

NV

## First Half 2022 Semi-Annual Groundwater Monitoring Summary Report

Linam Ranch Natural Gas Plant  
Lea County, New Mexico  
GW-015

Prepared for:



6900 E. Layton Ave., Suite 900  
Denver, CO 80237-3658

*Prepared by:*



6855 W. 119<sup>th</sup> Avenue  
Broomfield, Colorado 80020

**May 17, 2022**



## Table of Contents

1. Introduction .....	1
2. Site Location and Background.....	1
3. Groundwater Monitoring.....	1
3.1    Groundwater and LNAPL Elevation Monitoring .....	2
3.2    Groundwater Quality Monitoring .....	2
3.3    Data Quality Assurance / Quality Control.....	3
4. Remediation Activities .....	3
5. Conclusions .....	4
6. Recommendations .....	4

### Tables

- 1      First Half 2022 Semi-Annual Summary of Groundwater Elevation Data
- 2      First Half 2022 Semi-Annual Summary of BTEX Concentrations in Groundwater

### Figures

- 1      Site Location Map
- 2      Site Map with Monitoring Well Locations
- 3      Semi-Annual Groundwater Elevation Contour Map – March 24, 2022
- 4      Semi-Annual Analytical Results Map – March 24, 2022

### Appendices

- A      Historical Analytical Results – BTEX Concentrations in Groundwater
- B      Laboratory Analytical Report
  - Pace Analytical Job #: L1475558



## 1. Introduction

This report summarizes groundwater monitoring and remediation activities conducted during the first half 2022 at the Linam Ranch Natural Gas Plant (Site) in Lea County, New Mexico (Figure 1). Tasman Geosciences (Tasman) performed these activities on behalf of DCP Midstream (DCP). The field activities described herein were conducted with the purpose of monitoring groundwater flow and quality conditions and assessing the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons in the Site subsurface. Current Site conditions were evaluated from field data and analytical laboratory results collected on March 24, 2022. The data collected was used to develop the groundwater elevation map and analytical results figure presented herein.

## 2. Site Location and Background

The Site is located in New Mexico Oil Conservation Division (OCD) designated Unit B, Section 6, Township 19 South, Range 37 East (Figure 1). The approximate facility coordinates are 32.6965 degrees north and 103.2883 degrees west. The facility is an active natural gas processing facility and includes an office complex and storage areas in addition to the main plant.

In February 1994, hydrocarbon-impacted groundwater was detected during subsurface investigations performed at two areas within the plant. A follow-up subsurface investigation was performed in May 1994 to delineate the horizontal extent of hydrocarbon-impacted soils and groundwater. The OCD subsequently requested a work plan to completely define the extent of groundwater contamination at the plant. In October 1995, the OCD approved a quarterly sampling and monitoring program for the Site, which was reduced to semi-annual frequency in 1997 after the recommendations of a 1996 report submitted by Geoscience Consultants Ltd. (GCL).

There are currently twelve groundwater monitoring wells at the Site: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-10D, and MW-11 (Figure 2); monitoring well MW-13 was destroyed during the second half of 2012 and has been removed from the sampling program. These wells were installed between 1991 and 1995.

## 3. Groundwater Monitoring

This section describes the groundwater field and laboratory activities performed during the first half 2022 semi-annual monitoring event on March 24, 2022. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, and groundwater sampling. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.



### 3.1 Groundwater and LNAPL Elevation Monitoring

Groundwater and LNAPL levels were measured to evaluate hydraulic characteristics and provide information regarding seasonal and annual fluctuations in groundwater elevations at the Site. During the reporting period, groundwater levels were measured at all 11 of the 12 Site monitoring wells with a Spill Buster preventing accurate measurement at MW-6.

Groundwater and LNAPL 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 was converted to elevation (feet above mean sea level [AMSL]). Measured groundwater levels, calculated groundwater elevations, and LNAPL level data are presented in Table 1.

A first half 2022 groundwater elevation map, included as Figure 3, indicates that groundwater flow at the Site trends generally to the southeast. Groundwater elevation ranges, average elevation changes from previous monitoring events, and calculated hydraulic gradients at the Site are summarized in the table below.

**Summary of Measured Hydraulic Parameters**

<b>First Half 2022 (3/24/2022)</b>	
Maximum Elevation (Well ID)	3,668.56' (MW-5)
Minimum Elevation (Well ID)	3,663.68' (MW-3)
Average Change from Previous Monitoring Event (ft) – All Wells	-0.69
Hydraulic Gradient (ft/ft) / (Well IDs)	0.0022 (MW-5 to MW-3)

LNAPL was observed during the gauging event at MW-4 (2.61 ft) and in future monitoring events will be removed to evaluate recovery rates or whether placement of a passive bailer would be beneficial. LNAPL is assumed to be present at MW-6, but this well is equipped with a spill buster and the thickness of LNAPL at MW-6 location has fluctuated since 2009 and was not measured during the reporting period.

### 3.2 Groundwater Quality Monitoring

After recording groundwater level measurements, groundwater samples were collected from 9 of the 12 wells. MW-4 was not sampled due to the presence of LNAPL (2.61 ft) but it is planned to be bailed off during subsequent events and potentially collect a sample; MW-6 was not sampled due to the presence of an active spill buster; and MW-7 was not sampled this event due to an insufficient amount of water needed for sample collection.

A minimum of three well casing volumes of groundwater were purged from each monitoring well prior to collection of groundwater samples. Groundwater samples were collected using disposable polyethylene bailers, placed in clean laboratory-supplied containers for the selected analytical methods, 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 Pace Analytical laboratory (Pace) in Mount Juliet, Tennessee for analysis.



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

Table 2 summarizes BTEX concentrations in groundwater samples collected during the reporting period. Historical analytical results up to and including the March 24, 2022 event are included in Appendix A, and the laboratory analytical report for the first half 2022 event is included in Appendix B. Analytical results are also displayed on Figure 4.

Analytical results/observations are summarized below:

- Benzene was detected in exceedance of the New Mexico Water Quality Control Commission (NMWQCC) groundwater standard of (0.005 milligrams per liter [mg/L]) in monitoring wells MW-5 (0.151 mg/L), MW-10 (1.31 mg/L), and MW-10D (0.0276 mg/L, Duplicate 0.0285 mg/L).
- Ethylbenzene was detected in exceedance of the NMWQCC standard of 0.70 mg/L in monitoring well MW-5 with a concentration of 2.51 mg/L.
- Groundwater samples at remaining monitoring well locations were reported below applicable NMWQCC standards or below laboratory detection limits.

### 3.3 Data Quality Assurance / Quality Control

A trip blank and field duplicate sample (MW-10D) were collected during the March 2022 sampling event. The data was reviewed for compliance with the analytical method and the associated quality assurance/quality control (QA/QC) procedures. All samples were analyzed using the correct analytical methods and within the correct holding times. Chain of custody forms were in order and properly executed and indicate that samples were received at the proper temperature with no headspace. All data were reported using the correct method number and reporting units. QA/QC items of note for the first half 2022 include the following:

- Target analytes were not detected in the trip blank; and
- MW-10D and the associated duplicate sample exhibited benzene concentrations of 0.0276 mg/L and 0.0285 mg/L, respectively. The calculated relative percent difference (RPD) is 3.21%, which is within the target range of 20%.

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

## 4. Remediation Activities

Active LNAPL recovery using a Clean Earth Technologies Magnum Spill Buster™ automatic LNAPL recovery system (Magnum Spill Buster™) deployed at MW-6 was shut down in November 2018 based on the LNAPL being absent in the well at that time. Due to the presence of LNAPL observed at this location during the second half 2019, the Spill Buster was re-initiated on September 18, 2019. Recovery levels were not recorded following the first half 2020 sampling event; however, the recovery measurements have been collected semi-annually since that event. The LNAPL recovery tank for the Spill Buster contains approximately 120 gallons of LNAPL and approximately 70 gallons since re-initiation in late 2019, and the



recovery tank will continue to be gauged during subsequent events to determine the amount of LNAPL present.

## 5. Conclusions

Comparison of the first half semi-annual 2022 monitoring data with historical information provides the following general observations:

- Based on historical groundwater level measurements, groundwater elevations at the Site typically exhibit seasonal and annual fluctuations. Measurements collected during the first half 2022 monitoring event exhibited a decrease in elevation compared to the second half 2021. The observed decrease is likely due to seasonal groundwater fluctuations.
- Dissolved phase benzene concentrations above NMWQCC standards persist in the central portion of the Site, represented by wells MW-4 (dissolved phase and LNAPL), MW-5, MW-6 (dissolved phase and LNAPL), MW-10, and MW-10D. Generally, benzene concentrations at these locations demonstrate stable conditions. The benzene concentration at MW-11 decreased to below the NMWQCC standard during the first half 2022 for the first time since September 2018.
- While separate and dissolved phase hydrocarbon impacts persist on-Site, BTEX concentrations in downgradient monitoring wells MW-3 and MW-9 remain below laboratory detection limits.

