



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

RECEIVED OCD

December 12, 2013

2013 DEC 13 A 11:48

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

**RE: 3rd Quarter 2013 Groundwater Monitoring Results
DCP Midstream, LP J-4-2 Pipeline Release (1RP-1728)
Unit C, Section 27, Township 19 South, Range 35 East
Lea County, New Mexico**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, a copy of the 3rd Quarter 2013 Groundwater Monitoring Results for the DCP J-4-2 Pipeline Release located in Lea County, New Mexico (Unit C, Section 27, Township 19 South, Range 35 East).

If you have any questions regarding the report, please call at 303-605-1718 or e-mail me swweathers@dcpmidstream.com.

Sincerely

DCP Midstream, LP

Stephen Weathers, PG
Principal Environmental Specialist

cc: Geoffrey Leking, Hobbs District (Copy on CD)
Environmental Files

Third Quarter 2013 Groundwater Monitoring and Activities Summary Report

J-4-2 Pipeline Release
Lea County, New Mexico
1RP-1728

Prepared for:



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

Prepared by:



6899 Pecos Street, Unit C
Denver, Colorado 80221

November 22, 2013

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1. Introduction

This report summarizes the groundwater monitoring and remediation activities conducted during the third quarter of 2013 at the J-4-2 pipeline release (Site) in Lea County, New Mexico (Figure 1). Tasman Geosciences, LLC (Tasman) conducted these activities on behalf of DCP Midstream, LP (DCP). The field activities described herein were performed on September 10, 2013 with the purpose of monitoring groundwater flow, quality, and assessing the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons within the Site subsurface. The data collected during the reporting period were used to develop a groundwater elevation figure, an analytical results figure, and LNAPL/groundwater elevation versus time graphs to evaluate current conditions at the Site.

2. Site Location and Background

The Site is located in the northeastern quarter of the northwestern quarter (Unit C) of Section 27, Township 19 South, Range 35 East approximately 3 miles south of the intersection of US Highway 82 and State Highway 483. The area is sparsely populated and land use is primarily associated with livestock grazing and oil and gas production and gathering.

Based on findings from previous Site investigations, a natural gas condensate release was reported at the Site on August 3, 2005. Environmental Plus Incorporated (EPI) of Eunice, New Mexico, performed initial Site investigation activities. EPI reported that the spill was limited to an approximate area of 2,800 square feet and it did not migrate to any surface water features. EPI installed monitoring wells MW-1, MW-2, and MW-3 as a part of the initial soil and groundwater characterization effort in February 2006. Monitoring wells MW-4, MW-6, MW-7, and MW-8 were installed in September 2006 as part of a Site investigation completed by American Environmental Consulting. Installation of monitoring well MW-5 was not completed during this event due to refusal while advancing the borehole. Groundwater samples collected in 2006 from the newly installed wells indicated that dissolved phase petroleum hydrocarbons and chloride had impacted groundwater at the Site in the vicinity of monitoring wells MW-1 and MW-2. In addition, LNAPL was detected at monitoring wells MW-1 and MW-2.

3. Groundwater Monitoring

This section describes the field and laboratory activities performed during the third quarter 2013 groundwater monitoring event. Monitoring activities included Site-wide groundwater gauging and groundwater sampling. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater and LNAPL Elevation Monitoring

Groundwater and LNAPL levels were measured in order to evaluate hydraulic characteristics and provide information regarding seasonal fluctuations of groundwater elevation at the Site. During the third quarter 2013, groundwater levels were measured at seven 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 level data were later converted to elevation (feet above mean sea level [AMSL]). LNAPL levels, where indicated by the IP, were also recorded.

Groundwater elevation measurements collected during the reporting period as well as historical elevations are presented in Table 1, and a third quarter 2013 groundwater elevation contour map is illustrated in Figure 3. Groundwater elevations ranged from 3,703.62 feet AMSL at monitoring well MW-8 to 3,707.55 feet AMSL at monitoring well MW-4. As illustrated in Figure 3, groundwater flow at the Site generally trends to the southeast with a gradient of approximately 0.0053 foot per foot between monitoring wells MW-4 and MW-8.

3.2 Groundwater Quality Monitoring

Groundwater level and total well depth was measured at each of the Site monitoring wells prior to collecting groundwater samples. 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 ($^{\circ}\text{C}$) for transportation. Groundwater samples were then shipped under chain-of-custody procedures to Accutest Laboratories (Accutest) in Wheat Ridge, Colorado, for analysis.

Water quality samples were collected from six wells and 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. A groundwater sample was not collected from MW-2 due to measurable LNAPL in the monitoring well.

Table 2 summarizes BTEX and chloride concentrations in groundwater samples collected during the reporting period in addition to concentrations from the previous 4 quarters. Laboratory analytical reports for the event are included in Appendix A and historical analytical results up to and including the September 2013 event are contained in Appendix B. Analytical results are summarized in Figure 4. During the third quarter 2013, BTEX concentrations were below laboratory detection limits at the six Site sample locations. Chloride was detected in all six of the sampled monitoring wells with concentrations ranging from 297 milligrams per liter (mg/L) in MW-8 to 1,900 mg/L in MW-1.

3.3 Data Quality Assurance / Quality Control

A trip blank, matrix spike or matrix spike duplicate (MS/MSD) and field duplicate (MW-1) were collected during the sampling event. The data were reviewed for compliance with the analytical method and the associated quality assurance/quality control (QA/QC) procedures. All samples were analyzed using the correct analytical methods and within the correct holding times. Chain of custody forms were in order and properly executed and indicate that samples were received at the proper temperature with no headspace. All data were reported using the correct method number and reporting units. The trip blank was fully in control, having no detections of target analytes.

The duplicate sample collected at MW-1 was in compliance with the QA/QC standard. MW-1 and duplicate samples both returned BTEX concentrations below laboratory detection limits.

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

4.1 LNAPL Collection Bailer

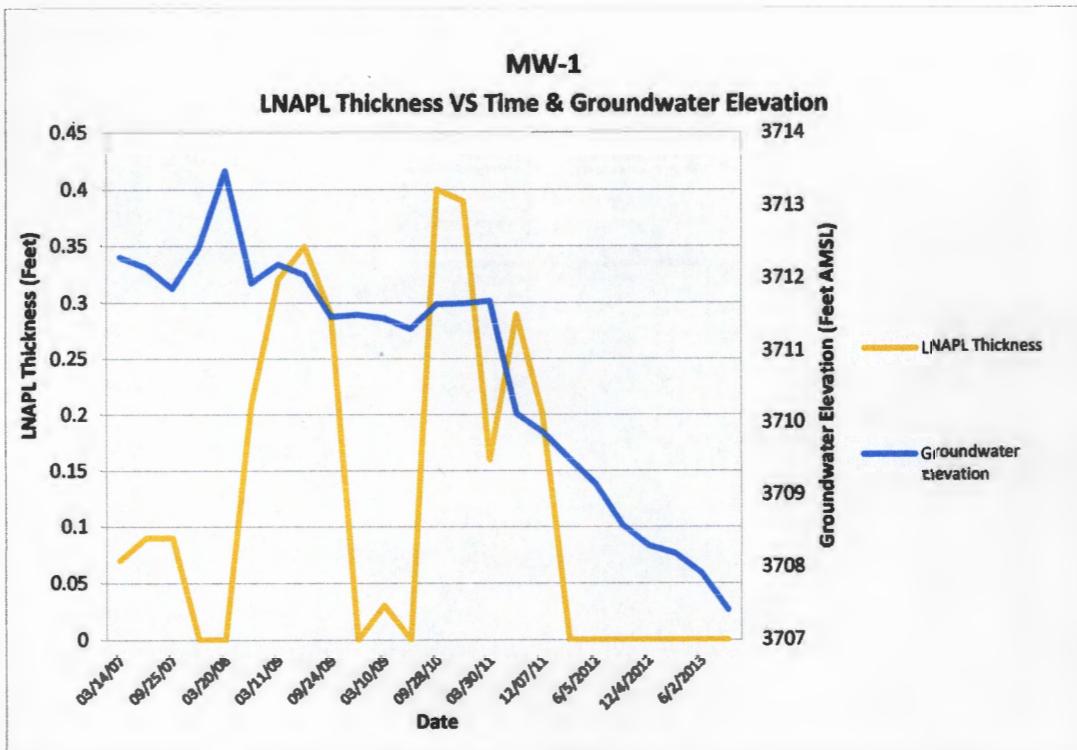
The LNAPL collection bailer was removed from MW-2 during the second quarter 2013 to allow for an accurate detection of free phase hydrocarbons within the well. During the third quarter, a measured LNAPL thickness of 0.04-feet was observed in MW-2. . The LNAPL collection bailer was redeployed in the well following the third quarter 2013 groundwater monitoring event.

