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05 / 12 / 2014



DCP Midstream
370 17th Street, Suite 2500
Denver, CO 80202
303-595-3331
303-605-2226 FAX

RECEIVED OCD

May 12, 2014

2014 MAY 15 A 9:53

Mr. Glenn von Gonten
Oil Conservation Division
New Mexico Energy, Minerals
& Natural Resources Department
1220 South St. Francis Dr.
Santa Fe, NM 87505

**RE: First Quarter 2014 Groundwater Monitoring Report
Burton Flats Compressor Station
Lots 4 and 5, Section 1, Township 21 South, Range 27 East
Eddy County, New Mexico
OCD Case No. 2R799**

Dear Mr. von Gonten:

DCP Midstream, LP (DCP) is pleased to submit for your review one copy of the First Quarter 2014 Groundwater Monitoring Report for the DCP Burton Flats Booster Station located in Eddy County, New Mexico (Lots 4 and 5, Section 1, Township 21 South, Range 27 East).

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

Chandler E Cole
Senior Environmental Specialist

Enclosure

cc: Mr. Mike Bratcher - EMNRD
Mr. Jim Griswold - EMNRD
Mr. Jim Amos – BLM Carlsbad
Environmental Files

First Quarter 2014 Groundwater Monitoring and Activities Summary Report

Burton Flats Booster Station
Eddy County, New Mexico
AP #2R799

Prepared for:



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

Prepared by:



6899 Pecos Street, Unit C
Denver, Colorado 80221

May 9, 2014

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1. Introduction

This report summarizes groundwater monitoring activities conducted during the first quarter of 2014 at the Burton Flats Booster Station (Site) in Eddy County, New Mexico (Figure 1). Tasman Geosciences, LLC (Tasman) performed these activities on behalf of DCP Midstream, LP (DCP). Field activities 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 during the reporting period.

2. Site Location and Background

The Site is located in the Fourth and Fifth Lots of Section 1, Township 21 South, Range 27 East (approximate coordinates 32.5195 degrees north and 104.1507 degrees west). It is approximately 3.4 miles northwest of the intersection of US Highway 62 and County Road 243. The area is sparsely populated and land use is primarily associated with livestock grazing and oil and gas production and gathering.

Based on information included in historical Site investigation reports, a release of approximately 10 barrels (bbl) of oil and produced water occurred on October 5, 2009 of which approximately 8 bbls were recovered from within the tank secondary containment area. The C-141 report was submitted on October 12, 2009 and Site investigation and soil sampling within the release area occurred during the third quarter of 2009 and early fourth quarter of 2010 (BH-1 through BH-5). Elevated levels of petroleum hydrocarbons within the soil were encountered to depths of 20-feet below ground surface (bgs). Groundwater was noted between 16-feet and 20-feet bgs during Site characterization activities. Subsequent to soil investigation efforts, four groundwater monitoring wells were installed around and down-gradient from the release area during the fourth quarter of 2011 (MW-1 through MW-4). Elevated petroleum hydrocarbon concentrations in soil were observed during well installation. Consequently, two additional soil borings were completed to a depth of 20 feet bgs in the direct area of impacts (SB 11-1 and SB 11-2). Monitoring well and soil boring locations are shown in Figure 2.

Boring logs for the Site monitoring wells indicate that the subsurface geology contains unconsolidated fine-grained sand, silt, and clay sediments. This general characteristic has been utilized in evaluating the historic and current LNAPL behavior. Ongoing monitoring and sampling of the four Site monitoring wells listed above has been conducted on a quarterly basis following installation.

3. Groundwater Monitoring

This section describes the field and laboratory activities performed during the first quarter 2014 groundwater monitoring event. Quarterly monitoring activities were conducted on February 26, 2014 and included Site-wide groundwater gauging, LNAPL measurements, and groundwater sampling. Figure 2 illustrates the groundwater monitoring network (MW-1 through MW-4) 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 seasonal fluctuations of groundwater and LNAPL elevations at the Site. During the first quarter 2014, groundwater levels were measured at four Site monitoring well locations (MW-1 through MW-4).

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 level data were subsequently converted to elevation (feet above mean sea level [AMSL]).

Groundwater and LNAPL measurements collected during the reporting period as well as historical elevations are presented in Table 1. A first quarter 2014 groundwater elevation contour map, included as Figure 3, indicates that groundwater flow at the Site trends to the north/northwest. A groundwater elevations range, average elevation change from the previous monitoring event, and the calculated hydraulic gradient at the Site are summarized in the table below.

Summary of Measured Hydraulic Parameters

	First Quarter 2014 (2/26/14)
Maximum Elevation (Well ID)	3177.17 (MW-3)
Minimum Elevation (Well ID)	3176.87 (MW-1)
Average Change from Previous Monitoring Event – All Wells	static
Hydraulic Gradient (ft/ft) / (Well IDs)	0.0017 (MW-3 to MW-1)

LNAPL was detected at monitoring well MW-1 with a measured thickness of 0.11-feet. MW-1 is located down-gradient of MW-4, which exhibited a measured thickness of 1.59-feet during the first quarter monitoring event. The observed thickness of LNAPL in these wells may be influenced due to the deployment of passive LNAPL collection bailers.

3.2 Groundwater Quality Monitoring

Subsequent to recording groundwater level measurements at each monitoring well, groundwater samples were collected from the two monitoring wells that did not contain measurable LNAPL. A minimum of three well casing volumes of groundwater were purged from the subject well prior to the collection of groundwater samples. Groundwater samples were collected using dedicated polyethylene bailers, placed in clean laboratory supplied containers, packed in an ice-filled cooler and maintained at approximately four (4) degrees Celsius (°C) for transportation to the laboratory. Groundwater samples were then shipped under chain-of-custody procedures to ALS Environmental (ALS) laboratory in Houston, Texas.

