

Second Half 2016 Semi-Annual Groundwater Monitoring Summary Report

Monument Booster Station
Lea County, New Mexico
1RP-156-0

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-	ALS Environmental Job #: HS16100214

1. Introduction

This report summarizes groundwater monitoring and remediation activities conducted during the second half 2016 at the Monument Booster Station (Site) in Lea County, New Mexico (Figure 1). Tasman Geosciences (Tasman) performed these activities on behalf of DCP Midstream (DCP). The field activities described herein were conducted with the purpose of monitoring groundwater flow and quality conditions and assessing the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons in the Site subsurface. Current Site conditions were evaluated from field data and analytical laboratory results collected on September 26, 2016. The data collected were used to develop the groundwater elevation map and analytical results figure presented herein.

2. Site Location and Background

The Site is located in New Mexico Oil Conservation Division (OCD) designated Unit B, Section 33, Township 19 South, Range 37 East (Figure 1). The facility coordinates are 32.6240 degrees north and 103.2555 degrees west. This facility is an active natural gas compression plant and consists of a main compressor building and other process-related facilities. DCP also owns the property to the south and east that is contiguous to the fenced facility Site boundary (Figure 2).

In 1992, three underground storage tanks (USTs) that formerly contained used oil and pipeline liquids (oil and/or natural gas liquid condensate) near the main compressor building were removed. At that time and again in 1994, hydrocarbon-impacted soils (approximately 1,000 cubic yards in total) were excavated and removed from the Site. Also in 1994, subsurface soil and groundwater investigation activities were initiated to define the horizontal and vertical extent of residual hydrocarbon impacts. Two groundwater monitoring wells were installed and six soil borings were advanced as part of this investigation. In 1995, six additional monitoring wells were installed and one soil boring was advanced.

Hand bailing of LNAPL was initiated in monitoring wells MW-1 and MW-5 in 1995 or 1996. In 1997, an automated pneumatic LNAPL recovery pumping system (Xitech System) was installed in these wells. In 1999 or 2000, the Xitech System was taken out of service at both wells and replaced by product absorbent socks and hand bailing. In mid-2000, product removal activities were ceased while groundwater monitoring continued.

The Site currently has eight groundwater monitoring wells (MW-1, MW-1D, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7). Seven of the wells are located on the gas compressor facility, with MW-3 located in the southeast corner of the adjacent DCP-owned property. Well MW-2 is located in the northwest corner of the Site and is up-gradient of Site impacts.

Based on previously-collected data, it appears that a release of hydrocarbons occurred near the former pipeline liquids aboveground storage tank (AST) located near wells MW-1 and MW-1D in the center of the gas compressor facility along the eastern property boundary (Figure 2). Since 1994 or 1995, monitoring wells MW-1 and MW-5 have traditionally exhibited LNAPL. Beginning in the second half 2014, LNAPL at MW-1 and MW-5 was decreased and/or eliminated due to vacuum enhanced fluid recovery.

3. Groundwater Monitoring

This section describes the groundwater field and laboratory activities performed during the second half 2016 semi-annual monitoring event on September 26, 2016. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, and groundwater sampling. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater and LNAPL Elevation Monitoring

Groundwater and LNAPL were measured to evaluate hydraulic characteristics and provide information regarding seasonal and annual fluctuations in groundwater and LNAPL elevations at the Site. During the reporting period, groundwater levels were measured at the eight Site monitoring well locations. Measurable LNAPL was not observed in MW-1 and MW-5 during the September 2016 sampling event.

Groundwater levels were measured on the north side of the well casing to the nearest 0.01-foot using an oil-water interface probe (IP). Groundwater levels were later converted to elevations (feet above mean sea level [AMSL]). Measured groundwater levels, calculated groundwater elevations, and LNAPL level data are presented in Table 1.

A second half 2016 groundwater elevation map, included as Figure 3, indicates that groundwater flow at the Site trends to the southeast. Groundwater elevations ranges, average elevation changes from previous monitoring events, and calculated hydraulic gradients at the Site are summarized in the table below.

Summary of Measured Hydraulic Parameters

	Second Half 2016 (9/26/16)
Maximum Elevation (Well ID)	3,567.37 (MW-2)
Minimum Elevation (Well ID)	3,560.98 (MW-3)
Average Change from Previous Monitoring Event (ft) – All Wells	0.86
Hydraulic Gradient (ft/ft) / (Well IDs)	0.0068 (MW-2 to MW-3)

3.2 Groundwater Quality Monitoring

Subsequent to recording groundwater level measurements, groundwater samples were collected from the eight Site wells. A minimum of three well casing volumes of groundwater were purged from each monitoring well prior to collection of groundwater samples. Groundwater samples were collected using dedicated polyethylene bailers, placed in clean laboratory-supplied containers for the selected analytical methods, packed in an ice-filled cooler, and maintained at approximately 4 degrees Celsius (⁰C) for transportation to the laboratory. Groundwater samples were then shipped under chain-of-custody procedures to ALS Environmental (ALS) in Houston, Texas for analysis. Water quality samples were submitted for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the reporting period. Historic analytical results up to and including the September 2016 event are contained in Appendix A, and the laboratory analytical report for the second half 2016 event is included in Appendix B. Analytical results are also displayed on Figure 4.

During the second half 2016, benzene was detected in exceedance of the New Mexico Water Quality Control Commission (NMWQCC) groundwater standard of (0.01 milligrams per liter [mg/L]) in monitoring wells MW-1 (0.011 mg/L) and MW-7 (0.035 mg/L, Duplicate 0.033 mg/L).

3.3 Data Quality Assurance / Quality Control

A trip blank and field duplicate sample (MW-7) were collected during the sampling event. The data were reviewed for compliance with the analytical method and the associated quality assurance/quality control (QA/QC) procedures. All samples were analyzed using the correct analytical methods and within the correct holding times. Chain of custody forms were in order and properly executed and indicate that samples were received at the proper temperature with no headspace. All data were reported using the correct method number and reporting units. QA/QC items of note for the second half 2016 include the following:

- Target analytes were not detected in the trip blank; and
- The duplicate sample collected at MW-7 was in compliance with QA/QC Standards with a relative percentage difference (RPD) of 5.8, which is below the target control range of 20.

The overall QA/QC assessment, based on the data review, indicates that overall data precision and accuracy are acceptable.

4. Remediation Activities

Remediation activities conducted during the reporting period included vacuum enhanced fluid recovery (EFR) events.

4.1 Vacuum Enhanced Fluid Recovery

EFR events were initiated on a quarterly frequency in June 2013 at monitoring wells MW-1 and MW-5 to address the free phase petroleum hydrocarbon plume on-Site.

During the second half 2016, EFR was conducted on September 26 and December 21, 2016 (MW-1 and MW-5). EFR activities include the application of high vacuum (using a vacuum truck) to individual well points through a stinger pipe assembly. The stinger was placed slightly below the LNAPL/groundwater interface, thereby removing LNAPL, groundwater, and vapors from the subsurface.

The table below summarizes the wells, pre- and post-EFR LNAPL thickness, EFR duration, and the recovered volume for the EFR activities conducted during the second half 2016. The recovered LNAPL and groundwater was transported to and disposed of at the Cooper Disposal Facility in Hobbs, New Mexico.

Well ID	Date	LNAPL Thickness [ft] (pre-EFR)	Duration (hours)	Fluid Removal Volume (bbl*)	LNAPL Thickness [ft] (post-EFR)
MW-1	9/26/2016	ND	4	30	ND
MW-5	9/26/2016	ND	4		ND
MW-1	12/21/2016	.05	4	25	NM
MW-5	12/21/2016	.12	4		NM
Total			16	55	

Notes:

bbl* = barrel (42 gallons)

ND = Not detected

NM = Not measured

5. Conclusions

Data and observation collected during the second half 2016 yield the following general conclusions:

- Based on historic groundwater elevations, the potentiometric surface at the Site has remained relatively stable with minor elevation changes likely due to seasonal variations.
- The Site continues to exhibit a positive response to EFR efforts and LNAPL levels have declined significantly following initiation. Measurable amounts of LNAPL were not detected during the September 2016 sampling event at the Site. During the December 21, 2016 EFR event, LNAPL thicknesses were observed at MW-1 (0.05 feet) and MW-5 (0.12 feet). Increased LNAPL levels during the December EFR event may be attributable to heavy precipitation events that occurred in the area and infiltration and subsequent flushing of LNAPL material from the vadose zone beneath the Site.
- The analytical results from the groundwater samples collected at MW-1, MW-5, and MW-7 indicate that remaining source material at the Site is highly degraded and does not contribute significantly to dissolved phase impacts.
- The decrease in LNAPL thickness at the Site, the relatively low dissolved phase benzene concentrations at monitoring wells MW-1, MW-5, and MW-7, and the continued non-detect results at downgradient monitoring wells indicate continued mitigation of Site impacts through active remediation efforts.

6. Recommendations

Based on evaluation of second half 2016 and historic Site observations and monitoring results, the following recommendations have been developed for future activities:

- Continue semi-annual groundwater monitoring and sampling at the existing monitoring locations illustrated on Figure 2.
- Continue EFR events at the Site to address remaining LNAPL. Initiate EFR activities at MW-7

simultaneously as EFR activities are conducted at MW-1 to address dissolved phase impacts at that location. Suspension of EFR may be considered pending future observations and/or analytical testing results.

