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2012 AGWMR

06 / 27 / 2012



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June 27, 2013

Mr. Glenn von Gonten
Senior Hydrologist
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: Buckeye Compressor Station (Abatement Plan AP-104)
Buckeye Vacuum Field Unit (Abatement Plan AP-104)
Lovington Unit Water Plant
Lovington Paddock (Remediation Plan 1RP-272)

Dear Mr. Von Gonten,

I have recently taken over project management responsibilities from Kegan Boyer for four ongoing Chevron projects in southeastern New Mexico. These projects include groundwater monitoring/assessment/remediation at the following sites:

- Buckeye Compressor Station (Abatement Plan AP-104)
- Buckeye Vacuum Field Unit (Abatement Plan AP-104)
- Lovington Unit Water Plant
- Lovington Paddock (Remediation Plan 1RP-272)

Any future correspondence or inquiries regarding these projects can be directed to me at the above address or via e-mail at luke.welch@chevron.com.

Please find enclosed for your files copies of the following reports for the Lovington Paddock project site (Abatement Plan AP-104) and the Lovington Water Station project site (Abatement Plan AP-104):

- *2012 Annual Groundwater Monitoring Report, Lovington Paddock Groundwater Remediation Site, Section 1 – Township 17 South – Range 36 East, Lea County, NM*
- *2012 Annual Groundwater Monitoring Report, Lovington Unit Water Plant, Section 1 – Township 17 South – Range 36 East, Lea County, NM*

These reports were prepared by Conestoga-Rovers & Associates (CRA) on behalf of Chevron Environmental Management Company (CEMC) to document groundwater monitoring activities performed for CEMC during

July 16, 2013

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calendar year 2012 at the above-referenced sites. Historical groundwater monitoring data are also included in the reports.

It is my understanding that we do not have a current abatement plan number for the Lovington Water Plant. If you have any insight, please feel free to advise me on any possible future actions.

Should you have any questions regarding the content of the report, please do not hesitate to contact me by phone at 713-372-0292 or via e-mail at luke.welch@chevron.com. I look forward to working with you in the future.

Sincerely,



Luke Welch

Environmental Project Manager



www.CRAworld.com



FINAL REPORT

2012 ANNUAL GROUNDWATER MONITORING REPORT

LOVINGTON PADDOCK GROUNDWATER
REMEDIATION SITE
SECTION 1, TOWNSHIP 17 SOUTH, RANGE
36 EAST
LOVINGTON, LEA COUNTY, NEW MEXICO

Prepared for: Chevron Environmental Management
Company

Conestoga-Rovers & Associates
2135 South Loop, 250 West
Midland, Texas 79703

ORIGINAL

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1.0 INTRODUCTION

This 2012 annual report is a review of groundwater monitoring activities and operation of the bio-sparge system at the Lovington Paddock Groundwater Remediation Site hereafter referred to as the ("Site") in Lea County, New Mexico. Conestoga-Rovers & Associates (CRA) has prepared this report on behalf of Chevron Environmental Management Company (CEMC). Data presented in this report were collected by CRA during an annual monitoring event conducted on October 15-17, 2012.

The Site is located in the S 1/2, SE 1/4, Section 1, Township 17 South, Range 36 East. It is approximately 6.2 miles southeast of Lovington in Lea County, New Mexico. The Site lies at latitude 32° 51' 32.31" N and longitude 103° 18' 8.14" W (Figure 1). There are two active pipelines on the Site. A portion of the surface at the Site is owned by Mico Oilfield Services of Hobbs, New Mexico.

2.0 HISTORY OF ACTIVITIES AT THE SITE

In June 1998, the initial assessment of an abandoned pit, whose original purpose is not known, was conducted by Highlander Environmental Corporation (Highlander). Assessment included installation of five soil borings (BH-1 through BH-5). Borings BH-1 through BH-4 were installed to 31 feet below ground surface (bgs) around the edge of the abandoned pit, and BH-5 was installed in the bottom of the pit to 71 feet bgs. Locations of these borings are included in Figure 2. Hydrocarbons were detected in samples of soil from BH-1 and BH-5. In July 1998 and August 1998, sludge material and soils were excavated approximately 2 feet deep from the pit, where a hard caliche layer was encountered. During October and November 1998, monitor wells MW-1 through MW-6 were installed to approximately 75 feet bgs. Dissolved benzene was not detected in groundwater samples from MW-1 and MW-2. Dissolved benzene was detected in MW-5, which was at that time directly downgradient (northeast) from the abandoned pit. Dissolved benzene was also present in groundwater samples from MW-3, MW-4, and MW-6, which at that time lay upgradient (south) of the abandoned pit. These results suggest that two separate dissolved contaminant plumes had been identified. One plume appeared to have been associated with the abandoned pit and was downgradient (northeast) of it. The other plume was plume was south (upgradient) of the pit. Monitor wells MW-7, MW-8, and MW-9 were installed to about 75 feet bgs in March 1999 to further assess both plumes. Groundwater in MW-7 and MW-8 had not been impacted by benzene, toluene, ethylbenzene, or total xylenes (BTEX) or total petroleum hydrocarbons (TPH). Groundwater in MW-9 had been impacted by benzene above the NMWQCC remediation standard. This was directly downgradient (northeast) from the abandoned pit. Soil borings BH-6 through BH-11 were drilled in March 2000 to assess the plume up-gradient of the abandoned pit. BH-6 and BH-7 were drilled at former locations of two tank pads, but the soil profile had not been impacted by BTEX or TPH. Only in BH-11 were hydrocarbons detected in the soil profile. Soil boring BH-11 was drilled out to 76 feet bgs and completed as monitoring well MW-10. Dissolved-hydrocarbons were detected in groundwater from monitor wells MW-3, MW-5, MW-6, and MW-9. Light non-aqueous-phase liquid (LNAPL) was found in monitor wells MW-4 and MW-10.

Environmental Plus, Inc. (EPI) uncovered approximately 300 feet of a pipeline in March 2001 to inspect for previously repaired or replaced line that may have been a source for LNAPL in MW-10 and MW-4. The pipeline was operated by EOTT Energy, LLC at that time. EPI reported that no previously repaired or replaced lines were found. EPI also stated that the area that showed staining during drilling activities was moist with water and had no petroleum hydrocarbon odor. EPI's report stated that a representative from Chevron's field office (formerly Pure Resources, LP) was on-Site during the excavation of the pipeline.

AST West purchased 40 acres in the area of the Site from the City of Lovington and constructed a building on it in 2001. This area is more or less SE 1/4, SE 1/4, Section 1 and encompasses most wells on the Lovington Paddock Site. The building lies south of the Lovington Paddock Site. AST West also installed a water supply well near their building. Goff Dairies (Goff) installed four wells to supply water for its dairy operation, which lies to the east and south of the Site. The Goff wells were installed early 2001 and early 2002 and are shown as WW-1 through WW-4 on Figure 2. The wells were designed to pump roughly 600 to 800 gallons per minute. WW-3 was perforated from 74 to 196 feet bgs. WW-4 was perforated from 125 to 228 feet bgs. Completion details of the AST Well, WW-1, and WW-2 are not available from the New Mexico Office of the State Engineer. Pumping from the Goff wells lowered the water table and changed its direction of flow. Before Goff installed water supply wells WW-1 through WW-4, the gradient on the water table was consistently toward the northeast with computed magnitude of 0.0035 ft./ft. By November 2003, the water table had dropped by approximately 13 feet; the direction of flow of groundwater shifted from northeast to southeast; and the calculated gradient had increased to 0.0176 ft./ft. Monitoring wells MW-1 through MW-10 went dry as pumping from the Goff wells continued and water levels continued to drop.

Arcadis installed 13 monitoring wells, MW-A through MW-J and MW-L through MW-N, in June 2003 to replace monitoring wells MW-1 through MW-10. The range of depths of the replacement wells was from 104 feet to 204 feet. LNAPL was not detected in monitoring wells MW-A through MW-N at that time. To test remediation of petroleum hydrocarbons in groundwater, a pilot low flow bio-sparge well (BW-1) was installed by Arcadis in November 2003, and a bio-sparge system was installed. Four additional monitor wells, MW-O, MW-P, MW-Q, and MW-D2, were installed by Arcadis to assess the extent of the petroleum hydrocarbon plume.

A 90-day pilot test was conducted to measure the effectiveness of the bio-sparge well. The bio-sparge well was used to inject air into the saturated and vadose zones at a rate of approximately 5 cubic feet per minute (cfm). The purpose of the air injection was to stimulate aerobic biodegradation of petroleum hydrocarbons by indigenous microorganisms in the saturated and vadose zones. The bio-sparging process demonstrated significant success during the 90-day pilot test.

Arcadis installed two additional bio-sparge wells (BW-2 and BW-3) at the Site in May 2005. An 180-day study was conducted subsequently to monitor the effectiveness of the three bio-sparge wells. During the study, groundwater and soil vapor sampling was conducted, a radius of influence of approximately 85 feet was observed, and Arcadis concluded that further down-gradient movement of the petroleum hydrocarbon

plume was prevented. Results were summarized in the report "180 Day Expanded Bio-sparge Study", dated March 3, 2006.

The bio-sparge study was continued by Secor International Incorporated (Secor) for a total of 700 days, after taking over management of the Site from Arcadis. Activities conducted from July 2006 through May 2007 were summarized in the "Bio-sparging Assessment Report", dated June 22, 2007. Discussions regarding system effectiveness triggered a detailed review of the data.

Secor installed two additional groundwater monitoring wells, MW-S and MW-T, in July 2006. MW-T was converted to a bio-sparge well in April 2007, replacing BW-2 as a sparge point. Three additional groundwater monitoring wells, MW-U, MW-V, and MW-W, were installed by Secor to better evaluate the bio-sparge system.

Secor continued groundwater assessment activities and operation and maintenance of the bio-sparge system through 2007. Stantec, Inc. (Stantec) continued groundwater assessment activities and operation and maintenance of the bio-sparge system throughout 2008, 2009, and 2010, after its acquisition of Secor in 2008.

Conestoga-Rovers & Associates was retained by CEMC to manage groundwater monitoring and bio-sparge operation activities at the Lovington Paddock Site in November 2010. Two semi-annual groundwater monitoring events were planned by CRA for 2012, while the bio-sparge system underwent significant replacement of scavenged parts and damages done by a wildfire in May 2011. Mico Oilfield Services, who purchased the 40-acre tract previously owned by AST West, moved several large, empty storage tanks onto the Site between the monitoring events in July 2011 and January 2012. The date that the tanks were moved onto the site is unknown. Not all of the tanks were marked with signs indicating what had been stored in them. All activities at the Site were temporarily halted on the first day of the groundwater monitoring event in January 2012 until risks could be assessed. Several subsequent communications with Mico Oilfield Services did not produce information to allow adequate assessment of risks associated with the tanks. Mico moved the tanks adequate distances away from work areas to allow work to continue by May 8, 2012.

3.0 REGULATORY FRAMEWORK

The New Mexico Oil Conservation Division of the New Mexico Energy, Minerals, and Natural Resources Department (NMOCD) has regulatory jurisdiction over corrective actions being conducted at the Lovington Paddock Site. Corrective actions follow guidance given by the NMOCD in *Guidelines for Remediation of Leaks, Spills, and Releases* (August 13, 1993). These guidelines require remediation of groundwater to the human health standards of the New Mexico Water Quality Control Commission (NMWQCC) set forth in New Mexico Administrative Code (NMAC) 20.6.2.3103A that are shown in the following table.

<i>Analyte</i>	<i>NMWQCC Standard for Groundwater (mg/L)</i>
Benzene	0.01
Toluene	0.75
Ethylbenzene	0.75
Total xylenes	0.62

4.0 GROUNDWATER MONITORING

The Lovington Paddock Site includes 23 existing monitor wells (MW-A through MW-W, except MW-K), MW-D2, and three existing bio-sparge wells (BW-1 through BW-3). They are shown on the Site Details Map in Figure 2. Monitoring events had been scheduled to take place in January and July 2012; however, the new owner of the surface had moved several large, empty storage tanks onto the property between July 2011 and January 2012. Some of these tanks were not marked with indicators of what materials had been stored in them. All work was stopped in January because of proximity of risk that could not be adequately assessed. Work could not be resumed until May 2012 when these tanks had been moved adequate distances away from the work areas to allow for safe work. The single groundwater monitoring event for 2012 was conducted in October. Monitor well MW-A was neither gauged nor sampled during that event, because its down-hole casing collapsed in 2008.

4.1 FIELD METHODOLOGY

Water levels were measured to the nearest one-hundredth of a foot in each well before purging and sampling. Water levels were measured with an electronic oil-water interface probe. Water levels were measured from the top of the casing at permanent reference points, or at the north edge of the casing if no permanent reference point was marked. No LNAPL was detected in any well during 2012.

Low-flow purging techniques were used prior to sampling. Temperature, oxidation-reduction potential (ORP), pH, conductivity, and dissolved oxygen (DO) were monitored during purging. Purging continued until at least three of these parameters were within 10 percent of previous readings for three consecutive measurements. Samples were then collected, labeled, and recorded on a laboratory chain-of-custody form. Samples were placed on ice immediately to maintain a temperature of approximately 40°F (4°C). Field equipment was decontaminated with an Alconox™ wash and distilled water rinse before beginning field activities and between wells. Samples of groundwater collected during the monitoring event were delivered to Xenco laboratories in Odessa, Texas for analyses. Proper chain-of-custody documentation was maintained throughout sampling and analytical processes.

Samples collected during 2012 were analyzed for dissolved benzene, toluene, ethylbenzene, and total xylenes (BTEX) according to analytical method SW846-8021B. Samples were analyzed for total petroleum hydrocarbons (TPH) in the gasoline range (TPH-GRO) and TPH in the diesel range (TPH-DRO), according to analytical method SW846-8015B.

4.2 GROUNDWATER GAUGING AND ANALYTICAL RESULTS

Fluid level measurements collected during 2012 are shown in Table 1. Surveyed tops of casings of wells are shown in feet above mean sea level (famsl). Elevations of potentiometric surface are also shown in feet above mean sea level (famsl). Monitor wells BW-1, BW-2, BW-3, MW-J, MW-L, MW-M, MW-N, MW-R, MW-S, MW-T, MW-U, MW-V, MW-W, and MW-D2 had sufficient water in them to gauge. The range of elevations on the potentiometric surface during the monitoring event was from 3696.50 famsl to 3715.11 famsl. The map of elevations of the potentiometric surface during the monitoring event is shown in Figure 3. It indicates that the direction of flow of groundwater was toward the east-southeast. Magnitude of the gradient was computed to be 0.0187 ft./ft. Direction and magnitude of the gradient on the potentiometric surface are consistent with those determined during monitoring events since pumping from the Goff water wells began.

Directions of the gradient on the potentiometric surface have changed dramatically over time at the Lovington Paddock Site due to pumping from the AST and Goff wells. Before installation of water supply wells WW-1 through WW-4 by Goff Dairy in 2001, directions of the gradient were consistently toward the northeast. Since pumping from the Goff wells began, directions of the gradient have been variable—from east to southeast. Direction of the gradient shown on Figure 3 suggests that recent pumping has occurred at WW-3 and WW-4. Comparison of gauging data from the monitoring event in July 2011 with data recorded in October 2012 indicates that the potentiometric surface decreased in elevation in all 14 wells that were measured during both monitoring events. The range of decline was 0.28 feet to 5.75 feet. The average decline among those wells was 2.97 feet.

A cumulative table of all available results of analyses of groundwater samples collected at the Lovington Paddock Site since 2005 is shown in Table 2. Chemicals of Concern (COCs) are shown in columns across the top of the table. Appropriate standards are shown below the names of analytes. Wells that had sufficient groundwater in them to recover samples were BW-1, BW-2, BW-3, MW-M, MW-R, MW-S, MW-T, MW-U, MW-V, MW-W, and MW-D2. Analytical results from the monitoring event in 2012 are shown in map form on Figure 4.

Copies of signed analytical reports and chains-of-custody are attached in Appendix A. Trends of concentrations of chemicals of concern over time are shown in Appendix B. In BW-3 and MW-T dissolved benzene levels were above the NMWQCC standard of 0.01 mg/L. Bio-sparge well BW-2 contained dissolved benzene at a level below the standard. Wells BW-2, BW-3, and MW-T had detected levels of other dissolved BTEX constituents, but all were below their respective NMWQCC remediation standards. It

should be noted that MW-B, MW-H, and MW-I, which had dissolved benzene levels exceeding the standard during the previous monitoring event (July 2011), contained insufficient water to recover samples for analyses during the 2012 sampling event.

Dissolved TPH-GRO was detected at a level exceeding 1.5 mg/L only in the sample from MW-T. Its concentration was 15.5 mg/L.

Dissolved TPH-DRO was not detected at concentrations exceeding 1.5 mg/L in any sample of groundwater collected in 2012.

5.0 GROUNDWATER REMEDIATION AND PERFORMANCE

To remediate the petroleum hydrocarbon concentrations in groundwater and soil, a pilot low-flow bio-sparge well (BW-1) was installed in November 2003 by Arcadis. A 90-day pilot test was conducted to measure the effectiveness of the bio-sparge well. The bio-sparge well was used to inject air into the saturated and vadose zones at a rate of approximately 5 cubic feet per minute (cfm). The purpose of the air injection was to stimulate aerobic biodegradation of petroleum hydrocarbons by indigenous microorganisms in the saturated and vadose zones. The bio-sparging process showed significant success during the 90-day pilot test. Arcadis installed two additional bio-sparge wells (BW-2 and BW-3) at the Site in May 2005. A 180-day study was conducted subsequently to monitor the effectiveness of the three bio-sparge wells. During the study, groundwater and soil vapor sampling was conducted, a radius of influence of approximately 85 feet was observed, and further down-gradient movement of the petroleum hydrocarbon plume was prevented. SECOR installed two additional groundwater monitoring wells (MW-S and MW-T) in July 2006. In April 2007, MW-T was converted to a bio-sparge well due to the historical failure of well BW-2. Three additional groundwater monitoring wells (MW-U, MW-V, and MW-W) were installed to better evaluate the bio-sparge system. SECOR continued groundwater assessment activities and operation and maintenance of the bio-sparge system through 2007. Stantec continued groundwater assessment activities and operation and maintenance of the bio-sparge system throughout 2008, 2009, and into October 2010.

The bio-sparge system was not operated during 2012 due to numerous mechanical issues. In May 2011 a wildfire burned through much of the Site. Monitor wellheads, air compressors, and remaining surface equipment not in contact with the ground were not damaged. Belts, air filters, and motor oil were replaced in air compressors at BW-1, BW-2, and BW-3 in June and July 2012. The starter had to be replaced on the compressor at BW-1, and the power supply to the compressor at BW-3 had to be repaired during that period. Tubing to convey compressed air from the wellheads in BW-1, BW-2, and BW-3 still must be replaced. A safer alternative to the tubing that was previously used will be chosen. Greater lengths of tubing must be installed to allow for declining water levels.

6.0 SUMMARY OF FINDINGS

Based on groundwater monitoring and remedial activities performed at the Site, CRA presents the following summary of findings:

- Semi-annual groundwater monitoring was planned for the Site in 2012; however, Mico Oilfield Services, a new owner of the building near the AST Well (See Figure 2) moved several large, empty storage tanks onto the Site late in 2011. It was not apparent what had been stored in most of the tanks. Because the hazard risks could not be adequately assessed, all activities at the Site were temporarily halted until the tanks were moved to safer locations. The single monitoring event of 2012 was conducted from October 15 to October 17. MW-A was not gauged and sampled during that event, because of down-hole obstructions. Monitor wells MW-B, MW-C, MW-D, MW-E, MW-F, MW-G, MW-H, MW-I, MW-O, MW-P, MW-Q were dry; therefore, they could be neither gauged nor sampled. Figure 3 indicates that the direction of flow of groundwater during the monitoring event was east-southeast. The magnitude of the gradient was 0.0187 ft./ft.
- Comparison of gauging data from the monitoring event in July 2011 with data recorded in October 2012 indicates that the potentiometric surface decreased in elevation in all 14 wells that were measured during both monitoring events. The range of decline was 0.28 feet to 5.75 feet. The average decline among those wells was 2.97 feet.
- In addition to wells that were dry, MW-J, MW-L, and MW-N did not have sufficient groundwater present to recover samples. Concentrations of dissolved-phase benzene were above the NMWQCC standard of 0.01 mg/L during 2012 in BW-3 and MW-T. Dissolved-phase benzene was detected in a sample from BW-2 at a level below the standard. Wells BW-2, BW-3, and MW-T had detected levels of other dissolved BTEX constituents, but all were below their respective NMWQCC remediation standards.

7.0 PLANNED ACTIVITIES

The bio-sparge system did not operate during 2012 because of numerous mechanical issues. Belts, air filters, and motor oil were replaced in air compressors at BW-1, BW-2, and BW-3 in June and July 2012. The starter had to be replaced on the compressor at BW-1, and the power supply to the compressor at BW-3 had to be repaired during that period. Tubing to convey compressed air from wellheads to groundwater in BW-1, BW-2, and BW-3 still must be replaced. A safer alternative to the tubing that was previously used will be chosen. Greater lengths of tubing must be installed to allow for declining water levels. Semi-annual gauging and sampling was conducted in January 2013 and also is planned for July 2013. Groundwater levels will be measured in all wells where groundwater is accessible. All wells that have sufficient groundwater present will be purged and sampled. Samples will be analyzed for BTEX, TPH-GRO and TPH-DRO.

The bio-sparge system will be operated as continuously as possible. Bi-weekly Site visits will be conducted to monitor the operation, maintenance, and performance of the bio-sparge system.

A potential remedial alternative is soil vapor extraction (SVE) for which a pilot test is proposed. AcuVac Remediation, LLC of Houston, Texas will conduct three quick tests, each of a few minutes duration, on MW-H, MW-I, and MW-W to determine vapor flow rates and concentrations of total petroleum hydrocarbons (TPH), CO₂, CO, O₂, and H₂S. One of these wells will be selected for conducting an 8-hour SVE pilot test. The test will determine the total volume of hydrocarbons extracted and the radius of influence of the extraction.

All of which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES, INC.



