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June 2, 2011

Project No. 105521.009005.000000

Mr. Steven Lindblom, P.G.  
Environmental Supervisor, Eastern Colorado  
Colorado Oil and Gas Conservation Commission  
1120 Lincoln Street, Suite 801  
Denver, Colorado 80203

**RE: 2011 Water Quality Monitoring Program Reports  
Pan Energy Project/Wattenberg Natural Gas Gathering System  
Dogan, Fort Lupton, Hambert, Vollmar, Brighton, Hudson Stations  
COGCC Remediation Nos. 1, 17, 18, 19, 20 and 21**

Dear Mr. Lindblom:

Enclosed are the 2011 Water Quality Monitoring Reports for the Dogan, Fort Lupton, Hambert, Vollmar, Brighton and Hudson Stations in the Wattenberg Natural Gas Gathering System. We have enclosed two hard copies and a CD of each report. TRC Companies, Inc. (TRC) is addressing historical releases at these sites in accordance with the 2001 Exit Strategy® contract between Pan Energy Corporation (PEC) and TRC. The mitigation of these releases is governed by the 1992 Compliance Order between PEC and the Colorado Oil and Gas Conservation Commission (COGCC).

TRC completed the field portion of the 2011 monitoring program April 11 - 18, 2011. Based on the laboratory analytical results, hydrocarbon concentrations in the shallow groundwater continue to decline, and the plumes are stable and/or shrinking. The monitoring results also show that, for sites where small amounts of residual free product have historically been present, the enhanced fluid recovery (EFR) conducted in 2009 and 2010 has either removed or substantially recovered the product present.

Please note that Bill Hendrix is now working with me as the Project Manager for these sites. You can reach Bill (303-395-4088) or me (303-395-4021) with any questions about these reports.

Sincerely,

Scott Reed  
Principal

Bill Hendrix  
Sr. Project Manager

Enclosures

cc: Phil Deisch, Spectra Energy  
Ed Schicktanz, Anadarko Petroleum  
Thomas Cross, Chartis Insurance  
William Berig (Hambert Station only)  
Ron Bock, TRC  
TRC Project File 105521

# 2011 WATER QUALITY MONITORING REPORT



## **Fort Lupton Station** **Wattenberg Natural Gas Gathering System** **Weld County, Colorado** **COGCC Remediation No. 17**

Prepared for:



**Colorado Oil and Gas Conservation Commission**  
**Denver, Colorado**

Prepared by:



**TRC Companies, Inc.**  
**Littleton, Colorado**

**June 2011**

# **2011 WATER QUALITY MONITORING REPORT**

## **Fort Lupton Station Wattenberg Natural Gas Gathering System Weld County, Colorado COGCC Remediation No. 17**

Prepared for:



**Colorado Oil and Gas Conservation Commission  
1120 Lincoln Street, Suite 801  
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7761 Shaffer Parkway, Suite 100  
Littleton, Colorado 80127**

**TRC Project No. 105521.0000.0000**

**June 2011**

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## ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, xylenes
CBSGW	Colorado Basic Standards for Groundwater
COGCC	State of Colorado Oil and Gas Conservation Commission
DO	dissolved oxygen
EFR	enhanced fluid recovery
EPA	United States Environmental Protection Agency
ft	feet, or foot
L	liter
LNAPL	light non-aqueous phase liquid
MNA	monitored natural attenuation
ORP	oxidation/reduction potential
TRC	TRC Companies, Inc.
µg	microgram

## **1.0 INTRODUCTION**

This report presents the results of the April 2011 groundwater quality monitoring event at the Fort Lupton Compressor Station (hereafter “Fort Lupton Station”). The Fort Lupton Station is located approximately five miles northeast of the town of Fort Lupton (Figure 1). The scope of work for this fluid level and water quality monitoring program is provided in the Long-Term Monitored Natural Attenuation (MNA) Work Plan (TRC, 2009), and is conducted annually as directed by the Colorado Oil and Gas Conservation Commission (COGCC) in its letter dated August 9, 2010 (COGCC, 2010).

The water quality monitoring program was designed to document that natural attenuation is continuing to occur, and that the dissolved phase plume is stable and/or shrinking. The data are used to evaluate trends over time and gauge progress towards completing the MNA remedy in the approved Remediation Plan (Golder, 1993).

## 2.0 METHODOLOGY

The 2011 monitoring event included both well gauging and the collection of groundwater samples for laboratory analysis. Select wells at the facility were gauged to measure water levels, calculate elevations and to assess the presence (or absence) of LNAPL. Groundwater samples were subsequently collected from a defined list of wells and analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX). The wells that were sampled included MW002, MW005, MW07R, MW009, and MW010, which are in the historic dissolved-phase plume, and MW012, which is down gradient of the historic plume. Figure 2 identifies the wells that were gauged and/or sampled and their locations at the facility.

Groundwater samples were collected with a peristaltic pump using the micro-purge method with dedicated tubing. All non-dedicated and non-disposable equipment were decontaminated after use at each well.

Prior to sample collection, field parameters including pH, conductivity, temperature, oxidation/reduction potential (ORP), and dissolved oxygen (DO) were monitored via a flow-through-cell equipped with an YSI-556 multi-meter. Samples were collected after all the field parameters had stabilized. The field parameter data are presented in Table 1.

All groundwater samples were labeled and preserved as necessary, then placed in an iced cooler and delivered to Environmental Science Corporation in Mount Juliet, Tennessee for analysis. All groundwater samples were analyzed for BTEX using U.S. Environmental Protection Agency (EPA) SW-846 Method 8260B. The samples were collected, analyzed, and the data reduced in accordance with the existing Quality Assurance Plan for the Wattenberg sites (TRC, 2002). The laboratory analytical report is provided as Appendix A. The data validation Quality Control Summary Report is presented in Appendix B.

### 3.0 RESULTS AND INTERPRETATION

On April 14, 2011, eleven monitoring wells were gauged and six wells were sampled at the Fort Lupton Station. Water levels were higher during this monitoring event when compared to historic water level measurements. The historical average depth to water across the site is 10.69 feet below ground surface (bgs). The average depth to water during the April 2011 event was 6.47 feet bgs, more than 4-feet higher than the historical average and roughly 1 foot lower than measured in April 2010. The groundwater gradient during this sampling event was calculated to be 0.019 feet per foot (ft/ft) with a flow direction to the west (Figure 3). The gradient average was 0.028 ft/ft to the west identified during the April 2010 event (TRC 2010).

During the 2010 annual monitoring event, LNAPL was detected in six groundwater wells for the first time in more than a decade. The new occurrences of LNAPL corresponded with historically high water levels, suggesting that the detections were possibly a result of water rising through the smear zone and encountering some of the residual LNAPL. It did not appear that the LNAPL detections were a result of a new release, but a result of rising water levels (TRC 2010).

On July 2, 2010, an additional round of water level gauging was performed to monitor changes in fluid levels. Water levels rose slightly across the site. Following well gauging, absorbent socks were installed in the six wells that detected LNAPL (MW002, MW003, MW004, MW06R, MW07R, and MW008).

In October of 2010, enhanced fluid recovery (EFR) was conducted in the six wells to extract the thin accumulations of LNAPL under high vacuum, the results of which were documented in a letter report dated January 25, 2011 (TRC 2011). The pre- and post-EFR fluid level measurement results are summarized below. Based on the April 2011 measurements, the effectiveness of the EFR treatment continues to be evident, due to the lack of observed or measured free product in any of the six wells. The absorbent socks were removed from all wells except MW002, which still exhibited a strong hydrocarbon odor (a replacement sock was placed in MW002). Fluid levels are shown on Figure 3 and historic groundwater elevations and LNAPL thicknesses are presented on Figure 4 and in Table 2.

Well No.	LNAPL Thickness April 2010 (ft)	LNAPL Thickness July 2010 (ft)	LNAPL Thickness Nov. 2011 (ft)	LNAPL Thickness April 2011 (ft)
MW002	0.02	0.02	Non-detect	Non-detect
MW003	Sheen (<0.01)	Non-detect	Non-detect	Non-detect



MW004	Sheen (<0.01)	Sheen (<0.01)	Sheen (<0.01)	Non-detect
MW06R	0.02	0.01	Non-detect	Non-detect
MW07R	Non-detect	Sheen (<0.01)	Non-detect	Non-detect
MW008	Sheen (<0.01)	Sheen (<0.01)	Non-detect	Non-detect

Groundwater samples were collected from six wells for laboratory analysis: MW002, MW005, MW07R, MW009, MW010, and MW012. MW012 is located down gradient of the plume and no BTEX constituents were detected. Benzene was reported as non-detect in well MW07R and reported at 1.1 µg/L in MW010, both below the Colorado Basic Standard for Groundwater (CBSGW) of 5.0 µg/L. The concentration of benzene in MW002 was measured at 16,000 µg/L, the lowest measured concentration for this well since 2003. The concentration of benzene in MW005 was measured at 650 µg/L during this event, a slight increase from the 560 µg/L measured in April 2010, but not inconsistent with the overall historical decreasing trends. The concentration in MW009 was measured at 2,500 µg/L, and continues to decrease from the maximum concentration of 19,000 µg/L measured in 2001, an 87% reduction. Benzene trends for these wells are shown graphically in Graph 1 and on Figure 4.

Dissolved-phase toluene concentrations were below laboratory detection limits for all wells, and therefore below the Colorado Basic Standard for Groundwater (CBSGW) of 1,000 µg/L. Dissolved-phase ethylbenzene concentrations ranged from below the laboratory detection limit (<1.0 µg/L) to 660 µg/L (MW009), all below the CBSGW of 700 µg/L. Dissolved-phase xylene concentrations ranged from below the laboratory detection limit (<3.0 µg/L) to 6,900 µg/L (MW002), all below the CBSGW of 10,000 µg/L. Historic BTEX concentrations for all wells are presented in Table 3.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

A considerable number of site investigations, modeling and remediation activities have been conducted at the Ft. Lupton Station, as summarized in the Long-Term MNA Work Plan (TRC, 2009) and detailed in previous reports (e.g., TRC, 2005). The capital improvements and remedial activities that were implemented at the site have been effective in preventing additional releases and in addressing the historical source areas and impacts present.

Recent EFR activities conducted in 2010 were effective in removing measurable LNAPL thicknesses. TRC will continue to conduct annual fluid-level monitoring to assess any recurrences in LNAPL thickness and extent. In future monitoring events, EFR wells MW003, MW06R, and MW008 will be added to the sampling program if no free product is measured, detected, or otherwise observed.

The current monitoring program shows that the dissolved phase plume is stable and/or decreasing. Therefore, MNA, which is the approved remedy for groundwater at the site (Golder, 1993), is an effective method of remediation as concentrations continue to decrease. As documented in the Long-Term MNA Work Plan (TRC, 2009), the risk of impacts to human health and the environment is low. Therefore, natural attenuation processes continue to address the residual hydrocarbons in the subsurface, and no changes in the site conditions warrant alternative measures at this time.