## 6. Recommendations

Based on evaluation of first half 2022 and historical Site observations and monitoring results, the following recommendations have been developed for future activities:

- Continue semi-annual groundwater monitoring and sampling at the monitoring locations illustrated on Figure 2.
- Continue active LNAPL recovery at monitoring well MW-6 using Spill Buster LNAPL recovery system and install a passive bailed at MW-4 to assist with LNAPL recovery during 2022.

## Tables

**TABLE 1**  
**FIRST HALF 2022 SEMI-ANNUAL**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (*) (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
MW-1	09/16/20	48.49			54.55	3718.29	3669.80	-0.65
MW-1	03/25/21	49.55			54.55	3718.29	3668.74	-1.06
MW-1	09/23/21	49.97			54.55	3718.29	3668.32	-0.42
MW-1	03/24/22	51.02			54.55	3718.29	3667.27	-1.05
MW-2	09/16/20	47.22			50.57	3714.80	3667.58	-0.38
MW-2	03/25/21	48.15			50.57	3714.80	3666.65	-0.93
MW-2	09/23/21	48.51			50.57	3714.80	3666.29	-0.36
MW-2	03/24/22	49.39			50.57	3714.80	3665.41	-0.88
MW-3	09/16/20	50.59			55.41	3715.50	3664.91	-0.19
MW-3	03/25/21	49.98			55.41	3715.50	3665.52	0.61
MW-3	09/23/21	51.40			55.41	3715.50	3664.10	-1.42
MW-3	03/24/22	51.82			55.41	3715.50	3663.68	-0.42
*MW-4	09/16/20	50.31	50.15	0.16	54.76	3720.46	3670.27	-0.58
*MW-4	03/25/21	51.45	50.85	0.60	54.76	3720.46	3669.46	-0.81
*MW-4	09/23/21	53.98	50.55	3.43	54.76	3720.46	3669.05	-0.41
*MW-4	03/24/22	54.20	51.59	2.61	54.76	3720.46	3668.22	-0.84
MW-5	09/16/20	51.10			56.62	3721.53	3670.43	-0.45
MW-5	03/25/21	51.40			56.62	3721.53	3670.13	-0.30
MW-5	09/23/21	52.13			56.62	3721.53	3669.40	-0.73
MW-5	03/24/22	52.97			56.62	3721.53	3668.56	-0.84
*MW-6	09/16/20	51.75	51.5	0.25	54.30	3720.99	3669.43	0.22
*MW-6	03/25/21	NM		NM	54.30	3720.99	NM	NM
*MW-6	09/23/21	53.25	52.71	0.54	54.30	3720.99	3668.15	NA
*MW-6	03/24/22	NM			54.30	3720.99	NM	NA
MW-7	09/16/20				DRY			
MW-7	03/25/21				DRY			
MW-7	09/23/21				DRY			
MW-7	03/24/22				DRY			
MW-8	09/16/20	47.04			58.05	3714.18	3667.14	-0.48
MW-8	03/25/21	47.80			58.05	3714.18	3666.38	-0.76
MW-8	09/23/21	48.25			58.05	3714.18	3665.93	-0.45
MW-8	03/24/22	49.09			58.05	3714.18	3665.09	-0.84
MW-9	09/16/20	53.77			59.35	3720.48	3666.71	-0.26
MW-9	03/25/21	54.27			59.35	3720.48	3666.21	-0.50
MW-9	09/23/21	54.79			59.35	3720.48	3665.69	-0.52
MW-9	03/24/22	55.27			59.35	3720.48	3665.21	-0.48
MW-10	09/16/20	53.84			66.10	3720.76	3666.92	-0.30
MW-10	03/25/21	54.40			66.10	3720.76	3666.36	-0.56
MW-10	09/23/21	54.97			66.10	3720.76	3665.79	-0.57
MW-10	03/24/22	55.44			66.10	3720.76	3665.32	-0.47
MW-10D	09/16/20	55.15			79.01	3720.85	3665.70	-0.29
MW-10D	03/25/21	55.74			79.01	3720.85	3665.11	-0.59
MW-10D	09/23/21	56.28			79.01	3720.85	3664.57	-0.54
MW-10D	03/24/22	56.80			79.01	3720.85	3664.05	-0.52

**TABLE 1**  
**FIRST HALF 2022 SEMI-ANNUAL**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (*) (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
MW-11	09/16/20	55.06			63.27	3722.02	3666.96	-0.42
MW-11	03/25/21	55.70			63.27	3722.02	3666.32	-0.64
MW-11	09/23/21	56.37			63.27	3722.02	3665.65	-0.67
MW-11	03/24/22	56.90			63.27	3722.02	3665.12	-0.53
Average change in groundwater elevation (9/23/21 to 3/24/22)								-0.69

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

amsl = feet above mean sea level

TOC = top of casing

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

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

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

LNAPL relative density is assumed to be approximately 0.75 grams per cubic centimeter (g/cm³)

\*\* Monitoring well MW-6 has an active Spill Buster automatic LNAPL recovery pump installed. As such, the calculated groundwater elevations may not be representative of actual groundwater elevations within the well.

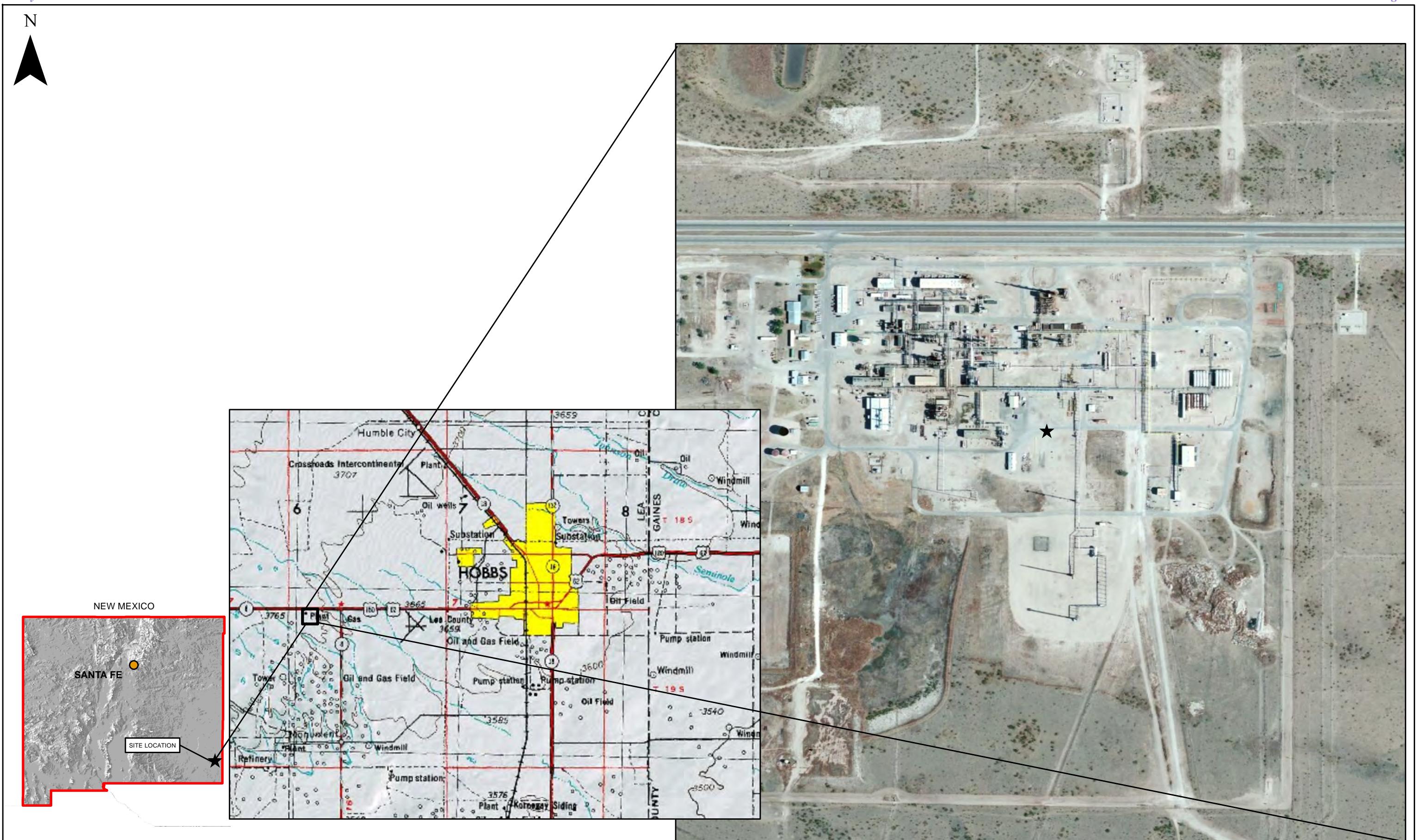
NM = Not Measured

NA = Not Applicable

**TABLE 2**  
**FIRST HALF SEMI-ANNUAL**  
**SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		<b>0.005</b>	<b>1.00</b>	<b>0.70</b>	<b>0.62</b>	
MW-1	3/24/2022	0.000105 J	<0.00100	<0.00100	<0.00300	
MW-2	3/24/2022	0.000411 J	<0.00100	<0.00100	<0.00300	
MW-3	3/24/2022	<0.00100	<0.00100	<0.00100	<0.00300	
MW-4	3/24/2022	Not Sampled - LNAPL Present				LNAPL (2.61')
MW-5	3/24/2022	<b>0.151</b>	<0.0500	<b>2.51</b>	<0.150	
MW-6	3/24/2022	LNAPL				LNAPL (Spill Buster)
MW-7	3/24/2022	NS				DRY
MW-8	3/24/2022	<0.00100	<0.00100	<0.00100	<0.00300	
MW-9	3/24/2022	<0.00100	<0.00100	<0.00100	<0.00300	
MW-10	3/24/2022	<b>1.31</b>	0.0107 J	0.247	0.0497 J	
MW-10D	3/24/2022	<b>0.0276</b>	0.0201	0.00333	0.00513	Duplicate Sample Collected
MW-10D (Duplicate)	3/24/2022	<b>0.0285</b>	0.0212	0.00347	0.00498	
MW-11	3/24/2022	0.00411	<0.00100	<0.00100	0.000315 J	