John P. Schnable
Project Manager



Thomas C. Larson
Principal

FIGURES

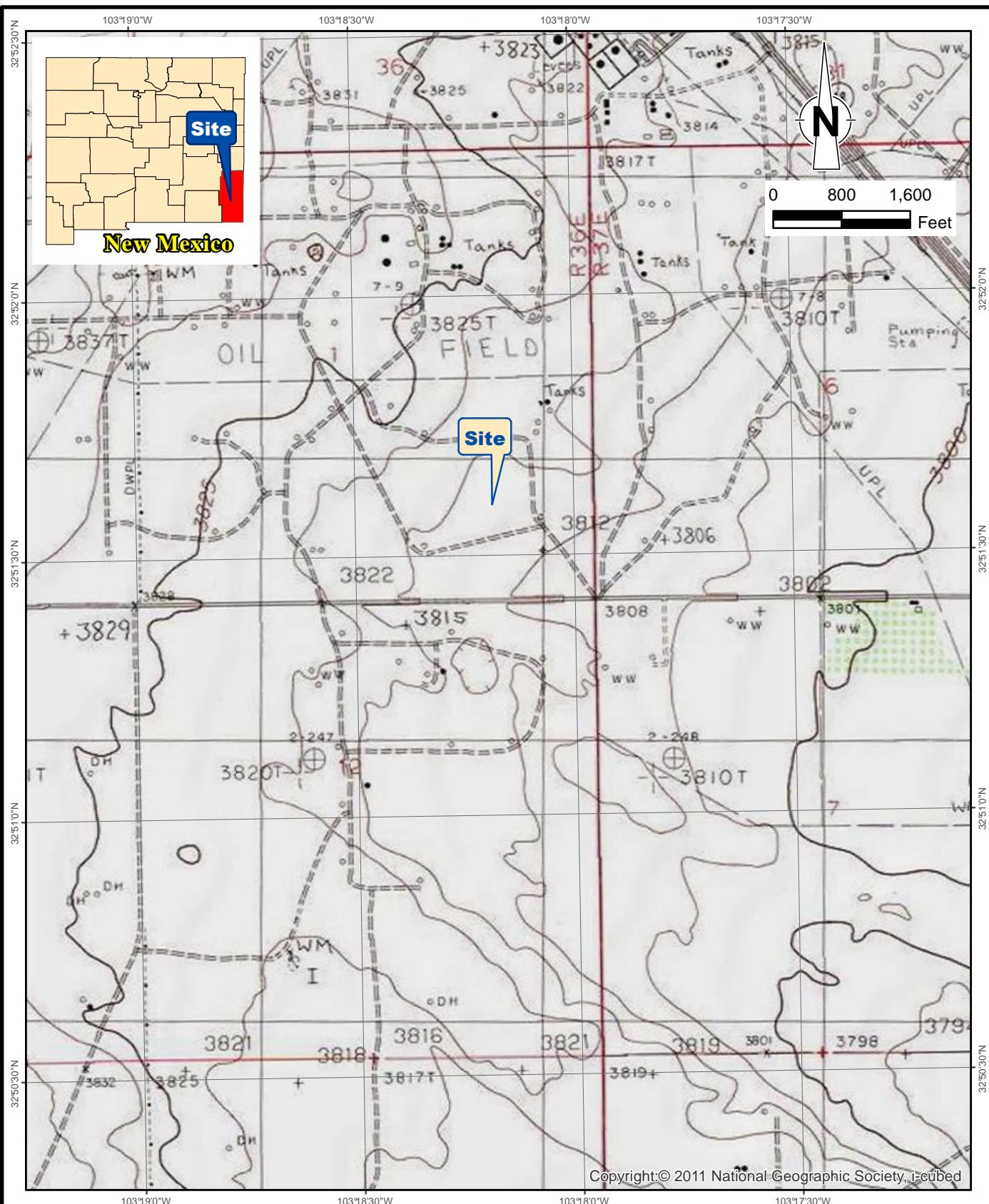


Figure 1
VICINITY MAP
LOVINGTON PADDOCK SITE
SECTION 1-T17S-R36E, LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company, Houston, Texas



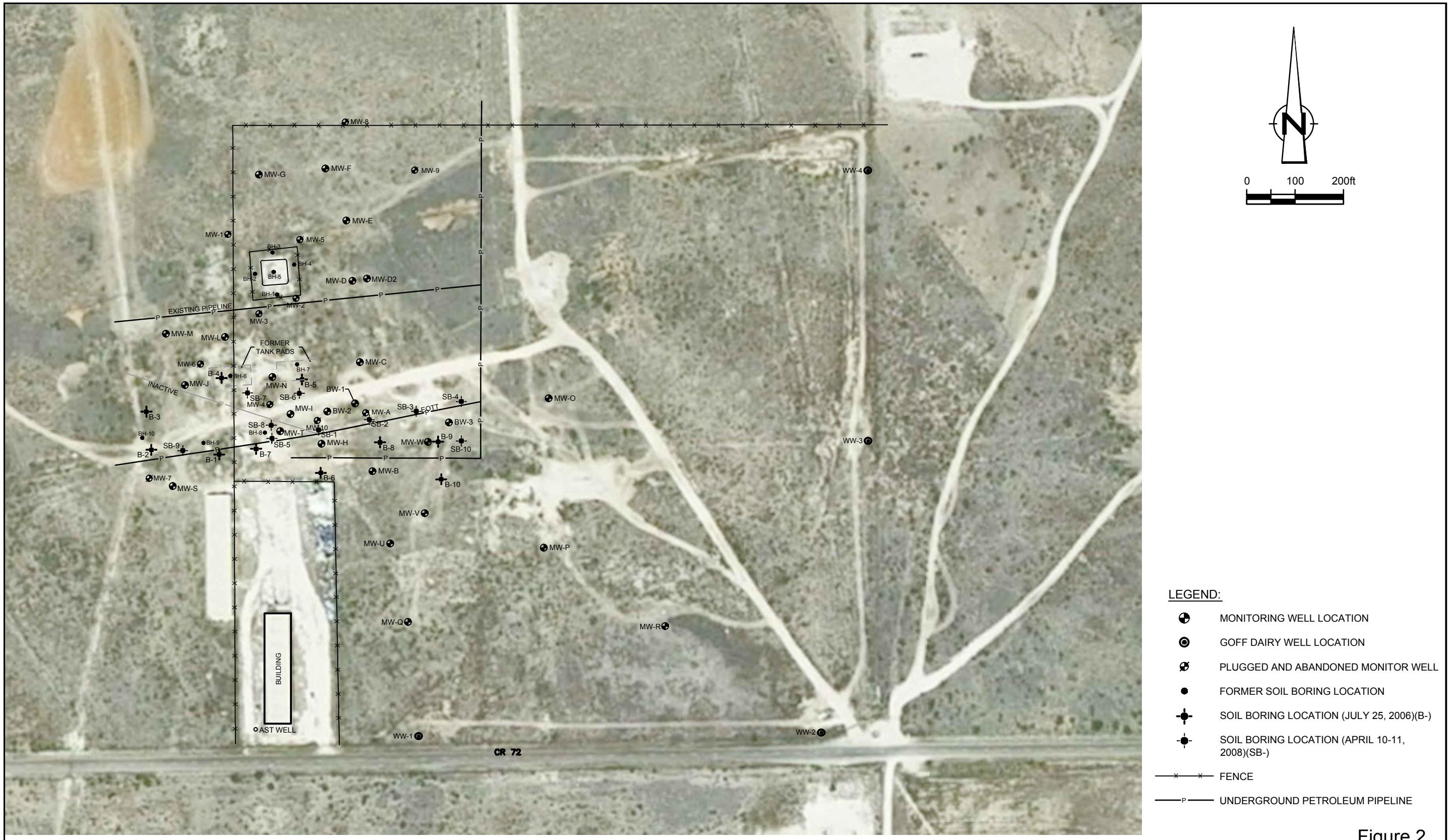


Figure 2

**SITE DETAILS MAP
LOVINGTON PADDOCK SITE
SECTION 1-T17S-R36E, LEA COUNTY, NEW MEXICO**
Chevron Environmental Management Company, Houston, Texas



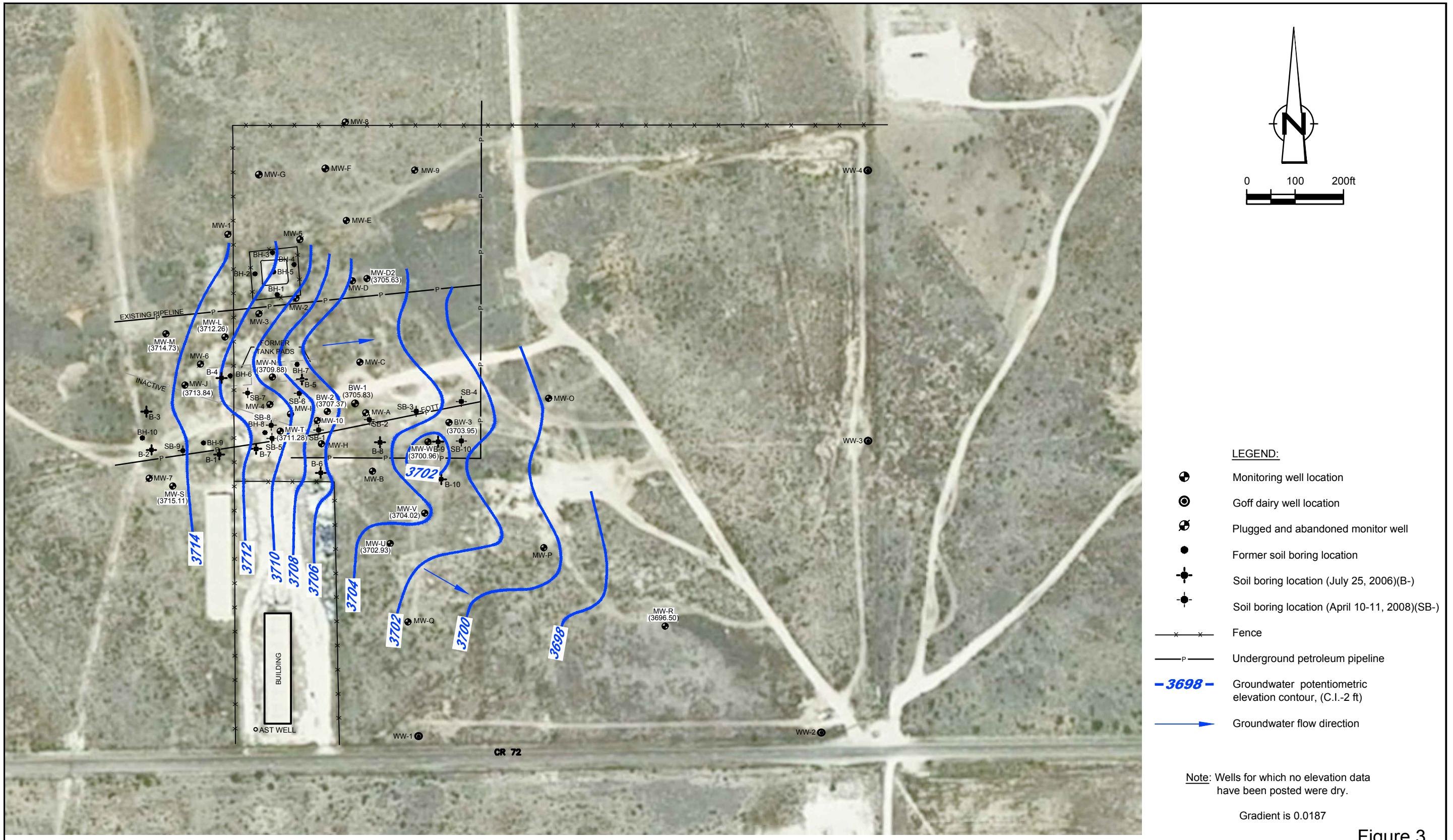
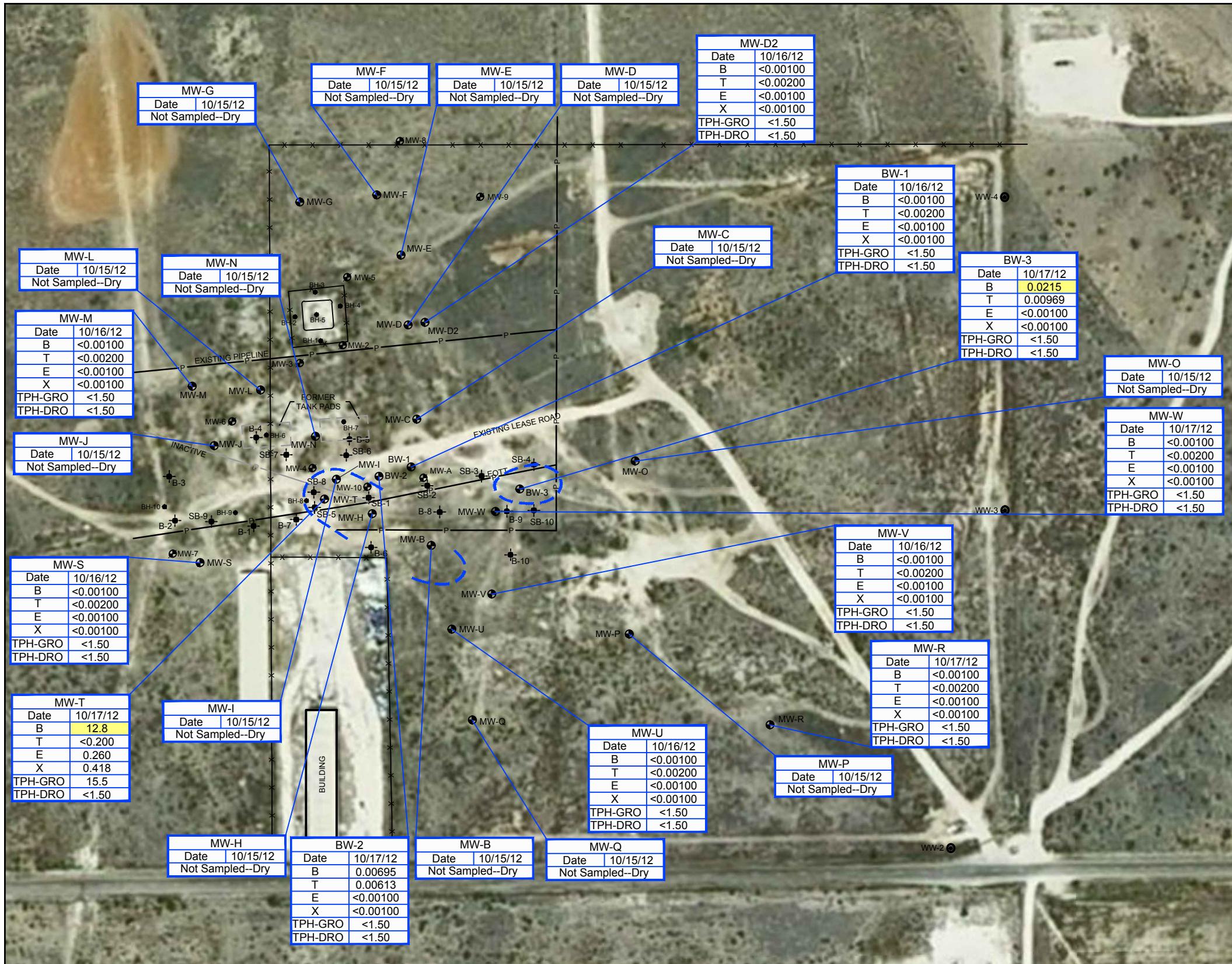


Figure 3

MAP OF POTENTIOMETRIC SURFACE - OCTOBER 15, 2012
LOVINGTON PADDOCK SITE
SECTION 1-T17S-R36E, LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company, Houston, Texas





TABLES

TABLE 1

**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Well ID</i>	<i>Date Measured</i>	<i>Elevation of TOC (famsl)</i>	<i>Depth to Water (fbtoc)</i>	<i>Elevation of Potentiometric Surface (famsl)</i>	<i>Total Depth (fbtoc)</i>
BW-1	6/16/2005	3816.14	86.75	3729.39	128.04
BW-1	7/27/2005	3816.14	92.32	3723.82	128.04
BW-1	9/21/2005	3816.14	90.41	3725.73	128.04
BW-1	12/9/2005	3816.14	88.38	3727.76	128.04
BW-1	5/9/2007	3816.14	N/A ¹		128.04
BW-1	6/13/2008	3816.14	94.25	3721.89	128.04
BW-1	9/17/2008	3816.14	97.51	3718.63	128.04
BW-1	1/26/2009	3816.14	91.08	3725.06	128.04
BW-1	7/9/2009	3816.14	98.83	3717.31	128.04
BW-1	1/25/2010	3816.14	95.08	3721.06	118.80
BW-1	7/6/2010	3816.14	100.81	3715.33	118.80
BW-1	1/25/2011	3816.14	98.03	3718.11	
BW-1	7/11/2011	3816.14	107.50	3708.64	
BW-1	10/15/2012	3816.14	110.31	3705.83	
BW-2	6/16/2005	3816.57	86.38	3730.19	123.04
BW-2	7/27/2005	3816.57	90.70	3725.87	123.04
BW-2	9/21/2005	3816.57	89.99	3726.58	123.04
BW-2	12/9/2005	3816.57	88.21	3728.36	123.04
BW-2	5/9/2007	3816.57	N/A ¹		123.04
BW-2	6/13/2008	3816.57	95.16	3721.41	123.04
BW-2	9/17/2008	3816.57	96.92	3719.65	123.04
BW-2	1/26/2009	3816.57	91.13	3725.44	123.04
BW-2	7/9/2009	3816.57	98.47	3718.10	123.04
BW-2	7/6/2010	3816.57	100.10	3716.47	122.16
BW-2	1/27/2011	3816.57	97.76	3718.81	
BW-2	7/11/2011	3816.57	107.91	3708.66	
BW-2	10/15/2012	3816.57	109.20	3707.37	123.79
BW-3	6/16/2005	3815.82	87.39	3728.43	123.09
BW-3	7/27/2005	3815.82	92.72	3723.10	123.09
BW-3	9/22/2005	3815.82	91.07	3724.75	123.09
BW-3	12/9/2005	3815.82	88.46	3727.36	123.09
BW-3	5/9/2007	3815.82	N/A ¹		123.09
BW-3	9/17/2008	3815.82	98.57	3717.25	123.09
BW-3	1/26/2009	3815.82	92.44	3723.38	123.09
BW-3	7/9/2009	3815.82	100.44	3715.38	123.09
BW-3	7/6/2010	3815.82	101.96	3713.86	120.30
BW-3	1/25/2011	3815.82	Not Gauged-Junk		
BW-3	7/11/2011	3815.82	108.64	3707.18	
BW-3	10/15/2012	3815.82	111.87	3703.95	
MW-A	6/16/2005	3816.04	86.75	3729.29	100.51
MW-A	7/25/2005	3816.04	DRY		100.51

TABLE 1

**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Well ID</i>	<i>Date Measured</i>	<i>Elevation of TOC (famsl)</i>	<i>Depth to Water (fbtoc)</i>	<i>Elevation of Potentiometric Surface (famsl)</i>	<i>Total Depth (fbtoc)</i>
MW-A	9/19/2005	3816.04	90.41	3725.63	100.51
	12/5/2005	3816.04	88.38	3727.66	100.51
	5/9/2007	3816.04	DRY		100.51
	7/1/2008	3816.04	Collapsed		
	7/6/2010	3816.04	Collapsed		99.03
	1/25/2011	3816.04	Collapsed		
	7/11/2011	3816.04	Collapsed		
	10/15/2012	3816.04	Collapsed		
MW-B	6/16/2005	3816.09	87.15	3728.94	108.11
	7/25/2005	3816.09	92.55	3723.54	108.11
	9/19/2005	3816.09	90.82	3725.27	108.11
	12/5/2005	3816.09	88.73	3727.36	108.11
	5/9/2007	3816.09	91.78	3724.31	108.11
	10/2/2007	3816.09	92.94	3723.15	108.11
	6/13/2008	3816.09	95.05	3721.04	108.11
	9/15/2008	3816.09	98.39	3717.70	108.11
	1/26/2009	3816.09	91.36	3724.73	108.11
	7/9/2009	3816.09	99.76	3716.33	108.11
	1/25/2010	3816.09	95.21	3720.88	107.65
	7/6/2010	3816.09	101.50	3714.59	107.65
	1/27/2011	3816.09	98.36	3717.73	
	7/11/2011	3816.09	DRY		
	10/15/2012	3816.09	DRY		111.32
MW-C	6/15/2005	3817.04	87.83	3729.21	108.05
	7/25/2005	3817.04	92.53	3724.51	108.05
	9/19/2005	3817.04	91.54	3725.50	108.05
	12/5/2005	3817.04	89.50	3727.54	108.05
	5/9/2007	3817.04	92.56	3724.48	108.05
	10/2/2007	3817.04	93.66	3723.38	108.05
	6/13/2008	3817.04	95.21	3721.83	108.05
	9/15/2008	3817.04	98.75	3718.29	108.05
	1/26/2009	3817.04	92.10	3724.94	108.05
	7/9/2009	3817.04	99.78	3717.26	108.05
	1/25/2010	3817.04	96.09	3720.95	106.35
	7/6/2010	3817.04	101.78	3715.26	106.35
	1/27/2011	3817.04	98.92	3718.12	
	7/11/2011	3817.04	DRY		
	10/15/2012	3817.04	DRY		
MW-D	3/2/2005	3816.08	82.68	3733.40	107.92
	9/19/2005	3816.08	90.48	3725.60	107.92
	12/5/2005	3816.08	88.44	3727.64	107.92

TABLE 1

**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Well ID</i>	<i>Date Measured</i>	<i>Elevation of TOC (famsl)</i>	<i>Depth to Water (fbtoc)</i>	<i>Elevation of Potentiometric Surface (famsl)</i>	<i>Total Depth (fbtoc)</i>
MW-D	5/9/2007	3816.08	91.49	3724.59	107.92
	9/27/2007	3816.08	92.62	3723.46	107.92
	6/13/2008	3816.08	94.43	3721.65	107.92
	9/15/2008	3816.08	97.49	3718.59	107.92
	1/26/2009	3816.08	91.08	3725.00	107.92
	7/9/2009	3816.08	98.82	3717.26	107.92
	1/25/2010	3816.08	95.14	3720.94	106.90
	7/6/2010	3816.08	100.57	3715.51	106.90
	1/25/2011	3816.08	97.68	3718.40	
	7/11/2011	3816.08	DRY		
	10/15/2012	3816.08	DRY		
MW-E	9/19/2005	3816.31	90.39	3725.92	107.99
	12/5/2005	3816.31	88.40	3727.91	107.99
	5/9/2007	3816.31	91.47	3724.84	107.99
	9/27/2007	3816.31	92.60	3723.71	107.99
	7/1/2008	3816.31	95.54	3720.77	107.99
	9/15/2008	3816.31	97.21	3719.10	107.99
	1/26/2009	3816.31	91.11	3725.20	107.99
	7/9/2009	3816.31	98.81	3717.50	107.99
	1/25/2010	3816.31	95.20	3721.11	107.01
	7/6/2010	3816.31	100.37	3715.94	107.01
	1/26/2011	3816.31	97.50	3718.81	
	7/11/2011	3816.31	DRY	DRY	
	10/15/2012	3816.31	DRY		
MW-F	9/19/2005	3816.69	89.86	3726.83	108.09
	12/5/2005	3816.69	88.09	3728.60	108.09
	5/9/2007	3816.69	91.21	3725.48	108.09
	9/27/2007	3816.69	92.26	3724.43	108.09
	7/1/2008	3816.69	93.93	3722.76	108.09
	9/15/2008	3816.69	96.49	3720.20	108.09
	1/26/2009	3816.69	91.10	3725.59	108.09
	7/9/2009	3816.69	98.00	3718.69	108.09
	1/25/2010	3816.69	94.89	3721.80	106.70
	7/6/2010	3816.69	99.50	3717.19	106.70
	1/25/2011	3816.69	97.20	3719.49	
	7/11/2011	3816.69	106.29	3710.40	
MW-G	10/15/2012	3816.69	DRY		
	9/19/2005	3818.23	89.46	3728.77	108.05
	12/5/2005	3818.23	88.18	3730.05	108.05
	5/9/2007	3818.23	91.19	3727.04	108.05
MW-G	10/1/2007	3818.23	92.08	3726.15	108.05

TABLE 1

**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Well ID</i>	<i>Date Measured</i>	<i>Elevation of TOC (famsl)</i>	<i>Depth to Water (fbtoc)</i>	<i>Elevation of Potentiometric Surface (famsl)</i>	<i>Total Depth (fbtoc)</i>
MW-G	7/1/2008	3818.23	95.54	3722.69	108.05
MW-G	9/15/2008	3818.23	95.70	3722.53	108.05
MW-G	1/26/2009	3818.23	91.48	3726.75	108.05
MW-G	7/9/2009	3818.23	96.72	3721.51	108.05
MW-G	1/25/2010	3818.23	95.01	3723.22	106.55
MW-G	7/6/2010	3818.23	98.50	3719.73	106.55
MW-G	1/25/2011	3818.23	97.35	3720.88	
MW-G	7/11/2011	3818.23	103.60	3714.63	
MW-G	10/15/2012	3818.23	DRY		
MW-H	6/15/2005	3816.74	86.46	3730.28	108.10
MW-H	7/25/2005	3816.74	91.05	3725.69	108.10
MW-H	9/19/2005	3816.74	90.15	3726.59	108.10
MW-H	12/5/2005	3816.74	88.30	3728.44	108.10
MW-H	5/9/2007	3816.74	91.30	3725.44	108.10
MW-H	10/2/2007	3816.74	92.37	3724.37	108.10
MW-H	6/13/2008	3816.74	93.94	3722.80	108.10
MW-H	9/15/2008	3816.74	97.28	3719.46	108.10
MW-H	1/26/2009	3816.74	91.14	3725.60	108.10
MW-H	7/9/2009	3816.74	98.30	3718.44	108.10
MW-H	1/25/2010	3816.74	94.91	3721.83	105.53
MW-H	7/6/2010	3816.74	101.28	3715.46	105.53
MW-H	1/27/2011	3816.74	97.87	3718.87	
MW-H	7/11/2011	3816.74	DRY		
MW-H	10/15/2012	3816.74	DRY		
MW-I	6/15/2005	3816.94	85.90	3731.04	108.07
MW-I	7/25/2005	3816.94	89.94	3727.00	108.07
MW-I	9/19/2005	3816.94	89.50	3727.44	108.07
MW-I	12/5/2005	3816.94	87.88	3729.06	108.07
MW-I	5/9/2007	3816.94	90.83	3726.11	108.07
MW-I	10/1/2007	3816.94	91.82	3725.12	108.07
MW-I	6/13/2008	3816.94	93.03	3723.91	108.07
MW-I	9/15/2008	3816.94	96.38	3720.56	108.07
MW-I	1/26/2009	3816.94	90.78	3726.16	108.07
MW-I	7/9/2009	3816.94	97.19	3719.75	108.07
MW-I	1/25/2010	3816.94	94.52	3722.42	103.79
MW-I	7/6/2010	3816.94	99.29	3717.65	103.79
MW-I	1/27/2011	3816.94	97.39	3719.55	
MW-I	7/11/2011	3816.94	106.76	3710.18	
MW-I	10/15/2012	3816.94	DRY		
MW-J	9/19/2005	3817.66	87.24	3730.42	108.05
MW-J	12/5/2005	3817.66	86.23	3731.43	108.05