## 5.0 REFERENCES

- COGCC, 2010. *Wattenberg Gas Gathering System, Spring 2010 Water Quality Monitoring Report: Brighton Station – COGCC Remediation No. 20, Dougan Station – COGCC Remediation No. 1, Fort Lupton Station – COGCC Remediation No. 17, Lambert Station – COGCC Remediation No. 18, Hudson Station – COGCC Remediation No. 21, Vollmar Station – COGCC Remediation No. 19*. Letter from Steve Lindblom, Colorado Oil and Gas Conservation Commission, to Scott Reed, TRC Solutions, Inc. August 9, 2010.
- Golder, 1993. *Panhandle Eastern Pipeline Company, Remediation Plan, Fort Lupton Station, Weld County, Colorado*. Prepared for Panhandle Eastern Pipe Line Company by Golder Associates Inc., 200 Union Boulevard, Suite 500, Lakewood, Colorado 80228. Golder Job No. 923-2477. January 1993.
- TRC, 2002. *Quality Assurance Plan*. Prepared for Pan Energy Corporation (PEC) by TRC Environmental Corporation, 7761 Shaffer Parkway, Suite 100, Littleton, Colorado 80127. April 2002.
- TRC, 2005. *Final Compliance Documentation: Ft Lupton Compressor Station, Weld County, Colorado, COGCC Remediation No. 1*. Prepared for the State of Colorado Oil and Gas Conservation Commission by TRC Environmental Corporation, 7761 Shaffer Parkway, Suite 100, Littleton, Colorado 80127. April 2005.
- TRC, 2009. *Long-Term Work Plan: Monitored Natural Attenuation Program*. Prepared for the State of Colorado Oil and Gas Conservation Commission by TRC Companies, Inc., 7761 Shaffer Parkway, Suite 100, Littleton, Colorado 80127. November 2009.
- TRC, 2010. *2010 Water Quality Monitoring Report – Fort Lupton Compressor Station*. Prepared for the State of Colorado Oil and Gas Conservation Commission by TRC Companies, Inc., 7761 Shaffer Parkway, Suite 100, Littleton, Colorado 80127. July 2010.
- TRC, 2011. *Pan Energy Project—Fall 2010 Free Product Recovery Report, Wattenberg System: Dougan, Fort Lupton, and Vollmar Stations, COGCC Remediation Nos. 1, 17, and 19*. Letter from Scott Reed, TRC Companies, Inc., to Steve Lindblom, Colorado Oil and Gas Conservation Commission. January 25, 2011.

## **TABLES**

TABLE 1  
FIELD PARAMETERS  
FORT LUPTON COMPRESSOR STATION  
WELD COUNTY, COLORADO

Well ID	Sample Date	Temp (C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mV)
MW002	4/12/11	11.47	1.311	0.21	7.13	-91.9
MW005	4/12/11	12.28	1.704	0.32	7.42	-122.6
MW07R	4/12/11	11.79	1.947	0.23	7.54	-50.7
MW009	4/12/11	11.82	1.492	0.20	7.47	-139.9
MW010	4/12/11	12.34	1.928	0.19	7.60	-97.3
MW012	4/12/11	12.83	3.118	1.70	7.90	11.6

mS/cm = milliSiemens per centimeter

mg/L = milligrams per Liter

mV = millivolts

NM= Not Monitored

Table 2

Historic Groundwater Elevations and LNAPL Thickness  
Fort Lupton Compressor Station, Weld County, Colorado

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW001	3/11/1992	5041.20	ND	24.08		5017.12	5017.12	
	3/18/1992	5041.20	ND	23.91		5017.29	5017.29	
	3/24/1992	5041.20	ND	23.60		5017.60	5017.60	
	3/31/1992	5041.20	ND	23.33		5017.87	5017.87	
	5/21/1992	5041.20	ND	22.52		5018.68	5018.68	
	6/8/1992	5041.20	ND	22.49		5018.71	5018.71	
	7/21/1992	5041.20	ND	22.79		5018.41	5018.41	
	8/27/1992	5041.20	ND	23.29		5017.91	5017.91	
	9/25/1992	5041.20	ND	23.33		5017.87	5017.87	
	10/20/1992	5041.20	ND	23.48		5017.72	5017.72	
	11/10/1992	5041.20	ND	23.50		5017.70	5017.70	
	6/23/1993	5041.20	ND	23.98		5017.22	5017.22	
	12/15/1993	5041.20	ND	24.82		5016.38	5016.38	
	6/28/1994	5041.20	ND	25.38		5015.82	5015.82	
	12/7/1994	5041.20	ND	25.78		5015.42	5015.42	
	6/1/1995	5041.20	ND	26.02		5015.18	5015.18	
	1/15/1996	5041.20	ND	25.51		5015.69	5015.69	
	7/9/1996	5041.20	ND	26.10		5015.10	5015.10	
	1/30/1997	5041.20	ND	26.30		5014.90	5014.90	
	7/9/1997	5041.20	ND	26.62		5014.58	5014.58	
	7/31/1997	5041.20	ND	26.66		5014.54	5014.54	
	8/8/1997	5041.20	ND	26.28		5014.92	5014.92	
	10/1/1997	5041.20	ND	24.75		5016.45	5016.45	
	5/26/1998	5041.20	ND	23.47		5017.73	5017.73	
	8/7/1998	5041.20	ND	23.24		5017.96	5017.96	
	1/26/1999	5041.20	ND	23.32		5017.88	5017.88	
	2/25/1999	5041.20	ND	23.38		5017.82	5017.82	
	3/26/1999	5041.20	ND	23.43		5017.77	5017.77	
	4/29/1999	5041.20	ND	23.36		5017.84	5017.84	
	5/27/1999	5041.20	ND	22.12		5019.08	5019.08	
	6/24/1999	5041.20	ND	21.84		5019.36	5019.36	
	7/23/1999	5041.20	ND	21.72		5019.48	5019.48	
	8/26/1999	5041.20	ND	21.60		5019.60	5019.60	
	9/23/1999	5041.20	ND	21.46		5019.74	5019.74	
	10/18/1999	5041.20	ND	21.36		5019.84	5019.84	
	11/29/1999	5041.20	ND	21.30		5019.90	5019.90	
	1/27/2000	5041.20	ND	21.23		5019.97	5019.97	
	4/4/2000	5041.20	ND	21.24		5019.96	5019.96	
	7/12/2000	5041.20	ND	21.11		5020.09	5020.09	
	10/5/2000	5041.20	ND	21.29		5019.91	5019.91	
	1/25/2001	5041.20	ND	21.63		5019.57	5019.57	
	4/18/2001	5041.20	ND	21.84		5019.36	5019.36	
	7/2/2001	5041.20	ND	20.75		5020.45	5020.45	
	11/1/2001	5041.20	ND	20.75		5020.45	5020.45	
	3/27/2002	5041.20	ND	21.34		5019.86	5019.86	
	12/23/2002	5041.20	ND	21.68		5019.52	5019.52	
	1/28/2003	5041.20	ND	21.82		5019.38	5019.38	
	2/27/2003	5041.20	ND	21.94		5019.26	5019.26	
	4/2/2003	5041.20	ND	21.57		5019.63	5019.63	
	4/24/2003	5041.26	ND	21.07		5020.19	5020.19	
	6/11/2003	5041.26	ND	19.92		5021.34	5021.34	
	7/1/2003	5041.26	ND	19.63		5021.63	5021.63	
	7/15/2003	5041.26	ND	19.53		5021.73	5021.73	
	8/27/2003	5041.26	ND	19.34		5021.92	5021.92	
	10/20/2003	5041.26	ND	19.50		5021.76	5021.76	
	11/17/2003	5041.26	ND	19.59		5021.67	5021.67	
	12/31/2003	5041.26	ND	19.90		5021.36	5021.36	
	2/2/2004	5041.26	ND	20.09		5021.17	5021.17	
	3/4/2004	5041.26	ND	20.20		5021.06	5021.06	
	4/5/2004	5041.26	ND	20.35		5020.91	5020.91	
	5/12/2004	5041.26	ND	20.44		5020.82	5020.82	
	6/2/2004	5041.26	ND	20.22		5021.04	5021.04	
	7/13/2004	5041.26	ND	19.86		5021.40	5021.40	
	8/19/2004	5041.26	ND	19.58		5021.68	5021.68	
	9/16/2004	5041.26	ND	19.51		5021.75	5021.75	
	11/8/2004	5041.26	ND	19.45		5021.81	5021.81	
	5/20/2006	5041.26	NM	NM				
	5/1/2007	5041.26	ND	17.12		5024.14	5021.81	
	3/19/2008	5041.26	ND	16.52		5024.74	5024.74	