4.2 Vacuum Enhanced LNAPL Recovery

During the third quarter 2013 monitoring event, Tasman resumed vacuum enhanced LNAPL recovery events at MW-2. Approximately 1,260 gallons of mixed liquid was recovered during the 8-hour event and was subsequently disposed of at the Cooper Disposal Facility in Hobbs, New Mexico.

4.3 LNAPL Trends

As illustrated in the graphs below, the LNAPL thickness in MW-1 and MW-2 does not appear to exhibit any seasonal fluctuation trends or a relationship to groundwater levels.



5. Conclusions

Dissolved phase hydrocarbon concentrations did not exceed laboratory detection limits in the 6 sampled locations during the third quarter 2013. However, free phase hydrocarbons persist on Site as observed in MW-2 during the reporting period. Due to the presence of free phase hydrocarbons on Site, additional quarterly vacuum recovery events may be warranted.

Ongoing quarterly groundwater sampling will provide for continued monitoring of Site conditions, BTEX concentrations, and LNAPL trends.

6. Recommendations

Based on evaluation of third quarter 2013 and historical Site observations and monitoring results, recommendations for future activities include:

- Continue groundwater sampling at the monitoring locations illustrated on Figure 2.
- Monitor the effectiveness of vacuum enhanced recovery and passive LNAPL collection at MW-2.

Tables

TABLE 1
THIRD QUARTER 2013
SUMMARY OF GROUNDWATER ELEVATION DATA
J-4-2 PIPELINE RELEASE
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (feet)	Depth to Product ¹ (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth ² (feet)	TOC Elevation ³ (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event ⁴ (feet)
MW-1	9/7/2012	31.87			43.05	3740.45	3708.58	-0.57
MW-1	12/4/2012	32.15			43.05	3740.45	3708.30	-0.28
MW-1	2/22/2013	32.26			43.05	3740.45	3708.19	-0.11
MW-1	6/2/2013	32.53			43.05	3740.45	3707.92	-0.27
MW-1	9/10/2013	33.04			43.05	3740.45	3707.41	-0.51
MW-2	9/7/2012	32.70			43.30	3740.62	3707.92	-0.65
MW-2	12/4/2012	33.11			43.30	3740.62	3707.51	-0.41
MW-2	2/22/2013	33.30			43.30	3740.62	3707.32	-0.19
MW-2	6/2/2013	33.21			43.30	3740.62	3707.41	0.09
MW-2	9/10/2013	33.73	33.69	0.04	43.30	3740.62	3706.92	-0.49
MW-3	9/7/2012	31.16			35.20	3739.39	3708.23	-0.62
MW-3	12/4/2012	31.44			35.20	3739.39	3707.95	-0.28
MW-3	2/22/2013	31.54			35.20	3739.39	3707.85	-0.10
MW-3	6/2/2013	31.80			35.20	3739.39	3707.59	-0.26
MW-3	9/10/2013	32.30			35.20	3739.39	3707.09	-0.50
MW-4	9/7/2012	31.56			37.95	3740.24	3708.68	-0.64
MW-4	12/4/2012	31.83			37.95	3740.24	3708.41	-0.27
MW-4	2/22/2013	31.95			37.95	3740.24	3708.29	-0.12
MW-4	6/2/2013	32.20			37.95	3740.24	3708.04	-0.25
MW-4	9/10/2013	32.69			37.95	3740.24	3707.55	-0.49
MW-6	9/7/2012	NM ⁵			34.31	3739.96	NM	NM
MW-6	12/7/2012	32.16			34.31	3739.96	3707.80	-0.75
MW-6	2/22/2013	32.28			34.31	3739.96	3707.68	-0.12
MW-6	6/2/2013	32.51			34.31	3739.96	3707.45	-0.23
MW-6	9/10/2013	33.07			34.31	3739.96	3706.89	-0.56
MW-7	9/7/2012	34.95			40.41	3740.73	3705.78	-0.44
MW-7	12/4/2012	35.20			40.41	3740.73	3705.53	-0.25
MW-7	2/22/2013	35.35			40.41	3740.73	3705.38	-0.15
MW-7	6/2/2013	35.57			40.41	3740.73	3705.16	-0.22
MW-7	9/10/2013	36.07			40.41	3740.73	3704.66	-0.50
MW-8	9/7/2012	32.61			38.58	3737.32	3704.71	-0.31
MW-8	12/4/2012	32.89			38.58	3737.32	3704.43	-0.28
MW-8	2/22/2013	33.03			38.58	3737.32	3704.29	-0.14
MW-8	6/2/2013	33.28			38.58	3737.32	3704.04	-0.25
MW-8	9/10/2013	33.70			38.58	3737.32	3703.62	-0.42
Average change in groundwater elevation since the previous monitoring event								-0.50

Notes:

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

2-Total depths were collected and recorded during the third quarter 2013 monitoring event.

3-TOC elevations for monitoring wells MW-4, MW-6, MW-7, & MW-8 were calculated by adding the PVC stick-up length (in feet) to the surveyed ground surface elevations (in feet amsl).

4- 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.

5- MW-6 was not measured due to an obstruction of sediment fines at 31.15 feet bgs.

Monitoring well location MW-5 was not installed due geologic refusal that was encountered during drilling activities.

Data presented for all other well locations includes previous four sampling events, when available. Historic groundwater elevation data 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

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

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

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

TABLE 2
THIRD QUARTER 2013
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
J-4-2 PIPELINE RELEASE
LEA 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 (mg/L)		0.01	0.75	0.75	0.62	250*	
MW-1	9/7/2012	<0.001	<0.002	<0.002	<0.003	2060	
MW-1	12/4/2012	<0.001	<0.002	<0.002	<0.003	2240	Duplicate sample collected
MW-1	2/22/2103	0.00027	<0.002	<0.002	<0.003	2110	
MW-1	6/2/2013	<0.001	<0.002	<0.002	<0.003	2010	Duplicate sample collected
MW-1	9/10/2013	<0.001	<0.002	<0.002	<0.003	1900	Duplicate sample collected
MW-2	9/7/2012	<0.001	<0.002	<0.002	<0.003	2280	
MW-2	12/4/2012	<0.001	<0.002	0.0008	0.0028	2440	
MW-2	2/22/2103	<0.001	<0.002	<0.002	<0.003	2390	Duplicate sample collected
MW-2	6/2/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	9/10/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-3	9/7/2012	<0.001	<0.002	<0.002	<0.003	2180	
MW-3	12/4/2012	<0.001	<0.002	<0.002	<0.003	2170	
MW-3	2/22/2103	<0.001	<0.002	<0.002	<0.003	2050	
MW-3	6/2/2013	<0.001	<0.002	<0.002	<0.003	1910	
MW-3	9/10/2013	<0.001	<0.002	<0.002	<0.003	1730	
MW-4	9/7/2012	<0.001	<0.002	<0.002	<0.003	1910	Duplicate sample collected
MW-4	12/4/2012	<0.001	<0.002	<0.002	<0.003	1940	
MW-4	2/22/2103	<0.001	<0.002	<0.002	<0.003	1900	
MW-4	6/2/2013	<0.001	<0.002	<0.002	<0.003	1950	
MW-4	9/10/2013	<0.001	<0.002	<0.002	<0.003	1860	
MW-6	9/7/2012 ^(*)	NS	NS	NS	NS	NS	
MW-6	12/7/2012	<0.001	<0.002	<0.002	<0.003	578	
MW-6	2/22/2103	<0.001	<0.002	<0.002	<0.003	536	
MW-6	6/2/2013	<0.001	<0.002	<0.002	<0.003	603	
MW-6	9/10/2013	<0.001	<0.002	<0.002	<0.003	619	
MW-7	9/7/2012	<0.001	<0.002	<0.002	<0.003	1140	
MW-7	12/4/2012	<0.001	<0.002	<0.002	<0.003	1120	
MW-7	2/22/2103	<0.001	<0.002	<0.002	<0.003	1090	
MW-7	6/2/2013	<0.001	<0.002	<0.002	<0.003	1040	
MW-7	9/10/2013	<0.001	<0.002	<0.002	<0.003	1050	
MW-8	9/7/2012	<0.001	<0.002	<0.002	<0.003	308	
MW-8	12/4/2012	<0.001	<0.002	<0.002	<0.003	304	
MW-8	2/22/2013	<0.001	<0.002	<0.002	<0.003	290	
MW-8	6/2/2013	<0.001	<0.002	<0.002	<0.003	291	
MW-8	9/10/2013	<0.001	<0.002	<0.002	<0.003	297	