Tables

TABLE 1
SECOND HALF 2016 SEMI-ANNUAL
SUMMARY OF GROUNDWATER ELEVATION DATA
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (*) (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
MW-1	03/21/16	26.60	26.52	0.08	41.81	3591.15	3564.61	-0.28
MW-1	09/26/16	25.48			42.65	3591.15	3565.67	1.06
MW-1D	03/21/16	27.49			36.35	3591.31	3563.82	-1.10
MW-1D	09/26/16	25.61			36.32	3591.31	3565.70	1.88
MW-2	03/21/16	29.80			43.04	3596.30	3566.50	-0.24
MW-2	09/26/16	28.93			43.06	3596.30	3567.37	0.87
MW-3	03/21/16	23.02			35.48	3583.60	3560.58	-0.37
MW-3	09/26/16	22.62			35.71	3583.60	3560.98	0.40
MW-4	03/21/16	26.48			38.60	3588.77	3562.29	-0.43
MW-4	09/26/16	26.30			38.79	3588.77	3562.47	0.18
MW-5	03/21/16	28.44	28.36	0.08	38.06	3592.16	3563.78	-0.37
MW-5	09/26/16	27.55			38.21	3592.16	3564.61	0.83
MW-6	03/21/16	25.34			39.33	3587.93	3562.59	-0.49
MW-6	09/26/16	24.51			39.36	3587.93	3563.42	0.83
MW-7	03/21/16	26.20			35.46	3589.40	3563.20	-0.31
MW-7	09/26/16	25.40			35.42	3589.40	3564.00	0.80
Average change in groundwater elevation (3/21/2016 to 9/26/2016)								0.86

Notes:

1- Changes in groundwater elevation calculated by subtracting the measurement collected during the previous monitoring event from the measurement collected during the most recent monitoring event.

amsl = feet above mean sea level

TOC = top of casing

Groundwater elevation = (TOC Elevation - Measured Depth to Water)

* Groundwater elevation was corrected for product thickness using the following calculation, when applicable:

Groundwater elevation = (TOC Elevation - Measured Depth to Water) + (LNAPL Thickness in Well * LNAPL Relative Density)

LNAPL relative density is assumed to be approximately 0.75

NM = Not Measured

NA = Not Applicable

TABLE 2
SECOND HALF 2016 SEMI-ANNUAL
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	09/26/16	0.011	<0.001	<0.001	<0.003	
MW-1D	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-2	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-3	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-4	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-5	09/26/16	0.0079	<0.001	0.0045	<0.003	
MW-6	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-7	09/26/16	0.35	<0.001	0.31	0.055	Duplicate sample collected
MW-7 (Duplicate)	09/26/16	0.33	<0.001	0.3	0.052	
Trip Blank	09/26/16	<0.001	<0.001	<0.001	<0.003	

Notes:

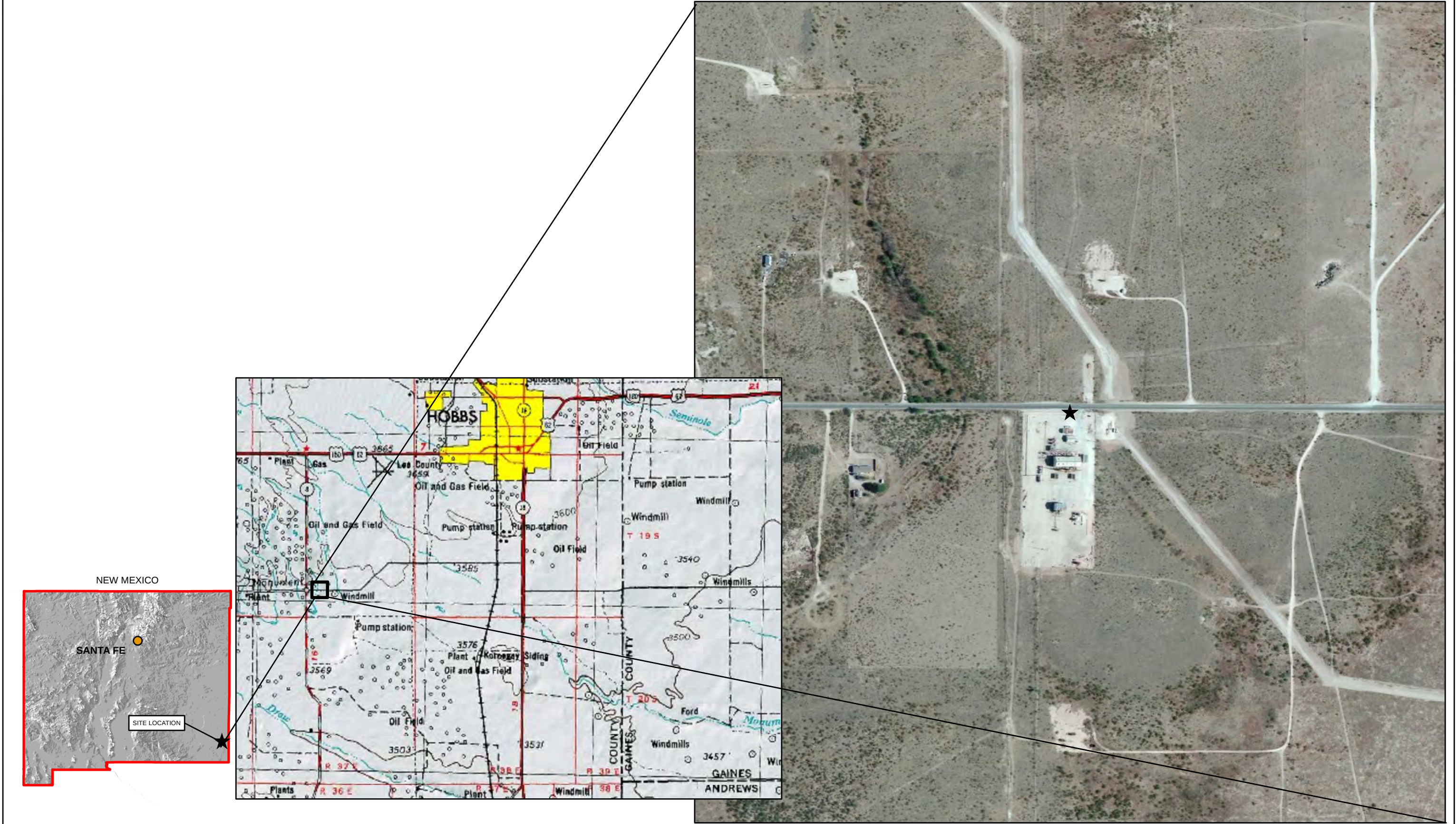
Bold red values indicate an exceedance of the NMWQCC groundwater standards for the Site.

NMWQCC = New Mexico Water Quality Control Commission

LNAPL = light non-aqueous phase liquid

mg/L = milligrams per liter

Figures



DATE: May 2015
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**DCP Midstream
Monument Booster Station**
Unit B, Section 33, Township 19 South, Range 37 East
Lea County, New Mexico

Site Location
Map

Figure
1



DATE:	February 2017
DESIGNED BY:	B. Humphrey
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DCP Midstream
Monument Booster Station
Second Half 2016 Semi-Annual Groundwater Monitoring
Summary Report

Site Map with
Monitoring Well Locations

Figure
2



DATE:	February 2017
DESIGNED BY:	B. Humphrey
DRAWN BY:	D. Arnold



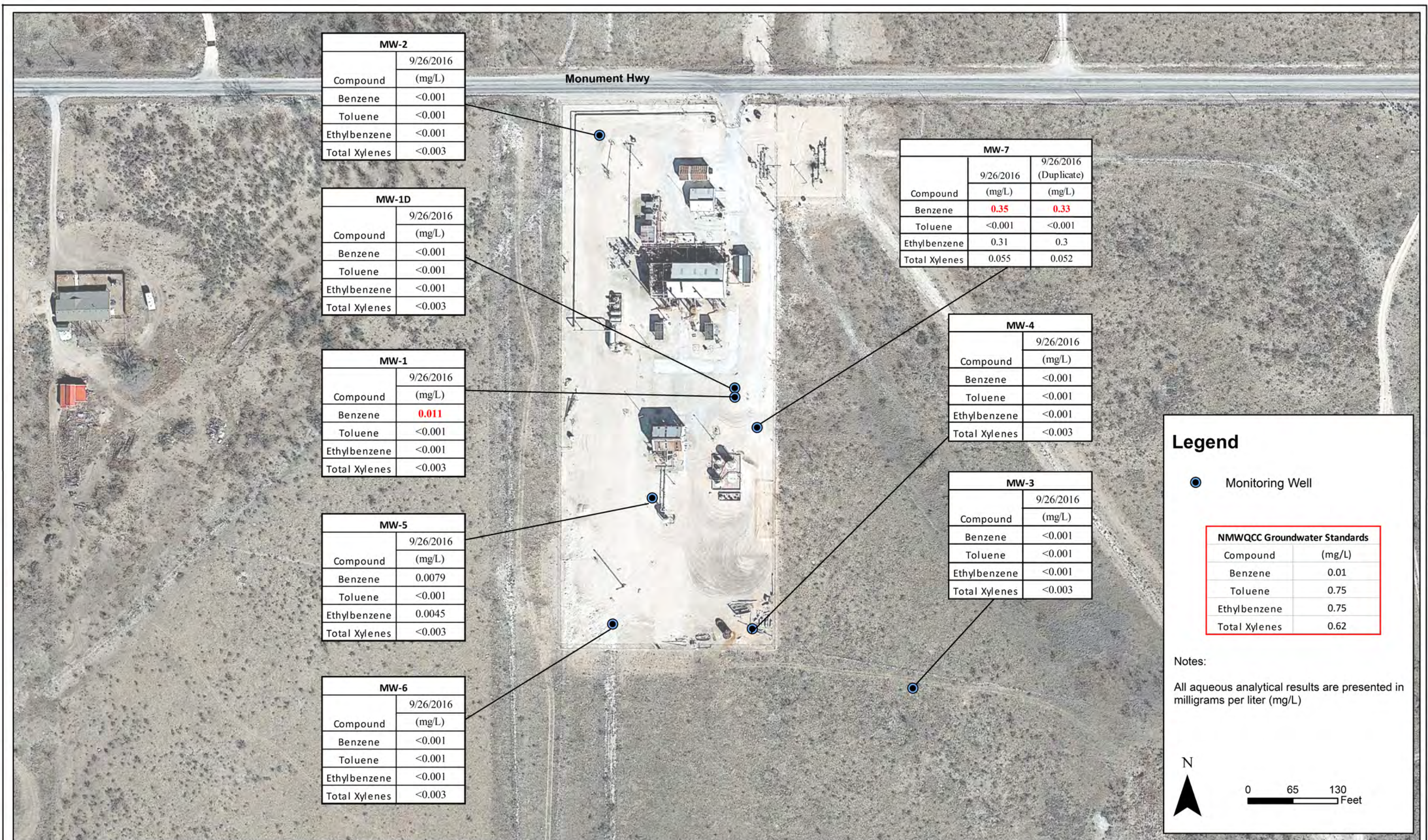
TASMAN
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**DCP Midstream
Monument Booster Station**
Second Half 2016 Semi-Annual Groundwater Monitoring
Summary Report