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW002	3/11/1992	5026.20	ND	14.85		5011.35	5011.35	
	3/18/1992	5026.20	ND	14.02		5012.18	5012.18	
	3/24/1992	5026.20	ND	13.95		5012.25	5012.25	
	3/25/1992	5026.20	13.32	13.55	0.23	5012.65	5012.83	
	3/31/1992	5026.20	ND	13.46		5012.74	5012.74	
	5/21/1992	5026.20	12.24	12.25	0.01	5013.95	5013.96	
	7/7/1992	5026.20	12.33	12.85	0.52	5013.35	5013.77	
	7/13/1992	5026.20	12.48	12.62	0.14	5013.58	5013.69	
	7/21/1992	5026.20	12.54	12.75	0.21	5013.45	5013.62	
	8/27/1992	5026.20	12.79	13.06	0.27	5013.14	5013.36	
	9/25/1992	5026.20	12.65	13.52	0.87	5012.68	5013.38	
	10/20/1992	5026.20	12.92	13.67	0.75	5012.53	5013.13	
	11/10/1992	5026.20	13.03	14.13	1.10	5012.07	5012.95	
	6/23/1993	5026.20	13.29	14.18	0.89	5012.02	5012.73	
	12/15/1993	5026.20	14.04	15.56	1.52	5010.64	5011.86	
	6/24/1994	5026.20	14.53	16.40	1.87	5009.80	5011.30	
	12/7/1994	5026.20	15.06	16.28	1.22	5009.92	5010.90	
	6/1/1995	5026.20	14.91	15.66	0.75	5010.54	5011.14	
	1/15/1996	5026.20	ND	14.58		5011.62	5011.62	
	7/9/1996	5026.20	14.75	15.13	0.38	5011.07	5011.37	
	1/30/1997	5026.20	15.29	16.03	0.74	5010.17	5010.76	
	7/9/1997	5026.20	15.34	16.02	0.68	5010.18	5010.72	
	7/31/1997	5026.20	14.65	14.76	0.11	5011.44	5011.53	
	8/8/1997	5026.20	14.12	14.16	0.04	5012.04	5012.07	
	5/26/1998	5026.20	ND	12.67		5013.53	5013.53	
	8/7/1998	5026.20	12.56	12.56	0.00	5013.64	5013.64	**
	11/5/1998	5026.20	ND	12.89		5013.31	5013.31	
	11/12/1998	5026.20	ND	12.92		5013.28	5013.28	
	1/26/1999	5026.20	ND	13.20		5013.00	5013.00	
	2/25/1999	5026.20	ND	13.31		5012.89	5012.89	
	3/26/1999	5026.20	ND	13.42		5012.78	5012.78	
	4/29/1999	5026.20	ND	12.76		5013.44	5013.44	
	5/27/1999	5026.20	ND	10.83		5015.37	5015.37	
	6/24/1999	5026.20	ND	10.50		5015.70	5015.70	
	7/23/1999	5026.20	ND	10.56		5015.64	5015.64	
	8/26/1999	5026.20	ND	10.24		5015.96	5015.96	
	9/23/1999	5026.20	ND	10.19		5016.01	5016.01	
	10/18/1999	5026.20	ND	10.39		5015.81	5015.81	
	11/29/1999	5026.20	ND	10.62		5015.58	5015.58	
	1/27/2000	5026.20	ND	10.93		5015.27	5015.27	
	4/4/2000	5026.20	ND	11.10		5015.10	5015.10	
	7/12/2000	5026.20	ND	10.72		5015.48	5015.48	
	10/5/2000	5026.20	ND	11.35		5014.85	5014.85	
	1/25/2001	5026.20	11.75	11.81	0.06	5014.39	5014.44	
	4/18/2001	5026.20	ND	11.71		5014.49	5014.49	
	7/2/2001	5026.20	ND	10.29		5015.91	5015.91	
	11/1/2001	5026.20	ND	10.90		5015.30	5015.30	
	3/27/2002	5026.20	11.49	11.52	0.03	5014.68	5014.70	
	12/23/2002	5026.20	12.10	12.18	0.08	5014.02	5014.08	
	1/28/2003	5026.20	12.28	12.34	0.06	5013.86	5013.91	
	2/27/2003	5026.20	12.34	12.43	0.09	5013.77	5013.84	
	4/2/2003	5026.20	ND	11.12		5015.08	5015.08	
	4/25/2003	5026.23	ND	10.77		5015.46	5015.46	
	6/11/2003	5026.23	9.28	9.29	0.01	5016.94	5016.95	
	7/1/2003	5026.23	9.28	9.29	0.01	5016.94	5016.95	
	7/15/2003	5026.23	9.39	9.40	0.01	5016.83	5016.84	
	8/27/2003	5026.23	ND	9.95		5016.28	5016.28	
	10/17/2003	5026.23	ND	10.57		5015.66	5015.66	
	11/14/2003	5026.23	ND	10.71		5015.52	5015.52	
	12/31/2003	5026.23	ND	10.98		5015.25	5015.25	
	1/29/2004	5026.23	ND	11.10		5015.13	5015.13	
	3/4/2004	5026.23	ND	11.16		5015.07	5015.07	
	4/5/2004	5026.23	ND	11.28		5014.95	5014.95	
	5/12/2004	5026.23	ND	10.89		5015.34	5015.34	
	6/2/2004	5026.23	ND	10.65		5015.58	5015.58	
	7/13/2004	5026.23	ND	10.24		5015.99	5015.99	
	8/19/2004	5026.23	ND	10.25		5015.98	5015.98	
	9/16/2004	5026.23	ND	10.59		5015.64	5015.64	
	11/8/2004	5026.23	ND	10.57		5015.66	5015.66	
	5/20/2006	5026.23	NM	NM				
	4/26/2007	5026.23	ND	7.78		5018.45	5015.66	
	3/19/2008	5026.23	ND	7.72		5018.51	5018.51	
	4/30/2010	5026.23	6.55	6.57	0.02	5019.66	5019.68	
	7/2/2010	5026.23	4.36	4.38	0.02	5021.85	5021.87	
	4/12/2011	5026.23	ND	6.88		5019.35	5019.35	Replaced Sock

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW003	3/11/1992	5027.41	ND	15.76		5011.65	5011.65	
	3/18/1992	5027.41	ND	15.17		5012.24	5012.24	
	3/24/1992	5027.41	ND	14.95		5012.46	5012.46	
	3/31/1992	5027.41	ND	14.59		5012.82	5012.82	
	5/21/1992	5027.41	ND	13.79		5013.62	5013.62	
	7/21/1992	5027.41	ND	14.00		5013.41	5013.41	
	8/27/1992	5027.41	ND	14.34		5013.07	5013.07	
	9/25/1992	5027.41	ND	14.32		5013.09	5013.09	
	10/20/1992	5027.41	ND	14.58		5012.83	5012.83	
	11/10/1992	5027.41	ND	14.75		5012.66	5012.66	
	6/23/1993	5027.41	15.02	15.41	0.39	5012.00	5012.31	
	12/15/1993	5027.41	15.98	16.39	0.41	5011.02	5011.35	
	6/28/1994	5027.41	16.60	17.05	0.45	5010.36	5010.72	
	12/7/1994	5027.41	16.91	17.40	0.49	5010.01	5010.40	
	6/1/1995	5027.41	16.75	16.82	0.07	5010.59	5010.65	
	1/15/1996	5027.41	ND	16.14		5011.27	5011.27	
	7/9/1996	5027.41	ND	16.45		5010.96	5010.96	
	1/30/1997	5027.41	17.03	17.16	0.13	5010.25	5010.35	
	7/9/1997	5027.41	ND	17.20		5010.21	5010.21	
	7/31/1997	5027.41	ND	16.93		5010.48	5010.48	
	8/8/1997	5027.41	ND	16.20		5011.21	5011.21	
	5/26/1998	5027.41	ND	14.29		5013.12	5013.12	
	8/7/1998	5027.41	ND	14.20		5013.21	5013.21	
	11/5/1998	5027.41	ND	14.57		5012.84	5012.84	
	11/12/1998	5027.41	ND	14.60		5012.81	5012.81	
	1/26/1999	5027.41	ND	14.91		5012.50	5012.50	
	2/25/1999	5027.41	ND	15.11		5012.30	5012.30	
	3/26/1999	5027.41	ND	15.35		5012.06	5012.06	
	4/29/1999	5027.41	ND	14.82		5012.59	5012.59	
	5/27/1999	5027.41	ND	12.45		5014.96	5014.96	
	6/24/1999	5027.41	ND	11.96		5015.45	5015.45	
	7/23/1999	5027.41	ND	12.04		5015.37	5015.37	
	8/26/1999	5027.41	ND	11.74		5015.67	5015.67	
	9/23/1999	5027.41	ND	11.67		5015.74	5015.74	
	10/18/1999	5027.41	ND	11.86		5015.55	5015.55	
	11/29/1999	5027.41	ND	12.13		5015.28	5015.28	
	1/27/2000	5027.41	ND	12.47		5014.94	5014.94	
	4/4/2000	5027.41	ND	12.64		5014.77	5014.77	
	7/12/2000	5027.41	ND	12.25		5015.16	5015.16	
	10/5/2000	5027.41	ND	12.99		5014.42	5014.42	
	1/25/2001	5027.41	ND	13.40		5014.01	5014.01	
	4/18/2001	5027.41	ND	13.44		5013.97	5013.97	
	7/2/2001	5027.41	ND	11.88		5015.53	5015.53	
	11/1/2001	5027.41	ND	12.52		5014.89	5014.89	
	3/27/2002	5027.41	ND	13.10		5014.31	5014.31	
	12/23/2002	5027.41	ND	13.82		5013.59	5013.59	
	1/28/2003	5027.41	ND	13.98		5013.43	5013.43	
	2/27/2003	5027.41	ND	14.06		5013.35	5013.35	
	4/2/2003	5027.41	ND	12.88		5014.53	5014.53	
	4/25/2003	5027.43	ND	12.53		5014.90	5014.90	
	6/11/2003	5027.43	ND	10.89		5016.54	5016.54	
	7/1/2003	5027.43	ND	10.90		5016.53	5016.53	
	7/15/2003	5027.43	ND	11.02		5016.41	5016.41	
	8/27/2003	5027.43	ND	11.66		5015.77	5015.77	
	10/17/2003	5027.43	ND	12.34		5015.09	5015.09	
	11/14/2003	5027.43	ND	12.48		5014.95	5014.95	
	12/31/2003	5027.43	ND	12.78		5014.65	5014.65	
	1/29/2004	5027.43	ND	12.90		5014.53	5014.53	
	3/4/2004	5027.43	ND	12.97		5014.46	5014.46	
	4/5/2004	5027.43	ND	13.08		5014.35	5014.35	
	5/12/2004	5027.43	ND	12.83		5014.60	5014.60	
	6/2/2004	5027.43	ND	12.43		5015.00	5015.00	
	7/13/2004	5027.43	ND	12.01		5015.42	5015.42	
	8/19/2004	5027.43	ND	12.13		5015.30	5015.30	
	9/16/2004	5027.43	ND	12.43		5015.00	5015.00	
	11/8/2004	5027.43	ND	12.37		5015.06	5015.06	
	5/20/2006	5027.43	ND	10.39		5017.04	5017.04	
	4/26/2007	5027.43	ND	9.64		5017.79	5017.79	
	3/19/2008	5027.43	ND	9.43		5018.00	5018.00	
	4/30/2010	5027.43	Sheen	7.09	<0.01	5020.34	5020.34	
	7/2/2010	5027.43	ND	5.93		5021.50	5021.50	
	4/12/2011	5027.43	ND	8.50		5018.93	5018.93	Removed Sock



Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW004	3/18/1992	5024.18	ND	12.10		5012.08	5012.08	
	3/20/1992	5024.18	ND	NM		N/A	N/A	
	3/24/1992	5024.18	ND	12.16		5012.02	5012.02	
	3/31/1992	5024.18	ND	11.97		5012.21	5012.21	
	5/21/1992	5024.18	ND	11.55		5012.63	5012.63	
	7/21/1992	5024.18	ND	11.97		5012.21	5012.21	
	8/27/1992	5024.18	ND	11.83		5012.35	5012.35	
	9/25/1992	5024.18	ND	12.25		5011.93	5011.93	
	10/20/1992	5024.18	ND	12.56		5011.62	5011.62	
	11/20/1992	5024.18	12.55	12.74	0.19	5011.44	5011.59	
	6/23/1993	5024.18	ND	12.66		5011.52	5011.52	
	12/15/1993	5024.18	13.74	13.91	0.17	5010.27	5010.41	
	6/28/1994	5024.18	14.40	14.50	0.10	5009.68	5009.76	
	12/15/1994	5024.18	14.60	15.65	1.05	5008.53	5009.37	
	6/1/1995	5024.18	ND	14.15		5010.03	5010.03	
	1/15/1996	5024.18	ND	14.04		5010.14	5010.14	
	7/9/1996	5024.18	ND	14.24		5009.94	5009.94	
	1/30/1997	5024.18	14.82	14.88	0.06	5009.30	5009.35	
	7/9/1997	5024.18	ND	15.03		5009.15	5009.15	
	7/31/1997	5024.18	14.95	14.96	0.01	5009.22	5009.23	
	8/8/1997	5024.18	ND	14.11		5010.07	5010.07	
	5/26/1998	5024.18	ND	11.98		5012.20	5012.20	
	8/7/1998	5024.18	ND	12.01		5012.17	5012.17	
	11/5/1998	5024.18	ND	12.31		5011.87	5011.87	
	11/12/1998	5024.18	ND	12.33		5011.85	5011.85	
	1/26/1999	5024.18	ND	12.62		5011.56	5011.56	
	2/25/1999	5024.18	ND	12.89		5011.29	5011.29	
	3/26/1999	5024.18	ND	12.95		5011.23	5011.23	
	4/29/1999	5024.18	ND	11.96		5012.22	5012.22	
	5/27/1999	5024.18	ND	10.08		5014.10	5014.10	
	6/24/1999	5024.18	ND	9.82		5014.36	5014.36	
	7/23/1999	5024.18	ND	9.94		5014.24	5014.24	
	8/26/1999	5024.18	ND	9.63		5014.55	5014.55	
	9/23/1999	5024.18	ND	9.55		5014.63	5014.63	
	10/18/1999	5024.18	ND	9.38		5014.80	5014.80	
	11/29/1999	5024.18	ND	9.98		5014.20	5014.20	
	1/27/2000	5024.18	ND	10.26		5013.92	5013.92	
	4/4/2000	5024.18	ND	10.45		5013.73	5013.73	
	7/12/2000	5024.18	ND	10.15		5014.03	5014.03	
	10/5/2000	5024.18	ND	10.86		5013.32	5013.32	
	1/25/2001	5024.18	ND	11.27		5012.91	5012.91	
	4/18/2001	5024.18	ND	11.10		5013.08	5013.08	
	7/2/2001	5024.18	ND	9.88		5014.30	5014.30	
	11/1/2001	5024.18	ND	10.55		5013.63	5013.63	
	3/27/2002	5024.18	ND	11.04		5013.14	5013.14	
	12/23/2002	5024.18	ND	11.74		5012.44	5012.44	
	1/28/2003	5024.18	ND	11.87		5012.31	5012.31	
	2/27/2003	5024.18	ND	11.95		5012.23	5012.23	
	4/2/2003	5024.18	ND	10.92		5013.26	5013.26	
	4/25/2003	5024.24	ND	10.19		5014.05	5014.05	
	6/11/2003	5024.24	ND	8.93		5015.31	5015.31	
	7/1/2003	5024.24	ND	9.00		5015.24	5015.24	
	7/15/2003	5024.24	ND	9.19		5015.05	5015.05	
	8/27/2003	5024.24	ND	10.00		5014.24	5014.24	
	10/17/2003	5024.24	ND	10.61		5013.63	5013.63	
	11/14/2003	5024.24	ND	10.66		5013.58	5013.58	
	12/31/2003	5024.24	ND	11.87		5012.37	5012.37	
	1/29/2004	5024.24	ND	10.95		5013.29	5013.29	
	3/4/2004	5024.24	ND	10.97		5013.27	5013.27	
	4/5/2004	5024.24	ND	11.07		5013.17	5013.17	
	5/12/2004	5024.24	ND	9.73		5014.51	5014.51	
	6/2/2004	5024.24	ND	10.46		5013.78	5013.78	
	7/13/2004	5024.24	ND	10.15		5014.09	5014.09	
	8/19/2004	5024.24	ND	10.36		5013.88	5013.88	
	9/16/2004	5024.24	ND	10.74		5013.50	5013.50	
	11/8/2004	5024.24	ND	10.56		5013.68	5013.68	
	5/20/2006	5024.24	ND	8.79		5015.45	5015.45	
	4/26/2007	5024.24	ND	6.60		5017.64	5017.64	
	3/19/2008	5024.24	ND	7.45		5016.79	5016.79	
	4/30/2010	5024.24	Sheen	5.20	<0.01	5019.04	5019.04	
	7/2/2010	5024.24	Sheen	4.40	<0.01	5019.84	5019.84	
	4/12/2011	5024.24	Sheen	6.80	<0.01	5017.44	5017.44	Removed Sock

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW005	6/23/1993	5025.36	ND	14.24		5011.12	5011.12	
	12/15/1993	5025.36	ND	14.14		5011.22	5011.22	
	6/28/1994	5025.36	ND	16.00		5009.36	5009.36	
	12/7/1994	5025.36	ND	16.38		5008.98	5008.98	
	6/1/1995	5025.36	ND	15.90		5009.46	5009.46	
	1/15/1996	5025.36	ND	15.72		5009.64	5009.64	
	7/9/1996	5025.36	ND	15.91		5009.45	5009.45	
	1/30/1997	5025.36	ND	16.52		5008.84	5008.84	
	7/9/1997	5025.36	ND	16.84		5008.52	5008.52	
	7/31/1997	5025.36	ND	16.37		5008.99	5008.99	
	8/8/1997	5025.36	ND	15.49		5009.87	5009.87	
	5/26/1998	5025.36	ND	13.66		5011.70	5011.70	
	8/7/1998	5025.36	ND	13.65		5011.71	5011.71	
	11/5/1998	5025.36	13.70	15.14	1.44	5010.22	5011.37	
	11/12/1998	5025.36	13.62	15.57	1.95	5009.79	5011.35	
	1/26/1999	5025.36	14.12	15.28	1.16	5010.08	5011.01	
	2/25/1999	5025.36	14.37	15.16	0.79	5010.20	5010.83	
	3/26/1999	5025.36	14.51	15.09	0.58	5010.27	5010.73	
	4/29/1999	5025.36	13.91	14.04	0.13	5011.32	5011.42	
	5/27/1999	5025.36	ND	11.42		5013.94	5013.94	
	6/24/1999	5025.36	ND	11.22		5014.14	5014.14	
	7/23/1999	5025.36	ND	11.41		5013.95	5013.95	
	8/26/1999	5025.36	ND	10.82		5014.54	5014.54	
	9/23/1999	5025.36	ND	10.82		5014.54	5014.54	
	10/18/1999	5025.36	ND	11.06		5014.30	5014.30	
	11/29/1999	5025.36	ND	11.14		5014.22	5014.22	
	1/27/2000	5025.36	ND	11.76		5013.60	5013.60	
	4/4/2000	5025.36	ND	12.04		5013.32	5013.32	
	7/12/2000	5025.36	ND	11.71		5013.65	5013.65	
	10/5/2000	5025.36	ND	12.49		5012.87	5012.87	
	1/25/2001	5025.36	ND	12.87		5012.49	5012.49	
	4/18/2001	5025.36	ND	12.88		5012.48	5012.48	
	7/2/2001	5025.36	ND	11.40		5013.96	5013.96	
	11/1/2001	5025.36	ND	12.06		5013.30	5013.30	
	3/27/2002	5025.36	ND	12.69		5012.67	5012.67	
	12/23/2002	5025.36	ND	13.37		5011.99	5011.99	
	1/28/2003	5025.36	ND	13.51		5011.85	5011.85	
	2/27/2003	5025.36	ND	13.59		5011.77	5011.77	
	4/2/2003	5025.36	ND	12.45		5012.91	5012.91	
	4/24/2003	5025.66	ND	12.24		5013.42	5013.42	
	6/11/2003	5025.66	ND	10.47		5015.19	5015.19	
	7/1/2003	5025.66	ND	10.57		5015.09	5015.09	
	7/15/2003	5025.66	ND	10.79		5014.87	5014.87	
	8/27/2003	5025.66	ND	11.70		5013.96	5013.96	
	10/17/2003	5025.66	ND	12.35		5013.31	5013.31	
	11/14/2003	5025.66	ND	12.45		5013.21	5013.21	
	12/31/2003	5025.66	ND	12.63		5013.03	5013.03	
	1/29/2004	5025.66	ND	12.68		5012.98	5012.98	
	3/4/2004	5025.66	ND	12.76		5012.90	5012.90	
	4/5/2004	5025.66	ND	12.84		5012.82	5012.82	
	5/12/2004	5025.66	ND	12.57		5013.09	5013.09	
	5/13/2004	5025.66	ND	12.57		5013.09	5013.09	
	6/2/2004	5025.66	ND	12.30		5013.36	5013.36	
	7/13/2004	5025.66	ND	11.99		5013.67	5013.67	
	8/19/2004	5025.66	ND	12.25		5013.41	5013.41	
	9/16/2004	5025.66	ND	12.53		5013.13	5013.13	
	11/8/2004	5025.66	ND	12.35		5013.31	5013.31	
	5/20/2006	5025.66	NM	NM				
	4/26/2007	5025.66	ND	8.89		5016.77	5013.31	
	3/19/2008	5025.66	ND	9.19		5016.47	5016.47	
	4/30/2010	5025.66	ND	6.87		5018.79	5018.79	
	7/2/2010	5025.66	ND	6.07		5019.59	5019.59	
	4/12/2011	5026.66	ND	8.47		5018.19	5018.19	

