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Denver, Colorado 80202
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RECEIVED OCD

February 10, 2014

2014 FEB 12 P 2: 05

Mr. Leonard Lowe
Environmental Bureau Chief
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

**RE: Second 2013 Semi Annual Groundwater Monitoring Report
DCP Monument Booster Station (1RP-156-0)
Unit B Section 33, Township 19 South, Range 37 East**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review one copy of the Second 2013 Semi Annual Groundwater Monitoring Report for the DCP Monument Booster Station located in Lea County, New Mexico (Unit B Section 33, Township 19 South, Range 37 East).

Groundwater monitoring activities were completed on September 11, 2013. The data indicate that the groundwater conditions remain stable. The next semi-annual monitoring event is scheduled for the first half of 2014.

If you have any questions regarding the report, please call at 303-605-1695 or e-mail me CECole@dcpmidstream.com.

Sincerely,

DCP Midstream, LP

A handwritten signature in cursive script that reads "Chandler E. Cole".

Chandler E Cole
Senior Environmental Specialist

Enclosure

cc: Larry Johnson – OCD District Office, Hobbs
Environmental Files

Second Half 2013 Semi-Annual Groundwater Monitoring Summary Report

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

Prepared for:



370 17th St., Suite 2500
Denver, CO 80202

Prepared by:



6899 Pecos Street, Unit C
Denver, CO 80221

January 24, 2014

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1. Introduction

This report summarizes semi-annual groundwater monitoring and remediation activities conducted during the second half of 2013 at the Monument Booster Station (Site) in Lea County, New Mexico (Figure 1). Tasman Geosciences, LLC (Tasman) conducted these activities on behalf of DCP Midstream (DCP). The field activities described herein were performed with the purpose of determining the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons, measuring groundwater levels, obtaining groundwater samples for chemical analysis and evaluating groundwater flow and quality conditions. The field data and laboratory analytical results were used to develop a groundwater elevation map, an analytical results map, and LNAPL versus time and groundwater elevation graphs, to evaluate current conditions at the Site.

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 active and continues to be used for gas compression and other activities. DCP also owns the property to the south and east that is contiguous to the fenced facility 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) 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. In 1994, two groundwater monitoring wells were installed and six soil borings were advanced. 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 1995/1996. In 1997, the LNAPL remediation technique was modified to an automated pneumatic product recovery pumping system (Xitech system) in these wells. Around 1999/2000, the Xitech system was taken out of service at both wells and replaced by product absorbent socks and hand bailing. Sometime in mid-2000, the product removal activities 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, and MW-3 is located in the southeast corner of the adjacent DCP owned property. Well MW-2 is located in the northwest corner of the gas compressor facility and is considered the up-gradient well for the Site. Based on previous data, it appears that a release 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 1994/1995, monitoring wells MW-1 and MW-5 have continued to exhibit measurable LNAPL.

3. Groundwater Monitoring

This section describes the field groundwater monitoring activities as well as the laboratory analyses performed during the reporting period. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, groundwater purging and sampling, and subsequent packaging and shipping of the samples to the laboratory for chemical analyses. 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 levels were measured in order to evaluate hydraulic characteristics and provide information regarding fluctuations in groundwater and LNAPL elevations at the Site. In addition, wells that did not have LNAPL present were measured for total depth in order to estimate groundwater purge volumes. During the second half 2013 semi-annual monitoring event, groundwater levels and LNAPL thickness was measured at eight Site monitoring well locations.

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]). LNAPL levels, where indicated by the IP, were also recorded.

Groundwater level measurements collected during the second half 2013 semi-annual monitoring event are presented in Table 1, and the second half 2013 semi-annual groundwater elevation contour map is illustrated on Figure 3. Groundwater elevations ranged from 3,559.54 feet AMSL at monitoring well MW-3 to 3,565.80 feet AMSL at monitoring well MW-2. As illustrated on Figure 3, groundwater flow at the Site generally trends to the southeast with a gradient of approximately 0.0065 foot per foot between monitoring wells MW-2 and MW-3.

LNAPL was detected during the second half 2013 groundwater monitoring event at MW-1 (0.28-feet) and MW-5 (0.32-feet) with measured thicknesses indicated in parenthesis.

3.2 Groundwater Quality Monitoring

Groundwater levels, the presence of LNAPL, and total depth (in wells without LNAPL) were measured in Site monitoring wells prior to sampling. Subsequently, a minimum of three well casing volumes of groundwater (calculated from total depth of the well and groundwater level measurements) were purged using polyethylene bailers from the subject well prior to collecting groundwater samples. Groundwater samples were collected using the same dedicated polyethylene bailers, placed in clean laboratory supplied containers for the selected analytical methods, packed in an ice-filled cooler, and maintained at approximately four degrees Celsius ($^{\circ}\text{C}$) for transportation. Groundwater samples were

then shipped under chain-of-custody procedures to ALS Environmental (ALS) in Houston, Texas for analysis.

Water quality samples were collected from six of eight wells. MW-1 and MW-5 were not sampled due to the presence of measurable LNAPL detected in the well. Water quality samples were submitted to ALS for benzene, toluene, ethylbenzene, and xylene (BTEX) analyses by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the September 2013 event. Analytical results were compared to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards. Laboratory analytical reports for the event are included in Appendix A and analytical results are summarized on Figure 4. The analytical results for monitoring wells sampled are as follows:

- MW-2, MW-3, MW-4 and MW-6: BTEX concentrations were below laboratory detection limits at these sample locations;
- MW-1D: Benzene was detected above laboratory detection limits but below NMWQCC groundwater standards; and,
- MW-7: Benzene and ethylbenzene were detected above laboratory detection limits but below NMWQCC groundwater standards.

A table of historical analytical results through the September 2013 event may be found in Appendix B.

3.3 Data Quality Assurance / Quality Control

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. A trip blank, matrix spike or matrix spike duplicate (MS/MSD) and field duplicate sample (MW-7) were collected during the sampling event. The trip blank was fully in control, having no detections of targets.

The duplicate sample collected at MW-7 was in compliance with QA/QC standards. MW-7 and associated duplicate sample returned results for benzene of 0.0024 mg/l and 0.0018 mg/l, respectively.

The overall QA/QC assessment of the data, based on the data review, indicate that both field precision and overall data precision and accuracy are acceptable.

4. Remediation Activities

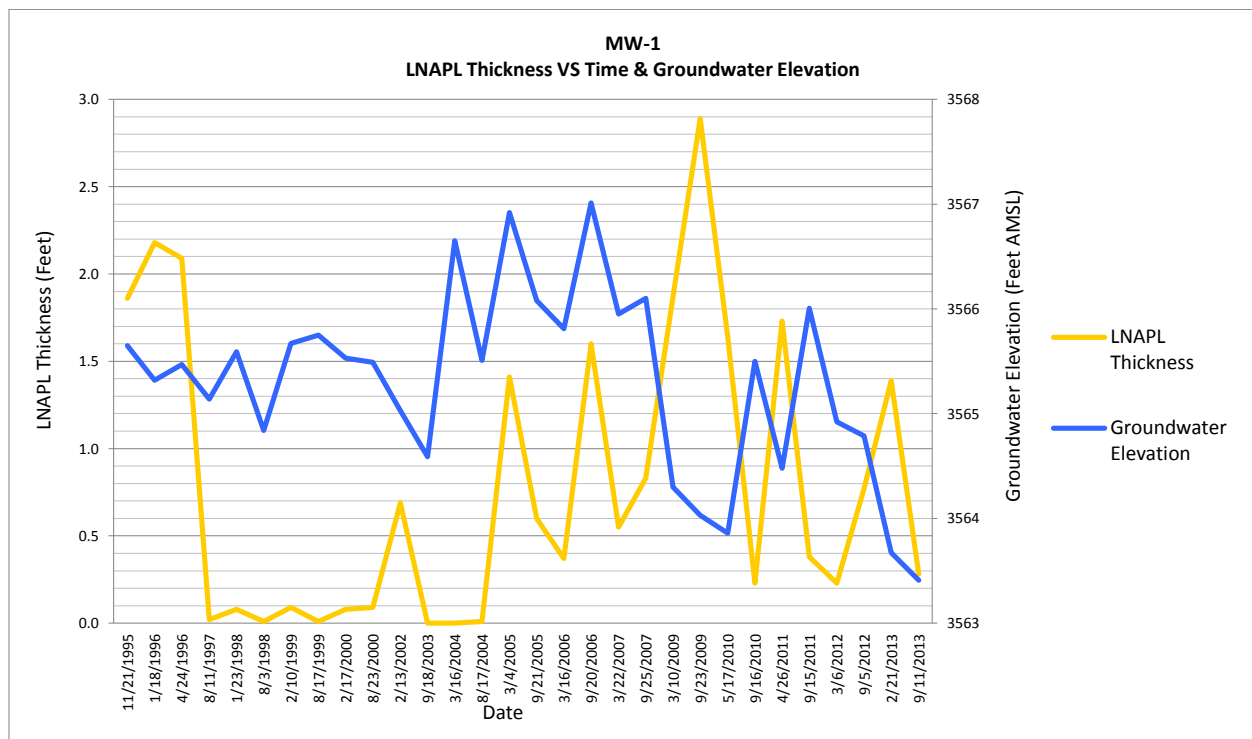
Active groundwater remediation activities continued at the Site during the reporting period. Continued remediation events and LNAPL trends are discussed further in the subsections below.