## Figures



DATE:	June 2014
DESIGNED BY:	T. Johansen
DRAWN BY:	D. Arnold



Tasman Geosciences, Inc.  
6855 W. 119th Avenue  
Broomfield, Colorado 80020

**DCP Midstream**  
**Linam Ranch Gas Plant**  
Unit B, Section 6, Township 19 South, Range 37 East  
Lea County, New Mexico

Site Location  
Map

Figure  
1



DESIGNED BY: B. Humphrey
DRAWN BY: C. Olson



Tasman Geosciences, Inc.  
6855 W. 119th Avenue  
Broomfield, Colorado 80020

DCP Midstream  
Linam Gas Plant  
First Half 2022 Semi-Annual  
Groundwater Monitoring Summary Report

Site Map with Monitoring  
Well Locations

Figure  
2



DATE:  
April 2022  
DESIGNED BY:  
B. Humphrey  
DRAWN BY:  
L. Reed

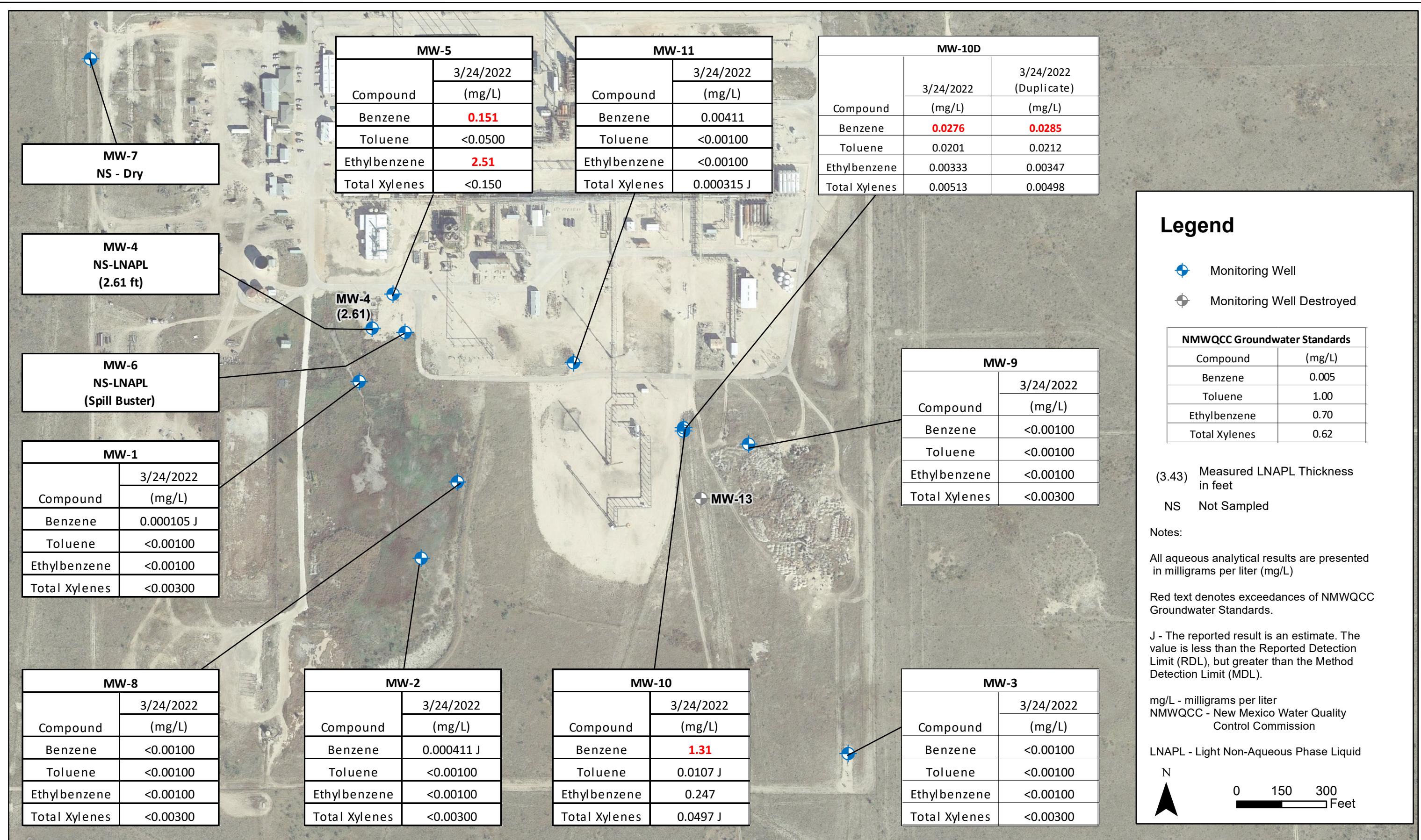


Tasman Geosciences, Inc.  
6855 W. 119th Avenue  
Broomfield, Colorado 80020

DCP Midstream  
Linam Ranch Gas Plant  
First Half 2022 Semi-Annual Groundwater Monitoring  
Summary Report

Groundwater Elevation  
Contour Map  
(March 24, 2022)

Figure  
3



DATE: April 2022  
DESIGNED BY: B. Humphrey  
DRAWN BY: L. Reed



Tasman Geosciences, Inc.  
6855 W. 119th Avenue  
Broomfield, Colorado 80020

### DCP Midstream Linam Ranch Gas Plant

First Half 2022 Semi-Annual Groundwater Monitoring Summary Report

Analytical Results Map  
(March 24, 2022)

Figure 4

## Appendix A

### Historical Analytical Results

**APPENDIX A**  
**HISTORICAL ANALYTICAL RESULTS**  
**BTEX CONCENTRATIONS IN GROUNDWATER**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
<b>NMWQCC Groundwater Standards (mg/L)</b>		<b>0.005</b>	<b>1.00</b>	<b>0.70</b>	<b>0.62</b>	
MW-1	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-1	3/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-1	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-1	4/28/2011	0.00054 J	<0.002	<0.002	<0.002	
MW-1	9/13/2011	<0.001	<0.002	<0.002	<0.004	
MW-1	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-1	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-1	2/18/2013	<0.001	<0.001	<0.001	<0.003	
MW-1	9/9/2013	<b>0.012</b>	<0.001	0.0024	0.0038	
MW-1	2/25/2014	<0.001	<0.001	<0.001	<0.001	
MW-1	9/23/2014	<0.001	<0.001	<0.001	<0.003	
MW-1	2/24/2015	<0.001	<0.001	<0.001	<0.003	
MW-1	9/1/2015	<0.001	<0.001	<0.001	<0.003	
MW-1	3/24/2016	<0.001	<0.001	<0.001	<0.003	
MW-1	9/28/2016	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	3/7/2017	<0.0010	<0.0010	<0.0010	<0.0010	
MW-1	10/3/2017	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	3/14/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	9/7/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	3/25/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	9/18/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	6/23/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	9/16/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	3/25/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	9/23/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-1	3/24/2022	0.000105 J	<0.00100	<0.00100	<0.00300	
MW-2	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-2	3/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-2	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-2	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-2	9/12/2011	<0.001	<0.002	<0.002	<0.004	
MW-2	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	2/18/2013	<0.001	<0.001	<0.001	<0.003	
MW-2	9/9/2013	<0.001	<0.001	<0.01	<0.001	
MW-2	2/25/2014	<0.001	<0.001	<0.001	<0.001	
MW-2	9/23/2014	NS	NS	NS	NS	Inaccessible
MW-2	2/24/2015	<0.001	<0.001	<0.001	<0.003	
MW-2	9/1/2015	<0.001	<0.001	<0.001	<0.003	
MW-2	3/24/2016	<0.001	<0.001	<0.001	<0.003	
MW-2	9/28/2016		NS			Well inaccessible due to flooding
MW-2	3/7/2017	<0.0010	<0.0010	<0.0010	<0.0010	
MW-2	10/3/2017	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	3/14/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	9/7/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	3/25/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	9/18/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	6/23/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	9/16/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	3/25/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	9/23/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-2	3/24/2022	0.000411 J	<0.00100	<0.00100	<0.00300	
MW-3	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	3/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-3	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-3	4/28/2011	<0.001	<0.002	<0.002	<0.002	