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW006 (Abandoned)	6/23/1993	5023.95	12.58	14.78	2.20	5009.17	5010.93	
	12/15/1993	5023.95	13.55	15.65	2.10	5008.30	5009.98	
	6/28/1994	5023.95	14.20	15.94	1.74	5008.01	5009.40	
	12/7/1994	5023.95	14.73	15.95	1.22	5008.00	5008.98	
	6/1/1995	5023.95	14.77	15.09	0.32	5008.86	5009.12	
	1/15/1996	5023.95	ND	14.47		5009.48	5009.48	
	7/9/1996	5023.95	14.60	15.13	0.53	5008.82	5009.24	
	1/30/1997	5023.95	14.84	15.96	1.12	5007.99	5008.89	
	7/9/1997	5023.95	15.29	15.73	0.44	5008.22	5008.57	
	7/31/1997	5023.95	15.34	15.81	0.47	5008.14	5008.52	
	8/8/1997	5023.95	14.72	15.15	0.43	5008.80	5009.14	
	5/26/1998	5023.95	ND	12.22		5011.73	5011.73	
	8/7/1998	5023.95	12.36	12.36	0.00	5011.59	5011.59	**
	11/5/1998	5023.95	ND	12.62		5011.33	5011.33	
	11/12/1998	5023.95	ND	12.66		5011.29	5011.29	
	1/26/1999	5023.95	ND	12.87		5011.08	5011.08	
	2/25/1999	5023.95	ND	13.07		5010.88	5010.88	
	3/26/1999	5023.95	ND	13.11		5010.84	5010.84	
	4/29/1999	5023.95	ND	12.17		5011.78	5011.78	
	5/27/1999	5023.95	ND	10.57		5013.38	5013.38	
	6/24/1999	5023.95	ND	10.45		5013.50	5013.50	
	7/23/1999	5023.95	ND	10.55		5013.40	5013.40	
	8/26/1999	5023.95	ND	10.34		5013.61	5013.61	
	9/23/1999	5023.95	ND	10.14		5013.81	5013.81	
	10/18/1999	5023.95	ND	10.25		5013.70	5013.70	
	11/29/1999	5023.95	ND	10.50		5013.45	5013.45	
	1/27/2000	5023.95	ND	10.72		5013.23	5013.23	
	4/4/2000	5023.95	ND	10.86		5013.09	5013.09	
	7/12/2000	5023.95	ND	10.68		5013.27	5013.27	
	10/5/2000	5023.95	ND	11.22		5012.73	5012.73	
	1/25/2001	5023.95	ND	11.58		5012.37	5012.37	
	4/18/2001	5023.95	ND	11.31		5012.64	5012.64	
	7/2/2001	5023.95	ND	10.22		5013.73	5013.73	
	11/1/2001	5023.95	ND	10.84		5013.11	5013.11	
	3/27/2002	5023.95	ND	11.28		5012.67	5012.67	
	12/23/2002	5023.95	ND	11.97		5011.98	5011.98	
	1/28/2003	5023.95	ND	12.08		5011.87	5011.87	
	2/27/2003	5023.95	ND	12.13		5011.82	5011.82	
	4/2/2003	5023.95	ND	11.07		5012.88	5012.88	
	4/25/2003	5024.12	ND	10.57		5013.55	5013.55	
	6/11/2003	5024.12	ND	9.31		5014.81	5014.81	
	7/1/2003	5024.12	ND	9.38		5014.74	5014.74	
	7/15/2003	5024.12	ND	9.58		5014.54	5014.54	
	8/27/2003	5024.12	ND	10.47		5013.65	5013.65	
	10/20/2003	5024.12	ND	11.00		5013.12	5013.12	
	11/14/2003	5024.12	ND	14.36		5009.76	5009.76	
	12/31/2003	5024.12	ND	11.06		5013.06	5013.06	
	2/2/2004	5024.12	ND	11.15		5012.97	5012.97	
	3/4/2004	5024.12	ND	11.09		5013.03	5013.03	
	4/5/2004	5024.12	ND	11.17		5012.95	5012.95	
	5/12/2004	5024.12	ND	11.13		5012.99	5012.99	
	6/2/2004	5024.12	ND	10.71		5013.41	5013.41	
	7/13/2004	5024.12	ND	10.47		5013.65	5013.65	
	8/19/2004	5024.12	ND	10.79		5013.33	5013.33	
	9/16/2004	5024.12	ND	11.17		5012.95	5012.95	
	11/8/2004	5024.12	ND	10.85		5013.27	5013.27	
	5/20/2006	5024.12	NM	NM				
	4/26/2007	5024.12	ND	7.47		5016.65	5013.27	
	3/19/2008	5024.12	ND	7.59		5016.53	5016.53	
MW06R	4/30/2010	5025.05	6.26	6.28	0.02	5018.77	5018.79	
	7/2/2010	5025.05	5.52	5.53	0.01	5019.52	5019.53	
	4/12/2011	5025.05	ND	7.82		5017.23	5017.23	Removed Sock

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW007 (Abandoned)	6/23/1993	5025.07	14.01	15.47	1.46	5009.60	5010.77	
	12/15/1993	5025.07	15.12	16.40	1.28	5008.67	5009.69	
	6/28/1994	5025.07	15.73	16.58	0.85	5008.49	5009.17	
	12/7/1994	5025.07	16.22	16.52	0.30	5008.55	5008.79	
	6/1/1995	5025.07	ND	16.29		5008.78	5008.78	
	1/15/1996	5025.07	ND	15.94		5009.13	5009.13	
	7/9/1996	5025.07	ND	16.29		5008.78	5008.78	
	1/30/1997	5025.07	ND	15.56		5009.51	5009.51	
	7/9/1997	5025.07	16.95	16.97	0.02	5008.10	5008.12	
	7/31/1997	5025.07	16.63	16.66	0.03	5008.41	5008.43	
	8/8/1997	5025.07	ND	15.80		5009.27	5009.27	
	5/26/1998	5025.07	ND	13.54		5011.53	5011.53	
	8/7/1998	5025.07	13.81	13.81	0.00	5011.26	5011.26	**
	11/5/1998	5025.07	ND	13.96		5011.11	5011.11	
	11/12/1998	5025.07	ND	14.01		5011.06	5011.06	
	1/26/1999	5025.07	ND	14.21		5010.86	5010.86	
	2/25/1999	5025.07	ND	14.31		5010.76	5010.76	
	3/26/1999	5025.07	ND	14.35		5010.72	5010.72	
	4/29/1999	5025.07	ND	14.12		5010.95	5010.95	
	5/21/1999	5025.07	ND	12.20		5012.87	5012.87	
	6/24/1999	5025.07	ND	12.06		5013.01	5013.01	
	7/23/1999	5025.07	ND	12.21		5012.86	5012.86	
	8/26/1999	5025.07	ND	11.89		5013.18	5013.18	
	9/23/1999	5025.07	ND	11.76		5013.31	5013.31	
	10/18/1999	5025.07	ND	11.84		5013.23	5013.23	
	11/29/1999	5025.07	ND	11.98		5013.09	5013.09	
	1/27/2000	5025.07	ND	12.13		5012.94	5012.94	
	4/4/2000	5025.07	ND	12.25		5012.82	5012.82	
	7/12/2000	5025.07	ND	12.19		5012.88	5012.88	
	10/5/2000	5025.07	ND	12.56		5012.51	5012.51	
	1/25/2001	5025.07	ND	12.86		5012.21	5012.21	
	4/18/2001	5025.07	ND	12.92		5012.15	5012.15	
	7/2/2001	5025.07	ND	11.61		5013.46	5013.46	
	11/1/2001	5025.07	ND	12.02		5013.05	5013.05	
	3/27/2002	5025.07	ND	12.51		5012.56	5012.56	
	12/23/2002	5025.07	ND	13.10		5011.97	5011.97	
	1/28/2003	5025.07	ND	13.18		5011.89	5011.89	
	2/27/2003	5025.07	ND	13.24		5011.83	5011.83	
	4/2/2003	5025.07	ND	12.44		5012.63	5012.63	
	4/25/2003	5025.16	ND	12.18		5012.98	5012.98	
	6/11/2003	5025.16	ND	10.68		5014.48	5014.48	
	7/1/2003	5025.16	ND	10.73		5014.43	5014.43	
	7/15/2003	5025.16	ND	10.91		5014.25	5014.25	
	8/27/2003	5025.16	ND	11.61		5013.55	5013.55	
	10/17/2003	5025.16	ND	11.95		5013.21	5013.21	
	11/14/2003	5025.16	ND	11.88		5013.28	5013.28	
	12/31/2003	5025.16	ND	11.99		5013.17	5013.17	
	1/29/2004	5025.16	ND	12.04		5013.12	5013.12	
	3/4/2004	5025.16	ND	12.08		5013.08	5013.08	
	4/5/2004	5025.16	ND	12.14		5013.02	5013.02	
	5/12/2004	5025.16	ND	12.13		5013.03	5013.03	
	6/2/2004	5025.16	ND	11.77		5013.39	5013.39	
	7/13/2004	5025.16	ND	11.57		5013.59	5013.59	
	8/19/2004	5025.16	ND	11.81		5013.35	5013.35	
	9/16/2004	5025.16	ND	12.02		5013.14	5013.14	
	11/8/2004	5025.16	ND	11.78		5013.38	5013.38	
	5/20/2006	5025.16	NM	NM				
	5/1/2007	5025.16	ND	8.64		5016.52	5013.38	
	3/19/2008	5025.16	ND	8.48		5016.68	5016.68	
MW07R	4/30/2010	5025.66	ND	6.42		5019.24	5019.24	
	7/2/2010	5025.66	Sheen	5.92	<0.01	5019.74	5019.74	
	4/12/2011	5025.66	ND	8.13		5017.53	5017.53	Removed Sock

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW008	10/1/1997	5024.92	ND	13.78		5011.14	5011.14	
	11/13/1997	5024.92	ND	13.40		5011.52	5011.52	
	5/26/1998	5024.92	13.00	13.01	0.01	5011.91	5011.92	
	8/7/1998	5024.92	ND	14.47		5010.45	5010.45	
	11/5/1998	5024.92	ND	14.68		5010.24	5010.24	
	11/12/1998	5024.92	ND	14.71		5010.21	5010.21	
	1/26/1999	5024.92	ND	14.89		5010.03	5010.03	
	2/25/1999	5024.92	ND	15.03		5009.89	5009.89	
	3/26/1999	5024.92	ND	15.09		5009.83	5009.83	
	4/29/1999	5024.92	ND	14.52		5010.40	5010.40	
	5/27/1999	5024.92	ND	12.56		5012.36	5012.36	
	6/24/1999	5024.92	ND	12.48		5012.44	5012.44	
	7/23/1999	5024.92	ND	12.64		5012.28	5012.28	
	8/26/1999	5024.92	ND	12.15		5012.77	5012.77	
	9/23/1999	5024.92	ND	11.96		5012.96	5012.96	
	10/18/1999	5024.92	ND	12.13		5012.79	5012.79	
	11/29/1999	5024.92	ND	12.41		5012.51	5012.51	
	1/27/2000	5024.92	ND	12.65		5012.27	5012.27	
	4/4/2000	5024.92	ND	12.82		5012.10	5012.10	
	7/12/2000	5024.92	ND	12.73		5012.19	5012.19	
	10/5/2000	5024.92	ND	13.26		5011.66	5011.66	
	1/25/2001	5024.92	ND	13.47		5011.45	5011.45	
	4/18/2001	5024.92	ND	13.48		5011.44	5011.44	
	7/2/2001	5024.92	ND	12.34		5012.58	5012.58	
	11/1/2001	5024.92	ND	12.85		5012.07	5012.07	
	3/27/2002	5024.92	ND	13.28		5011.64	5011.64	
	12/23/2002	5024.92	ND	13.95		5010.97	5010.97	
	1/28/2003	5024.92	ND	14.05		5010.87	5010.87	
	2/27/2003	5024.92	ND	14.08		5010.84	5010.84	
	4/2/2003	5024.92	ND	13.50		5011.42	5011.42	
	4/25/2003	5024.92	ND	13.03		5011.89	5011.89	
	6/10/2003	5024.92	ND	11.38		5013.54	5013.54	
	7/1/2003	5024.92	ND	11.49		5013.43	5013.43	
	7/15/2003	5024.92	ND	11.81		5013.11	5013.11	
	8/27/2003	5024.92	ND	13.09		5011.83	5011.83	
	10/17/2003	5024.92	ND	13.30		5011.62	5011.62	
	11/14/2003	5024.92	ND	13.11		5011.81	5011.81	
	12/31/2003	5024.92	ND	13.19		5011.73	5011.73	
	1/29/2004	5024.92	ND	13.21		5011.71	5011.71	
	3/4/2004	5024.92	ND	13.17		5011.75	5011.75	
	4/5/2004	5024.92	ND	13.26		5011.66	5011.66	
	5/12/2004	5024.92	ND	13.16		5011.76	5011.76	
	6/2/2004	5024.92	ND	12.95		5011.97	5011.97	
	8/19/2004	5024.92	ND	13.25		5011.67	5011.67	
	9/16/2004	5024.92	ND	13.69		5011.23	5011.23	
	11/5/2004	5024.92	ND	13.12		5011.80	5011.80	
	5/20/2006	5024.92	NM	NM				
	5/1/2007	5024.92	ND	9.29		5015.63	5011.80	
	3/19/2008	5024.92	ND	9.62		5015.30	5015.30	
	4/30/2010	5024.92	Sheen	7.28	<0.01	5017.64	5017.64	
	7/2/2010	5024.92	Sheen	6.76	<0.01	5018.16	5018.16	
	4/12/2011	5024.92	ND	8.87		5016.05	5016.05	Removed Sock

