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February 13, 2012

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

**RE: 2nd Semi Annual 2011 Groundwater Monitoring Report**  
**DCP Eldridge Ranch Study Area (AP#-33)**  
**Unit P, Section 21, Township 19 South, Range 37 East**  
**Lea County, New Mexico**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, a one copy of the 2nd Semi Annual 2011 Results for the DCP Eldridge Study Area located near Monument, New Mexico (Unit P, Section 21, Township 19 South, Range 37 East).

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

Sincerely

**DCP Midstream, LP**

A handwritten signature in black ink, appearing to read "Stephen Weathers, P.G.", is written over a horizontal line.

Stephen Weathers, P.G.  
Principal Environmental Specialist

cc: Larry Johnson, OCD Hobbs District Office (Copy on CD)  
Environmental Files

# **Second Half 2011 Semi-Annual Groundwater Monitoring Summary Report**

**Eldridge Ranch  
Lea County, New Mexico  
AP-33**

**Prepared for:**



**370 17<sup>th</sup> St., Suite 2500  
Denver, CO 80202**

***Prepared by:***



**5690 Webster, Ave  
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**December 22, 2011**

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## 1. Introduction

Tasman Geosciences, LLC (Tasman) is submitting to DCP Midstream (DCP) the results of the second half 2011 semi-annual groundwater monitoring activities conducted September 13 and 14, 2011 at the Eldridge Ranch Pipeline Release (Site) in Lea County, New Mexico (Figure 1). The field activities described herein were performed 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. These activities were performed through September 2011 by American Environmental Consulting LLC (AEC) after which project responsibilities were transferred to Tasman Geosciences, LLC (Tasman). The data collected herein were used to develop a groundwater elevation map and benzene isoconcentration map to evaluate current conditions at the Site.

## 2. Site Location and Background

The Site is located in New Mexico Oil Conservation Division (OCD) designated Unit P, Section 21, Township 19 South, Range 37 East, approximately 1 mile north and 3/4 of a mile east of the town of Monument in Lea County, New Mexico. The approximate coordinates are 32.642 degrees north and -103.256 degrees west. The surrounding area is predominantly uninhabited and used for oil and gas extraction and some ranching. Approximately five underground pipelines traverse the Site. (Figure 2).

The Site includes the former Eldridge Ranch property, to the south of the site and the former Huston property, comprising the central portion of the Site, both owned by DCP; and the northern portion of the Site consisting of land leased by DCP from the State of New Mexico. The Site spans more than a mile north to south over these three sections. For ease of discussion, the State of New Mexico property will be called the North Area, the Huston property will be called the Central Area, and the Eldridge Property will be called the South Area, as shown on Figure 2.

## 3. Groundwater Monitoring

This section describes the groundwater field and laboratory activities performed during the second half 2011 semi-annual monitoring event. Monitoring activities included Site-wide groundwater gauging and 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 and annual fluctuations in groundwater elevations at the Site. During the second half 2011, groundwater levels were measured at fifty-five (55) monitoring well locations. LNAPL was detected within monitoring wells MW-26 (0.61), MW-27 (0.49) MW-CC (0.65) where the measured thicknesses in feet is indicated in parenthesis. Groundwater elevation was corrected for product thickness using an assumed LNAPL density of 0.75 grams per cubic centimeter.

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). Measured groundwater levels are presented in Table 1. Groundwater level data were later converted to elevation (feet above mean sea level [AMSL]).

Groundwater elevation measurements collected during the second half 2011 monitoring event as well as historical elevations are presented in Table 1, and a second half 2011 groundwater elevation contour map is illustrated on Figure 3. Groundwater elevations ranged from 3,588.11 feet AMSL at monitoring well MW-24 to 3,620.33 feet AMSL at monitoring well NMG MW-3. As illustrated on Figure 3, groundwater flow at the Site generally trends to the south/southeast with a gradient of approximately 0.005 foot per foot between monitoring wells NMG MW-3 (North Area) and MW-24 (South Area).

### 3.2 Groundwater Quality Monitoring

Prior to collecting groundwater samples, groundwater levels, the presence of LNAPL, and total well depth (in wells without LNAPL) were measured within Site monitoring wells, as described above. A minimum of three well casing volumes of groundwater (calculated from total depth of the well and groundwater level measurements), were purged from the subject well prior to collecting groundwater samples.

Groundwater samples were collected using dedicated polyethylene bailers, placed in clean laboratory supplied containers for the selected analytical methods and 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 forty-nine monitoring wells. Monitoring wells MW-26, MW-27, and MW-CC were not sampled due to the presence of LNAPL. Water quality samples were submitted to be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the second half 2011 event. A dissolved-phase benzene isoconcentration map is illustrated on Figure 4. Laboratory analytical reports are included in Appendix A, and the results are summarized below.

- Benzene was detected in twenty-seven (27) of the sampled monitoring wells. Detected concentrations ranged from 0.00028 milligrams per liter (mg/L) in MW-5 to 15.0 mg/L in MW-N. The New Mexico Water Quality Control Commission (NMWQCC) groundwater standard for benzene, 0.01 mg/L, was exceeded in monitoring wells MW-8, MW-10, MW-11, MW-12, MW-23, MW-M, MW-N, MW-O, MW-Q, MW-EE, MW-LL, NMG MW-5, NMG MW-7, and NMG MW-10.
- Toluene was detected in MW-N, MW-O, and MW-LL during the second half 2011 monitoring event. Only the sample from MW-N exceeded the NMWQCC groundwater standard for toluene (0.62 mg/L) with a concentration of 0.982 mg/L.
- Ethylbenzene was detected in twenty-five of the monitoring wells during the second semi-annual sampling event. The NMWQCC groundwater standard for ethylbenzene (0.75 mg/L) was not exceeded in any of the samples.
- Total xylenes were detected in the Irrigation Well, MW-1, MW-4, MW-5, MW-8, MW-10, MW-11, MW-18, MW-A, MW-M, MW-N, MW-EE, MW-LL, NMG MW-7, and NMG MW-10, with concentrations ranging from 0.0041 mg/L in MW-EE, to 0.403 mg/L in MW-11. The NMWQCC groundwater standard (0.62 mg/L) was not exceeded in any of the samples.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the second half 2011 event. Laboratory analytical reports for the event are included in Appendix A, and a dissolved-phase benzene isoconcentration map is provided on Figure 4. Water quality parameters were not collected during the monitoring event due to a malfunctioning field instrument. However, based on evaluation of previous monitoring field data sheets (First Half 2011), the Site monitoring wells did not require collection of more than three (3) purge volumes to achieve parameter stabilization (where collected). As such, the analytical data are considered to be representative of site conditions in that a minimum 3 purge volumes were evacuated from all sampled monitoring wells during the 2011 second half semi-annual event.

#### 4. Remediation Activities

Natural attenuation continues to provide effective control and passive remediation of the dissolved-phase groundwater plumes on Site. Monitoring wells NMG MW-13, MW-19, MW-31, MW-F, MW-24, and MW-17, acting as “point of compliance” wells along the southern and eastern plume boundary, continue to exhibit non-detect dissolved-phase BTEX concentrations in groundwater in the North, Central, and South areas, respectively. Based on the historic and recent data, it appears that natural attenuation provides effective remediation of residual impacts at the Site.