Groundwater Elevation
Contour Map
(September 26, 2016)

Figure
3



DATE:
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DCP Midstream
Monument Booster Station
Second Half 2016 Semi-Annual Groundwater Monitoring
Summary Report

Analytical Results
Map
(September 26, 2016)

Figure
4

Appendix A

Historic Analytical Results

APPENDIX A
HISTORIC ANALYTICAL RESULTS
BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	09/15/11	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	03/06/12	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	09/05/12	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	02/21/13	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	02/26/14	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	09/24/14	Not Sampled - LNAPL Residue				
MW-1	02/24/15	0.015	<0.001	0.011	<0.003	
MW-1	09/01/15	0.042	<0.005	<0.005	<0.015	
MW-1	03/21/16	0.098	<0.005	0.052	<0.015	
MW-1	09/26/16	0.011	<0.001	<0.001	<0.003	
MW-1D	05/16/95	0.018	0.015	0.006	0.016	
MW-1D	11/15/95	0.003	0.002	<0.001	0.001	
MW-1D	01/18/96	0.004	0.003	<0.001	0.009	
MW-1D	04/24/96	<0.001	<0.001	<0.001	<0.001	
MW-1D	01/22/97	0.001	0.001	<0.001	<0.001	
MW-1D	08/11/97	<0.001	<0.001	<0.001	<0.001	
MW-1D	01/23/98	<0.001	<0.001	<0.001	<0.001	
MW-1D	08/03/98	<0.001	<0.001	<0.001	<0.001	
MW-1D	02/10/99	<0.001	<0.001	<0.001	<0.001	
MW-1D	08/17/99	<0.001	<0.001	<0.001	<0.001	
MW-1D	02/17/00	0.002	0.003	<0.001	0.001	
MW-1D	08/23/00	<0.005	<0.005	<0.005	<0.005	
MW-1D	02/08/01	<0.001	<0.001	<0.001	0.001	
MW-1D	07/30/01	<0.001	<0.001	<0.001	<0.001	
MW-1D	02/13/02	<0.001	<0.001	<0.001	<0.001	
MW-1D	09/27/02	<0.001	<0.001	<0.001	<0.001	
MW-1D	04/25/03	<0.005	<0.005	<0.005	<0.005	
MW-1D	09/18/03	0.002	<0.001	<0.001	<0.001	
MW-1D	03/17/04	<0.001	<0.001	<0.001	<0.001	
MW-1D	08/17/04	<0.001	<0.001	<0.001	<0.001	
MW-1D	03/04/05	<0.001	<0.001	<0.001	<0.001	
MW-1D	09/21/05	<0.001	<0.001	<0.001	<0.001	
MW-1D	03/16/06	<0.001	<0.001	<0.001	<0.001	
MW-1D	09/20/06	<0.001	<0.001	<0.001	<0.001	
MW-1D	03/22/07	<0.001	<0.001	<0.001	<0.001	
MW-1D	09/25/07	<0.001	<0.001	<0.001	<0.001	
MW-1D	03/19/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-1D	03/20/08	<0.002	<0.002	<0.002	<0.006	
MW-1D	09/17/08	<0.002	<0.002	<0.002	<0.002	
MW-1D	03/10/09	<0.002/<0.002	<0.002/<0.002	<0.002/<0.002	<0.006/<0.006	
MW-1D	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-1D	09/23/09	<0.002	<0.002	<0.002	<0.006	
MW-1D	09/23/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-1D	05/17/10	<0.002	<0.002	<0.002	<0.006	
MW-1D	05/17/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-1D	09/16/10	<0.002	<0.002	<0.002	<0.004	
MW-1D	09/16/10	<0.00030	<0.0010	<0.00030	-	
MW-1D	04/26/11	<0.001	<0.002	<0.002	<0.002	
MW-1D	04/26/11	<0.00030	<0.0010	<0.00030	<0.00060	

APPENDIX A
HISTORIC ANALYTICAL RESULTS
BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1D	09/15/11	<0.001	<0.002	<0.002	<0.004	
MW-1D	03/06/12	<0.005	<0.005	<0.005	<0.015	
MW-1D	09/05/12	<0.005	<0.005	<0.005	<0.015	
MW-1D	02/21/13	0.016	<0.001	<0.001	<0.003	
MW-1D	09/11/13	0.0029	<0.001	<0.001	<0.001	
MW-1D	02/26/14	<0.001	<0.001	<0.001	<0.001	
MW-1D	09/24/14	<0.001	<0.001	<0.001	<0.003	
MW-1D	02/24/15	<0.001	<0.001	<0.001	<0.003	
MW-1D	09/01/15	<0.001	<0.001	<0.001	<0.003	
MW-1D	03/21/16	<0.001	<0.001	<0.001	<0.003	
MW-1D	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-2	05/16/95	<0.001	<0.001	<0.001	<0.001	
MW-2	11/15/95	NS	0.006	0.002	-	
MW-2	01/18/96	<0.001	<0.001	<0.001	<0.001	
MW-2	04/24/96	<0.001	<0.001	<0.001	<0.001	
MW-2	01/22/97	<0.001	<0.001	<0.001	<0.001	
MW-2	08/11/97	<0.001	<0.001	<0.001	<0.001	
MW-2	01/23/98	<0.001	<0.001	<0.001	<0.001	
MW-2	08/03/98	<0.001	<0.001	<0.001	<0.001	
MW-2	02/10/99	<0.001	<0.001	<0.001	<0.001	
MW-2	08/17/99	0.017	0.002	0.013	0.003	
MW-2	02/17/00	<0.001	<0.001	<0.001	<0.001	
MW-2	08/23/00	<0.001	<0.001	<0.001	<0.001	
MW-2	02/08/01	<0.001	<0.001	<0.001	<0.001	
MW-2	07/30/01	<0.001	<0.001	<0.001	<0.001	
MW-2	02/13/02	<0.001	<0.001	<0.001	<0.001	
MW-2	09/27/02	<0.001	<0.001	<0.001	<0.001	
MW-2	04/25/03	<0.001	<0.001	<0.001	<0.001	
MW-2	09/18/03	0.002	<0.001	<0.001	<0.001	
MW-2	03/17/04	<0.001	<0.001	<0.001	<0.001	
MW-2	08/17/04	<0.001	<0.001	<0.001	<0.001	
MW-2	03/04/05	<0.001	<0.001	<0.001	<0.001	
MW-2	09/21/05	<0.001	<0.001	<0.001	<0.001	
MW-2	03/16/06	<0.001	<0.001	<0.001	<0.001	
MW-2	09/20/06	<0.001	<0.001	<0.001	<0.001	
MW-2	03/22/07	<0.001	<0.001	<0.001	<0.001	
MW-2	09/25/07	<0.001	<0.001	<0.001	<0.001	
MW-2	03/19/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-2	03/20/08	<0.002	<0.002	<0.002	<0.006	
MW-2	09/17/08	<0.002	<0.002	<0.002	<0.006	
MW-2	03/10/09	<0.002	<0.002	<0.002	<0.006	
MW-2	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-2	09/23/09	<0.002	<0.002	<0.002	<0.006	
MW-2	09/23/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-2	05/17/10	<0.002	<0.002	<0.002	<0.006	
MW-2	05/17/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-2	09/16/10	<0.001	<0.002	<0.002	<0.004	
MW-2	09/16/10	<0.00030	<0.0010	<0.00030	-	
MW-2	04/26/11	<0.001	<0.002	<0.002	<0.002	