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW009	10/1/1997	5021.30	12.64	12.66	0.02	5008.64	5008.66	
	11/13/1997	5021.30	11.93	11.94	0.01	5009.36	5009.37	
	5/26/1998	5021.30	ND	11.70		5009.60	5009.60	
	8/7/1998	5021.30	ND	13.75		5007.55	5007.55	
	11/5/1998	5021.30	ND	13.86		5007.44	5007.44	
	11/12/1998	5021.30	ND	13.90		5007.40	5007.40	
	1/26/1999	5021.30	ND	14.07		5007.23	5007.23	
	2/25/1999	5021.30	ND	14.16		5007.14	5007.14	
	3/26/1999	5021.30	ND	14.21		5007.09	5007.09	
	4/29/1999	5021.30	ND	14.17		5007.13	5007.13	
	5/27/1999	5021.30	ND	11.71		5009.59	5009.59	
	6/24/1999	5021.30	ND	12.00		5009.30	5009.30	
	7/23/1999	5021.30	ND	12.15		5009.15	5009.15	
	8/26/1999	5021.30	ND	11.23		5010.07	5010.07	
	9/23/1999	5021.30	ND	11.10		5010.20	5010.20	
	10/18/1999	5021.30	ND	11.35		5009.95	5009.95	
	11/29/1999	5021.30	ND	11.64		5009.66	5009.66	
	1/27/2000	5021.30	ND	11.89		5009.41	5009.41	
	4/4/2000	5021.30	ND	12.12		5009.18	5009.18	
	7/12/2000	5021.30	ND	12.17		5009.13	5009.13	
	10/5/2000	5021.30	ND	12.57		5008.73	5008.73	
	1/25/2001	5021.30	ND	12.80		5008.50	5008.50	
	4/18/2001	5021.30	ND	12.95		5008.35	5008.35	
	7/2/2001	5021.30	ND	12.24		5009.06	5009.06	
	11/1/2001	5021.30	ND	12.32		5008.98	5008.98	
	3/27/2002	5021.30	ND	12.69		5008.61	5008.61	
	8/13/2002	5021.30	12.96	12.98	0.02	5008.32	5008.34	
	12/23/2002	5021.30	ND	13.35		5007.95	5007.95	
	1/28/2003	5021.30	ND	13.43		5007.87	5007.87	
	2/27/2003	5021.30	ND	13.45		5007.85	5007.85	
	4/2/2003	5021.30	ND	13.15		5008.15	5008.15	
	4/25/2003	5021.31	ND	12.70		5008.61	5008.61	
	6/10/2003	5021.31	ND	11.27		5010.04	5010.04	
	7/1/2003	5021.31	ND	11.33		5009.98	5009.98	
	7/15/2003	5021.31	ND	11.74		5009.57	5009.57	
	8/27/2003	5021.31	ND	13.26		5008.05	5008.05	
	10/20/2003	5021.31	ND	13.21		5008.10	5008.10	
	11/14/2003	5021.31	ND	12.96		5008.35	5008.35	
	12/31/2003	5021.31	ND	12.84		5008.47	5008.47	
	2/2/2004	5021.31	ND	12.87		5008.44	5008.44	
	3/4/2004	5021.31	ND	12.78		5008.53	5008.53	
	4/5/2004	5021.31	ND	12.83		5008.48	5008.48	
	5/12/2004	5021.31	ND	12.85		5008.46	5008.46	
	5/13/2004	5021.31	ND	12.85		5008.46	5008.46	
	6/2/2004	5021.31	ND	12.70		5008.61	5008.61	
	7/13/2004	5021.31	ND	12.69		5008.62	5008.62	
	8/19/2004	5021.31	ND	13.24		5008.07	5008.07	
	9/16/2004	5021.31	ND	13.79		5007.52	5007.52	
	11/5/2004	5021.31	ND	13.08		5008.23	5008.23	
	5/20/2006	5021.31	ND	10.89		5010.42	5010.42	
	4/26/2007	5021.31	ND	10.15		5011.16	5011.16	
	3/19/2008	5021.31	ND	9.28		5012.03	5012.03	
	4/30/2010	5021.31	ND	7.18		5014.13	5014.13	
	7/2/2010	5021.31	ND	6.67		5014.64	5014.64	
	4/12/2011	5021.31	ND	8.34		5012.97	5012.97	

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW010	8/8/1997	5015.38	ND	13.71		5001.67	5001.67	
	8/21/1997	5015.38	ND	12.62		5002.76	5002.76	
	8/22/1997	5015.38	ND	12.66		5002.72	5002.72	
	9/5/1997	5015.38	ND	12.65		5002.73	5002.73	
	10/1/1997	5015.38	ND	12.65		5002.73	5002.73	
	11/13/1997	5015.38	ND	12.60		5002.78	5002.78	
	5/26/1998	5015.38	ND	12.11		5003.27	5003.27	
	8/7/1998	5015.38	ND	14.44		5000.94	5000.94	
	11/5/1998	5015.38	ND	15.18		5000.20	5000.20	
	11/12/1998	5015.38	ND	15.19		5000.19	5000.19	
	1/26/1999	5015.38	ND	15.31		5000.07	5000.07	
	2/25/1999	5015.38	ND	15.40		4999.98	4999.98	
	3/26/1999	5015.38	ND	15.43		4999.95	4999.95	
	4/29/1999	5015.38	ND	15.52		4999.86	4999.86	
	5/27/1999	5015.38	ND	13.81		5001.57	5001.57	
	6/24/1999	5015.38	ND	13.71		5001.67	5001.67	
	7/23/1999	5015.38	ND	13.95		5001.43	5001.43	
	8/26/1999	5015.38	ND	13.62		5001.76	5001.76	
	9/23/1999	5015.38	ND	13.44		5001.94	5001.94	
	10/18/1999	5015.38	ND	13.38		5002.00	5002.00	
	11/29/1999	5015.38	ND	13.40		5001.98	5001.98	
	1/27/2000	5015.38	ND	13.46		5001.92	5001.92	
	4/4/2000	5015.38	ND	13.60		5001.78	5001.78	
	7/12/2000	5015.38	ND	14.01		5001.37	5001.37	
	10/5/2000	5015.38	ND	14.16		5001.22	5001.22	
	1/25/2001	5015.38	ND	14.29		5001.09	5001.09	
	4/18/2001	5015.38	ND	14.41		5000.97	5000.97	
	7/2/2001	5015.38	ND	14.28		5001.10	5001.10	
	11/1/2001	5015.38	ND	14.21		5001.17	5001.17	
	3/27/2002	5015.38	ND	14.31		5001.07	5001.07	
	12/23/2002	5015.38	ND	15.08		5000.30	5000.30	
	1/28/2003	5015.38	ND	15.12		5000.26	5000.26	
	2/27/2003	5015.38	ND	15.10		5000.28	5000.28	
	4/2/2003	5015.38	ND	14.95		5000.43	5000.43	
	4/25/2003	5015.40	ND	14.57		5000.83	5000.83	
	6/10/2003	5015.40	ND	13.65		5001.75	5001.75	
	7/1/2003	5015.40	ND	13.50		5001.90	5001.90	
	7/15/2003	5015.40	ND	13.71		5001.69	5001.69	
	8/27/2003	5015.40	ND	14.77		5000.63	5000.63	
	10/20/2003	5015.40	ND	15.29		5000.11	5000.11	
	11/17/2003	5015.40	ND	15.06		5000.34	5000.34	
	12/31/2003	5015.40	ND	14.97		5000.43	5000.43	
	2/2/2004	5015.40	ND	14.92		5000.48	5000.48	
	3/4/2004	5015.40	ND	14.82		5000.58	5000.58	
	4/5/2004	5015.40	ND	14.81		5000.59	5000.59	
	5/12/2004	5015.40	ND	14.78		5000.62	5000.62	
	6/2/2004	5015.40	ND	14.77		5000.63	5000.63	
	7/13/2004	5015.40	ND	14.94		5000.46	5000.46	
	8/19/2004	5015.40	ND	15.32		5000.08	5000.08	
	9/16/2004	5015.40	ND	15.58		4999.82	4999.82	
	11/5/2004	5015.40	ND	15.39		5000.01	5000.01	
	5/20/2006	5015.40	ND	13.26		5002.14	5002.14	
	4/26/2007	5015.40	ND	12.99		5002.41	5002.41	
	3/19/2008	5015.40	ND	11.08		5004.32	5004.32	
	4/30/2010	5015.40	ND	9.16		5006.24	5006.24	
	7/2/2010	5015.40	ND	8.11		5007.29	5007.29	
	4/12/2011	5015.40	ND	9.84		5005.56	5005.56	