## 5. Conclusions

While the dissolved phase hydrocarbon impacts exceeded the regulatory limits in 14 of the sampled monitoring wells, concentrations continue to decline across the Site. The analytical data from the second half 2011 sampling event for the remaining wells support these observations, by area, as described below:

### NORTH AREA

- North Area benzene concentrations were elevated in NMG MW-5, although concentrations dropped two orders of magnitude from the April 2011 sampling event. The first half semi-annual monitoring report, prepared by AEC, noted anomalous results in NMG MW-5 and NMG MW-10 possibly indicating that results had been switched. In addition, historically high concentrations of benzene in NMG MW-5 indicate the presence of a source in the North Area. Monitoring wells NMG MW-7 and NMG MW-10, downgradient of NMG MW-5, also exhibited benzene concentrations exceeding the NMWQCC groundwater standards in the September 2011 sampling event.
- Monitoring wells NMG MW-11 and NMG MW-13, acting as “point of compliance” wells along the southeastern plume boundaries in the North Area, continue to exhibit non-detect dissolved-phase BTEX concentrations in groundwater, indicating that the impacted area is not expanding.
- Benzene concentrations continued to decrease in monitoring well NMG MW-10.

### CENTRAL AREA

- Monitoring well MW-20, located on the western boundary of the Central Area, was sampled during the September 2011 sampling event for the first time since December 2004. Non-detect results at this well established a point of compliance on the western side of the Central Area.
- Benzene concentrations remained highest in the Central Area. Free product was detected in monitoring wells MW-27 and MW-CC in the central portion, and MW-26 at the northeast corner.
- Monitoring wells MW-19, MW-31 and MW-F, acting as “point of compliance” wells along the eastern plume boundaries in the Central Area, continue to exhibit non-detect dissolved-phase BTEX concentrations in groundwater, indicating that the impacted area is not expanding.
- Benzene concentrations in MW-8 continued a decreasing trend and were nearly below the NMQCC groundwater standards during the September 2011 sampling event.
- Benzene concentrations in MW-11 have fluctuated around 3 mg/L since the December 2009 sampling event without showing a consistent decrease.

## SOUTH AREA

- Boundary wells in the South Area (MW-24, MW-17) continue to exhibit non-detect dissolved phase BTEX concentrations in groundwater, indicating that the impacted area is not expanding.

## **6. Recommendations**

Based on evaluation of 2011 and historical Site observations and monitoring results, the follow recommendations have been developed for future activities:

- Continue semi-annual groundwater monitoring and sampling at all monitoring well locations currently on the Site sampling plan, with the exception of those described below.
- Remove monitoring wells MW-J, NMG MW-9, and MW-16 from the Site sampling plan. Dissolved BTEX concentrations have not been detected in MW-J since December 2006, and MW-18 and MW-19 are located downgradient of this well. Dissolved BTEX concentrations have not been detected in NMG MW-9 since the June 2008 sampling event, and NMG MW-11 and NMG MW-13 are located downgradient. Dissolved BTEX concentrations have not been detected in MW-16 since March 2007, and the downgradient location of MW-17 would continue to provide delineation in this localized area.

## Tables

**TABLE 1**  
**SECOND HALF 2011 SEMI-ANNUAL**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-1	9/09						3599.59	-
MW-1	12/09						3599.35	-0.24
MW-1	3/10						3599.37	0.02
MW-1	9/10						3600.41	1.04
MW-1	04/25/11	18.51			3618.22		3599.71	-0.70
MW-1	09/14/11	19.09			29.49	3618.22	3599.13	-0.58
MW-1D	9/09						3595.97	-
MW-1D	12/09						3595.79	-0.18
MW-1D	3/10						3595.76	-0.03
MW-1D	9/10						3596.85	1.09
MW-1D	04/25/11	20.05			3616.18		3596.13	-0.72
MW-1D	09/14/11	20.58			48.38	3616.18	3595.60	-0.53
MW-2	9/09						3599.91	-
MW-2	12/09						3599.62	-0.29
MW-2	3/10						3599.56	-0.06
MW-2	9/10						3600.65	1.09
MW-2	04/25/11	21.59			3621.63		3600.04	-0.61
MW-2	09/13/11	22.44			28.92	3621.63	3599.19	-0.85
MW-3	9/09						3600.01	-
MW-3	12/09						3599.79	-0.22
MW-3	3/10						3599.82	0.03
MW-3	9/10						3601.45	1.63
MW-3	04/25/11	21.56			3621.67		3600.11	-1.34
MW-3	09/13/11	22.09			3621.67		3599.58	-0.53
MW-4	9/09						3600.08	-
MW-4	12/09						3599.92	-0.16
MW-4	3/10						3599.9	-0.02
MW-4	9/10						3601.31	1.41
MW-4	04/25/11	21.01			3621.31		3600.30	-1.01
MW-4	09/14/11	21.67			29.34	3621.31	3599.64	-0.66
MW-5	9/09						3600.7	-
MW-5	12/09						3600.76	0.06
MW-5	3/10						3600.87	0.11
MW-5	9/10						3602.05	1.18
MW-5	04/25/11	16.96			3618.08		3601.12	-0.93
MW-5	09/14/11	17.71			27.55	3618.08	3600.37	-0.75
MW-6	9/09						3604.20	-
MW-6	12/09						3604.07	-0.13
MW-6	3/10						3604.08	0.01
MW-6	9/10						3605.95	1.87
MW-6	04/25/11	20.45			3624.99		3604.54	-1.41
MW-6	09/14/11	21.14			29.83	3624.99	3603.85	-0.69
MW-7	9/09						3604.45	-
MW-7	12/09						3604.31	-0.14
MW-7	3/10						3604.40	0.09
MW-7	9/10						3605.27	0.87
MW-7	04/25/11	26.04			3630.62		3604.58	-0.69
MW-7	09/13/11	26.49			3630.62		3604.13	-0.45

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MW-8	9/09						3603.43	-
MW-8	12/09						3603.30	-0.13
MW-8	3/10						3603.33	0.03
MW-8	9/10						3604.82	1.49
MW-8	04/25/11	22.14				3625.92	3603.78	-1.04
MW-8	09/14/11	22.95			32.49	3625.92	3602.97	-0.81
MW-9	9/09						3602.10	-
MW-9	12/09						3602.08	-0.02
MW-9	3/10						3602.11	0.03
MW-9	9/10						3603.63	1.52
MW-9	04/25/11	18.18				3620.78	3602.60	-1.03
MW-9	09/14/11	19.16			29.72	3620.78	3601.62	-0.98
MW-10	9/09						3604.98	-
MW-10	12/09						3604.87	-0.11
MW-10	3/10						3604.89	0.02
MW-10	9/10						3606.42	1.53
MW-10	04/25/11	21.8				3627.27	3605.47	-0.95
MW-10	09/14/11	22.77			32.81	3627.27	3604.50	-0.97
MW-11	9/09						3604.66	-
MW-11	12/09						3604.47	-0.19
MW-11	3/10						3604.54	0.07
MW-11	9/10						3605.97	1.43
MW-11	04/25/11	22.6				3627.56	3604.96	-1.01
MW-11	09/14/11	23.32			32.72	3627.56	3604.24	-0.72
MW-12	9/09						3608.01	-
MW-12	12/09						3605.78	-2.23
MW-12	3/10						3605.85	0.07
MW-12	9/10						3607.09	1.24
MW-12	04/25/11	24.96				3631.14	3606.18	-0.91
MW-12	09/14/11	25.62			34.27	3631.14	3605.52	-0.66
MW-13	9/09						3606.16	-
MW-13	12/09						3606.02	-0.14
MW-13	3/10						3606.1	0.08
MW-13	9/10						3607.60	1.50
MW-13	04/25/11	26.43				3632.90	3606.47	-1.13
MW-13	09/13/11					3632.9		
MW-14	9/09						3607.17	-
MW-14	12/09						3607.09	-0.08
MW-14	3/10						3607.03	-0.06
MW-14	9/10						3608.44	1.41
MW-14	04/25/11	22.92				3630.36	3607.44	-1.00
MW-14	09/14/11	23.4			34.06	3630.36	3606.96	-0.48
MW-15	9/09						3609.14	-
MW-15	12/09						3609.08	-0.06
MW-15	3/10						3609.04	-0.04
MW-15	9/10						3609.91	0.87
MW-15	04/25/11	26.16				3635.47	3609.31	-0.60
MW-15						3635.47		
MW-16	9/09						3593.76	-
MW-16	12/09						3593.64	-0.12
MW-16	3/10						3593.69	0.05
MW-16	9/10						3594.96	1.27
MW-16	04/25/11	17.04				3611.54	3594.50	-0.46
MW-16	09/13/11	18.24			27.98	3611.54	3593.30	-1.20

