2.5	<1.0	<1.0	<3.0
MW-8	9/27/2012	<1.0	<1.0	<1.0	<3.0
MW-8	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-8	3/4/2013	<1.0	<1.0	<1.0	<2.0
MW-9	3/20/2000	<0.5	1.4	<0.5	1.5
MW-9	6/7/2000	<0.5	<0.5	<0.5	<1.5
MW-9	2/13/2001	<1	<1	<1	<1
MW-9	5/9/2001	<1	<1	<1	<1
MW-9	11/2/2001	150	<2.0	<2.0	<2.0
MW-9	9/24/2003	86	<2.0	<2.0	<5.0
MW-9	12/17/2003	69	<2.0	<2.0	<5.0
MW-9	12/4/2004	5.2	<2.0	<2.0	<5.0
MW-9	9/19/2004	45	<2.0	<2.0	<5.0
MW-9	3/9/2005	3.8	<2.0	<2.0	<5.0
MW-9	6/16/2005	<2.0	<2.0	<2.0	<5.0
MW-9	9/17/2005	<2.0	<2.0	<2.0	<5.0
MW-9	12/1/2005	<2.0	<2.0	<2.0	<5.0
MW-9	3/20/2010	<1.0	<1.0	<1.0	<3.0
MW-9	6/22/2010	<1.0	<1.0	<3.0	<3.0
MW-9	9/16/2010	8.6	<1.0	<1.0	<3.0
MW-9	12/8/2010	7.8	<1.0	<1.0	<3.0
MW-9	3/10/2011	<1.0	<1.0	<1.0	<3.0
MW-9	6/15/2011	<1.0	<1.0	<1.0	<3.0
MW-9	9/13/2011	<1.0	<1.0	<1.0	<3.0
MW-9	1/6/2012	<1.0	<1.0	<1.0	<3.0
MW-9	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-9	6/12/2012	<1.0	2.1	<1.0	<3.0

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

JICARILLA CONTRACT 147-6
SAN JUAN COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
NMWQCC Standard (µg/L)		**10**	**750**	**750**	**620**
MW-9	9/27/2012	<1.0	<1.0	<1.0	<3.0
MW-9	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-9	3/4/2013	<2.0	<2.0	<2.0	<4.0
MW-9	6/25/2013	<2.0	<2.0	<2.0	<4.0
MW-10	3/20/2000	0.8	2.9	<0.5	1.5
MW-10	6/7/2000	<0.5	<0.5	<0.5	<1.5
MW-10	2/13/2001	<1	<1	1.5	<1
MW-10	5/9/2001	<1	<1	<1	<1
MW-10	11/2/2001	<1.0	<2.0	<2.0	<2.0
MW-10	4/6/2012	NS	NS	NS	NS
MW-10	6/12/2012	NS	NS	NS	NS
MW-10	9/27/2012	NS	NS	NS	NS
MW-10	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-10	3/4/2013	NSP	NSP	NSP	NSP
MW-10	6/25/2013	<2.0	<2.0	<2.0	<4.0
MW-11	12/2/2013	<1.0	6.5	2.7	39
MW-12	12/2/2013	**12**	<1.0	74	<2.0
MW-12	6/16/2014	3.0	<1.0	42	<2.0
MW-12	12/2/2014	2.7	<1.0	29	<2.0
MW-12	6/18/2015	6.5	<1.0	36	<1.5
MW-12	9/25/2015	<1.0	<1.0	16	<1.5
MW-12	12/18/2015	**11**	<1.0	56	<2.0
MW-12	6/14/2016	5.2	<1.0	28	<2.0

Notes:

< - indicates result is less than laboratory reporting detection limit

* - indicates sample was diluted

** Sample identified as MW-4 on laboratory reports was later determined to be an unknown well and MW-4 was determined to be destroyed

µg/L - micrograms per liter

Bold - indicates sample exceeds NMWQCC standard

DEST - well has been destroyed

NMWQCC - New Mexico Water Quality Control Commission

NS - not sampled

NSP - not sampled due to the presence of free phase hydrocarbons in the well

APPENDIX A

2016 FIELD NOTES

Location Jicarilla Contract 147-6 Date 6-14-16

Project / Client Williams Field Services

T59, IFP, WQM, MW Clear, 73°F

1005, Onsite for GW monitoring, review HASP/JSA

Well	DTW	DTP	TD	V	Time
MW-1	21.99	ND	NM	-	DNS
MW-2	22.46	ND	NM	-	DNS
MW-3	20.57	ND	23.46	1.41	1200
MW-6	25.26	ND	31.88	3.23	
MW-8	16.80	ND	NM	-	DNS
MW-9	28.64	ND	NM	-	DNS
MW-10	21.12	ND	NM	-	DNS
MW-11	24.30	ND	NM	-	DNS
MW-12	21.49	ND	32.00	5.14	1110