Water quality samples were submitted for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260B and chloride by USEPA Method 300.

Table 2 summarizes BTEX and chloride concentrations in groundwater samples collected during the reporting period. Historic analytical results up to and including the February 2014 event are contained in Appendix A and the Laboratory analytical report for the first quarter event is included in Appendix B. Analytical results are also displayed on Figure 4.

Analytical results for samples collected from MW-2 and MW-3 indicated the following:

- BTEX concentrations were below laboratory detection limits at both locations during the reporting period.
- Chloride was detected in exceedance of the NMWQCC suggested guideline (250 mg/l) in MW-2 and MW-3 with concentrations of 1,220 mg/l (1,270 duplicate) and 484 mg/l, respectively.

3.3 Data Quality Assurance / Quality Control

A trip blank, matrix spike / matrix spike duplicate (MS/MSD), and field duplicate sample (MW-2) 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 indicating that samples were received at the proper temperature and with no headspace. All data were reported using the correct method number and reporting units. The trip blank was fully in control, having no detection of target analytes.

The duplicate sample collected at MW-2 was in compliance with QA/QC standards. BTEX concentrations in MW-2 and the duplicate sample were below laboratory detection limits.

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

4. Remediation Activities

As indicated above, passive LNAPL collection bailers were deployed in MW-1 and MW-4. During the first quarter 2014 monitoring event the MW-1 bailer was approximately ¼ full and the MW-4 bailer was at capacity (approximately 1-liter). Cumulative LNAPL removal volumes from the current and previous monitoring periods are included in the table below.

Summary of LNAPL Recovery Volumes

Measurement Period	LNAPL Recovery Volume	Comment
Third and Fourth Quarters 2013	0.35 Liter	Passive recovery bailers (MW-4 and MW-1)
First Quarter 2014	1.25 Liter	Passive recovery bailers (MW-4 and MW-1)

These volumes and the corresponding measured LNAPL thickness in each well (0.11-foot and 1.59-foot at MW-1 and MW-4, respectively) indicate that the passive bailers functioned appropriately during the quarter.

Dissolved phase petroleum hydrocarbon concentrations are currently being addressed via natural attenuation.

5. Conclusions

Evaluation of the first quarter 2014 monitoring data and historic information provides the following general observations:

- Groundwater elevation at the Site has remained relatively stable with minor seasonal and annual fluctuations. There was no significant deviation from this trend during the first quarter 2014.
- LNAPL recovery from MW-1 indicates the continued presence of a separate phase plume in this area. Continued monitoring of recovery volumes (e.g., stable or increasing) will provide additional information related to the LNAPL plume stability.

6. Recommendations

Based on evaluation of first quarter 2014 and historical Site monitoring results, recommendations for future activities include:

- Continue quarterly groundwater monitoring and sampling at the monitoring locations illustrated on Figure 2.
- Continue LNAPL monitoring at MW-1 and MW-4 to evaluate effectiveness of the passive LNAPL collection bailers.
- Survey monitoring well MW-4, top of casing to 0.01 feet above mean sea level.

Tables

TABLE 1
FIRST QUARTER 2014
SUMMARY OF GROUNDWATER ELEVATION DATA
BURTON FLATS BOOSTER STATION
EDDY 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*	12/5/2012	21.51			34.25	3198.88	3177.37	0.14
MW-1*	2/21/2013	21.57			34.25	3198.88	3177.31	-0.06
MW-1*	6/3/2013	21.60			34.25	3198.88	3177.28	-0.03
MW-1*	9/11/2013	22.27	22.23	0.04	34.25	3198.88	3176.64	-0.64
MW-1*	12/3/2013	22.12	22.00	0.12	34.25	3198.88	3176.85	0.21
MW-1*	2/26/2014	22.09	21.98	0.11	NM	3198.88	3176.87	0.02
MW-2	12/5/2012	22.68			32.85	3200.00	3177.32	0.10
MW-2	2/21/2013	22.71			32.85	3200.00	3177.29	-0.03
MW-2	6/3/2013	22.81			32.85	3200.00	3177.19	-0.10
MW-2	9/11/2013	23.18			32.85	3200.00	3176.82	-0.37
MW-2	12/3/2013	22.95			32.85	3200.00	3177.05	0.23
MW-2	2/26/2014	22.93			NM	3200.00	3177.07	0.02
MW-3	12/5/2012	23.35			34.23	3200.85	3177.50	0.05
MW-3	2/21/2013	23.45			34.23	3200.85	3177.40	-0.10
MW-3	6/3/2013	23.46			34.23	3200.85	3177.39	-0.01
MW-3	9/11/2013	23.86			34.23	3200.85	3176.99	-0.40
MW-3	12/3/2013	23.64			34.23	3200.85	3177.21	0.22
MW-3	2/26/2014	23.68			NM	3200.85	3177.17	-0.04
MW-4	12/5/2012	24.34	23.22	1.12	NM	NM	NM	NM
MW-4	2/21/2013	24.85	23.26	1.59	NM	NM	NM	NM
MW-4	6/3/2013	24.86	23.33	1.53	NM	NM	NM	NM
MW-4	9/11/2013	25.63	23.95	1.68	NM	NM	NM	NM
MW-4	12/3/2013	25.03	24.84	0.19	NM	NM	NM	NM
MW-4	2/26/2014	25.25	23.66	1.59	NM	NM	NM	NM
Average change in groundwater elevation (12/3/13 to 2/26/14)								0.00

Notes:

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

2- Total depths were collected and recorded during the fourth quarter 2013 monitoring event (with the exception of wells that contained LNAPL).