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Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-17	9/09						3593.72	-
MW-17	12/09						3593.67	-0.05
MW-17	3/10						3593.72	0.05
MW-17	9/10						3594.78	1.06
MW-17	04/25/11	14.75				3608.83	3594.08	-0.70
MW-17	09/13/11	15.39			27.51	3608.83	3593.44	-0.64
MW-18	9/09						3601.23	-
MW-18	12/09						3601.24	0.01
MW-18	3/10						3601.37	0.13
MW-18	9/10						3603.08	1.71
MW-18	04/25/11	21.69				3623.53	3601.84	-1.24
MW-18	09/14/11	22.78			34.94	3623.53	3600.75	-1.09
MW-19	9/09						3600.54	-
MW-19	12/09						3600.84	0.30
MW-19	3/10						3600.92	0.08
MW-19	9/10						3602.64	1.72
MW-19	04/25/11	16.56				3617.99	3601.43	-1.21
MW-19	09/14/11	17.77			29.95	3617.99	3600.22	-1.21
MW-20	9/09						3606.69	-
MW-20	12/09						3606.54	-0.15
MW-20	3/10						3606.45	-0.09
MW-20	9/10						3607.37	0.92
MW-20	04/25/11	30.41				3637.14	3606.73	-0.64
MW-20	09/14/11	30.61			35.22	3637.14	3606.53	-0.20
MW-21	9/09						3608.06	-
MW-21	12/09						3607.89	-0.17
MW-21	3/10						3607.92	0.03
MW-21	9/10						3609.31	1.39
MW-21	04/25/11	24.94				3633.27	3608.33	-0.98
MW-21	09/14/11					3633.27		
MW-22	9/09						3607.25	-
MW-22	12/09						3607	-0.25
MW-22	3/10						3603.29	-3.71
MW-22	9/10						3608.45	5.16
MW-22	04/25/11	21.2				3628.68	3607.48	-0.97
MW-22	09/14/11					3628.68		
MW-23	9/09						3608.5	-
MW-23	12/09						3608.39	-0.11
MW-23	3/10						3608.34	-0.05
MW-23	9/10						3609.43	1.09
MW-23	04/25/11	23.33				3632.02	3608.69	-0.74
MW-23	09/14/11	23.92			32.98	3632.02	3608.10	-0.59
MW-24	9/09						3588.37	-
MW-24	12/09						3588.23	-0.14
MW-24	3/10						3588.24	0.01
MW-24	9/10						3589.42	1.18
MW-24	04/25/11	20.6				3609.15	3588.55	-0.87
MW-24	09/13/11	21.04			37.35	3609.15	3588.11	-0.44
MW-25	9/09						3612.47	-
MW-25	12/09						3612.41	-0.06
MW-25	3/10						3612.4	-0.01
MW-25	9/10						3612.94	0.54
MW-25	04/25/11	27.61				3640.14	3612.53	-0.41
MW-25	09/13/11	27.85			35.44	3640.14	3612.29	-0.24

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**LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-26*	9/09						3610.3	-
MW-26*	12/09						3610.19	-0.11
MW-26*	3/10						3609.92	-0.27
MW-26*	9/10						3611.16	1.24
MW-26*	04/25/11	24.59	24.29	0.30		3635.01	3610.42	-0.74
MW-26*	09/14/11	25.26	24.65	0.61		3635.01	3610.21	-0.21
MW-27*	9/09						3607.62	-
MW-27*	12/09						3607.49	-0.13
MW-27*	3/10						3607.3	-0.19
MW-27*	9/10						3609.29	1.99
MW-27*	04/25/11	28.45	27.77	0.68		3636.41	3607.96	-1.33
MW-27*	09/14/11	29.11	28.62	0.49		3636.41	3607.67	-0.29
MW-28	9/09						3609.88	-
MW-28	12/09						3609.7	-0.18
MW-28	3/10						3609.78	0.08
MW-28	9/10						3610.77	0.99
MW-28	04/25/11	22.5				3632.58	3610.08	-0.69
MW-28	09/14/11	23.23			32.15	3632.58	3609.35	-0.73
MW-29	9/09						3609.05	-
MW-29	12/09						3608.81	-0.24
MW-29	3/10						3612.48	3.67
MW-29	9/10						3609.82	-2.66
MW-29	04/25/11	24.99				3634.17	3609.18	-0.64
MW-29	09/14/11	25.66			34.83	3634.17	3608.51	-0.67
MW-30	9/09						3606.33	-
MW-30	12/09						3607.29	0.96
MW-30	3/10						3607.28	-0.01
MW-30	9/10						3608.52	1.24
MW-30	04/25/11	23.09				3630.76	3607.67	-0.85
MW-30	09/14/11	23.85			32.53	3630.76	3606.91	-0.76
MW-31	9/09						3604.92	-
MW-31	12/09						3605.26	0.34
MW-31	3/10						3605.25	-0.01
MW-31	9/10						3606.88	1.63
MW-31	04/25/11	19.6				3625.38	3605.78	-1.10
MW-31	09/14/11	20.63			28.55	3625.38	3604.75	-1.03
MW-A	9/09						3596.00	-
MW-A	12/09						3595.69	-0.31
MW-A	3/10						3595.72	0.03
MW-A	9/10						3596.77	1.05
MW-A	04/25/11	20.33				3616.26	3595.93	-0.84
MW-A	09/14/11	20.79			26.64	3616.26	3595.47	-0.46
MW-E	9/09						3599.73	-
MW-E	12/09						3599.78	0.05
MW-E	3/10						3599.89	0.11
MW-E	9/10						3601.19	1.30
MW-E	04/25/11	20.19				3620.44	3600.25	-0.94
MW-E	09/14/11	21.07			28.58	3620.44	3599.37	-0.88
MW-F	9/09						3600.07	-
MW-F	12/09						3600.25	0.18
MW-F	3/10						3600.29	0.04
MW-F	9/10						3601.79	1.50
MW-F	04/25/11	15.78				3616.44	3600.66	-1.13
MW-F	09/14/11	16.82			27.1	3616.44	3599.62	-1.04

