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

DOGIE EAST PIT
ADMINISTRATIVE/ENVIRONMENTAL
ORDER NUMBER 3RP-312-0

APRIL 2017

Prepared for:

WILLIAMS FOUR CORNERS, LLC
Salt Lake City, Utah

2016 ANNUAL GROUNDWATER REPORT

DOGIE EAST PIT
ADMINISTRATIVE/ENVIRONMENTAL
ORDER NUMBER 3RP-312-0

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 Dogie East Pit (Administrative/Environmental Order Number 3RP-312-0) (Site) is impacted by petroleum hydrocarbons in excess of 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 dehydrator pit operated by Gas Company of New Mexico (GCNM). Impacted soil was excavated in 1997 and five monitoring wells were installed in 1998 to assess groundwater quality. Based on identified groundwater impacts, soil vapor extraction was pilot tested for remediation, but never formally implemented. Instead, four additional downgradient monitoring wells were installed in 1999. 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 that time, Williams has monitored groundwater quality and conducted free-product removal. Williams installed four additional monitoring wells and plugged and abandoned an existing monitoring well located outside of the delineated groundwater plume. During 2016, Williams retained LT Environmental, Inc. (LTE) to complete monitoring requirements. Between January 2016 and December 2016, one groundwater monitoring event was conducted.

LTE measured depth to groundwater, investigated presence of free product, and sampled groundwater from existing monitoring wells. Phase-separated hydrocarbons (PSH) were measured using an oil/water interface probe and identified during manual bailing in monitoring well MW-6 in September 2016. LTE recovered approximately 3 ounces of PSH from MW-6 using manual recovery during the September sampling event.

Concentrations of BTEX in monitoring wells MW-5, MW-10 and MW-11 were compliant with NMWQCC groundwater standards in 2016; however, concentrations of BTEX in monitoring wells MW-3, MW-7, MW-12, and MW-13 exceeded NMWQCC groundwater standards during the annual monitoring event in September 2016. Monitoring wells MW-3, MW-7, MW-12, and MW-13 are downgradient of the original source area.

In 2017 Williams will monitor groundwater elevations and investigate the presence of PSH in all monitoring wells and collect water samples from monitoring wells MW-10, MW-11, MW-12, and MW-13 semi-annually. Williams will collect groundwater samples annually from monitoring wells MW-3, MW-5, MW-6, and MW-7. Additionally, Williams will use oil absorbent socks and manual bailing to recover PSH from monitoring wells where product is identified.

1.0 INTRODUCTION

LT Environmental, Inc. (LTE) on behalf of Williams Four Corners LLC (Williams) has prepared this report detailing groundwater monitoring activities completed from January 2016 through December 2016 at the Dogie East Pit (Administrative/Environmental Order Number 3RP-312-0) (Site) at the Dogie Compressor Station. The scope of work for this project was continued monitoring of petroleum hydrocarbon impacts to groundwater resulting from operations of a former lined pit used to collect drip gas and water from a condensate tank.

1.1 LOCATION

The Site is located at latitude 36.435003 and longitude -107.479499 in Unit D, Section 4, Township 25 North, Range 6 West. The Site is on the west flank of Largo Wash in the San Juan Basin in Rio Arriba County, New Mexico (Figure 1).

1.2 HISTORY

The original source of impacted groundwater is a former lined pit used to collect drip gas and water from a condensate tank. Approximately 526 cubic yards of petroleum hydrocarbon-impacted soil was removed in July 1997 and an additional 4,888 cubic yards of petroleum hydrocarbon-impacted soil was removed in October 1997. Groundwater was encountered at 14 feet below ground surface (bgs) in the excavation, and groundwater samples contained benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations exceeding the New Mexico Water Quality Control Commission (NMWQCC) standards. The excavation was left open through March 1998 and sampled again, at which time benzene, sulfate, and chloride concentrations exceeded the NMWQCC standards. The excavation was subsequently backfilled, and in May 1998, monitoring wells MW-1, MW-2, MW-3, and MW-4 were installed. In December 1998, monitoring well MW-5 and a 4-inch soil vapor extraction (SVE) well were installed and a pilot test was conducted; however, SVE was never implemented at the Site.

In September 1999, additional downgradient monitoring wells MW-6, MW-7, and MW-8 were installed. The installation date of monitoring well MW-9 is not known. Williams purchased the Gas Company of New Mexico (GCNM) facility from Public Service Company of New Mexico (PNM) in 2000, including environmental liability for the dehydrator pit. Between 2000 and December 2012, Williams monitored groundwater in the monitoring wells at the Site and recovered phase-separated hydrocarbons (PSH) from monitoring well MW-6. Monitoring well MW-4 was observed to have been destroyed during the March 2013 site visit. It was not replaced due its location outside the existing extent of impacted groundwater. Additionally, monitoring well MW-9 was plugged and abandoned on October 13, 2013, due its location outside the existing extent of impacted groundwater. Williams installed four new downgradient monitoring wells (MW-10, MW-11, MW-12, and MW-13) on October 13, 2013, to delineate the impacted groundwater plume.

On September 13, 2013, LTE collected a sample of PSH from MW-6 for analysis of paraffins, isoparaffins, aromatics, napthenes, and olefins (PIANO) to identify the chemical composition of the PSH and evaluate the potential origin of the source. The source was confirmed to be natural gas condensate. On November 1, 2013, LTE conducted a product bail down test at monitoring

well MW-6 to assess potential product recovery options. Much of the accumulated PSH was removed during the product bail down test.

2.0 METHODOLOGY

Groundwater monitoring activities were conducted at the Site in September 2016. LTE conducted an annual site visit to monitor groundwater levels and the presence of PSH and recover PSH where possible. Additionally, LTE conducted annual groundwater monitoring. Monitoring wells MW-1, MW-2, SVE-4, and MW-8 were not sampled during 2016. These wells have either never contained BTEX in excess of NMWQCC standards or have eight documented quarters of BTEX concentrations compliant with NMWQCC standards. Monitoring well MW-6 was not sampled in 2016 due to the presence of free product. Monitoring wells MW-5, MW-7, MW-10, MW-11, MW-12, and MW-13 were sampled annually to monitor potential plume migration.

2.1 WATER AND PRODUCT LEVEL MEASUREMENTS

Groundwater level monitoring included recording depth to groundwater measurements in all monitoring wells with a Keck oil/water interface probe. The presence of PSH was investigated using the 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.

2.2 GROUNDWATER SAMPLING

Prior to sampling groundwater, depth to groundwater and total depth of monitoring wells were measured 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 dedicated polyvinyl chloride (PVC) bailer. As water was removed from the monitoring well, pH, electric conductivity, and temperature were monitored. Monitoring wells were purged until these properties stabilized, indicating that 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 electric conductivity, and ±2 degrees (º) Celsius for temperature). Purge water was containerized and disposed of on site. Copies of the field notes are presented in Appendix A.

Once each monitoring well was purged, then 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 name, project name, sample collector's name, and parameters to be analyzed. They were immediately sealed and packed on ice. The samples were transferred to Hall Environmental Analysis Laboratory (HEAL) for analysis of BTEX. A chain-of-custody form, which is included in the laboratory analytical report in Appendix B, were completed documenting the date and time sampled, sample number, type of sample, sample collector's name, preservative used (if any), analyses required, and sample collector's signature.

2.3 GROUNDWATER CONTOUR MAPS

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

2.4 PSH RECOVERY

PSH was observed in monitoring wells MW-6 in September 2016. LTE manually bailed as much PSH from the monitoring well as possible. The PSH was disposed of in a below grade tank on site. After monitoring the groundwater elevation, a new oil absorbent sock was installed.

3.0 RESULTS

Depth to groundwater and depth to PSH measured during the 2016 monitoring event are summarized in Table 1. Groundwater flow direction was determined to be to the northwest at the Site (Figure 2).

In 2016, laboratory analytical results indicated BTEX concentrations in monitoring wells MW-5 MW-10, and MW-11 were compliant with the NMWQCC groundwater standards. Laboratory analytical results indicated BTEX concentrations in monitoring wells MW-3, MW-7 and MW-12, and MW-13 exceeded the NMWQCC groundwater standards during the annual sampling event in September 2016. Samples were not collected from monitoring well MW-6 in September 2016 due to the presence of free product.

Approximately three ounces of PSH were removed from monitoring well MW-6 through manual recovery.

4.0 CONCLUSIONS

Impact to groundwater in the original source area at monitoring well MW-2 appears to have either attenuated or migrated as BTEX concentrations have been below the laboratory reporting detection limits since January 2012. The current source appears to be near monitoring well MW-6, where 0.11 feet of PSH was observed in September 2016. Laboratory results indicated BTEX concentrations exceeded the NMWQCC standards in monitoring wells MW-3, MW-7, MW-12, and MW-13.