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

TOC elevation for monitoring well MW-4 was not available at the time this report was generated. Therefore, groundwater elevation could not be calculated.

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 is corrected for product thickness using the following calculation:

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

TABLE 2
FIRST QUARTER 2014
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
BURTON FLATS BOOSTER STATION
EDDY COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards		0.01 (mg/l)	0.75 (mg/l)	0.75 (mg/l)	0.62 (mg/l)	250*	
MW-1	2/26/2014	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	2/26/2014	<0.001	<0.001	<0.001	<0.001	1,220	Duplicate sample collected
MW-2 (Duplicate)	2/26/2014	<0.001	<0.001	<0.001	<0.001	1,270	
MW-3	2/26/2014	<0.001	<0.001	<0.001	<0.001	484	
MW-4	2/26/2014	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	

Notes:

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

Data presented for all well locations includes previous four sampling events, when available.

* Chlorides are subject to the National Secondary Drinking Water Regulations (NSDWR) secondary maximum contaminant levels (SMCLs) and not an enforceably regulated constituent. The 250 mg/L standard is established only as a guideline to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor.

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.

Figures



DATE: _____

April 2014

DESIGNED BY:

T. Johansen

DRAWN BY:

D. Arnold

**TASMAN**
GEOSCIENCES

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

DCP Midstream

BURTON FLATS BOOSTER STATION

Lots 4 and 5, Section 1, Township 21 South, Range 27 East

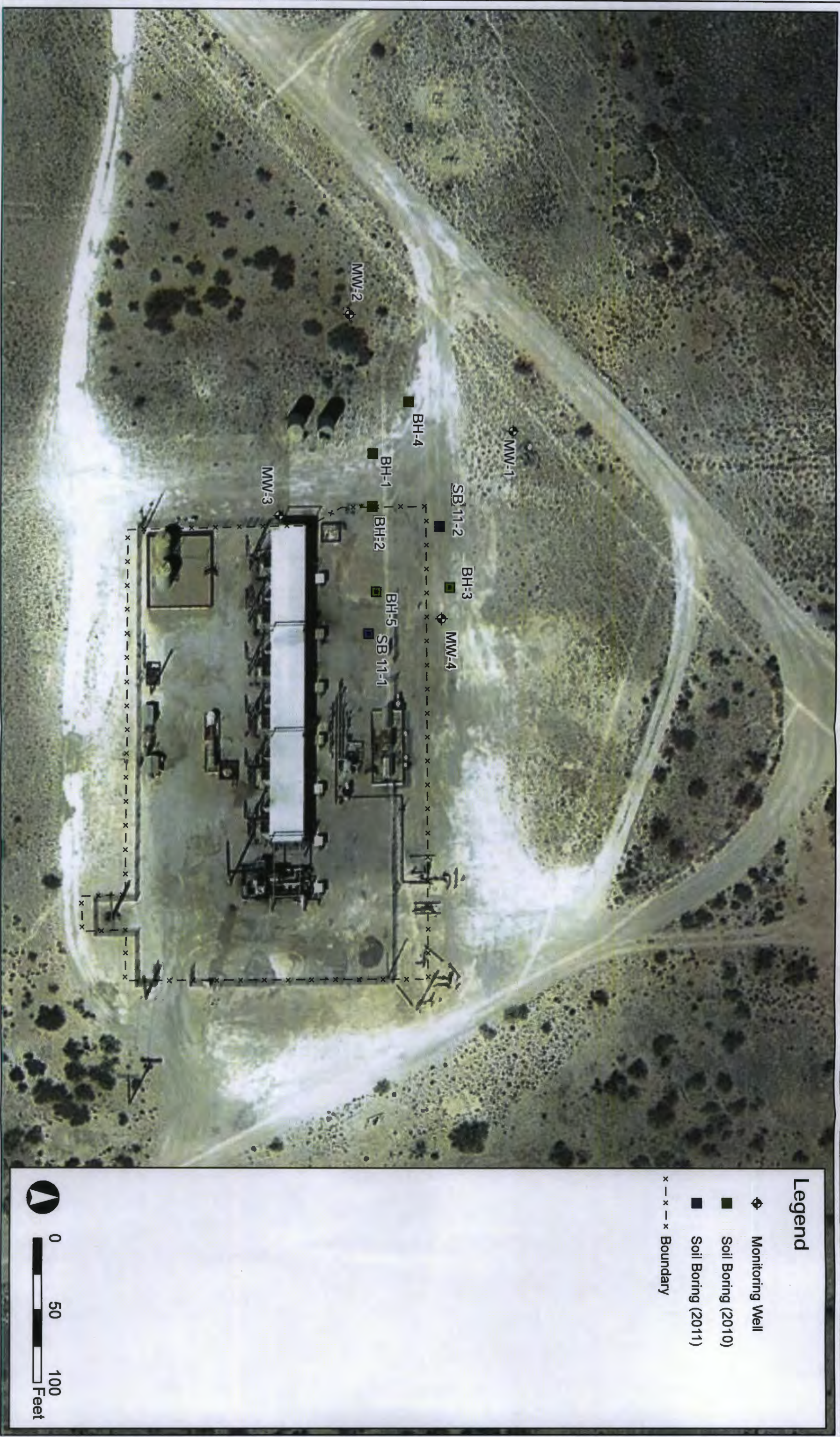
Eddy County, New Mexico

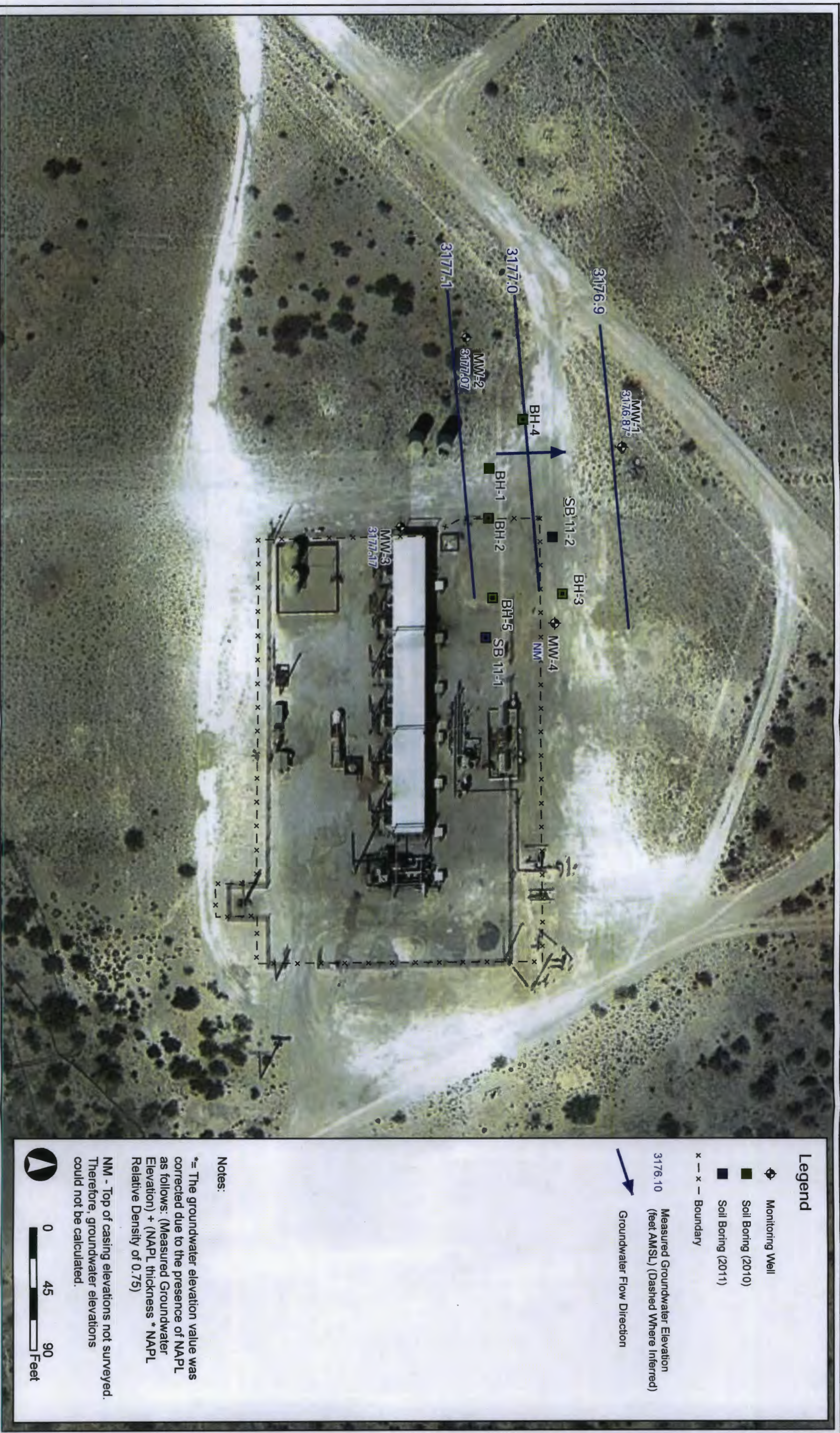