TABLE 1

**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Well ID</i>	<i>Date Measured</i>	<i>Elevation of TOC (famsl)</i>	<i>Depth to Water (fbtoc)</i>	<i>Elevation of Potentiometric Surface (famsl)</i>	<i>Total Depth (fbtoc)</i>
MW-J	5/9/2007	3817.66	89.07	3728.59	108.05
MW-J	10/1/2007	3817.66	89.86	3727.80	108.05
MW-J	6/13/2008	3817.66	90.51	3727.15	108.05
MW-J	9/15/2008	3817.66	93.44	3724.22	108.05
MW-J	1/26/2009	3817.66	89.58	3728.08	108.05
MW-J	7/9/2009	3817.66	93.95	3723.71	108.05
MW-J	1/25/2010	3817.66	93.03	3724.63	105.97
MW-J	7/6/2010	3817.66	96.05	3721.61	105.97
MW-J	1/25/2011	3817.66	95.59	3722.07	
MW-J	7/11/2011	3817.66	100.22	3717.44	
MW-J	10/15/2012	3817.66	103.82	3713.84	
MW-L	9/19/2005	3818.35	86.95	3731.40	108.07
MW-L	12/5/2005	3818.35	87.80	3730.55	108.07
MW-L	5/9/2007	3818.35	90.70	3727.65	108.07
MW-L	10/1/2007	3818.35	91.54	3726.81	108.07
MW-L	6/13/2008	3818.35	92.29	3726.06	108.07
MW-L	9/15/2008	3818.35	95.36	3722.99	108.07
MW-L	1/26/2009	3818.35	91.03	3727.32	108.07
MW-L	7/9/2009	3818.35	95.76	3722.59	108.07
MW-L	1/25/2010	3818.35	94.57	3723.78	107.20
MW-L	7/6/2010	3818.35	98.03	3720.32	107.20
MW-L	1/27/2011	3818.35	97.60	3720.75	
MW-L	7/11/2011	3818.35	102.58	3715.77	
MW-L	10/15/2012	3818.35	106.09	3712.26	
MW-M	9/19/2005	3817.88	86.95	3730.93	108.04
MW-M	12/5/2005	3817.88	86.06	3731.82	108.04
MW-M	5/9/2007	3817.88	88.89	3728.99	108.04
MW-M	10/1/2007	3817.88	89.63	3728.25	108.04
MW-M	6/13/2008	3817.88	90.18	3727.70	108.04
MW-M	9/15/2008	3817.88	92.97	3724.91	108.04
MW-M	1/26/2009	3817.88	89.49	3728.39	108.04
MW-M	7/9/2009	3817.88	93.50	3724.38	108.04
MW-M	1/25/2010	3817.88	92.89	3724.99	108.13
MW-M	7/6/2010	3817.88	95.53	3722.35	108.13
MW-M	1/25/2011	3817.88	95.35	3722.53	
MW-M	7/11/2011	3817.88	99.53	3718.35	
MW-M	10/15/2012	3817.88	103.15	3714.73	
MW-N	6/16/2005	3817.7	86.25	3731.45	108.08
MW-N	7/25/2005	3817.7	89.85	3727.85	108.08
MW-N	9/19/2005	3817.7	89.73	3727.97	108.08
MW-N	12/5/2005	3817.7	88.19	3729.51	108.08

TABLE 1

**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Well ID</i>	<i>Date Measured</i>	<i>Elevation of TOC (famsl)</i>	<i>Depth to Water (fbtoc)</i>	<i>Elevation of Potentiometric Surface (famsl)</i>	<i>Total Depth (fbtoc)</i>
MW-N	5/9/2007	3817.7	91.17	3726.53	108.08
	10/2/2007	3817.7	92.12	3725.58	108.08
	6/13/2008	3817.7	93.14	3724.56	108.08
	9/15/2008	3817.7	96.44	3721.26	108.08
	1/26/2009	3817.7	91.24	3726.46	108.08
	7/9/2009	3817.7	97.16	3720.54	108.08
	1/25/2010	3817.7	94.94	3722.76	108.67
	7/6/2010	3817.7	99.07	3718.63	108.67
	1/26/2011	3817.7	97.22	3720.48	
	7/11/2011	3817.7	104.40	3713.30	
	10/15/2012	3817.7	107.82	3709.88	
MW-O	7/25/2005	3814.74	96.58	3718.16	113.05
	9/19/2005	3814.74	93.71	3721.03	113.05
	12/5/2005	3814.74	90.80	3723.94	113.05
	5/9/2007	3814.74	93.97	3720.77	113.05
	10/2/2007	3814.74	95.44	3719.30	113.05
	6/13/2008	3814.74	92.82	3721.92	113.05
	9/15/2008	3814.74	102.30	3712.44	113.05
	1/26/2009	3814.74	92.41	3722.33	113.05
	7/9/2009	3814.74	103.69	3711.05	113.05
	1/25/2010	3814.74	97.04	3717.70	112.47
	7/6/2010	3814.74	104.52	3710.22	112.47
	1/27/2011	3814.74	100.46	3714.28	
	7/11/2011	3814.74	DRY		
	10/15/2012	3814.74	DRY		
MW-P	6/15/2005	3814.24	88.88	3725.36	113.05
	7/25/2005	3814.24	96.83	3717.41	113.05
	9/19/2005	3814.24	92.73	3721.51	113.05
	12/5/2005	3814.24	89.84	3724.40	113.05
	5/9/2007	3814.24	93.07	3721.17	113.05
	9/27/2007	3814.24	94.58	3719.66	113.05
	6/13/2008	3814.24	98.30	3715.94	113.05
	9/15/2008	3814.24	101.73	3712.51	113.05
	1/26/2009	3814.24	91.62	3722.62	113.05
	7/9/2009	3814.24	103.99	3710.25	113.05
	1/25/2010	3814.24	96.05	3718.19	112.90
	7/6/2010	3814.24	104.93	3709.31	112.90
	1/27/2011	3814.24	99.60	3714.64	
	7/11/2011	3814.24	111.72	3702.52	
	10/15/2012	3814.24	DRY		
MW-Q	7/25/2005	3814.23	96.81	3717.42	108.07

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**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Well ID</i>	<i>Date Measured</i>	<i>Elevation of TOC (famsl)</i>	<i>Depth to Water (fbtoc)</i>	<i>Elevation of Potentiometric Surface (famsl)</i>	<i>Total Depth (fbtoc)</i>
MW-Q	9/19/2005	3814.23	90.00	3724.23	108.07
MW-Q	12/5/2005	3814.23	87.53	3726.70	108.07
MW-Q	5/9/2007	3814.23	90.43	3723.80	108.07
MW-Q	9/27/2007	3814.23	92.23	3722.00	108.07
MW-Q	6/13/2008	3814.23	98.61	3715.62	108.07
MW-Q	9/15/2008	3814.23	98.08	3716.15	108.07
MW-Q	1/26/2009	3814.23	90.52	3723.71	108.07
MW-Q	7/9/2009	3814.23	103.51	3710.72	108.07
MW-Q	1/25/2010	3814.23	94.13	3720.10	108.41
MW-Q	7/6/2010	3814.23	101.92	3712.31	108.41
MW-Q	1/27/2011	3814.23	97.60	3716.63	
MW-Q	7/11/2011	3814.23	DRY		
MW-Q	10/15/2012	3814.23	DRY		
MW-R	9/19/2005	3810.89	91.19	3719.70	152.93
MW-R	12/5/2005	3810.89	87.71	3723.18	152.93
MW-R	5/9/2007	3810.89	90.83	3720.06	152.93
MW-R	9/27/2007	3810.89	92.83	3718.06	152.93
MW-R	6/13/2008	3810.89	98.18	3712.71	152.93
MW-R	9/15/2008	3810.89	100.76	3710.13	152.93
MW-R	1/26/2009	3810.89	88.57	3722.32	152.93
MW-R	7/9/2009	3810.89	105.25	3705.64	152.93
MW-R	1/25/2010	3810.89	93.88	3717.01	152.29
MW-R	7/6/2010	3810.89	103.95	3706.94	152.29
MW-R	1/26/2011	3810.89	97.58	3713.31	
MW-R	7/11/2011	3810.89	108.64	3702.25	
MW-R	10/15/2012	3810.89	114.39	3696.50	
MW-S	5/9/2007	3816.52	87.07	3729.45	122.73
MW-S	10/1/2007	3816.52	87.85	3728.67	122.73
MW-S	6/13/2008	3816.52	88.58	3727.94	122.73
MW-S	9/15/2008	3816.52	91.27	3725.25	122.73
MW-S	1/26/2009	3816.52	87.74	3728.78	122.73
MW-S	7/9/2009	3816.52	91.86	3724.66	122.73
MW-S	1/25/2010	3816.52	91.11	3725.41	122.77
MW-S	7/6/2010	3816.52	93.92	3722.60	122.77
MW-S	1/25/2011	3816.52	93.60	3722.92	
MW-S	7/11/2011	3816.52	98.00	3718.52	
MW-S	10/15/2012	3816.52	101.41	3715.11	
MW-T	5/9/2007	3816.71	N/A ²	N/A ²	
MW-T	7/7/2008	3816.71	94.43	3722.28	
MW-T	9/15/2008	3816.71	96.81	3719.90	
MW-T	1/26/2009	3816.71	92.39	3724.32	122.17

TABLE 1

**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Well ID</i>	<i>Date Measured</i>	<i>Elevation of TOC (famsl)</i>	<i>Depth to Water (fbtoc)</i>	<i>Elevation of Potentiometric Surface (famsl)</i>	<i>Total Depth (fbtoc)</i>
MW-T	7/9/2009	3816.71	97.92	3718.79	122.17
MW-T	7/6/2010	3816.71	99.58	3717.13	122.17
MW-T	1/27/2011	3816.71	97.69	3719.02	122.17
MW-T	7/11/2011	3816.71	105.15	3711.56	122.17
MW-T	10/15/2012	3816.71	105.43	3711.28	
MW-U	5/9/2007	3814.94	91.76	3723.18	123.10
MW-U	9/27/2007	3814.94	93.09	3721.85	123.10
MW-U	6/13/2008	3814.94	96.34	3718.60	123.10
MW-U	9/15/2008	3814.94	99.07	3715.87	123.10
MW-U	1/26/2009	3814.94	91.19	3723.75	123.10
MW-U	7/9/2009	3814.94	101.27	3713.67	123.10
MW-U	1/25/2010	3814.94	95.12	3719.82	123.09
MW-U	7/6/2010	3814.94	102.33	3712.61	123.09
MW-U	1/25/2011	3814.94	98.38	3716.56	
MW-U	7/11/2011	3814.94	109.63	3705.31	
MW-U	10/15/2012	3814.94	112.01	3702.93	
MW-V	5/9/2007	3815.04	92.17	3722.87	122.79
MW-V	9/27/2007	3815.04	93.48	3721.56	122.79
MW-V	6/13/2008	3815.04	96.14	3718.90	122.79
MW-V	9/15/2008	3815.04	99.61	3715.43	122.79
MW-V	1/26/2009	3815.04	91.31	3723.73	122.79
MW-V	7/9/2009	3815.04	101.25	3713.79	122.79
MW-V	1/25/2010	3815.04	95.45	3719.59	122.84
MW-V	7/6/2010	3815.04	102.80	3712.24	122.84
MW-V	1/25/2011	3815.04	98.75	3716.29	
MW-V	7/11/2011	3815.04	109.80	3705.24	
MW-V	10/15/2012	3815.04	113.00	3702.04	
MW-W	5/9/2007	3815.09	92.76	3722.33	122.05
MW-W	9/27/2007	3815.09	94.06	3721.03	122.05
MW-W	6/13/2008	3815.09	96.37	3718.72	122.05
MW-W	9/15/2008	3815.09	100.23	3714.86	122.05
MW-W	1/26/2009	3815.09	91.72	3723.37	122.05
MW-W	7/9/2009	3815.09	101.58	3713.51	122.05
MW-W	1/25/2010	3815.09	95.98	3719.11	133.15
MW-W	7/6/2010	3815.09	103.41	3711.68	133.15
MW-W	1/26/2011	3815.09	99.24	3715.85	
MW-W	7/11/2011	3815.09	110.25	3704.84	
MW-W	10/15/2012	3815.09	114.13	3700.96	
MW-D2	5/9/2007	3815.93	91.63	N/A ³	204.00
MW-D2	9/26/2007	3815.93	92.79		

TABLE 1

**CUMULATIVE SUMMARY OF FLUID LEVEL MEASUREMENTS
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

Well ID	Date Measured	Elevation of TOC (famsl)	Depth to Water (fttoc)	Elevation of Potentiometric Surface (famsl)	Total Depth (fttoc)
MW-D2	6/13/2008	3815.93	94.93		
MW-D2	9/15/2008	3815.93	97.77	N/A ³	204.00
MW-D2	1/26/2009	3815.93	91.12	3724.81	204.00
MW-D2	7/9/2009	3815.93	99.30	3716.63	204.00
MW-D2	1/25/2010	3815.93	95.27	3720.66	204.00
MW-D2	7/6/2010	3815.93	100.93	3715.00	204.00
MW-D2	1/26/2011	3815.93	97.76	3718.17	
MW-D2	7/11/2011	3815.93	109.10	3706.83	
MW-D2	10/15/2012	3815.93	110.30	3705.63	

Notes:

1. Wells with treatment equipment present were not gauged.
2. Well was converted to a biosparge well.
3. Wells had not been surveyed as of gauging date.
4. famsl = feet above mean sea level.

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
BW-1	6/16/2005	<0.005	<0.005	<0.005	<0.005				
BW-1	7/27/2005	<0.001	<0.001	<0.001	<0.001				
BW-1	9/21/2005	<0.001	<0.001	<0.001	<0.001				
BW-1	12/9/2005	0.184	0.24	0.0458	0.172				
BW-1	7/2/2008	0.0052	0.0018	0.0007	0.0018	0.027	0.077		
BW-1	9/18/2008	0.0022	0.0014	0.0007 J	0.0015 J	<0.02	0.076 J		
BW-1	2/11/2009	0.0004	0.0002 J	0.0002 J	<0.0006	<0.02	0.031		
BW-1	7/14/2009	<0.0002	<0.0002	0.0003 J	<0.0006	0.035 J	0.13		
BW-1	1/26/2010	<0.0002	0.0002 J	<0.0002	<0.0006	<0.02	0.073 J		
BW-1	7/7/2010	<0.0002	0.0003 J	<0.0002	<0.0006	<0.02	0.070 J		
BW-1	1/25/2011	<0.001	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
BW-1	7/13/2011	<0.001	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
BW-1	10/16/2012	<0.00100	<0.00200	<0.00100	<0.00100	<1.50	<1.50		
BW-2	6/16/2005	0.0039	0.0026	<0.001	0.001				
BW-2	7/27/2005	<0.001	<0.001	<0.001	<0.001				
BW-2	9/21/2005	<0.001	<0.001	<0.001	<0.001				
BW-2	12/9/2005	0.076	0.117	0.0272	0.0981				
BW-2	7/2/2008	0.0099	0.0025	0.0009	0.0022	0.043	0.11		
BW-2	9/18/2008	0.0016	0.0011	0.0003 J	0.0009 J	<0.02	<0.033		
BW-2	2/11/2009	0.0002 J	<0.0002	<0.0002	<0.0006	<0.02	<0.031		
BW-2	7/16/2009	0.018	0.0002 J	0.0019	0.0009 J	0.087	0.64		
BW-2	7/13/2010	0.13	0.038	0.0061	0.013	0.37	0.13		
BW-2	1/27/2011	0.005	0.0028	<0.0010	<0.0030	<0.0500	0.025 J		
BW-2	7/14/2011	0.00139	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
BW-2	10/17/2012	0.00695	0.00613	<0.00100	<0.00100	<1.50	<1.50		
BW-3	6/16/2005	4.25	0.11	<0.1	<0.1				
BW-3	7/27/2005	<0.001	<0.001	<0.001	<0.001				
BW-3	9/22/2005	<0.001	<0.001	<0.001	<0.001				
BW-3	12/9/2005	0.0508	0.0769	0.0182	0.0724				
BW-3	7/2/2008	0.0073	0.0024	0.001	0.0023	0.035	0.095		

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
BW-3	9/18/2008	0.0029	0.0017	0.0004 J	0.0012 J	<0.02	<0.033		NS--Junk
	2/11/2009	0.0003 J	0.0002 J	<0.0002	<0.0006	<0.02	<0.031		
	7/16/2009	0.012	<0.0002	0.0016	0.0007 J	0.063	0.13		
	1/27/2011								
	7/14/2011	0.0151	0.00774	0.00156	<0.0010	<1.5	<1.5		
	10/17/2012	0.0215	0.00969	<0.00100	<0.00100	<1.50	<1.50		
MW-A	6/16/2005	0.0348	0.0034	<0.001	<0.001				NS--Dry NS Casing Collapsed
	7/26/2005								
	9/20/2005								
	12/8/2005	0.0206	0.0887	0.0159	0.0858				
	7/1/2008								
MW-B	6/16/2005	0.713	0.0266	<0.02	<0.02				1.3
	7/26/2005	0.546	0.917	0.0902	0.485				
	9/20/2005	0.312	0.454	0.0344	0.236				
	12/8/2005	0.103	0.172	<0.02	0.115				
	5/17/2007	0.086	0.0076	0.0005	0.003	0.3	0.088		
	10/2/2007	0.068	0.003	0.0003	0.0009				
	6/30/2008	0.67	0.025	0.0028	0.02	1.7	0.087**		
	9/17/2008	0.11	0.0041 J	0.0019 J	0.0081 J	0.34	<0.032		
	2/3/2009	0.041	0.0019	0.0004 J	0.0014 J	0.095	<0.056		
	7/15/2009	0.034	<0.0002	0.0013	<0.0006	0.14	0.09 J		
	1/27/2010	0.048	0.0032	<0.0002	0.0016 J	0.28	0.1		
	7/12/2010	0.077	0.0029	<0.0002	0.0016 J	0.26	0.063 J		
	1/27/2011	0.36	0.0096	<0.0010	0.0064	0.914	0.073		
	7/13/2011								
	10/15/2012								
MW-C	6/15/2005	<0.005	<0.005	<0.005	<0.005				NS--Dry NS--Dry
	7/26/2005	0.414	0.543	0.0885	0.266				
	9/21/2005	0.239	0.317	0.0599	0.17				

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
<i>NMWQCC HHSGR</i>		0.01	0.75	0.75	0.62				
MW-C	12/8/2005	0.0472	0.0741	0.0162	0.0592				
	5/17/2007	0.012	0.0049	0.0006	0.0019	0.062	0.095		
	10/2/2007	0.029	0.011	0.0011	0.003				
	6/30/2008	0.019	0.0053	0.0011	0.0016	0.075	0.26		
	9/17/2008	0.0029	0.0014	0.0006 J	0.0015 J	0.025 J	0.068 J		
	2/5/2009	0.0086	0.0036	0.0007 J	0.0019 J	0.039 J	<0.032		
	7/14/2009	0.0071	0.0002 J	0.0014	0.0006 J	0.093	0.09 J		
	1/27/2010	0.0021	0.0003 J	<0.0002	<0.0006	<0.02	0.061 J		
	7/12/2010	0.0005 J	0.0004 J	<0.0002	<0.0006	0.033 J	0.096 J		
	1/27/2011	0.0025	0.0011	<0.0010	<0.0030	<0.0500	0.024 J		
	7/13/2011								NS--Dry
	10/15/2012								NS--Dry
MW-D	5/15/2007	<0.002	<0.002	<0.002	<0.006	<0.02	<0.028		
	9/27/2007	<0.002	<0.002	<0.002	<0.006				
	6/30/2008	0.039	0.0073	0.0013	0.0013	0.095	0.13		
	9/16/2008	0.0013	0.001 J	0.0005 J	0.0012 J	<0.02	0.088 J		
	2/4/2009	0.0081	0.0023	0.0007 J	0.0019 J	0.034 J	<0.031		
	7/13/2009	<0.0002	<0.0002	<0.0002	<0.0006	0.044 J	0.13		
	1/27/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.046 J		
	7/8/2010	<0.0002	0.0004 J	<0.0002	<0.0006	0.028 J	0.16		
	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
	7/13/2011								NS--Dry
	10/15/2012								NS--Dry
MW-E	6/15/2005	<0.005	<0.005	<0.005	<0.005				
	5/16/2007	<0.002	<0.002	<0.002	<0.006	<0.02	<0.028		
	9/27/2007	<0.002	<0.002	<0.002	<0.006				
	7/1/2008	0.017	0.005	0.001	0.0011	0.049	0.041		
	9/17/2008	0.01	0.0059	0.0006 J	0.0034	0.055	<0.03		
	2/11/2009	0.0008 J	0.0004 J	0.0003 J	0.0007 J	<0.02	<0.031		
	7/15/2009	<0.0002	<0.0002	0.0002 J	<0.0006	0.044 J	0.33		

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	<i>Benzene (mg/L)</i>	<i>Toluene (mg/L)</i>	<i>Ethylebenzene (mg/L)</i>	<i>Total Xylenes (mg/L)</i>	<i>TPH-GRO (mg/L)</i>	<i>TPH-DRO (mg/L)</i>	<i>TPH (mg/L)</i>	<i>Notes</i>
<i>NMWQCC HHSGR</i>		0.01	0.75	0.75	0.62				
MW-E	1/27/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.062 J		
MW-E	7/8/2010	<0.0002	0.0004 J	<0.0002	<0.0006	<0.02	0.080 J		
MW-E	1/26/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-E	7/13/2011								NS--Dry
MW-E	10/15/2012								NS--Dry
MW-F	6/15/2005	<0.005	<0.005	<0.005	<0.005				
MW-F	5/16/2007	<0.002	<0.002	<0.002	<0.006	<0.02	<0.028		
MW-F	9/27/2007	<0.002	<0.002	<0.002	<0.006				
MW-F	7/2/2008	0.013	0.0036	0.0007	0.0008	0.039	0.044		
MW-F	9/17/2008	0.0074	0.0042	0.0005 J	0.0025 J	0.039 J	<0.031		
MW-F	2/11/2009	0.0004 J	0.0002 J	<0.0002	<0.0006	<0.02	<0.031		
MW-F	7/14/2009	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.079 J		
MW-F	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.063 J		
MW-F	7/7/2010	0.0002 J	0.0003 J	<0.0002	<0.0006	<0.02	0.11		
MW-F	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-F	7/13/2011								NS--Insufficient water
MW-F	10/15/2012								NS--Dry
MW-G	6/15/2005	<0.005	<0.005	<0.005	<0.005				
MW-G	5/16/2007	<0.002	<0.002	<0.002	<0.006	<0.02	<0.028		
MW-G	10/1/2007	<0.002	<0.002	<0.002	<0.006				
MW-G	7/2/2008	0.0081	0.0025	0.0006	0.0006	0.026	<0.029		
MW-G	9/17/2008	0.024	0.013	0.001	0.0057	0.11	<0.031		
MW-G	2/11/2009	0.0012	0.0005 J	0.0003 J	0.0009 J	<0.02	<0.031		
MW-G	7/15/2009	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.11		
MW-G	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.054 J		
MW-G	7/7/2010	0.0002 J	0.0003 J	<0.0002	<0.0006	<0.02	0.073 J		
MW-G	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-G	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-G	10/15/2012								NS--Dry

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
MW-H	6/15/2005	0.492	0.0219	<0.02	<0.02	2.4	0.2	<0.094	NS--Dry NS--Dry
MW-H	7/26/2005	1.93	2.01	0.144	0.677				
MW-H	9/20/2005	2.35	2.54	0.188	0.932				
MW-H	12/6/2005	3.89	2.72	0.202	0.815				
MW-H	5/17/2007	0.73	0.082	0.0089	0.031				
MW-H	10/2/2007	0.2	0.037	0.0027	0.01				
MW-H	7/2/2008	0.14	0.022	0.0018	0.006				
MW-H	9/17/2008	0.26	0.077	0.0032	0.022				
MW-H	2/3/2009	0.49	0.056	0.0075	0.022				
MW-H	7/15/2009	0.25	0.0018	0.027	0.012				
MW-H	1/27/2010	0.6	0.061	0.0025	0.017				
MW-H	7/13/2010	0.71	0.032	0.0016 J	0.0079 J				
MW-H	1/27/2011	4.6	0.28	0.0066	0.055				
MW-H	7/13/2011								
MW-H	10/15/2012								
MW-I	6/15/2005	0.378	0.0124	<0.01	<0.01	0.26	0.053	<0.097	NS--Dry
MW-I	7/26/2005	1.1	1.4	0.067	0.491				
MW-I	9/20/2005	0.555	0.801	0.0253	0.375				
MW-I	12/6/2005	0.496	0.611	0.0287	0.238				
MW-I	5/17/2007	0.067	0.032	0.0009	0.007				
MW-I	10/1/2007	0.033	0.01	<0.002	0.002				
MW-I	7/1/2008	0.086	0.034	0.0017	0.0059				
MW-I	9/17/2008	0.0042	0.0022	0.0007 J	0.0019 J				
MW-I	2/5/2009	0.012	0.0056	0.0005 J	0.0021 J				
MW-I	7/14/2009	0.011	0.0002 J	0.004	0.001 J				
MW-I	1/27/2010	0.03	0.012	0.0004 J	0.0025 J				
MW-I	7/12/2010	0.041	0.0028	0.0003 J	0.0014 J				
MW-I	1/27/2011	0.0025	0.0018	<0.0010	<0.0030				
MW-I	7/14/2011	4.19	0.994	0.049	0.356				
MW-I	10/15/2012								