5.0 MONITORING PLAN

In 2017 Williams will monitor groundwater elevations and investigate the presence of PSH in all monitoring wells and collect groundwater samples from monitoring wells MW-10, MW-11, MW-12, and MW-13 semi-annually. Williams will collect groundwater samples annually from monitoring wells MW-3, MW-5, MW-6, and MW-7. Additionally, Williams will use oil

absorbent socks and manual bailing to recover PSH from monitoring wells where product is identified.

FIGURES

IMAGE COURTESY OF ESRI/BING MAPS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

FIGURE 1
SITE LOCATION MAP
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO

WILLIAMS FOUR CORNERS LLC

P:\Williams Four Corners\GIS\MXD\034013001_DOGIECS\034013001_DOGIECS_FIG01_SL.mxd

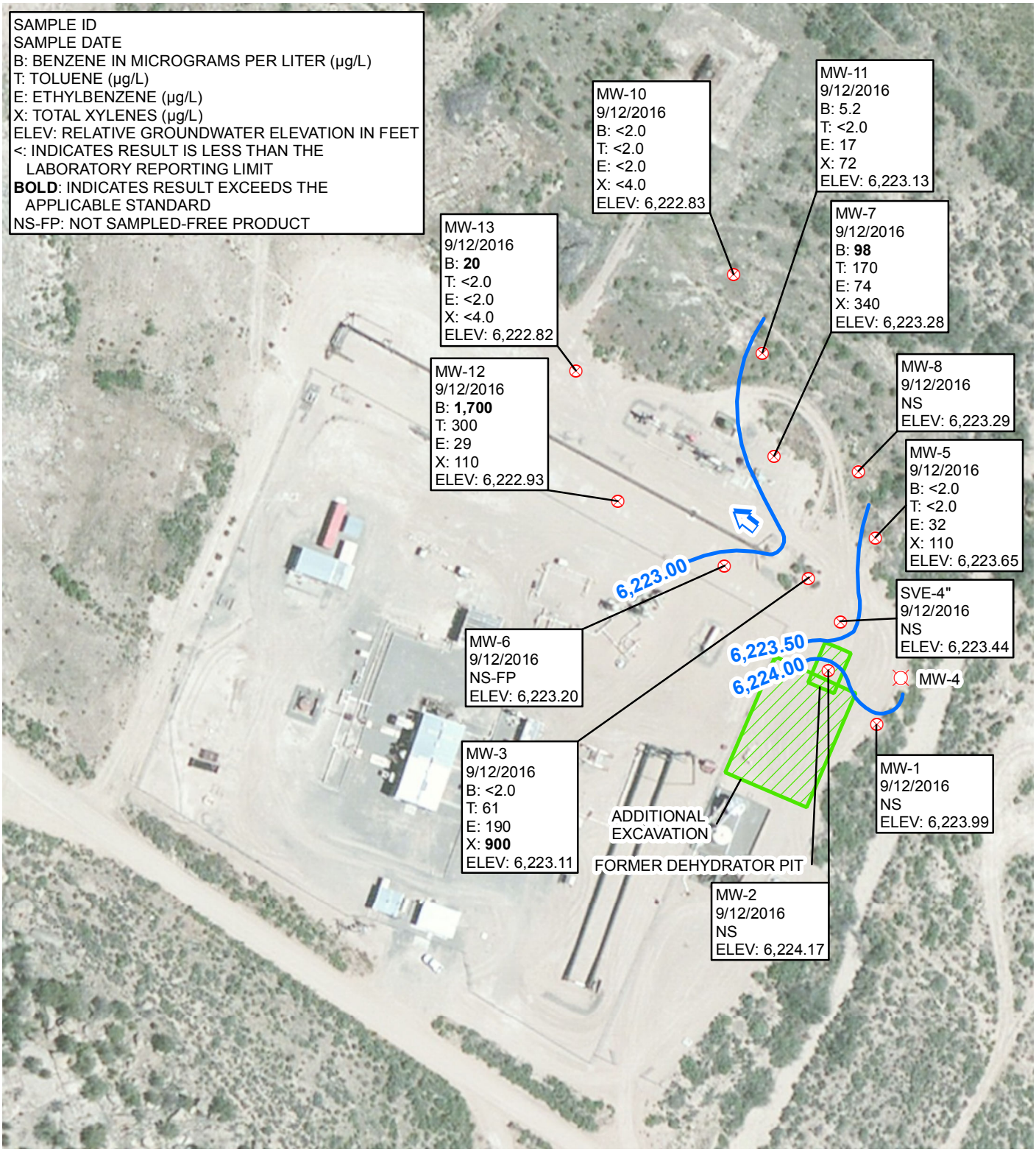

IMAGE COURTESY OF ESRI

LEGEND

- MONITORING WELL
- DESTROYED MONITORING WELL
- ESTIMATED GROUNDWATER FLOW DIRECTION
- RELATIVE GROUNDWATER ELEVATION CONTOUR
  CONTOUR INTERVAL = 0.50 FEET

0 120 240
Feet

N

FIGURE 2
GROUNDWATER ELEVATION MAP &
ANALYTICAL RESULTS (SEPTEMBER 2016)
DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

P:\Williams Field Services\GIS\MXD\034013010_DOGIE_EAST_PIT\034016002_DOGIECS_FIG04_GWE_GWA_2016_Q3.mxd

TABLES

TABLE 1
GROUNDWATER ELEVATION SUMMARY

DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Adjusted Groundwater Elevation (feet AMSL)
MW-1	4/6/2012	6,253.79	UNK	UNK	UNK	UNK
MW-1	6/12/2012	6,253.79	UNK	UNK	UNK	UNK
MW-1	9/27/2012	6,253.79	UNK	UNK	UNK	UNK
MW-1	12/7/2012	6,253.79	UNK	UNK	UNK	UNK
MW-1	3/6/2013	6,253.79	15.45	NP	NP	6,238.34
MW-1*	6/25/2013	6,239.41	15.64	NP	NP	6,223.77
MW-1	9/24/2013	6,239.41	14.88	NP	NP	6,224.53
MW-1	12/5/2013	6,239.41	14.63	NP	NP	6,224.78
MW-1	3/20/2014	6,239.41	14.26	NP	NP	6,225.15
MW-1	6/16/2014	6,239.41	15.01	NP	NP	6,224.40
MW-1	9/10/2014	6,239.41	15.11	NP	NP	6,224.30
MW-1	12/3/2014	6,239.41	14.80	NP	NP	6,224.61
MW-1	3/5/2015	6,239.41	14.09	NP	NP	6,225.32
MW-1	6/18/2015	6,239.41	14.52	NP	NP	6,224.89
MW-1	9/23/2015	6,239.41	14.92	NP	NP	6,224.49
MW-1	12/18/2015	6,239.41	14.46	NP	NP	6,224.95
MW-1	9/12/2016	6,239.41	15.42	NP	NP	6,223.99
MW-2	4/6/2012	6,253.92	UNK	UNK	UNK	UNK
MW-2	6/12/2012	6,253.92	UNK	UNK	UNK	UNK
MW-2	9/27/2012	6,253.92	UNK	UNK	UNK	UNK
MW-2	12/7/2012	6,253.92	UNK	UNK	UNK	UNK
MW-2	3/6/2013	6,253.92	15.50	NP	NP	6,238.42
MW-2*	6/25/2013	6,239.57	15.93	NP	NP	6,223.64
MW-2	9/24/2013	6,239.57	15.54	NP	NP	6,224.03
MW-2	12/5/2013	6,239.57	14.90	NP	NP	6,224.67
MW-2	3/20/2014	6,239.57	14.58	NP	NP	6,224.99
MW-2	6/16/2014	6,239.57	15.33	NP	NP	6,224.24
MW-2	9/10/2014	6,239.57	15.45	NP	NP	6,224.12
MW-2	12/3/2014	6,239.57	15.09	NP	NP	6,224.48
MW-2	3/5/2015	6,239.57	14.25	NP	NP	6,225.32
MW-2	6/18/2015	6,239.57	14.81	NP	NP	6,224.76
MW-2	9/23/2015	6,239.57	15.17	NP	NP	6,224.40
MW-2	12/18/2015	6,239.57	14.69	NP	NP	6,224.88
MW-2	9/12/2016	6,239.57	15.40	NP	NP	6,224.17
MW-3	4/6/2012	6,253.35	UNK	UNK	UNK	UNK
MW-3	6/12/2012	6,253.35	UNK	UNK	UNK	UNK
MW-3	9/27/2012	6,253.35	UNK	UNK	UNK	UNK
MW-3	12/7/2012	6,253.35	UNK	UNK	UNK	UNK
MW-3	3/6/2013	6,253.35	15.40	NP	NP	6,237.95
MW-3*	6/25/2013	6,238.61	15.25	NP	NP	6,223.36
MW-3	9/24/2013	6,238.61	15.05	NP	NP	6,223.56
MW-3	12/5/2013	6,238.61	14.29	NP	NP	6,224.32
MW-3	3/20/2014	6,238.61	13.96	NP	NP	6,224.65
MW-3	6/16/2014	6,238.61	14.67	NP	NP	6,223.94