Site Location

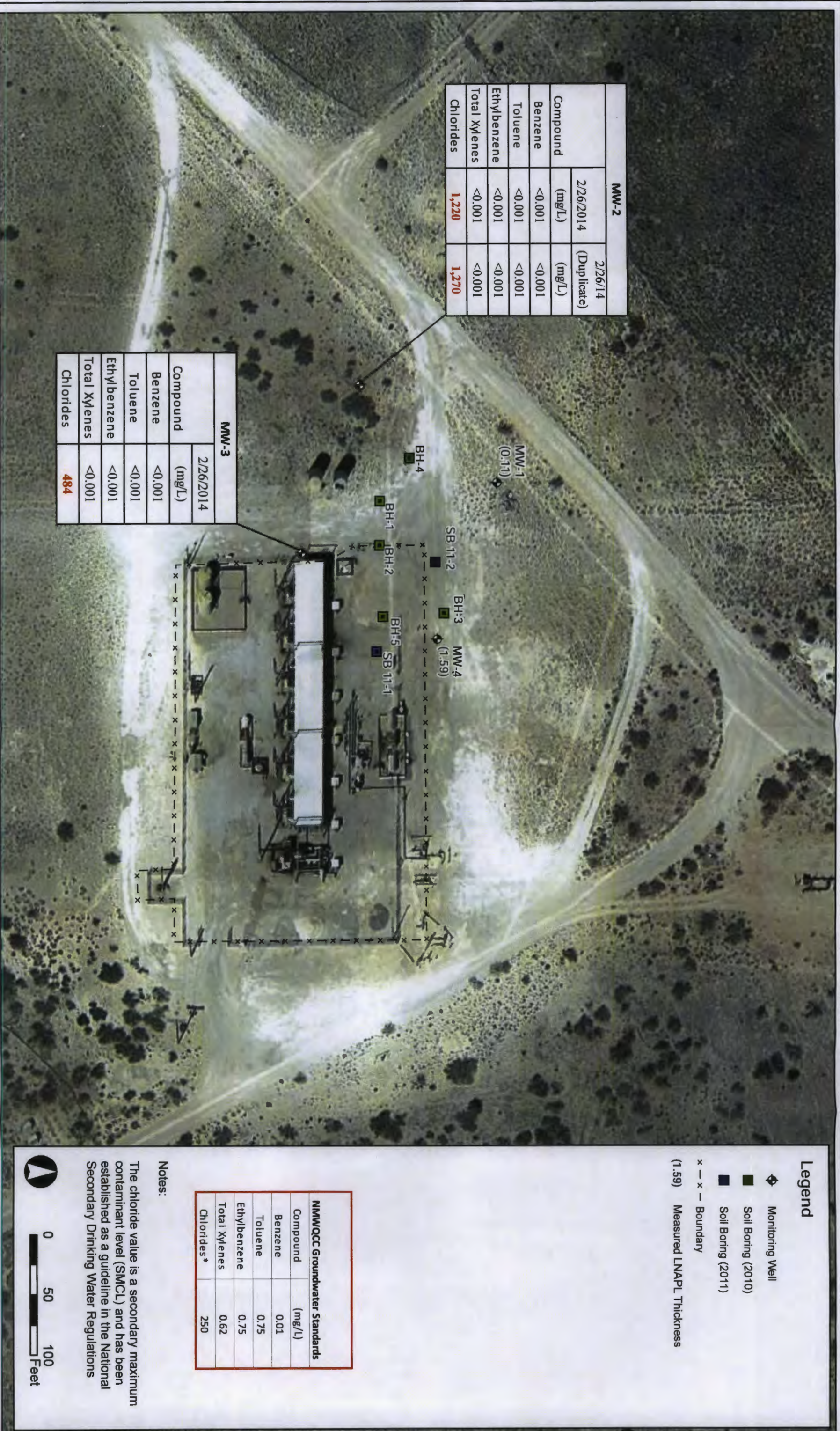
Map

Figure

10







Appendix A

Historic Analytical Results

APPENDIX A
HISTORIC ANALYTICAL RESULTS
BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
BURTON FLATS BOOSTER STATION
EDDY COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Chlorides (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards		0.01 (mg/l)	0.75 (mg/l)	0.75 (mg/l)	0.62 (mg/l)	250*	
MW-1	12/14/2011	0.140	0.0034	0.200	0.111	665	Duplicate sample collected
MW-1	4/26/2012	0.153	<0.001	0.229	0.0073	584	
MW-1	6/20/2012	0.0967	<0.001	0.284	0.0474	651	Duplicate sample collected
MW-1	9/26/2012	0.0615	<0.001	0.0803	0.0015	590	
MW-1	12/5/2012	0.020	<0.001	0.17	0.037	599	
MW-1	2/21/2013	0.0021	<0.001	0.0058	<0.003	668	Duplicate sample collected
MW-1	6/3/2013	0.0049	<0.001	0.0048	<0.001	703	Duplicate sample collected
MW-1	9/11/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	12/3/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	2/26/2014	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	12/14/2011	<0.001	<0.001	<0.001	<0.003	1,170	
MW-2	4/26/2012	<0.001	<0.001	<0.001	<0.003	1,040	
MW-2	6/20/2012	<0.001	<0.001	<0.001	<0.003	1,150	
MW-2	9/26/2012	<0.001	<0.001	<0.001	<0.003	1,130	
MW-2	12/5/2012	<0.001	<0.001	<0.001	<0.003	1,120	Duplicate sample collected
MW-2	2/21/2013	<0.001	<0.001	<0.001	<0.003	1,250	
MW-2	6/3/2013	<0.001	<0.001	<0.001	<0.001	1,150	
MW-2	9/11/2013	<0.001	<0.001	<0.001	<0.001	1,410	Duplicate sample collected
MW-2	12/3/2013	<0.001	<0.001	<0.001	<0.001	1,120	Duplicate sample collected
MW-2	2/26/2014	<0.001	<0.001	<0.001	<0.001	1,220	Duplicate sample collected
MW-2 (Duplicate)	2/26/2014	<0.001	<0.001	<0.001	<0.001	1,270	
MW-3	12/14/2011	<0.001	<0.001	<0.001	<0.003	426	
MW-3	4/26/2012	<0.001	<0.001	<0.001	<0.003	406	Duplicate sample collected