**APPENDIX A**  
**HISTORICAL ANALYTICAL RESULTS**  
**BTEX CONCENTRATIONS IN GROUNDWATER**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
<b>NMWQCC Groundwater Standards (mg/L)</b>		<b>0.005</b>	<b>1.00</b>	<b>0.70</b>	<b>0.62</b>	
MW-3	9/12/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	2/18/2013	<0.001	<0.001	<0.001	<0.003	
MW-3	9/9/2013	<0.001	<0.001	<0.001	<0.001	
MW-3	2/25/2014	<0.001	<0.001	<0.001	<0.001	
MW-3	9/23/2014	<0.001	<0.001	<0.001	<0.003	
MW-3	2/24/2015	<0.001	<0.001	<0.001	<0.003	
MW-3	9/1/2015	<0.001	<0.001	<0.001	<0.003	
MW-3	3/24/2016	<0.001	<0.001	<0.001	<0.003	
MW-3	9/28/2016	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	3/7/2017	<0.0010	<0.0010	<0.0010	<0.0010	
MW-3	10/3/2017	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	3/14/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	9/7/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	3/26/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	9/18/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	6/24/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	9/16/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	3/25/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	9/23/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-3	3/24/2022	<0.00100	<0.00100	<0.00100	<0.00300	
MW-4	9/24/2009		LNAPL			
MW-4	3/24/2010		LNAPL			
MW-4	9/28/2010		LNAPL			
MW-4	4/28/2011		LNAPL			LNAPL (0.23 feet)
MW-4	9/13/2011		LNAPL			LNAPL (0.28 feet)
MW-4	3/5/2012		LNAPL			LNAPL (0.34 feet)
MW-4	9/4/2012		LNAPL			LNAPL (0.43 feet)
MW-4	2/18/2013		LNAPL			LNAPL (0.47 feet)
MW-4	9/9/2013		LNAPL			LNAPL (0.06 feet)
MW-4	2/25/2014		LNAPL			LNAPL (0.02 feet)
MW-4	2/24/2015	<b>9.8</b>	<0.005	0.59	<0.015	LNAPL (0.01 feet)
MW-4	9/1/2015	<b>8.6</b>	<0.005	0.53	<0.015	
MW-4	3/24/2016	<b>6.9</b>	<0.005	0.38	<0.015	
MW-4	10/12/2016	<b>5</b>	<0.010	0.027	0.053	
MW-4	3/7/2017	<b>8.9</b>	<0.005	0.024	0.0051	
MW-4	10/3/2017	<b>16.9</b>	<0.100	0.618	<0.300	
MW-4	3/14/2018	<b>18.7</b>	<0.010	0.686	<0.030	
MW-4	9/7/2018	<b>12.3</b>	<0.200	0.74	<0.600	
MW-4	3/26/2019	<b>15.9</b>	<0.200	0.516	<0.600	
MW-4	9/18/2019	<b>19.3</b>	<0.0010	<b>0.829</b>	0.00356	
MW-4	6/23/2020	<b>12.9</b>	<0.0010	0.561	0.0351	
MW-4	9/16/2020	<b>18.5</b>	<0.100	0.601	<0.300	
MW-4	3/25/2021	<b>17.3</b>	<0.100	0.911	0.121 J	LNAPL (0.60 feet)
MW-4	9/23/2021		Not Sampled - LNAPL Present			LNAPL (3.43 feet)
MW-4	3/24/2022		Not Sampled - LNAPL Present			LNAPL (2.61')
MW-5	9/24/2009	<b>0.0272</b>	<0.002	0.227	<0.006	
MW-5	3/24/2010	<b>0.13</b>	<0.002	0.482	0.46	
MW-5	9/28/2010	0.0095	<0.004	0.188	<0.008	
MW-5	4/28/2011	<b>0.149</b>	<0.004	<b>0.776</b>	<0.004	
MW-5	9/13/2011	<b>0.13</b>	<0.010	<b>0.86</b>	<0.020	
MW-5	3/5/2012	<b>0.24</b>	<0.025	<b>2</b>	<0.075	
MW-5	9/4/2012	<b>0.17</b>	<0.005	<b>1</b>	0.038	Duplicate Sample Collected
MW-5	2/18/2013	<b>0.21</b>	<0.005	<b>1.4</b>	<0.015	Duplicate Sample Collected

**APPENDIX A**  
**HISTORICAL ANALYTICAL RESULTS**  
**BTEX CONCENTRATIONS IN GROUNDWATER**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
<b>NMWQCC Groundwater Standards (mg/L)</b>		<b>0.005</b>	<b>1.00</b>	<b>0.70</b>	<b>0.62</b>	
MW-5	9/9/2013	<b>0.096</b>	<0.001	<b>0.89</b>	<0.001	Duplicate Sample Collected
MW-5 (Duplicate)	9/9/2013	<b>0.095</b>	<0.001	<b>0.9</b>	<0.001	
MW-5	2/25/2014	<b>0.18</b>	<0.005	<b>1.3</b>	<0.005	
MW-5	9/23/2014	<b>0.33</b>	<0.005	<b>2</b>	<0.015	
MW-5	2/24/2015	<b>0.16</b>	<0.005	<b>1.3</b>	<0.015	
MW-5	9/1/2015	<b>0.1</b>	<0.005	0.57	<0.015	
MW-5	3/24/2016	<b>0.095</b>	<0.005	<b>1.4</b>	<0.015	
MW-5	9/28/2016	<b>0.081</b>	<0.0050	<b>1.6</b>	<0.015	
MW-5	3/7/2017	<b>0.081</b>	<0.0050	<b>0.91</b>	<0.0050	
MW-5	10/3/2017	<b>0.151</b>	0.00906 J	<b>2.34</b>	<0.060	
MW-5	3/14/2018	<b>0.0609</b>	<0.010	<b>0.930</b>	<0.030	
MW-5	9/7/2018	<b>0.131</b>	<0.001	<b>2.040</b>	0.00267 J	
MW-5	3/26/2019	<b>0.08</b>	0.000443 J	<b>2.530</b>	<0.003	
MW-5	9/18/2019	<b>0.0980</b>	<0.0200	<b>1.97</b>	<0.0600	
MW-5	6/23/2020	<b>0.0266</b>	<0.0200	<b>1.73</b>	0.00356 J	
MW-5	9/16/2020	<b>0.0358</b>	<0.0200	<b>2.12</b>	<0.0600	
MW-5	3/25/2021	<b>0.105</b>	<0.0200	<b>2.61</b>	<0.0600	
MW-5	9/23/2021	<b>0.0933</b>	<0.0200	<b>2.72</b>	<0.0600	
MW-5	3/24/2022	<b>0.151</b>	<0.0500	<b>2.51</b>	<0.150	
MW-6	9/24/2009		LNAPL			
MW-6	3/24/2010		LNAPL			
MW-6	9/28/2010		LNAPL			
MW-6	4/28/2011		LNAPL			LNAPL (2.81 feet)
MW-6	9/13/2011		LNAPL			LNAPL (3.33 feet)
MW-6	3/5/2012		LNAPL			LNAPL (3.1 feet)
MW-6	9/4/2012		LNAPL			LNAPL (3.98 feet)
MW-6	2/18/2013		LNAPL			LNAPL (2.32 feet) Active Spill Buster
MW-6	9/9/2013		LNAPL			LNAPL (0.17 feet) Active Spill Buster
MW-6	2/25/2014		LNAPL			LNAPL (1.99 feet) Active Spill Buster
MW-6	9/23/2014		LNAPL			LNAPL (0.09 feet)
MW-6	2/24/2015		LNAPL			LNAPL (0.07 feet)
MW-6	9/1/2015		LNAPL			LNAPL (0.01 feet)
MW-6	3/24/2016		LNAPL			LNAPL (0.13 feet)
MW-6	9/28/2016		LNAPL			LNAPL (3.74 feet)
MW-6	3/7/2017		LNAPL			LNAPL (0.7 feet) Active Spill Buster
MW-6	10/3/2017		LNAPL			LNAPL (0.25 feet) Active Spill Buster
MW-6	3/14/2018		LNAPL			LNAPL (NM) Active Spill Buster
MW-6	9/7/2018		LNAPL			LNAPL (0.32 feet) Active Spill Buster
MW-6	3/26/2019	<b>0.543</b>	<0.001	0.188	<0.003	
MW-6	9/18/2019		LNAPL			LNAPL (2.62 feet)
MW-6	6/23/2020		LNAPL			LNAPL (3.36 feet)
MW-6	9/16/2020		LNAPL			LNAPL (3.36 feet)
MW-6	3/25/2021		LNAPL			LNAPL (Spill Buster)
MW-6	9/23/2021		LNAPL			LNAPL (Spill Buster)
MW-6	3/24/2022		LNAPL			LNAPL (Spill Buster)
MW-7	9/24/2009		NS			
MW-7	3/24/2010		NS			
MW-7	9/28/2010		NS			
MW-7	4/28/2011		NS			DRY
MW-7	9/13/2011		NS			
MW-7	3/5/2012		NS			
MW-7	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-7	2/18/2013	<0.001	<0.001	<0.001	<0.003	
MW-7	9/9/2013	<0.001	<0.001	<0.001	<0.001	
MW-7	2/25/2014	<0.001	<0.001	<0.001	<0.001	
MW-7	9/23/2014	<0.001	<0.001	<0.001	<0.003	