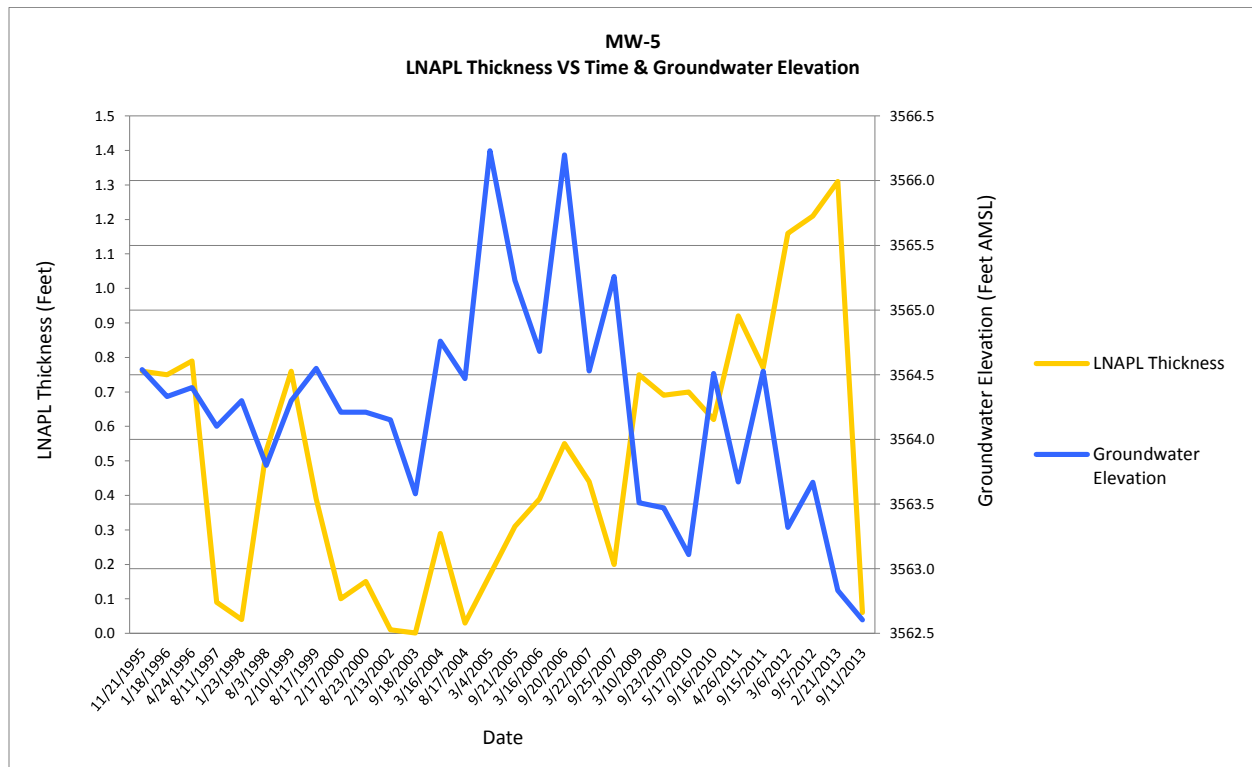
4.1 Vacuum Enhanced LNAPL Recovery

Quarterly vacuum enhanced LNAPL recovery events were initiated in June 2013 at monitoring wells MW-1 and MW-5 to address the persisting free phase petroleum hydrocarbon plume on-Site. During the reporting period on September 12, 2013, vacuum was applied to MW-1 and MW-5 for a period 4 hours each. Approximately 1,260 gallons of mixed liquid was recovered from MW-1 and approximately 210 gallons was recovered from MW-5. On December 4, 2013, vacuum was applied to MW-1 and MW-5 for a period of 4 hours each and approximately 756 gallons of mixed liquid was recovered from MW-1 and approximately 504 gallons was recovered from MW-5. The recovered volumes were subsequently disposed of at the Cooper Disposal Facility in Hobbs, New Mexico.

4.2 LNAPL Trends

As illustrated in the graphs below, LNAPL thickness in MW-1 and MW-5 through September 2013 does not appear to exhibit any seasonal fluctuation trends or an overall relationship to groundwater levels.





As illustrated in the graphs, LNAPL thickness at MW-1 and MW-5 decreased significantly from the first half 2013 monitoring event. The decreases appear to have mimicked the decrease in groundwater elevations that were observed. However, based on historic LNAPL thickness to groundwater elevation trends, this observation is assumed to be a coincidence and LNAPL thickness and groundwater elevation are not believed to directly related to each other.

5. Conclusions

Measurable LNAPL thicknesses remain within monitoring wells MW-1 and MW-5. Considering the apparent minimal subsurface aerial extent of LNAPL and minimal extent of dissolved-phase hydrocarbons at the Site, the residual source material does not appear significant in terms of emplaced volume. The persistence of LNAPL in the vicinity of MW-1 and MW-5 and absence of down gradient free phase hydrocarbons and dissolved-phase impacts in groundwater indicates that the residual constituents of concern are not particularly mobile in the subsurface and natural attenuation is continuing at the Site.

Key factors that may be affecting mobility of LNAPL at the Site likely include the transmissivity of the subsurface formation and the hydraulic gradient across the Site. There appears to be minimal hydraulic gradient potential at the Site, so even though the subsurface may be transmissive the overall plume velocity is slow and therefore does not influence LNAPL mobility. Biodegradation of source material over distance and time from the point of release is likely occurring because dissolved phase BTEX constituents in groundwater are minimal near the residual LNAPL plume. Furthermore, the dissolved phase hydrocarbon plume does not appear to have mobilized off-Site as demonstrated by non-detect BTEX concentrations in point of compliance wells located down-gradient along the property boundary.

Ongoing semi-annual groundwater sampling activities will provide for continued monitoring of Site dissolved-phase BTEX concentrations and LNAPL trends.

6. Recommendations

Based on evaluation of second half 2013 Site observations and monitoring results, continued semi-annual groundwater monitoring and sampling at existing monitoring locations illustrated on Figure 2 is recommended. Quarterly vacuum enhanced LNAPL recovery events will continue to address the persisting free phase petroleum hydrocarbon plume on Site. In addition, the installation of passive LNAPL recovery bailers in monitoring wells MW-1 and MW-5 would enhance free phase hydrocarbon collection during the quarter in between vacuum enhanced LNAPL recovery events. The bailers will be checked on a monthly basis by area personnel and the contents disposed of in an on-Site 55-gallon recovery drum contained within an over pack secondary containment drum that would be emptied during the vacuum events.

Tables

TABLE 1
SECOND HALF 2013 SEMI-ANNUAL
SUMMARY OF GROUNDWATER ELEVATION DATA
MONUMENT BOOSTER STATION
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (1) (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-1	9/15/2011	25.43	25.05	0.38		3591.15	3566.01	1.53
MW-1	3/6/2012	26.40	26.17	0.23		3591.15	3564.92	-1.08
MW-1	9/5/2012	26.94	26.17	0.77		3591.15	3564.79	-0.14
MW-1	2/21/2013	28.52	27.13	1.39		3591.15	3563.67	-1.11
MW-1	9/11/2013	27.95	27.67	0.28		3591.15	3563.41	-0.26
MW-1D	9/15/2011	25.17			36.36	3591.31	3566.14	1.32
MW-1D	3/6/2012	26.67			36.36	3591.31	3564.64	-1.50
MW-1D	9/5/2012	26.40			36.36	3591.31	3564.91	0.27
MW-1D	2/21/2013	27.43			36.36	3591.31	3563.88	-1.03
MW-1D	9/11/2013	27.81			36.36	3591.31	3563.50	-0.38
MW-2	9/15/2011	28.99			43.26	3596.30	3567.31	0.50
MW-2	3/6/2012	29.71			43.26	3596.30	3566.59	-0.72
MW-2	9/5/2012	29.36			43.26	3596.30	3566.94	0.35
MW-2	2/21/2013	30.29			43.26	3596.30	3566.01	-0.93
MW-2	9/11/2013	30.50			43.26	3596.30	3565.80	-0.21
MW-3	9/15/2011	23.51			35.70	3583.86	3560.35	-0.86
MW-3	3/6/2012	23.57			35.70	3583.86	3560.29	-0.06
MW-3	9/5/2012	23.88			35.70	3583.86	3559.98	-0.31
MW-3	2/21/2013	24.21			35.70	3583.86	3559.65	-0.33
MW-3	9/11/2013	24.32			35.70	3583.86	3559.54	-0.11
MW-4	9/15/2011	26.65			38.99	3588.77	3562.12	-0.05
MW-4	3/6/2012	26.91			38.99	3588.77	3561.86	-0.26
MW-4	9/5/2012	26.95			38.99	3588.77	3561.82	-0.04
MW-4	2/21/2013	27.35			38.99	3588.77	3561.42	-0.40
MW-4	9/11/2013	27.74			38.99	3588.77	3561.03	-0.39
MW-5	9/15/2011	28.21	27.44	0.77		3592.16	3564.53	0.86
MW-5	3/6/2012	29.71	28.55	1.16		3592.16	3563.32	-1.21
MW-5	9/5/2012	29.40	28.19	1.21		3592.16	3563.67	0.35
MW-5	2/21/2013	30.31	29.00	1.31		3592.16	3562.83	-0.83
MW-5	9/11/2013	29.60	29.28	0.32		3592.16	3562.80	-0.03
MW-6	9/15/2011	25.28			39.51	3587.93	3562.65	0.19
MW-6	3/6/2012	25.99			39.51	3587.93	3561.94	-0.71
MW-6	9/5/2012	25.81			39.51	3587.93	3562.12	0.18
MW-6	2/21/2013	26.26			39.51	3587.93	3561.67	-0.45
MW-6	9/11/2013	26.67			39.51	3587.93	3561.26	-0.41
MW-7	9/15/2011	25.07			35.85	3589.40	3564.33	0.93
MW-7	3/6/2012	26.30			35.85	3589.40	3563.10	-1.23
MW-7	9/5/2012	25.97			35.85	3589.40	3563.43	0.33
MW-7	2/21/2013	26.97			35.85	3589.40	3562.43	-1.00
MW-7	9/11/2013	27.35			35.85	3589.40	3562.05	-0.38
Average change in groundwater elevation since the previous monitoring event								-0.27

Notes:

1- Depths measured from the north edge of the well casing.