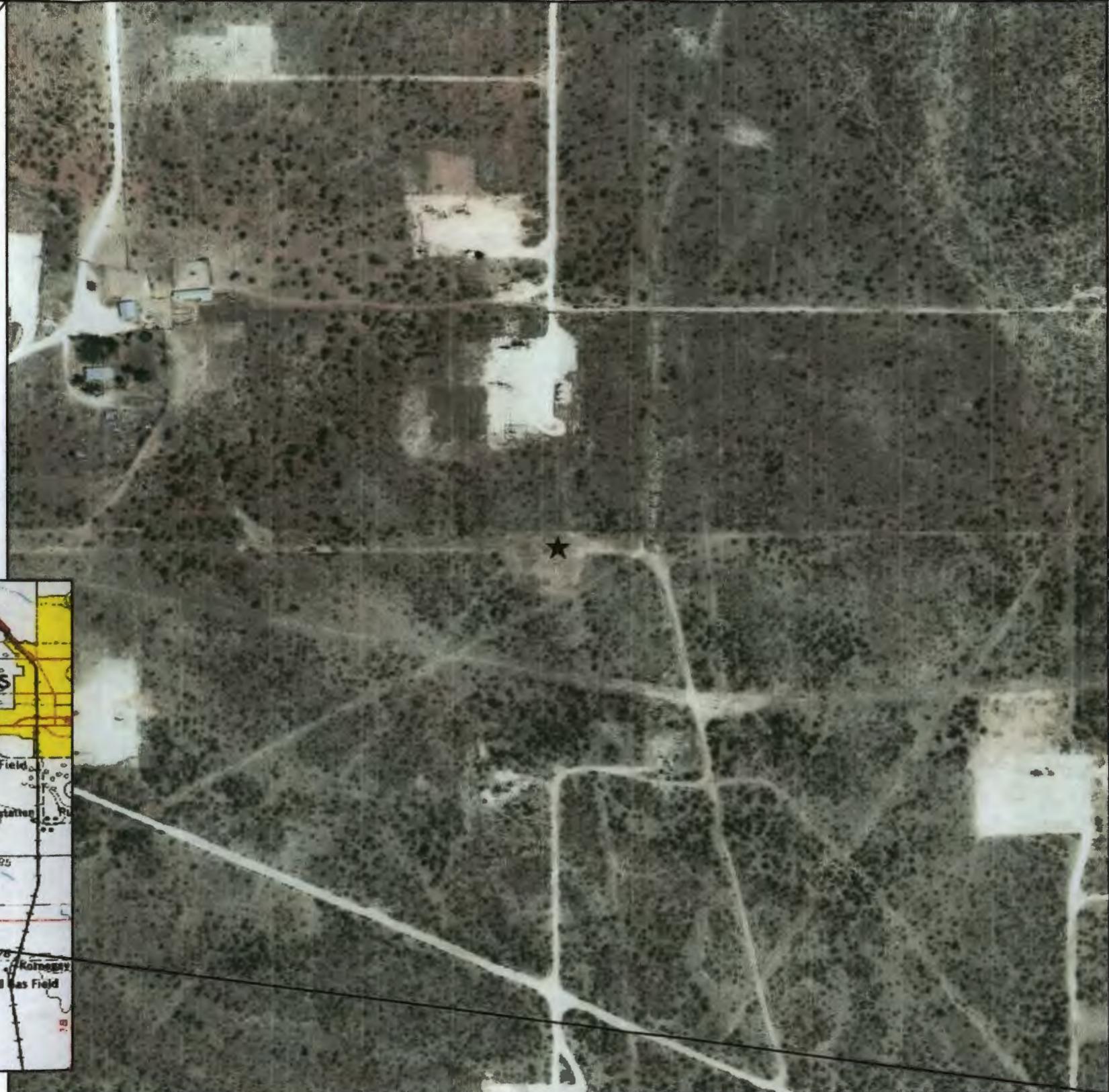
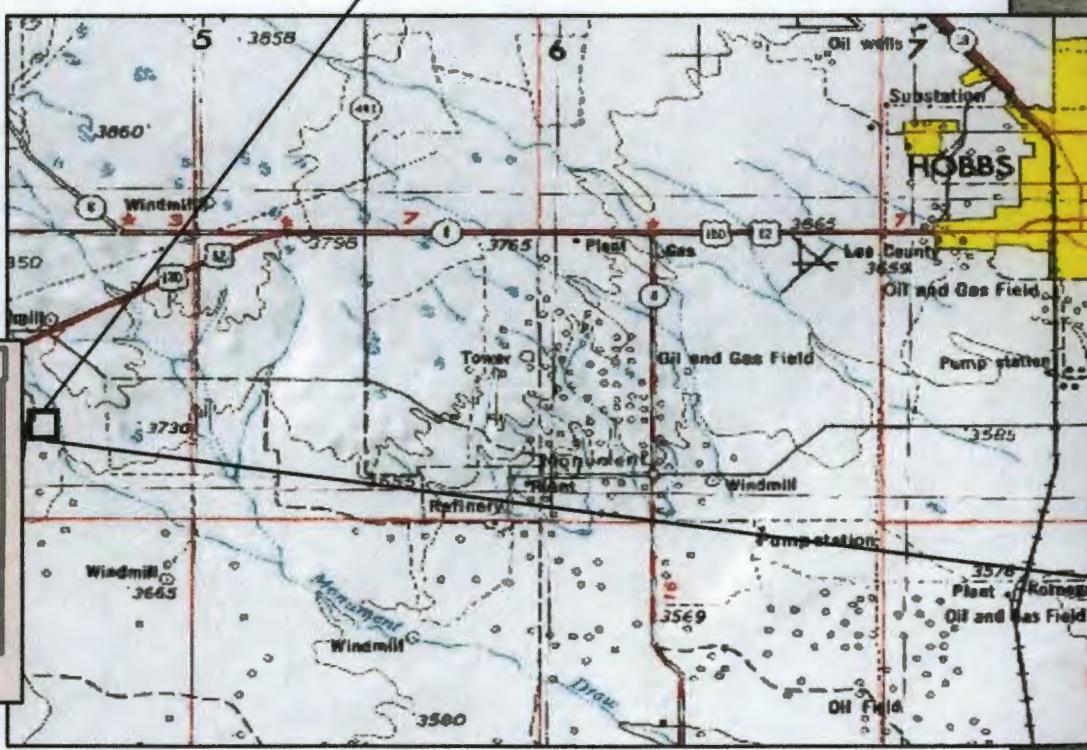
Notes:

- 1.) The environmental cleanup standards for water that are applicable to this site are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.
 - 2.) Monitoring well location MW-5 was not installed due geologic refusal that was encountered during drilling activities.
 - 3.) Data presented for all other well locations includes 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.**
 - 4.) MW-6 was not sampled during the third quarter 2012 due to an obstruction in the well.
 - Sample locations are shown on Figure 2 and analytical results are illustrated on Figure 4.
- * 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.

LNAPL = Light Non-Aqueous Phase Liquid

mg/L = milligrams per liter.

Figures



DESIGNED BY: D. Wade

DRAWN BY: D. Arnold

SHEET CHK'D BY: _____

CROSS CHK'D BY: _____

APPROVED BY: _____

APPROVED BY: _____



**TASMAN
GEOSCIENCES**

Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221
303 487 1228

**DCP Midstream
J-4-2 PIPELINE RELEASE**

**NE/NE Quarter, Section 27, Township 19 South, Range 35 East
Lea County, New Mexico**

SITE LOCATION

FIGURE 1



DESIGNED BY: D. Wade
 DRAWN BY: D. Arnold
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 APPROVED BY: _____



Tasman Geosciences, LLC
 6899 Pecos Street - Unit C
 Denver, CO 80221
 303 487 1228