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW011	8/21/1997	5011.47	ND	10.42		5001.05	5001.05	
	8/22/1997	5011.47	ND	10.42		5001.05	5001.05	
	9/5/1997	5011.47	ND	10.58		5000.89	5000.89	
	5/26/1998	5011.47	ND	10.26		5001.21	5001.21	
	8/7/1998	5011.47	ND	14.48		4996.99	4996.99	
	11/5/1998	5011.47	ND	15.08		4996.39	4996.39	
	11/12/1998	5011.47	ND	15.10		4996.37	4996.37	
	1/26/1999	5011.47	ND	15.35		4996.12	4996.12	
	2/25/1999	5011.47	ND	15.46		4996.01	4996.01	
	3/26/1999	5011.47	ND	15.50		4995.97	4995.97	
	4/29/1999	5011.47	ND	15.22		4996.25	4996.25	
	5/27/1999	5011.47	ND	12.49		4998.98	4998.98	
	6/24/1999	5011.47	ND	13.02		4998.45	4998.45	
	7/23/1999	5011.47	ND	13.41		4998.06	4998.06	
	8/26/1999	5011.47	ND	12.53		4998.94	4998.94	
	9/23/1999	5011.47	ND	12.69		4998.78	4998.78	
	10/18/1999	5011.47	ND	12.90		4998.57	4998.57	
	11/29/1999	5011.47	ND	13.18		4998.29	4998.29	
	1/27/2000	5011.47	ND	13.45		4998.02	4998.02	
	4/4/2000	5011.47	ND	13.69		4997.78	4997.78	
	7/12/2000	5011.47	ND	13.93		4997.54	4997.54	
	10/5/2000	5011.47	ND	14.26		4997.21	4997.21	
	1/25/2001	5011.47	ND	14.59		4996.88	4996.88	
	4/18/2001	5011.47	ND	14.49		4996.98	4996.98	
	7/2/2001	5011.47	ND	14.18		4997.29	4997.29	
	11/1/2001	5011.47	ND	14.59		4996.88	4996.88	
	3/27/2002	5011.47	ND	14.78		4996.69	4996.69	
	12/23/2002	5011.47	ND	15.59		4995.88	4995.88	
	1/28/2003	5011.47	ND	15.65		4995.82	4995.82	
	2/27/2003	5011.47	ND	15.64		4995.83	4995.83	
	4/2/2003	5011.47	ND	14.80		4996.67	4996.67	
	4/25/2003	5011.51	ND	14.67		4996.84	4996.84	
	6/10/2003	5011.51	ND	13.49		4998.02	4998.02	
	7/1/2003	5011.51	ND	13.53		4997.98	4997.98	
	7/15/2003	5011.51	ND	13.83		4997.68	4997.68	
	8/27/2003	5011.51	ND	15.33		4996.18	4996.18	
	10/20/2003	5011.51	ND	15.86		4995.65	4995.65	
	11/17/2003	5011.51	ND	15.78		4995.73	4995.73	
	12/31/2003	5011.51	ND	15.80		4995.71	4995.71	
	1/29/2004	5011.51	ND	15.77		4995.74	4995.74	
	3/4/2004	5011.51	ND	15.69		4995.82	4995.82	
	4/5/2004	5011.51	ND	15.67		4995.84	4995.84	
	5/12/2004	5011.51	ND	15.58		4995.93	4995.93	
	6/2/2004	5011.51	ND	15.44		4996.07	4996.07	
	7/13/2004	5011.51	ND	15.57		4995.94	4995.94	
	8/19/2004	5011.51	ND	15.87		4995.64	4995.64	
	9/16/2004	5011.51	ND	16.04		4995.47	4995.47	
	11/5/2004	5011.51	ND	16.03		4995.48	4995.48	
	5/20/2006	5011.51	NM	NM				
	5/1/2007	5011.51	ND	13.82		4997.69	4995.48	
	3/19/2008	5011.51	ND	12.08		4999.43	4999.43	
	4/30/2010	5011.51	ND	9.90		5001.61	5001.61	
	7/2/2010	5011.51	ND	8.83		5002.68	5002.68	
	4/12/2011	5011.51	ND	10.62		5000.89	5000.89	



Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW012	8/8/1997	4997.03	ND	17.90		4979.13	4979.13	
	8/21/1997	4997.03	ND	17.56		4979.47	4979.47	
	8/22/1997	4997.03	ND	17.53		4979.50	4979.50	
	9/5/1997	4997.03	ND	17.26		4979.77	4979.77	
	5/26/1998	4997.03	ND	16.25		4980.78	4980.78	
	8/7/1998	4997.03	ND	18.31		4978.72	4978.72	
	11/5/1998	4997.03	ND	18.34		4978.69	4978.69	
	11/12/1998	4997.03	ND	18.35		4978.68	4978.68	
	1/26/1999	4997.03	ND	18.36		4978.67	4978.67	
	2/25/1999	4997.03	ND	18.37		4978.66	4978.66	
	3/26/1999	4997.03	ND	18.40		4978.63	4978.63	
	4/29/1999	4997.03	ND	18.45		4978.58	4978.58	
	5/27/1999	4997.03	ND	17.99		4979.04	4979.04	
	6/24/1999	4997.03	ND	17.65		4979.38	4979.38	
	7/23/1999	4997.03	ND	17.81		4979.22	4979.22	
	8/26/1999	4997.03	ND	17.31		4979.72	4979.72	
	9/23/1999	4997.03	ND	17.16		4979.87	4979.87	
	10/18/1999	4997.03	ND	18.09		4978.94	4978.94	
	11/29/1999	4997.03	ND	17.08		4979.95	4979.95	
	1/27/2000	4997.03	ND	16.99		4980.04	4980.04	
	4/4/2000	4997.03	ND	16.96		4980.07	4980.07	
	7/12/2000	4997.03	ND	16.97		4980.06	4980.06	
	10/5/2000	4997.03	ND	17.22		4979.81	4979.81	
	1/25/2001	4997.03	ND	17.31		4979.72	4979.72	
	4/18/2001	4997.03	ND	17.45		4979.58	4979.58	
	7/2/2001	4997.03	ND	17.35		4979.68	4979.68	
	11/1/2001	4997.03	ND	17.60		4979.43	4979.43	
	3/27/2002	4997.03	ND	17.82		4979.21	4979.21	
	12/23/2002	4997.03	ND	18.46		4978.57	4978.57	
	1/28/2003	4997.03	ND	18.50		4978.53	4978.53	
	2/27/2003	4997.03	ND	18.55		4978.48	4978.48	
	4/2/2003	4997.03	ND	18.55		4978.48	4978.48	
	4/25/2003	4997.10	ND	18.43		4978.67	4978.67	
	6/10/2003	4997.10	ND	18.18		4978.92	4978.92	
	7/1/2003	4997.10	ND	18.08		4979.02	4979.02	
	7/15/2003	4997.10	ND	18.08		4979.02	4979.02	
	8/27/2003	4997.10	ND	18.34		4978.76	4978.76	
	10/17/2003	4997.10	ND	18.60		4978.50	4978.50	
	11/17/2003	4997.10	ND	18.68		4978.42	4978.42	
	12/31/2003	4997.10	ND	18.75		4978.35	4978.35	
	2/2/2004	4997.10	ND	18.80		4978.30	4978.30	
	3/4/2004	4997.10	ND	18.81		4978.29	4978.29	
	4/5/2004	4997.10	ND	18.85		4978.25	4978.25	
	5/12/2004	4997.10	ND	18.90		4978.20	4978.20	
	5/13/2004	4997.10	ND	18.89		4978.21	4978.21	
	6/2/2004	4997.10	ND	18.92		4978.18	4978.18	
	7/13/2004	4997.10	ND	18.98		4978.12	4978.12	
	8/19/2004	4997.10	ND	19.08		4978.02	4978.02	
	9/16/2004	4997.10	ND	19.16		4977.94	4977.94	
	11/5/2004	4997.10	ND	19.32		4977.78	4977.78	
	5/20/2006	4997.10	NM	NM				
	5/1/2007	4997.10	ND	19.79		4977.31	4977.78	
	3/19/2008	4997.10	NM	NM				
	4/30/2010	4997.10	ND	16.18		4980.92	4979.78	
	7/2/2010	4997.10	ND	15.79		4981.31	4980.78	
	4/12/2011	4997.10	ND	15.52		4981.58	4981.78	
MW013	1/2/2004	5019.49	ND	16.51		5002.98	5002.98	
	2/2/2004	5019.49	ND	16.48		5003.01	5003.01	
	3/4/2004	5019.49	ND	16.41		5003.08	5003.08	
	4/5/2004	5019.49	ND	16.39		5003.10	5003.10	
	5/12/2004	5019.49	ND	16.38		5003.11	5003.11	
	5/13/2004	5019.49	ND	16.38		5003.11	5003.11	
	6/2/2004	5019.49	ND	16.39		5003.10	5003.10	
	7/13/2004	5019.49	ND	16.53		5002.96	5002.96	
	8/19/2004	5019.49	ND	16.77		5002.72	5002.72	
	9/16/2004	5019.49	ND	16.99		5002.50	5002.50	
	11/5/2004	5019.49	ND	16.94		5002.55	5002.55	
	5/20/2006	5019.49	NM	NM				
	5/1/2007	5019.49	ND	14.50		5004.99	5002.55	
	3/19/2008	5019.49	ND	12.81		5006.68	5006.68	

Table 2

Well ID	Date of Measurement	Reference Elevation (feet)	Depth to LNAPL (feet)	Depth to Water (feet)	LNAPL Thickness (feet)	Measured GW Elevation (feet)	Corrected GW Elevation* (feet)	Comments
MW014	1/2/2004	5021.58	ND	14.97		5006.61	5006.61	
	2/2/2004	5021.58	ND	14.95		5006.63	5006.63	
	3/4/2004	5021.58	ND	14.88		5006.70	5006.70	
	4/5/2004	5021.58	ND	14.85		5006.73	5006.73	
	5/12/2004	5021.58	ND	14.72		5006.86	5006.86	
	5/13/2004	5021.58	ND	14.72		5006.86	5006.86	
	6/2/2004	5021.58	ND	14.51		5007.07	5007.07	
	7/13/2004	5021.58	ND	14.32		5007.26	5007.26	
	8/19/2004	5021.58	ND	14.57		5007.01	5007.01	
	9/16/2004	5021.58	ND	15.01		5006.57	5006.57	
	11/8/2004	5021.58	ND	14.82		5006.76	5006.76	
	5/20/2006	5021.58	NM	NM				
	5/1/2007	5021.58	ND	11.18		5010.40	5006.76	
	3/19/2008	5021.58	ND	10.53		5011.05	5011.05	

N/A - Not Applicable

ND - Not Detected

NM - Not Measured

\*Takes LNAPL into account using actual density when available or an estimated value of 0.8 mg/L.

\*\*QA of historical data revealed that incorrect measurements may have been entered.