2- Total depths were collected and recorded during the second 2013 semi-annual monitoring event.

3- 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.

Data presented for all well locations includes previous four sampling events, when available. Historic groundwater analytical results for these locations may be found in Appendix B.

Sample locations are shown on Figure 2 and a groundwater elevation contour map is shown on Figure 3.

amsl - feet above mean sea level.

TOC - top of casing

NM - not measured

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

Water table elevation = Water Elevation in Well + ([LNAPL Thickness in Well] * [LNAPL Density])

LNAPL density was assumed to be approximately 0.75 grams per cubic centimeter

TABLE 2
SECOND HALF 2013 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
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	9/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1D	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-1D	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-1D	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-1D	2/21/2013	0.016	<0.001	<0.001	<0.003	
MW-1D	9/11/2013	0.0029	<0.001	<0.001	<0.001	
MW-2	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-2	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-2	9/11/2013	<0.001	<0.001	<0.001	<0.001	
MW-3	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-3	9/11/2013	<0.001	<0.001	<0.001	<0.001	
MW-4	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-4	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-4	9/11/2013	<0.001	<0.001	<0.001	<0.001	
MW-5	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/11/2013	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-6	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-6	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-6	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-6	9/11/2013	<0.001	<0.001	<0.001	<0.001	
MW-7	9/15/2011	0.394	<0.01	0.149	0.0442	Duplicate sample collected
MW-7	3/6/2012	0.0098	<0.005	0.0088	<0.015	
MW-7	9/5/2012	0.014	<0.005	0.01	<0.015	Duplicate sample collected
MW-7	2/21/2013	0.0059	<0.001	0.0049	<0.003	Duplicate sample collected
MW-7	9/11/2013	0.0024	<0.001	0.0013	<0.001	Duplicate sample collected

Notes:

- 1.) The environmental cleanup standards for water that are applicable to the Monument Booster Station are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.
- 2.) Monitoring well locations MW-1 and MW-5 have historically exhibited measurable LNAPL during groundwater monitoring events. Therefore, those wells have not been sampled.
- 3.) Data presented for well locations include previous four sampling events, when available. Historic groundwater analytical results for these locations may be found in Appendix B.

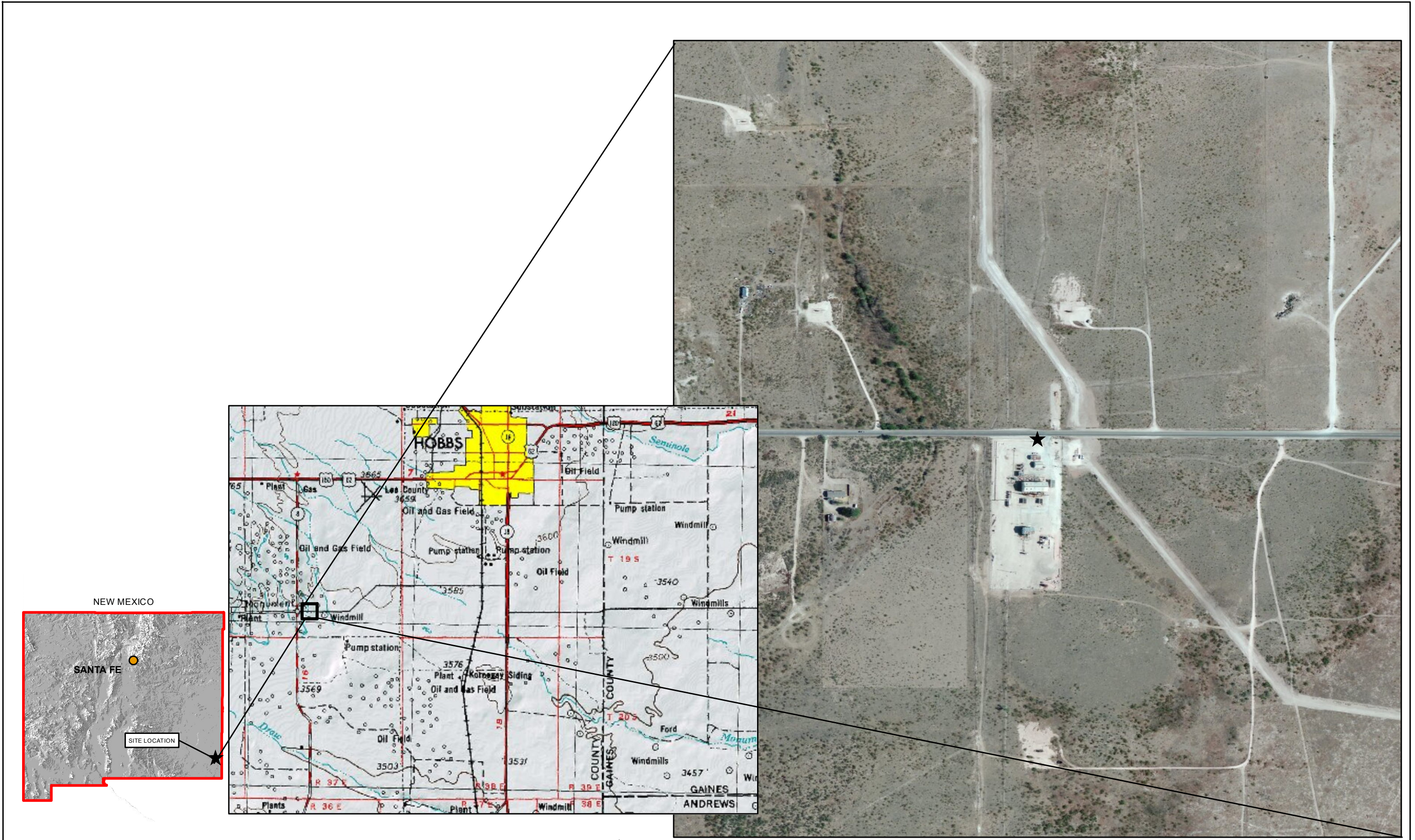
Bold red values indicate an exceedance of the NMWQCC groundwater standards for the Site.

Sample locations are shown on Figure 2 and analytical results are illustrated on Figure 4.

LNAPL = Light Non-Aqueous Phase Liquid

mg/L = milligrams per liter.

Figures



DATE: January 2014	 TASMAN GEOSCIENCES Tasman Geosciences, LLC 6899 Pecos Street - Unit C Denver, CO 80221	MONUMENT BOOSTER STATION	SITE LOCATION	Figure 1
DESIGNED BY: J. Barker				
DRAWN BY: D. Arnold				