J-4-2 PIPELINE RELEASE

Third Quarter 2013 Groundwater Monitoring Summary Report

SITE MAP

FIGURE
2



DESIGNED BY: J. Barker

DRAWN BY: D. Arnold

SHEET CHK'D BY: _____

CROSS CHK'D BY: _____

APPROVED BY: _____

APPROVED BY: _____

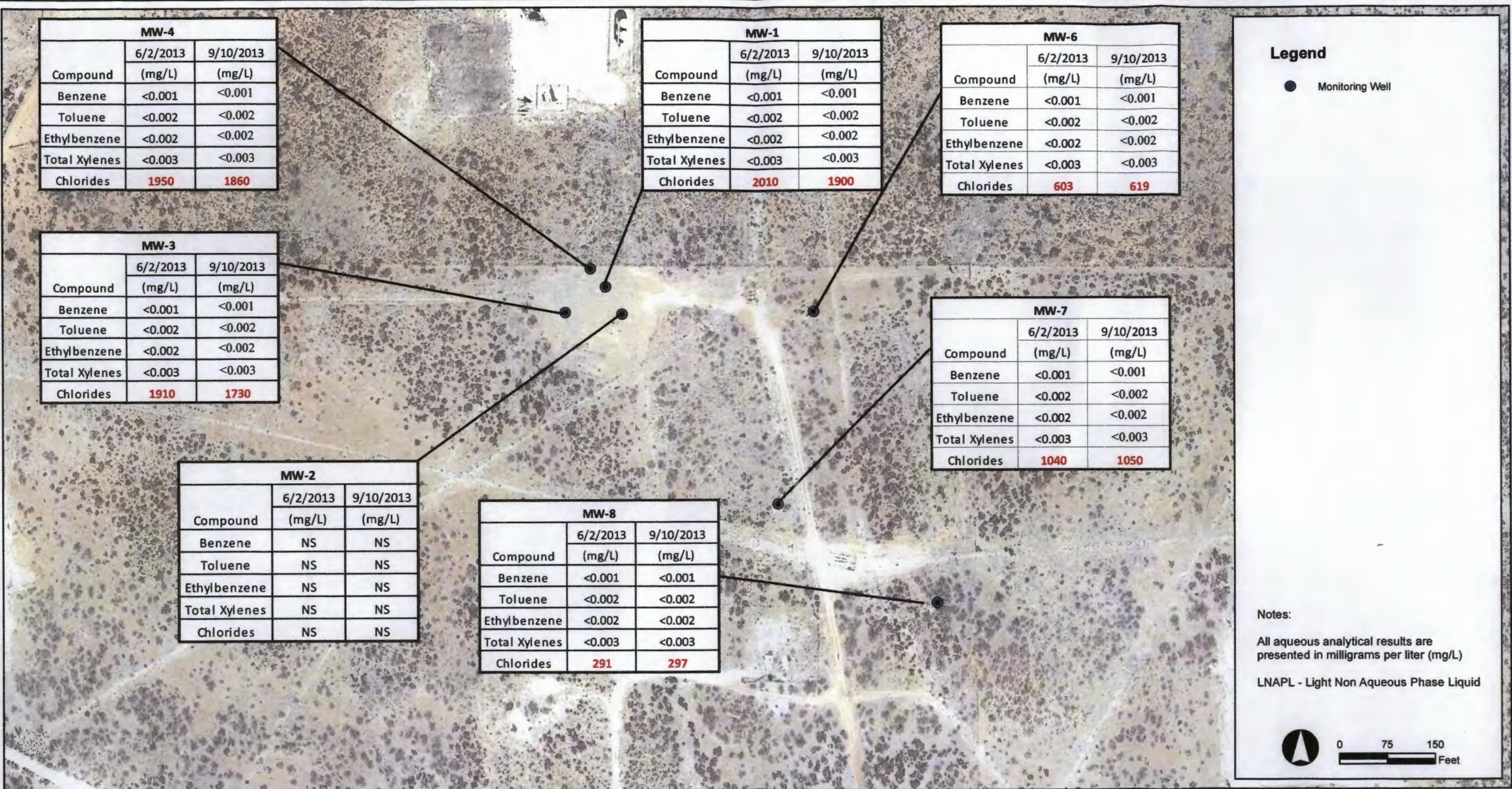


Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221
303 487 1228

DCP Midstream
J-4-2 PIPELINE RELEASE
NE/NE Quarter, Section 27, Township 19 South, Range 35 East
Lea County, New Mexico

GROUNWATER ELEVATION
CONTOUR MAP
(SEPTEMBER 10, 2013)

FIGURE
3



DESIGNED BY: J. Barker
DRAWN BY: D. Arnold
SHEET CHKD BY: _____
CROSS CHKD BY: _____
APPROVED BY: _____
APPROVED BY: _____



Tasman Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221
303 487 1228

DCP Midstream
J-4-2 PIPELINE RELEASE
NE/NE Quarter, Section 27, Township 19 South, Range 35 East
Lea County, New Mexico

ANALYTICAL RESULTS MAP
(SEPTEMBER 10, 2013)

FIGURE
4

Appendix A
Laboratory Analytical Report



09/19/13



Technical Report for

DCP Midstream, LP

TASMCOA:DCP J-4-2

RC-GNoo 390660601

Accutest Job Number: D50456

Sampling Date: 09/10/13

Report to:

**Tasman Geosciencec LLC
6899 Pecos Street Unit C
Denver, CO 80221
swweathers@dcpmidstream.com; cwasko@tasman-geo.com**

ATTN: Christine Wasko

Total number of pages in report: 38



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink that appears to read "Scott Heideman".

**Scott Heideman
Laboratory Director**

Client Service contact: Shea Greiner 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Sample Summary

DCP Midstream, LP

Job No: D50456

TASMCOA:DCP J-4-2

Project No: RC-GNoo 390660601

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D50456-1	09/10/13	14:30 CW	09/12/13	AQ	Ground Water	MW-1
D50456-2	09/10/13	14:45 CW	09/12/13	AQ	Ground Water	MW-3
D50456-3	09/10/13	14:40 CW	09/12/13	AQ	Ground Water	MW-4
D50456-4	09/10/13	14:15 CW	09/12/13	AQ	Ground Water	MW-6
D50456-5	09/10/13	14:05 CW	09/12/13	AQ	Ground Water	MW-7
D50456-6	09/10/13	13:55 CW	09/12/13	AQ	Ground Water	MW-8
D50456-6D	09/10/13	13:55 CW	09/12/13	AQ	Water Dup/MSD	MW-8
D50456-6M	09/10/13	13:55 CW	09/12/13	AQ	Water Matrix Spike	MW-8
D50456-7	09/10/13	00:00 CW	09/12/13	AQ	Ground Water	DUP
D50456-8	09/10/13	15:00 CW	09/12/13	AQ	Trip Blank Water	TRIP BLANK



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: DCP Midstream, LP

Job No D50456

Site: TASMCOA:DCP J-4-2

Report Date 9/19/2013 2:51:31 PM

On 09/12/2013, 7 sample(s), 1 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D50456 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ

Batch ID: V3V1560

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50456-6MS, D50456-6MSD were used as the QC samples indicated.

Matrix AQ

Batch ID: V7V1246

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50265-20DUP, D50381-5MS were used as the QC samples indicated.

Matrix AQ

Batch ID: V7V1247

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D48565-20MS, D48565-20MSD were used as the QC samples indicated.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ

Batch ID: GP10929

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50456-6MS, D50456-6MSD were used as the QC samples for the Chloride analysis.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Page 1 of 1

Job Number: D50456
Account: DCP Midstream, LP
Project: TASMCOA:DCP J-4-2
Collected: 09/10/13

3

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D50456-1	MW-1					
Chloride		1900	50		mg/l	EPA 300.0/SW846 9056
D50456-2	MW-3					
Chloride		1730	50		mg/l	EPA 300.0/SW846 9056
D50456-3	MW-4					
Chloride		1860	50		mg/l	EPA 300.0/SW846 9056
D50456-4	MW-6					
Chloride		619	25		mg/l	EPA 300.0/SW846 9056
D50456-5	MW-7					
Chloride		1050	25		mg/l	EPA 300.0/SW846 9056
D50456-6	MW-8					
Chloride		297	10		mg/l	EPA 300.0/SW846 9056
D50456-7	DUP					
No hits reported in this sample.						
D50456-8	TRIP BLANK					
No hits reported in this sample.						



4

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-1	Date Sampled:	09/10/13
Lab Sample ID:	D50456-1	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V22642.D	1	09/14/13	JL	n/a	n/a	V7V1246
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	99%		62-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	84%		69-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-1	Date Sampled:	09/10/13
Lab Sample ID:	D50456-1	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1900	50	mg/l	100	09/13/13 16:35	KB	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.2
4

Client Sample ID:	MW-3	Date Sampled:	09/10/13
Lab Sample ID:	D50456-2	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V22643.D	1	09/14/13	JL	n/a	n/a	V7V1246
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	99%		62-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	83%		69-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-3	Date Sampled:	09/10/13
Lab Sample ID:	D50456-2	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1730	50	mg/l	100	09/13/13 16:46	KB	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.3
4

Client Sample ID:	MW-4	Date Sampled:	09/10/13
Lab Sample ID:	D50456-3	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V22644.D	1	09/14/13	JL	n/a	n/a	V7V1246
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	107%		62-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	84%		69-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-4	Date Sampled:	09/10/13
Lab Sample ID:	D50456-3	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1860	50	mg/l	100	09/13/13 16:57	KB	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	09/10/13
Lab Sample ID:	D50456-4	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V22652.D	1	09/14/13	JL	n/a	n/a	V7V1247
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	103%		62-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	83%		69-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	09/10/13
Lab Sample ID:	D50456-4	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	619	25	mg/l	50	09/13/13 17:09	KB	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.5
4

Client Sample ID:	MW-7	Date Sampled:	09/10/13
Lab Sample ID:	D50456-5	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V22653.D	1	09/14/13	JL	n/a	n/a	V7V1247
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	94%		62-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	83%		69-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-7	Date Sampled:	09/10/13
Lab Sample ID:	D50456-5	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	1050	25	mg/l	50	09/13/13 17:20	KB	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