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
MW-J	12/6/2005	<0.005	<0.005	<0.005	<0.005				
MW-J	5/15/2007	0.0015	<0.002	<0.002	<0.006	<0.02	<0.028		
MW-J	10/1/2007	0.0005	<0.002	<0.002	<0.006				
MW-J	6/30/2008	0.038	0.0073	0.0014	0.0014	0.093	0.28		
MW-J	9/16/2008	0.0012	0.0008 J	0.0005 J	0.0011 J	<0.02	0.093 J		
MW-J	2/4/2009	0.0078	0.0022	0.0007 J	0.0019 J	0.032 J	<0.031		
MW-J	7/13/2009	<0.0002	<0.0002	<0.0002	<0.0006	0.035 J	0.11		
MW-J	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.056 J		
MW-J	7/7/2010	<0.0002	0.0002 J	<0.0002	<0.0006	<0.02	0.062 J		
MW-J	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-J	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-J	10/15/2012								NS--Insufficient Water
MW-L	6/15/2005	<0.005	<0.005	<0.005	<0.005				
MW-L	5/15/2007	<0.002	<0.002	<0.002	<0.006	<0.02	0.038		
MW-L	10/1/2007	<0.002	<0.002	<0.002	<0.006				
MW-L	7/1/2008	0.018	0.0031	0.001	0.0025	0.063	0.089		
MW-L	9/16/2008	0.0019	0.0012	<0.0006	<0.0015	<0.02	0.13		
MW-L	2/4/2009	0.011	0.003	0.0009 J	0.0024 J	0.041 J	0.042 J		
MW-L	7/14/2009	0.0003 J	<0.0002	0.0002 J	<0.0006	0.033 J	0.079 J		
MW-L	1/27/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.037 J		
MW-L	7/12/2010	<0.0002	0.0003 J	<0.0002	<0.0006	<0.02	0.051 J		
MW-L	1/27/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-L	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-L	10/15/2012								NS--Insufficient Water
MW-M	6/15/2005	<0.005	<0.005	<0.005	<0.005				
MW-M	5/15/2007	<0.002	<0.002	<0.002	<0.006	<0.02	<0.028		
MW-M	10/1/2007	<0.002	<0.002	<0.002	<0.006				
MW-M	6/30/2008	0.042	0.004	0.0011	0.0032	0.11	0.034**		
MW-M	9/16/2008	0.0023	0.0013	0.0006 J	0.0014 J	0.022	0.13		
MW-M	2/4/2009	0.013	0.0031 J	0.001 J	0.0025 J	0.053	0.036 J		

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
MW-M	7/15/2009	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.071 J		
MW-M	1/25/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.25		
MW-M	7/6/2010	0.0003 J	0.0003 J	<0.0002	<0.0006	<0.02	0.1		
MW-M	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-M	7/13/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-M	10/16/2012	<0.00100	<0.00200	<0.00100	<0.00100	<1.50	<1.50		
MW-N	6/15/2005	<0.001	<0.001	<0.001	<0.001				
MW-N	7/26/2005	0.0059	<0.005	<0.005	<0.005				
MW-N	9/21/2005	0.0076	<0.001	<0.001	<0.001				
MW-N	12/6/2005	<0.001	<0.001	<0.001	<0.001				
MW-N	5/17/2007	0.0013	0.0007	0.0002	<0.006	0.032	0.067		
MW-N	10/2/2007	<0.002	<0.002	<0.002	<0.006				
MW-N	6/30/2008	0.011	0.0031	0.0008	0.0009	0.056	0.05		
MW-N	9/17/2008	0.0014	0.0011	0.0007 J	0.0016 J	<0.02	0.073		
MW-N	2/5/2009	0.0051	0.0025	0.0006 J	0.0014 J	0.031 J	0.034 J		
MW-N	7/13/2009	<0.0002	<0.0002	<0.0002	<0.0006	0.079	0.32		
MW-N	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.041 J		
MW-N	7/8/2010	<0.0002	0.0003 J	<0.0002	<0.0006	<0.02	0.062 J		
MW-N	1/26/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-N	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-N	10/15/2012								NS--Insufficient Water
MW-O	7/25/2005	0.0035	<0.001	<0.001	<0.001				
MW-O	9/21/2005	0.0102	<0.001	<0.001	<0.001				
MW-O	12/8/2005	0.0045	<0.001	<0.001	<0.001				
MW-O	5/14/2007	0.0072	<0.002	<0.002	<0.006	0.043	0.13		
MW-O	10/2/2007	0.0012	0.001	<0.002	<0.006				
MW-O	6/30/2008	0.04	0.01	0.0065	0.011	0.15	0.280**		
MW-O	9/16/2008	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	<0.031		
MW-O	2/2/2009	<0.0002	0.0012	0.0005 J	0.0011 J	<0.02	0.063 J		
MW-O	7/13/2009	<0.0002	<0.0002	0.0003 J	<0.0006	0.1	0.36		

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
<i>NMWQCC HHSGR</i>		0.01	0.75	0.75	0.62				
MW-O	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	<0.031		
MW-O	7/8/2010	<0.0002	0.0003 J	<0.0002	<0.0006	<0.02	0.053 J		
MW-O	1/27/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-O	7/13/2011								NS--Dry
MW-O	10/15/2012								NS--Dry
MW-P	6/15/2005	1.92	<0.05	<0.05	<0.05				
MW-P	7/25/2005	0.179	<0.001	<0.001	<0.001				
MW-P	9/19/2005	<0.001	<0.001	<0.001	<0.001				
MW-P	12/8/2005	<0.001	<0.001	<0.001	<0.001				
MW-P	5/14/2007	<0.002	<0.002	<0.002	<0.006	<0.02	0.028		
MW-P	9/27/2007	<0.002	<0.002	<0.002	<0.006				
MW-P	6/17/2008	<0.002	0.003	<0.002	<0.006	<0.037	<0.062		
MW-P	9/16/2008	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	<0.031		
MW-P	2/2/2009	<0.0002	0.0033	0.0005 J	0.0011 J	<0.02	0.049 J		
MW-P	7/13/2009	0.0011	<0.0002	0.0003 J	<0.0006	0.31	4.7		
MW-P	1/27/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	<0.031		
MW-P	7/12/2010	<0.0002	0.0004 J	<0.0002	<0.0006	0.024 J	0.074 J		
MW-P	1/27/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-P	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-P	10/15/2012								NS--Dry
MW-Q	7/25/2005	<0.001	<0.001	<0.001	<0.001				
MW-Q	9/21/2005	<0.001	<0.001	<0.001	<0.001				
MW-Q	12/6/2005	<0.001	<0.001	<0.001	<0.001				
MW-Q	5/14/2007	<0.002	<0.002	<0.002	<0.006	<0.02	0.028		
MW-Q	9/27/2007	<0.002	<0.002	<0.002	<0.006				
MW-Q	6/17/2008	0.005	0.006	0.003	0.006	<0.043	<0.062		
MW-Q	9/16/2008	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	<0.031		
MW-Q	2/2/2009	<0.0002	0.0021	0.0003 J	0.0007 J	<0.02	0.048 J		
MW-Q	7/14/2009	<0.0002	<0.0002	0.0003 J	<0.0006	0.16	0.68		
MW-Q	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.031 J		

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
MW-Q	7/12/2010	<0.0002	0.0004 J	<0.0002	<0.0006	0.046 J	0.420 J		
MW-Q	1/27/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-Q	7/13/2011								NS--Dry
MW-Q	10/15/2012								NS--Dry
MW-R	8/12/2005	<0.001	<0.001	<0.001	<0.001				
MW-R	9/19/2005	<0.001	<0.001	<0.001	<0.001				
MW-R	12/8/2005	<0.001	<0.001	<0.001	<0.001				
MW-R	5/14/2007	<0.002	<0.002	<0.002	<0.006	<0.02	0.028		
MW-R	9/27/2007	<0.002	<0.002	<0.002	<0.006				
MW-R	6/17/2008	<0.002	0.002	<0.002	<0.006	<0.061	<0.110		
MW-R	9/15/2008	<0.0002	0.000**	<0.0002	<0.0006	<0.02	<0.039		
MW-R	2/2/2009	0.0002 J	0.0005 J	0.0008 J	0.0016 J	0.028 J	0.074 J		
MW-R	7/14/2009	<0.0002	<0.0002	0.0002 J	<0.0006	0.049 J	0.13		
MW-R	1/27/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.041 J		
MW-R	7/8/2010	<0.0002	0.0004 J	<0.0002	<0.0006	<0.02	0.076 J		
MW-R	1/26/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-R	7/13/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-R	10/17/2012	<0.00100	<0.00200	<0.00100	<0.00100	<1.50	<1.50		
MW-S	7/27/2006	<0.0005	<0.0007	<0.0008	<0.0008	0.028	0.053		
MW-S	5/14/2007	<0.002	<0.002	<0.002	<0.006	<0.02	0.39		
MW-S	10/1/2007	<0.002	<0.002	<0.002	<0.006				
MW-S	6/30/2008	0.039	0.0032	0.0005	0.0021	0.11	<0.043		
MW-S	9/16/2008	0.004	0.0018	0.0008 J	0.0019 J	0.029 J	0.35		
MW-S	2/4/2009	0.022	0.0048	0.0011	0.0031	0.072	0.044 J		
MW-S	7/15/2009	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.050 J		
MW-S	1/25/2010	<0.0002	<0.0002	<0.0002	<0.0006	0.023 J	0.18 J		
MW-S	7/6/2010	0.0003 J	0.0002 J	<0.0002	<0.0006	<0.02	0.074 J		
MW-S	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-S	7/13/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-S	10/16/2012	<0.00100	<0.00200	<0.00100	<0.00100	<1.50	<1.50		

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
MW-T	7/27/2006	0.36	0.12	0.037	0.15	1.3	0.86		
MW-T	9/18/2008	0.0049	0.0028	0.0008 J	0.002 J	0.027 J	0.11		
MW-T	2/11/2009	0.0004 J	0.0003 J	<0.0002	<0.0006	<0.02	0.033 J		
MW-T	7/16/2009	0.0071	<0.0002	0.0013	0.0008 J	0.044 J	0.13		
MW-T	7/13/2010	0.84	0.18	0.026	0.055	2.4	0.070 J		
MW-T	1/27/2011	12	1.5	0.2	0.61	22.6	0.41		
MW-T	7/13/2011	4.49	0.448	0.0208	0.0576	8.17	<1.5		
MW-T	10/17/2012	12.8	<0.200	0.260	0.418	15.5	<1.50		
MW-U	4/24/2007	<0.005	0.009	<0.008	<0.008	0.027	0.180*		
MW-U	5/16/2007	<0.0002	<0.0002	<0.0002	<0.0006	0.027	0.18		
MW-U	9/27/2007	<0.002	<0.002	<0.002	<0.006			<0.093	
MW-U	6/30/2008	0.004	0.0018	0.0009	0.0019	0.028	0.057**		
MW-U	9/17/2008	<0.0002	0.0003 J	0.0002 J	<0.0006	0.025 J	<0.032		
MW-U	2/3/2009	<0.0002	0.0021	0.0006 J	0.0013 J	<0.02	0.060 J		
MW-U	7/14/2009	<0.0002	<0.0002	<0.0002	<0.0006	0.034 J	0.1		
MW-U	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.049 J		
MW-U	7/7/2010	<0.0002	0.0003 J	<0.0002	<0.0006	<0.02	0.070 J		
MW-U	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-U	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-U	10/16/2012	<0.00100	<0.00200	<0.00100	<0.00100	<1.50	<1.50		
MW-V	4/24/2007	<0.005	<0.007	<0.008	<0.008	0.028*	0.310*		
MW-V	5/16/2008	<0.001	<0.0002	<0.0002	<0.0006	0.028	0.31		
MW-V	9/27/2007	<0.002	<0.002	<0.002	<0.006			<0.094	
MW-V	6/30/2008	0.011	0.0027	0.0012	0.0025	0.044	0.093**		
MW-V	9/16/2008	0.0045	<0.0002	<0.0002	<0.0006	0.023 J	0.064 J		
MW-V	2/2/2009	<0.0002	0.0078	0.0003 J	0.0007 J	0.023 J	0.066 J		
MW-V	7/13/2009	<0.0002	<0.0002	<0.0002	<0.0006	0.027 J	0.14		
MW-V	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.062 J		
MW-V	7/7/2010	<0.0002	0.0002 J	<0.0002	<0.0006	<0.02	0.070 J		

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	Benzene (mg/L)	Toluene (mg/L)	Ethylebenzene (mg/L)	Total Xylenes (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	TPH (mg/L)	Notes
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
MW-V	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-V	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-V	10/16/2012	<0.00100	<0.00200	<0.00100	<0.00100	<1.50	<1.50		
MW-W	4/24/2007	<0.005	<0.007	<0.008	<0.008	0.037*	0.450*		
MW-W	5/16/2007	<0.001	<0.0002	<0.0002	<0.0006	0.037	0.45		
MW-W	9/27/2007	<0.002	<0.002	<0.002	<0.006				
MW-W	6/30/2008	0.031	0.0035	0.0015	0.0032	0.092	0.130**		
MW-W	9/16/2008	0.0025	<0.0002	<0.0002	<0.0002	0.021 J	0.068 J		
MW-W	2/2/2009	<0.0002	0.0029	0.0004 J	0.0009 J	<0.02	0.078 J		
MW-W	7/13/2009	<0.0002	<0.0002	0.0003 J	<0.0006	0.093	0.33		
MW-W	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.039 J		
MW-W	7/7/2010	<0.0002	0.0003 J	<0.0002	<0.0006	<0.02	0.087 J		
MW-W	1/26/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-W	7/13/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-W	10/17/2012	<0.00100	<0.00200	<0.00100	<0.00100	<1.50	<1.50		
MW-D2	5/15/2007	<0.002	<0.002	<0.002	<0.006	<0.02	<0.028		
MW-D2	9/27/2007	<0.002	<0.002	<0.002	<0.006				
MW-D2	6/30/2008	0.026	0.0046	0.0009	0.0009	0.061	0.036		
MW-D2	9/17/2008	0.0011	0.0008 J	0.0007 J	0.0015 J	<0.02	0.052 J		
MW-D2	2/4/2009	0.0067	0.0031	0.0006 J	0.0016 J	0.030 J	<0.031		
MW-D2	7/13/2009	<0.0002	<0.0002	<0.0002	<0.0006	0.023 J	0.086 J		
MW-D2	1/26/2010	<0.0002	<0.0002	<0.0002	<0.0006	<0.02	0.049 J		
MW-D2	7/7/2010	<0.0002	0.0002 J	<0.0002	<0.0006	<0.02	0.060 J		
MW-D2	1/26/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
MW-D2	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
MW-D2	10/16/2012	<0.00100	<0.00200	<0.00100	<0.00100	<1.50	<1.50		
DUP1 (MW-D)	1/25/2011	<0.0010	<0.0010	<0.0010	<0.0030	<0.0500	<0.050		
DUP-1 (MW-N)	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
DUP11 (MW-C)	1/25/2011	0.0024	0.00099 J	<0.0010	<0.0030	<0.0500	0.036 J		

TABLE 2

**CUMULATIVE SUMMARY OF DISSOLVED-PHASE HYDROCARBONS IN GROUNDWATER
LOVINGTON PADDOCK GROUNDWATER REMEDIATION SITE
SECTION 1-T17S-R36E, LEA COUNTY, NM**

<i>Sample Location</i>	<i>Date of measurement</i>	<i>Benzene (mg/L)</i>	<i>Toluene (mg/L)</i>	<i>Ethylebenzene (mg/L)</i>	<i>Total Xylenes (mg/L)</i>	<i>TPH-GRO (mg/L)</i>	<i>TPH-DRO (mg/L)</i>	<i>TPH (mg/L)</i>	<i>Notes</i>
NMWQCC HHSGR		0.01	0.75	0.75	0.62				
DUP-2 (BW-2)	7/14/2011	<0.0010	<0.0020	<0.0010	<0.0010	<1.5	<1.5		
DUP	10/16/2012	<0.00100	<0.00203	<0.00100	<0.00100	<1.50	<1.50		
Trip Blank	1/26/2011	<0.0010	<0.0010	<0.0010	<0.0030				

Notes:

1. mg/L - milligrams per liter
2. TPH - total petroleum hydrocarbons
3. TPH GRO - total petroleum hydrocarbons gasoline range organic (C_6-C_{10})
4. TPH DRO - total petroleum hydrocarbons diesel range organic ($>C_{10}-C_{28}$)
5. NMWQCC HHSGR - New Mexico Water Quality Control Commission Human Health for groundwater (NMAC 20.6.2.3103A)
6. J - estimated value which is greater than or equal to the method detection limit and less than the limit of quantitation (LOQ) or reporting limit
7. * - resampled on 05/16/2007
8. ** - resampled on 07/01/2008
9. NS = not sampled

APPENDICES

APPENDIX A

Analytical Report 451056

for

Conestoga Rovers & Associates

Project Manager: John Schnable

Lunt Paddock

073020

26-OCT-12

Collected By: Client



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)

Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)

New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)

Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)

Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Lakeland: Florida (E84098)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

26-OCT-12

Project Manager: **John Schnable**
Conestoga Rovers & Associates
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No: **451056****Lunt Paddock**

Project Address: New Mexico

John Schnable:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 451056. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 451056 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



Nicholas Straccione

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Conestoga Rovers & Associates, Midland, TX

Lunt Paddock

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MWS 101612	W	10-16-12 10:25		451056-001
MWM 101612	W	10-16-12 11:10		451056-002
MWD 2101612	W	10-16-12 11:58		451056-003
MWV 101612	W	10-16-12 12:50		451056-004
MWU 101612	W	10-16-12 13:45		451056-005
BW 1101612	W	10-16-12 15:20		451056-006
DUP 101612	W	10-16-12 00:00		451056-007
MWR 101712	W	10-17-12 10:25		451056-008
MWW 101712	W	10-17-12 12:15		451056-009
BW2 101712	W	10-17-12 13:05		451056-010
BW 3101712	W	10-17-12 14:15		451056-011
MWT 101712	W	10-17-12 15:00		451056-012



CASE NARRATIVE

Client Name: Conestoga Rovers & Associates
Project Name: Lunt Paddock



Project ID: 073020
Work Order Number: 451056

Report Date: 26-OCT-12
Date Received: 10/19/2012

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 451056

Conestoga Rovers & Associates, Midland, TX



Project Id: 073020

Contact: John Schnable

Project Location: New Mexico

Project Name: Lunt Paddock

Date Received in Lab: Fri Oct-19-12 10:31 am

Report Date: 26-OCT-12

Project Manager: Nicholas Straccione

Analysis Requested	Lab Id:	451056-001	451056-002	451056-003	451056-004	451056-005	451056-006
BTEX by EPA 8021B	Extracted:	Oct-22-12 09:30	Oct-22-12 09:30	Oct-22-12 09:30	Oct-24-12 04:00	Oct-24-12 04:00	Oct-24-12 04:00
	Analyzed:	Oct-22-12 14:11	Oct-22-12 14:55	Oct-22-12 14:40	Oct-24-12 17:28	Oct-24-12 17:43	Oct-24-12 17:58
	Units/RL:	mg/L RL					
Benzene		ND 0.00100					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00100					
m,p-Xylenes		ND 0.00200					
o-Xylene		ND 0.00100					
Total Xylenes		ND 0.00100					
Total BTEX		ND 0.00100					
TPH By SW8015B Mod	Extracted:	Oct-23-12 09:00					
	Analyzed:	Oct-23-12 12:43	Oct-23-12 13:45	Oct-23-12 14:16	Oct-23-12 14:47	Oct-23-12 15:19	Oct-23-12 15:51
	Units/RL:	mg/L RL					
C6-C10 Gasoline Range Hydrocarbons		ND 1.50					
C10-C28 Diesel Range Hydrocarbons		ND 1.50					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Nicholas Straccione
Project Manager

Certificate of Analysis Summary 451056

Conestoga Rovers & Associates, Midland, TX



Project Id: 073020

Contact: John Schnable

Project Location: New Mexico

Project Name: Lunt Paddock

Date Received in Lab: Fri Oct-19-12 10:31 am

Report Date: 26-OCT-12

Project Manager: Nicholas Straccione

Analysis Requested	Lab Id:	451056-007	451056-008	451056-009	451056-010	451056-011	451056-012
BTEX by EPA 8021B	Extracted:	Oct-24-12 04:00	Oct-25-12 08:40				
	Analyzed:	Oct-24-12 18:13	Oct-24-12 18:28	Oct-24-12 18:43	Oct-24-12 18:58	Oct-24-12 19:13	Oct-25-12 09:32
	Units/RL:	mg/L RL					
Benzene		ND 0.00100	ND 0.00100	ND 0.00100	0.00695 0.00100	0.0215 0.00100	12.8 0.100
Toluene		0.00203 0.00200	ND 0.00200	ND 0.00200	0.00613 0.00200	0.00969 0.00200	ND 0.200
Ethylbenzene		ND 0.00100	0.260 0.100				
m,p-Xylenes		ND 0.00200	0.418 0.200				
o-Xylene		ND 0.00100	ND 0.100				
Total Xylenes		ND 0.00100	0.418 0.100				
Total BTEX		0.00203 0.00100	ND 0.00100	ND 0.00100	0.0131 0.00100	0.0312 0.00100	13.5 0.100
TPH By SW8015B Mod	Extracted:	Oct-23-12 09:00					
	Analyzed:	Oct-23-12 16:22	Oct-23-12 16:52	Oct-23-12 17:22	Oct-23-12 18:27	Oct-23-12 18:56	Oct-23-12 19:27
	Units/RL:	mg/L RL					
C6-C10 Gasoline Range Hydrocarbons		ND 1.50	15.5 1.50				
C10-C28 Diesel Range Hydrocarbons		ND 1.50					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
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Nicholas Straccione
Project Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
6017 Financial Drive, Norcross, GA 30071	(770) 449-8800	(770) 449-5477
3725 E. Atlanta Ave, Phoenix, AZ 85040	(602) 437-0330	

Form 2 - Surrogate Recoveries

Project Name: Lunt Paddock

Work Orders : 451056,

Lab Batch #: 899293

Sample: 451056-001 / SMP

Project ID: 073020

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/22/12 14:11	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0242	0.0300	81	80-120	
4-Bromofluorobenzene		0.0294	0.0300	98	80-120	

Lab Batch #: 899293

Sample: 451056-003 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/22/12 14:40	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0253	0.0300	84	80-120	
4-Bromofluorobenzene		0.0261	0.0300	87	80-120	

Lab Batch #: 899293

Sample: 451056-002 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/22/12 14:55	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0297	0.0300	99	80-120	
4-Bromofluorobenzene		0.0297	0.0300	99	80-120	

Lab Batch #: 899575

Sample: 451056-001 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 12:43	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.74	10.0	97	70-135	
o-Terphenyl		4.85	5.00	97	70-135	

Lab Batch #: 899575

Sample: 451056-002 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 13:45	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.71	10.0	97	70-135	
o-Terphenyl		4.82	5.00	96	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Lunt Paddock

Work Orders : 451056,

Lab Batch #: 899575

Sample: 451056-003 / SMP

Project ID: 073020

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 14:16	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.71	10.0	97	70-135	
o-Terphenyl		4.77	5.00	95	70-135	

Lab Batch #: 899575

Sample: 451056-004 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 14:47	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.93	10.0	99	70-135	
o-Terphenyl		4.92	5.00	98	70-135	

Lab Batch #: 899575

Sample: 451056-005 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 15:19	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.82	10.0	98	70-135	
o-Terphenyl		4.81	5.00	96	70-135	

Lab Batch #: 899575

Sample: 451056-006 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 15:51	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.84	10.0	98	70-135	
o-Terphenyl		4.77	5.00	95	70-135	

Lab Batch #: 899575

Sample: 451056-007 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 16:22	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		10.4	10.0	104	70-135	
o-Terphenyl		5.13	5.00	103	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Lunt Paddock

Work Orders : 451056,

Lab Batch #: 899575

Sample: 451056-008 / SMP

Project ID: 073020

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 16:52	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.87	10.0	99	70-135	
o-Terphenyl		4.87	5.00	97	70-135	

Lab Batch #: 899575

Sample: 451056-009 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 17:22	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		10.1	10.0	101	70-135	
o-Terphenyl		4.96	5.00	99	70-135	

Lab Batch #: 899575

Sample: 451056-010 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 18:27	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.44	10.0	94	70-135	
o-Terphenyl		4.61	5.00	92	70-135	

Lab Batch #: 899575

Sample: 451056-011 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 18:56	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		10.0	10.0	100	70-135	
o-Terphenyl		4.95	5.00	99	70-135	

Lab Batch #: 899575

Sample: 451056-012 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 19:27	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		10.1	10.0	101	70-135	
o-Terphenyl		5.03	5.00	101	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Lunt Paddock

Work Orders : 451056,

Lab Batch #: 899507

Sample: 451056-004 / SMP

Project ID: 073020

Batch: 1 **Matrix:** Water

Units: mg/L

Date Analyzed: 10/24/12 17:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0240	0.0300	80	80-120	
4-Bromofluorobenzene		0.0253	0.0300	84	80-120	

Lab Batch #: 899507

Sample: 451056-005 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L

Date Analyzed: 10/24/12 17:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0264	0.0300	88	80-120	
4-Bromofluorobenzene		0.0308	0.0300	103	80-120	

Lab Batch #: 899507

Sample: 451056-006 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L

Date Analyzed: 10/24/12 17:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0249	0.0300	83	80-120	
4-Bromofluorobenzene		0.0303	0.0300	101	80-120	

Lab Batch #: 899507

Sample: 451056-007 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L

Date Analyzed: 10/24/12 18:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0249	0.0300	83	80-120	
4-Bromofluorobenzene		0.0261	0.0300	87	80-120	

Lab Batch #: 899507

Sample: 451056-008 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L

Date Analyzed: 10/24/12 18:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes						
1,4-Difluorobenzene		0.0256	0.0300	85	80-120	
4-Bromofluorobenzene		0.0259	0.0300	86	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Lunt Paddock