DATE:	January 2014
DESIGNED BY:	J. Barker
DRAWN BY:	D. Arnold



TASMAN
GEOSCIENCES

Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221

**DCP Midstream
MONUMENT BOOSTER STATION**

SITE MAP

**Figure
2**



DATE:
January 2014

DESIGNED BY:
J. Barker

DRAWN BY:
D. Arnold

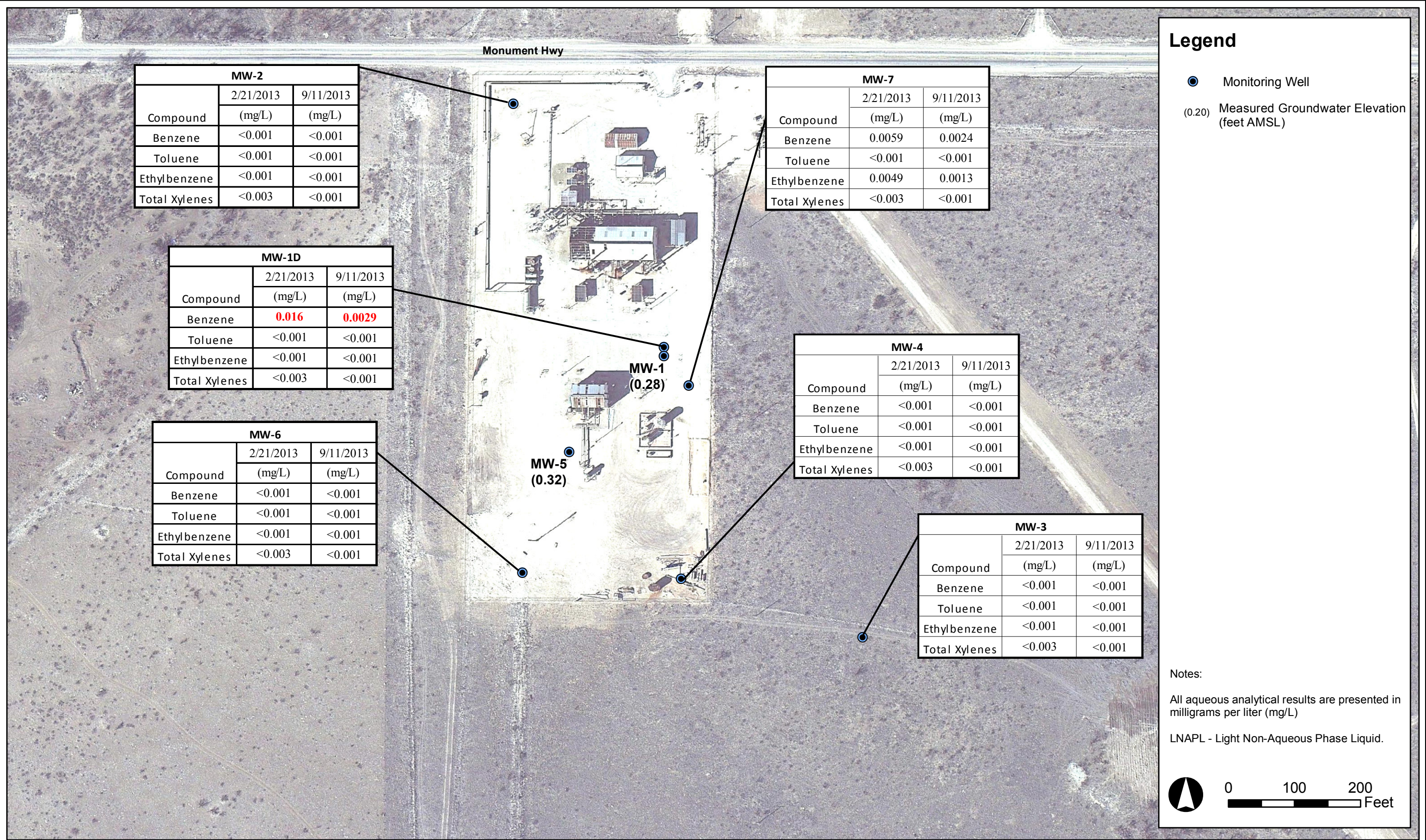
TASMAN
GEOSCIENCES

Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221

DCP Midstream
MONUMENT BOOSTER STATION
Second Half 2013 Groundwater Monitoring
Summary Report

GROUNDWATER ELEVATION
CONTOUR MAP
(September 11, 2013)

Figure
3



DATE:
January 2014

DESIGNED BY:
J. Barker

DRAWN BY:
D. Arnold



Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221

DCP Midstream
MONUMENT BOOSTER STATION
Second Half 2013 Groundwater Monitoring
Summary Report

ANALYTICAL RESULTS
MAP
(SEPTEMBER 11, 2013)

Figure
4

Appendix A

Laboratory Analytical Report



20-Sep-2013

Christine Wasko
Tasman Geosciences
5690 Webster Street
Arvada, CO 80002

Tel: (720) 988-2024
Fax:

Re: Monument Booster Station

Work Order: **1309559**

Dear Christine,

ALS Environmental received 8 samples on 12-Sep-2013 09:25 AM for the analyses 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.

The total number of pages in this report is 22.

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

Sincerely,

A handwritten signature in cursive script that reads "Sonia West".

Electronically approved by: Jumoke M. Lawal

Sonia West
Project Manager



Certificate No: T104704231-13-12

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

ALS GROUP USA, CORP. Part of the ALS Group An ALS Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: Tasman Geosciences
Project: Monument Booster Station
Work Order: 1309559

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1309559-01	MW-1D	Water		9/11/2013 09:30	9/12/2013 09:25	☐
1309559-02	MW-2	Water		9/11/2013 08:00	9/12/2013 09:25	☐
1309559-03	MW-3	Water		9/11/2013 10:15	9/12/2013 09:25	☐
1309559-04	MW-4	Water		9/11/2013 09:00	9/12/2013 09:25	☐
1309559-05	MW-6	Water		9/11/2013 08:35	9/12/2013 09:25	☐
1309559-06	MW-7	Water		9/11/2013 09:40	9/12/2013 09:25	☐
1309559-07	DUPLICATE	Water		9/11/2013	9/12/2013 09:25	☐
1309559-08	TRIP BLANK	Water		9/11/2013	9/12/2013 09:25	☐

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Work Order: 1309559

Case Narrative

No Exceptions

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-1D
Collection Date: 9/11/2013 09:30 AM

Work Order: 1309559
Lab ID: 1309559-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260		Analyst: AKP	
Benzene	0.0029		0.0010	mg/L	1	9/18/2013 07:58 PM
Ethylbenzene	ND		0.0010	mg/L	1	9/18/2013 07:58 PM
Toluene	ND		0.0010	mg/L	1	9/18/2013 07:58 PM
Xylenes, Total	ND		0.0010	mg/L	1	9/18/2013 07:58 PM
Surr: 1,2-Dichloroethane-d4	94.1		71-125	%REC	1	9/18/2013 07:58 PM
Surr: 4-Bromofluorobenzene	92.9		70-125	%REC	1	9/18/2013 07:58 PM
Surr: Dibromofluoromethane	97.4		74-125	%REC	1	9/18/2013 07:58 PM
Surr: Toluene-d8	99.8		75-125	%REC	1	9/18/2013 07:58 PM

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

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-2
Collection Date: 9/11/2013 08:00 AM

Work Order: 1309559
Lab ID: 1309559-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	9/18/2013 01:22 PM
Ethylbenzene	ND		0.0010	mg/L	1	9/18/2013 01:22 PM
Toluene	ND		0.0010	mg/L	1	9/18/2013 01:22 PM
Xylenes, Total	ND		0.0010	mg/L	1	9/18/2013 01:22 PM
Surr: 1,2-Dichloroethane-d4	94.8		71-125	%REC	1	9/18/2013 01:22 PM
Surr: 4-Bromofluorobenzene	94.6		70-125	%REC	1	9/18/2013 01:22 PM
Surr: Dibromofluoromethane	96.8		74-125	%REC	1	9/18/2013 01:22 PM
Surr: Toluene-d8	101		75-125	%REC	1	9/18/2013 01:22 PM

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

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-3
Collection Date: 9/11/2013 10:15 AM

Work Order: 1309559
Lab ID: 1309559-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	9/19/2013 04:34 AM
Ethylbenzene	ND		0.0010	mg/L	1	9/19/2013 04:34 AM
Toluene	ND		0.0010	mg/L	1	9/19/2013 04:34 AM
Xylenes, Total	ND		0.0010	mg/L	1	9/19/2013 04:34 AM
Surr: 1,2-Dichloroethane-d4	90.4		71-125	%REC	1	9/19/2013 04:34 AM
Surr: 4-Bromofluorobenzene	92.5		70-125	%REC	1	9/19/2013 04:34 AM
Surr: Dibromofluoromethane	95.3		74-125	%REC	1	9/19/2013 04:34 AM
Surr: Toluene-d8	99.1		75-125	%REC	1	9/19/2013 04:34 AM

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

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-4
Collection Date: 9/11/2013 09:00 AM

Work Order: 1309559
Lab ID: 1309559-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	9/19/2013 04:59 AM
Ethylbenzene	ND		0.0010	mg/L	1	9/19/2013 04:59 AM
Toluene	ND		0.0010	mg/L	1	9/19/2013 04:59 AM
Xylenes, Total	ND		0.0010	mg/L	1	9/19/2013 04:59 AM
Surr: 1,2-Dichloroethane-d4	91.9		71-125	%REC	1	9/19/2013 04:59 AM
Surr: 4-Bromofluorobenzene	94.7		70-125	%REC	1	9/19/2013 04:59 AM
Surr: Dibromofluoromethane	97.5		74-125	%REC	1	9/19/2013 04:59 AM
Surr: Toluene-d8	100		75-125	%REC	1	9/19/2013 04:59 AM

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

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-6
Collection Date: 9/11/2013 08:35 AM

Work Order: 1309559
Lab ID: 1309559-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	9/19/2013 05:23 AM
Ethylbenzene	ND		0.0010	mg/L	1	9/19/2013 05:23 AM
Toluene	ND		0.0010	mg/L	1	9/19/2013 05:23 AM
Xylenes, Total	ND		0.0010	mg/L	1	9/19/2013 05:23 AM
Surr: 1,2-Dichloroethane-d4	92.6		71-125	%REC	1	9/19/2013 05:23 AM
Surr: 4-Bromofluorobenzene	100		70-125	%REC	1	9/19/2013 05:23 AM
Surr: Dibromofluoromethane	95.8		74-125	%REC	1	9/19/2013 05:23 AM
Surr: Toluene-d8	98.2		75-125	%REC	1	9/19/2013 05:23 AM

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

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: MW-7
Collection Date: 9/11/2013 09:40 AM