**TABLE 1**  
**SECOND HALF 2011 SEMI-ANNUAL**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-I	9/09						3603.52	-
MW-I	12/09						3603.45	-0.07
MW-I	3/10						3603.51	0.06
MW-I	9/10						3605.14	1.63
MW-I	04/25/11	23.68				3627.63	3603.95	-1.19
MW-I	09/14/11	24.54			36.63	3627.63	3603.09	-0.86
MW-J	9/09						3602.91	-
MW-J	12/09						3602.90	-0.01
MW-J	3/10						3602.93	0.03
MW-J	9/10						3604.67	1.74
MW-J	04/25/11	21.35				3624.79	3603.44	-1.23
MW-J	09/14/11	22.39			28.2	3624.79	3602.40	-1.04
MW-M	9/09						3606.97	-
MW-M	12/09						3606.78	-0.19
MW-M	3/10						3606.86	0.08
MW-M	9/10						3608.32	1.46
MW-M	04/25/11	26.88				3634.1	3607.22	-1.10
MW-M	09/14/11	27.62			40.57	3634.1	3606.48	-0.74
MW-N	9/09						3606.87	-
MW-N	12/09						3606.73	-0.14
MW-N	3/10						3606.77	0.04
MW-N	9/10						3608.37	1.60
MW-N	04/25/11	28.2				3635.45	3607.25	-1.12
MW-N	09/14/11	29.09			38.8	3635.45	3606.36	-0.89
MW-O	9/09						3606.87	-
MW-O	12/09						3606.72	-0.15
MW-O	3/10						3606.8	0.08
MW-O	9/10						3608.36	1.56
MW-O	04/25/11	26.83				3634.05	3607.22	-1.14
MW-O	09/14/11	27.71			38.62	3634.05	3606.34	-0.88
MW-Q	9/09						3607.81	-
MW-Q	12/09						3607.69	-0.12
MW-Q	3/10						3607.71	0.02
MW-Q	9/10						3609.26	1.55
MW-Q	04/25/11	23.45				3631.59	3608.14	-1.12
MW-Q	09/14/11	24.33			36.93	3631.59	3607.26	-0.88
MW-S	9/09						3605.74	-
MW-S	12/09						3605.65	-0.09
MW-S	3/10						3605.67	0.02
MW-S	9/10						3607.17	1.50
MW-S	04/25/11	16.1				3622.2	3606.10	-1.07
MW-S	09/14/11	16.97			31.19	3622.2	3605.23	-0.87
MW-CC*	9/09						3606.90	-
MW-CC*	12/09						3606.73	-0.17
MW-CC*	3/10						3606.60	-0.13
MW-CC*	9/10						3608.17	1.57
MW-CC*	04/25/11	27.58	27.28	0.30		3635.22	3607.64	-0.53
MW-CC*	09/14/11	29.06	28.41	0.65		3635.22	3606.65	-0.99
MW-EE	9/09						3608.8	-
MW-EE	12/09						3608.66	-0.14
MW-EE	3/10						3608.69	0.03
MW-EE	9/10						3608.69	0.00
MW-EE	04/25/11	23.31				3632.32	3609.01	0.32
MW-EE	09/14/11	23.9			34.38	3632.32	3608.42	-0.59

**TABLE 1**  
**SECOND HALF 2011 SEMI-ANNUAL**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-LL	9/09						3606.92	-
MW-LL	12/09						3606.74	-0.18
MW-LL	3/10						3606.79	0.05
MW-LL	9/10						3608.36	1.57
MW-LL	04/25/11	28.21				3635.41	3607.20	-1.16
MW-LL	09/14/11	29.05			39.65	3635.41	3606.36	-0.84
MW-MM	9/09						3608.27	-
MW-MM	12/09						3608.14	-0.13
MW-MM	3/10						3608.15	0.01
MW-MM	9/10						3609.58	1.43
MW-MM	04/25/11	23.09				3631.61	3608.52	-1.06
MW-MM	09/14/11	23.77			36.82	3631.61	3607.84	-0.68
NMG MW2	9/09						3618.18	-
NMG MW2	12/09						3618.01	-0.17
NMG MW2	3/10						3617.93	-0.08
NMG MW2	9/10						3618.3	0.37
NMG MW2	04/25/11	28.76				3646.9	3618.14	-0.16
NMG MW2	09/13/11	29.18			37.28	3646.9	3617.72	-0.42
NMG MW3	9/09						3620.57	-
NMG MW3	12/09						3620.52	-0.05
NMG MW3	3/10						3620.47	-0.05
NMG MW3	9/10						3620.85	0.38
NMG MW3	04/25/11	29.21				3649.8	3620.59	-0.26
NMG MW3	09/13/11	29.47			39.25	3649.8	3620.33	-0.26
NMG MW4	9/09						3616.81	-
NMG MW4	12/09						3616.68	-0.13
NMG MW4	3/10						3616.59	-0.09
NMG MW4	9/10						3617.19	0.60
NMG MW4	04/25/11	29.31				3646.08	3616.77	-0.42
NMG MW4	09/13/11	29.68			36.81	3646.08	3616.40	-0.37
NMG MW5	9/09						3617.37	-
NMG MW5	12/09						3617.23	-0.14
NMG MW5	3/10						3617.17	-0.06
NMG MW5	9/10						3617.95	0.78
NMG MW5	04/25/11	31.22				3648.55	3617.33	-0.62
NMG MW5	09/13/11	31.65			38.65	3648.55	3616.90	-0.43
NMG MW6	9/09						3616.5	-
NMG MW6	12/09						3616.39	-0.11
NMG MW6	3/10						3616.36	-0.03
NMG MW6	9/10						3617.22	0.86
NMG MW6	04/25/11	30.02				3646.62	3616.6	-0.62
NMG MW6	09/13/11	30.6			38.31	3646.62	3616.02	-0.58
NMG MW7	9/09						3615.32	-
NMG MW7	12/09						3615.2	-0.12
NMG MW7	3/10						3615.16	-0.04
NMG MW7	9/10						3616.05	0.89
NMG MW7	04/25/11	28.67				3644.18	3615.51	-0.54
NMG MW7	09/13/11	29.35			37.45	3644.18	3614.83	-0.68
NMG MW8	9/09						3616.2	-
NMG MW8	12/09						3616.01	-0.19
NMG MW8	3/10						3616	-0.01
NMG MW8	9/10						3616.86	0.86
NMG MW8	04/25/11	30.98				3647.18	3616.2	-0.66
NMG MW8	09/13/11	31.55			38.27	3647.18	3615.63	-0.57

**TABLE 1**  
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**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (3) (feet)
NMG MW9	9/09						3615.08	-
NMG MW9	12/09						3614.68	-0.40
NMG MW9	3/10						3614.64	-0.04
NMG MW9	9/10						3615.66	1.02
NMG MW9	04/25/11	27.16				3642.12	3614.96	-0.70
NMG MW9	09/13/11	27.87			31.48	3642.12	3614.25	-0.71
NMG MW10	9/09						3614.98	-
NMG MW10	12/09						3614.85	-0.13
NMG MW10	3/10						3614.82	-0.03
NMG MW10	9/10						3615.77	0.95
NMG MW10	04/25/11	26.66				3641.78	3615.12	-0.65
NMG MW10	09/13/11	26.62			32.12	3641.78	3615.16	0.04
NMG MW11	9/09						3614.29	-
NMG MW11	12/09						3614.17	-0.12
NMG MW11	3/10						3614.14	-0.03
NMG MW11	9/10						3615.09	0.95
NMG MW11	04/25/11	25.91				3640.37	3614.46	-0.63
NMG MW11	09/13/11	26.62			32.25	3640.37	3613.75	-0.71
NMG MW12	9/09						3612.38	-
NMG MW12	12/09						3612.31	-0.07
NMG MW12	3/10						3612.27	-0.04
NMG MW12	9/10						3613.25	0.98
NMG MW12	04/25/11	25.59				3638.2	3612.61	-0.64
NMG MW12	09/13/11	26.3			32.6	3638.2	3611.90	-0.71
NMG MW13	9/09						3612.53	-
NMG MW13	12/09						3612.24	-0.29
NMG MW13	3/10						3612.22	-0.02
NMG MW13	9/10						3613.23	1.01
NMG MW13	04/25/11	24.15				3636.64	3612.49	-0.74
NMG MW13	09/13/11	24.82			27.73	3636.64	3611.82	-0.67
Average change in groundwater elevation since the previous monitoring event								-0.63

Notes:

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

2- Total depths were collected and recorded during the second half semi-annual 2011 monitoring event.

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

Data presented for all well locations includes previous four sampling events, when available. Historic groundwater elevation data for these locations are available upon request.