**APPENDIX A**  
**HISTORICAL ANALYTICAL RESULTS**  
**BTEX CONCENTRATIONS IN GROUNDWATER**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
<b>NMWQCC Groundwater Standards (mg/L)</b>		<b>0.005</b>	<b>1.00</b>	<b>0.70</b>	<b>0.62</b>	
MW-7	2/24/2015	<0.001	<0.001	<0.001	<0.003	
MW-7	9/1/2015	<0.001	<0.001	<0.001	<0.003	
MW-7	3/24/2016	<0.001	<0.001	<0.001	<0.003	
MW-7	10/12/2016	<0.0010	<0.0010	<0.0010	<0.0030	
MW-7	3/7/2017	<0.0010	<0.0010	<0.0010	<0.0010	
MW-7	10/3/2017	<0.0010	<0.0010	<0.0010	<0.0030	
MW-7	3/14/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-7	9/7/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-7	3/25/2019	<0.0010	<0.0010	0.000421 J	<0.0030	
MW-7	9/18/2019			NS		Not enough water for sample
MW-7	6/24/2020			NS		DRY
MW-7	9/16/2020			NS		DRY
MW-7	3/25/2021			NS		DRY
MW-7	9/23/2021			NS		DRY
MW-7	3/24/2022			NS		DRY
MW-8	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-8	3/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-8	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-8	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-8	9/12/2011	<0.005	<0.005	<0.005	<0.015	
MW-8	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-8	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-8	2/18/2013	<0.001	<0.001	<0.001	<0.003	
MW-8	9/9/2013	<0.001	<0.001	<0.001	<0.001	
MW-8	2/25/2014	<0.001	<0.001	<0.001	<0.001	
MW-8	9/23/2014			NS		Inaccessible
MW-8	2/24/2015	<0.001	<0.001	<0.001	<0.003	
MW-8	9/1/2015	<0.001	<0.001	<0.001	<0.003	
MW-8	3/24/2016	<0.001	<0.001	<0.001	<0.003	
MW-8	9/28/2016			NS		Well inaccessible due to flooding
MW-8	3/7/2017	<0.0010	<0.0010	<0.0010	<0.0010	
MW-8	10/3/2017	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	3/14/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	9/7/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	3/25/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	9/18/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	6/23/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	9/16/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	3/25/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	9/23/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-8	3/24/2022	<0.00100	<0.00100	<0.00100	<0.00300	
MW-9	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-9	3/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-9	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-9	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-9	9/12/2011	<0.001	<0.002	<0.002	<0.004	
MW-9	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-9	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-9	2/18/2013	<0.001	<0.001	<0.001	<0.003	
MW-9	9/9/2013	<0.001	<0.001	<0.001	<0.001	
MW-9	2/25/2014	<0.001	<0.001	<0.001	<0.001	
MW-9	9/23/2014	<0.001	<0.001	<0.001	<0.003	
MW-9	2/24/2015	<0.001	<0.001	<0.001	<0.003	
MW-9	9/1/2015	<0.001	<0.001	<0.001	<0.003	
MW-9	3/24/2016	<0.001	<0.001	<0.001	<0.003	
MW-9	9/28/2016	<0.0010	<0.0010	<0.0010	<0.0030	

**APPENDIX A**  
**HISTORICAL ANALYTICAL RESULTS**  
**BTEX CONCENTRATIONS IN GROUNDWATER**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
<b>NMWQCC Groundwater Standards (mg/L)</b>		<b>0.005</b>	<b>1.00</b>	<b>0.70</b>	<b>0.62</b>	
MW-9	3/7/2017	<0.0010	<0.0010	<0.0010	<0.0010	
MW-9	10/3/2017	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	3/14/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	9/7/2018	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	3/26/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	9/18/2019	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	6/24/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	9/16/2020	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	3/25/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	9/23/2021	<0.0010	<0.0010	<0.0010	<0.0030	
MW-9	3/24/2022	<0.00100	<0.00100	<0.00100	<0.00300	
MW-10	4/30/2008	<b>0.769</b>	0.0457	0.0851	0.05	
MW-10	4/29/2009	<b>0.883</b>	0.23	0.0859	0.0759	
MW-10	9/24/2009	<b>1.07</b>	0.126	0.148	0.154	
MW-10	3/24/2010	<b>1.64</b>	0.175	0.246	0.156	
MW-10	9/28/2010	<b>1.9</b>	0.0547 J	0.24	0.104 J	
MW-10	4/28/2011	<b>1.72</b>	0.228	0.195	0.126	Duplicate Sample Collected
MW-10 (Duplicate)	4/28/2011	<b>2.29</b>	0.258	0.234	0.155	
MW-10	9/12/2011	<b>1.97</b>	0.104	0.249	0.145	Duplicate Sample Collected
MW-10 (Duplicate)	9/12/2011	<b>2.08</b>	0.0964	0.25	0.153	
MW-10	3/5/2012	<b>2.2</b>	0.11	0.23	0.13	
MW-10	9/4/2012	<b>2.7</b>	0.0083	0.28	0.12	
MW-10	2/18/2013	<b>2.0</b>	0.019	0.3	0.13	
MW-10	9/9/2013	<b>1.6</b>	0.022	0.26	0.11	
MW-10	2/25/2014	<b>1.7</b>	0.0054	0.35	0.098	
MW-10	9/23/2014	<b>2.2</b>	<0.005	0.53	0.15	
MW-10	2/24/2015	<b>1.6</b>	0.012	0.29	0.086	
MW-10	9/1/2015	<b>1.6</b>	0.012	0.19	0.078	
MW-10	3/24/2016	<b>4.6</b>	0.0068	0.22	0.054	
MW-10	9/28/2016	<b>3.1</b>	0.012	0.25	0.19	
MW-10	3/7/2017	<b>3.1</b>	0.011	0.23	0.09	
MW-10	10/3/2017	<b>4.27</b>	0.0202	0.311	0.158	
MW-10	3/14/2018	<b>4.24</b>	<0.010	0.440	0.109	
MW-10	9/7/2018	<b>3.32</b>	0.0274	0.332	0.155	
MW-10	3/26/2019	<b>2.0</b>	0.0182	0.197	0.0826	
MW-10	9/18/2019	<b>1.66</b>	<0.200	0.284	0.202	
MW-10	6/23/2020	<b>2.66</b>	0.0100 J	0.522	0.141	
MW-10	9/16/2020	<b>2.96</b>	<0.0200	0.500	0.119	
MW-10	3/25/2021	<b>1.64</b>	0.0162 J	0.221	0.0452 J	
MW-10	9/23/2021	<b>1.52</b>	<0.0200	0.272	0.0150 J	
MW-10	3/24/2022	<b>1.31</b>	0.0107 J	0.247	0.0497 J	
MW-10D	4/30/2008	<b>0.195</b>	0.0677	0.0144	0.0221	
MW-10D	4/29/2009	<b>0.179</b>	0.0772	0.0203	0.0296	
MW-10D	9/24/2009	<b>0.103</b>	0.0496	0.0127	0.0261	
MW-10D	3/24/2010	<b>0.196</b>	0.0703	0.0129	0.0202	
MW-10D	9/28/2010	<b>0.0402</b>	0.0358	0.006	0.0077 J	
MW-10D	4/28/2011	<b>0.0512</b>	0.0373	0.0063	0.0113	
MW-10D	9/12/2011	<b>0.0278</b>	0.0131	0.0032	0.006	
MW-10D	3/5/2012	<b>0.024</b>	0.0081	<0.005	<0.015	Duplicate Sample Collected
MW-10D (Duplicate)	3/5/2012	<b>0.022</b>	0.0089	<0.005	<0.015	
MW-10D	9/4/2012	<b>0.023</b>	0.0057	<0.005	<0.015	
MW-10D	2/18/2013	<b>0.034</b>	0.014	0.0023	0.0031	
MW-10D	9/9/2013	<b>0.034</b>	0.019	<0.005	<0.005	
MW-10D	2/25/2014	<b>0.046</b>	0.021	0.005	<0.005	Duplicate Sample Collected
MW-10D (Duplicate)	2/25/2014	<b>0.043</b>	0.019	<0.005	<0.005	
MW-10D	9/23/2014	<b>0.059</b>	0.024	<0.005	<0.015	Duplicate Sample Collected