4.6
4

Client Sample ID:	MW-8	Date Sampled:	09/10/13
Lab Sample ID:	D50456-6	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V26671.D	1	09/13/13	BR	n/a	n/a	V3V1560
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	116%		62-130%
2037-26-5	Toluene-D8	112%		70-130%
460-00-4	4-Bromofluorobenzene	87%		69-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-8	Date Sampled:	09/10/13
Lab Sample ID:	D50456-6	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	TASMCOA:DCP J-4-2		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	297	10	mg/l	20	09/13/13 17:31	KB	EPA 300.0/SW846 9056

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	DUP	Date Sampled:	09/10/13
Lab Sample ID:	D50456-7	Date Received:	09/12/13
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	TASMCOA:DCP J-4-2		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V22654.D	1	09/14/13	JL	n/a	n/a	V7V1247
Run #2							

Purge Volume	
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	100%		62-130%
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	87%		69-130%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

4.8
4**Client Sample ID:** TRIP BLANK**Lab Sample ID:** D50456-8**Matrix:** AQ - Trip Blank Water**Method:** SW846 8260B**Project:** TASMCOA:DCP J-4-2**Date Sampled:** 09/10/13**Date Received:** 09/12/13**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7V22655.D	1	09/14/13	JL	n/a	n/a	V7V1247
Run #2							

Purge Volume

Run #1 5.0 ml

Run #2

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	98%		62-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	84%		69-130%

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

PAGE 1 OF 1

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL. 303-425-6021 FAX: 303-425-6854
www.accutest.com

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes								
Company Name Tasman Geosciences LLC Street Address 6899 Pecos Street Unit C		Project Name: DCP J-4-2												
City Denver CO 80221		State CO		Billing Information (If different from Report to) Company Name DCP Midstream										
Project Contact Christine Wasko cwasko@tasman-geo.com		Project # RC - GN00 Project - 390680601		Street Address PO Box 4870										
Phone # 720-409-8791		Client Purchase Order #		City Portland OR 97208-4870										
Sampler(s) Name(s) Christine Wasko		Project Manager Jim Dawe jdawe@tasman-geo.com		Attention: Steve Weathers SWWeathers@dcpmidstream.com										
Accutest Sample #		Field ID / Point of Collection		Collection		Number of preserved Bottles								
		Date	Time	Sampled by	Matrix	# of bottles								
					HCl	NaOH	LHNO3	HgSO4	NONE	Dt/Water	MEOH	ENCORE		
		9												
MW-1		9/10/13	1430	V	GW	4	3		1		X	X		G1
MW-2					GW	4	3		1		X	X	WATER PLACEMENT	G2
MW-3		9/10/13	1445		GW	4	3		1		X	X		G3
MW-4			1440		GW	4	3		1		X	X		G4
MW-6			1445		GW	4	3		1		X	X		G5
MW-7			1405		GW	4	3		1		X	X		G6
MW-8			1355		GW	4	3		1		X	X		G7
MW-8 MS/MSD			1355		GW	6	6				X			G8
DUP					GW	3	3		X		X		CHL NOT Sampled	G9
TRIP BLANK		9/10/13	1500	V	GW	2	2				X			G10
Turnaround Time (Business days)		Approved By (Accutest PM): / Date:		Data Deliverable Information		Comments / Special Instructions								
<input type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 6 Day RUSH <input type="checkbox"/> 3 Day Emergency <input type="checkbox"/> 2 Day Emergency <input type="checkbox"/> 1 Day Emergency <input checked="" type="checkbox"/> STD 5 business Days per contract <small>Emergency & Rush TIA data available VIA Leblink:</small>				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input checked="" type="checkbox"/> COMMNB <input type="checkbox"/> COMMNB+ <input type="checkbox"/>		<input type="checkbox"/> State Forms Required <input type="checkbox"/> Send Forms to State <input checked="" type="checkbox"/> Report by Fax <input checked="" type="checkbox"/> Report by PDF <input type="checkbox"/> EDD Format								
						Email results to Steve Weathers <small>CC: cwasko@tasman-geo.com</small>								

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: <i>Christine Wasko</i>	Date Time: <i>9/10/13 1600</i>	Received By: <i>1</i> <i>retdex</i>	Relinquished By: <i>2</i>	Date Time: <i>FL 1600</i>	Received By: <i>2</i> <i>MC 9-12-13</i>
Relinquished by Sampler: <i>3</i>	Date Time: <i></i>	Received By: <i>3</i>	Relinquished By: <i>4</i>	Date Time: <i></i>	Received By: <i>4</i> <i>10/10</i>
Relinquished by: <i>5</i>	Date Time: <i></i>	Received By: <i>5</i>	Custody Seal # <i>FL</i>	Intact <input checked="" type="checkbox"/> Not Intact <input type="checkbox"/>	Preserved where applicable <input checked="" type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp <i>3.0</i>

D50456: Chain of Custody

Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D50456

Client: TASMAN

Immediate Client Services Action Required: No

Date / Time Received: 9/12/2013 10:10:00 AM

No. Coolers:

1

Client Service Action Required at Login: No

Project: DCP

Airbill #'s: FX

Cooler Security Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun | |
| 3. Cooler media: | Ice (bag) | |

Quality Control Preservation Y or N N/A

- | | | | |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume rec'd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www.accutest.com

5.1

5

D50456: Chain of Custody

Page 2 of 2



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Page 1 of 1

Job Number: D50456

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V1560-MB	3V26661.D	1	09/13/13	BR	n/a	n/a	V3V1560

The QC reported here applies to the following samples:

Method: SW846 8260B

D50456-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	117%
2037-26-5	Toluene-D8	108%
460-00-4	4-Bromofluorobenzene	92%

Method Blank Summary

Job Number: D50456

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V1246-MB	7V22626.D	1	09/13/13	JL	n/a	n/a	V7V1246

The QC reported here applies to the following samples:

Method: SW846 8260B

D50456-1, D50456-2, D50456-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	2.0	ug/l	

CAS No. Surrogate Recoveries

CAS No.	Surrogate	Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	99%	62-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	84%	69-130%

Method Blank Summary

Job Number: D50456

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V1247-MB	7V22647.D	1	09/14/13	JL	n/a	n/a	V7V1247

The QC reported here applies to the following samples:**Method: SW846 8260B**

D50456-4, D50456-5, D50456-7, D50456-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	2.0	ug/l	

CAS No. Surrogate Recoveries

CAS No.	Surrogate	Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	107%	62-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	83%	69-130%

Blank Spike Summary

Job Number: D50456

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V1560-BS	3V26662.D	1	09/13/13	BR	n/a	n/a	V3V1560

The QC reported here applies to the following samples:**Method: SW846 8260B**

D50456-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	44.6	89	70-130
100-41-4	Ethylbenzene	50	44.5	89	70-130
108-88-3	Toluene	50	48.4	97	70-130
1330-20-7	Xylene (total)	150	145	97	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	103%	62-130%
2037-26-5	Toluene-D8	116%	70-130%
460-00-4	4-Bromofluorobenzene	102%	69-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D50456
Account: DCPMCODN DCP Midstream, LP
Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V1246-BS	7V22627.D	1	09/13/13	JL	n/a	n/a	V7V1246

The QC reported here applies to the following samples:

Method: SW846 8260B

D50456-1, D50456-2, D50456-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	53.9	108	70-130
100-41-4	Ethylbenzene	50	55.4	111	70-130
108-88-3	Toluene	50	53.9	108	70-130
1330-20-7	Xylene (total)	150	170	113	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	101%	62-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	101%	69-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D50456
Account: DCPMCODN DCP Midstream, LP
Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V7V1247-BS	7V22648.D	1	09/14/13	JL	n/a	n/a	V7V1247

The QC reported here applies to the following samples:

Method: SW846 8260B

D50456-4, D50456-5, D50456-7, D50456-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	52.7	105	70-130
100-41-4	Ethylbenzene	50	55.3	111	70-130
108-88-3	Toluene	50	54.6	109	70-130
1330-20-7	Xylene (total)	150	172	115	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	99%	62-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	104%	69-130%

* = Outside of Control Limits.