APPENDIX A
HISTORIC ANALYTICAL RESULTS
BTEX CONCENTRATIONS IN GROUNDWATER
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-2	04/26/11	<0.00030	<0.0010	<0.00030	<0.00060	
MW-2	09/15/11	<0.001	<0.002	<0.002	<0.004	
MW-2	03/06/12	<0.005	<0.005	<0.005	<0.015	
MW-2	09/05/12	<0.005	<0.005	<0.005	<0.015	
MW-2	02/21/13	<0.001	<0.001	<0.001	<0.003	
MW-2	09/11/13	<0.001	<0.001	<0.001	<0.001	
MW-2	02/26/14	<0.001	<0.001	<0.001	<0.001	
MW-2	09/24/14	<0.001	<0.001	<0.001	<0.003	MS/MSD Collected
MW-2	02/24/15	<0.001	<0.001	<0.001	<0.003	
MW-2	09/01/15	<0.001	<0.001	<0.001	<0.003	
MW-2	03/21/16	<0.001	<0.001	<0.001	<0.003	
MW-2	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-3	05/16/95	<0.001	<0.001	<0.001	<0.001	
MW-3	11/15/95	<0.001	<0.001	<0.001	<0.001	
MW-3	01/18/96	<0.001	<0.001	<0.001	<0.001	
MW-3	04/24/96	<0.001	<0.001	<0.001	<0.001	
MW-3	01/22/97	<0.001	<0.001	<0.001	<0.001	
MW-3	08/11/97	<0.001	<0.001	<0.001	<0.001	
MW-3	01/23/98	<0.001	<0.001	<0.001	<0.001	
MW-3	08/03/98	0.007	<0.001	<0.001	<0.001	
MW-3	02/10/99	<0.005	<0.005	<0.005	<0.005	
MW-3	08/17/99	0.043	<0.005	<0.005	<0.005	
MW-3	02/17/00	0.021	<0.005	<0.005	<0.005	
MW-3	08/23/00	0.006	<0.005	<0.005	<0.005	
MW-3	02/08/01	0.004	0.001	0.002	0.005	
MW-3	07/30/01	0.002	<0.001	<0.001	<0.001	
MW-3	02/13/02	0.002	<0.001	<0.001	<0.001	
MW-3	09/27/02	<0.005	<0.005	<0.005	<0.005	
MW-3	04/25/03	<0.005	<0.005	<0.005	<0.005	
MW-3	09/18/03	0.002	<0.001	<0.001	<0.001	
MW-3	03/17/04	<0.001	<0.001	<0.001	<0.001	
MW-3	08/17/04	<0.001	<0.001	<0.001	<0.001	
MW-3	03/04/05	<0.001	<0.001	<0.001	<0.001	
MW-3	09/21/05	<0.001	<0.001	<0.001	<0.001	
MW-3	03/16/06	<0.001	<0.001	<0.001	<0.001	
MW-3	09/20/06	<0.001	<0.001	<0.001	<0.001	
MW-3	03/22/07	<0.001	<0.001	<0.001	<0.001	
MW-3	09/25/07	<0.001	<0.001	<0.001	<0.001	
MW-3	03/19/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-3	03/20/08	<0.002	<0.002	<0.002	<0.006	
MW-3	09/17/08	<0.002	<0.002	<0.002	<0.006	
MW-3	03/10/09	<0.002	<0.002	<0.002	<0.006	
MW-3	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-3	09/23/09	<0.002	<0.002	<0.002	<0.006	
MW-3	09/23/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-3	05/17/10	<0.002	<0.002	<0.002	<0.006	
MW-3	05/17/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-3	09/16/10	<0.001	<0.002	<0.002	<0.004	
MW-3	09/16/10	<0.00030	<0.0010	<0.00030	-	

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LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-3	04/26/11	<0.001	<0.002	<0.002	<0.002	
MW-3	04/26/11	<0.00030	<0.0010	<0.00030	<0.00060	
MW-3	09/15/11	<0.001	<0.002	<0.002	<0.004	
MW-3	03/06/12	<0.005	<0.005	<0.005	<0.015	
MW-3	09/05/12	<0.005	<0.005	<0.005	<0.015	
MW-3	02/21/13	<0.001	<0.001	<0.001	<0.003	
MW-3	09/11/13	<0.001	<0.001	<0.001	<0.001	
MW-3	02/26/14	<0.001	<0.001	<0.001	<0.001	
MW-3	09/24/14	<0.001	<0.001	<0.001	<0.003	
MW-3	02/24/15	<0.001	<0.001	<0.001	<0.003	
MW-3	09/01/15	<0.001	<0.001	<0.001	<0.003	
MW-3	03/21/16	<0.001	<0.001	<0.001	<0.003	
MW-3	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-4	05/16/95	<0.001	<0.001	<0.001	<0.001	
MW-4	11/15/95	NS	0.006	0.002	0.1	
MW-4	01/18/96	0.003	<0.001	<0.001	<0.001	
MW-4	04/24/96	<0.002	<0.002	<0.002	<0.002	
MW-4	01/22/97	0.002	<0.001	<0.001	<0.001	
MW-4	08/11/97	0.001	<0.001	<0.001	<0.001	
MW-4	01/23/98	<0.001	<0.001	<0.001	<0.001	
MW-4	08/03/98	<0.001	<0.001	<0.001	<0.001	
MW-4	02/10/99	<0.001	<0.001	<0.001	<0.001	
MW-4	08/17/99	<0.001	<0.001	<0.001	0.001	
MW-4	02/17/00	<0.005	<0.005	<0.005	<0.005	
MW-4	08/23/00	<0.005	<0.005	<0.005	<0.005	
MW-4	02/08/01	0.002	<0.001	<0.001	0.002	
MW-4	07/30/01	<0.001	<0.001	<0.001	<0.001	
MW-4	02/13/02	NS	NS	NS	NS	
MW-4	09/27/02	NS	NS	NS	NS	
MW-4	04/25/03	<0.001	<0.001	<0.001	<0.001	
MW-4	09/18/03	<0.001	<0.001	<0.001	<0.001	
MW-4	03/17/04	<0.001	<0.001	<0.001	<0.001	
MW-4	08/17/04	<0.001	<0.001	<0.001	<0.001	
MW-4	03/04/05	<0.001	<0.001	<0.001	<0.001	
MW-4	09/21/05	<0.001	<0.001	<0.001	<0.001	
MW-4	03/16/06	<0.001	<0.001	<0.001	<0.001	
MW-4	09/20/06	<0.002	<0.001	<0.001	0.0043	
MW-4	03/22/07	<0.002	<0.001	<0.001	0.0036	
MW-4	09/25/07	<0.002	<0.001	<0.001	<0.001	
MW-4	03/19/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-4	03/20/08	<0.002	<0.002	<0.002	<0.006	
MW-4	09/17/08	<0.002	<0.002	<0.002	<0.006	
MW-4	03/10/09	<0.002	<0.002	<0.002	<0.006	
MW-4	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-4	09/23/09	<0.002	<0.002	<0.002	<0.006	
MW-4	09/23/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-4	05/17/10	<0.002	<0.002	<0.002	<0.006	
MW-4	05/17/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-4	09/16/10	<0.001	<0.002	<0.002	<0.004	

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Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-4	09/16/10	<0.00030	<0.0010	<0.00030	-	
MW-4	04/26/11	<0.001	<0.002	<0.002	<0.002	
MW-4	06/02/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-4	09/15/11	<0.001	<0.002	<0.002	<0.004	
MW-4	03/06/12	<0.005	<0.005	<0.005	<0.015	
MW-4	09/05/12	<0.005	<0.005	<0.005	<0.015	
MW-4	02/21/13	<0.001	<0.001	<0.001	<0.003	
MW-4	09/11/13	<0.001	<0.001	<0.001	<0.001	
MW-4	02/26/14	<0.001	<0.001	<0.001	<0.001	
MW-4	09/24/14	<0.001	<0.001	<0.001	<0.003	
MW-4	02/24/15	<0.001	<0.001	<0.001	<0.003	
MW-4	09/01/15	<0.001	<0.001	<0.001	<0.003	
MW-4	03/21/16	<0.001	<0.001	<0.001	<0.003	
MW-4	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-5	09/15/11	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	03/06/12	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	09/05/12	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	02/21/13	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	09/11/13	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	02/26/14	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	09/24/14	Not Sampled - LNAPL Residue				
MW-5	02/24/15	Not Sampled - LNAPL				
MW-5	09/01/15	0.034	<0.005	0.073	<0.015	
MW-5	03/21/16	0.008	<0.005	0.019	<0.015	
MW-5	09/26/16	0.008	<0.001	0.005	<0.003	
MW-6	11/15/95	0.003	0.001	<0.001	0.003	
MW-6	01/18/96	0.002	<0.001	<0.001	<0.001	
MW-6	04/24/96	<0.001	<0.001	<0.001	<0.001	
MW-6	01/22/97	0.001	<0.001	<0.001	<0.001	
MW-6	08/11/97	<0.001	<0.001	<0.001	0.001	
MW-6	01/23/98	<0.001	<0.001	<0.001	<0.001	
MW-6	08/03/98	<0.001	<0.001	<0.001	<0.001	
MW-6	02/10/99	<0.001	<0.001	<0.001	0.014	
MW-6	08/17/99	0.002	<0.001	<0.001	0.012	
MW-6	02/17/00	<0.001	0.004	<0.001	0.006	
MW-6	08/23/00	<0.001	0.004	<0.001	0.011	
MW-6	02/08/01	<0.001	<0.001	<0.001	0.011	
MW-6	07/30/01	<0.001	<0.001	<0.001	<0.001	
MW-6	02/13/02	<0.001	<0.001	<0.001	<0.001	
MW-6	09/27/02	<0.005	<0.005	<0.005	<0.005	
MW-6	04/25/03	<0.001	<0.001	<0.001	<0.001	
MW-6	09/18/03	0.002	<0.001	0.002	0.001	
MW-6	03/17/04	<0.001	<0.001	<0.001	<0.001	
MW-6	08/17/04	<0.001	<0.001	<0.001	<0.001	
MW-6	03/04/05	0.0061	<0.001	0.0032	<0.001	
MW-6	09/21/05	<0.001	<0.001	<0.001	<0.001	
MW-6	03/16/06	<0.001	<0.001	<0.001	<0.001	
MW-6	09/20/06	0.0391	<0.001	0.0287	0.0194	
MW-6	03/22/07	<0.001	<0.001	<0.001	0.0013	