Work Order: 1309559
Lab ID: 1309559-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260		Analyst: AKP	
Benzene	0.0024		0.0010	mg/L	1	9/19/2013 05:48 AM
Ethylbenzene	0.0013		0.0010	mg/L	1	9/19/2013 05:48 AM
Toluene	ND		0.0010	mg/L	1	9/19/2013 05:48 AM
Xylenes, Total	ND		0.0010	mg/L	1	9/19/2013 05:48 AM
Surr: 1,2-Dichloroethane-d4	93.6		71-125	%REC	1	9/19/2013 05:48 AM
Surr: 4-Bromofluorobenzene	94.6		70-125	%REC	1	9/19/2013 05:48 AM
Surr: Dibromofluoromethane	96.6		74-125	%REC	1	9/19/2013 05:48 AM
Surr: Toluene-d8	96.4		75-125	%REC	1	9/19/2013 05:48 AM

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

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: DUPLICATE
Collection Date: 9/11/2013

Work Order: 1309559
Lab ID: 1309559-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	0.0018		0.0010	mg/L	1	9/19/2013 06:12 AM
Ethylbenzene	ND		0.0010	mg/L	1	9/19/2013 06:12 AM
Toluene	ND		0.0010	mg/L	1	9/19/2013 06:12 AM
Xylenes, Total	ND		0.0010	mg/L	1	9/19/2013 06:12 AM
Surr: 1,2-Dichloroethane-d4	92.1		71-125	%REC	1	9/19/2013 06:12 AM
Surr: 4-Bromofluorobenzene	98.4		70-125	%REC	1	9/19/2013 06:12 AM
Surr: Dibromofluoromethane	97.2		74-125	%REC	1	9/19/2013 06:12 AM
Surr: Toluene-d8	99.9		75-125	%REC	1	9/19/2013 06:12 AM

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

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Project: Monument Booster Station
Sample ID: TRIP BLANK
Collection Date: 9/11/2013

Work Order: 1309559
Lab ID: 1309559-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
LOW LEVEL VOLATILES - SW8260C			SW8260			Analyst: AKP
Benzene	ND		0.0010	mg/L	1	9/19/2013 03:44 PM
Ethylbenzene	ND		0.0010	mg/L	1	9/19/2013 03:44 PM
Toluene	ND		0.0010	mg/L	1	9/19/2013 03:44 PM
Xylenes, Total	ND		0.0010	mg/L	1	9/19/2013 03:44 PM
Surr: 1,2-Dichloroethane-d4	107		71-125	%REC	1	9/19/2013 03:44 PM
Surr: 4-Bromofluorobenzene	106		70-125	%REC	1	9/19/2013 03:44 PM
Surr: Dibromofluoromethane	110		74-125	%REC	1	9/19/2013 03:44 PM
Surr: Toluene-d8	111		75-125	%REC	1	9/19/2013 03:44 PM

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

Work Order: 1309559
Client: Tasman Geosciences
Project: Monument Booster Station

DATES REPORT

Sample ID	Client Sample ID	Matrix	Collection Date	TCLP Date	Prep Date	Analysis Date
<u>Batch ID R153956</u> <u>Test Name:</u> <u>Low Level Volatiles - SW8260C</u>						
1309559-01A	MW-1D	Water	9/11/2013 9:30:00 AM			9/18/2013 07:58 PM
1309559-02A	MW-2		9/11/2013 8:00:00 AM			9/18/2013 01:22 PM
<u>Batch ID R153971</u> <u>Test Name:</u> <u>Low Level Volatiles - SW8260C</u>						
1309559-03A	MW-3	Water	9/11/2013 10:15:00 AM			9/19/2013 04:34 AM
1309559-04A	MW-4		9/11/2013 9:00:00 AM			9/19/2013 04:59 AM
1309559-05A	MW-6		9/11/2013 8:35:00 AM			9/19/2013 05:23 AM
1309559-06A	MW-7		9/11/2013 9:40:00 AM			9/19/2013 05:48 AM
1309559-07A	DUPLICATE		9/11/2013			9/19/2013 06:12 AM
<u>Batch ID R153976</u> <u>Test Name:</u> <u>Low Level Volatiles - SW8260C</u>						
1309559-08A	TRIP BLANK	Water	9/11/2013			9/19/2013 03:44 PM

ALS Environmental

Date: 20-Sep-13

Client: Tasman Geosciences
Work Order: 1309559
Project: Monument Booster Station

QC BATCH REPORT

Batch ID: **R153956** Instrument ID **VOA8** Method: **SW8260**

MBLK	Sample ID: VBLKW-130918-R153956					Units: µg/L	Analysis Date: 9/18/2013 11:44 AM			
Client ID:	Run ID: VOA8_130918A					SeqNo: 3361033	Prep Date:	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	46.21	1.0	50	0	92.4	71-125	0			
Surr: 4-Bromofluorobenzene	47.23	1.0	50	0	94.5	70-125	0			
Surr: Dibromofluoromethane	47.4	1.0	50	0	94.8	74-125	0			
Surr: Toluene-d8	50.35	1.0	50	0	101	75-125	0			

LCS	Sample ID: VLCSW-130918-R153956					Units: µg/L	Analysis Date: 9/18/2013 10:30 AM			
Client ID:	Run ID: VOA8_130918A					SeqNo: 3361032	Prep Date:	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.06	1.0	50	0	98.1	80-120				
Ethylbenzene	52.34	1.0	50	0	105	80-120				
Toluene	52.36	1.0	50	0	105	80-121				
Xylenes, Total	156.5	3.0	150	0	104	80-124				
Surr: 1,2-Dichloroethane-d4	44.12	1.0	50	0	88.2	71-125	0			
Surr: 4-Bromofluorobenzene	50.46	1.0	50	0	101	70-125	0			
Surr: Dibromofluoromethane	45.48	1.0	50	0	91	74-125	0			
Surr: Toluene-d8	50.4	1.0	50	0	101	75-125	0			

MS	Sample ID: 1309559-02AMS					Units: µg/L	Analysis Date: 9/18/2013 02:11 PM			
Client ID: MW-2	Run ID: VOA8_130918A					SeqNo: 3361039	Prep Date:	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.36	1.0	50	0	96.7	80-120				
Ethylbenzene	48.89	1.0	50	0	97.8	80-120				
Toluene	50.7	1.0	50	0	101	80-121				
Xylenes, Total	145.1	3.0	150	0	96.7	80-124				
Surr: 1,2-Dichloroethane-d4	45.42	1.0	50	0	90.8	71-125	0			
Surr: 4-Bromofluorobenzene	50.83	1.0	50	0	102	70-125	0			
Surr: Dibromofluoromethane	46.15	1.0	50	0	92.3	74-125	0			
Surr: Toluene-d8	50.63	1.0	50	0	101	75-125	0			

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

QC Page: 1 of 6

Client: Tasman Geosciences
Work Order: 1309559
Project: Monument Booster Station

QC BATCH REPORT

Batch ID: **R153956** Instrument ID **VOA8** Method: **SW8260**

MSD	Sample ID: 1309559-02AMSD				Units: µg/L		Analysis Date: 9/18/2013 02:39 PM			
Client ID: MW-2	Run ID: VOA8_130918A				SeqNo: 3361040		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.74	1.0	50	0	93.5	80-120	48.36	3.4	20	
Ethylbenzene	49.18	1.0	50	0	98.4	80-120	48.89	0.599	20	
Toluene	50.78	1.0	50	0	102	80-121	50.7	0.165	20	
Xylenes, Total	145.8	3.0	150	0	97.2	80-124	145.1	0.508	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	44.45	1.0	50	0	88.9	71-125	45.42	2.16	20	
<i>Surr: 4-Bromofluorobenzene</i>	50.81	1.0	50	0	102	70-125	50.83	0.0436	20	
<i>Surr: Dibromofluoromethane</i>	45.94	1.0	50	0	91.9	74-125	46.15	0.459	20	
<i>Surr: Toluene-d8</i>	51.43	1.0	50	0	103	75-125	50.63	1.57	20	

The following samples were analyzed in this batch:

1309559-01A	1309559-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tasman Geosciences
 Work Order: 1309559
 Project: Monument Booster Station

QC BATCH REPORT

Batch ID: **R153971** Instrument ID **VOA8** Method: **SW8260**

MBLK	Sample ID: VBLKW-130918-R153971				Units: µg/L		Analysis Date: 9/18/2013 11:40 PM			
Client ID:	Run ID: VOA8_130918B				SeqNo: 3361332		Prep Date:		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								
<i>Surr: 1,2-Dichloroethane-d4</i>	46.79	1.0	50	0	93.6	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	46.57	1.0	50	0	93.1	70-125	0			
<i>Surr: Dibromofluoromethane</i>	47.32	1.0	50	0	94.6	74-125	0			
<i>Surr: Toluene-d8</i>	48.82	1.0	50	0	97.6	75-125	0			

LCS	Sample ID: VLCSW-130918-R153971				Units: µg/L		Analysis Date: 9/18/2013 10:26 PM			
Client ID:	Run ID: VOA8_130918B				SeqNo: 3361331		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.94	1.0	50	0	97.9	80-120				
Ethylbenzene	51.04	1.0	50	0	102	80-120				
Toluene	52.26	1.0	50	0	105	80-121				
Xylenes, Total	153.5	3.0	150	0	102	80-124				
<i>Surr: 1,2-Dichloroethane-d4</i>	44	1.0	50	0	88	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	50.36	1.0	50	0	101	70-125	0			
<i>Surr: Dibromofluoromethane</i>	45.93	1.0	50	0	91.9	74-125	0			
<i>Surr: Toluene-d8</i>	50.62	1.0	50	0	101	75-125	0			