1255, ~~Offsite~~

Water Sample Collection Form

Sample Location	Jicarilla Contract #147-6	Client	Williams Field Services
Sample Date	6/14/2016	Project Name	San Juan Basin Remediation
Sample Time	1200	Project #	034015003
Sample ID	MW-3	Sampler	Michael A Wicker
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	20.57	TD of Well	23.46
Time		Depth to Product	ND
Vol. of H2O to purge	1.41		

*(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols*

Method of Purging: PVC Bailer

Method of Sampling: PVC Bailer

Time	Vol. Removed (gal.)	Total Vol H2O removed (gal.)	pH (std. units)	Temp. (C)	Conductivity (us or ms)	Comments
1152	0.25	0.25	8.32	14.1	4.77	Cloudy, No Odor
1157	0.~~50~~25	0.50	8.07	13.2	4.77	Black, Cloudy, No Odor
1200						Sample Collected

Comments:

Describe Deviations from SOP: Bailed dry, grab sample collected @ 0.50 gal

Signature: [signature] **Date:** 6-14-16

Water Sample Collection Form

Sample Location	Jicarilla Contract #147-6	Client	Williams Field Services
Sample Date	6/14/2016	Project Name	San Juan Basin Remediation
Sample Time	1110	Project #	034015003
Sample ID	MW-12	Sampler	Michael A Wicker
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	21.49	TD of Well	32.00
Time		Depth to Product	ND

Vol. of H2O to purge: 5.14

*(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols*

Method of Purging: PVC Bailer

Method of Sampling: PVC Bailer

Time	Vol. Removed (gal.)	Total Vol H2O removed (gal.)	pH (std. units)	Temp. (C)	Conductivity (us or ms)	Comments
1052	0.25	0.25	8.22	13.5	1,487	Brown, Cloudy, No Odor
1056	1.50	1.75	8.23	12.9	1,685	SAA
1058	1.75	3.50	8.64	12.7	1,723	SAA
1101	1.00	~~4.50~~ 4.50	8.37	12.4	1,754	SAA
1105	0.25	4.75	8.57	12.2	1,753	SAA
1106	0.25	5.00	8.69	12.1	1,846	SAA
1108	0.25	5.25	8.73	13.0	1,837	SAA
1110						Sample Collected

Comments:

Describe Deviations from SOP:

Signature: [signature] **Date:** 6-14-16

Water Sample Collection Form

Sample Location	Jicarilla Contract #147-6	Client	Williams Field Services
Sample Date	6/14/2016	Project Name	San Juan Basin Remediation
Sample Time	1230	Project #	034015003
Sample ID	MW-6	Sampler	Michael A Wicker
Analyses	BTEX 8021		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	25.26	TD of Well	31.88
Time		Depth to Product	ND
Vol. of H2O to purge	3.23		

*(height of water column * 0.1631 for 2" well or 0.6524 for 4" well) * 3 well vols*

Method of Purging: PVC Bailer

Method of Sampling: PVC Bailer

Time	Vol. Removed (gal.)	Total Vol H2O removed (gal.)	pH (std. units)	Temp. (C)	Conductivity (us or ms)	Comments
1214	0.25	0.25	8.49	13.9	6.30	Cloudy, No Odor
1217	0.75	1.00	8.64	12.7	6.49	Black, Cloudy, No Odor
1218	1.00	2.00	8.43	12.5	6.61	SAA
1220	0.50	2.50	8.57	12.1	6.68	SAA
1223	0.25	2.75	8.49	12.2	6.70	SAA
1226	0.25	3.00	8.61	12.2	6.72	SAA
1228	0.25	3.25	8.58	12.2	6.72	SAA
1230						Sample Collected

Comments:

Describe Deviations from SOP:

Signature: _____ **Date:** 6-14-2016

APPENDIX B

LABORATORY ANALYTICAL REPORT

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 27, 2016

Brooke Herb
LTE
2243 Main Ave Suite 3
Durango, CO 81301
TEL: (970) 946-1093
FAX

RE: OrderNo.: 1606958

Dear Brooke Herb:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/15/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1606958**
Date Reported: **6/27/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Client Sample ID: MW-3
Project:
Collection Date: 6/14/2016 12:00:00 PM
Lab ID: 1606958-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	930	50		µg/L	50	6/18/2016 5:36:46 AM	R35018
Toluene	820	50		µg/L	50	6/18/2016 5:36:46 AM	R35018
Ethylbenzene	130	50		µg/L	50	6/18/2016 5:36:46 AM	R35018
Xylenes, Total	2200	100		µg/L	50	6/18/2016 5:36:46 AM	R35018
Surr: 4-Bromofluorobenzene	109	87.9-146		%Rec	50	6/18/2016 5:36:46 AM	R35018