Matrix Spike Summary

Page 1 of 1

Job Number: D50456

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50381-5MS	7V22628.D	1	09/13/13	JL	n/a	n/a	V7V1246
D50381-5	7V22629.D	1	09/13/13	JL	n/a	n/a	V7V1246

The QC reported here applies to the following samples:

Method: SW846 8260B

D50456-1, D50456-2, D50456-3

CAS No.	Compound	D50381-5		Spike	MS	MS	Limits
		ug/l	Q	ug/l	ug/l	%	
71-43-2	Benzene	ND		50	46.9	94	62-130
100-41-4	Ethylbenzene	ND		50	48.5	97	63-130
108-88-3	Toluene	ND		50	47.5	95	60-130
1330-20-7	Xylene (total)	ND		150	150	100	67-130

CAS No.	Surrogate Recoveries	MS	D50381-5	Limits
17060-07-0	1,2-Dichloroethane-D4	98%	94%	62-130%
2037-26-5	Toluene-D8	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	96%	82%	69-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D50456

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50456-6MS	3V26672.D	1	09/13/13	BR	n/a	n/a	V3V1560
D50456-6MSD	3V26673.D	1	09/13/13	BR	n/a	n/a	V3V1560
D50456-6	3V26671.D	1	09/13/13	BR	n/a	n/a	V3V1560

The QC reported here applies to the following samples:

Method: SW846 8260B

D50456-6

CAS No.	Compound	D50456-6 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	50	47.6	95	47.0	94	1	62-130/30
100-41-4	Ethylbenzene	ND	50	45.6	91	45.1	90	1	63-130/30
108-88-3	Toluene	ND	50	50.5	101	50.1	100	1	60-130/30
1330-20-7	Xylene (total)	ND	150	146	97	145	97	1	67-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D50456-6	Limits
17060-07-0	1,2-Dichloroethane-D4	97%	100%	116%	62-130%
2037-26-5	Toluene-D8	112%	112%	112%	70-130%
460-00-4	4-Bromofluorobenzene	97%	95%	87%	69-130%

* = Outside of Control Limits.

6.4.1
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Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D50456

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D48565-20MS	7V22649.D	1	09/14/13	JL	n/a	n/a	V7V1247
D48565-20MSD	7V22650.D	1	09/14/13	JL	n/a	n/a	V7V1247
D48565-20	7V22651.D	1	09/14/13	JL	n/a	n/a	V7V1247

The QC reported here applies to the following samples:

Method: SW846 8260B

D50456-4, D50456-5, D50456-7, D50456-8

CAS No.	Compound	D48565-20		Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
		ug/l	Q							
71-43-2	Benzene	ND	50	55.7	111	55.3	111	1	62-130/30	
100-41-4	Ethylbenzene	ND	50	55.1	110	55.3	111	0	63-130/30	
108-88-3	Toluene	ND	50	56.1	112	54.7	109	3	60-130/30	
1330-20-7	Xylene (total)	ND	150	169	113	167	111	1	67-130/30	

CAS No.	Surrogate Recoveries	MS	MSD	D48565-20	Limits
17060-07-0	1,2-Dichloroethane-D4	106%	102%	99%	62-130%
2037-26-5	Toluene-D8	105%	101%	101%	70-130%
460-00-4	4-Bromofluorobenzene	107%	101%	83%	69-130%

* = Outside of Control Limits.

6.4.2
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Duplicate Summary

Job Number: D50456

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP J-4-2

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50265-20DUP	7V22631.D	10	09/13/13	JL	n/a	n/a	V7V1246
D50265-20	7V22630.D	10	09/13/13	JL	n/a	n/a	V7V1246

The QC reported here applies to the following samples:

Method: SW846 8260B

D50456-1, D50456-2, D50456-3

CAS No.	Compound	D50265-20		DUP		RPD	Limits
		ug/l	Q	ug/l	Q		
71-43-2	Benzene	819		800		2	30
100-41-4	Ethylbenzene	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	30
1330-20-7	Xylene (total)	ND		ND		nc	30

CAS No.	Surrogate Recoveries	DUP	D50265-20	Limits
17060-07-0	1,2-Dichloroethane-D4	101%	94%	62-130%
2037-26-5	Toluene-D8	104%	102%	70-130%
460-00-4	4-Bromofluorobenzene	90%	83%	69-130%

* = Outside of Control Limits.



General Chemistry

QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D50456
Account: DCPMCODN - DCP Midstream, LP
Project: TASMCOA:DCP J-4-2

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP10929/GN21907	0.50	0.0	mg/l	20	19.8	99.0	90-110%
Sulfate	GP10929/GN21907	0.50	0.0	mg/l	30	29.8	99.3	90-110%

Associated Samples:

Batch GP10929: D50456-1, D50456-2, D50456-3, D50456-4, D50456-5, D50456-6

(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D50456
Account: DCPMCODN - DCP Midstream, LP
Project: TASMCOA:DCP J-4-2

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP10929/GN21907	D50456-6	mg/l	297	200	511	107.0	80-120%
Sulfate	GP10929/GN21907	D50456-6	mg/l	78.1	200	288	105.0	80-120%

Associated Samples:

Batch GP10929: D50456-1, D50456-2, D50456-3, D50456-4, D50456-5, D50456-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D50456
Account: DCPMCODN - DCP Midstream, LP
Project: TASMCOA:DCP J-4-2

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP10929/GN21907	D50456-6	mg/l	297	200	510	0.2	20%
Sulfate	GP10929/GN21907	D50456-6	mg/l	78.1	200	288	0.0	20%

Associated Samples:

Batch GP10929: D50456-1, D50456-2, D50456-3, D50456-4, D50456-5, D50456-6

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

Appendix B

Historical Groundwater Analytical Results

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
J-4-2 PIPELINE RELEASE
LEA 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 (mg/L)		0.01	0.75	0.75	0.62	250*	
MW-1	2/1/2006	0.139	0.326	0.34	0.31	NA	
MW-1	9/1/2006	0.0487	0.0058	0.0284	0.0694	NA	
MW-1	9/25/2006	0.042	0.025	0.0048	0.061		
MW-1	9/25/2006	0.056	0.032	0.0068	0.078		
MW-1	12/1/2006	LNAPL	LNAPL	LNAPL	LNAPL	NA	
MW-1	3/1/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	6/1/2007	LNAPL	LNAPL	0.004	LNAPL	LNAPL	
MW-1	9/1/2007	0.011	0.003	0.04	0.098	NA	
MW-1	1/1/2007	0.107	0.024	0.014	0.39	NA	
MW-1	11/30/2007	0.107	0.0243	0.0401	0.39		
MW-1	3/1/2008	0.037	0.0155	LNAPL	0.215	NA	
MW-1	3/20/2008	0.0416	0.0186	0.0177	0.26		
MW-1	6/1/2008	LNAPL	LNAPL	LNAPL	LNAPL	NA	
MW-1	9/1/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	12/1/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/11/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-1	5/18/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	9/24/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	12/20/2009	<0.002	<0.002	.0014J	0.0418	2680	
MW-1	12/20/2009	<0.00050	<0.00043	0.0014	0.0418		
MW-1	3/10/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	6/13/2010	0.0016	<0.001	<0.0003	0.0095	1800	
MW-1	6/14/2010	0.0016	<1.0	<0.30	-		
MW-1	9/29/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	12/8/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/30/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	9/16/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	12/7/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-1	3/11/2012	<0.001	<0.002	<0.002	<0.004	2970	
MW-1	6/5/2012	<0.001	<0.002	<0.002	<0.003	2480	
MW-1	9/7/2012	<0.001	<0.002	<0.002	<0.003	2060	
MW-1	12/4/2012	<0.001	<0.002	<0.002	<0.003	2240	Duplicate sample collected
MW-1	2/22/2103	0.00027	<0.002	<0.002	<0.003	2110	
MW-1	6/2/2013	<0.001	<0.002	<0.002	<0.003	2010	Duplicate sample collected
MW-1	9/10/2013	<0.001	<0.002	<0.002	<0.003	1900	Duplicate sample collected

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
J-4-2 PIPELINE RELEASE
LEA 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 (mg/L)		0.01	0.75	0.75	0.62	250*	
MW-2	2/1/2006	0.026	0.038	0.04	0.335		
MW-2	9/1/2006	0.0045	<0.001	0.0027	0.0471		
MW-2	12/1/2006	0.006	0.003	0.003	0.0613		
MW-2	3/1/2007	0.188	0.006	0.026	0.125		
MW-2	6/1/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	9/1/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	11/1/2007	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	11/30/2007	0.006	0.0033	0.0025	0.0613		
MW-2	3/1/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	3/20/2008	0.188	0.0062	0.0262	0.125		
MW-2	6/1/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	9/1/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	12/1/2008	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	3/11/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	5/18/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	9/24/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	12/20/2009	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	3/10/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	6/13/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	9/29/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	12/8/2010	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	3/30/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	9/16/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	12/7/2011	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	3/11/2012	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	
MW-2	6/5/2012	0.00043	<0.002	0.0024	0.0069	2450	
MW-2	9/7/2012	<0.001	<0.002	<0.002	<0.003	2280	
MW-2	12/4/2012	<0.001	<0.002	0.0008	0.0028	2440	
MW-2	2/22/2103	<0.001	<0.002	<0.002	<0.003	2390	Duplicate sample collected
MW-2	6/2/2013 ⁽⁵⁾	NS	NS	NS	NS	NS	
MW-2	9/10/2013	LNAPL	LNAPL	LNAPL	LNAPL	LNAPL	