\* 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**  
**SECOND HALF SEMI-ANNUAL 2011**  
**SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Comission Groundwater Standards		0.01 (mg/l)	<75 (mg/l)	<75 (mg/l)	<62 (mg/l)	
MW-1	3/23/2010	<b>0.726</b>	0.0879	0.107	0.0278	
MW-1	3/23/2010	0.0046	<0.002	0.0216	0.0266	
MW-1	6/10/2010	0.0031	<0.0043	0.0182	0.0208	
MW-1	9/15/2010	0.0073	<0.01	0.035	0.0369	
MW-1	4/25/2011	0.0053	<0.002	0.0302	0.0302	
MW-1	9/14/2011	0.0031	<0.0020	0.0194	0.0075	
MW-1D	3/23/2010	<.0002	<0.002	<0.002	<0.006	
MW-1D	6/10/2010	<.0005	<0.00043	<0.00055	<0.0017	
MW-1D	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-1D	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-1D	9/14/2011	<0.001	<0.002	0.0005	<0.004	
MW-4	3/23/2010	<.01	0.006	0.181	0.599	
MW-4	6/10/2010	<0.0025	0.003	0.145	0.469	
MW-4	9/15/2010	<.005	0.0022	0.197	0.5378	
MW-4	4/25/2011	0.0013	0.0022	0.159	0.481	
MW-4	9/14/2011	0.0011	<0.004	0.0968	0.291	
MW-5	3/23/2010	<0.002	<0.002	0.017	0.057	
MW-5	6/10/2010	NS	NS	NS	NS	
MW-5	9/15/2010	0.00058	<0.002	0.0023	0.0056	
MW-5	4/25/2011	0.00047	<0.002	0.0122	0.0422	
MW-5	9/14/2011	0.00028	<0.002	0.0091	0.0314	
MW-6	3/23/2010	<0.002	<0.002	0.00095	0.003	
MW-6	6/10/2010	NS	NS	NS	NS	
MW-6	9/15/2010	<0.002	<0.004	0.000097	<0.004	
MW-6	4/25/2011	<0.001	<0.002	0.00041	<0.002	
MW-6	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-8	3/23/2010	<b>0.0493</b>	0.00072	0.0728	0.19	
MW-8	6/10/2010	NS	NS	NS	NS	
MW-8	9/15/2010	<b>0.0197</b>	<0.002	0.084	0.2072	
MW-8	4/25/2011	<b>0.0273</b>	<0.002	0.112	0.236	
MW-8	9/14/2011	<b>0.0117</b>	<0.004	0.0659	0.136	
MW-9	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-9	6/10/2010	<0.005	<0.0043	<0.00055	<0.0017	
MW-9	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-9	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-9	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-10	3/23/2010	<b>0.0128</b>	<0.002	0.0101	0.0143	
MW-10	6/10/2010	NS	NS	NS	NS	
MW-10	9/15/2010	<b>0.0366</b>	<0.002	0.0081	0.0088	
MW-10	4/25/2011	<b>0.0179</b>	<0.002	0.0078	0.0084	
MW-10	9/14/2011	<b>0.0202</b>	<0.002	0.0041	0.0044	
MW-11	3/23/2010	<b>3.73</b>	<0.2	0.197	0.252	
MW-11	6/10/2010	NS	NS	NS	NS	
MW-11	9/15/2010	<b>3.3</b>	<0.1	0.264	0.514	
MW-11	4/25/2011	<b>2.92</b>	<0.05	0.22	0.22	
MW-11	9/14/2011	<b>3.52</b>	<0.20	0.37	0.403	

**TABLE 2**  
**SECOND HALF SEMI-ANNUAL 2011**  
**SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Comision Groundwater Standards		0.01 (mg/l)	.75(mg/l)	.75 (mg/l)	.62 (mg/l)	
MW-12	3/23/2010	10.9	<0.02	0.271	<0.6	
MW-12	6/10/2010	NS	NS	NS	NS	
MW-12	9/15/2010	12.4	0.141	0.237	0.109	
MW-12	4/25/2011	11.6	<0.2	0.261	0.0739	
MW-12	9/14/2011	9.51	<0.20	0.307	<0.40	
MW-14	3/23/2010	<.0002	<0.002	<0.002	<0.006	
MW-14	6/10/2010	NS	NS	NS	NS	
MW-14	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-14	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-14	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-16	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-16	6/10/2010	<.0005	<.00043	<.000055	<.00017	
MW-16	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-16	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-16	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-17	3/23/2010	<0.002	<0.002	<0.002	<0.0006	
MW-17	6/10/2010	<.0005	<.00043	<.000055	<.00017	
MW-17	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-17	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-17	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-18	3/23/2010	0.0075	<0.002	0.025	0.0699	
MW-18	6/10/2010	NS	NS	NS	NS	
MW-18	9/15/2010	0.0012	<0.002	0.00066	0.00068	
MW-18	4/25/2011	0.0019	<0.002	0.0054	0.0222	
MW-18	9/14/2011	0.0019	<0.002	0.0053	0.0073	
MW-19	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-19	6/10/2010	NS	NS	NS	NS	
MW-19	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-19	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-19	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-20	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-22	3/23/2010	NS	NS	NS	NS	
MW-22	6/10/2010	NS	NS	NS	NS	
MW-22	9/15/2010	NS	NS	NS	NS	
MW-22	4/25/2011	NS	NS	NS	NS	
MW-22	9/14/2011	NS	NS	NS	NS	
MW-23	3/23/2010	0.107	<0.01	0.157	0.0141	
MW-23	6/10/2010	NS	NS	NS	NS	
MW-23	9/15/2010	0.0215	0.0014	0.0836	<0.004	
MW-23	4/25/2011	0.0392	<0.002	0.0589	0.006	
MW-23	9/14/2011	0.0588	<0.004	0.121	<0.008	Duplicate B sample collected
MW-24	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-24	6/10/2010	<.0005	<.00043	<.00055	<.00017	
MW-24	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-24	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-24	9/14/2011	0.00051	<0.002	<0.002	<0.004	
MW-25	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-25	6/10/2010	<.0005	<.00043	<.00055	<.00017	
MW-25	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-25	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-25	9/14/2011	<0.001	<0.002	<0.002	<0.004	

**TABLE 2**  
**SECOND HALF SEMI-ANNUAL 2011**  
**SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Comission Groundwater Standards		0.01 (mg/l)	.75(mg/l)	.75 (mg/l)	.62 (mg/l)	
MW-26	3/23/2010	NS	NS	NS	NS	
MW-26	6/10/2010	NS	NS	NS	NS	
MW-26	9/15/2010	36.5	33.9	1.47	2.79	
MW-26	4/25/2011	NS	NS	NS	NS	
MW-26	9/14/2011	NS	NS	NS	NS	
MW-28	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-28	6/10/2010	<.005	<0.0043	<0.0055	<0.0017	
MW-28	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-28	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-28	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-29	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-29	6/10/2010	NS	NS	NS	NS	
MW-29	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-29	4/25/2011	0.0006	<0.002	<0.002	<0.002	
MW-29	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-30	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-30	6/10/2010	<.0005	<0.00043	<0.0055	<0.0017	
MW-30	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-30	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-30	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-31	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-31	6/10/2010	<.0005	<0.00043	<0.0055	<0.0017	
MW-31	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-31	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-31	9/14/2011	<0.001	<0.002	<0.002	<0.004	
House Well	3/23/2010	<0.002	<0.002	<0.002	<0.006	
House Well	6/10/2010	<.0005	<0.00043	0.0055	<0.0017	
House Well	9/15/2010	<.00058	<0.002	<0.002	<0.004	
House Well	4/25/2011	0.00062	<0.002	<0.002	<0.002	
House Well	9/14/2011	0.0088	<0.002	0.00074	<0.004	Duplicate C sample collected
Irrigation Well	3/23/2010	0.0035	<0.002	0.0172	0.0335	
Irrigation Well	6/10/2010	NS	NS	NS	NS	
Irrigation Well	9/15/2010	0.0019	<0.002	0.0156	0.0367	
Irrigation Well	4/25/2011	0.0023	<0.002	0.0181	0.0324	
Irrigation Well	9/14/2011	0.0049	<0.002	0.0167	0.0236	
MW-A	3/23/2010	<0.002	<0.002	0.127	0.342	
MW-A	6/10/2010	<0.0019	<0.00043	0.112	0.297	
MW-A	9/15/2010	0.0038	<.01	0.114	0.2841	
MW-A	4/25/2011	0.0016	0.0917	0.245	0.245	
MW-A	9/14/2011	0.001	<0.002	0.0753	0.217	
MW-E	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-E	6/10/2010	NS	NS	NS	NS	
MW-E	9/15/2010	0.0119	<0.002	<0.002	0.0042	
MW-E	4/25/2011	0.0039	<0.002	<0.002	<0.002	
MW-E	9/14/2011	0.0043	<0.002	0.00097	<0.004	
MW-F	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-F	6/10/2010	NS	NS	NS	NS	
MW-F	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-F	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-F	9/14/2011	<0.001	<0.002	<0.002	<0.004	