MW-3	6/20/2012	<0.001	<0.001	<0.001	<0.003	435	
MW-3	9/26/2012	<0.001	<0.001	0.00057	<0.003	447	Duplicate sample collected
MW-3	12/5/2012	<0.001	<0.001	<0.001	<0.003	444	
MW-3	2/21/2013	<0.001	<0.001	<0.001	<0.003	503	
MW-3	6/12/2013	<0.001	<0.001	<0.001	<0.001	474	
MW-3	9/11/2013	<0.001	<0.001	<0.001	<0.001	589	
MW-3	12/3/2013	<0.001	<0.001	<0.001	<0.001	432	
MW-3	2/26/2014	<0.001	<0.001	<0.001	<0.001	484	
MW-4	4/26/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	6/20/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	9/26/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	12/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	2/21/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	6/3/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	9/11/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	12/3/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	2/26/2014	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	

Notes:

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

* Chlorides are subject to the National Secondary Drinking Water Regulations (NSDWR) secondary maximum contaminant levels (SMCLs) and not an enforceably regulated constituent. The 250 mg/L standard is established only as a guideline to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor.

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.

Appendix B

Laboratory Analytical Report

- ALS Report #: 14021238



11-Mar-2014

Don Baggus
Tasman Geosciences
5690 Webster Street
Arvada, CO 80002

Tel: (303) 487-1228
Fax:

Re: Burton Flats Booster Station

Work Order: **14021238**

Dear Don,

ALS Environmental received 4 samples on 27-Feb-2014 09:45 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 15.

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".