Work Orders : 451056,

Lab Batch #: 899507

Sample: 451056-009 / SMP

Project ID: 073020

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/24/12 18:43	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0242	0.0300	81	80-120	
4-Bromofluorobenzene		0.0285	0.0300	95	80-120	

Lab Batch #: 899507

Sample: 451056-010 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/24/12 18:58	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0250	0.0300	83	80-120	
4-Bromofluorobenzene		0.0289	0.0300	96	80-120	

Lab Batch #: 899507

Sample: 451056-011 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/24/12 19:13	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0246	0.0300	82	80-120	
4-Bromofluorobenzene		0.0268	0.0300	89	80-120	

Lab Batch #: 899507

Sample: 451056-012 / SMP

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/25/12 09:32	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0323	0.0300	108	80-120	
4-Bromofluorobenzene		0.0251	0.0300	84	80-120	

Lab Batch #: 899293

Sample: 628930-1-BLK / BLK

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/22/12 10:41	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0243	0.0300	81	80-120	
4-Bromofluorobenzene		0.0289	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Lunt Paddock

Work Orders : 451056,

Lab Batch #: 899575

Sample: 629004-1-BLK / BLK

Project ID: 073020

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 11:42	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.90	10.0	99	70-135	
o-Terphenyl		4.94	5.00	99	70-135	

Lab Batch #: 899507

Sample: 629048-1-BLK / BLK

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/24/12 17:13	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0258	0.0300	86	80-120	
4-Bromofluorobenzene		0.0283	0.0300	94	80-120	

Lab Batch #: 899293

Sample: 628930-1-BKS / BKS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/22/12 11:11	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0308	0.0300	103	80-120	
4-Bromofluorobenzene		0.0350	0.0300	117	80-120	

Lab Batch #: 899575

Sample: 629004-1-BKS / BKS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 10:36	SURROGATE RECOVERY STUDY				
TPH By SW8015B Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		9.39	10.0	94	70-135	
o-Terphenyl		5.94	5.00	119	70-135	

Lab Batch #: 899507

Sample: 629048-1-BKS / BKS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/24/12 16:44	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0333	0.0300	111	80-120	
4-Bromofluorobenzene		0.0301	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Lunt Paddock

Work Orders : 451056,

Project ID: 073020

Lab Batch #: 899293

Sample: 628930-1-BSD / BSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/22/12 10:30	SURROGATE RECOVERY STUDY				
		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B	Analytes					
1,4-Difluorobenzene		0.0303	0.0300	101	80-120	
4-Bromofluorobenzene		0.0351	0.0300	117	80-120	

Lab Batch #: 899575

Sample: 629004-1-BSD / BSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 11:13	SURROGATE RECOVERY STUDY				
		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015B Mod	Analytes					
1-Chlorooctane		9.91	10.0	99	70-135	
o-Terphenyl		5.91	5.00	118	70-135	

Lab Batch #: 899507

Sample: 629048-1-BSD / BSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/24/12 16:59	SURROGATE RECOVERY STUDY				
		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B	Analytes					
1,4-Difluorobenzene		0.0311	0.0300	104	80-120	
4-Bromofluorobenzene		0.0312	0.0300	104	80-120	

Lab Batch #: 899293

Sample: 450925-002 S / MS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/22/12 13:26	SURROGATE RECOVERY STUDY				
		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B	Analytes					
1,4-Difluorobenzene		0.0270	0.0300	90	80-120	
4-Bromofluorobenzene		0.0327	0.0300	109	80-120	

Lab Batch #: 899575

Sample: 451056-001 S / MS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/23/12 19:57	SURROGATE RECOVERY STUDY				
		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015B Mod	Analytes					
1-Chlorooctane		11.3	10.0	113	70-135	
o-Terphenyl		6.00	5.00	120	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Lunt Paddock

Work Orders : 451056,

Lab Batch #: 899507

Sample: 451056-004 S / MS

Project ID: 073020

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/24/12 20:28	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0303	0.0300	101	80-120	
4-Bromofluorobenzene		0.0298	0.0300	99	80-120	

Lab Batch #: 899293

Sample: 450925-002 SD / MSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/22/12 13:41	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0299	0.0300	100	80-120	
4-Bromofluorobenzene		0.0309	0.0300	103	80-120	

Lab Batch #: 899507

Sample: 451056-004 SD / MSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 10/24/12 20:43	SURROGATE RECOVERY STUDY				
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0249	0.0300	83	80-120	
4-Bromofluorobenzene		0.0273	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Project Name: Lunt Paddock

Work Order #: 451056

Analyst: KEB

Lab Batch ID: 899293

Sample: 628930-1-BKS

Date Prepared: 10/22/2012

Batch #: 1

Project ID: 073020

Date Analyzed: 10/22/2012

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.115	115	0.100	0.0968	97	17	70-125	25	
Toluene	<0.00200	0.100	0.119	119	0.100	0.0980	98	19	70-125	25	
Ethylbenzene	<0.00100	0.100	0.113	113	0.100	0.0950	95	17	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.235	118	0.200	0.198	99	17	70-131	25	
o-Xylene	<0.00100	0.100	0.117	117	0.100	0.0973	97	18	71-133	25	

Analyst: KEB

Date Prepared: 10/24/2012

Date Analyzed: 10/24/2012

Lab Batch ID: 899507

Sample: 629048-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.111	111	0.100	0.104	104	7	70-125	25	
Toluene	<0.00200	0.100	0.114	114	0.100	0.108	108	5	70-125	25	
Ethylbenzene	<0.00100	0.100	0.109	109	0.100	0.102	102	7	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.229	115	0.200	0.215	108	6	70-131	25	
o-Xylene	<0.00100	0.100	0.114	114	0.100	0.109	109	4	71-133	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes

Project Name: Lunt Paddock

Work Order #: 451056

Analyst: KEB

Lab Batch ID: 899575

Sample: 629004-1-BKS

Date Prepared: 10/23/2012

Batch #: 1

Project ID: 073020

Date Analyzed: 10/23/2012

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015B Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	<1.50	100	107	107	100	105	105	2	70-135	25	
C10-C28 Diesel Range Hydrocarbons	<1.50	100	105	105	100	104	104	1	70-135	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C) / [B]$

Blank Spike Duplicate Recovery [G] = $100 * (F) / [E]$

All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries



Project Name: Lunt Paddock

Work Order #: 451056

Lab Batch #: 899575

Date Analyzed: 10/23/2012

Date Prepared: 10/23/2012

Project ID: 073020

QC- Sample ID: 451056-001 S

Analyst: KEB

Reporting Units: mg/L

Batch #: 1

Matrix: Water

MATRIX / MATRIX SPIKE RECOVERY STUDY						
TPH by SW 8015B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
C6-C10 Gasoline Range Hydrocarbons	<1.50	100	105	105	70-135	
C10-C28 Diesel Range Hydrocarbons	<1.50	100	105	105	70-135	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$
 Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries



Project Name: Lunt Paddock

Work Order #: 451056

Project ID: 073020

Lab Batch ID: 899293

QC- Sample ID: 450925-002 S

Batch #: 1 **Matrix:** Water

Date Analyzed: 10/22/2012

Date Prepared: 10/22/2012

Analyst: KEB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0977	98	0.100	0.0988	99	1	70-125	25	
Toluene	<0.00200	0.100	0.102	102	0.100	0.100	100	2	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0965	97	0.100	0.0959	96	1	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.201	101	0.200	0.199	100	1	70-131	25	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.102	102	1	71-133	25	

Lab Batch ID: 899507

QC- Sample ID: 451056-004 S

Batch #: 1 **Matrix:** Water

Date Analyzed: 10/24/2012

Date Prepared: 10/24/2012

Analyst: KEB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00100	0.100	0.0983	98	0.100	0.0884	88	11	70-125	25	
Toluene	<0.00200	0.100	0.102	102	0.100	0.0895	90	13	70-125	25	
Ethylbenzene	<0.00100	0.100	0.0961	96	0.100	0.0850	85	12	71-129	25	
m,p-Xylenes	<0.00200	0.200	0.199	100	0.200	0.173	87	14	70-131	25	
o-Xylene	<0.00100	0.100	0.101	101	0.100	0.0901	90	11	71-133	25	

Matrix Spike Percent Recovery [D] = $100*(C-A)/B$
 Relative Percent Difference RPD = $200*(|C-F|/(C+F))$

Matrix Spike Duplicate Percent Recovery [G] = $100*(F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



- 4143 Greenbriar Drive, Stafford, TX 77477 **281-240-4200**
- 5332, Blackberry Drive, San Antonio, TX 78238 **210-509-3334**
- 9701 Harry Hines Blvd., Dallas, TX 75220 **214-902-0300**

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

12600 West I-20 East, Odessa, TX 79765 **432-563-1800**
 842 Cantwell, Corpus Christi, TX 78408 **361-8840371**

Serial #: 307597 Page 1 of 2

Preservatives: Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asbc Acid&NaOH (A), ZnAc&NaOH (Z), (Cool, <4C) (C), None (NA), See Label (L), Other (O)
Cont. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (40), 1L (1), 500ml (5), Tedlar Bag (B), Various (V), Other _____ **Cont. Type:** Glass Amb (A), Glass Clear (C), Plastic (P), Various (V)

Matrix: Air (A), Product (P), Solid (S), Water (W), Liquid (L)

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ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

12600 West I-20 East, Odessa, TX 79765 **432-563-1800**
 842 Cantwell, Corpus Christi, TX 78408 **361-8840371**

Serial #: 307599 Page 2 of 2

Preservatives: Various (V), HCl pH<2 (H), H₂SO₄ pH<2 (S), HNO₃ pH<2 (N), Asbc Acid&NaOH (A), ZnAc&NaOH (Z), (Cool, <4C) (C), None (NA), See Label (L), Other (O) _____
Cont. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (40), 1L (1), 500ml (5), Tedlar Bag (B), Various (V), Other _____ **Cont. Type:** Glass Amb (A), Glass Clear (C), Plastic (P), Various (V)

Journal of Quality Engineering, Vol. 27, No. 1, March 2015, pp. 1–14
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Matrix: Air (A), Product (P), Solid (S), Water (W), Liquid (L)

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Prelogin/Nonconformance Report- Sample Log-In**Client:** Conestoga Rovers & Associates**Acceptable Temperature Range: 0 - 6 degC****Date/ Time Received:** 10/19/2012 10:31:00 AM**Air and Metal samples Acceptable Range: Ambient****Work Order #:** 451056**Temperature Measuring device used :**

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Sample instructions complete on Chain of Custody?	Yes
#9 Any missing/extra samples?	No
#10 Chain of Custody signed when relinquished/ received?	Yes
#11 Chain of Custody agrees with sample label(s)?	Yes
#12 Container label(s) legible and intact?	Yes
#13 Sample matrix/ properties agree with Chain of Custody?	Yes
#14 Samples in proper container/ bottle?	Yes
#15 Samples properly preserved?	Yes
#16 Sample container(s) intact?	Yes
#17 Sufficient sample amount for indicated test(s)?	Yes
#18 All samples received within hold time?	Yes
#19 Subcontract of sample(s)?	Yes
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	Yes
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	Yes
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: _____ | PH Device/Lot#: _____

Checklist completed by: _____

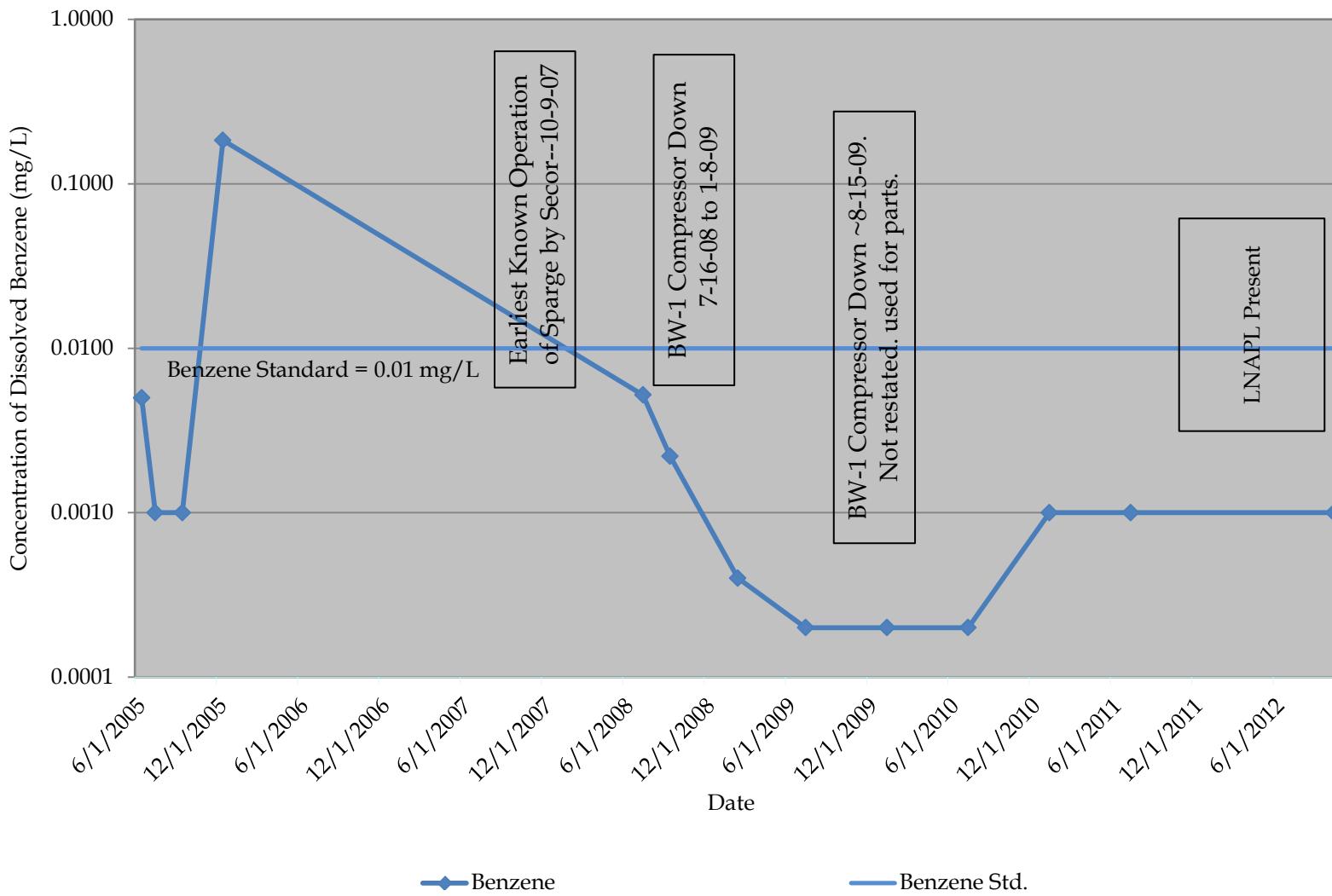
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Checklist reviewed by: _____

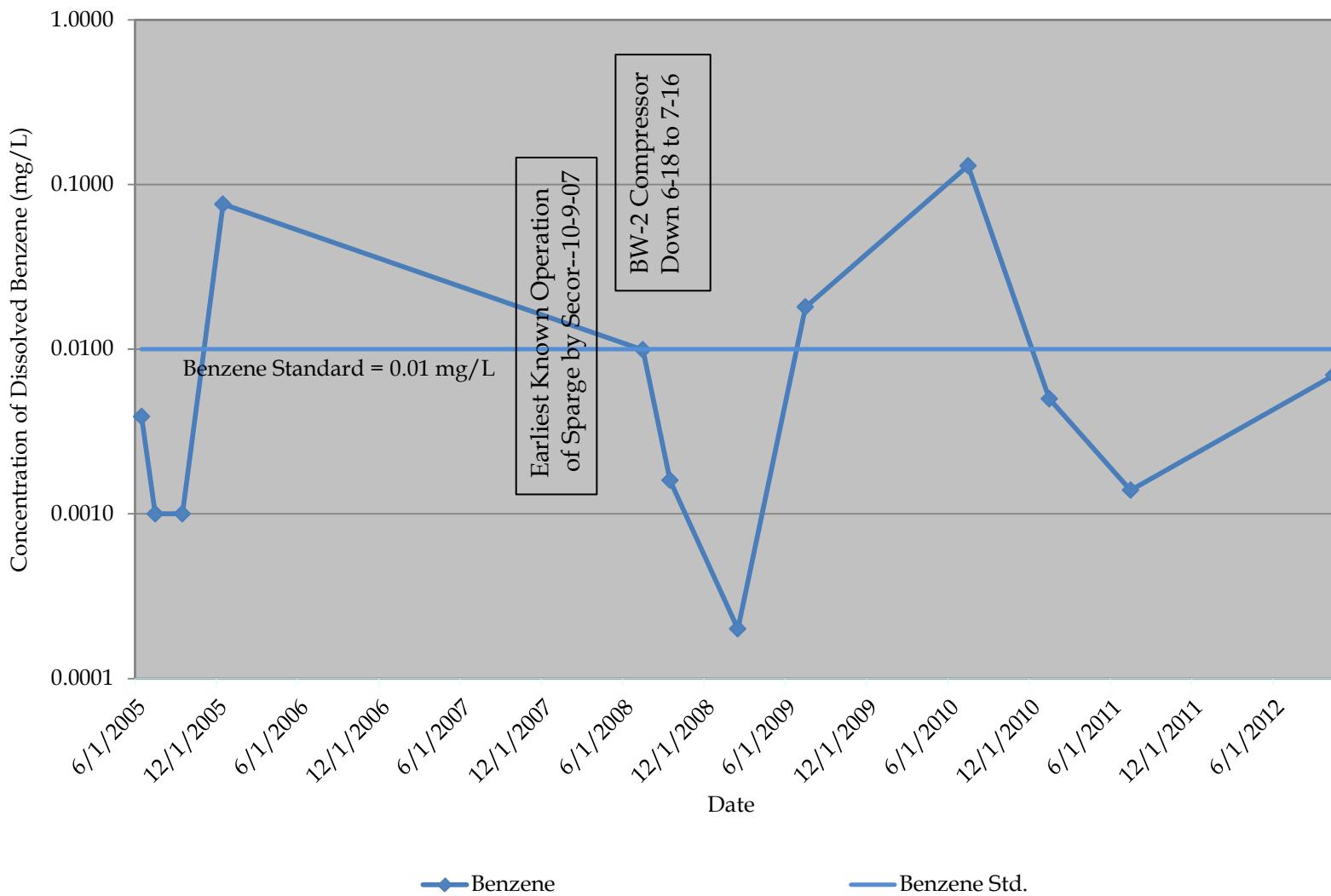
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APPENDIX B

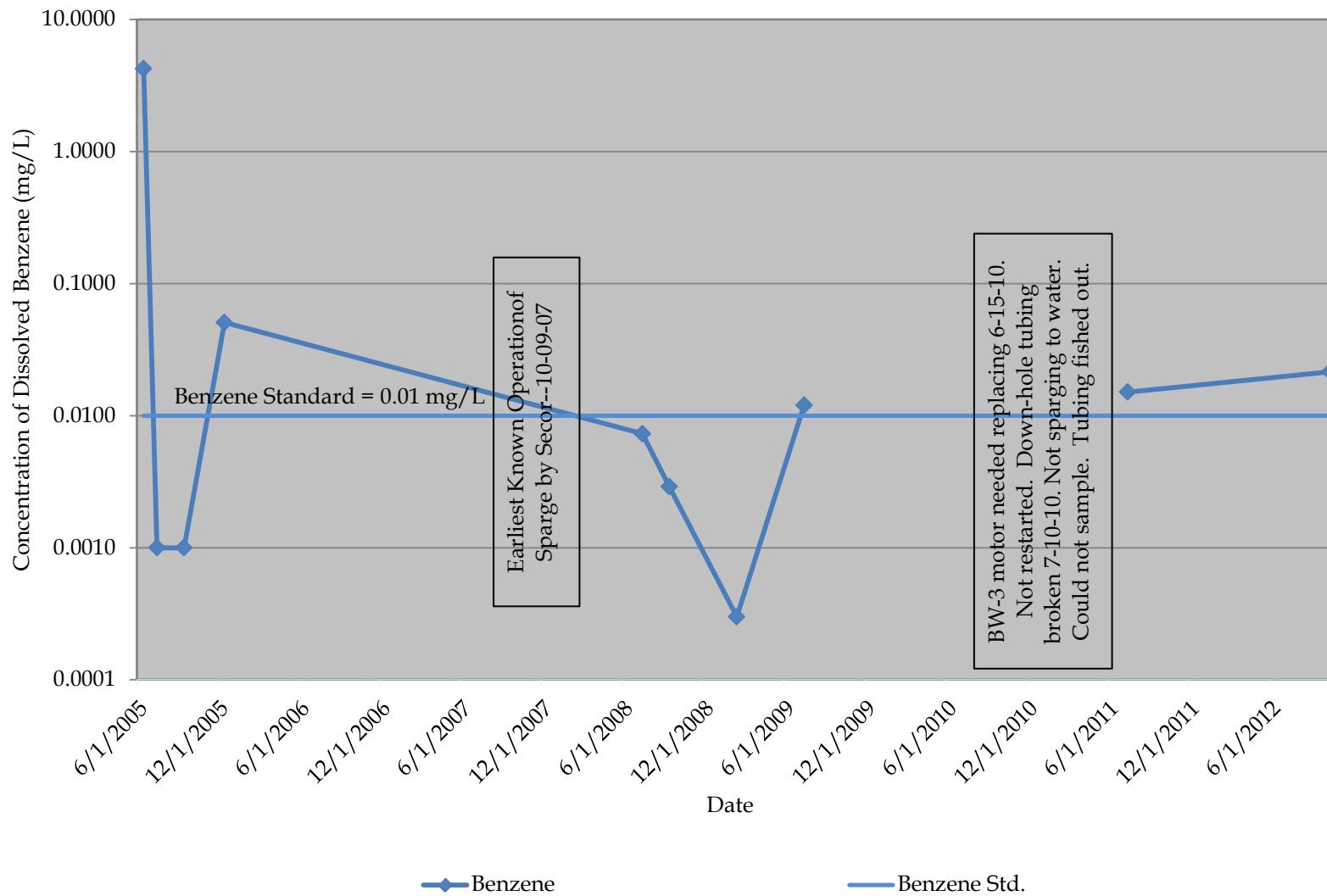
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
BW-1



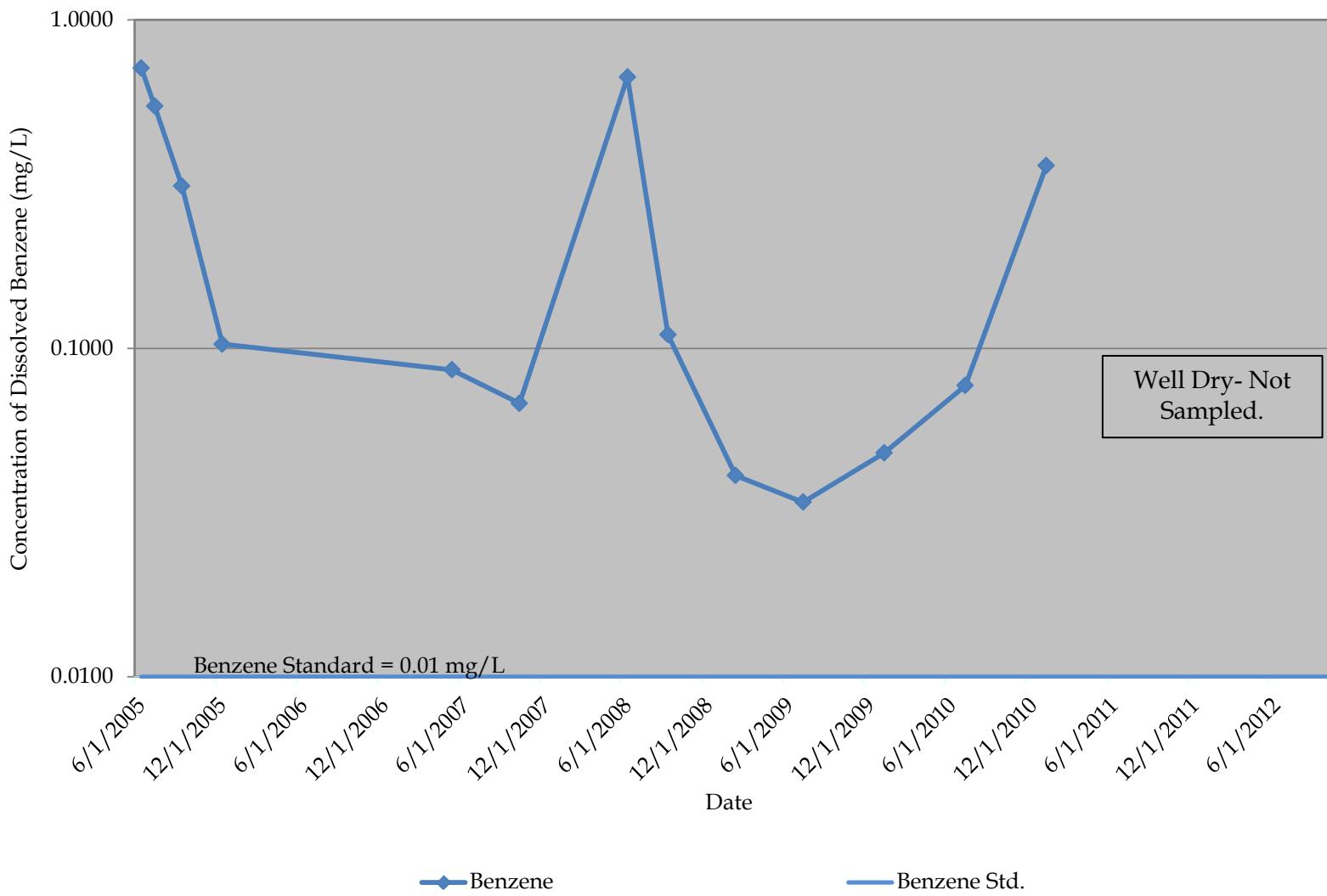
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Section 1-T17S-R36E, Lea County, NM
BW-2