TABLE 1
GROUNDWATER ELEVATION SUMMARY

DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Adjusted Groundwater Elevation (feet AMSL)
MW-3	9/10/2014	6,238.61	14.79	NP	NP	6,223.82
MW-3	12/3/2014	6,238.61	14.50	NP	NP	6,224.11
MW-3	3/5/2015	6,238.61	13.67	NP	NP	6,224.94
MW-3	6/18/2015	6,238.61	14.14	NP	NP	6,224.47
MW-3	9/23/2015	6,238.61	15.59	NP	NP	6,223.02
MW-3	12/18/2015	6,238.61	14.12	NP	NP	6,224.49
MW-3	9/12/2016	6,238.61	15.50	NP	NP	6,223.11
MW-4	4/6/2012	UNK	UNK	UNK	UNK	UNK
MW-4	6/12/2012	UNK	UNK	UNK	UNK	UNK
MW-4	9/27/2012	UNK	UNK	UNK	UNK	UNK
MW-4	12/7/2012	UNK	UNK	UNK	UNK	UNK
MW-4	3/6/2013	DEST	DEST	DEST	DEST	DEST
MW-5	4/6/2012	6,252.71	UNK	UNK	UNK	UNK
MW-5	6/12/2012	6,252.71	UNK	UNK	UNK	UNK
MW-5	9/27/2012	6,252.71	UNK	UNK	UNK	UNK
MW-5	12/7/2012	6,252.71	UNK	UNK	UNK	UNK
MW-5	3/6/2013	6,252.71	14.60	NP	NP	6,238.11
MW-5*	6/25/2013	6,238.48	14.96	NP	NP	6,223.52
MW-5	9/24/2013	6,238.48	14.35	NP	NP	6,224.13
MW-5	12/5/2013	6,238.48	13.94	NP	NP	6,224.54
MW-5	3/20/2014	6,238.48	13.63	NP	NP	6,224.85
MW-5	6/16/2014	6,238.48	14.39	NP	NP	6,224.09
MW-5	9/10/2014	6,238.48	14.61	NP	NP	6,223.87
MW-5	12/3/2014	6,238.48	14.15	14.15†	<0.01	6,224.33
MW-5	3/5/2015	6,238.48	13.32	13.32†	<0.01	6,225.16
MW-5	6/18/2015	6,238.48	13.88	NP	NP	6,224.60
MW-5	9/23/2015	6,238.48	14.30	NP	NP	6,224.18
MW-5	12/18/2015	6,238.48	13.74	NP	NP	6,224.74
MW-5	9/12/2016	6,238.48	14.83	NP	NP	6,223.65
MW-6	4/6/2012	6,254.09	UNK	UNK	UNK	UNK
MW-6	6/12/2012	6,254.09	UNK	UNK	UNK	UNK
MW-6	9/27/2012	6,254.09	UNK	UNK	UNK	UNK
MW-6	12/7/2012	6,254.09	UNK	UNK	UNK	UNK
MW-6	3/6/2013	6,254.09	16.68	15.95	0.73	6,237.99
MW-6*	6/25/2013	6,240.01	17.51	16.67	0.84	6,223.17
MW-6	9/24/2013	6,240.01	16.88	16.03	0.85	6,223.81
MW-6	12/5/2013	6,240.01	16.18	15.80	0.38	6,224.13
MW-6	3/20/2014	6,240.01	15.59	15.56	0.03	6,224.44
MW-6	6/16/2014	6,240.01	16.30	16.28	0.02	6,223.73
MW-6	9/10/2014	6,240.01	16.39	NP	NP	6,223.62
MW-6	12/3/2014	6,240.01	16.08	16.07	0.01	6,223.93
MW-6	3/5/2015	6,240.01	15.21	15.21†	<0.01	6,224.80
MW-6	6/18/2015	6,240.01	15.79	15.79†	<0.01	6,224.22

TABLE 1
GROUNDWATER ELEVATION SUMMARY

DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Adjusted Groundwater Elevation (feet AMSL)
MW-6	9/23/2015	6,240.01	16.19	NP	NP	6,223.82
MW-6	12/18/2015	6,240.01	15.68	NP	NP	6,224.33
MW-6	9/12/2016	6,240.01	16.81	16.70	0.11	6,223.20
MW-7	4/6/2012	6,250.65	UNK	UNK	UNK	UNK
MW-7	6/12/2012	6,250.65	UNK	UNK	UNK	UNK
MW-7	9/27/2012	6,250.65	UNK	UNK	UNK	UNK
MW-7	12/7/2012	6,250.65	UNK	UNK	UNK	UNK
MW-7	3/6/2013	6,250.65	12.61	NP	NP	6,238.04
MW-7*	6/25/2013	6,236.53	13.40	NP	NP	6,223.13
MW-7	9/24/2013	6,236.53	12.71	12.67	0.04	6,223.85
MW-7	12/5/2013	6,236.53	12.34	NP	NP	6,224.19
MW-7	3/20/2014	6,236.53	12.05	NP	NP	6,224.48
MW-7	6/16/2014	6,236.53	12.84	NP	NP	6,223.69
MW-7	9/10/2014	6,236.53	12.89	NP	NP	6,223.64
MW-7	12/3/2014	6,236.53	12.58	NP	NP	6,223.95
MW-7	2/25/2015	6,236.53	12.27	NP	NP	6,224.26
MW-7	3/5/2015	6,236.53	11.68	NP	NP	6,224.85
MW-7	6/18/2015	6,236.53	12.34	NP	NP	6,224.19
MW-7	9/23/2015	6,236.53	12.68	NP	NP	6,223.85
MW-7	12/18/2015	6,236.53	12.17	NP	NP	6,224.36
MW-7	9/12/2016	6,236.53	13.25	NP	NP	6,223.28
MW-8	4/6/2012	6,249.10	UNK	UNK	UNK	UNK
MW-8	6/12/2012	6,249.10	UNK	UNK	UNK	UNK
MW-8	9/27/2012	6,249.10	UNK	UNK	UNK	UNK
MW-8	12/7/2012	6,249.10	UNK	UNK	UNK	UNK
MW-8	3/6/2013	6,249.10	11.88	NP	NP	6,237.22
MW-8*	6/25/2013	6,235.85	12.55	NP	NP	6,223.30
MW-8	9/24/2013	6,235.85	11.84	NP	NP	6,224.01
MW-8	12/5/2013	6,235.85	11.52	NP	NP	6,224.33
MW-8	3/18/2014	6,235.85	11.20	NP	NP	6,224.65
MW-8	6/16/2014	6,235.85	12.04	NP	NP	6,223.81
MW-8	9/10/2014	6,235.85	12.11	NP	NP	6,223.74
MW-8	12/3/2014	6,235.85	11.73	NP	NP	6,224.12
MW-8	3/5/2015	6,235.85	10.87	NP	NP	6,224.98
MW-8	6/18/2015	6,235.85	11.54	NP	NP	6,224.31
MW-8	9/23/2015	6,235.85	11.85	NP	NP	6,224.00
MW-8	12/18/2015	6,235.85	11.33	NP	NP	6,224.52
MW-8	9/12/2016	6,235.85	12.56	NP	NP	6,223.29
MW-9	4/6/2012	6,243.67	UNK	UNK	UNK	UNK
MW-9	6/12/2012	6,243.67	UNK	UNK	UNK	UNK
MW-9	9/27/2012	6,243.67	UNK	UNK	UNK	UNK
MW-9	12/7/2012	6,243.67	UNK	UNK	UNK	UNK
MW-9	3/6/2013	6,243.67	8.01	NP	NP	6,235.66