**APPENDIX A**  
**HISTORICAL ANALYTICAL RESULTS**  
**BTEX CONCENTRATIONS IN GROUNDWATER**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
<b>NMWQCC Groundwater Standards (mg/L)</b>		<b>0.005</b>	<b>1.00</b>	<b>0.70</b>	<b>0.62</b>	
MW-10D (Duplicate)	9/23/2014	<b>0.058</b>	0.024	<0.005	<0.015	
MW-10D	2/24/2015	<b>0.062</b>	0.026	0.008	<0.015	Duplicate Sample Collected
MW-10D (Duplicate)	2/24/2015	<b>0.058</b>	0.024	0.0074	<0.015	
MW-10D	9/1/2015	<b>0.062</b>	0.025	0.006	<0.015	Duplicate Sample Collected
MW-10D (Duplicate)	9/1/2015	<b>0.065</b>	0.026	0.0075	<0.015	
MW-10D	3/24/2016	<b>0.079</b>	0.021	0.021	<0.015	Duplicate Sample Collected
MW-10D (Duplicate)	3/24/2016	<b>0.079</b>	0.019	0.013	<0.015	
MW-10D	9/28/2016	<b>0.024</b>	0.013	<0.0050	<0.015	Duplicate Sample Collected
MW-10D (Duplicate)	9/28/2016	<b>0.025</b>	0.013	<0.0050	<0.015	
MW-10D	3/7/2017	<b>0.15</b>	0.017	0.026	0.0072	Duplicate Sample Collected
MW-10D (Duplicate)	3/7/2017	<b>0.15</b>	0.016	0.025	0.0066	
MW-10D	10/3/2017	<b>0.0510</b>	0.0153	<0.010	<0.030	Duplicate Sample Collected
MW-10D (Duplicate)	10/3/2017	<b>0.0614</b>	0.020	<0.020	<0.060	
MW-10D	3/14/2018	<b>0.116</b>	0.0178	0.0194	0.00472	Duplicate Sample Collected
MW-10D (Duplicate)	3/14/2018	<b>0.104</b>	0.0169	0.0176	<0.0150	
MW-10D	9/7/2018	<b>0.0499</b>	0.0163	0.00769	0.0033	Duplicate Sample Collected
MW-10D (Duplicate)	9/7/2018	<b>0.0497</b>	0.0181	0.00899	0.00384	
MW-10D	3/26/2019	<b>0.047</b>	0.0126	0.00647	0.00238 J	Duplicate Sample Collected
MW-10D (Duplicate)	3/26/2019	<b>0.0477</b>	0.0124	0.00642	0.00227 J	
MW-10D	9/18/2019	<b>0.0588</b>	0.0119	0.0182	0.00272 J	Duplicate Sample Collected
MW-10D (Duplicate)	9/18/2019	<b>0.0574</b>	0.0116	0.0185	0.00264 J	
MW-10D	6/23/2020	<b>0.0297</b>	0.0151	0.00472	0.00318	Duplicate Sample Collected
MW-10D (Duplicate)	6/23/2020	<b>0.0290</b>	0.0145	0.00418	0.00323	
MW-10D	9/16/2020	<b>0.0466</b>	0.0138	0.0103	0.00248 J	Duplicate Sample Collected
MW-10D (Duplicate)	9/16/2020	<b>0.0523</b>	0.0124	0.0129	0.00261 J	
MW-10D	3/25/2021	<b>0.0318</b>	0.0153	0.00399	0.00328	Duplicate Sample Collected
MW-10D (Duplicate)	3/25/2021	<b>0.0322</b>	0.0148	0.00418	0.0034	
MW-10D	9/23/2021	<b>0.0227</b>	0.0117	0.0036	0.00328	Duplicate Sample Collected
MW-10D (Duplicate)	9/23/2021	<b>0.0221</b>	0.0116	0.00361	0.00325	
MW-10D	3/24/2022	<b>0.0276</b>	0.0201	0.00333	0.00513	Duplicate Sample Collected
MW-10D (Duplicate)	3/24/2022	<b>0.0285</b>	0.0212	0.00347	0.00498	
MW-11	4/29/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-11	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-11	3/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-11	9/28/2010	0.0036	<0.002	<0.002	0.004	
MW-11	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-11	9/12/2001	<0.001	<0.002	<0.002	<0.004	
MW-11	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-11	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-11	2/18/2013	<0.001	<0.001	<0.001	<0.003	
MW-11	9/9/2013	<0.001	<0.001	<0.001	0.0033	
MW-11	2/25/2014	<0.001	<0.001	<0.001	<0.001	
MW-11	9/23/2014	<0.001	<0.001	<0.001	<0.003	
MW-11	2/24/2015	0.0019	<0.001	<0.001	<0.003	
MW-11	9/1/2015	<b>0.019</b>	<0.001	<0.001	0.0031	
MW-11	3/24/2016	<0.001	<0.001	<0.001	<0.003	
MW-11	9/28/2016	0.0036	<0.0010	<0.0010	<0.0030	
MW-11	3/7/2017	0.0081	<0.0010	<0.0010	0.0017	
MW-11	10/3/2017	0.000951 J	<0.0010	<0.0010	<0.0030	
MW-11	3/14/2018	0.00385	<0.0010	<0.0010	<0.0030	
MW-11	9/7/2018	0.000467 J	<0.0010	<0.0010	<0.0030	
MW-11	3/26/2019	<b>0.0135</b>	0.00082 J	<0.0010	<0.0030	
MW-11	9/18/2019	<b>0.0207</b>	0.00138	0.000459 J	0.00166 J	
MW-11	6/23/2020	<b>0.05</b>	0.00263	0.000628 J	0.00211 J	
MW-11	9/16/2020	<b>0.0148</b>	0.00138	0.000301 J	0.000603 J	
MW-11	3/25/2021	<b>0.0227</b>	0.000762 J	0.000310 J	0.00150 J	

**APPENDIX A**  
**HISTORICAL ANALYTICAL RESULTS**  
**BTEX CONCENTRATIONS IN GROUNDWATER**  
**LINAM RANCH**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
<b>NMWQCC Groundwater Standards (mg/L)</b>		<b>0.005</b>	<b>1.00</b>	<b>0.70</b>	<b>0.62</b>	
MW-11	9/23/2021	<b>0.0178</b>	0.000671 J	0.000456 J	0.00147 J	
MW-11	3/24/2022	0.00411	<0.00100	<0.00100	0.000315 J	
MW-13	4/29/2009	<0.00046	<0.00048	<0.00045	<0.0014	
MW-13	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-13	3/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-13	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-13	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-13	9/12/2011	<0.001	<0.002	<0.002	<0.004	
MW-13	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-13		Well Destroyed				
Trip Blank	2/25/2014	<0.001	<0.001	<0.001	<0.001	
Trip Blank	9/23/2014	<0.001	<0.001	<0.001	<0.003	
Trip Blank	2/24/2015	<0.001	<0.001	<0.001	<0.003	
Trip Blank	9/1/2015	<0.001	<0.001	<0.001	<0.003	
Trip Blank	3/24/2016	<0.001	<0.001	<0.001	<0.003	
Trip Blank	9/28/2016	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	3/7/2017	<0.0010	<0.0010	<0.0010	<0.0010	
Trip Blank	10/3/2017	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	3/14/2018	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	9/7/2018	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	3/26/2019	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	9/18/2019	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	6/24/2020	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	9/16/2020	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	3/25/2021	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	9/23/2021	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	3/24/2022	<0.00100	<0.00100	<0.00100	<0.00300	

Notes:

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

NMWQCC = New Mexico Water Quality Control Commission

LNAPL = Light Non-Aqueous Phase Liquid

J = A qualifier indicating an estimated value of a concentration above the laboratory's Method Detection Limit (MDL) but below the Reported Detection Limit (RDL).

NS = Not Sampled

mg/L = milligrams per liter

## Appendix B

### Laboratory Analytical Report - Pace Job #: L1474528



# ANALYTICAL REPORT

April 01, 2022

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## DCP Midstream - Tasman

Sample Delivery Group: L1475558  
 Samples Received: 03/25/2022  
 Project Number:  
 Description: Linam Ranch

Report To: Kyle Norman  
 2620 W. Marland Blvd  
 Hobbs, NM 88240

Entire Report Reviewed By:

Chris Ward  
 Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

<b>Cp: Cover Page</b>	<b>1</b>	<b>1</b> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	<b>2</b> Tc
<b>Ss: Sample Summary</b>	<b>3</b>	<b>3</b> Ss
<b>Cn: Case Narrative</b>	<b>5</b>	<b>4</b> Cn
<b>Sr: Sample Results</b>	<b>6</b>	<b>5</b> Sr
MW-1 L1475558-01	6	<b>6</b> Qc
MW-2 L1475558-02	7	<b>7</b> Gl
MW-3 L1475558-03	8	<b>8</b> Al
MW-5 L1475558-04	9	<b>9</b> Sc
MW-8 L1475558-05	10	
MW-9 L1475558-06	11	
MW-10 L1475558-07	12	
MW-10D L1475558-08	13	
MW-11 L1475558-09	14	
DUPLICATE L1475558-10	15	
TRIP BLANK L1475558-11	16	
<b>Qc: Quality Control Summary</b>	<b>17</b>	
<b>Volatile Organic Compounds (GC/MS) by Method 8260B</b>	<b>17</b>	
<b>Gl: Glossary of Terms</b>	<b>19</b>	
<b>Al: Accreditations &amp; Locations</b>	<b>20</b>	
<b>Sc: Sample Chain of Custody</b>	<b>21</b>	