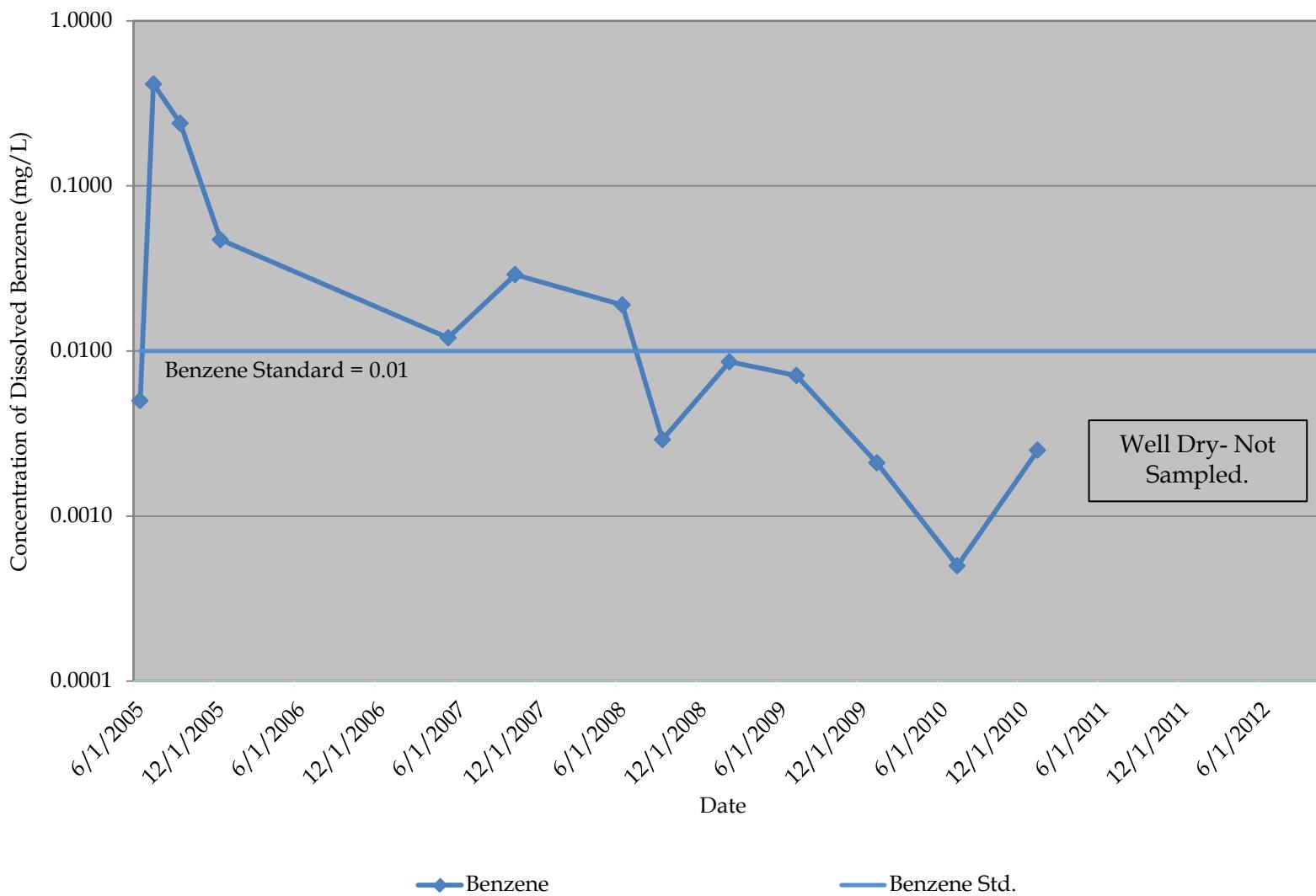
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Section 1-T17S-R36E, Lea County, NM
BW-3



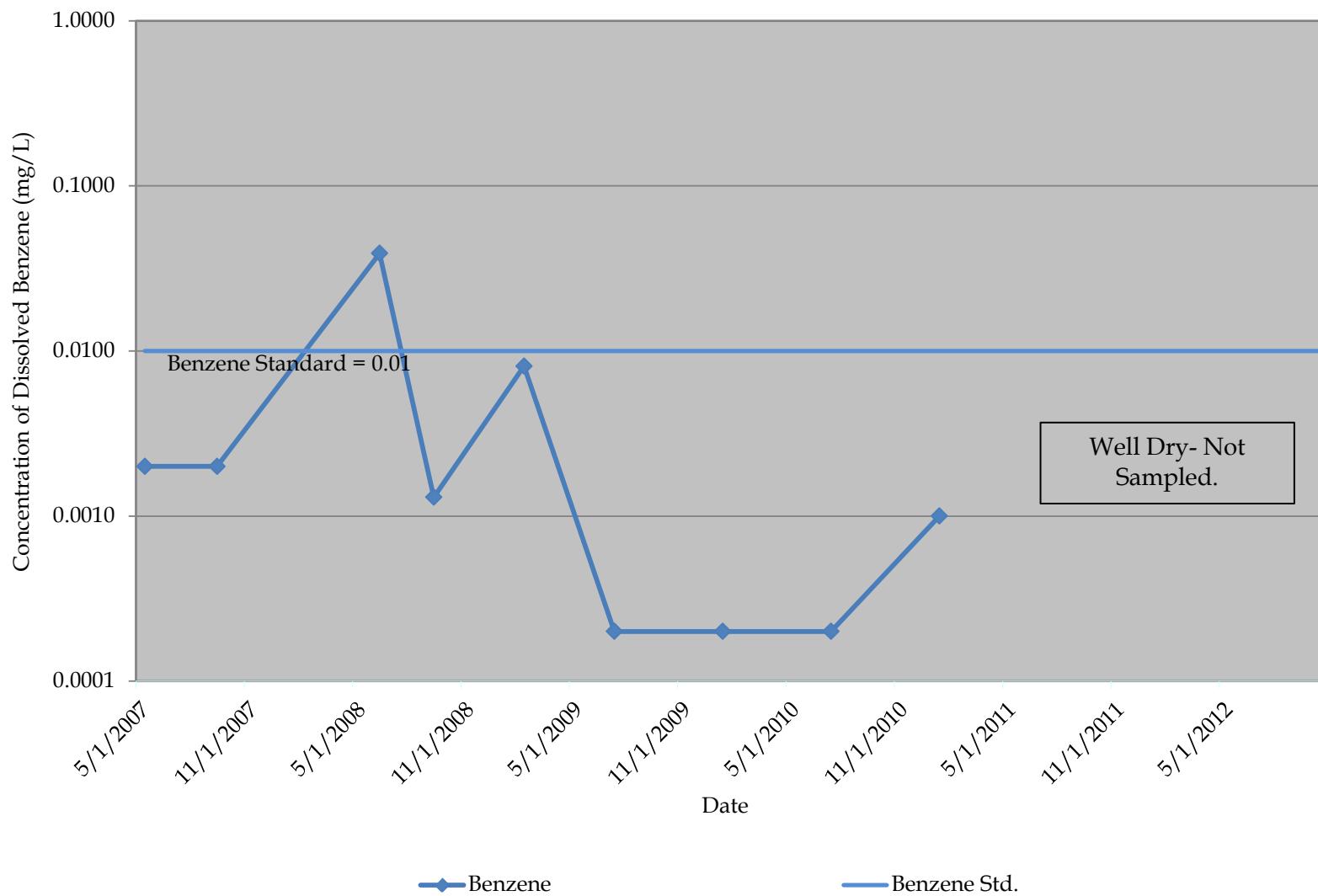
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Section 1-T17S-R36E, Lea County, NM
MW-B



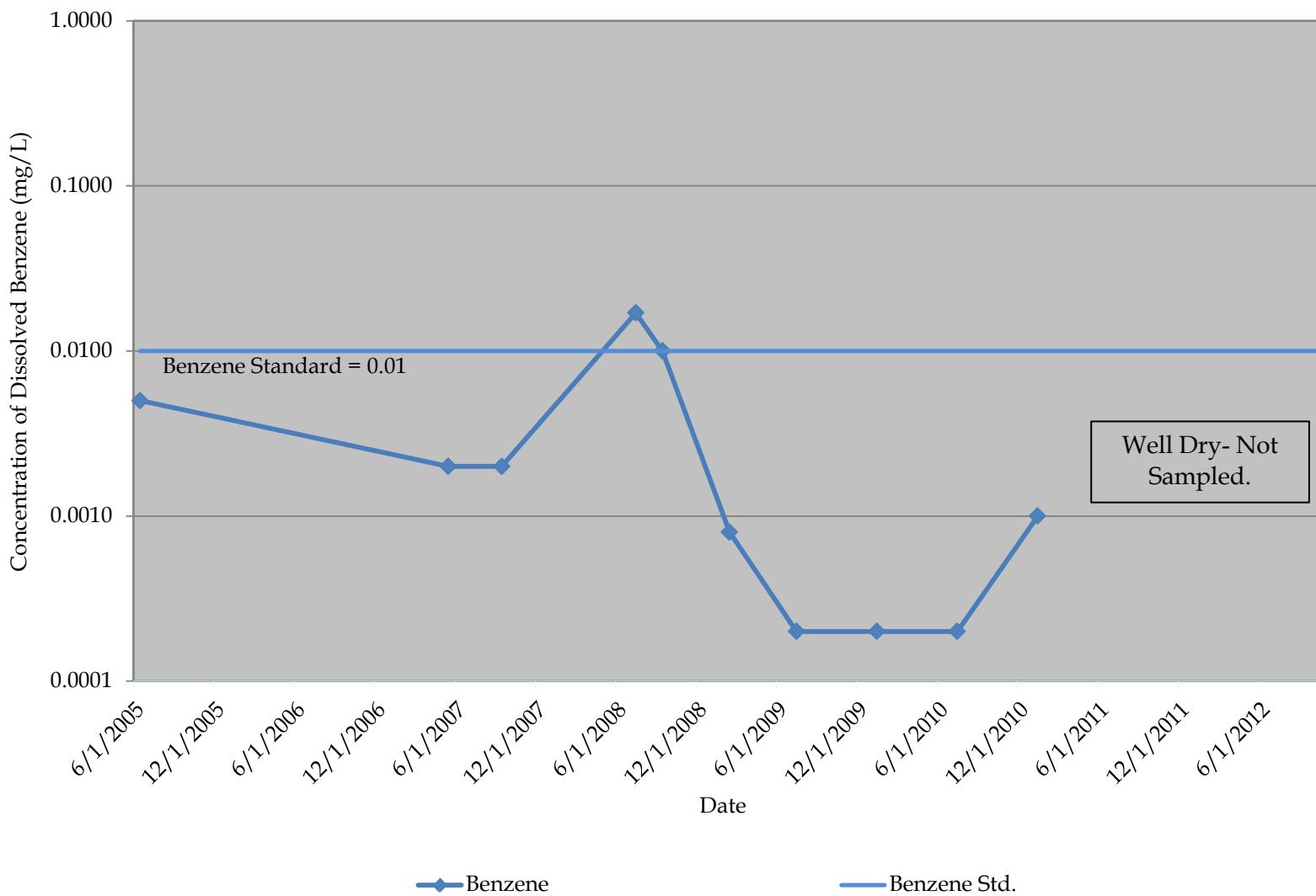
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Section 1-T17S-R36E, Lea County, NM
MW-C



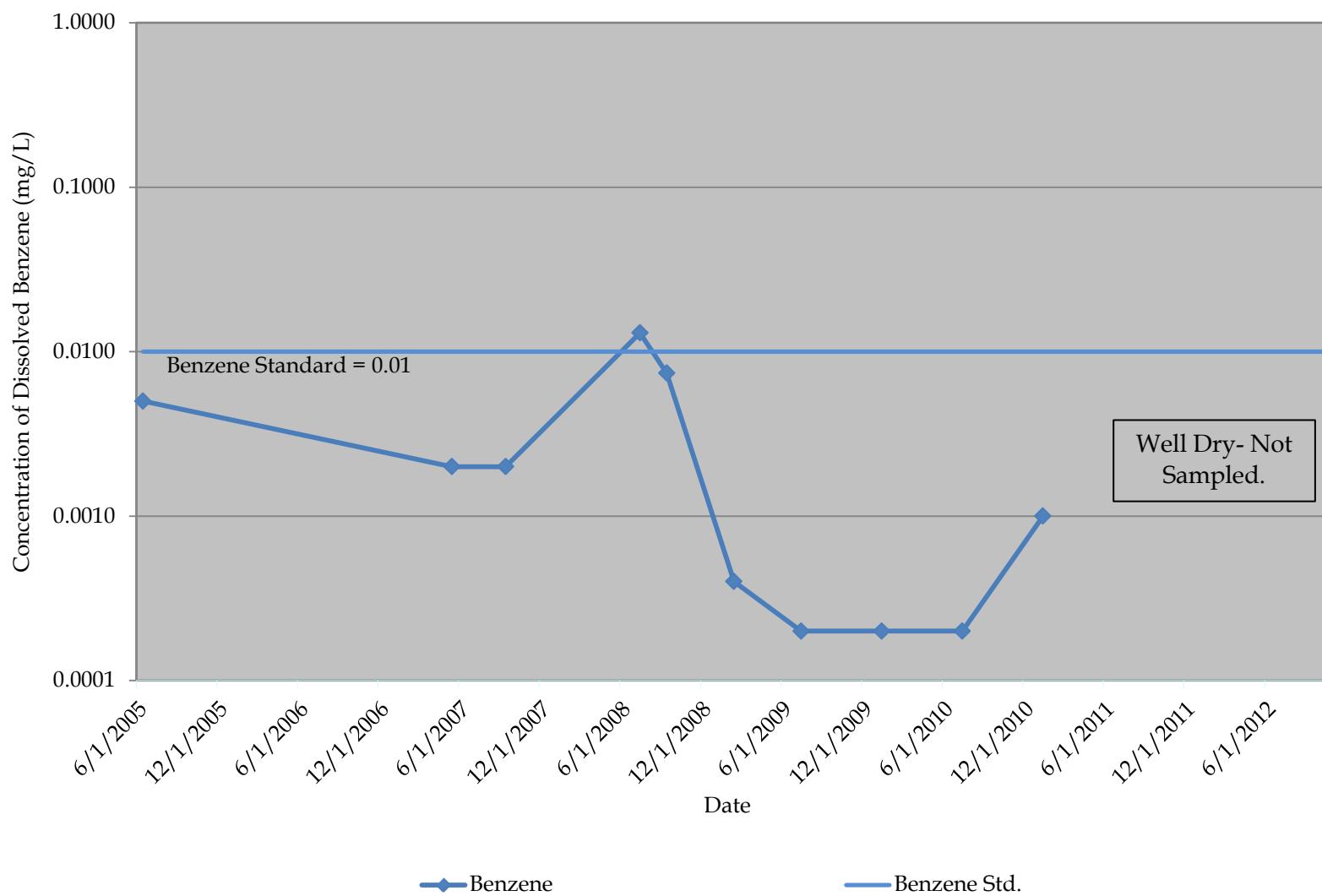
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Section 1-T17S-R36E, Lea County, NM
MW-D



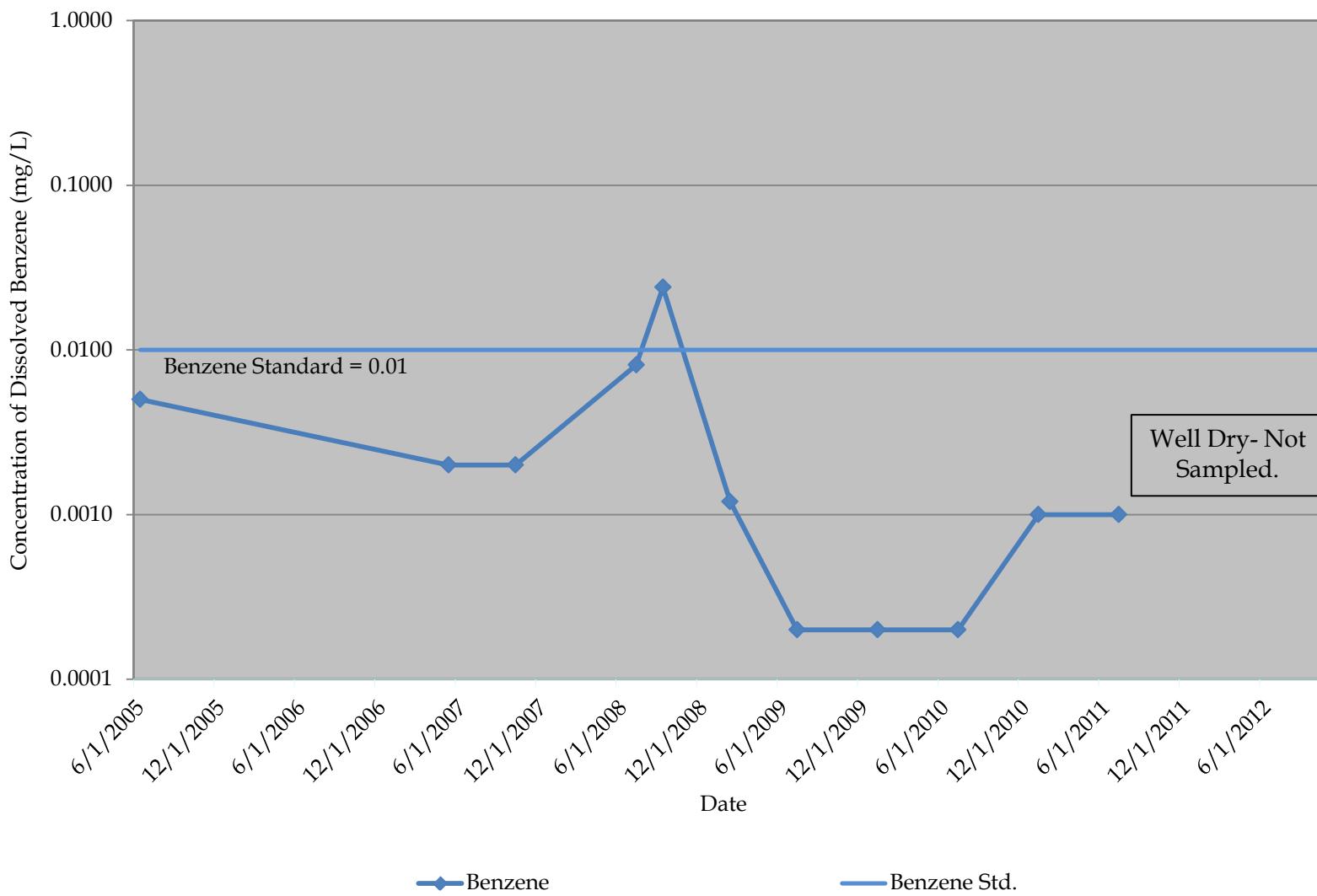
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Section 1-T17S-R36E, Lea County, NM
MW-E