TABLE 1
GROUNDWATER ELEVATION SUMMARY

DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Adjusted Groundwater Elevation (feet AMSL)
MW-9*	6/25/2013	6,229.03	8.67	NP	NP	6,220.36
MW-9	9/24/2013	6,229.03	NM	NM	NM	NM
MW-9	12/5/2013	P/A	P/A	P/A	P/A	P/A
SVE-4"	4/6/2012	6,253.41	UNK	UNK	UNK	UNK
SVE-4"	6/12/2012	6,253.41	UNK	UNK	UNK	UNK
SVE-4"	9/27/2012	6,253.41	UNK	UNK	UNK	UNK
SVE-4"	12/7/2012	6,253.41	UNK	UNK	UNK	UNK
SVE-4"	3/6/2013	6,253.41	15.14	NP	NP	6,238.27
SVE-4"*	6/25/2013	6,239.22	15.60	NP	NP	6,223.62
SVE-4"	9/24/2013	6,239.22	14.83	NP	NP	6,224.39
SVE-4"	12/5/2013	6,239.22	14.56	NP	NP	6,224.66
SVE-4"	3/20/2014	6,239.22	14.19	NP	NP	6,225.03
SVE-4"	6/16/2014	6,239.22	14.99	NP	NP	6,224.23
SVE-4"	9/10/2014	6,239.22	15.05	NP	NP	6,224.17
SVE-4"	12/3/2014	6,239.22	14.71	NP	NP	6,224.51
SVE-4"	3/5/2015	6,239.22	13.86	NP	NP	6,225.36
SVE-4"	6/18/2015	6,239.22	14.49	NP	NP	6,224.73
SVE-4"	9/23/2015	6,239.22	14.89	NP	NP	6,224.33
SVE-4"	12/18/2015	6,239.22	14.34	NP	NP	6,224.88
SVE-4"	9/12/2016	6,239.22	15.78	NP	NP	6,223.44
MW-10	12/5/2013	6,231.08	7.23	NP	NP	6,223.85
MW-10	3/20/2014	6,231.08	6.90	NP	NP	6,224.18
MW-10	6/16/2014	6,231.08	7.77	NP	NP	6,223.31
MW-10	9/10/2014	6,231.08	7.75	NP	NP	6,223.33
MW-10	12/3/2014	6,231.08	7.81	NP	NP	6,223.27
MW-10	3/5/2015	6,231.08	6.29	NP	NP	6,224.79
MW-10	6/18/2015	6,231.08	7.26	NP	NP	6,223.82
MW-10	9/23/2015	6,231.08	7.53	NP	NP	6,223.55
MW-10	12/18/2015	6,231.08	7.06	NP	NP	6,224.02
MW-10	9/12/2016	6,231.08	8.25	NP	NP	6,222.83
MW-11	12/5/2013	6,232.35	8.24	NP	NP	6,224.11
MW-11	3/20/2014	6,232.35	7.91	NP	NP	6,224.44
MW-11	6/16/2014	6,232.35	8.75	NP	NP	6,223.60
MW-11	9/10/2014	6,232.35	8.75	NP	NP	6,223.60
MW-11	12/3/2014	6,232.35	8.42	NP	NP	6,223.93
MW-11	3/5/2015	6,232.35	7.36	NP	NP	6,224.99
MW-11	6/18/2015	6,232.35	8.24	NP	NP	6,224.11
MW-11	9/23/2015	6,232.35	8.55	NP	NP	6,223.80
MW-11	12/18/2015	6,232.35	8.01	NP	NP	6,224.34
MW-11	9/12/2016	6,232.35	9.22	NP	NP	6,223.13
MW-12	12/5/2013	6,238.15	14.37	14.36	0.01	6,223.79
MW-12	3/20/2014	6,238.15	14.03	NP	NP	6,224.12

TABLE 1
GROUNDWATER ELEVATION SUMMARY

DOGIE EAST PIT
RIO ARRIBA COUNTY, NEW MEXICO
WILLIAMS FOUR CORNERS LLC

Well ID	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet BTOC)	Depth to Product (feet BTOC)	Product Thickness (feet)	Adjusted Groundwater Elevation (feet AMSL)
MW-12	6/16/2014	6,238.15	14.77	NP	NP	6,223.38
MW-12	9/10/2014	6,238.15	14.88	NP	NP	6,223.27
MW-12	12/3/2014	6,238.15	14.56	NP	NP	6,223.59
MW-12	3/5/2015	6,238.15	13.69	NP	NP	6,224.46
MW-12	6/18/2015	6,238.15	14.28	NP	NP	6,223.87
MW-12	9/23/2015	6,238.15	14.67	NP	NP	6,223.48
MW-12	12/18/2015	6,238.15	14.18	NP	NP	6,223.97
MW-12	9/12/2016	6,238.15	15.22	NP	NP	6,222.93
MW-13	12/5/2013	6,237.85	14.18	NP	NP	6,223.67
MW-13	3/20/2014	6,237.85	13.86	NP	NP	6,223.99
MW-13	6/16/2014	6,237.85	14.61	NP	NP	6,223.24
MW-13	9/10/2014	6,237.85	14.69	NP	NP	6,223.16
MW-13	12/3/2014	6,237.85	14.37	NP	NP	6,223.48
MW-13	3/5/2015	6,237.85	13.46	NP	NP	6,224.39
MW-13	6/18/2015	6,237.85	14.09	NP	NP	6,223.76
MW-13	9/23/2015	6,237.85	14.47	NP	NP	6,223.38
MW-13	12/18/2015	6,237.85	13.98	NP	NP	6,223.87
MW-13	9/12/2016	6,237.85	15.03	NP	NP	6,222.82

Notes:

* Top of casing elevation was resurveyed on 6/19/2013

† Oil-water interface probe did not detect phase separated hydrocarbons. LTE visually observed phase separated hydrocarbons using a bailer.

Groundwater elevation calculation in wells with product: (Top of Casing Elevation - Depth to Water) + (Product Thickness * 0.8)

AMSL - above mean sea level
BTOC - below top of casing
DEST - well has been destroyed
NM- not monitored
NP - no product
P/A- plugged and abandoned
UNK - data is not known

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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	6/4/1998	2.8	1.3	<0.5	2.3
MW-1	8/11/1998	<2.5	6.3	<0.5	<1.5
MW-1	12/9/1998	<1	<1	<1	<3
MW-1	2/10/1999	<0.5	<0.5	<0.5	<1.5
MW-1	3/30/2010	NS	NS	NS	NS
MW-1	6/22/2010	NS	NS	NS	NS
MW-1	9/16/2010	NS	NS	NS	NS
MW-1	12/9/2010	<1.0	<1.0	<1.0	<3.0
MW-1	3/10/2011	NS	NS	NS	NS
MW-1	6/15/2011	NS	NS	NS	NS
MW-1	9/13/2011	NS	NS	NS	NS
MW-1	1/6/2012	NS	NS	NS	NS
MW-1	4/6/2012	NS	NS	NS	NS
MW-1	6/12/2012	NS	NS	NS	NS
MW-1	9/27/2012	NS	NS	NS	NS
MW-1	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-1	3/6/2013	<1.0	<1.0	<1.0	<2.0
MW-2	6/4/1998	1.4	1	1.9	11
MW-2	8/11/1998	**76**	2.4	12	30
MW-2	12/9/1998	**38**	<1	10	4.5
MW-2	2/10/1999	**30**	<0.5	7.1	3.7
MW-2	4/27/1999	**2.9**	<0.5	2.1	3
MW-2	9/21/1999	8.5	0.8	2.2	1.9
MW-2	11/16/1999	**32**	0.8	3.4	7
MW-2	2/15/2000	**57**	1.2	16	2.6
MW-2	5/10/2000	<0.5	<0.5	1	<1.5
MW-2	11/2/2000	**16.8**	<1	2.07	<1
MW-2	2/16/2001	2.97	6.91	<1	<1
MW-2	5/10/2001	3.76	4.46	<1	<1
MW-2	10/31/2001	5.9	<2.0	<2.0	<2.0
MW-2	9/23/2003	7.7	<2.0	<2.0	<5.0
MW-2	12/17/2003	<2.0	<2.0	<2.0	<5.0
MW-2	9/18/2004	7.1	<2.0	<2.0	<5.0
MW-2	3/11/2005	4.6	<2.0	<2.0	<5.0
MW-2	6/16/2005	<2.0	<2.0	<2.0	<5.0
MW-2	9/19/2005	2.2	<2.0	<2.0	<5.0
MW-2	12/1/2005	<2.0	<2.0	<2.0	<5.0
MW-2	2/27/2006	<1.0	<1.0	<1.0	<3.0
MW-2	7/14/2006	<1.0	<1.0	<1.0	<3.0
MW-2	10/6/2006	1.7	<1.0	<1.0	<3.0
MW-2	12/12/2006	<1.0	<1.0	<1.0	<3.0

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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-2	3/30/2010	<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	<3.0
MW-2	12/9/2010	<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	<3.0
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	<3.0
MW-2	12/7/2012	<1.0	<1.0	<1.0	<3.0
MW-2	3/6/2013	<1.0	<1.0	<1.0	<2.0
MW-3	6/4/1998	**470**	**3,800**	680	**6,200**
MW-3	8/11/1998	**500**	**5,200**	730	**5,550**
MW-3	12/9/1998	**90**	350	540	**4,240**
MW-3	2/10/1999	**130**	**810**	610	**4,830**
MW-3	4/27/1999	**220**	**1,300**	520	**4,140**
MW-3	9/21/1999	**110**	**920**	470	**2,930**
MW-3	11/16/1999	**180**	**1,600**	440	**2,620**
MW-3	2/15/2000	**120**	**1,900**	640	**5,120**
MW-3	5/10/2000	**140**	**1,500**	370	**3,650**
MW-3	11/3/2000	**277**	**3,270**	552	**4,350**
MW-3	2/16/2001	**148**	**2,470**	328	**2,580**
MW-3	5/10/2001	**205**	3,080	593	**5,820**
MW-3	9/23/2003	**230**	530	19	**1,600**
MW-3	12/17/2003	**260**	290	24	**800**
MW-3	9/18/2004	**170**	**990**	530	**2,300**
MW-3	12/7/2004	**130**	400	530	**2,500**
MW-3	3/11/2005	**130**	12	200	540
MW-3	6/16/2005	**330**	**770**	**2,300**	**3,900**
MW-3	9/19/2005	**160**	<1.0	470	**1,500**
MW-3	12/1/2005	**106**	270	**1,140**	**3,260**
MW-3	2/27/2006	**36.3**	21.1	234	**1,010**
MW-3	10/6/2006	1.5	<1.0	11	36
MW-3	12/12/2006	**14.2**	**43.3**	**230**	**725**
MW-3	3/30/2010	8.2	1.5	141	401
MW-3	6/22/2010	6.1	4.1	30.9	100
MW-3	9/16/2010	**12.2**	7	15.3	40
MW-3	12/9/2010	1	2.3	13.1	28.9
MW-3	3/10/2011	**18.9**	20.7	213	529