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Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-6	09/25/07	<0.001	<0.001	<0.001	<0.001	
MW-6	03/20/08	NS	NS	NS	NS	
MW-6	09/17/08	NS	NS	NS	NS	
MW-6	03/10/09	NS	NS	NS	NS	
MW-6	09/23/09	0.035	<0.002	0.0215	0.0052J	
MW-6	09/23/09	0.035	<0.00043	0.0215	0.0052	
MW-6	05/17/10	<0.002	<0.002	<0.002	<0.006	
MW-6	05/17/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-6	09/16/10	<0.001	<0.002	<0.002	<0.004	
MW-6	09/16/10	<0.00030	<0.0010	<0.00030	-	
MW-6	04/26/11	<0.001	<0.002	<0.002	<0.002	
MW-6	06/02/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-6	03/06/12	<0.005	<0.005	<0.005	<0.015	
MW-6	09/05/12	<0.005	<0.005	<0.005	<0.015	
MW-6	02/21/13	<0.001	<0.001	<0.001	<0.003	
MW-6	09/11/13	<0.001	<0.001	<0.001	<0.001	
MW-6	02/26/14	<0.001	<0.001	<0.001	<0.001	
MW-6	09/24/14	<0.001	<0.001	<0.001	<0.003	
MW-6	02/24/15	<0.001	<0.001	<0.001	<0.003	
MW-6	09/01/15	<0.001	<0.001	<0.001	<0.003	
MW-6	03/21/16	<0.001	<0.001	<0.001	<0.003	
MW-6	09/26/16	<0.001	<0.001	<0.001	<0.003	
MW-7	11/15/95	0.465	0.205	<0.001	0.163	
MW-7	01/18/96	1.13	0.476	0.003	0.365	
MW-7	04/24/96	0.585	0.251	<0.002	0.013	
MW-7	01/22/97	0.896	0.24	<0.005	0.33	
MW-7	08/11/97	0.317	0.155	0.2	0.049	
MW-7	01/23/98	0.876	0.486	<0.005	0.181	
MW-7	08/03/98	0.094	0.064	<0.005	0.007	
MW-7	02/10/99	0.597	0.44	<0.005	0.12	
MW-7	08/17/99	0.705	0.06	<0.005	0.556	
MW-7	02/17/00	0.573	0.49	<0.005	0.226	
MW-7	08/23/00	0.546	0.484	0.006	0.177	
MW-7	02/08/01	0.355	0.424	<0.005	0.052	
MW-7	07/30/01	0.017	0.058	<0.005	<0.005	
MW-7	02/13/02	0.228	0.094	<0.005	0.5	
MW-7	09/27/02	0.015	0.017	<0.005	<0.005	
MW-7	04/25/03	0.157	0.192	<0.005	0.02	
MW-7	09/18/03	0.018	0.023	<0.001	0.004	
MW-7	03/17/04	0.125	0.108	<0.10	0.033	
MW-7	08/17/04	0.237	0.081	<0.20	<0.020	
MW-7	03/04/05	.125/.121	<0.001	0.0467/0.0453	0.0202	
MW-7	09/21/05	.15/0.148	<0.001	0.079/0.0789	0.0248	
MW-7	03/16/06	0.191	0.0032	0.073	<0.001	
MW-7	09/20/06	0.236	<0.001	0.176	0.187	
MW-7	03/22/07	0.209/0.215	<0.05/<0.01	.149/.121	0.116/0.0532	
MW-7	09/25/07	0.465/0.458	<0.01/<0.01	.318/.314	.0307/0.302	
MW-7	03/19/08	0.161	<0.00048	0.057	0.0295	
MW-7	03/20/08	0.161/0.169	<0.002/<0.002	.057/.0637	0.0295/0.0325	

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Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-7	09/17/08	0.083	<0.002	0.0475	0.0204	
MW-7	03/10/09	0.039	<0.002	0.0177	0.0052 J	
MW-7	03/11/09	0.0339	<0.00048	0.0177	0.0052	
MW-7	09/23/09	0.0332	<0.00043	0.0176	0.0033	
MW-7	09/23/09	0.0332/<0.002	<0.002/<0.002	.0176/<0.002	0.0033J/<0.006	
MW-7	05/17/10	0.0201/0.0198	<0.002/<0.002	.0095/.0092	0.0033J/0.0033J	
MW-7	05/17/10	0.0201	<0.00043	0.0095	0.0033	
MW-7	09/16/10	0.522/0.512	<0.01/<0.01	0.294/0.289	0.0383/0.0378	
MW-7	09/16/10	0.522	<0.0050	0.294	-	
MW-7	04/26/11	0.0091/0.0104	<0.01/<0.01	0.0042/0.0041	<0.01/<0.01	
MW-7	04/26/11	0.0091	<0.0050	0.0042	<0.0030	
MW-7	09/15/11	0.394	<0.01	0.149	0.0442	Duplicate sample collected
MW-7	03/06/12	0.0098	<0.0050	0.0088	<0.015	
MW-7	09/05/12	0.014	<0.005	0.01	<0.015	Duplicate sample collected
MW-7	02/21/13	0.0059	<0.001	0.0049	<0.003	Duplicate sample collected
MW-7	09/11/13	0.0024	<0.001	0.0013	<0.001	Duplicate sample collected
MW-7	02/26/14	0.003	<0.001	<0.001	<0.001	Duplicate sample collected
MW-7	09/24/14	0.0023	<0.001	<0.001	<0.003	Duplicate sample collected
MW-7 (Duplicate)	09/24/14	0.0021	<0.001	<0.001	<0.003	
MW-7	02/24/15	0.0087	<0.001	0.0026	<0.003	Duplicate sample collected
MW-7 (Duplicate)	02/24/15	0.009	<0.001	0.0035	<0.003	
MW-7	09/01/15	0.044	<0.001	0.037	0.0094	Duplicate sample collected
MW-7 (Duplicate)	09/01/15	0.049	<0.001	0.039	0.010	
MW-7	03/21/16	0.061	<0.001	0.05	0.017	Duplicate sample collected
MW-7 (Duplicate)	03/21/16	0.057	<0.001	0.048	<0.015	
MW-7	09/26/16	0.35	<0.001	0.31	0.055	Duplicate sample collected
MW-7 (Duplicate)	09/26/16	0.33	<0.001	0.3	0.052	
Trip Blank	02/26/14	<0.001	<0.001	<0.001	<0.001	
Trip Blank	09/24/14	<0.001	<0.001	<0.001	<0.003	
Trip Blank	02/24/15	<0.001	<0.001	<0.001	<0.003	
Trip Blank	09/01/15	<0.001	<0.001	<0.001	<0.003	
Trip Blank	03/21/16	<0.001	<0.001	<0.001	<0.003	
Trip Blank	09/26/16	<0.001	<0.001	<0.001	<0.003	

Bold red values indicate an exceedance of the NMWQCC groundwater standards for the Site.

NMWQCC = New Mexico Water Quality Control Commission

LNAPL = Light Non-Aqueous Phase Liquid

J = Estimated Value

NS = Not Sampled

mg/L = milligrams per liter

Appendix B

Laboratory Analytical Report
ALS Environmental Job #: HS16100214



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October 10, 2016

Brian Humphrey
Tasman Geosciences
6899 Pecos St
Unit C
Denver, CO 80221

Work Order: **HS16100214**

Laboratory Results for: **DCP Monument Booster Station**

Dear Brian,

ALS Environmental received 10 sample(s) on Oct 01, 2016 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Sonia West".