Electronically approved by: Jumoke M. Lawal

Sonia West
Project Manager



Certificate No: T104704231-13-12

Client: Tasman Geosciences
Project: Burton Flats Booster Station
Work Order: 14021238

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>
14021238-01	MW-2	Water		2/26/2014 12:40	2/27/2014 09:45	<input type="checkbox"/>
14021238-02	MW-3	Water		2/26/2014 12:20	2/27/2014 09:45	<input type="checkbox"/>
14021238-03	Duplicate	Water		2/26/2014	2/27/2014 09:45	<input type="checkbox"/>
14021238-04	Trip Blank 021414-06	Water		2/26/2014	2/27/2014 09:45	<input type="checkbox"/>

ALS Environmental

Date: 11-Mar-14

Client: Tasman Geosciences
Project: Burton Flats Booster Station
Work Order: 14021238

Case Narrative

No Exceptions

ALS Environmental

Date: 11-Mar-14

Client: Tasman Geosciences
Project: Burton Flats Booster Station
Sample ID: MW-2
Collection Date: 2/26/2014 12:40 PM

Work Order: 14021238
Lab ID: 14021238-01
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	3/4/2014 12:12 AM
Ethylbenzene	ND		0.0010	mg/L	1	3/4/2014 12:12 AM
Toluene	ND		0.0010	mg/L	1	3/4/2014 12:12 AM
Xylenes, Total	ND		0.0010	mg/L	1	3/4/2014 12:12 AM
Surr: 1,2-Dichloroethane-d4	92.0		71-125	%REC	1	3/4/2014 12:12 AM
Surr: 4-Bromofluorobenzene	94.5		70-125	%REC	1	3/4/2014 12:12 AM
Surr: Dibromofluoromethane	95.0		74-125	%REC	1	3/4/2014 12:12 AM
Surr: Toluene-d8	98.6		75-125	%REC	1	3/4/2014 12:12 AM
ANIONS			SW9056			Analyst: JKP
Chloride	1,220		50.0	mg/L	100	3/10/2014 10:58 PM

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

ALS Environmental

Date: 11-Mar-14

Client: Tasman Geosciences
Project: Burton Flats Booster Station
Sample ID: MW-3
Collection Date: 2/26/2014 12:20 PM

Work Order: 14021238
Lab ID: 14021238-02
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	3/4/2014 04:05 AM
Ethylbenzene	ND		0.0010	mg/L	1	3/4/2014 04:05 AM
Toluene	ND		0.0010	mg/L	1	3/4/2014 04:05 AM
Xylenes, Total	ND		0.0010	mg/L	1	3/4/2014 04:05 AM
Surr: 1,2-Dichloroethane-d4	95.3		71-125	%REC	1	3/4/2014 04:05 AM
Surr: 4-Bromofluorobenzene	96.4		70-125	%REC	1	3/4/2014 04:05 AM
Surr: Dibromofluoromethane	96.9		74-125	%REC	1	3/4/2014 04:05 AM
Surr: Toluene-d8	98.6		75-125	%REC	1	3/4/2014 04:05 AM
ANIONS			SW9056			Analyst: JKP
Chloride	484		5.00	mg/L	10	3/10/2014 11:41 PM

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

ALS Environmental**Date:** 11-Mar-14

Client: Tasman Geosciences
Project: Burton Flats Booster Station
Sample ID: Duplicate
Collection Date: 2/26/2014

Work Order: 14021238
Lab ID: 14021238-03
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	3/4/2014 04:28 AM
Ethylbenzene	ND		0.0010	mg/L	1	3/4/2014 04:28 AM
Toluene	ND		0.0010	mg/L	1	3/4/2014 04:28 AM
Xylenes, Total	ND		0.0010	mg/L	1	3/4/2014 04:28 AM
Surr: 1,2-Dichloroethane-d4	90.1		71-125	%REC	1	3/4/2014 04:28 AM
Surr: 4-Bromofluorobenzene	92.9		70-125	%REC	1	3/4/2014 04:28 AM
Surr: Dibromofluoromethane	92.9		74-125	%REC	1	3/4/2014 04:28 AM
Surr: Toluene-d8	98.4		75-125	%REC	1	3/4/2014 04:28 AM
ANIONS			SW9056			Analyst: JKP
Chloride	1,270		50.0	mg/L	100	3/10/2014 11:56 PM

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

ALS Environmental**Date:** 11-Mar-14

Client: Tasman Geosciences
Project: Burton Flats Booster Station
Sample ID: Trip Blank 021414-06
Collection Date: 2/26/2014

Work Order: 14021238
Lab ID: 14021238-04
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	3/3/2014 11:25 PM
Ethylbenzene	ND		0.0010	mg/L	1	3/3/2014 11:25 PM
Toluene	ND		0.0010	mg/L	1	3/3/2014 11:25 PM
Xylenes, Total	ND		0.0010	mg/L	1	3/3/2014 11:25 PM
Surr: 1,2-Dichloroethane-d4	92.5		71-125	%REC	1	3/3/2014 11:25 PM
Surr: 4-Bromofluorobenzene	91.0		70-125	%REC	1	3/3/2014 11:25 PM
Surr: Dibromofluoromethane	94.4		74-125	%REC	1	3/3/2014 11:25 PM
Surr: Toluene-d8	98.2		75-125	%REC	1	3/3/2014 11:25 PM