MW-1 L1475558-01 GW			Collected by Becky Griffin	Collected date/time 03/24/22 08:35	Received date/time 03/25/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 17:05	03/26/22 17:05	JAH	Mt. Juliet, TN
MW-2 L1475558-02 GW			Collected by Becky Griffin	Collected date/time 03/24/22 09:15	Received date/time 03/25/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 17:25	03/26/22 17:25	JAH	Mt. Juliet, TN
MW-3 L1475558-03 GW			Collected by Becky Griffin	Collected date/time 03/24/22 10:50	Received date/time 03/25/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 17:53	03/26/22 17:53	JAH	Mt. Juliet, TN
MW-5 L1475558-04 GW			Collected by Becky Griffin	Collected date/time 03/24/22 08:15	Received date/time 03/25/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1840973	50	03/31/22 01:22	03/31/22 01:22	TJJ	Mt. Juliet, TN
MW-8 L1475558-05 GW			Collected by Becky Griffin	Collected date/time 03/24/22 09:00	Received date/time 03/25/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 18:12	03/26/22 18:12	JAH	Mt. Juliet, TN
MW-9 L1475558-06 GW			Collected by Becky Griffin	Collected date/time 03/24/22 12:50	Received date/time 03/25/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 18:32	03/26/22 18:32	JAH	Mt. Juliet, TN
MW-10 L1475558-07 GW			Collected by Becky Griffin	Collected date/time 03/24/22 14:10	Received date/time 03/25/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1840973	20	03/31/22 01:42	03/31/22 01:42	TJJ	Mt. Juliet, TN
MW-10D L1475558-08 GW			Collected by Becky Griffin	Collected date/time 03/24/22 14:10	Received date/time 03/25/22 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 19:18	03/26/22 19:18	JAH	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## MW-11 L1475558-09 GW

Collected by  
Becky Griffin  
03/24/22 10:00  
Received date/time  
03/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 19:37	03/26/22 19:37	JAH	Mt. Juliet, TN

<sup>1</sup> Cp

## DUPLICATE L1475558-10 GW

Collected by  
Becky Griffin  
03/24/22 00:00  
Received date/time  
03/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 19:56	03/26/22 19:56	JAH	Mt. Juliet, TN

<sup>2</sup> Tc

## TRIP BLANK L1475558-11 GW

Collected by  
Becky Griffin  
03/24/22 00:00  
Received date/time  
03/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1838781	1	03/26/22 13:35	03/26/22 13:35	JAH	Mt. Juliet, TN

<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> GI<sup>8</sup> Al<sup>9</sup> Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> GI
- <sup>8</sup> AI
- <sup>9</sup> SC

Collected date/time: 03/24/22 08:35

L1475558

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	0.000105	J	0.0000941	0.00100	1	03/26/2022 17:05	WG1838781	<sup>1</sup> Cp
Toluene	U		0.000278	0.00100	1	03/26/2022 17:05	WG1838781	<sup>2</sup> Tc
Ethylbenzene	U		0.000137	0.00100	1	03/26/2022 17:05	WG1838781	<sup>3</sup> Ss
Total Xylenes	U		0.000174	0.00300	1	03/26/2022 17:05	WG1838781	
(S) Toluene-d8	114			80.0-120		03/26/2022 17:05	WG1838781	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	108			77.0-126		03/26/2022 17:05	WG1838781	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	98.4			70.0-130		03/26/2022 17:05	WG1838781	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

Collected date/time: 03/24/22 09:15

L1475558

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	0.000411	J	0.0000941	0.00100	1	03/26/2022 17:25	WG1838781	<sup>1</sup> Cp
Toluene	U		0.000278	0.00100	1	03/26/2022 17:25	WG1838781	<sup>2</sup> Tc
Ethylbenzene	U		0.000137	0.00100	1	03/26/2022 17:25	WG1838781	<sup>3</sup> Ss
Total Xylenes	U		0.000174	0.00300	1	03/26/2022 17:25	WG1838781	
(S) Toluene-d8	112			80.0-120		03/26/2022 17:25	WG1838781	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	103			77.0-126		03/26/2022 17:25	WG1838781	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	97.8			70.0-130		03/26/2022 17:25	WG1838781	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	U		0.0000941	0.00100	1	03/26/2022 17:53	<a href="#">WG1838781</a>	<sup>1</sup> Cp
Toluene	U		0.000278	0.00100	1	03/26/2022 17:53	<a href="#">WG1838781</a>	<sup>2</sup> Tc
Ethylbenzene	U		0.000137	0.00100	1	03/26/2022 17:53	<a href="#">WG1838781</a>	<sup>3</sup> Ss
Total Xylenes	U		0.000174	0.00300	1	03/26/2022 17:53	<a href="#">WG1838781</a>	
(S) Toluene-d8	113			80.0-120		03/26/2022 17:53	<a href="#">WG1838781</a>	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	105			77.0-126		03/26/2022 17:53	<a href="#">WG1838781</a>	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	96.8			70.0-130		03/26/2022 17:53	<a href="#">WG1838781</a>	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

Collected date/time: 03/24/22 08:15

L1475558

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	0.151		0.00471	0.0500	50	03/31/2022 01:22	<a href="#">WG1840973</a>	<sup>1</sup> Cp
Toluene	U		0.0139	0.0500	50	03/31/2022 01:22	<a href="#">WG1840973</a>	<sup>2</sup> Tc
Ethylbenzene	2.51		0.00685	0.0500	50	03/31/2022 01:22	<a href="#">WG1840973</a>	<sup>3</sup> Ss
Total Xylenes	U		0.00870	0.150	50	03/31/2022 01:22	<a href="#">WG1840973</a>	
(S) Toluene-d8	103			80.0-120		03/31/2022 01:22	<a href="#">WG1840973</a>	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	101			77.0-126		03/31/2022 01:22	<a href="#">WG1840973</a>	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	108			70.0-130		03/31/2022 01:22	<a href="#">WG1840973</a>	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	U		0.0000941	0.00100	1	03/26/2022 18:12	<a href="#">WG1838781</a>	<sup>1</sup> Cp
Toluene	U		0.000278	0.00100	1	03/26/2022 18:12	<a href="#">WG1838781</a>	<sup>2</sup> Tc
Ethylbenzene	U		0.000137	0.00100	1	03/26/2022 18:12	<a href="#">WG1838781</a>	<sup>3</sup> Ss
Total Xylenes	U		0.000174	0.00300	1	03/26/2022 18:12	<a href="#">WG1838781</a>	
(S) Toluene-d8	116			80.0-120		03/26/2022 18:12	<a href="#">WG1838781</a>	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	107			77.0-126		03/26/2022 18:12	<a href="#">WG1838781</a>	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	96.5			70.0-130		03/26/2022 18:12	<a href="#">WG1838781</a>	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	U		0.0000941	0.00100	1	03/26/2022 18:32	<a href="#">WG1838781</a>	<sup>1</sup> Cp
Toluene	U		0.000278	0.00100	1	03/26/2022 18:32	<a href="#">WG1838781</a>	<sup>2</sup> Tc
Ethylbenzene	U		0.000137	0.00100	1	03/26/2022 18:32	<a href="#">WG1838781</a>	<sup>3</sup> Ss
Total Xylenes	U		0.000174	0.00300	1	03/26/2022 18:32	<a href="#">WG1838781</a>	
(S) Toluene-d8	112			80.0-120		03/26/2022 18:32	<a href="#">WG1838781</a>	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	105			77.0-126		03/26/2022 18:32	<a href="#">WG1838781</a>	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	96.8			70.0-130		03/26/2022 18:32	<a href="#">WG1838781</a>	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	1.31		0.00188	0.0200	20	03/31/2022 01:42	<a href="#">WG1840973</a>	<sup>1</sup> Cp
Toluene	0.0107	J	0.00556	0.0200	20	03/31/2022 01:42	<a href="#">WG1840973</a>	<sup>2</sup> Tc
Ethylbenzene	0.247		0.00274	0.0200	20	03/31/2022 01:42	<a href="#">WG1840973</a>	<sup>3</sup> Ss
Total Xylenes	0.0497	J	0.00348	0.0600	20	03/31/2022 01:42	<a href="#">WG1840973</a>	<sup>4</sup> Cn
(S) Toluene-d8	98.0			80.0-120		03/31/2022 01:42	<a href="#">WG1840973</a>	<sup>5</sup> Sr
(S) 4-Bromofluorobenzene	108			77.0-126		03/31/2022 01:42	<a href="#">WG1840973</a>	<sup>6</sup> Qc
(S) 1,2-Dichloroethane-d4	110			70.0-130		03/31/2022 01:42	<a href="#">WG1840973</a>	<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	0.0276		0.0000941	0.00100	1	03/26/2022 19:18	<a href="#">WG1838781</a>	<sup>1</sup> Cp
Toluene	0.0201		0.000278	0.00100	1	03/26/2022 19:18	<a href="#">WG1838781</a>	<sup>2</sup> Tc
Ethylbenzene	0.00333		0.000137	0.00100	1	03/26/2022 19:18	<a href="#">WG1838781</a>	<sup>3</sup> Ss
Total Xylenes	0.00513		0.000174	0.00300	1	03/26/2022 19:18	<a href="#">WG1838781</a>	
(S) Toluene-d8	112			80.0-120		03/26/2022 19:18	<a href="#">WG1838781</a>	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	105			77.0-126		03/26/2022 19:18	<a href="#">WG1838781</a>	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	92.6			70.0-130		03/26/2022 19:18	<a href="#">WG1838781</a>	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