MS	Sample ID: 1309591-01AMS				Units: µg/L		Analysis Date: 9/19/2013 03:21 AM			
Client ID:	Run ID: VOA8_130918B				SeqNo: 3361341		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	51.13	1.0	50	0	102	80-120				
Ethylbenzene	51.93	1.0	50	0	104	80-120				
Toluene	53.5	1.0	50	0	107	80-121				
Xylenes, Total	153.7	3.0	150	0	102	80-124				
<i>Surr: 1,2-Dichloroethane-d4</i>	44.72	1.0	50	0	89.4	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	51.27	1.0	50	0	103	70-125	0			
<i>Surr: Dibromofluoromethane</i>	46.43	1.0	50	0	92.9	74-125	0			
<i>Surr: Toluene-d8</i>	50.99	1.0	50	0	102	75-125	0			

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

Client: Tasman Geosciences
Work Order: 1309559
Project: Monument Booster Station

QC BATCH REPORT

Batch ID: **R153971** Instrument ID **VOA8** Method: **SW8260**

MSD		Sample ID: 1309591-01AMSD				Units: µg/L		Analysis Date: 9/19/2013 03:45 AM		
Client ID:		Run ID: VOA8_130918B				SeqNo: 3361342		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.59	1.0	50	0	101	80-120	51.13	1.06	20	
Ethylbenzene	51.58	1.0	50	0	103	80-120	51.93	0.676	20	
Toluene	53.87	1.0	50	0	108	80-121	53.5	0.687	20	
Xylenes, Total	154.8	3.0	150	0	103	80-124	153.7	0.753	20	
Surr: 1,2-Dichloroethane-d4	44.18	1.0	50	0	88.4	71-125	44.72	1.21	20	
Surr: 4-Bromofluorobenzene	51.68	1.0	50	0	103	70-125	51.27	0.8	20	
Surr: Dibromofluoromethane	45.7	1.0	50	0	91.4	74-125	46.43	1.6	20	
Surr: Toluene-d8	50.85	1.0	50	0	102	75-125	50.99	0.28	20	

The following samples were analyzed in this batch:

1309559-03A	1309559-04A	1309559-05A
1309559-06A	1309559-07A	

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

Client: Tasman Geosciences
Work Order: 1309559
Project: Monument Booster Station

QC BATCH REPORT

Batch ID: **R153976** Instrument ID **VOA4** Method: **SW8260**

MBLK	Sample ID: VBLKW-130919-R153976				Units: µg/L		Analysis Date: 9/19/2013 12:21 PM			
Client ID:	Run ID: VOA4_130919A				SeqNo: 3361429		Prep Date:		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								
<i>Surr: 1,2-Dichloroethane-d4</i>	50.11	1.0	50	0	100	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	51.55	1.0	50	0	103	70-125	0			
<i>Surr: Dibromofluoromethane</i>	52.77	1.0	50	0	106	74-125	0			
<i>Surr: Toluene-d8</i>	54.12	1.0	50	0	108	75-125	0			

LCS	Sample ID: VLCSW-130919-R153976				Units: µg/L		Analysis Date: 9/19/2013 10:22 AM			
Client ID:	Run ID: VOA4_130919A				SeqNo: 3361428		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.99	1.0	50	0	102	80-120				
Ethylbenzene	54.37	1.0	50	0	109	80-120				
Toluene	51.99	1.0	50	0	104	80-121				
Xylenes, Total	160.1	3.0	150	0	107	80-124				
<i>Surr: 1,2-Dichloroethane-d4</i>	50.48	1.0	50	0	101	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	53.22	1.0	50	0	106	70-125	0			
<i>Surr: Dibromofluoromethane</i>	53.14	1.0	50	0	106	74-125	0			
<i>Surr: Toluene-d8</i>	54.21	1.0	50	0	108	75-125	0			

MS	Sample ID: 1309750-02AMS				Units: µg/L		Analysis Date: 9/19/2013 01:36 PM			
Client ID:	Run ID: VOA4_130919A				SeqNo: 3361992		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	525.9	10	500	5.696	104	80-120				
Ethylbenzene	551.9	10	500	0	110	80-120				
Toluene	529.1	10	500	4.639	105	80-121				
Xylenes, Total	1623	30	1500	18.69	107	80-124				
<i>Surr: 1,2-Dichloroethane-d4</i>	509.2	10	500	0	102	71-125	0			
<i>Surr: 4-Bromofluorobenzene</i>	531.8	10	500	0	106	70-125	0			
<i>Surr: Dibromofluoromethane</i>	535.6	10	500	0	107	74-125	0			
<i>Surr: Toluene-d8</i>	541.4	10	500	0	108	75-125	0			

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

Client: Tasman Geosciences
Work Order: 1309559
Project: Monument Booster Station

QC BATCH REPORT

Batch ID: **R153976** Instrument ID **VOA4** Method: **SW8260**

MSD	Sample ID: 1309750-02AMSD				Units: µg/L		Analysis Date: 9/19/2013 02:02 PM			
Client ID:	Run ID: VOA4_130919A				SeqNo: 3361993		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	521.3	10	500	5.696	103	80-120	525.9	0.876	20	
Ethylbenzene	544.2	10	500	0	109	80-120	551.9	1.4	20	
Toluene	530.2	10	500	4.639	105	80-121	529.1	0.205	20	
Xylenes, Total	1623	30	1500	18.69	107	80-124	1623	0.0154	20	
<i>Surr: 1,2-Dichloroethane-d4</i>	506.7	10	500	0	101	71-125	509.2	0.499	20	
<i>Surr: 4-Bromofluorobenzene</i>	522.9	10	500	0	105	70-125	531.8	1.7	20	
<i>Surr: Dibromofluoromethane</i>	520.4	10	500	0	104	74-125	535.6	2.88	20	
<i>Surr: Toluene-d8</i>	533.2	10	500	0	107	75-125	541.4	1.53	20	

The following samples were analyzed in this batch:

1309559-08A

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

Client: Tasman Geosciences
Project: Monument Booster Station
WorkOrder: 1309559

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	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

<u>Acronym</u>	<u>Description</u>
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

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **TASMAN GEOSCIENCES**

Date/Time Received: **12-Sep-13 09:25**

Work Order: **1309559**

Received by: **JBA**

Checklist completed by William Jenkins
eSignature

13-Sep-13
Date

Reviewed by: Sonia West
eSignature

16-Sep-13
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 ☐	
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):	<u>1.0C/1.0C C/U</u> <u>IR1</u>		
Cooler(s)/Kit(s):	<u>5497</u>		
Date/Time sample(s) sent to storage:	<u>9/13/13 16:45</u>		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u>-</u>		

Login Notes: Received Trip Blank not listed on the coc. This sample was logged in for BTEX 8260 per historical events.

Client Contacted:

Date Contacted:

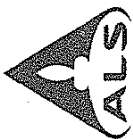
Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



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

Chain of Custody Form

Page 1 of 1

COC ID: 87510

Environmental

ALS Project Manager:

1309559

TASMAN GEOSCIENCES: Tasman Geosciences

Project: Monument Booster Station



Customer Information				Project Information													
Purchase Order	Project Name			Monument Booster Station													
Work Order	Project Number			4000128008 GN00													
Company Name	Bill To Company			DCP Midstream, LP													
Send Report To	Invoice Attn			Chandler Cole													
Address	Address			370 17th Street, Suite 2500													
City/State/Zip	City/State/Zip			Denver, Colorado 80102													
Phone	Phone																
Fax	Fax																
e-Mail Address	e-Mail Address			Cnaskoo@tasman-go.com													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1D	9/11/13	730	Water	Hcl	3	X										
2	MW-2		800	Water													
3	MW-2 MS		800	Water													
4	MW-2 MSD		800	Water													
5	MW-3		1615	Water													
6	MW-4		900	Water													
7	MW-6		835	Water													
8	MW-7		940	Water													
9	DUPLICATE			Water													
10																	

Samples Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Revised by:	Signature	Signature	Signature	☒ Std 10 WK Days	☐ 5 WK Days	☐ 2 WK Days	☐ 24 Hour
Date:	9/11/13	Date:	9/11/13	Notes: 10 Day TAT			
Revised by:	Signature	Signature	Signature	Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)	
Date:	9/11/13	Date:	9/11/13	5007		☒ Level II Std QC ☐ TRRP Checklist	
Date:	9/11/13	Date:	9/11/13			☐ Level III Std QC/Raw Data ☐ TRRP Level IV	
Date:	9/11/13	Date:	9/11/13			☐ Level IV SW04/6CLP ☐ Other / EDD	

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₄ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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FedEx Package
Express *US Airbill*

FedEx
Tracking
Number

8041

ORIGIN ID: H080
ALS LABORATORY
10450 STANCLIFF
HOUSTON, TX 77055
UNITED STATES U

TO CLIENT SEF
ALS LAB G
10450 STAN
STE 210
HOUSTON
(281) 530-5656
P.O.