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

Work Order: 14021238

Client: Tasman Geosciences

Project: Burton Flats Booster Station

DATES REPORT

Sample ID	Client Sample ID	Matrix	Collection Date	TCLP Date	Prep Date	Analysis Date
Batch ID R162255 Test Name: Low Level Volatiles - SW8260C						
14021238-01	MW-2	Water	2/26/2014 12:40:00 PM			3/4/2014 12:12 AM
^A 14021238-02	MW-3		2/26/2014 12:20:00 PM			3/4/2014 04:05 AM
^A 14021238-03	Duplicate		2/26/2014			3/4/2014 04:28 AM
^A 14021238-04	Trip Blank 021414-06					3/3/2014 11:25 PM
Batch ID R162663 Test Name: Anions						
14021238-01	MW-2	Water	2/26/2014 12:40:00 PM			3/10/2014 10:58 PM
^P 14021238-02	MW-3		2/26/2014 12:20:00 PM			3/10/2014 11:41 PM
^P 14021238-03	Duplicate		2/26/2014			3/10/2014 11:56 PM

ALS Environmental

Date: 11-Mar-14

Client: Tasman Geosciences
Work Order: 14021238
Project: Burton Flats Booster Station

QC BATCH REPORT

Batch ID: **R162255** Instrument ID **VOA2** Method: **SW8260**

MBLK	Sample ID: VLKW-140303-R162255				Units: µg/L		Analysis Date: 3/3/2014 11:02 PM			
Client ID:	Run ID: VOA2_140303B				SeqNo: 3551316		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	46.45	1.0	50	0	92.9	71-125	0			
Surr: 4-Bromofluorobenzene	45.47	1.0	50	0	90.9	70-125	0			
Surr: Dibromofluoromethane	47.83	1.0	50	0	95.7	74-125	0			
Surr: Toluene-d8	48.91	1.0	50	0	97.8	75-125	0			

LCS	Sample ID: VLCSW-140303-R162255				Units: µg/L		Analysis Date: 3/3/2014 10:16 PM			
Client ID:	Run ID: VOA2_140303B				SeqNo: 3551315		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.37	1.0	50	0	90.7	80-120				
Ethylbenzene	45.94	1.0	50	0	91.9	80-120				
Toluene	45.06	1.0	50	0	90.1	80-121				
Xylenes, Total	141.4	3.0	150	0	94.3	80-124				
Surr: 1,2-Dichloroethane-d4	44.72	1.0	50	0	89.4	71-125	0			
Surr: 4-Bromofluorobenzene	51.32	1.0	50	0	103	70-125	0			
Surr: Dibromofluoromethane	47.66	1.0	50	0	95.3	74-125	0			
Surr: Toluene-d8	49.36	1.0	50	0	98.7	75-125	0			

MS	Sample ID: 14021238-01AMS				Units: µg/L		Analysis Date: 3/4/2014 12:58 AM			
Client ID: MW-2	Run ID: VOA2_140303B				SeqNo: 3551321		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	48.54	1.0	50	0	97.1	80-120				
Ethylbenzene	48.21	1.0	50	0	96.4	80-120				
Toluene	47.63	1.0	50	0	95.3	80-121				
Xylenes, Total	145.9	3.0	150	0	97.3	80-124				
Surr: 1,2-Dichloroethane-d4	45.29	1.0	50	0	90.6	71-125	0			
Surr: 4-Bromofluorobenzene	50.75	1.0	50	0	101	70-125	0			
Surr: Dibromofluoromethane	47.67	1.0	50	0	95.3	74-125	0			
Surr: Toluene-d8	49.61	1.0	50	0	99.2	75-125	0			

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

Client: Tasman Geosciences
 Work Order: 14021238
 Project: Burton Flats Booster Station

QC BATCH REPORT

Batch ID: R162255 Instrument ID VOA2 Method: SW8260

MS		Sample ID: 14021281-02AMS				Units: µg/L		Analysis Date: 3/4/2014 01:45 AM		
Client ID:		Run ID: VOA2_140303B				SeqNo: 3551323		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.2	1.0	50	0	94.4	80-120				
Ethylbenzene	47.18	1.0	50	0	94.4	80-120				
Toluene	46.81	1.0	50	0	93.6	80-121				
Xylenes, Total	144.8	3.0	150	0	96.5	80-124				
Surr: 1,2-Dichloroethane-d4	43.22	1.0	50	0	86.4	71-125	0			
Surr: 4-Bromofluorobenzene	50.3	1.0	50	0	101	70-125	0			
Surr: Dibromofluoromethane	47.5	1.0	50	0	95	74-125	0			
Surr: Toluene-d8	48.66	1.0	50	0	97.3	75-125	0			

MSD		Sample ID: 14021238-01AMSD				Units: µg/L		Analysis Date: 3/4/2014 01:22 AM		
Client ID: MW-2		Run ID: VOA2_140303B				SeqNo: 3551322		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.69	1.0	50	0	95.4	80-120	48.54	1.76	20	
Ethylbenzene	47.22	1.0	50	0	94.4	80-120	48.21	2.08	20	
Toluene	47.14	1.0	50	0	94.3	80-121	47.63	1.03	20	
Xylenes, Total	143	3.0	150	0	95.4	80-124	145.9	1.96	20	
Surr: 1,2-Dichloroethane-d4	44.27	1.0	50	0	88.5	71-125	45.29	2.26	20	
Surr: 4-Bromofluorobenzene	49.22	1.0	50	0	98.4	70-125	50.75	3.06	20	
Surr: Dibromofluoromethane	47.39	1.0	50	0	94.8	74-125	47.67	0.583	20	
Surr: Toluene-d8	48.48	1.0	50	0	97	75-125	49.61	2.3	20	