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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	6/15/2011	4.5	34.4	118	345
MW-3	9/13/2011	**13.9**	1.9	220	459
MW-3	1/6/2012	6.6	<2.0	148	333
MW-3	4/6/2012	5.0	98.3	4.4	255
MW-3	6/12/2012	4.8	122	13.4	344
MW-3	9/27/2012	**11.7**	248	12.0	**867**
MW-3	12/7/2012	**11.4**	403	16.4	**1,250**
MW-3	3/6/2013	<5.0	6.1	21	88
MW-3	6/25/2013	4.7	64	120	460
MW-3	9/24/2013	<5.0	<5.0	30	82
MW-3	12/5/2013	<5.0	<5.0	42	170
MW-3	3/18/2014	<2.0	12	82	**700**
MW-3	6/16/2014	3.6	92	140	**880**
MW-3	9/10/2014	<1.0	59	150	**830**
MW-3	12/3/2014	<1.0	34	220	**890**
MW-3	3/5/2015	<1.0	4.7	24	120
MW-3	9/23/2015	<1.0	56	67	350
MW-3	9/12/2016	<2.0	61	190	**900**
MW-4	6/4/1998	**3,400**	**3,600**	110	**910**
MW-4	8/11/1998	**320**	**1,600**	60	**680**
MW-4	12/9/1998	**7,400**	**12,000**	130	**3,260**
MW-4	2/10/1999	**2,700**	**4,400**	120	**1,360**
MW-4	4/27/1999	**5,100**	**6,200**	130	**1,600**
MW-4	9/21/1999	**3,200**	**3,800**	130	**1,340**
MW-4	2/15/2000	**320**	540	26	314
MW-4	5/10/2000	**4,300**	**2,300**	130	**1,270**
MW-4	11/2/2000	**257**	332	19.0	196
MW-4	2/16/2001	**54**	17.8	1.01	19.8
MW-4	5/10/2001	**2,660**	**2,130**	34.6	**792**
MW-4	10/31/2001	**210**	420	10	260
MW-4	9/23/2003	**23**	6	130	59
MW-4	12/17/2003	<2.0	<2.0	<2.0	5.1
MW-4	11/16/2004	**3,200**	**1,100**	<10	**520**
MW-4	9/18/2004	**80**	170	6.7	66
MW-4	3/11/2005	<2.0	2.8	<2.0	10
MW-4	6/16/2005	**310**	<100	130	550
MW-4	2/27/2006	**16.7**	11.2	5.1	70.3
MW-4	3/30/2010	NS	NS	NS	NS
MW-4	6/22/2010	NS	NS	NS	NS
MW-4	9/16/2010	NS	NS	NS	NS
MW-4	12/9/2010	NS	NS	NS	NS

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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	3/10/2011	NS	NS	NS	NS
MW-4	6/15/2011	NS	NS	NS	NS
MW-4	9/13/2011	NS	NS	NS	NS
MW-4	1/6/2012	NS	NS	NS	NS
MW-4	4/6/2012	<1.0	<1.0	<1.0	<3.0
MW-4	6/12/2012	DEST	DEST	DEST	DEST
MW-5	12/9/1998	**<20**	**2,300**	300	**2,720**
MW-5	2/10/1999	<5	**860**	150	**1,170**
MW-5	4/27/1999	<10	**1,000**	130	**1,150**
MW-5	9/21/1999	3.2	450	97	**780**
MW-5	11/16/1999	5.3	**1,200**	170	**1,520**
MW-5	2/15/2000	<5	**280**	56	**462**
MW-5	5/10/2000	5.8	**1,400**	220	**1,860**
MW-5	11/2/2000	**30.9**	92.2	37.3	225
MW-5	2/16/2001	**39.4**	210	83.0	509
MW-5	5/10/2001	<1	439	218	**1,180**
MW-5	10/31/2001	<1.0	16	44	110
MW-5	9/23/2003	2.2	4	17	10
MW-5	12/17/2003	<10	130	64	370
MW-5	9/18/2004	<10	51	48	250
MW-5	12/7/2004	<2.0	20	17	180
MW-5	3/11/2005	**12**	41	43	140
MW-5	6/16/2005	**<100**	180	270	**1,000**
MW-5	9/19/2005	<1.0	400	170	**1,700**
MW-5	12/1/2005	**12.6**	176	187	**961**
MW-5	2/27/2006	<1.0	23	78	346
MW-5	7/14/2006	<5.0	52.3	110	**403**
MW-5	7/16/2006	<1.0	<1.0	11.4	79
MW-5	3/30/2010	<1.0	5.1	21.1	84.5
MW-5	6/22/2010	1.0	9.4	99.4	270
MW-5	9/16/2010	NS	NS	NS	NS
MW-5	12/9/2010	NS	NS	NS	NS
MW-5	3/10/2011	NS	NS	NS	NS
MW-5	6/15/2011	NS	NS	NS	NS
MW-5	9/13/2011	NS	NS	NS	NS
MW-5	1/6/2012	NS	NS	NS	NS
MW-5	4/6/2012	NS	NS	NS	NS
MW-5	6/12/2012	NS	NS	NS	NS
MW-5	9/27/2012	NS	NS	NS	NS
MW-5	12/7/2012	<1.0	14.2	1.3	49.7
MW-5	3/6/2013	<5.0	<5.0	77	290

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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-5	6/25/2013	**21**	28	71	270
MW-5	9/24/2013	<5.0	9.1	44	210
MW-5	12/5/2013	<5.0	11	44	170
MW-5	3/18/2014	<5.0	16	47	210
MW-5	6/16/2014	**12**	34	110	460
MW-5	9/10/2014	<2.0	2.5	7.4	29
MW-5	12/3/2014	NS-FP	NS-FP	NS-FP	NS-FP
MW-5	3/5/2015	NS-FP	NS-FP	NS-FP	NS-FP
MW-5	9/23/2015	<1.0	3.0	25	89
MW-5	9/12/2016	<2.0	<2.0	32	110
MW-6	2/10/1999	**29**	<0.5	7	**4.6**
MW-6	9/21/1999	**690**	330	240	**1,930**
MW-6	11/16/1999	**370**	48	130	**694**
MW-6	2/15/2000	**10**	0.6	5.7	**22.7**
MW-6	5/10/2000	**390**	2.6	25	**400.0**
MW-6	11/3/2000	**2,570**	109	226	**1,690**
MW-6	2/16/2001	**171**	11.0	12.5	**33.5**
MW-6	5/10/2001	**506**	23.2	122	**384**
MW-6	10/31/2001	**1,900**	120	160	**480**
MW-6	12/12/2006	**281**	727	152	**1,350**
MW-6	3/30/2010	**1,160**	46.1	487	**2,530**
MW-6	6/22/2010	**3,430**	102	460	**3,410**
MW-6	9/16/2010	**2,940**	144	370	**2,760**
MW-6	12/9/2010	**2,580**	<20	457	**2,270**
MW-6	3/10/2011	**1,450**	<20	369	**1,800**
MW-6	6/15/2011	**726**	<1	108	380
MW-6	9/13/2011	NS	NS	NS	NS
MW-6	1/6/2012	NS	NS	NS	NS
MW-6	4/6/2012	NS	NS	NS	NS
MW-6	6/12/2012	NS	NS	NS	NS
MW-6	9/27/2012	NS	NS	NS	NS
MW-6	12/7/2012	NS	NS	NS	NS
MW-6	3/6/2013	NS-FP	NS-FP	NS-FP	NS-FP
MW-6	6/25/2013	NS-FP	NS-FP	NS-FP	NS-FP
MW-6	9/24/2013	NS-FP	NS-FP	NS-FP	NS-FP
MW-6	12/5/2013	NS-FP	NS-FP	NS-FP	NS-FP
MW-6	3/18/2014	NS-FP	NS-FP	NS-FP	NS-FP
MW-6	6/16/2014	NS-FP	NS-FP	NS-FP	NS-FP
MW-6	9/10/2014	**2,100**	110	**850**	**8,700**
MW-6	12/3/2014	NS-FP	NS-FP	NS-FP	NS-FP
MW-6	9/23/2015	**1,100**	<100	670	**6,600**