1 of 2
TRK# 8041 19
0215
MASTER ##
AB S

From

Date

Sender's
Name

Phone

Company

Address

Dept./Floor/Suite/Room

City

State

ZIP

Your Internal Billing Reference

To

Recipient's
Name

Phone

Company

Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City

State

ZIP



8041 1922 6611

Next Business Day

☐ FedEx First Overnight

Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Priority Overnight

Next business morning. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Standard Overnight

Next business afternoon. Saturday Delivery NOT available.

☐ FedEx 2Day A.M.

Second business morning. Saturday Delivery NOT available.

☐ FedEx 2Day

Second business afternoon. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ FedEx Express Saver

Third business day. Saturday Delivery NOT available.

5 Packaging

* Declared value limit \$500.

☐ FedEx Envelope*

☐ FedEx Pak*

☐ FedEx Box

☐ FedEx Tube

☐ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery

NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required

Package may be left without obtaining a signature for delivery.

☐ Direct Signature

Someone at recipient's address may sign for delivery. Fee applies.

☐ Indirect Signature

If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

☐ No

☐ Yes

See or attached Shipper's Declaration.

☐ Yes

Shipper's Declaration not required.

☐ Dry Ice

Dry Ice, 5 UN 1845

x kg

☐ Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Outside recip. Acct. No. ☐

☐ Sender

Acct. No. in Section 1 will be billed.

☐ Recipient

☐ Third Party

☐ Credit Card

☐ Cash/Check

Total Packages

Total Weight

Credit Card Auth.

*Our liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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CUSTODY SEAL

Date:

Time:

Name:

Company:

Seal Broken

Date:



ALS Environmental

10450 Stancliff Rd., Suite 210

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Tel. +1 281 530 5656

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Appendix B

Historical Analytical Results

**APPENDIX B
HISTORICAL DATA
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
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	9/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1D	5/16/1995	0.018	0.015	0.006	0.016	
MW-1D	11/15/1995	0.003	0.002	<0.001	0.001	
MW-1D	1/18/1996	0.004	0.003	<0.001	0.009	
MW-1D	4/24/1996	<0.001	<0.001	<0.001	<0.001	
MW-1D	1/22/1997	0.001	0.001	<0.001	<0.001	
MW-1D	8/11/1997	<0.001	<0.001	<0.001	<0.001	
MW-1D	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-1D	8/3/1998	<0.001	<0.001	<0.001	<0.001	
MW-1D	2/10/1999	<0.001	<0.001	<0.001	<0.001	
MW-1D	8/17/1999	<0.001	<0.001	<0.001	<0.001	
MW-1D	2/17/2000	0.002	0.003	<0.001	0.001	
MW-1D	8/23/2000	<0.005	<0.005	<0.005	<0.005	
MW-1D	2/8/2001	<0.001	<0.001	<0.001	0.001	
MW-1D	7/30/2001	<0.001	<0.001	<0.001	<0.001	
MW-1D	2/13/2002	<0.001	<0.001	<0.001	<0.001	
MW-1D	9/27/2002	<0.001	<0.001	<0.001	<0.001	
MW-1D	4/25/2003	<0.005	<0.005	<0.005	<0.005	
MW-1D	9/18/2003	0.002	<0.001	<0.001	<0.001	
MW-1D	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-1D	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-1D	3/4/2005	<0.001	<0.001	<0.001	<0.001	
MW-1D	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-1D	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-1D	9/20/2006	<0.001	<0.001	<0.001	<0.001	
MW-1D	3/22/2007	<0.001	<0.001	<0.001	<0.001	
MW-1D	9/25/2007	<0.001	<0.001	<0.001	<0.001	
MW-1D	3/19/2008	<0.00046	<0.00048	<0.00045	<0.0014	
MW-1D	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-1D	9/17/2008	<0.002	<0.002	<0.002	<0.002	
MW-1D	3/10/2009	<0.002/<0.002	<0.002/<0.002	<0.002/<0.002	<0.006/<0.006	
MW-1D	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-1D	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-1D	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017	
MW-1D	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-1D	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-1D	9/16/2010	<0.002	<0.002	<0.002	<0.004	
MW-1D	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-1D	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-1D	4/26/2011	<0.00030	<0.0010	<0.00030	<0.00060	
MW-1D	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-1D	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-1D	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-1D	2/21/2013	0.016	<0.001	<0.001	<0.003	
MW-1D	9/11/2013	0.0029	<0.001	<0.001	<0.001	

**APPENDIX B
HISTORICAL DATA
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
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-2	5/16/1995	<0.001	<0.001	<0.001	<0.001	
MW-2	11/15/1995	NS	0.006	0.002		
MW-2	1/18/1996	<0.001	<0.001	<0.001	<0.001	
MW-2	4/24/1996	<0.001	<0.001	<0.001	<0.001	
MW-2	1/22/1997	<0.001	<0.001	<0.001	<0.001	
MW-2	8/11/1997	<0.001	<0.001	<0.001	<0.001	
MW-2	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-2	8/3/1998	<0.001	<0.001	<0.001	<0.001	
MW-2	2/10/1999	<0.001	<0.001	<0.001	<0.001	
MW-2	8/17/1999	0.017	0.002	0.013	0.003	
MW-2	2/17/2000	<0.001	<0.001	<0.001	<0.001	
MW-2	8/23/2000	<0.001	<0.001	<0.001	<0.001	
MW-2	2/8/2001	<0.001	<0.001	<0.001	<0.001	
MW-2	7/30/2001	<0.001	<0.001	<0.001	<0.001	
MW-2	2/13/2002	<0.001	<0.001	<0.001	<0.001	
MW-2	9/27/2002	<0.001	<0.001	<0.001	<0.001	
MW-2	4/25/2003	<0.001	<0.001	<0.001	<0.001	
MW-2	9/18/2003	0.002	<0.001	<0.001	<0.001	
MW-2	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-2	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-2	3/4/2005	<0.001	<0.001	<0.001	<0.001	
MW-2	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-2	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-2	9/20/2006	<0.001	<0.001	<0.001	<0.001	
MW-2	3/22/2007	<0.001	<0.001	<0.001	<0.001	
MW-2	9/25/2007	<0.001	<0.001	<0.001	<0.001	
MW-2	3/19/2008	<0.00046	<0.00048	<0.00045	<0.0014	
MW-2	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-2	9/17/2008	<0.002	<0.002	<0.002	<0.006	
MW-2	3/10/2009	<0.002	<0.002	<0.002	<0.006	
MW-2	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-2	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-2	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017	
MW-2	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-2	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-2	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-2	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-2	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-2	4/26/2011	<0.00030	<0.0010	<0.00030	<0.00060	
MW-2	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-2	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-2	9/11/2013	<0.001	<0.001	<0.001	<0.001	

**APPENDIX B
HISTORICAL DATA
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
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-3	5/16/1995	<0.001	<0.001	<0.001	<0.001	
MW-3	11/15/1995	<0.001	<0.001	<0.001	<0.001	
MW-3	1/18/1996	<0.001	<0.001	<0.001	<0.001	
MW-3	4/24/1996	<0.001	<0.001	<0.001	<0.001	
MW-3	1/22/1997	<0.001	<0.001	<0.001	<0.001	
MW-3	8/11/1997	<0.001	<0.001	<0.001	<0.001	
MW-3	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-3	8/3/1998	0.007	<0.001	<0.001	<0.001	
MW-3	2/10/1999	<0.005	<0.005	<0.005	<0.005	
MW-3	8/17/1999	0.043	<0.005	<0.005	<0.005	
MW-3	2/17/2000	0.021	<0.005	<0.005	<0.005	
MW-3	8/23/2000	0.006	<0.005	<0.005	<0.005	
MW-3	2/8/2001	0.004	0.001	0.002	0.005	
MW-3	7/30/2001	0.002	<0.001	<0.001	<0.001	
MW-3	2/13/2002	0.002	<0.001	<0.001	<0.001	
MW-3	9/27/2002	<0.005	<0.005	<0.005	<0.005	
MW-3	4/25/2003	<0.005	<0.005	<0.005	<0.005	
MW-3	9/18/2003	0.002	<0.001	<0.001	<0.001	
MW-3	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-3	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-3	3/4/2005	<0.001	<0.001	<0.001	<0.001	
MW-3	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-3	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-3	9/20/2006	<0.001	<0.001	<0.001	<0.001	
MW-3	3/22/2007	<0.001	<0.001	<0.001	<0.001	
MW-3	9/25/2007	<0.001	<0.001	<0.001	<0.001	
MW-3	3/19/2008	<0.00046	<0.00048	<0.00045	<0.0014	
MW-3	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-3	9/17/2008	<0.002	<0.002	<0.002	<0.006	
MW-3	3/10/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-3	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017	
MW-3	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-3	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-3	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-3	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-3	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-3	4/26/2011	<0.00030	<0.0010	<0.00030	<0.00060	
MW-3	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-3	9/11/2013	<0.001	<0.001	<0.001	<0.001	