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
J-4-2 PIPELINE RELEASE
LEA 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 (mg/L)		0.01	0.75	0.75	0.62	250*	
MW-3	2/1/2006	<0.001	<0.001	<0.001	<0.002	NA	
MW-3	9/1/2006	<0.002	<0.002	<0.002	<0.006	NA	
MW-3	9/25/2006	<0.23	<0.54	<0.48	<1.1		
MW-3	3/14/2007	<0.00023	<0.00054	<0.00048	<0.0011		
MW-3	11/30/2007	0.0011	<0.00048	<0.00045	<0.0060		
MW-3	12/1/2006	<0.002	<0.002	<0.002	<0.006	NA	
MW-3	3/1/2007	<0.002	<0.002	<0.002	<0.006	7800	
MW-3	6/1/2007	0.003	0.005	0.002	0.01	10800	
MW-3	9/1/2007	<0.001	<0.001	<0.001	<0.001	NA	
MW-3	11/1/2007	0.0011J	<0.002	<0.002	<0.006	NA	
MW-3	3/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-3	3/20/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-3	6/1/2008	<0.002	<0.002	<0.002	0.007	NA	
MW-3	9/1/2008	<0.002	<0.002	<0.002	<0.006	4070	
MW-3	12/1/2008	<0.002	<0.002	<0.002	<0.006	2625	
MW-3	12/3/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-3	3/11/2009	<0.002	<0.002	<0.002	<0.002	2860	
MW-3	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-3	5/18/2009	<0.002	<0.002	<0.002	<0.002	3270	
MW-3	5/18/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-3	9/24/2009	<0.002	<0.002	<0.002	<0.006	3195	
MW-3	9/24/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-3	12/20/2009	<0.002	<0.002	<0.002	<0.006	3605	
MW-3	12/20/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-3	3/10/2010	<0.001	<0.002	<0.002	<0.004	3030	
MW-3	3/10/2010	<0.40	<1.0	<1.0	-		
MW-3	6/13/2010	<0.0003	<0.001	<0.0003	<0.0006	2130	
MW-3	6/13/2010	<0.30	<1.0	<0.30	-		
MW-3	9/29/2010	<0.001	<0.002	<0.002	<0.004	2220	
MW-3	9/29/2010	<0.00030	<0.0010	<0.00030	-		
MW-3	12/8/2010	<0.001	<0.002	<0.002	<0.004	2530	
MW-3	12/8/2010	<0.00030	<0.0010	<0.00030	-		
MW-3	3/30/2011	<0.001	<0.002	<0.002	<0.002	2230	
MW-3	3/30/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-3	6/11/2011	<0.001	<0.002	<0.002	<0.004	2210	
MW-3	6/20/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-3	9/16/2011	<0.001	<0.002	<0.002	<0.004	2190	Duplicate sample collected
MW-3	12/7/2011	<0.001	<0.002	<0.002	<0.004	2230	Duplicate sample collected
MW-3	3/11/2012	<0.001	<0.002	<0.002	<0.004	2210	
MW-3	6/5/2012	<0.001	<0.002	<0.002	<0.003	2080	
MW-3	9/7/2012	<0.001	<0.002	<0.002	<0.003	2180	
MW-3	12/4/2012	<0.001	<0.002	<0.002	<0.003	2170	
MW-3	2/22/2013	<0.001	<0.002	<0.002	<0.003	2050	
MW-3	6/2/2013	<0.001	<0.002	<0.002	<0.003	1910	
MW-3	9/10/2013	<0.001	<0.002	<0.002	<0.003	1730	

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
J-4-2 PIPELINE RELEASE
LEA 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 (mg/L)		0.01	0.75	0.75	0.62	250*	
MW-4	2/1/2006	NI	NI	NI	NI	NA	
MW-4	6/1/2006	0.0086	.00093J	0.0092	0.0061	NA	
MW-4	9/27/2006	0.0086	0.0092	0.00093	0.0061		
MW-4	12/1/2006	0.025	0.005	<0.002	0.0065	NA	
MW-4	3/1/2007	0.004	6E-04	<0.002	0.003	1300	
MW-4	3/14/2007	0.0044	0.0006	<0.00048	0.0032		
MW-4	6/1/2007	<0.001	<0.001	<0.001	<0.001	1380	
MW-4	9/1/2007	<0.001	<0.001	<0.001	<0.001	NA	
MW-4	11/1/2007	<0.002	<0.002	<0.002	<0.006	NA	
MW-4	11/30/2007	<0.00046	<0.00048	<0.00045	<0.0060		
MW-4	3/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-4	3/20/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-4	6/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-4	9/1/2008	<0.002	<0.002	<0.002	.0041J	1440	
MW-4	12/1/2008	<0.002	<0.002	<0.002	<0.006	70	
MW-4	12/3/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-4	3/11/2009	<0.002	<0.002	<0.002	<0.002	1390	
MW-4	5/18/2009	<0.002	<0.002	<0.002	<0.002	1440	
MW-4	5/18/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-4	9/24/2009	<0.002	<0.002	<0.002	<0.006	1490	
MW-4	9/24/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-4	12/20/2009	<0.002	<0.002	<0.002	<0.006	1740	
MW-4	12/20/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-4	3/10/2010	<0.001	<0.002	<0.002	<0.004	1950	
MW-4	3/10/2010	<0.40	<1.0	<1.0	-		
MW-4	6/13/2010	<0.0003	<0.001	<0.0003	<0.0006	2150	
MW-4	6/13/2010	<0.30	<1.0	<0.30	-		
MW-4	9/29/2010	<0.001	<0.002	<0.002	<0.004	2130	
MW-4	9/29/2010	<0.00030	<0.0010	<0.00030	-		
MW-4	12/8/2010	<0.001	<0.002	<0.002	<0.004	2740	
MW-4	12/8/2010	<0.00030	<0.0010	<0.00030	-		
MW-4	3/30/2011	<0.001	<0.002	<0.002	<0.002	2300	
MW-4	3/30/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-4	6/11/2011	<0.001	<0.002	<0.002	<0.004	2230	
MW-4	6/20/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-4	9/16/2011	<0.001	<0.002	<0.002	<0.004	1980	
MW-4	12/7/2001	<0.001	<0.002	<0.002	<0.004	2010	
MW-4	3/11/2012	<0.001	<0.002	<0.002	<0.004	1960	Duplicate sample collected
MW-4	6/5/2012	<0.001	<0.002	<0.002	<0.003	1790	Duplicate sample collected
MW-4	9/7/2012	<0.001	<0.002	<0.002	<0.003	1910	Duplicate sample collected
MW-4	12/4/2012	<0.001	<0.002	<0.002	<0.003	1940	
MW-4	2/22/2103	<0.001	<0.002	<0.002	<0.003	1900	
MW-4	6/2/2013	<0.001	<0.002	<0.002	<0.003	1950	
MW-4	9/10/2013	<0.001	<0.002	<0.002	<0.003	1860	

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
J-4-2 PIPELINE RELEASE
LEA 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 (mg/L)		0.01	0.75	0.75	0.62	250*	
MW-6	2/1/2006	NI	NI	NI	NI	NA	
MW-6	9/1/2006	<0.002	<0.002	<0.002	<0.006	NA	
MW-6	9/27/2006	<0.23	<0.54	<0.48	<1.1		
MW-6	12/1/2006	<0.002	<0.002	<0.002	<0.006	NA	
MW-6	3/1/2007	<0.002	<0.002	<0.002	<0.006	669	
MW-6	3/14/2007	<0.00023	<0.00054	<0.00048	<0.0011		
MW-6	6/1/2007	<0.001	<0.001	<0.001	<0.001	544	
MW-6	9/1/2007	<0.001	<0.001	<0.001	<0.001	NA	
MW-6	11/1/2007	<0.002	<0.002	<0.002	<0.006	NA	
MW-6	11/30/2007	<0.00023	<0.00054	<0.00048	<0.0011		
MW-6	3/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-6	3/20/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-6	6/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-6	9/1/2008	<0.002	<0.002	<0.002	<0.006	537	
MW-6	12/1/2008	<0.002	<0.002	<0.002	<0.002	391	
MW-6	12/3/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-6	3/11/2009	<0.002	<0.002	<0.002	<0.002	363	
MW-6	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-6	5/18/2009	<0.002	<0.002	<0.002	<0.006	383	
MW-6	5/18/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-6	9/24/2009	<0.002	<0.002	<0.002	<0.006	373	
MW-6	9/24/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-6	12/20/2009	<0.002	<0.002	<0.002	<0.006	1090	
MW-6	12/20/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-6	3/10/2010	NA	NA	NA	NA	NA	
MW-6	6/13/2010	<0.0003	<0.001	<0.0003	<0.006	533	
MW-6	6/13/2010	<0.30	<1.0	<0.30	-		
MW-6	9/29/2010	<0.001	<0.002	<0.002	<0.004	445	
MW-6	9/29/2010	<0.00030	<0.0010	<0.00030	-		
MW-6	12/8/2010	<0.001	<0.002	<0.002	<0.004	513	
MW-6	12/8/2010	<0.00030	<0.0010	<0.00030	-		
MW-6	3/30/2011	<0.001	<0.002	<0.002	<0.002	491	
MW-6	3/30/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-6	6/11/2011	<0.001	<0.002	<0.002	<0.004	503	
MW-6	6/20/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-6	9/16/2011	<0.001	<0.002	<0.002	<0.004	476	
MW-6	12/7/2011	<0.001	<0.002	<0.002	<0.004	526	
MW-6	3/11/2012	<0.001	<0.002	<0.002	<0.004	522	
MW-6	6/5/2012	<0.001	<0.002	<0.002	<0.003	532	
MW-6 ⁽⁴⁾	9/7/2012	NS	NS	NS	NS	NS	
MW-6	12/4/2012	<0.001	<0.002	<0.002	<0.003	578	
MW-6	2/22/2103	<0.001	<0.002	<0.002	<0.003	536	
MW-6	6/2/2013	<0.001	<0.002	<0.002	<0.003	603	
MW-6	9/10/2013	<0.001	<0.002	<0.002	<0.003	619	