Collected date/time: 03/24/22 10:00

L1475558

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	0.00411		0.0000941	0.00100	1	03/26/2022 19:37	<a href="#">WG1838781</a>	<sup>1</sup> Cp
Toluene	U		0.000278	0.00100	1	03/26/2022 19:37	<a href="#">WG1838781</a>	<sup>2</sup> Tc
Ethylbenzene	U		0.000137	0.00100	1	03/26/2022 19:37	<a href="#">WG1838781</a>	<sup>3</sup> Ss
Total Xylenes	0.000315	J	0.000174	0.00300	1	03/26/2022 19:37	<a href="#">WG1838781</a>	<sup>4</sup> Cn
(S) Toluene-d8	118			80.0-120		03/26/2022 19:37	<a href="#">WG1838781</a>	<sup>5</sup> Sr
(S) 4-Bromofluorobenzene	107			77.0-126		03/26/2022 19:37	<a href="#">WG1838781</a>	<sup>6</sup> Qc
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		03/26/2022 19:37	<a href="#">WG1838781</a>	<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch	
Benzene	0.0285		0.0000941	0.00100	1	03/26/2022 19:56	<a href="#">WG1838781</a>	<sup>1</sup> Cp
Toluene	0.0212		0.000278	0.00100	1	03/26/2022 19:56	<a href="#">WG1838781</a>	<sup>2</sup> Tc
Ethylbenzene	0.00347		0.000137	0.00100	1	03/26/2022 19:56	<a href="#">WG1838781</a>	<sup>3</sup> Ss
Total Xylenes	0.00498		0.000174	0.00300	1	03/26/2022 19:56	<a href="#">WG1838781</a>	
(S) Toluene-d8	115			80.0-120		03/26/2022 19:56	<a href="#">WG1838781</a>	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	107			77.0-126		03/26/2022 19:56	<a href="#">WG1838781</a>	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	91.4			70.0-130		03/26/2022 19:56	<a href="#">WG1838781</a>	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

## Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch	
Benzene	U		0.0000941	0.00100	1	03/26/2022 13:35	<a href="#">WG1838781</a>	<sup>1</sup> Cp
Toluene	U		0.000278	0.00100	1	03/26/2022 13:35	<a href="#">WG1838781</a>	<sup>2</sup> Tc
Ethylbenzene	U		0.000137	0.00100	1	03/26/2022 13:35	<a href="#">WG1838781</a>	<sup>3</sup> Ss
Total Xylenes	U		0.000174	0.00300	1	03/26/2022 13:35	<a href="#">WG1838781</a>	
(S) Toluene-d8	117			80.0-120		03/26/2022 13:35	<a href="#">WG1838781</a>	<sup>4</sup> Cn
(S) 4-Bromofluorobenzene	105			77.0-126		03/26/2022 13:35	<a href="#">WG1838781</a>	<sup>5</sup> Sr
(S) 1,2-Dichloroethane-d4	99.6			70.0-130		03/26/2022 13:35	<a href="#">WG1838781</a>	<sup>6</sup> Qc
								<sup>7</sup> Gl
								<sup>8</sup> Al
								<sup>9</sup> Sc

## QUALITY CONTROL SUMMARY

## Method Blank (MB)

(MB) R3774819-1 03/26/22 09:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	114			80.0-120
(S) 4-Bromofluorobenzene	109			77.0-126
(S) 1,2-Dichloroethane-d4	97.4			70.0-130

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS)

(LCS) R3774819-2 03/26/22 12:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00527	105	70.0-123	
Toluene	0.00500	0.00593	119	79.0-120	
Ethylbenzene	0.00500	0.00577	115	79.0-123	
Xylenes, Total	0.0150	0.0177	118	79.0-123	
(S) Toluene-d8		114		80.0-120	
(S) 4-Bromofluorobenzene		106		77.0-126	
(S) 1,2-Dichloroethane-d4		100		70.0-130	

## QUALITY CONTROL SUMMARY

L1475558-04.07

## Method Blank (MB)

(MB) R3776353-2 03/31/22 00:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	101			80.0-120
(S) 4-Bromofluorobenzene	101			77.0-126
(S) 1,2-Dichloroethane-d4	109			70.0-130

<sup>1</sup>Cp<sup>2</sup>Tc<sup>3</sup>Ss<sup>4</sup>Cn<sup>5</sup>Sr<sup>6</sup>Qc<sup>7</sup>Gl<sup>8</sup>Al<sup>9</sup>Sc

## Laboratory Control Sample (LCS)

(LCS) R3776353-1 03/30/22 23:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00493	98.6	70.0-123	
Toluene	0.00500	0.00479	95.8	79.0-120	
Ethylbenzene	0.00500	0.00503	101	79.0-123	
Xylenes, Total	0.0150	0.0153	102	79.0-123	
(S) Toluene-d8		101		80.0-120	
(S) 4-Bromofluorobenzene		107		77.0-126	
(S) 1,2-Dichloroethane-d4		110		70.0-130	

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

**Results Disclaimer -** Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.	<sup>1</sup> Cp
RDL	Reported Detection Limit.	<sup>2</sup> Tc
Rec.	Recovery.	<sup>3</sup> Ss
RPD	Relative Percent Difference.	<sup>4</sup> Cn
SDG	Sample Delivery Group.	<sup>5</sup> Sr
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	<sup>6</sup> Qc
U	Not detected at the Reporting Limit (or MDL where applicable).	<sup>7</sup> Gl
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	<sup>8</sup> Al
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	<sup>9</sup> Sc
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey—NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio—VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp<sup>2</sup> Tc<sup>3</sup> Ss<sup>4</sup> Cn<sup>5</sup> Sr<sup>6</sup> Qc<sup>7</sup> Gl<sup>8</sup> Al<sup>9</sup> Sc

DCP Midstream - Tasman

2620 W. Marland Blvd  
Hobbs, NM 88240Report to:  
Kyle NormanProject Description:  
Linam Ranch

Phone: 720-218-4003

Billing Information:	
Steve Weathers 370 17th St, Ste 2500 Denver, CO 80202	
Email To: knorman@tasman-geo.com; bumphrey@tasman-	
Collected:	
Client Project #	
Lab Project # DCPTASMAN-LINAM	
Site/Facility ID #	
P.O. # 0000524227	
Quote #	
Rush? (Lab MUST Be Notified)	
Same Day      Five Day	
Next Day      5 Day (Rad Only)	
Two Day      10 Day (Rad Only)	
Three Day	
Immediately	
Packed on Ice N      Y	

Pres  
ChkPlease Circle:  
PT MT CT ETDate Results Needed  
No.  
of  
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	V8260BTEX 40ml/Amb-HCl
MW-1		GW		3-24-22 0835	3 X	-01
MW-2		GW		3-24-22 0915	3 X	-02
MW-3		GW		3-24-22 1050	3 X	-03
MW-4		GW				
MW-5		GW		3-24-22 0815	3 X	-04
MW-6		GW				
MW-7		GW				-
MW-8		GW		3-24-22 0900	3 X	-05
MW-9		GW		3-24-22 1050	3 X	-06
MW-10		GW		3-24-22 1410	3 X	-07

\* Matrix:

SS - Soil   AIR - Air   F - Filter  
GW - Groundwater   B - Bioassay

WW - WasteWater

DW - Drinking Water

OT - Other \_\_\_\_\_

Remarks:

Samples returned via:  
UPS   FedEx   Courier

Tracking #

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

## Sample Receipt Checklist

COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:    
 Bottles arrive intact:    
 Correct bottles used:    
 Sufficient volume sent:    
 If Applicable  
 VOA Zero Headspace:    
 Preservation Correct/Checked:  Y   
 RAD Screen <0.5 mR/hr:

Relinquished by : (Signature)

Relinquished by : (Signature)

Relinquished by : (Signature)

Date: 3-24-22 Time: 1600

Date: Time:

Received by: (Signature)

Received by: (Signature)

Received for lab by: (Signature)

Trip Blank Received: Yes/ No  
 HCl / MeOH  
TBRTemp: DRAC Bottles Received:  
1.4mL 50

Date: Time:

If preservation required by Login: Date/Time  
Hold: Condition: NCF  OK

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122  
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf

SDG # L475558  
A102

Table

Acctnum: DCPTASMAN

Template: T127845

Prelogin: P909000

PM: 824 - Chris Ward

PB: 08319182

Shipped Via: FedEX Ground

Remarks Sample # (lab only)



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 152664

**CONDITIONS**

Operator:  DCP OPERATING COMPANY, LP 6900 E. Layton Ave Denver, CO 80237	OGRID:  36785
	Action Number:  152664
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	Accepted for the record on 01/04/2023.	1/4/2023