**APPENDIX B
HISTORICAL DATA
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
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-4	5/16/1995	<0.001	<0.001	<0.001	<0.001	
MW-4	11/15/1995	NS	0.006	0.002	0.1	
MW-4	1/18/1996	0.003	<0.001	<0.001	<0.001	
MW-4	4/24/1996	<0.002	<0.002	<0.002	<0.002	
MW-4	1/22/1997	0.002	<0.001	<0.001	<0.001	
MW-4	8/11/1997	0.001	<0.001	<0.001	<0.001	
MW-4	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-4	8/3/1998	<0.001	<0.001	<0.001	<0.001	
MW-4	2/10/1999	<0.001	<0.001	<0.001	<0.001	
MW-4	8/17/1999	<0.001	<0.001	<0.001	0.001	
MW-4	2/17/2000	<0.005	<0.005	<0.005	<0.005	
MW-4	8/23/2000	<0.005	<0.005	<0.005	<0.005	
MW-4	2/8/2001	0.002	<0.001	<0.001	0.002	
MW-4	7/30/2001	<0.001	<0.001	<0.001	<0.001	
MW-4	2/13/2002	NS	NS	NS	NS	
MW-4	9/27/2002	NS	NS	NS	NS	
MW-4	4/25/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	9/18/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-4	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-4	3/4/2005	<0.001	<0.001	<0.001	<0.001	
MW-4	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-4	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-4	9/20/2006	<0.002	<0.001	<0.001	0.0043	
MW-4	3/22/2007	<0.002	<0.001	<0.001	0.0036	
MW-4	9/25/2007	<0.002	<0.001	<0.001	<0.001	
MW-4	3/19/2008	<0.00046	<0.00048	<0.00045	<0.0014	
MW-4	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-4	9/17/2008	<0.002	<0.002	<0.002	<0.006	
MW-4	3/10/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-4	9/23/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	9/23/2009	<0.00050	<0.00043	<0.00055	<0.0017	
MW-4	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-4	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-4	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-4	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-4	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-4	6/2/2011	<0.00025	<0.0010	<0.00050	<0.0020	
MW-4	9/15/2011	<0.001	<0.002	<0.002	<0.004	
MW-4	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-4	9/11/2013	<0.001	<0.001	<0.001	<0.001	
MW-5	9/15/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	3/6/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/11/2013	LNAPL	LNAPL	LNAPL	LNAPL	

**APPENDIX B
HISTORICAL DATA
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
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-6	11/15/1995	0.003	0.001	<0.001	0.003	
MW-6	1/18/1996	0.002	<0.001	<0.001	<0.001	
MW-6	4/24/1996	<0.001	<0.001	<0.001	<0.001	
MW-6	1/22/1997	0.001	<0.001	<0.001	<0.001	
MW-6	8/11/1997	<0.001	<0.001	<0.001	0.001	
MW-6	1/23/1998	<0.001	<0.001	<0.001	<0.001	
MW-6	8/3/1998	<0.001	<0.001	<0.001	<0.001	
MW-6	2/10/1999	<0.001	<0.001	<0.001	0.014	
MW-6	8/17/1999	0.002	<0.001	<0.001	0.012	
MW-6	2/17/2000	<0.001	0.004	<0.001	0.006	
MW-6	8/23/2000	<0.001	0.004	<0.001	0.011	
MW-6	2/8/2001	<0.001	<0.001	<0.001	0.011	
MW-6	7/30/2001	<0.001	<0.001	<0.001	<0.001	
MW-6	2/13/2002	<0.001	<0.001	<0.001	<0.001	
MW-6	9/27/2002	<0.005	<0.005	<0.005	<0.005	
MW-6	4/25/2003	<0.001	<0.001	<0.001	<0.001	
MW-6	9/18/2003	0.002	<0.001	0.002	0.001	
MW-6	3/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-6	8/17/2004	<0.001	<0.001	<0.001	<0.001	
MW-6	3/4/2005	0.0061	<0.001	0.0032	<0.001	
MW-6	9/21/2005	<0.001	<0.001	<0.001	<0.001	
MW-6	3/16/2006	<0.001	<0.001	<0.001	<0.001	
MW-6	9/20/2006	0.0391	<0.001	0.0287	0.0194	
MW-6	3/22/2007	<0.001	<0.001	<0.001	0.0013	
MW-6	9/25/2007	<0.001	<0.001	<0.001	<0.001	
MW-6	3/20/2008	NS	NS	NS	NS	
MW-6	9/17/2008	NS	NS	NS	NS	
MW-6	3/10/2009	NS	NS	NS	NS	
MW-6	9/23/2009	0.035	<0.002	0.0215	.0052J	
MW-6	9/23/2009	0.035	<0.00043	0.0215	0.0052	
MW-6	5/17/2010	<0.002	<0.002	<0.002	<0.006	
MW-6	5/17/2010	<0.00050	<0.00043	<0.00055	<0.0017	
MW-6	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-6	9/16/2010	<0.00030	<0.0010	<0.00030	-	
MW-6	4/26/2011	<0.001	<0.002	<0.002	<0.002	
MW-6	6/2/2011	<0.00025	<0.0010	<0.00050	<0.0020	
MW-6	3/6/2012	<0.005	<0.005	<0.005	<0.015	
MW-6	9/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-6	2/21/2013	<0.001	<0.001	<0.001	<0.003	
MW-6	9/11/2013	<0.001	<0.001	<0.001	<0.001	

**APPENDIX B
HISTORICAL DATA
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
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-7	11/15/1995	0.465	0.205	<0.001	0.163	
MW-7	1/18/1996	1.13	0.476	0.003	0.365	
MW-7	4/24/1996	0.585	0.251	<0.002	0.013	
MW-7	1/22/1997	0.896	0.24	<0.005	0.33	
MW-7	8/11/1997	0.317	0.155	0.2	0.049	
MW-7	1/23/1998	0.876	0.486	<0.005	0.181	
MW-7	8/3/1998	0.094	0.064	<0.005	0.007	
MW-7	2/10/1999	0.597	0.44	<0.005	0.12	
MW-7	8/17/1999	0.705	0.06	<0.005	0.556	
MW-7	2/17/2000	0.573	0.49	<0.005	0.226	
MW-7	8/23/2000	0.546	0.484	0.006	0.177	
MW-7	2/8/2001	0.355	0.424	<0.005	0.052	
MW-7	7/30/2001	0.017	0.058	<0.005	<0.005	
MW-7	2/13/2002	0.228	0.094	<0.005	0.5	
MW-7	9/27/2002	0.015	0.017	<0.005	<0.005	
MW-7	4/25/2003	0.157	0.192	<0.005	0.02	
MW-7	9/18/2003	0.018	0.023	<0.001	0.004	
MW-7	3/17/2004	0.125	0.108	<0.10	0.033	
MW-7	8/17/2004	0.237	0.081	<0.20	<0.020	
MW-7	3/4/2005	.125/.121	<0.001	0.0467/0.0453	0.0202	
MW-7	9/21/2005	.15/0.148	<0.001	0.079/0.0789	0.0248	
MW-7	3/16/2006	0.191	0.0032	0.073	<0.001	
MW-7	9/20/2006	0.236	<0.001	0.176	0.187	
MW-7	3/22/2007	0.209/0.215	<0.05/<0.01	.149/.121	0.116/0.0532	
MW-7	9/25/2007	0.465/0.458	<0.01/<0.01	.318/.314	.0307/0.302	
MW-7	3/19/2008	0.161	<0.00048	0.057	0.0295	
MW-7	3/20/2008	0.161/0.169	<0.002/<0.002	.057/.0637	0.0295/0.0325	
MW-7	9/17/2008	0.083	<0.002	0.0475	0.0204	
MW-7	3/10/2009	0.039	<0.002	0.0177	0.0052 J	
MW-7	3/11/2009	0.0339	<0.00048	0.0177	0.0052	
MW-7	9/23/2009	0.0332	<0.00043	0.0176	0.0033	
MW-7	9/23/2009	0.0332/<0.002	<0.002/<0.002	.0176/<0.002	0.0033J/<0.006	
MW-7	5/17/2010	0.0201/0.0198	<0.002/<0.002	.0095/.0092	0.0033J/0.0033J	
MW-7	5/17/2010	0.0201	<0.00043	0.0095	0.0033	
MW-7	9/16/2010	0.522/0.512	<0.01/<0.01	0.294/0.289	0.0383/0.0378	
MW-7	9/16/2010	0.522	<0.0050	0.294	-	
MW-7	4/26/2011	0.0091/0.0104	<0.01/<0.01	0.0042/0.0041	<0.01/<0.01	
MW-7	4/26/2011	0.0091	<0.0050	0.0042	<0.0030	
MW-7	9/15/2011	0.394	<0.01	0.149	0.0442	Duplicate sample collected
MW-7	3/6/2012	0.0098	<0.0050	0.0088	<0.015	
MW-7	9/5/2012	0.014	<0.005	0.01	<0.015	Duplicate sample collected
MW-7	2/21/2013	0.0059	<0.001	0.0049	<0.003	Duplicate sample collected
MW-7	9/11/2013	0.0024	<0.001	0.0013	<0.001	Duplicate sample collected

Notes:

The environmental cleanup standards for water that are applicable to the Monument Booster Station are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.

Monitoring well locations MW-1 and MW-5 have historically exhibited measurable LNAPL during groundwater monitoring events. Therefore, those wells have not been sampled. Data presented for well locations include previous four sampling events, when available. Historic groundwater analytical results for these locations may be found in Appendix B.

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

Sample locations are shown on Figure 2 and analytical results are illustrated on Figure 4.

LNAPL = Light Non-Aqueous Phase Liquid

NM = Not measured.

mg/L = milligrams per liter.