**TABLE 2**  
**SECOND HALF SEMI-ANNUAL 2011**  
**SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Comision Groundwater Standards		0.01 (mg/l)	.75 (mg/l)	.75 (mg/l)	.62 (mg/l)	
MW-I	3/23/2010	0.00078	<0.002	<0.002	<0.006	
MW-I	6/10/2010	NS	NS	NS	NS	
MW-I	9/15/2010	0.0006	<0.002	<0.002	<0.004	
MW-I	4/25/2011	0.00071	0.00041	<0.002	<0.002	
MW-I	9/14/2011	0.00082	<0.002	<0.002	<0.004	
MW-J	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-J	6/10/2010	NS	NS	NS	NS	
MW-J	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-J	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-J	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-M	3/23/2010	<b>15.7</b>	<0.4	0.29J	<1.2	
MW-M	6/10/2010	NS	NS	NS	NS	
MW-M	9/15/2010	<b>12.4</b>	<0.02	0.328	0.18	
MW-M	4/25/2011	<b>12.7</b>	0.318	0.288	0.288	
MW-M	9/14/2011	<b>8.53</b>	<0.20	0.347	0.214	
MW-N	3/23/2010	<b>12.3</b>	0.641	0.3	0.701	
MW-N	6/10/2010	NS	NS	NS	NS	
MW-N	9/15/2010	<b>16.9</b>	<b>5.07</b>	0.549	<b>1.149</b>	
MW-N	4/25/2011	<b>15.8</b>	0.305	0.478	0.478	
MW-N	9/14/2011	<b>15.0</b>	<b>0.982</b>	0.315	0.380	
MW-O	3/23/2010	<b>7.12</b>	<0.2	0.18	<0.6	
MW-O	6/10/2010	NS	NS	NS	NS	
MW-O	9/15/2010	<b>6.96</b>	<0.1	0.21	<0.2	
MW-O	4/25/2011	<b>8.23</b>	0.275	<0.1	<0.1	
MW-O	9/14/2011	<b>6.93</b>	0.0022	0.244	<0.004	
MW-Q	3/23/2010	<b>1.36</b>	<0.05	0.0256	<0.15	
MW-Q	6/10/2010	NS	NS	NS	NS	
MW-Q	9/15/2010	<b>0.946</b>	<0.02	0.0217	<0.04	
MW-Q	4/25/2011	<b>0.948</b>	0.0184	<0.02	<0.02	
MW-Q	9/14/2011	<b>0.896B</b>	<0.002	0.0108	<0.004	
MW-S	3/23/2010	<0.002	<0.002	<0.002	<0.006	
MW-S	6/10/2010	NS	NS	NS	NS	
MW-S	9/15/2010	<0.001	<0.002	<0.002	<0.004	
MW-S	4/25/2011	<0.001	<0.002	<0.002	<0.002	
MW-S	9/14/2011	<0.001	<0.002	<0.002	<0.004	
MW-EE	3/23/2010	<b>1.2</b>	0.00081	0.0043	0.0046	
MW-EE	6/10/2010	<b>0.817</b>	0.0016	0.0124	0.0158	
MW-EE	9/15/2010	<b>0.191</b>	0.012	0.0182	0.1725	
MW-EE	4/25/2011	<b>0.707</b>	0.0128	0.011	0.011	
MW-EE	9/14/2011	<b>0.447</b>	<0.002	0.0089	0.0041	Duplicate A sample collected
MW-LL	3/23/2010	<b>2.33</b>	0.0132	0.0456	<0.12	
MW-LL	6/10/2010	NS	NS	NS	NS	
MW-LL	9/15/2010	<b>2.89</b>	0.499	0.0955	0.126	
MW-LL	4/25/2011	<b>1.64</b>	0.0764	0.0469	0.0469	
MW-LL	9/14/2011	<b>1.23</b>	0.0066	0.0531	0.0202	
MW-MM	3/23/2010	0.0113	<0.002	0.0415	0.0557	
MW-MM	6/10/2010	NS	NS	NS	NS	
MW-MM	9/15/2010	0.121	<0.002	0.0771	<0.004	
MW-MM	4/25/2011	0.0158	0.0338	<0.002	<0.002	
MW-MM	9/14/2011	0.0082	<0.002	0.022	<0.004	

**TABLE 2**  
**SECOND HALF SEMI-ANNUAL 2011**  
**SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Comission Groundwater Standards		0.01 (mg/l)	.75(mg/l)	.75 (mg/l)	.62 (mg/l)	
NMG MW-2	3/23/2010	<0.002	<0.002	<0.002	<0.006	
NMG MW-2	6/10/2010	<.0005	<0.00043	<0.0055	<0.0017	
NMG MW-2	9/15/2010	<0.001	<0.002	<0.002	<0.004	
NMG MW-2	4/25/2011	<0.001	<0.002	<0.002	<0.002	
NMG MW-2	9/14/2011	<0.001	<0.002	<0.002	<0.004	
NMG MW-3	3/23/2010	<0.002	<0.002	<0.002	<0.006	
NMG MW-3	6/10/2010	<.0005	<0.00043	<0.0055	<0.0017	
NMG MW-3	9/15/2010	<0.001	<0.002	<0.002	<0.004	
NMG MW-3	4/25/2011	<0.001	<0.002	<0.002	<0.002	
NMG MW-3	9/14/2011	<0.001	<0.002	<0.002	<0.004	
NMG MW-4	3/23/2010	<0.002	<0.002	<0.002	<0.006	
NMG MW-4	6/10/2010	<.0005	<0.00043	<0.0055	<0.0017	
NMG MW-4	9/15/2010	<0.001	<0.002	<0.002	<0.004	
NMG MW-4	4/25/2011	<0.001	<0.002	<0.002	<0.002	
NMG MW-4	9/14/2011	<0.001	<0.002	<0.002	<0.004	
NMG MW-5	3/23/2010	1.91	<0.1	0.292	0.375	
NMG MW-5	6/10/2010	2.34	<0.0022	0.428	<0.0084	
NMG MW-5	9/15/2010	3.82	<0.2	0.326	<0.004	
NMG MW-5	4/25/2011	3.22	1.2	1.57	1.57	
NMG MW-5	9/14/2011	0.0375	<0.004	0.135	<0.008	
NMG MW-6	3/23/2010	0.00059	<0.002	0.0448	<0.006	
NMG MW-6	6/10/2010	0.00061	<0.00043	0.0309	<0.0017	
NMG MW-6	9/15/2010	0.00061	<0.002	0.0155	<0.004	
NMG MW-6	4/25/2011	0.00039	<0.002	<0.002	<0.002	
NMG MW-6	9/14/2011	0.0005	<0.002	0.0067	<0.004	
NMG MW-7	3/23/2010	0.0365	<0.002	0.0197	0.016	
NMG MW-7	6/10/2010	0.0325	<0.00043	0.0152	0.0115	
NMG MW-7	9/15/2010	0.0194	<0.002	0.009	0.0011	
NMG MW-7	4/25/2011	0.0191	0.0084	0.0042	0.0042	
NMG MW-7	9/14/2011	0.0273	<0.002	0.0154	0.013	
NMG MW-8	3/23/2010	<0.002	<0.002	0.00057	<0.006	
NMG MW-8	6/10/2010	<.0005	<0.00043	<0.00055	<0.0017	
NMG MW-8	9/15/2010	<0.001	<0.002	<0.002	<0.004	
NMG MW-8	4/25/2011	<0.001	<0.002	<0.002	<0.002	
NMG MW-8	9/14/2011	<0.001	<0.002	<0.002	<0.004	
NMG MW-9	3/23/2010	<0.002	<0.002	<0.002	<0.006	
NMG MW-9	6/10/2010	<.005	<0.00043	<0.00055	<0.0017	
NMG MW-9	9/15/2010	<0.001	<0.002	<0.002	<0.004	
NMG MW-9	4/25/2011	<0.001	<0.002	<0.002	<0.002	
NMG MW-9	9/14/2011	<0.001	<0.002	<0.002	<0.004	
NMG MW-10	3/23/2010	0.554	<0.01	0.151	0.239	
NMG MW-10	6/10/2010	0.438	0.0015	0.157	0.26	
NMG MW-10	9/15/2010	0.4	<0.002	0.131	0.1078	
NMG MW-10	4/25/2011	0.413	0.441	0.133	0.133	
NMG MW-10	9/14/2011	0.282B	<0.010	0.105	0.155	
NMG MW-11	3/23/2010	<0.002	<0.002	<0.002	<0.006	
NMG MW-11	6/10/2010	<.0005	<0.00043	<0.00055	<0.0017	
NMG MW-11	9/15/2010	<0.001	<0.002	<0.002	<0.004	
NMG MW-11	4/25/2011	<0.001	<0.002	<0.002	<0.002	
NMG MW-11	9/14/2011	<0.001	<0.002	<0.002	<0.004	