MSD		Sample ID: 14021281-02AMSD				Units: µg/L		Analysis Date: 3/4/2014 02:08 AM		
Client ID:		Run ID: VOA2_140303B				SeqNo: 3551324		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	49.82	1.0	50	0	99.6	80-120	47.2	5.39	20	
Ethylbenzene	50.02	1.0	50	0	100	80-120	47.18	5.84	20	
Toluene	48.91	1.0	50	0	97.8	80-121	46.81	4.4	20	
Xylenes, Total	152.3	3.0	150	0	102	80-124	144.8	5.06	20	
Surr: 1,2-Dichloroethane-d4	43.23	1.0	50	0	86.5	71-125	43.22	0.0325	20	
Surr: 4-Bromofluorobenzene	49.83	1.0	50	0	99.7	70-125	50.3	0.94	20	
Surr: Dibromofluoromethane	46.57	1.0	50	0	93.1	74-125	47.5	1.98	20	
Surr: Toluene-d8	48.69	1.0	50	0	97.4	75-125	48.66	0.0489	20	

The following samples were analyzed in this batch:

14021238-01A	14021238-02A	14021238-03A	14021238-04A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tasman Geosciences
Work Order: 14021238
Project: Burton Flats Booster Station

QC BATCH REPORT

Batch ID: **R162663** Instrument ID: **ICS2100** Method: **SW9056** (Dissolve)

MBLK Sample ID: **WBLKW3-R162663** Units: **mg/L** Analysis Date: **3/10/2014 08:23 PM**

Client ID: Run ID: **ICS2100_140310D** SeqNo: **3560367** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.500								

LCS Sample ID: **WLCSW3-R162663** Units: **mg/L** Analysis Date: **3/10/2014 08:38 PM**

Client ID: Run ID: **ICS2100_140310D** SeqNo: **3560368** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.45	0.500	20	0	102	80-120				

MS Sample ID: **14021238-01BMS** Units: **mg/L** Analysis Date: **3/10/2014 11:12 PM**

Client ID: **MW-2** Run ID: **ICS2100_140310D** SeqNo: **3560370** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2243	50.0	1000	1222	102	80-120				

MSD Sample ID: **14021238-01BMSD** Units: **mg/L** Analysis Date: **3/10/2014 11:27 PM**

Client ID: **MW-2** Run ID: **ICS2100_140310D** SeqNo: **3560371** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2320	50.0	1000	1222	110	80-120	2320	0	20	

The following samples were analyzed in this batch:

14021238-01B	14021238-02B	14021238-03B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Tasman Geosciences
Project: Burton Flats Booster Station
WorkOrder: 14021238

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: **27-Feb-14 09:45**

Work Order: **14021238**

Received by: **SAY**

Checklist completed by *Bethany McDaniel*

27-Feb-14

Reviewed by:

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 ☐

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):

0.9C/0.9C c/u

IR1

Cooler(s)/Kit(s):

5866

Date/Time sample(s) sent to storage:

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:

-

Login Notes:

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

Houston, TX
+1 281 530 5656
Middletown, PA
+1 717 944 5541
Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700
South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

COC ID: 101635

Environmental

Customer Information				Project Information				ALS Project Manager				ALS Work Order #					
Purchase Order				Project Name				Burton Flats Booster Station				BTEX (8280B)					
Work Order				Project Number				311090017 F255				Anions (9056) Cl					
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													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	2/26/2014	1240	Water	HCL/4C	4	X	X									<input type="checkbox"/>
2	MW-2	2/26/2014	1240	Water	HCL/4C	4	X	X									<input type="checkbox"/>
3	MW-2 MS	2/26/2014	1240	Water	HCL/4C	4	X	X									<input type="checkbox"/>
4	MW-2 MSD	2/26/2014	1240	Water	HCL/4C	4	X	X									<input type="checkbox"/>
5	MW-3	2/26/2014	1220	Water	HCL/4C	4	X	X									<input type="checkbox"/>
6	Duplicate			Water	HCL/4C	4	X	X									<input type="checkbox"/>
7	Trip Blank			Water	HCL/4C	2	X	X									<input type="checkbox"/>
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Don Baggus Shipment Method: Fedex

Relinquished by: Don Baggus Date: 2/26/14 Time: 1700

Relinquished by: Don Baggus Date: 2/27/14 Time: 0945

Logged by (Laboratory): Don Baggus

Preservative Key: 1-HCl 2-HNO₃ 3-H₂SO₄ 4-NaOH 5-Na₂S₂O₃ 6-NaHSO₃ 7-Other 8-4°C 9-5035

Notes: 10 Day TAT

QC Package: (Check One Box Below)

☒ Level II Std QC ☐ TRRP Check List

☐ Level III Std QC/Raw Data ☐ TRRP Level IV

☐ Level IV SW846/CLP

☐ Other / EDO

Required Turnaround Time: (Check Box)

☒ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour

Other: ☐ 10 Day TAT

Results Due Date: 2/27/14

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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**ALS Environmental**

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CUSTODY SEAL

Date: 2/26/14 Time: 1700
Name: DON FAIGEN
Company: TASMAI GERMANY

Seal Broken By

Date:

8/2
2/27/14

ORIGIN ID: H0BA (281) 530-5856
ALS LABORATORY GROUP
10450 STANCLIFF RD STE 210
HOUSTON, TX 770994338
UNITED STATES US

SHIP DATE: 26FEB14
ACTWGT: 24.5 LB
CAD: /P081424
DIMS: 17x10x16 IN
BILL SENDER

Part # 150297-435

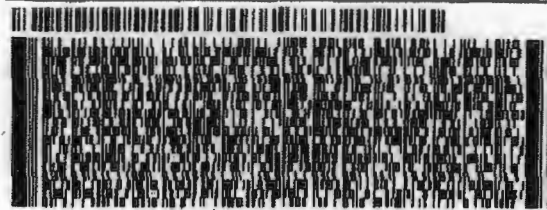
TO

ALS LABORATORY GROUP
10450 STANCLIFF RD
STE 210
HOUSTON TX 77099

(281) 530-5856

REF:

DEPT:

**FedEx**
Express

TRK# 8042 5199 1460
0215

THU - 27 FEB 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
TX-US IAH