Generated By: Jumoke.Lawal
Sonia West
Project Manager

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Work Order: HS16100214

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16100214-01	MW-1	Water		26-Sep-2016 14:50	01-Oct-2016 10:30	☐
HS16100214-02	MW-1D	Water		26-Sep-2016 14:42	01-Oct-2016 10:30	☐
HS16100214-03	MW-2	Water		26-Sep-2016 15:10	01-Oct-2016 10:30	☐
HS16100214-04	MW-3	Water		26-Sep-2016 13:15	01-Oct-2016 10:30	☐
HS16100214-05	MW-4	Water		26-Sep-2016 14:00	01-Oct-2016 10:30	☐
HS16100214-06	MW-5	Water		26-Sep-2016 14:15	01-Oct-2016 10:30	☐
HS16100214-07	MW-6	Water		26-Sep-2016 14:04	01-Oct-2016 10:30	☐
HS16100214-08	MW-7	Water		26-Sep-2016 14:20	01-Oct-2016 10:30	☐
HS16100214-09	Dup-A	Water		26-Sep-2016 12:00	01-Oct-2016 10:30	☐
HS16100214-10	Trip Blank	Water		26-Sep-2016 00:00	01-Oct-2016 10:30	☐

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Work Order: HS16100214

CASE NARRATIVE

GCMS Volatiles by Method SW8260

Batch ID: R282658

Sample ID: **VLCSW-161007**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R282690

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R282698

Sample ID: **HS16100279-02MS**

- MS and MSD are for an unrelated sample.
-

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Sample ID: MW-1
Collection Date: 26-Sep-2016 14:50

ANALYTICAL REPORT

WorkOrder:HS16100214
Lab ID:HS16100214-01
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	0.011		0.0010	mg/L	1	07-Oct-2016 19:32
Toluene	ND		0.0010	mg/L	1	07-Oct-2016 19:32
Ethylbenzene	ND		0.0010	mg/L	1	07-Oct-2016 19:32
Xylenes, Total	ND		0.0030	mg/L	1	07-Oct-2016 19:32
Surr: 1,2-Dichloroethane-d4	98.4		71-125	%REC	1	07-Oct-2016 19:32
Surr: 4-Bromofluorobenzene	91.0		70-125	%REC	1	07-Oct-2016 19:32
Surr: Dibromofluoromethane	100		74-125	%REC	1	07-Oct-2016 19:32
Surr: Toluene-d8	102		75-125	%REC	1	07-Oct-2016 19:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Sample ID: MW-1D
Collection Date: 26-Sep-2016 14:42

ANALYTICAL REPORT

WorkOrder:HS16100214
Lab ID:HS16100214-02
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	ND		0.0010	mg/L	1	07-Oct-2016 19:57
Toluene	ND		0.0010	mg/L	1	07-Oct-2016 19:57
Ethylbenzene	ND		0.0010	mg/L	1	07-Oct-2016 19:57
Xylenes, Total	ND		0.0030	mg/L	1	07-Oct-2016 19:57
Surr: 1,2-Dichloroethane-d4	97.8		71-125	%REC	1	07-Oct-2016 19:57
Surr: 4-Bromofluorobenzene	87.3		70-125	%REC	1	07-Oct-2016 19:57
Surr: Dibromofluoromethane	102		74-125	%REC	1	07-Oct-2016 19:57
Surr: Toluene-d8	102		75-125	%REC	1	07-Oct-2016 19:57

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Sample ID: MW-2
Collection Date: 26-Sep-2016 15:10

ANALYTICAL REPORT

WorkOrder:HS16100214
Lab ID:HS16100214-03
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	ND		0.0010	mg/L	1	07-Oct-2016 20:22
Toluene	ND		0.0010	mg/L	1	07-Oct-2016 20:22
Ethylbenzene	ND		0.0010	mg/L	1	07-Oct-2016 20:22
Xylenes, Total	ND		0.0030	mg/L	1	07-Oct-2016 20:22
Surr: 1,2-Dichloroethane-d4	98.8		71-125	%REC	1	07-Oct-2016 20:22
Surr: 4-Bromofluorobenzene	87.1		70-125	%REC	1	07-Oct-2016 20:22
Surr: Dibromofluoromethane	103		74-125	%REC	1	07-Oct-2016 20:22
Surr: Toluene-d8	102		75-125	%REC	1	07-Oct-2016 20:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Sample ID: MW-3
Collection Date: 26-Sep-2016 13:15

ANALYTICAL REPORT

WorkOrder:HS16100214
Lab ID:HS16100214-04
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	ND		0.0010	mg/L	1	07-Oct-2016 20:47
Toluene	ND		0.0010	mg/L	1	07-Oct-2016 20:47
Ethylbenzene	ND		0.0010	mg/L	1	07-Oct-2016 20:47
Xylenes, Total	ND		0.0030	mg/L	1	07-Oct-2016 20:47
Surr: 1,2-Dichloroethane-d4	97.7		71-125	%REC	1	07-Oct-2016 20:47
Surr: 4-Bromofluorobenzene	85.9		70-125	%REC	1	07-Oct-2016 20:47
Surr: Dibromofluoromethane	99.9		74-125	%REC	1	07-Oct-2016 20:47
Surr: Toluene-d8	103		75-125	%REC	1	07-Oct-2016 20:47

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Sample ID: MW-4
Collection Date: 26-Sep-2016 14:00

ANALYTICAL REPORT

WorkOrder:HS16100214
Lab ID:HS16100214-05
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	ND		0.0010	mg/L	1	07-Oct-2016 21:12
Toluene	ND		0.0010	mg/L	1	07-Oct-2016 21:12
Ethylbenzene	ND		0.0010	mg/L	1	07-Oct-2016 21:12
Xylenes, Total	ND		0.0030	mg/L	1	07-Oct-2016 21:12
Surr: 1,2-Dichloroethane-d4	99.3		71-125	%REC	1	07-Oct-2016 21:12
Surr: 4-Bromofluorobenzene	88.3		70-125	%REC	1	07-Oct-2016 21:12
Surr: Dibromofluoromethane	99.4		74-125	%REC	1	07-Oct-2016 21:12
Surr: Toluene-d8	104		75-125	%REC	1	07-Oct-2016 21:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Sample ID: MW-5
Collection Date: 26-Sep-2016 14:15

ANALYTICAL REPORT

WorkOrder:HS16100214
Lab ID:HS16100214-06
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	0.0079		0.0010	mg/L	1	07-Oct-2016 21:38
Toluene	ND		0.0010	mg/L	1	07-Oct-2016 21:38
Ethylbenzene	0.0045		0.0010	mg/L	1	07-Oct-2016 21:38
Xylenes, Total	ND		0.0030	mg/L	1	07-Oct-2016 21:38
Surr: 1,2-Dichloroethane-d4	95.6		71-125	%REC	1	07-Oct-2016 21:38
Surr: 4-Bromofluorobenzene	93.5		70-125	%REC	1	07-Oct-2016 21:38
Surr: Dibromofluoromethane	97.5		74-125	%REC	1	07-Oct-2016 21:38
Surr: Toluene-d8	103		75-125	%REC	1	07-Oct-2016 21:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Sample ID: MW-6
Collection Date: 26-Sep-2016 14:04

ANALYTICAL REPORT

WorkOrder:HS16100214
Lab ID:HS16100214-07
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	ND		0.0010	mg/L	1	08-Oct-2016 10:23
Toluene	ND		0.0010	mg/L	1	08-Oct-2016 10:23
Ethylbenzene	ND		0.0010	mg/L	1	08-Oct-2016 10:23
Xylenes, Total	ND		0.0030	mg/L	1	08-Oct-2016 10:23
Surr: 1,2-Dichloroethane-d4	91.0		71-125	%REC	1	08-Oct-2016 10:23
Surr: 4-Bromofluorobenzene	95.5		70-125	%REC	1	08-Oct-2016 10:23
Surr: Dibromofluoromethane	102		74-125	%REC	1	08-Oct-2016 10:23
Surr: Toluene-d8	102		75-125	%REC	1	08-Oct-2016 10:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: DCP Monument Booster Station
 Sample ID: MW-7
 Collection Date: 26-Sep-2016 14:20

ANALYTICAL REPORT

WorkOrder:HS16100214
 Lab ID:HS16100214-08
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	0.35		0.0050	mg/L	5	09-Oct-2016 12:39
Toluene	ND		0.0010	mg/L	1	08-Oct-2016 10:48
Ethylbenzene	0.31		0.0050	mg/L	5	09-Oct-2016 12:39
Xylenes, Total	0.055		0.0030	mg/L	1	08-Oct-2016 10:48
Surr: 1,2-Dichloroethane-d4	95.0		71-125	%REC	1	08-Oct-2016 10:48
Surr: 1,2-Dichloroethane-d4	96.6		71-125	%REC	5	09-Oct-2016 12:39
Surr: 4-Bromofluorobenzene	96.3		70-125	%REC	1	08-Oct-2016 10:48
Surr: 4-Bromofluorobenzene	95.3		70-125	%REC	5	09-Oct-2016 12:39
Surr: Dibromofluoromethane	93.1		74-125	%REC	1	08-Oct-2016 10:48
Surr: Dibromofluoromethane	101		74-125	%REC	5	09-Oct-2016 12:39
Surr: Toluene-d8	98.9		75-125	%REC	1	08-Oct-2016 10:48
Surr: Toluene-d8	101		75-125	%REC	5	09-Oct-2016 12:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: DCP Monument Booster Station
 Sample ID: Dup-A
 Collection Date: 26-Sep-2016 12:00

ANALYTICAL REPORT

WorkOrder:HS16100214
 Lab ID:HS16100214-09
 Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	0.33		0.0050	mg/L	5	09-Oct-2016 18:05
Toluene	ND		0.0010	mg/L	1	09-Oct-2016 17:38
Ethylbenzene	0.30		0.0050	mg/L	5	09-Oct-2016 18:05
Xylenes, Total	0.052		0.0030	mg/L	1	09-Oct-2016 17:38
<i>Surr: 1,2-Dichloroethane-d4</i>	95.5		71-125	%REC	1	09-Oct-2016 17:38
<i>Surr: 1,2-Dichloroethane-d4</i>	92.6		71-125	%REC	5	09-Oct-2016 18:05
<i>Surr: 4-Bromofluorobenzene</i>	95.7		70-125	%REC	5	09-Oct-2016 18:05
<i>Surr: 4-Bromofluorobenzene</i>	98.4		70-125	%REC	1	09-Oct-2016 17:38
<i>Surr: Dibromofluoromethane</i>	95.0		74-125	%REC	1	09-Oct-2016 17:38
<i>Surr: Dibromofluoromethane</i>	103		74-125	%REC	5	09-Oct-2016 18:05
<i>Surr: Toluene-d8</i>	102		75-125	%REC	5	09-Oct-2016 18:05
<i>Surr: Toluene-d8</i>	98.4		75-125	%REC	1	09-Oct-2016 17:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
Sample ID: Trip Blank
Collection Date: 26-Sep-2016 00:00