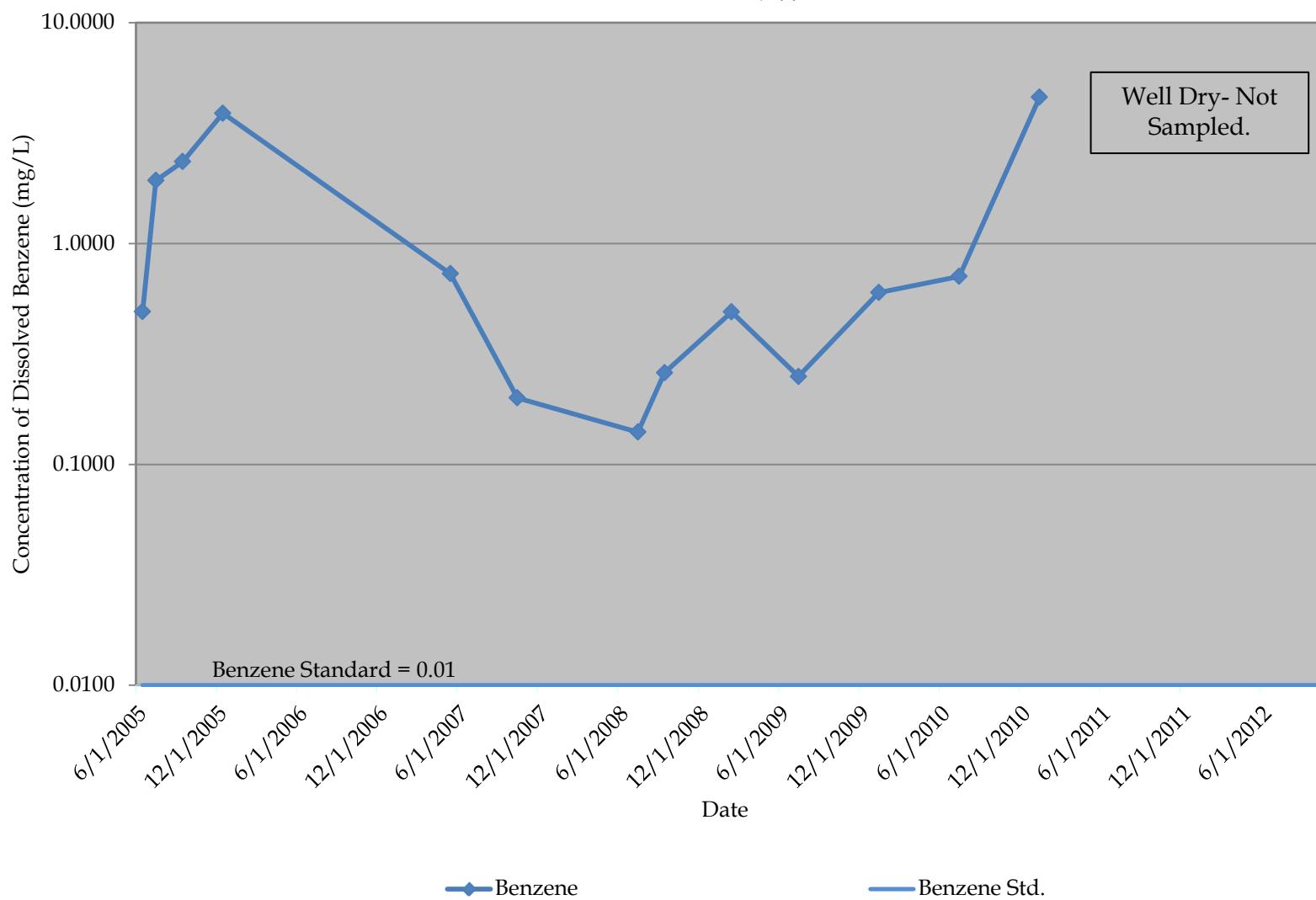
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Section 1-T17S-R36E, Lea County, NM
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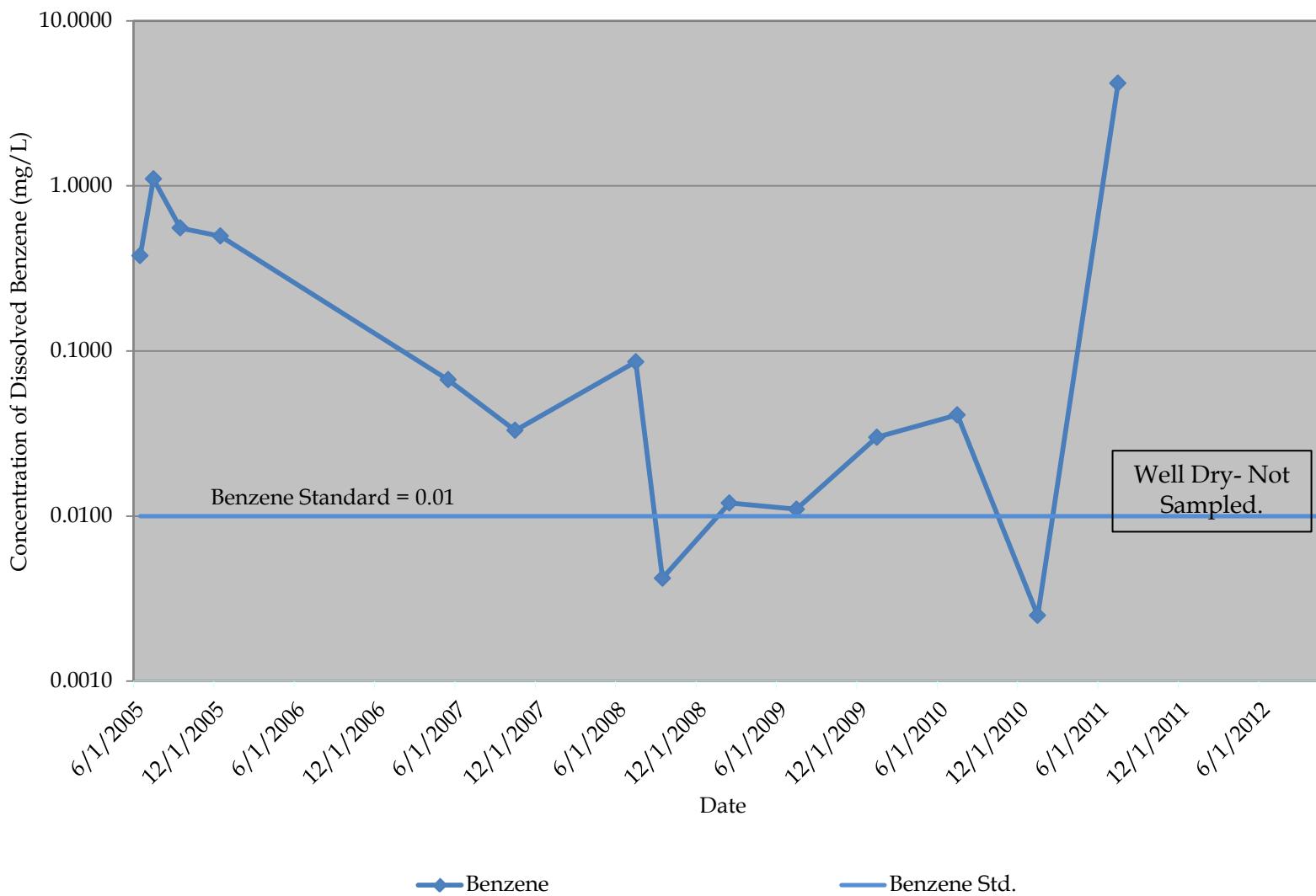
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Section 1-T17S-R36E, Lea County, NM
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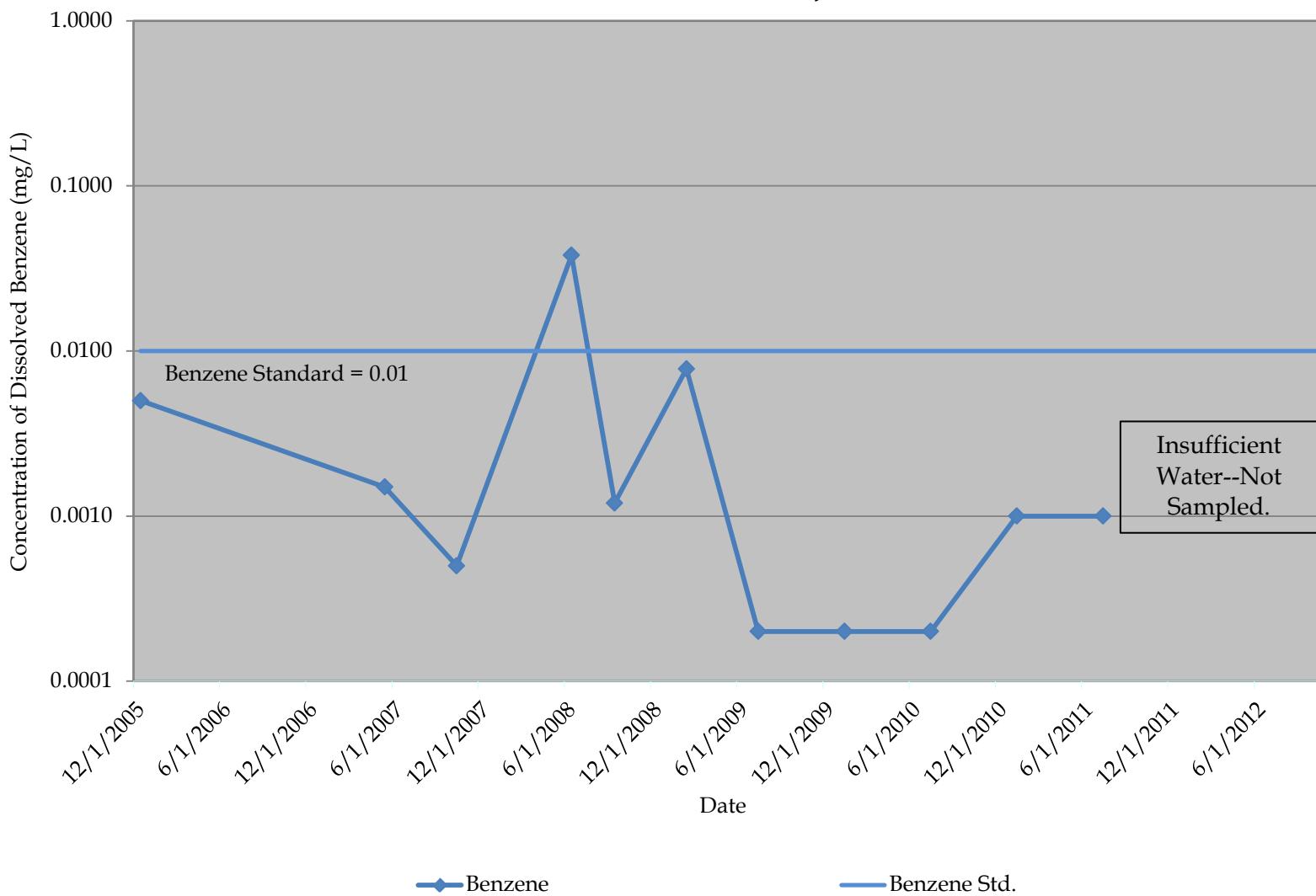
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
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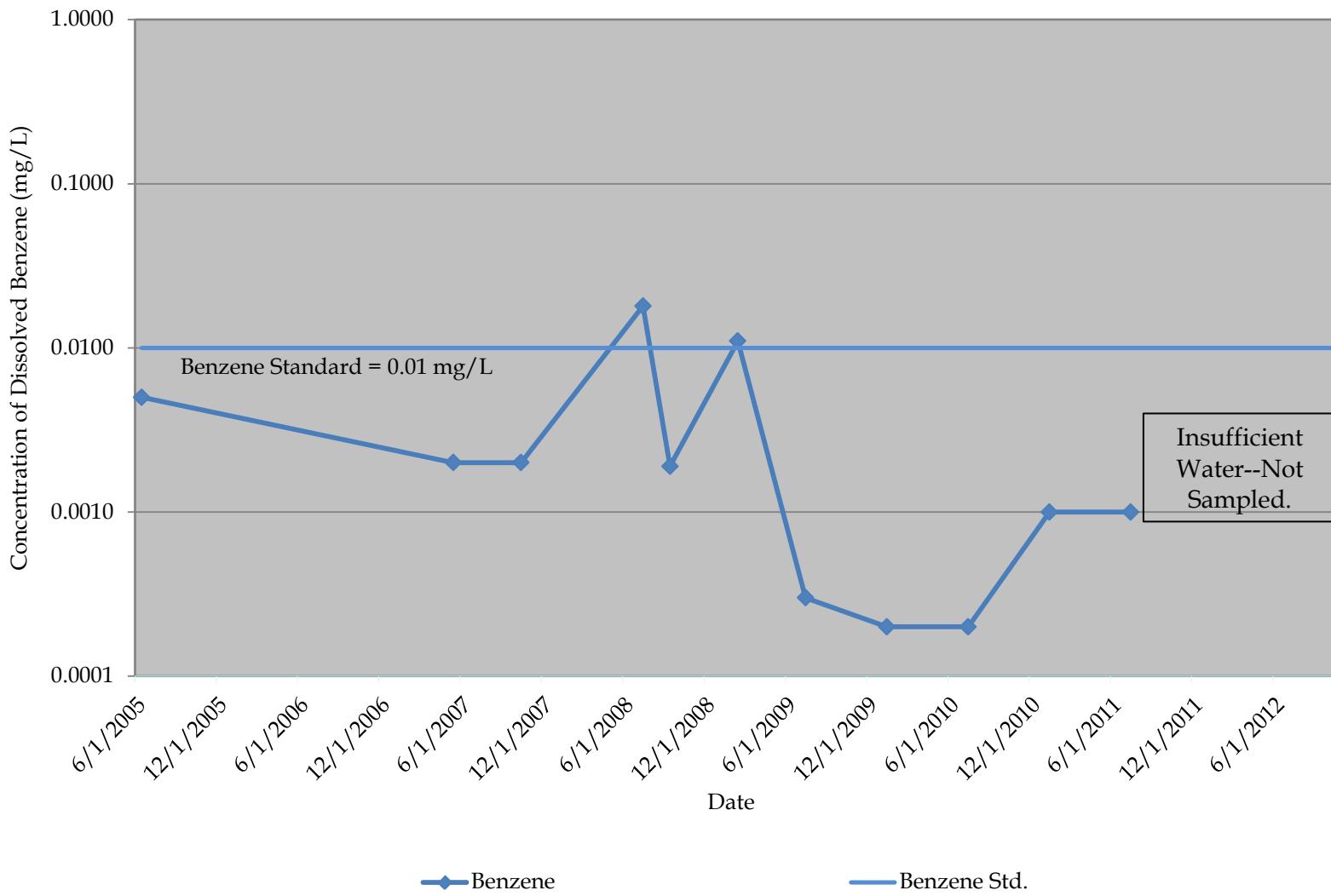
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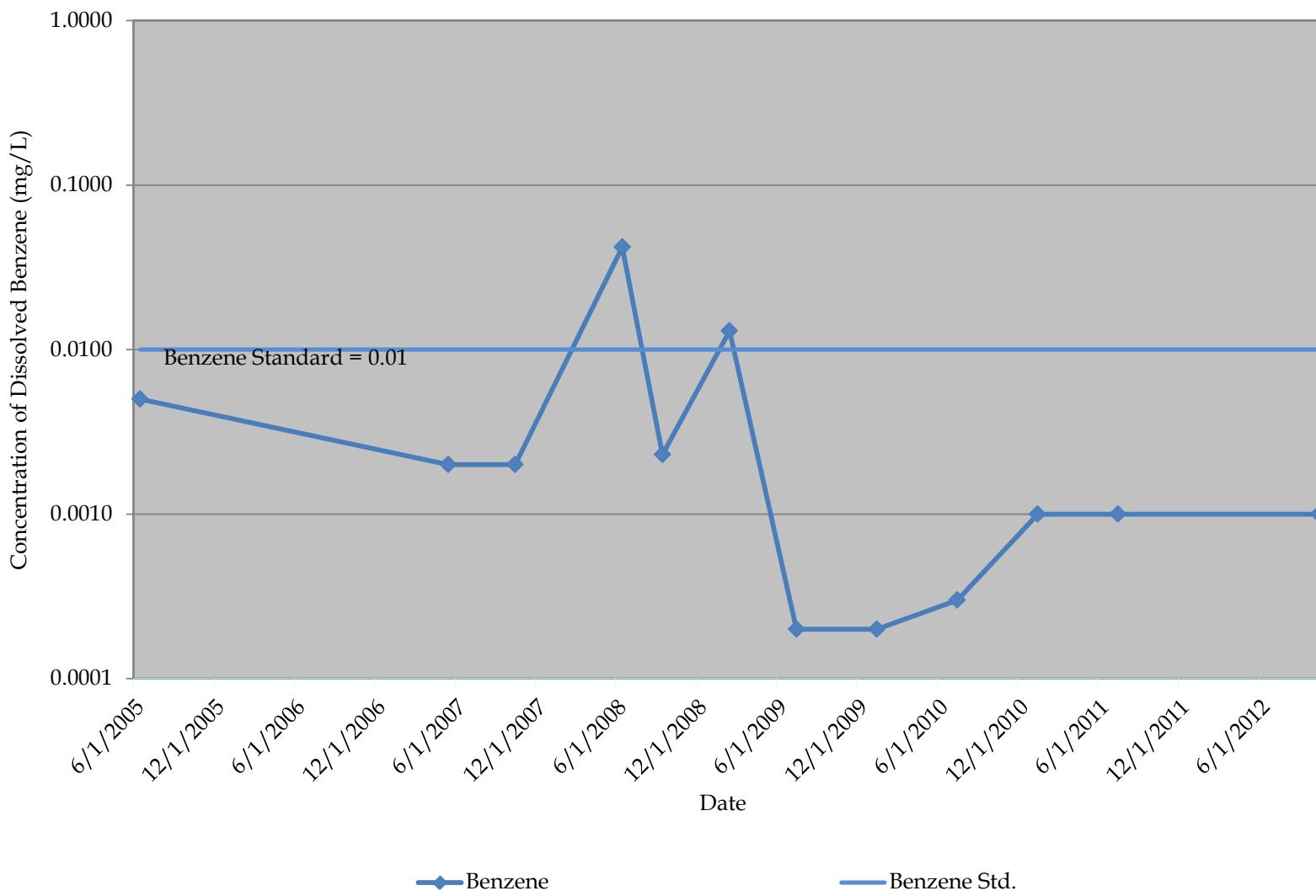
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-J



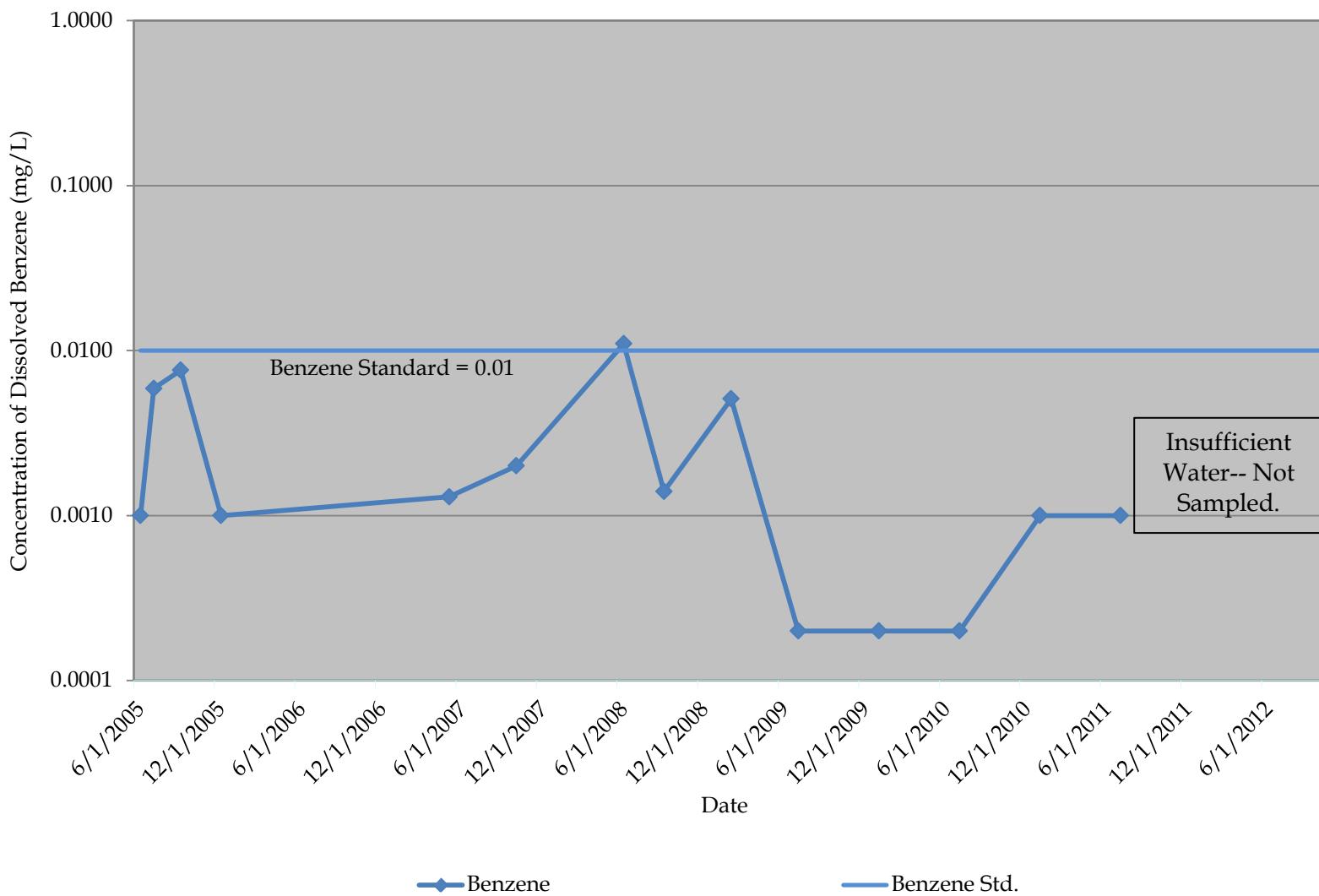
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-L



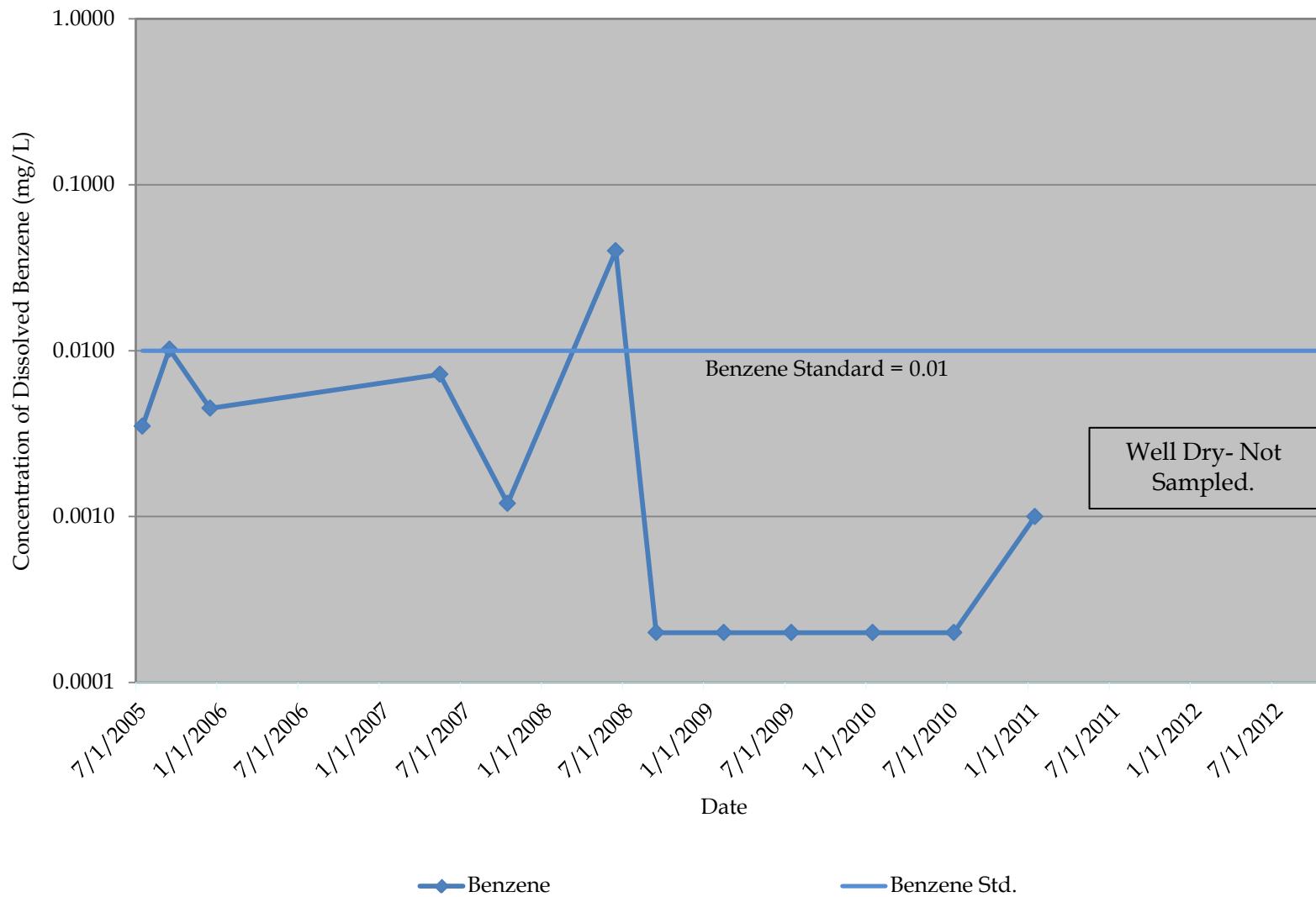
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-M



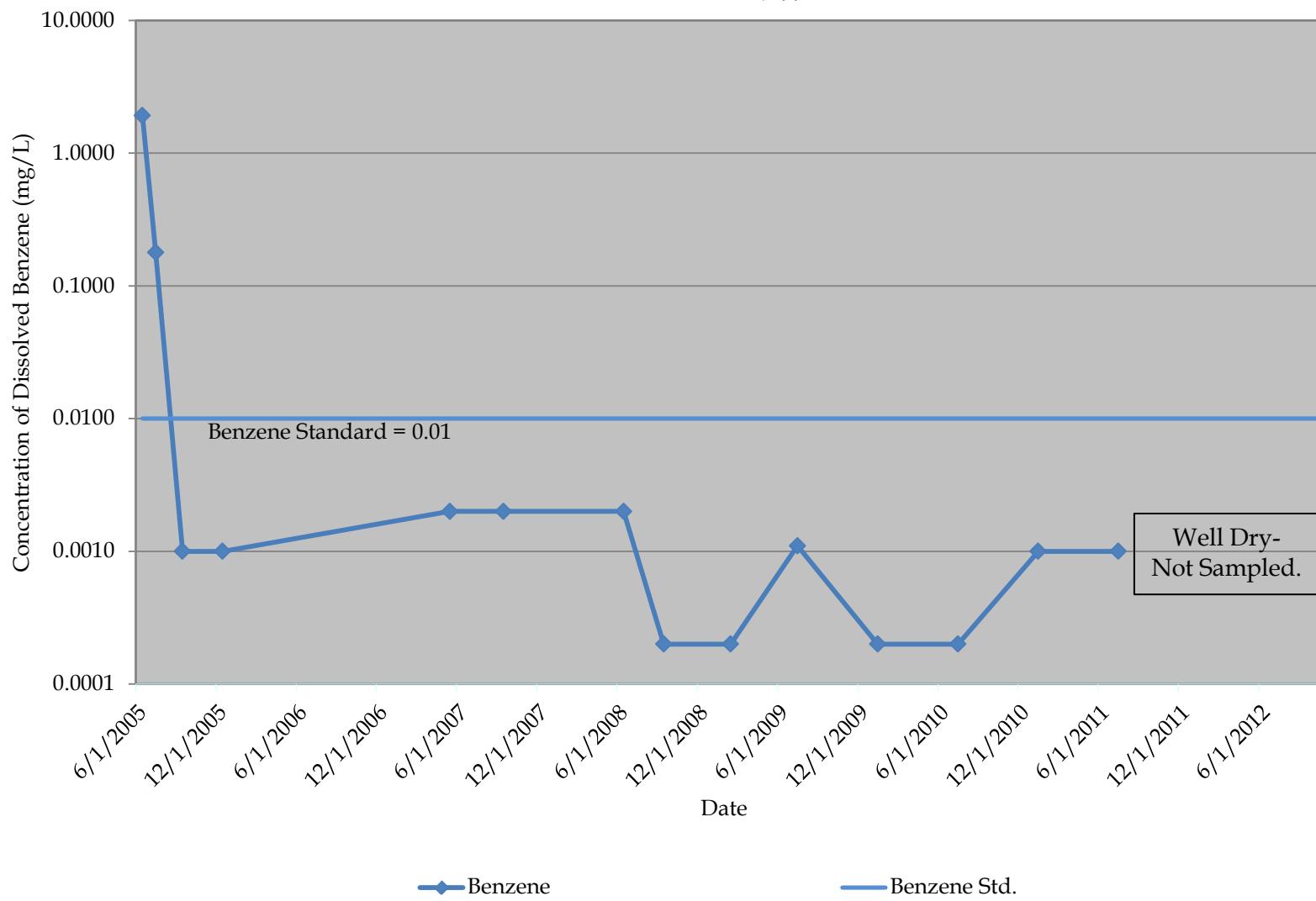
Chevron Environmental Management Company
Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-N