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Client Sample ID: MW-6
Project:
Collection Date: 6/14/2016 12:30:00 PM
Lab ID: 1606958-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **DJF**	
Benzene	5200	100		µg/L	100	6/22/2016 11:55:52 PM	C35096
Toluene	ND	50		µg/L	50	6/18/2016 6:00:13 AM	R35018
Ethylbenzene	170	50		µg/L	50	6/18/2016 6:00:13 AM	R35018
Xylenes, Total	200	100		µg/L	50	6/18/2016 6:00:13 AM	R35018
Surr: 4-Bromofluorobenzene	110	87.9-146		%Rec	50	6/18/2016 6:00:13 AM	R35018

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Client Sample ID: MW-12
Project:
Collection Date: 6/14/2016 11:10:00 AM
Lab ID: 1606958-003 **Matrix:** AQUEOUS **Received Date:** 6/15/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	5.2	1.0		µg/L	1	6/18/2016 6:23:36 AM	R35018
Toluene	ND	1.0		µg/L	1	6/18/2016 6:23:36 AM	R35018
Ethylbenzene	28	1.0		µg/L	1	6/18/2016 6:23:36 AM	R35018
Xylenes, Total	ND	2.0		µg/L	1	6/18/2016 6:23:36 AM	R35018
Surr: 4-Bromofluorobenzene	117	87.9-146		%Rec	1	6/18/2016 6:23:36 AM	R35018

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Client Sample ID: TRIP BLANK
Project:
Collection Date:
Lab ID: 1606958-004
Matrix: TRIP BLANK
Received Date: 6/15/2016 7:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.0		µg/L	1	6/18/2016 6:46:59 AM	R35018
Toluene	ND	1.0		µg/L	1	6/18/2016 6:46:59 AM	R35018
Ethylbenzene	ND	1.0		µg/L	1	6/18/2016 6:46:59 AM	R35018
Xylenes, Total	ND	2.0		µg/L	1	6/18/2016 6:46:59 AM	R35018
Surr: 4-Bromofluorobenzene	104	87.9-146		%Rec	1	6/18/2016 6:46:59 AM	R35018

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606958**

27-Jun-16

Client: LTE

Project:

Sample ID	**100NG BTEX LCS**	SampType: **LCS**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**LCSW**	Batch ID: **R35018**		RunNo: **35018**					
Prep Date:		Analysis Date: **6/17/2016**		SeqNo: **1082497**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	80	120			
Toluene	19	1.0	20.00	0	96.5	80	120			
Ethylbenzene	19	1.0	20.00	0	92.8	80	120			
Xylenes, Total	56	2.0	60.00	0	92.8	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		110	87.9	146			

Sample ID	**5ML RB**	SampType: **MBLK**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID: **R35018**		RunNo: **35018**					
Prep Date:		Analysis Date: **6/17/2016**		SeqNo: **1082523**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		103	87.9	146			

Sample ID	**RB**	SampType: **MBLK**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**PBW**	Batch ID: **C35096**		RunNo: **35096**					
Prep Date:		Analysis Date: **6/22/2016**		SeqNo: **1085696**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 4-Bromofluorobenzene	21		20.00		105	87.9	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: LTE ENVIRONMENTAL Work Order Number: 1606958 RcptNo: 1

Received by/date: RM 06/15/16

Logged By: **Ashley Gallegos** 6/15/2016 7:15:00 AM

Completed By: **Ashley Gallegos** 6/16/2016 5:41:31 PM

Reviewed By: JA 06/17/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: LT Environmental, Inc.
Brooke Herb
Mailing Address: 848 E 2nd Ave
Durango, CO 81301
Phone #: (970) 385-1096
Email or Fax#: BHerb@LTEnv.com
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____
Project Name:
Jicarilla Contract #147-6
Project #:
03401301D
Project Manager:
Brooke Herb
Sampler: Michael A Wicker
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1001058	BTEX + ~~MTBE + TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
6-14-16	1200	AQ	MW-3	3-VOA	COOL	-001	X															
↓	1230	↓	MW-6	↓	COOL	-002	X															
↓	1110	↓	MW-12	↓	HCl	-003	X															
			Trip Blank	2-VOA	HCl	-004	X															

Date: 6-14-16 Time: 1605 Relinquished by: [signature]
Received by: Christine Walters Date: 6/14/16 Time: 1605
Date: 6/14/16 Time: 2040 Relinquished by: Christine Walters
Received by: [signature] Date: 06/15/16 Time: 0715

Remarks: cc MWicker@LTEnv.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.