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
J-4-2 PIPELINE RELEASE
LEA 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 (mg/L)		0.01	0.75	0.75	0.62	250*	
MW-7	2/1/2006	NI	NI	NI	NI	NA	
MW-7	6/1/2006	<0.002	<0.002	<0.002	<0.006	NA	
MW-7	9/27/2006	<0.23	<0.54	<0.48	<1.1		
MW-7	12/1/2006	<0.002	<0.002	<0.002	<0.006	NA	
MW-7	3/1/2007	<0.002	<0.002	<0.002	<0.006	1230	
MW-7	3/14/2007	<0.00023	<0.00054	<0.00048	<0.0011		
MW-7	6/1/2007	<0.001	<0.001	<0.001	0.003	1150	
MW-7	9/1/2007	<0.001	<0.001	<0.001	<0.001	NA	
MW-7	11/1/2007	<0.002	<0.002	<0.002	<0.006	NA	
MW-7	11/30/2007	<0.00023	<0.00054	<0.00048	<0.0011		
MW-7	3/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-7	3/20/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-7	6/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-7	9/1/2008	<0.002	<0.002	<0.002	<0.006	1180	
MW-7	12/1/2008	<0.002	<0.002	<0.002	<0.002	1050	
MW-7	12/3/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-7	3/11/2009	<0.002	<0.002	<0.002	<0.002	944	
MW-7	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-7	5/18/2009	<0.002	<0.002	<0.002	<0.006	1090	
MW-7	5/18/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-7	9/24/2009	<0.002	<0.002	<0.002	<0.006	1140	
MW-7	9/24/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-7	12/20/2009	<0.002	<0.002	<0.002	<0.006	1440	
MW-7	12/20/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-7	3/10/2010	<0.001	<0.002	<0.002	<0.004	1230	
MW-7	3/10/2010	<0.40	<1.0	<1.0	-		
MW-7	6/13/2010	<0.0003	<0.001	<0.0003	<0.006	1280	
MW-7	6/13/2010	<0.30	<1.0	<0.30	-		
MW-7	9/29/2010	<0.001	<0.002	<0.002	<0.004	1210	
MW-7	9/29/2010	<0.00030	<0.0010	<0.00030	-		
MW-7	12/8/2010	<0.001	<0.002	<0.002	<0.004	1180	
MW-7	12/8/2010	<0.00030	<0.0010	<0.00030	-		
MW-7	3/30/2011	<0.001	<0.002	<0.002	<0.002	1210	
MW-7	3/30/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-7	6/11/2011	<0.001	<0.002	<0.002	<0.004	1210	
MW-7	6/20/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-7	9/16/2011	<0.001	<0.002	<0.002	<0.004	1170	
MW-7	12/7/2011	<0.001	<0.002	<0.002	<0.004	1200	
MW-7	3/11/2012	<0.001	<0.002	<0.002	<0.004	1220	
MW-7	6/5/2012	<0.001	<0.002	<0.002	<0.003	1120	
MW-7	9/7/2012	<0.001	<0.002	<0.002	<0.003	1140	
MW-7	12/4/2012	<0.001	<0.002	<0.002	<0.003	1120	
MW-7	2/22/2103	<0.001	<0.002	<0.002	<0.003	1090	
MW-7	6/2/2013	<0.001	<0.002	<0.002	<0.003	1040	
MW-7	9/10/2013	<0.001	<0.002	<0.002	<0.003	1050	

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX AND CHLORIDE CONCENTRATIONS IN GROUNDWATER
J-4-2 PIPELINE RELEASE
LEA 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 (mg/L)		0.01	0.75	0.75	0.62	250*	
MW-8	12/1/2006	NI	NI	NI	NI	NA	
MW-8	9/1/2006	<0.002	<0.002	<0.002	<0.006	NA	
MW-8	9/27/2006	<0.23	<0.54	<0.48	<1.1		
MW-8	12/1/2006	<0.002	<0.002	<0.002	<0.006	NA	
MW-8	3/1/2007	<0.002	<0.002	<0.002	<0.006	609	
MW-8	3/14/2007	<0.00023	<0.00054	<0.00048	<0.0011		
MW-8	3/14/2007	-	-	-	-		
MW-8	6/1/2007	<0.001	<0.001	<0.001	<0.001	617	
MW-8	9/1/2007	<0.001	<0.001	<0.001	<0.001	NA	
MW-8	11/1/2007	<0.002	<0.002	<0.002	<0.006	NA	
MW-8	11/30/2007	<0.00046	<0.00048	<0.00045	<0.0060		
MW-8	3/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-8	3/20/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-8	6/1/2008	<0.002	<0.002	<0.002	<0.006	NA	
MW-8	9/1/2008	<0.002	<0.002	<0.002	<0.006	735	
MW-8	12/1/2008	<0.002	<0.002	<0.002	<0.002	480	
MW-8	12/3/2008	<0.00046	<0.00048	<0.00045	<0.0014		
MW-8	3/11/2009	<0.002	<0.002	<0.002	<0.002	417	
MW-8	3/11/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-8	5/18/2009	<0.002	<0.002	<0.002	<0.006	378	
MW-8	5/18/2009	<0.00046	<0.00048	<0.00045	<0.0014		
MW-8	9/24/2009	<0.002	<0.002	<0.002	<0.006	403	
MW-8	9/24/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-8	12/20/2009	<0.002	<0.002	<0.002	<0.006	308	
MW-8	12/20/2009	<0.00050	<0.00043	<0.00055	<0.0017		
MW-8	3/10/2010	<0.001	<0.002	<0.002	<0.004	414	
MW-8	3/10/2010	<0.40	<1.0	<1.0	-		
MW-8	6/13/2010	<0.0003	<0.001	<0.0003	<0.006	415	
MW-8	6/13/2010	<0.30	<1.0	<0.30	-		
MW-8	9/29/2010	<0.001	<0.002	<0.002	<0.004	347	
MW-8	9/29/2010	<0.00030	<0.0010	<0.00030	-		
MW-8	12/8/2010	<0.001	<0.002	<0.002	<0.004	336	
MW-8	12/8/2010	<0.00030	<0.0010	<0.00030	-		
MW-8	3/30/2011	<0.001	<0.002	<0.002	<0.002	383	
MW-8	3/30/2011	<0.00030	<0.0010	<0.00030	<0.00060		
MW-8	6/11/2011	<0.001	<0.002	<0.002	<0.004	454	
MW-8	6/20/2011	<0.00025	<0.0010	<0.00050	<0.0020		
MW-8	9/16/2011	<0.001	<0.002	<0.002	<0.004	368	
MW-8	12/7/2011	<0.001	<0.002	<0.002	<0.004	348	
MW-8	3/11/2012	<0.001	<0.002	<0.002	<0.004	345	
MW-8	6/5/2012	<0.001	<0.002	<0.002	<0.003	316	
MW-8	9/7/2012	<0.001	<0.002	<0.002	<0.003	308	
MW-8	12/4/2012	<0.001	<0.002	<0.002	<0.003	304	
MW-8	2/22/2013	<0.001	<0.002	<0.002	<0.003	290	
MW-8	6/2/2013	<0.001	<0.002	<0.002	<0.003	291	
MW-8	9/10/2013	<0.001	<0.002	<0.002	<0.003	297	

Notes:

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

2.) Monitoring well location MW-5 was not installed due geologic refusal that was encountered during drilling activities.

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

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

* 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

LNAPL = Light Non-Aqueous Phase Liquid

mg/L = milligrams per liter.