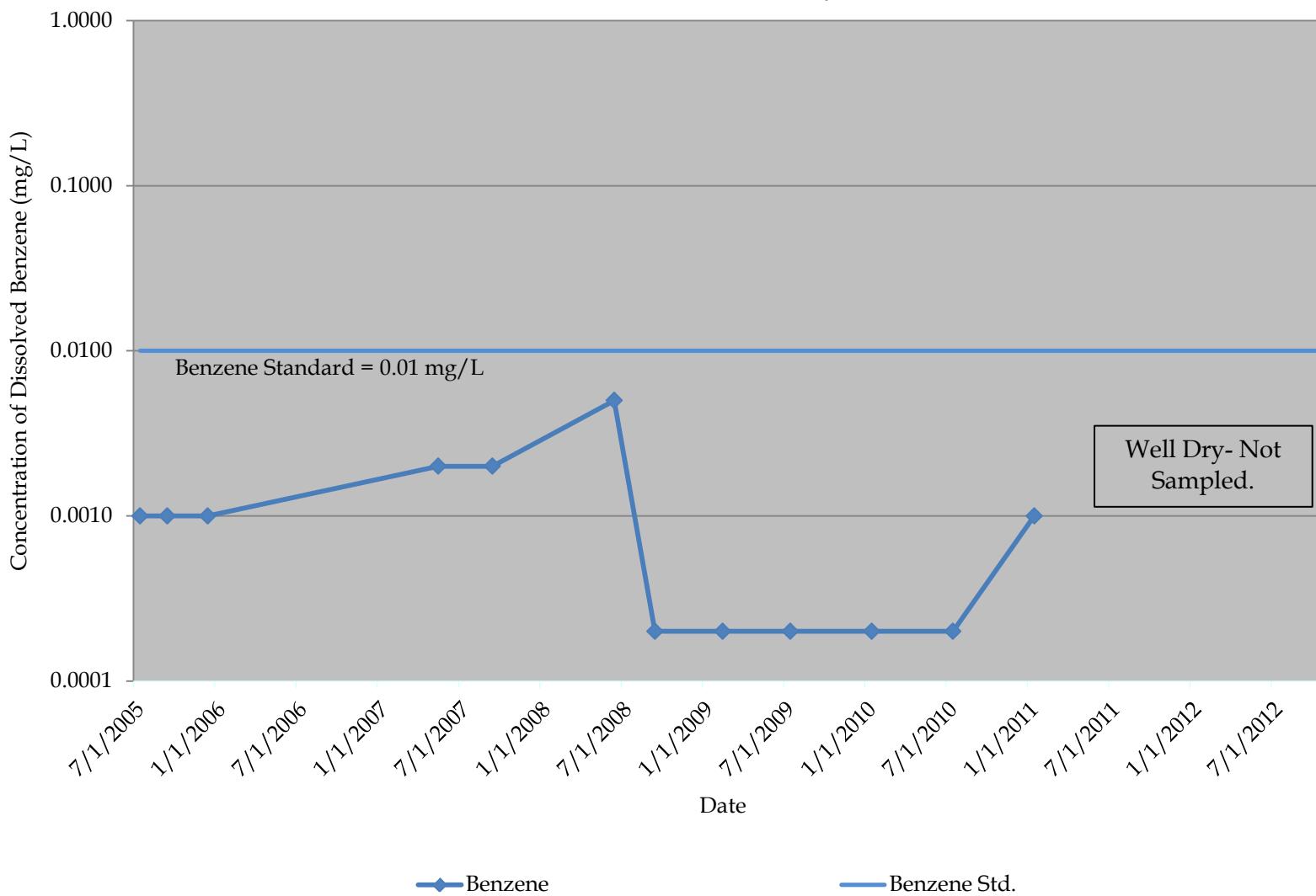
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-O



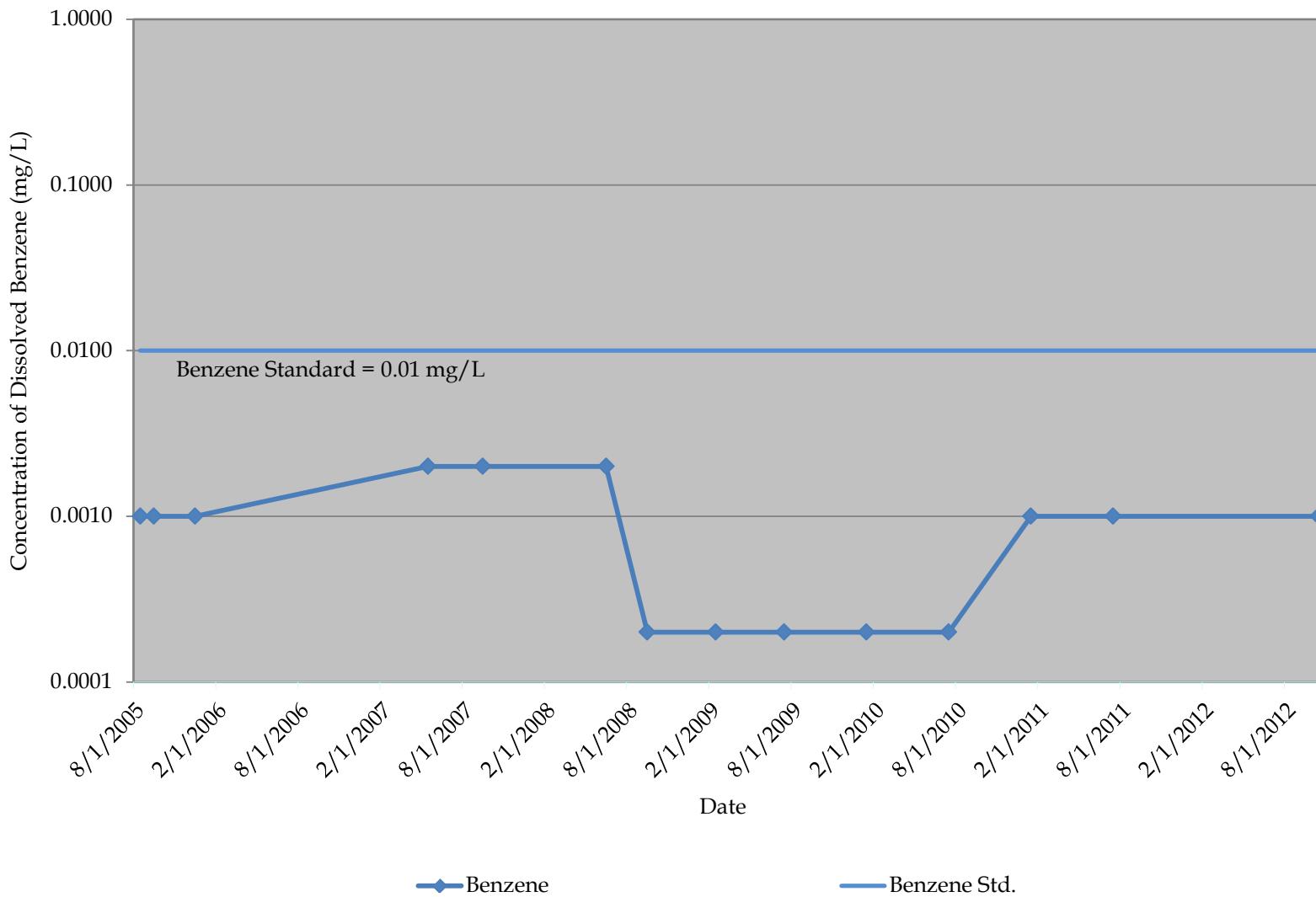
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-P



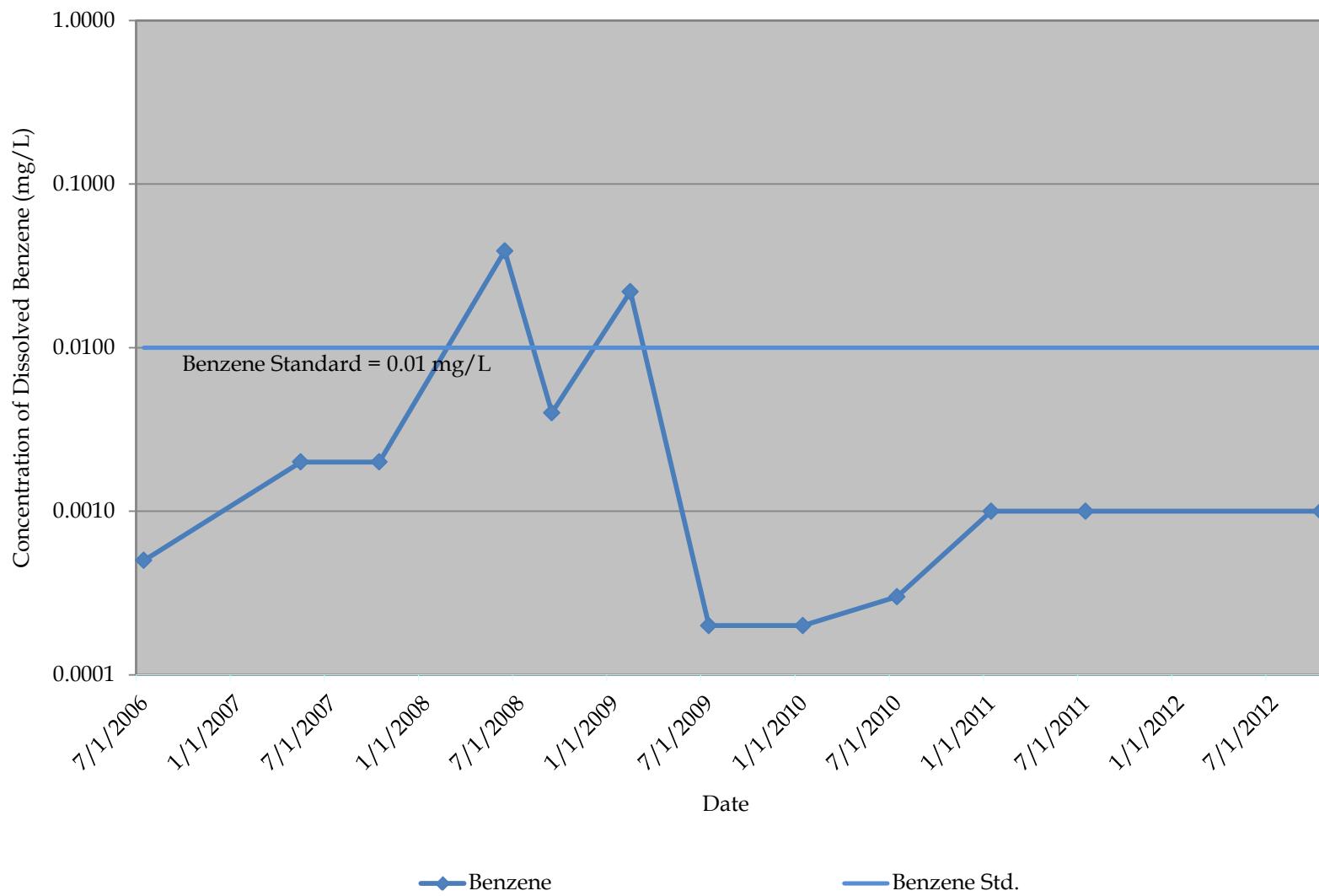
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-Q



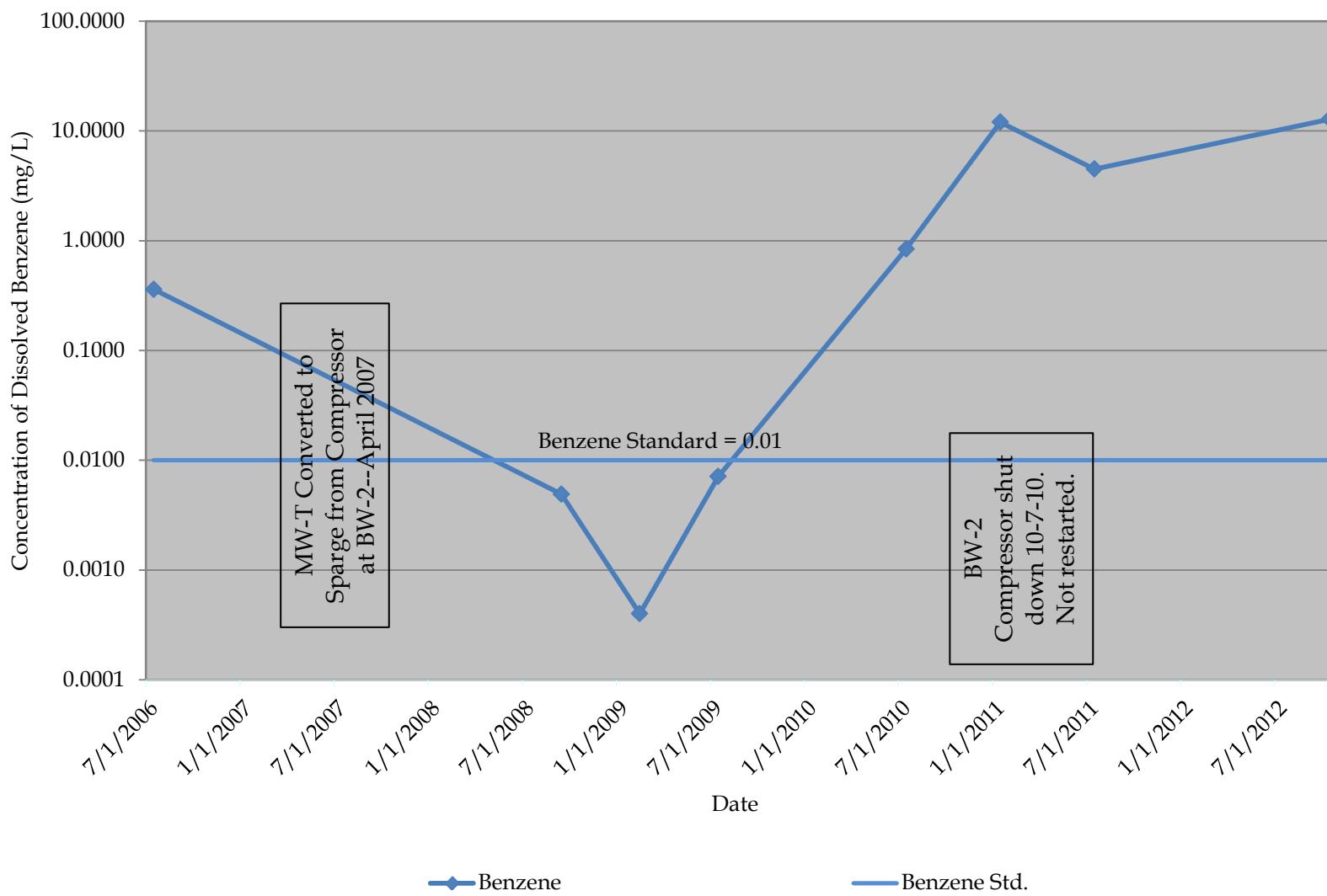
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-R



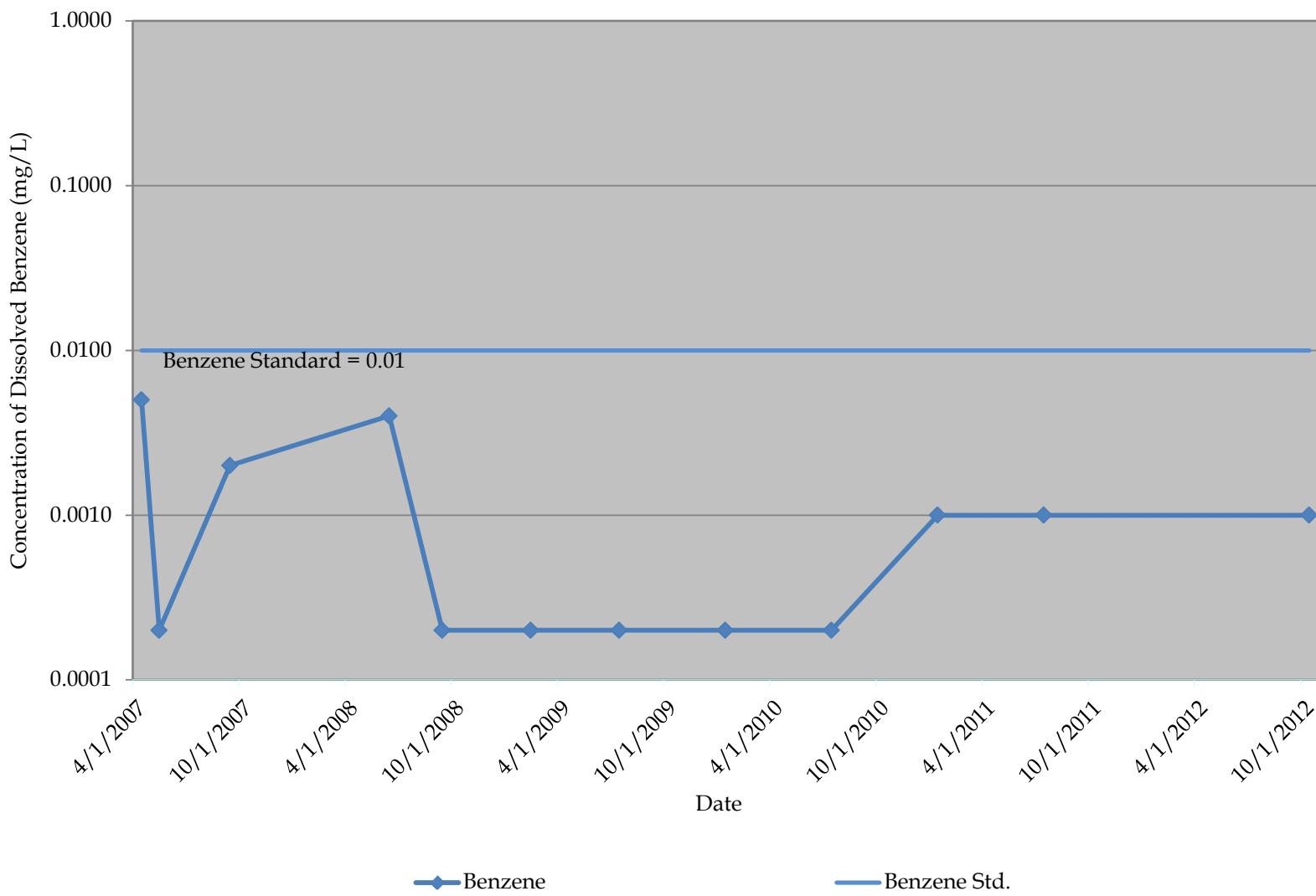
Chevron Environmental Management Company
Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-S



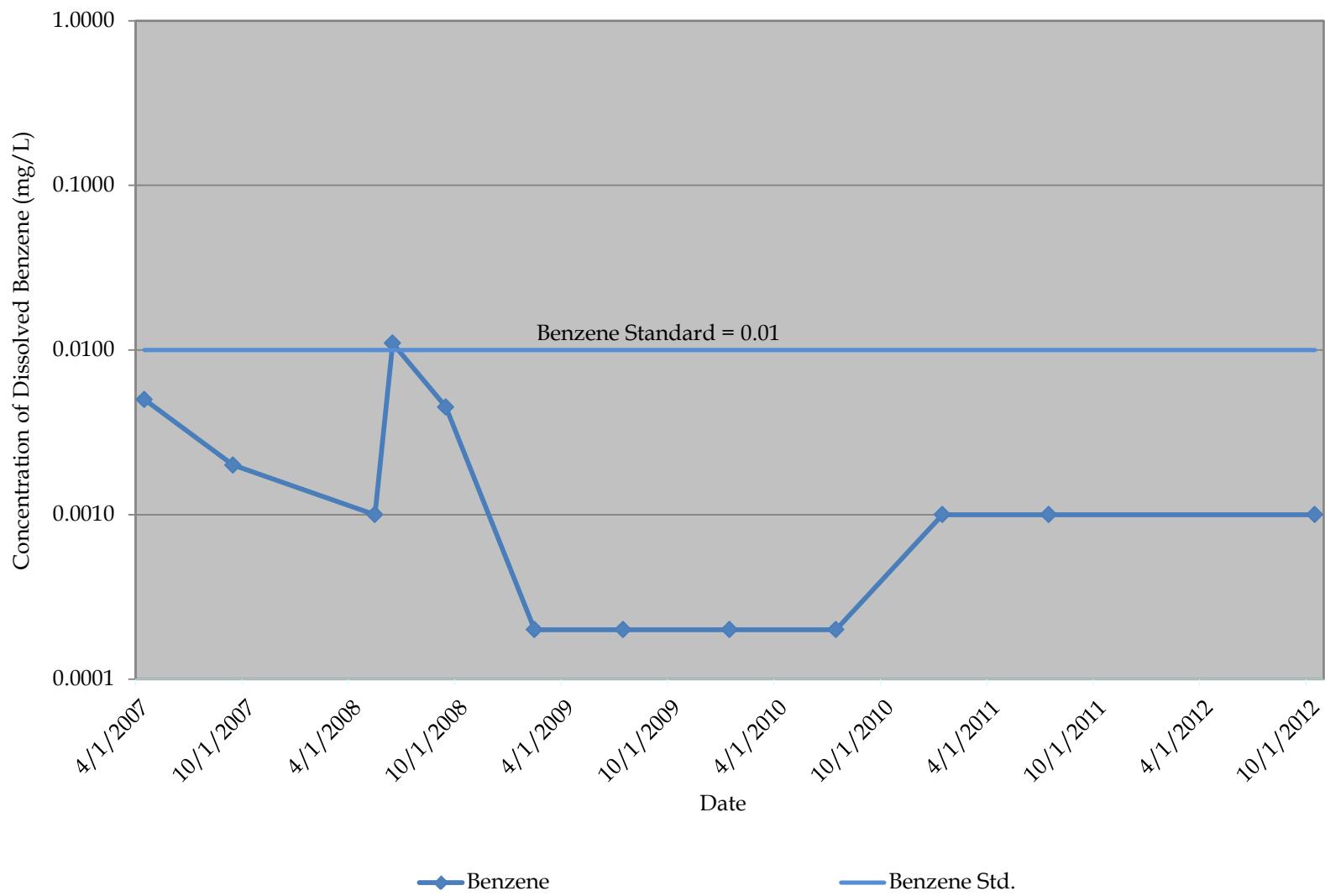
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Lovington Paddock Groundwater Remediation Site
Section 1-T17S-R36E, Lea County, NM
MW-T



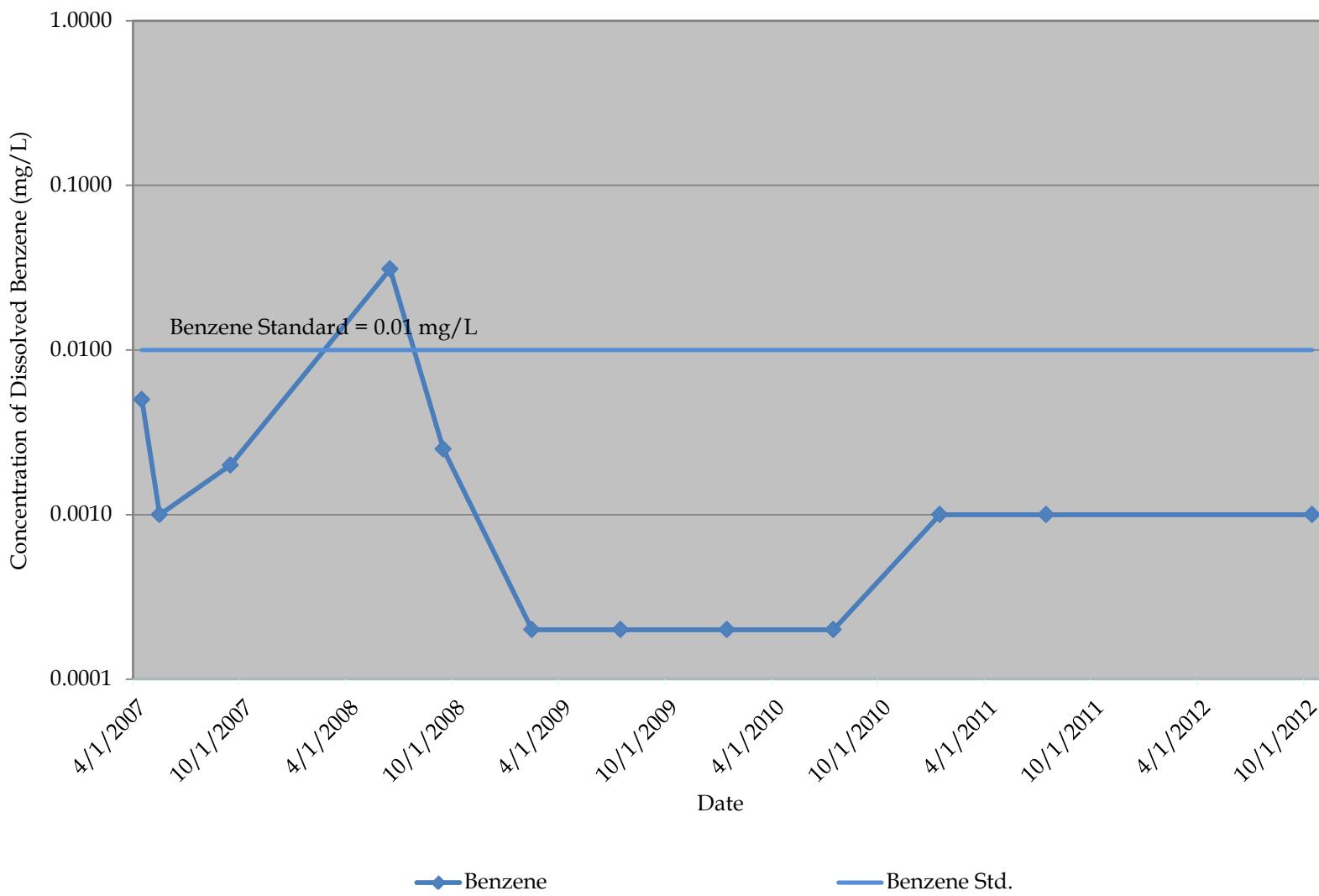
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Section 1-T17S-R36E, Lea County, NM
MW-U



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MW-W



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MW-D2