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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	9/21/1999	**280**	**1,200**	78	**700**
MW-7	11/16/1999	**270**	380	37	**261**
MW-7	2/15/2000	**64**	18	10	24.4
MW-7	5/10/2000	**95**	26	12	50.4
MW-7	11/3/2000	2.62	<1	<1	<1
MW-7	2/22/2001	**13.0**	1.16	1.40	2.97
MW-7	5/10/2001	**23.4**	<1	2.63	3.74
MW-7	10/31/2001	6.2	<2.0	<2.0	<2.0
MW-7	9/23/2003	5.4	<2.0	<2.0	<5.0
MW-7	12/17/2003	**28**	<2.0	<2.0	<5.0
MW-7	9/18/2004	**100**	18	6.1	29
MW-7	12/7/2004	**35**	11	<2.0	7.3
MW-7	3/11/2005	**40**	<2.0	<2.0	<5.0
MW-7	6/16/2005	**27**	<2.0	<2.0	<5.0
MW-7	9/19/2005	**110**	21	9.0	43
MW-7	12/1/2005	**22.6**	<2.0	<2.0	<5.0
MW-7	2/27/2006	**55.2**	<1.0	<1.0	<3.0
MW-7	7/14/2006	<1.0	<1.0	<1.0	<3.0
MW-7	10/6/2006	**460**	<5.0	8.3	<15.0
MW-7	12/12/2006	**202**	<1.0	1.3	<3.0
MW-7	3/30/2010	**137**	<1.0	<1.0	<3.0
MW-7	6/22/2010	**131**	<1.0	<1.0	<3.0
MW-7	9/16/2010	**47.7**	<1.0	<1.0	<3.0
MW-7	12/9/2010	**20.9**	<1.0	<1.0	<3.0
MW-7	3/10/2011	**73.7**	<1.0	<1.0	<3.0
MW-7	6/15/2011	**72.6**	<1.0	<1.0	<3.0
MW-7	9/13/2011	**13**	<1.0	<1.0	<3.0
MW-7	1/6/2012	**27.7**	2.2	<1.0	<3.0
MW-7	4/6/2012	**88.8**	3.7	<1.0	4.4
MW-7	6/12/2012	**22.0**	<1.0	4.1	<3.0
MW-7	9/27/2012	**37.7**	2.5	21.0	11.8
MW-7	12/7/2012	**64.0**	3.4	12.6	18.2
MW-7	3/6/2013	**110**	**770**	67	**1,200**
MW-7	6/25/2013	**95**	180	28	510
MW-7	9/24/2013	NS-FP	NS-FP	NS-FP	NS-FP
MW-7	12/5/2013	**170**	730	300	**2,300**
MW-7	9/10/2014	**86**	190	140	**740**
MW-7	9/23/2015	**43**	48	94	390
MW-7	9/12/2016	**98**	170	74	340
MW-8	9/21/1999	0.5	1	0.8	<1.5

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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-8	2/15/2000	0.6	1.4	0.6	<1.5
MW-8	5/10/2000	<0.5	0.6	<0.5	<1.5
MW-8	11/2/2000	<1	<1	<1	<1
MW-8	11/16/2004	<0.5	0.6	0.5	<1.5
MW-8	2/16/2001	<1	<1	<1	<1
MW-8	5/10/2001	<1	<1	<1	<1
MW-8	10/31/2001	<1.0	<2.0	<2.0	<2.0
MW-8	9/23/2003	<2.0	<2.0	<2.0	<5.0
MW-8	12/17/2003	<2.0	<2.0	<2.0	<5.0
MW-8	9/18/2004	<2.0	<2.0	<2.0	<5.0
MW-8	12/7/2004	<2.0	<2.0	<2.0	<5.0
MW-8	3/11/2005	<2.0	<2.0	<2.0	<5.0
MW-8	6/16/2005	<2.0	<2.0	<2.0	<5.0
MW-8	9/19/2005	<2.0	<2.0	<2.0	<5.0
MW-8	12/1/2005	<2.0	<2.0	<2.0	<5.0
MW-8	2/27/2006	<1.0	<1.0	<1.0	<3.0
MW-8	7/14/2006	<1.0	<1.0	<1.0	<3.0
MW-8	3/30/2010	NS	NS	NS	NS
MW-8	6/22/2010	NS	NS	NS	NS
MW-8	9/16/2010	NS	NS	NS	NS
MW-8	12/9/2010	NS	NS	NS	NS
MW-8	3/10/2011	NS	NS	NS	NS
MW-8	6/15/2011	NS	NS	NS	NS
MW-8	9/13/2011	NS	NS	NS	NS
MW-8	1/6/2012	NS	NS	NS	NS
MW-8	4/6/2012	NS	NS	NS	NS
MW-8	6/12/2012	NS	NS	NS	NS
MW-8	9/27/2012	NS	NS	NS	NS
MW-8	12/7/2012	NS	NS	NS	NS
MW-8	3/6/2013	<2.0	<2.0	<2.0	<4.0
MW-8	6/25/2013	<2.0	<2.0	<2.0	<4.0
MW-9	9/21/1999	3.7	550	110	**920**
MW-9	2/15/2000	0.5	1.4	0.6	<1.3
MW-9	5/10/2000	<0.5	1.2	<0.5	<1.5
MW-9	9/23/2003	<2.0	<2.0	<2.0	<5.0
MW-9	12/17/2003	<2.0	<2.0	<2.0	<5.0
MW-9	6/16/2005	<2.0	<2.0	<2.0	<5.0
MW-9	7/14/2006	<1.0	<1.0	<1.0	<3.0
MW-9	12/12/2006	<1.0	<1.0	<1.0	<3.0
MW-9	3/30/2010	<1.0	<1.0	<1.0	<3.0
MW-9	6/22/2010	<1.0	<1.0	<1.0	<3.0

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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	9/16/2010	<1.0	<1.0	<1.0	<3.0
MW-9	12/9/2010	<1.0	<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	<1.0	<1.0	<3.0
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	3/6/2013	<2.0	<2.0	<2.0	<4.0
SVE-4"	9/23/2003	<2.0	<2.0	<2.0	<5.0
SVE-4"	12/17/2003	<2.0	<2.0	<2.0	<5.0
SVE-4"	9/18/2004	<2.0	<2.0	<2.0	<5.0
SVE-4"	12/7/2004	<2.0	<2.0	<2.0	<5.0
SVE-4"	3/11/2005	<2.0	<2.0	<2.0	<5.0
SVE-4"	6/16/2005	5.6	<2.0	<2.0	<5.0
SVE-4"	9/19/2005	<2.0	<2.0	<2.0	<5.0
SVE-4"	12/1/2005	<2.0	2.8	<2.0	<5.0
SVE-4"	3/30/2010	NS	NS	NS	NS
SVE-4"	6/22/2010	NS	NS	NS	NS
SVE-4"	9/16/2010	<1.0	<1.0	<1.0	<3.0
SVE-4"	12/9/2010	<1.0	<1.0	<1.0	<3.0
SVE-4"	3/10/2011	<1.0	<1.0	<1.0	<3.0
SVE-4"	6/15/2011	<1.0	<1.0	<1.0	<3.0
SVE-4"	9/13/2011	<1.0	<1.0	<1.0	<3.0
SVE-4"	1/6/2012	<1.0	<1.0	<1.0	<3.0
SVE-4"	4/6/2012	NS	NS	NS	NS
SVE-4"	6/12/2012	<1.0	<1.0	<1.0	<3.0
SVE-4"	9/27/2012	<1.0	<1.0	<1.0	<3.0
SVE-4"	12/7/2012	NS	NS	NS	NS
SVE-4"	3/6/2013	<1.0	<1.0	<1.0	<2.0
MW-10	12/5/2013	<5.0	<5.0	<5.0	<10
MW-10	9/10/2014	<1.0	<1.0	<1.0	<2.0
MW-10	9/23/2015	<1.0	<1.0	<1.0	<2.0
MW-10	9/12/2016	<2.0	<2.0	<2.0	<4.0
MW-11	12/5/2013	**510**	32	570	**2,400**
MW-11	9/10/2014	9.2	<5.0	29	180
MW-11	9/23/2015	<2.0	<2.0	7.2	30

TABLE 2
GROUNDWATER LABORATORY ANALYTICAL RESULTS

DOGIE EAST PIT
RIO ARRIBA 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-11	9/12/2016	5.2	<2.0	17	72
MW-12	12/5/2013	NS-FP	NS-FP	NS-FP	NS-FP
MW-12	9/10/2014	**740**	360	46	200
MW-12	9/23/2015	**540**	76	<1.0	190
MW-12	9/12/2016	**1,700**	300	29	110
MW-13	12/5/2013	<1.0	<1.0	<1.0	<2.0
MW-13	9/10/2014	<1.0	<1.0	<1.0	<2.0
MW-13	9/23/2015	<1.0	<1.0	<1.0	<2.0
MW-13	9/12/2016	**20**	<2.0	<2.0	<4.0

Notes:
Bold - indicates sample exceeds NMWQCC standard
< - indicates result is less than laboratory reporting detection limit
µg/L - micrograms per liter
DEST - well has been destroyed
NS - not sampled
NS-FP - not sampled due to the presence of free phase hydrocarbons in the well