ANALYTICAL REPORT

WorkOrder:HS16100214
Lab ID:HS16100214-10
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	ND		0.0010	mg/L	1	09-Oct-2016 13:28
Toluene	ND		0.0010	mg/L	1	09-Oct-2016 13:28
Ethylbenzene	ND		0.0010	mg/L	1	09-Oct-2016 13:28
Xylenes, Total	ND		0.0030	mg/L	1	09-Oct-2016 13:28
Surr: 1,2-Dichloroethane-d4	90.7		71-125	%REC	1	09-Oct-2016 13:28
Surr: 4-Bromofluorobenzene	95.6		70-125	%REC	1	09-Oct-2016 13:28
Surr: Dibromofluoromethane	103		74-125	%REC	1	09-Oct-2016 13:28
Surr: Toluene-d8	102		75-125	%REC	1	09-Oct-2016 13:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
WorkOrder: HS16100214

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R282658	Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water		
HS16100214-01	MW-1	26 Sep 2016 14:50			07 Oct 2016 19:32	1
HS16100214-02	MW-1D	26 Sep 2016 14:42			07 Oct 2016 19:57	1
HS16100214-03	MW-2	26 Sep 2016 15:10			07 Oct 2016 20:22	1
HS16100214-04	MW-3	26 Sep 2016 13:15			07 Oct 2016 20:47	1
HS16100214-05	MW-4	26 Sep 2016 14:00			07 Oct 2016 21:12	1
HS16100214-06	MW-5	26 Sep 2016 14:15			07 Oct 2016 21:38	1
Batch ID R282690	Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water		
HS16100214-07	MW-6	26 Sep 2016 14:04			08 Oct 2016 10:23	1
HS16100214-08	MW-7	26 Sep 2016 14:20			08 Oct 2016 10:48	1
Batch ID R282698	Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Water		
HS16100214-08	MW-7	26 Sep 2016 14:20			09 Oct 2016 12:39	5
HS16100214-09	Dup-A	26 Sep 2016 12:00			09 Oct 2016 18:05	5
HS16100214-09	Dup-A	26 Sep 2016 12:00			09 Oct 2016 17:38	1
HS16100214-10	Trip Blank	26 Sep 2016 00:00			09 Oct 2016 13:28	1

Client: Tasman Geosciences
Project: DCP Monument Booster Station
WorkOrder: HS16100214

QC BATCH REPORT

Batch ID: R282658		Instrument: VOA4		Method: SW8260					
MBLK	Sample ID: VBLKW-161007	Units: ug/L		Analysis Date: 07-Oct-2016 11:52					
Client ID:	Run ID: VOA4_282658	SeqNo: 3851719		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	3.0							
Surr: 1,2-Dichloroethane-d4	48.55	1.0	50	0	97.1	71 - 125			
Surr: 4-Bromofluorobenzene	43.76	1.0	50	0	87.5	70 - 125			
Surr: Dibromofluoromethane	51.14	1.0	50	0	102	74 - 125			
Surr: Toluene-d8	51.47	1.0	50	0	103	75 - 125			

LCS	Sample ID: VLCSW-161007	Units: ug/L		Analysis Date: 07-Oct-2016 10:36					
Client ID:	Run ID: VOA4_282658	SeqNo: 3851718		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	56.4	1.0	50	0	113	75 - 122			
Ethylbenzene	55.75	1.0	50	0	112	80 - 120			
Toluene	54.56	1.0	50	0	109	75 - 121			
Xylenes, Total	169.3	3.0	150	0	113	79 - 124			
Surr: 1,2-Dichloroethane-d4	47.86	1.0	50	0	95.7	71 - 125			
Surr: 4-Bromofluorobenzene	49.24	1.0	50	0	98.5	70 - 125			
Surr: Dibromofluoromethane	49.55	1.0	50	0	99.1	74 - 125			
Surr: Toluene-d8	50.29	1.0	50	0	101	75 - 125			

MS	Sample ID: HS16100233-01MS	Units: ug/L		Analysis Date: 07-Oct-2016 13:09					
Client ID:	Run ID: VOA4_282658	SeqNo: 3851722		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	49.73	1.0	50	0	99.5	75 - 122			
Ethylbenzene	47.51	1.0	50	0	95.0	80 - 120			
Toluene	48	1.0	50	0	96.0	75 - 121			
Xylenes, Total	143.6	3.0	150	0	95.7	80 - 124			
Surr: 1,2-Dichloroethane-d4	47.48	1.0	50	0	95.0	71 - 125			
Surr: 4-Bromofluorobenzene	49.13	1.0	50	0	98.3	70 - 125			
Surr: Dibromofluoromethane	49.47	1.0	50	0	98.9	74 - 125			
Surr: Toluene-d8	50.58	1.0	50	0	101	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: DCP Monument Booster Station
 WorkOrder: HS16100214

QC BATCH REPORT

Batch ID: R282658		Instrument: VOA4		Method: SW8260					
MSD	Sample ID:	HS16100233-01MSD		Units: ug/L		Analysis Date: 07-Oct-2016 13:35			
	Client ID:	Run ID: VOA4_282658		SeqNo: 3851723		PrepDate:		DF: 1	
	Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual
Benzene	51	1.0	50	0	102	75 - 122	49.73	2.52	20
Ethylbenzene	51.04	1.0	50	0	102	80 - 120	47.51	7.17	20
Toluene	50.66	1.0	50	0	101	75 - 121	48	5.4	20
Xylenes, Total	157.9	3.0	150	0	105	80 - 124	143.6	9.5	20
Surr: 1,2-Dichloroethane-d4	47.57	1.0	50	0	95.1	71 - 125	47.48	0.2	20
Surr: 4-Bromofluorobenzene	49.28	1.0	50	0	98.6	70 - 125	49.13	0.294	20
Surr: Dibromofluoromethane	48.74	1.0	50	0	97.5	74 - 125	49.47	1.49	20
Surr: Toluene-d8	50.41	1.0	50	0	101	75 - 125	50.58	0.33	20
The following samples were analyzed in this batch:		HS16100214-01		HS16100214-02		HS16100214-03		HS16100214-04	
		HS16100214-05		HS16100214-06					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
WorkOrder: HS16100214

QC BATCH REPORT

Batch ID: R282690		Instrument: VOA2		Method: SW8260					
MBLK	Sample ID: VBLKW-161007	Units: ug/L		Analysis Date: 08-Oct-2016 00:49					
Client ID:	Run ID: VOA2_282690	SeqNo: 3852145		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	3.0							
Surr: 1,2-Dichloroethane-d4	47.59	1.0	50	0	95.2	71 - 125			
Surr: 4-Bromofluorobenzene	48.99	1.0	50	0	98.0	70 - 125			
Surr: Dibromofluoromethane	52.61	1.0	50	0	105	74 - 125			
Surr: Toluene-d8	50.83	1.0	50	0	102	75 - 125			

LCS	Sample ID: VLCSW-161007	Units: ug/L		Analysis Date: 07-Oct-2016 23:59					
Client ID:	Run ID: VOA2_282690	SeqNo: 3852144		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	46.86	1.0	50	0	93.7	75 - 122			
Ethylbenzene	44.79	1.0	50	0	89.6	80 - 120			
Toluene	54.01	1.0	50	0	108	75 - 121			
Xylenes, Total	154.1	3.0	150	0	103	79 - 124			
Surr: 1,2-Dichloroethane-d4	50.15	1.0	50	0	100	71 - 125			
Surr: 4-Bromofluorobenzene	50.39	1.0	50	0	101	70 - 125			
Surr: Dibromofluoromethane	48.94	1.0	50	0	97.9	74 - 125			
Surr: Toluene-d8	49.26	1.0	50	0	98.5	75 - 125			

MS	Sample ID: HS16100239-01MS	Units: ug/L		Analysis Date: 08-Oct-2016 03:03					
Client ID:	Run ID: VOA2_282690	SeqNo: 3852147		PrepDate:		DF: 20			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	847.4	20	1000	0	84.7	75 - 122			
Ethylbenzene	849.5	20	1000	0	84.9	80 - 120			
Toluene	998.9	20	1000	0	99.9	75 - 121			
Xylenes, Total	2872	60	3000	0	95.7	80 - 124			
Surr: 1,2-Dichloroethane-d4	965.6	20	1000	0	96.6	71 - 125			
Surr: 4-Bromofluorobenzene	999.8	20	1000	0	100.0	70 - 125			
Surr: Dibromofluoromethane	970	20	1000	0	97.0	74 - 125			
Surr: Toluene-d8	988.7	20	1000	0	98.9	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
WorkOrder: HS16100214