**TABLE 2**  
**SECOND HALF SEMI-ANNUAL 2011**  
**SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER**  
**ELDRIDGE PIPELINE RELEASE**  
**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
<b>New Mexico Water Quality Control Comission Groundwater Standards</b>		<b>0.01 (mg/l)</b>	<b>.75(mg/l)</b>	<b>.75 (mg/l)</b>	<b>.62 (mg/l)</b>	
NMG MW-12	3/23/2010	0.0097	<0.002	0.0187	<0.006	
NMG MW-12	6/10/2010	0.0085	<0.00043	0.0154	<0.0017	
NMG MW-12	9/15/2010	0.00091	<0.002	0.0034	<0.004	
NMG MW-12	4/25/2011	0.0011	<0.002	<0.002	<0.002	
NMG MW-12	9/14/2011	0.0013	<0.002	<0.002	<0.004	
NMG MW-13	3/23/2010	<0.002	<0.002	<0.002	<0.006	
NMG MW-13	6/10/2010	<.0005	<0.00043	<0.00055	<0.0017	
NMG MW-13	9/15/2010	<0.001	<0.002	<0.002	<0.004	
NMG MW-13	4/25/2011	<0.001	<0.002	<0.002	<0.002	
NMG MW-13	9/14/2011	<0.001	<0.002	<0.002	<0.004	

Notes:

- 1.) The environmental cleanup standards for water that are applicable to the site are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater
- 2.) Data presented for all well locations includes previous four sampling events, when available. Historic groundwater analytical results for these locations are

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

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

LNAPL = Light Non-Aqueous Phase Liquid

NS = Not Sampled.

mg/L = milligrams per liter.

B - indicates analyte found in associated method blank

## **Figures**

FIGURE  
1

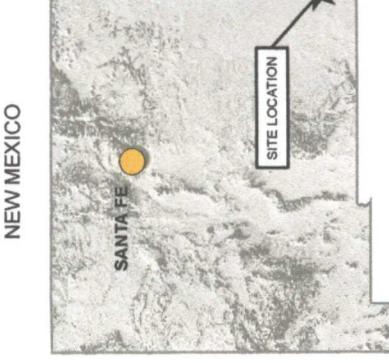
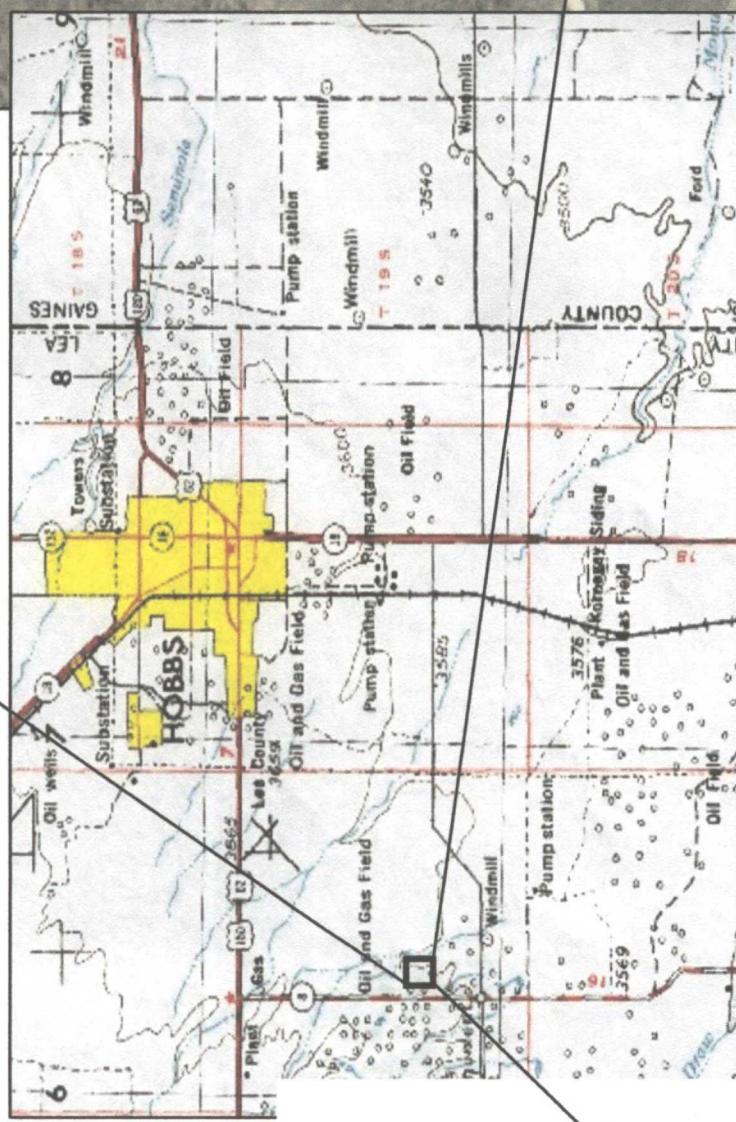
SITE LOCATION