APPENDIX A

2016 ANNUAL FIELD FORMS

Location Dogie CS Date 9/12/16

Project / Client Quarterly Sampling Annual

T-59

JSA / HASP / partly Cloudy / warm

1030 AC onsite

	DTW	DTP	TD	Volume	Sample Time
MW-1	15.42	-	-	-	-
MW-2	15.40	-	-	-	-
MW-3	15.50	-	19.70	2.25	1115
MW-5	14.83	-	18.19	1.75	1405
MW-6	16.81	16.70	22.52	~~3.7~~	-
MW-7	13.25	-	20.63	3.75	1340
MW-8	12.56	-	-	-	-
MW-10	8.25	-	15.08	3.50	1240
MW-11	9.22	-	14.73	2.75	1315
MW-12	15.22	-	19.21	2.00	1150
MW-13	15.03	-	18.65	2.00	1215
SVE-4	15.78	-	-	-	-

MW-3 - purged 2.25, Actual 2.05

MW-5 - purged 1.75, Actual 1.64

MW-6 - Measurable product = 0.11ft
Purged ~3oz of product.
Added Sock

MW-7 - purged 3.75, Actual 3.61

Location Dogie CS Date 9/12/16

Project / Client Annual Sampling

MW-10 - purged 3.50, Actual 3.34

MW-11 - purged 2.75, Actual 2.70

MW-12 - purged 2.00, Actual 1.95

MW-13 - purged 2.00, Actual 1.75

1500 Dropped Samples with Hall

AC 9/14/16

9/12/16

Water Sample Collection Form

Sample Location	Dogie CS	Client	Williams Field Services
Sample Date	9/12/16	Project Name	Dogie East Pit
Sample Time	1115	Project #	034016002
Sample ID	MW-03	Sampler	Alexandria Crooks
Analyses	BTEX (8021)		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	15.50	TD of Well	19.70
Time	1046	Depth to Product	NA

Purge Volume: 19.70 - 15.50 = 4.2 x .1631 = .68 x 3 = 2.05

*(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 H_2O removed (gal)	pH (std. units)	Temp. (°C or (F))	Conductivity (µS or mS)	Comments
1050	.25	.25	6.75	68.3	3.00	Black/Strong pSH odor/cloudy
1052	.25	.50	6.95	67.5	2.75	No change
1055	.25	.75	6.99	65.9	2.31	No change
1058	.25	1.00	7.05	65.5	2.25	No Change
1102	.50	1.50	7.10	62.5	2.20	No change
1105	.50	2.00	7.08	63.9	2.18	No Change
1108	.25	2.25	7.10	64.0	2.17	No Change
1115						Took Sample

Comments: Took Sample at 1115

Describe Deviations from SOP: No Deviations

Signature: Alex Crooks **Date:** 9/12/16

Water Sample Collection Form

Sample Location	Dogie CS	Client	Williams Field Services
Sample Date	9/12/2016	Project Name	Dogie East Pit
Sample Time	1405	Project #	034016002
Sample ID	MW-05	Sampler	Alexandria Crooks
Analyses	BTEX (8021)		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	14.83	TD of Well	18.19
Time	1342	Depth to Product	NA

Purge Volume: 18.19 - 14.83 = 3.36 X .1631 = .54 X 3 = 1.64

*(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 H_2O removed (gal)	pH (std. units)	Temp. (°C or °F)	Conductivity (µS or mS)	Comments
1345	.75	.75	7.35	65.9	2.25	Clear / No odor / No color
1348	.25	~~.75~~ .50	7.28	65.3	2.28	Cloudy / No odor / gray
1350	.25	.75	7.31	64.9	2.31	No Change
1351	.25	1.00	7.27	64.8	2.29	No Change
1355	.50	1.50	7.26	65.1	2.29	No Change
1358	.25	1.75	7.24	64.8	2.30	No change
1405						Took Sample

Comments: Took Sample at 1405

Describe Deviations from SOP: NO Deviations

Signature: Alex Crooks **Date:** 9/12/16

Water Sample Collection Form

Sample Location	Dogie CS	Client	Williams Field Services
Sample Date	9/12/16	Project Name	Dogie East Pit
Sample Time	NA	Project #	034016002
Sample ID	MW-06	Sampler	Alexandria Crooks
Analyses	BTEX (8021)		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	16.81	TD of Well	22.52
Time	1120	Depth to Product	16.70

Purge Volume

*(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 H_2O removed (gal)	pH (std. units)	Temp. (°C or °F)	Conductivity (µS or mS)	Comments

Comments: Measurable product at 0.11 ft
purged ~ 3oz of PSH

Describe Deviations from SOP: Did not sample due to 0.11' of PSH

Signature: Alex Crooks **Date:** 9/12/16

Water Sample Collection Form

Sample Location	Dogie CS	Client	Williams Field Services
Sample Date	9/12/16	Project Name	Dogie East Pit
Sample Time	1340	Project #	034016002
Sample ID	MW-07	Sampler	Alexandria Crooks
Analyses	BTEX (8021)		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	13.25	TD of Well	20.63
Time	1318	Depth to Product	NA

Purge Volume: 20.63 - 13.25 = 7.38 x .1631 = 1.20 x 3 = 3.61

*(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 H_2O removed (gal)	pH (std. units)	Temp. (°C or °F)	Conductivity (µS or mS)	Comments
1319	.75	.25	7.87	68.9	6.25	Clear/no odor/no color
1321	.25	.50	7.91	67.6	5.99	No change
1325	.25	.75	7.53	67.5	5.53	Cloudy/no odor/gray
1325	.25	1.00	7.38	66.4	5.45	no change
1327	.50	1.50	7.42	64.7	5.48	no change
1330	.50	2.00	7.35	64.5	5.32	no change
1332	.50	2.50	7.39	64.1	5.25	No change
1335	.50	3.00	7.37	63.9	5.28	no change
1336	.50	3.50	7.48	63.9	5.27	no change
1338	.25	3.75	7.45	63.8	5.29	no change
1340						Took Sample

Comments: Took Sample at 1340

Describe Deviations from SOP: No Deviations

Signature: Alex Crooks **Date:** 9/12/16

Water Sample Collection Form

Sample Location	Dogie CS	Client	Williams Field Services
Sample Date	9/12/16	Project Name	Dogie East Pit
Sample Time	1240	Project #	034016002
Sample ID	MW-10	Sampler	Alexandria Crooks
Analyses	BTEX (8021)		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	8.25	TD of Well	15.08
Time	1218	Depth to Product	NA

Purge Volume: 15.08 - 8.25 = 6.83 X .1631 ~ 1.11 X 3 = 3.34

*(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 H_2O removed (gal)	pH (std. units)	Temp. (°C or °F)	Conductivity (µS or mS)	Comments
1220	.25	.25	7.56	67.6	4.28	light cloud/no odor/gray
1221	.25	.50	7.61	64.3	4.13	No Change
1223	.25	.75	7.58	64.8	4.15	Cloudy/no odor/gray
1225	.25	1.00	7.48	64.5	4.21	No Change
1228	.50	1.50	7.49	64.5	4.18	No Change
1230	.50	2.00	7.50	64.7	4.19	No Change
1231	.50	2.50	7.53	64.3	4.20	No change
1233	.50	3.00	7.51	64.2	4.19	No Change
1235	.50	3.50	7.50	64.1	4.21	No Change
1240						Took Sample

Comments: Took Sample at 1240

Describe Deviations from SOP: No Deviations

Signature: Alex Crooks **Date:** 9/12/16

Water Sample Collection Form

Sample Location	Dogie CS	Client	Williams Field Services
Sample Date	9/12/16	Project Name	Dogie East Pit
Sample Time	1315	Project #	034016002
Sample ID	MW-11	Sampler	Alexandria Crooks
Analyses	BTEX (8021)		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	9.22	TD of Well	14.73
Time	1242	Depth to Product	NB

Purge Volume: 14.73 - 9.22 = 5.51 x .1631 = .89 x 3 = 2.70

*(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 H_2O removed (gal)	pH (std. units)	Temp. (°C or °F)	Conductivity (µS or mS)	Comments
1245	.25	.25	7.75	69.5	4.95	Clear / no odor / no color
1248	.25	.50	7.69	66.9	4.85	no change
1250	.25	.75	7.71	65.7	4.78	Cloudy / Slight Pst odor /
1252	.25	1.00	7.73	65.4	4.75	no change / Black
1255	.50	1.50	7.75	64.8	4.73	no Change
1258	.50	2.00	7.77	64.7	4.75	no Change
1300	.50	2.50	7.80	64.5	4.74	no Change
1303	.25	2.75	7.78	64.3	4.70	no change
1315						Took Sample

Comments: Took Sample at 1315

Describe Deviations from SOP: No Deviations

Signature: Alex Crooks **Date:** 9/12/16

Water Sample Collection Form

Sample Location	Dogie CS	Client	Williams Field Services
Sample Date	9/12/16	Project Name	Dogie East Pit
Sample Time	1150	Project #	034016002
Sample ID	MW-12	Sampler	Alexandria Crooks
Analyses	BTEX (8021)		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	15.22	TD of Well	19.21
Time	1130	Depth to Product	NA