QC BATCH REPORT

Batch ID: R282690		Instrument: VOA2		Method: SW8260						
MSD		Sample ID: HS16100239-01MSD		Units: ug/L		Analysis Date: 08-Oct-2016 03:28				
Client ID:		Run ID: VOA2_282690		SeqNo: 3852148		PrepDate:		DF: 20		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	832	20	1000	0	83.2	75 - 122	847.4	1.84	20	
Ethylbenzene	840	20	1000	0	84.0	80 - 120	849.5	1.12	20	
Toluene	975.2	20	1000	0	97.5	75 - 121	998.9	2.4	20	
Xylenes, Total	2805	60	3000	0	93.5	80 - 124	2872	2.36	20	
Surr: 1,2-Dichloroethane-d4	975.6	20	1000	0	97.6	71 - 125	965.6	1.02	20	
Surr: 4-Bromofluorobenzene	1011	20	1000	0	101	70 - 125	999.8	1.08	20	
Surr: Dibromofluoromethane	969.6	20	1000	0	97.0	74 - 125	970	0.0422	20	
Surr: Toluene-d8	977.9	20	1000	0	97.8	75 - 125	988.7	1.1	20	
The following samples were analyzed in this batch:		HS16100214-07		HS16100214-08						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
WorkOrder: HS16100214

QC BATCH REPORT

Batch ID: R282698		Instrument: VOA2		Method: SW8260					
MBLK	Sample ID: VBLKW-161009	Units: ug/L		Analysis Date: 09-Oct-2016 10:06					
Client ID:	Run ID: VOA2_282698	SeqNo: 3852300		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	3.0							
Surr: 1,2-Dichloroethane-d4	45.04	1.0	50	0	90.1	71 - 125			
Surr: 4-Bromofluorobenzene	47.14	1.0	50	0	94.3	70 - 125			
Surr: Dibromofluoromethane	51.6	1.0	50	0	103	74 - 125			
Surr: Toluene-d8	51.13	1.0	50	0	102	75 - 125			

LCS	Sample ID: VLCSW-161009	Units: ug/L		Analysis Date: 09-Oct-2016 08:52					
Client ID:	Run ID: VOA2_282698	SeqNo: 3852332		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	46.58	1.0	50	0	93.2	75 - 122			
Ethylbenzene	46.75	1.0	50	0	93.5	80 - 120			
Toluene	55.63	1.0	50	0	111	75 - 121			
Xylenes, Total	158.1	3.0	150	0	105	79 - 124			
Surr: 1,2-Dichloroethane-d4	48.99	1.0	50	0	98.0	71 - 125			
Surr: 4-Bromofluorobenzene	50.44	1.0	50	0	101	70 - 125			
Surr: Dibromofluoromethane	47.96	1.0	50	0	95.9	74 - 125			
Surr: Toluene-d8	49.28	1.0	50	0	98.6	75 - 125			

MS	Sample ID: HS16100279-02MS	Units: ug/L		Analysis Date: 09-Oct-2016 11:19					
Client ID:	Run ID: VOA2_282698	SeqNo: 3852302		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	293.6	1.0	50	220.8	146	75 - 122			SEO
Ethylbenzene	510	1.0	50	399.7	221	80 - 120			SEO
Toluene	104	1.0	50	41.86	124	75 - 121			S
Xylenes, Total	680.2	3.0	150	463.9	144	80 - 124			SE
Surr: 1,2-Dichloroethane-d4	50.37	1.0	50	0	101	71 - 125			
Surr: 4-Bromofluorobenzene	51	1.0	50	0	102	70 - 125			
Surr: Dibromofluoromethane	46.86	1.0	50	0	93.7	74 - 125			
Surr: Toluene-d8	49.25	1.0	50	0	98.5	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
WorkOrder: HS16100214

QC BATCH REPORT

Batch ID: R282698		Instrument: VOA2		Method: SW8260						
MSD		Sample ID: HS16100279-02MSD		Units: ug/L		Analysis Date: 09-Oct-2016 11:44				
Client ID:		Run ID: VOA2_282698		SeqNo: 3852303		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	232.6	1.0	50	220.8	23.7	75 - 122	293.6	23.2	20	SREO
Ethylbenzene	394.6	1.0	50	399.7	-10.3	80 - 120	510	25.5	20	SREO
Toluene	91.3	1.0	50	41.86	98.9	75 - 121	104	13	20	
Xylenes, Total	551.9	3.0	150	463.9	58.6	80 - 124	680.2	20.8	20	SR
Surr: 1,2-Dichloroethane-d4	49.75	1.0	50	0	99.5	71 - 125	50.37	1.23	20	
Surr: 4-Bromofluorobenzene	51.22	1.0	50	0	102	70 - 125	51	0.423	20	
Surr: Dibromofluoromethane	46.71	1.0	50	0	93.4	74 - 125	46.86	0.332	20	
Surr: Toluene-d8	49.15	1.0	50	0	98.3	75 - 125	49.25	0.216	20	
The following samples were analyzed in this batch:										
HS16100214-08		HS16100214-09		HS16100214-10						

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: DCP Monument Booster Station
WorkOrder: HS16100214

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	16-022-1	27-Mar-2017
California	2919 2016-2018	31-Jul-2018
Illinois	003872	09-May-2017
Kansas	E-10352 2015-2016	30-Oct-2016
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2016-2017	30-Jun-2017
North Carolina	624 - 2016	31-Dec-2016
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2016-122	31-Aug-2017
Texas	TX104704231-16-17	30-Apr-2017

Sample Receipt Checklist

Client Name: Tasman Geosciences

Date/Time Received: **01-Oct-2016 10:30**

Work Order: HS16100214

Received by: **JRM**

Checklist completed by:	<u>Jared R. Makan</u>	5-Oct-2016	Reviewed by:	<u>Sonia West</u>	10-Oct-2016
	eSignature	Date		eSignature	Date

Matrices: **Water**Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☒
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	

Temperature(s)/Thermometer(s):	1.6c/2.1c UC/C	IR5
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Cooler(s)/Kit(s):	5505
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Date/Time sample(s) sent to storage:	10/05/2016 19:03
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Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
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Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
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pH adjusted?	Yes ☐	No ☐	N/A ☒
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pH adjusted by:	
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Login Notes:	Samples received on 10/01/2016 without COC. Received copy of COC on 10/05/2016.
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Client Contacted:	Date Contacted:	Person Contacted:
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Contacted By:	Regarding:
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Comments:	
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Corrective Action:	
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Environmental

Chain of Custody Form

Page ____ of ____

COC ID: 123456

☐ Cincinnati, OH
+1 513 733 5336

☐ Everett, WA
+1 425 356 2600

☐ Fort Collins, CO
+1 970 490 1511

☐ Holland, MI
+1 616 399 6070

☐ Houston, TX
+1 281 630 5656

☐ Middletown, PA
+1 717 944 5541

☐ Salt Lake City, UT
+1 801 266 7700

☐ Spring City, PA
+1 610 948 4903

☐ York, PA
+1 717 505 5280

Customer Information			ALS Project Manager:			Work Order #:											
Project Information			Parameter/Method Request for Analysis														
Purchase Order		Project Name	Monument Booster Station			A BTEX (82603)											
Work Order		Project Number	400128008 F218			B											
Company Name	Tasman Geosciences	Bill To Company	DCP Midstream, L.P.			C											
Send Report To	Brian Humphrey	Invoice Attn.	Steve Weathers			D											
Address	6899 Pecus St. Unit C	Address	370 17th St. Suite 2500			E											
City/State/Zip	Denver, CO 80221	City/State/Zip	Denver, CO 80102			F											
Phone	303-487-1228	Phone				G											
Fax		Fax				H											
e-Mail Address	bhumphrey@tasman-geo.com	e-Mail Address	Sweathers@dcplmidstream.com			I											
						J											
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	9/26/16	1450	Water	HCL	3	X										
2	MW-10		1442														
3	MW-2		1510														
4	MW-3		1315														
5	MW-4		1400														
6	MW-5		1415														
7	MW-6		1404														
8	MW-7		1420														
9	Dup-A																
10	Tripblank				None	1											
Sampler(s): Please Print & Sign			Shipment Method:			Required Turnaround Time:			Results Due Date:								
Mitch Weller			FedEx Overnight			☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour											
Relinquished by:			Date:			Time:			Received by:			Notes:					
for Mitch Weller			9/30/16			0845											
Relinquished by:			Date:			Time:			Received by (Laboratory):			Cooler Temp.					
									JM 10/21/16 10:30			16					
Logged by (Laboratory):			Date:			Time:			Checked by (Laboratory):			QC Package: (Check Box Below)					
												☐ Level II: Standard QC ☐ Level III: Std QC + Raw Data ☐ Level IV: SW846 CLP-Like Other:					
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035																	

HS16100214

Tasman Geosciences

DCP Monument Booster Station



Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

Cooler - 5505
IR.5
CFO.5

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FedEx
TAX# 6786 7200 6453
0221

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO SGRA

77099

TX-US IAH



	ALS Environmental			
	10450 Stancliff Rd., Suite 210			
	Houston, Texas 77099			
	Tel. +1 281 530 5856 Fax. +1 281 530 5887			
		CUSTODY SEAL		Seal Broken By:
		Date: 9-30-16	Time: 0900	SM
		Name: Mitch Weller		Date:
		Company: Tasman		10/01/16

	ALS Environmental			
	10450 Stancliff Rd., Suite 210			
	Houston, Texas 77099			
	Tel. +1 281 530 5856 Fax. +1 281 530 5887			
		CUSTODY SEAL		Seal Broken By:
		Date: 9-30-16	Time: 0900	SM
		Name: Mitch Weller		Date:
		Company: Tasman		10/01/16