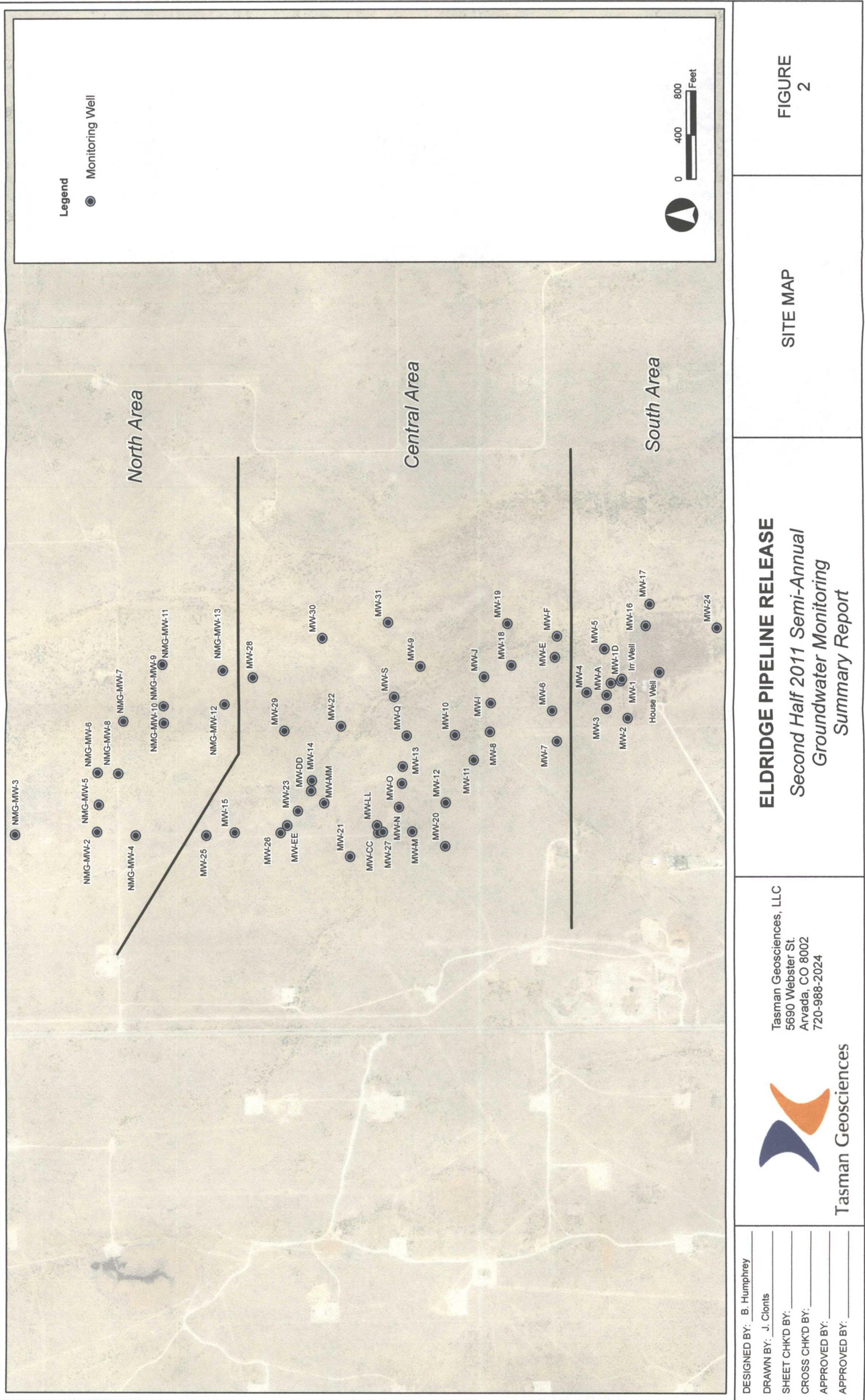
**ELDRIDGE PIPELINE RELEASE**  
*Second Half 2011 Groundwater Monitoring  
Summary Report*

Tasman Geosciences, LLC  
5690 Webster St.  
Arvada, CO 80002  
720-988-2024

Tasman Geosciences

DESIGNED BY: B. Humphrey  
DRAWN BY: J. Clonts  
SHEET CHK'D BY: \_\_\_\_\_  
CROSS CHK'D BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_







**FIGURE  
3**

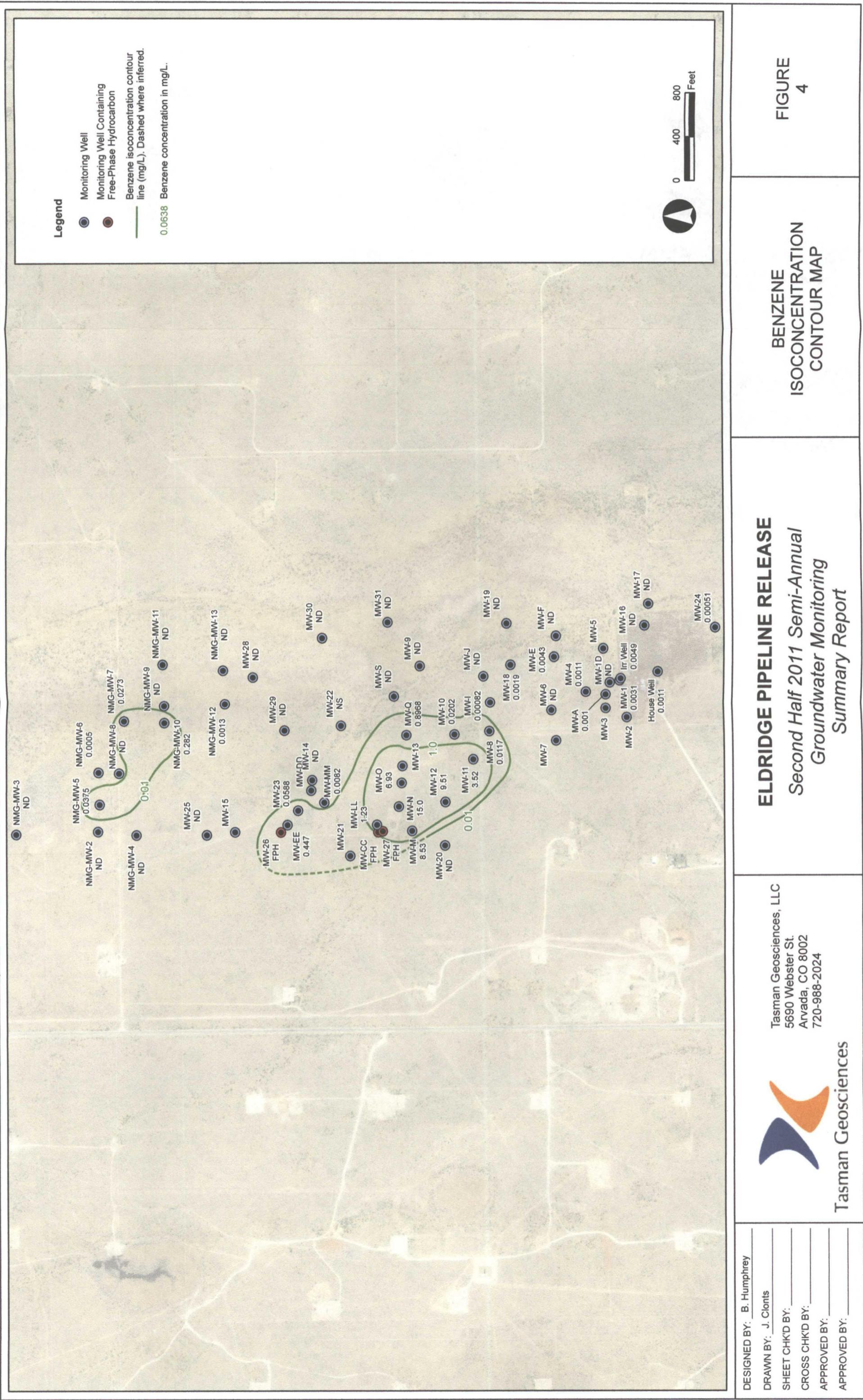
**GROUNDWATER ELEVATION  
CONTOUR MAP  
(SEPTEMBER 15, 2011)**

**ELDRIDGE PIPELINE RELEASE  
Second Half 2011 Semi-Annual  
Groundwater Monitoring  
Summary Report**

Tasman Geosciences, LLC  
5690 Webster St.  
Arvada, CO 80024  
720-988-2024

Tasman Geosciences

DESIGNED BY: B. Humphrey  
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CROSS CHK'D BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_



**Appendix A**

**Laboratory Analytical Reports**