Purge Volume: 19.21 − 15.22 = 3.99 × .1631 = 0.65 × 3 = 1.95

*(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 H_2O removed (gal)	pH (std. units)	Temp. (°C or °F)	Conductivity (µS or mS)	Comments
1135	.25	.25	7.65	68.9	2.99	Clear / Slight ps# odor / No color
1138	.25	.50	7.71	67.5	2.58	Cloudy / Slight ps# odor / gray
1139	.25	.75	7.73	66.7	2.38	No Change
1141	.25	1.00	7.70	66.5	2.15	No Change
1143	.50	1.50	7.74	65.4	2.18	No Change
1146	.50	2.00	7.73	65.9	2.20	No Change
1150	—	—	—	—	—	Took Sample

Comments: Took Sample at 1150

Describe Deviations from SOP: No Deviation

Signature: Alex Crooks **Date:** 9/12/16

Water Sample Collection Form

Sample Location	Dogie CS	Client	Williams Field Services
Sample Date	9/12/16	Project Name	Dogie East Pit
Sample Time	1215	Project #	034016002
Sample ID	MW-13	Sampler	Alexandria Crooks
Analyses	BTEX (8021)		
Matrix	Groundwater	Laboratory	Hall Environmental
Turn Around Time	Standard	Shipping Method	Hand delivery
Depth to Water	15.03	TD of Well	18.65
Time	1200	Depth to Product	NA

Purge Volume: 18.65 - 15.03 = 3.63 X .1681 = 0.59 x 3 = 1.77

*(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 H_2O removed (gal)	pH (std. units)	Temp. (°C or °F)	Conductivity (µS or mS)	Comments
1202	.25	.25	7.90	68.9	2.87	Clear / No odor / No color
1205	.25	.50	7.75	67.5	2.75	Clear / No odor / Brown
1208	.25	.75	7.79	66.9	2.69	Cloudy / No odor / Brown
1209	.25	1.00	7.80	65.8	2.68	No change
1211	.50	1.50	7.82	65.4	2.70	No change
1213	.50	2.00	7.81	65.5	2.70	No change
1215	—	—	—	—	—	Took Sample

Comments: Took Sample at 1215

Describe Deviations from SOP: No Deviation

Signature: Alex Crooks **Date:** 9/12/16

LTE

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

September 19, 2016

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

RE: Dogie East Pit OrderNo.: 1609690

Dear Brooke Herb:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/13/2016 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 **1609690**
Date Reported: **9/19/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Client Sample ID: MW-03
Project: Dogie East Pit
Collection Date: 9/12/2016 11:15:00 AM
Lab ID: 1609690-001
Matrix: AQUEOUS
Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0		µg/L	2	9/15/2016 3:24:06 PM
Toluene	61	2.0		µg/L	2	9/15/2016 3:24:06 PM
Ethylbenzene	190	2.0		µg/L	2	9/15/2016 3:24:06 PM
Xylenes, Total	900	20		µg/L	10	9/16/2016 10:03:46 AM
Surr: 4-Bromofluorobenzene	140	87.9-146		%Rec	2	9/15/2016 3:24:06 PM

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-13
Project: Dogie East Pit
Collection Date: 9/12/2016 12:15:00 PM
Lab ID: 1609690-002
Matrix: AQUEOUS
Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	20	2.0	D P	µg/L	2	9/15/2016 3:48:23 PM
Toluene	ND	2.0	D P	µg/L	2	9/15/2016 3:48:23 PM
Ethylbenzene	ND	2.0	D P	µg/L	2	9/15/2016 3:48:23 PM
Xylenes, Total	ND	4.0	D P	µg/L	2	9/15/2016 3:48:23 PM
Surr: 4-Bromofluorobenzene	101	87.9-146	D P	%Rec	2	9/15/2016 3:48:23 PM

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: Dogie East Pit
Collection Date: 9/12/2016 11:50:00 AM
Lab ID: 1609690-003
Matrix: AQUEOUS
Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	1700	100	P	µg/L	100	9/16/2016 10:27:58 AM
Toluene	300	20	P	µg/L	20	9/15/2016 4:12:43 PM
Ethylbenzene	29	2.0	P	µg/L	2	9/15/2016 4:36:59 PM
Xylenes, Total	110	4.0	P	µg/L	2	9/15/2016 4:36:59 PM
Surr: 4-Bromofluorobenzene	110	87.9-146	P	%Rec	2	9/15/2016 4:36:59 PM

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-10
Project: Dogie East Pit
Collection Date: 9/12/2016 12:40:00 PM
Lab ID: 1609690-004
Matrix: AQUEOUS
Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0	D	µg/L	2	9/15/2016 5:25:31 PM
Toluene	ND	2.0	D	µg/L	2	9/15/2016 5:25:31 PM
Ethylbenzene	ND	2.0	D	µg/L	2	9/15/2016 5:25:31 PM
Xylenes, Total	ND	4.0	D	µg/L	2	9/15/2016 5:25:31 PM
Surr: 4-Bromofluorobenzene	118	87.9-146	D	%Rec	2	9/15/2016 5:25:31 PM

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-11
Project: Dogie East Pit
Collection Date: 9/12/2016 1:15:00 PM
Lab ID: 1609690-005
Matrix: AQUEOUS
Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	5.2	2.0	D	µg/L	2	9/15/2016 5:49:45 PM
Toluene	ND	2.0	D	µg/L	2	9/15/2016 5:49:45 PM
Ethylbenzene	17	2.0	D	µg/L	2	9/15/2016 5:49:45 PM
Xylenes, Total	72	4.0	D	µg/L	2	9/15/2016 5:49:45 PM
Surr: 4-Bromofluorobenzene	119	87.9-146	D	%Rec	2	9/15/2016 5:49:45 PM

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-07
Project: Dogie East Pit
Collection Date: 9/12/2016 1:40:00 PM
Lab ID: 1609690-006
Matrix: AQUEOUS
Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	98	5.0		µg/L	5	9/15/2016 6:13:59 PM
Toluene	170	5.0		µg/L	5	9/15/2016 6:13:59 PM
Ethylbenzene	74	5.0		µg/L	5	9/15/2016 6:13:59 PM
Xylenes, Total	340	10		µg/L	5	9/15/2016 6:13:59 PM
Surr: 4-Bromofluorobenzene	125	87.9-146		%Rec	5	9/15/2016 6:13:59 PM

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-05
Project: Dogie East Pit
Collection Date: 9/12/2016 2:05:00 PM
Lab ID: 1609690-007
Matrix: AQUEOUS
Received Date: 9/13/2016 8:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	2.0	D	µg/L	2	9/15/2016 6:38:09 PM
Toluene	ND	2.0	D	µg/L	2	9/15/2016 6:38:09 PM
Ethylbenzene	32	2.0	D	µg/L	2	9/15/2016 6:38:09 PM
Xylenes, Total	110	4.0	D	µg/L	2	9/15/2016 6:38:09 PM
Surr: 4-Bromofluorobenzene	121	87.9-146	D	%Rec	2	9/15/2016 6:38:09 PM

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#: **1609690**

19-Sep-16

Client: LTE

Project: Dogie East Pit

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **B37234**	RunNo: **37234**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155659** 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	20		20.00		102	87.9	146			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **B37234**	RunNo: **37234**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155660** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	80	120			
Toluene	19	1.0	20.00	0	95.6	80	120			
Ethylbenzene	18	1.0	20.00	0	92.1	80	120			
Xylenes, Total	56	2.0	60.00	0	93.3	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		106	87.9	146			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R37274**	RunNo: **37274**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157404** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		107	87.9	146			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R37274**	RunNo: **37274**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157405** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.8	80	120			
Xylenes, Total	56	2.0	60.00	0	94.0	80	120			
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 | Work Order Number: 1609690 | RcptNo: 1

Received by/date: [signature] 09/13/16

Logged By: **Ashley Gallegos** 9/13/2016 8:15:00 AM [signature]

Completed By: **Ashley Gallegos** 9/13/2016 6:02:35 PM [signature]

Reviewed By: [signature] 09/14/16

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	3.3	Good	Yes			

Chain-of-Custody Record

Client: Brooke Herb
LT Environmental, Inc.
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: Dogie East Pit
Project #: 034016002
Project Manager: Brooke Herb
Sampler: Alex Crooks
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.3

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609169D	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)
9/12/16	1115	AQ	MW-03	3-VOA	HCl	-001	X										
	1215		MW-13		No preserv.	-002											
	1150		MW-12		No preserv.	-003											
	1240		MW-10		HCl	-004											
	1315		MW-11			-005											
	1340		MW-07			-006											
	1405		MW-05			-007											

Date	Time	Relinquished by	Received by	Date	Time
9/12/16	1510	Alex Crooks	Christ Walls	9/12/16	1510
9/12/16	1848	Christ Walls	Lindsey Concha	09/13/16	0815

Remarks: Please cc: ACrooks@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.