Table 3

Historical BTEX Concentrations in Groundwater  
Fort Lupton Compressor Station

Well ID	Sample Event Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW001	3/18/1992	<0.8	<0.78	<0.6	<1.54
	3/24/1992	<0.8	<0.78	<0.6	<1.54
	11/10/1992	<0.8	<0.78	<0.8	<1.54
	6/23/1993	<0.5	<0.5	<0.5	<0.5
	12/15/1993	<0.5	<0.5	<0.5	5.1
	6/28/1994	<0.5	<0.5	<0.5	<0.5
	12/7/1994	<0.5	<0.5	<0.5	<0.5
	6/1/1995	<0.5	<0.5	<0.5	<0.5
	1/15/1996	<0.5	<0.5	<0.5	<0.5
	7/9/1996	<0.5	<0.5	<0.5	<0.5
	1/30/1997	<0.5	<0.5	<0.5	<0.5
	7/9/1997	<0.5	<0.5	<0.5	<0.5
	1/29/1998	<0.5	<0.5	<0.5	0.88
	10/18/1999	<0.5	<0.5	<0.5	<2
	4/6/2000	<0.5	<0.5	<0.5	<2
	10/12/2000	<0.5	<0.5	<0.5	<2
	4/23/2001	<0.5	<0.5	<0.5	<2
	11/5/2001	<0.5	<0.5	<0.5	<2
	3/27/2002	4.58	4.44	5.92	1.72
	5/8/2002	<1	<1	<1	<2
	4/24/2003	<1	<1	<1	<2
	7/15/2003	<0.5	<0.5	<0.5	<1
	10/20/2003	2	<0.5	<0.5	1.2
	2/2/2004	<0.5	<0.5	<0.5	1
	5/12/2004	<0.5	<0.5	<0.5	<0.5
	7/13/2004	<0.5	<0.5	<0.5	<0.5
	11/8/2004	<0.5	<0.5	<0.5	16.1
MW002	3/18/1992	40000	28000	3100	68000
	3/24/1992	17000	12000	820	13000
	11/10/1992	55000	29000	720	15000
	6/23/1993	45000	29000	700	13000
	12/15/1993	31000	22000	830	13000
	6/28/1994	38000	26000	690	10000
	12/7/1994	34000	20000	1000	15000
	6/1/1995	FP	FP	FP	FP
	1/15/1996	32000	22000	660	9200
	7/9/1996	FP	FP	FP	FP
	1/30/1997	FP	FP	FP	FP
	7/9/1997	FP	FP	FP	FP
	1/29/1998	22000	6900	670	12000
	10/18/1999	22000	2400	690	11000
	4/6/2000	27000	1700	1500	28000
	10/12/2000	31000	2800	810	13000
	4/23/2001	27000	1200	830	14000
	11/5/2001	22000	1200	3000	42000
	3/27/2002	FP	FP	FP	FP
	4/25/2003	15700	<1000	3980	7439
	7/15/2003	FP	FP	FP	FP
	10/17/2003	20800	<1000	<1000	7410
	11/7/2003	30717.7	75.1	1013.7	14797.6
	11/8/2004	26349.7	<50	244.6	12600.8
	3/19/2008	17000	<500	440	6800
	4/30/2010	FP	FP	FP	FP
	4/12/2011	16000	<500	540	6900

**NOTES:**

All "&lt;" values were less than the Lab Detection Limit.

FP - Not sampled - free product present in well.

D - Diluted Sample.

Table 3

Historical BTEX Concentrations in Groundwater  
Fort Lupton Compressor Station

Well ID	Sample Event Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW003	3/18/1992	30000	9000	990	14000
	3/24/1992	27000	8100	880	14000
	11/10/1992	9700	17000	7200	94000
	6/23/1993	21000	17000	830	13000
	12/15/1993	17000	17000	900	12000
	6/28/1994	21000	18000	820	10000
	12/7/1994	26000	22000	630	8600
	6/1/1995	FP	FP	FP	FP
	1/15/1996	27000	24000	740	10000
	7/9/1996	26000	25000	800	10000
	1/30/1997	FP	FP	FP	FP
	7/9/1997	21000	20000	780	9100
	1/29/1998	13000	13000	810	10000
	10/18/1999	6800	4600	610	7200
	4/6/2000	3800	3000	690	7900
	10/12/2000	7300	7000	780	9000
	4/23/2001	12000	9300	790	8900
	11/5/2001	7200	5300	780	7500
	3/27/2002	13500	7160	442	4333
	4/25/2003	10400	8500	2530	4610
	10/17/2003	5370	2720	<200	1695
	11/7/2003	19826.6	14853	399	6839
	11/8/2004	21143.5	12954.5	358	9396.9
	5/20/2006	4252.1	2122.7	64.3	1995.9
	4/26/2007	6188.3	99.3	1326.2	2559.4
	3/19/2008	3700	880	200	1800
MW004	3/20/1992	11000	160	230	4000
	3/24/1992	16000	1500	370	4900
	11/10/1992	17000	9700	580	13000
	6/23/1993	22000	5300	540	8800
	12/15/1993	16000	2000	490	6800
	6/28/1994	16000	2700	<500	9100
	12/7/1994	14000	2500	580	8200
	6/1/1995	10000	1500	440	6500
	1/15/1996	8200	320	400	5100
	7/9/1996	8600	270	510	5600
	1/30/1997	FP	FP	FP	FP
	7/9/1997	5900	200	340	4400
	1/29/1998	11000	2600	480	11000
	10/18/1999	4000	3100	370	7100
	4/6/2000	4800	1500	570	11000
	10/12/2000	4900	440	510	9000
	4/23/2001	3800	420	500	9100
	11/5/2001	2700	450	350	9700
	3/27/2002	4300	11.6	195	2640
	4/25/2003	922	<1000	2360	4630
	10/17/2003	1110	<100	196	4317
	11/7/2003	1437.5	31.5	366	7959.2
	11/8/2004	1153.5	<50	131.5	6797.4
	5/20/2006	884.1	<50	407.4	10056.6
	4/26/2007	541	240.7	<0.5	9844.3
	3/19/2008	480	<50	180	2900

**NOTES:**

All "<" values were less than the Lab Detection Limit.

FP - Not sampled - free product present in well.

D - Diluted Sample.

Table 3

Historical BTEX Concentrations in Groundwater  
Fort Lupton Compressor Station

Well ID	Sample Event Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW005	6/23/1993	<0.5	<0.5	<2.2	<3.8
	12/15/1993	<0.5	0.65	<0.5	3.6
	6/28/1994	<0.5	<0.5	<0.5	0.79
	12/7/1994	<0.5	1.1	<0.5	2.7
	6/1/1995	<0.5	0.59	<0.5	<0.5
	1/15/1996	0.51	<0.5	<0.5	2.8
	7/9/1996	<0.5	<0.5	<0.5	1.6
	1/30/1997	<0.5	<0.5	<0.5	2.4
	7/9/1997	FP	FP	FP	FP
	1/29/1998	<0.5	<0.5	<0.5	<0.5
	10/18/1999	4900	24000	820	11000
	4/6/2000	7200	14000	790	8500
	10/12/2000	2100	1300	330	5000
	4/23/2001	1400	390	430	6800
	11/5/2001	610	34	190	3400
	3/27/2002	31.4	<10	121	1652
	4/24/2003	<100	<100	519	1279
	10/17/2003	3340	<100	<100	961
	11/7/2003	5683.1	<50	175.4	2395.1
	5/13/2004	1085.2	<2.5	131.5	2027.6
	11/8/2004	183.7	<5	145.4	1684.1
	3/19/2008	1200	170	60	290
	4/30/2010	560	<5.0	100	280
	4/12/2011	650	<5.0	120	4.0
MW006	6/23/1993	37000	13000	720	13000
	12/15/1993	27000	9600	980	15000
	6/28/1994	29000	3400	780	9600
	12/7/1994	28000	3000	880	12000
	6/1/1995	FP	FP	FP	FP
	1/15/1996	26000	1100	820	12000
	7/9/1996	FP	FP	FP	FP
	1/30/1997	FP	FP	FP	FP
	7/9/1997	FP	FP	FP	FP
	1/29/1998	FP	FP	FP	FP
	10/18/1999	23000	51	770	11000
	4/6/2000	27000	270	1500	16000
	10/12/2000	27000	1200	4000	44000
	4/23/2001	22000	5000	4800	60000
	11/5/2001	19000	840	2600	31000
	3/27/2002	23700	5.05	655	4117
	4/25/2003	13500	<1000	2700	5003
	7/15/2003	17200	<1000	<1000	3080
	10/20/2003	26600	<1000	<1000	3990
	2/2/2004	26391.4	<5	900.3	5256.5
	5/12/2004	36591.8	<50	327	4797.7
	7/13/2004	32637	<50	<50	5450.3
	11/8/2004	36571.6	<50	235	6483.9

NOTES:

All "&lt;" values were less than the Lab Detection Limit.

FP - Not sampled - free product present in well.

D - Diluted Sample.

Table 3

Historical BTEX Concentrations in Groundwater  
Fort Lupton Compressor Station

Well ID	Sample Event Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW007	6/23/1993	7200	21000	730	11000
	12/15/1993	64	120	5.9	71
	6/28/1994	3400	8300	510	11000
	12/7/1994	3400	630	400	7300
	6/1/1995	2800	190	460	6600
	1/15/1996	390	<25	310	3500
	7/9/1996	94	<25	260	2100
	1/30/1997	71	<25	260	2600
	7/9/1997	FP	FP	FP	FP
	1/29/1998	35	7.8	130	1600
	10/18/1999	56	14	52	480
	4/6/2000	170	17	65	520
	10/12/2000	550	11	150	1200
	4/23/2001	150	76	150	930
	11/5/2001	28	17	58	440
	3/27/2002	7	<5	34	100
	4/25/2003	<2	<2	34.5	65.9
	10/17/2003	<5	<5	17.6	44.7
	5/12/2004	0.8	<0.5	15.3	14.8
	11/8/2004	0.7	<1	7	7
	3/19/2008	3.4	<5.0	0.53	<1.5
MW07R	4/30/2010	<1.0	<5.0	3.9	<3.0
	4/12/2011	<1.0	<5.0	<1.0	<3.0
MW008	6/2/1998	17000	<500	950	18000
	10/18/1999	5500	28	670	9700
	4/6/2000	6000	120	750	8200
	10/12/2000	8200	<25	650	8700
	4/23/2001	7900	<25	540	6400
	11/5/2001	8800	<25	550	7100
	3/27/2002	1980	<10	132	889
	4/25/2003	6310	<1000	2430	4260
	10/17/2003	7500	<200	585	5700
	11/5/2004	4770.8	<50	749.8	10861.9
	3/19/2008	410	<5.0	230	480
MW009	6/2/1998	14000	<250	690	12000
	10/18/1999	9200	17	550	12000
	4/6/2000	12000	96	1000	12000
	10/12/2000	14000	200	970	12000
	4/23/2001	14000	<25	770	11000
	11/5/2001	19000	60	1100	13000
	3/27/2002	16300	<5	586	4604.4
	8/13/2002	2200	14.6	139	1370
	4/25/2003	8340	<1000	4690	9470
	7/15/2003	8340	<500	756	10100
	10/20/2003	3510	<500	<500	4220
	2/2/2004	4871.2	<5	706.4	8838.7
	5/13/2004	4601.2	<50	610.4	9616.6
	7/13/2004	3741.3	<50	245	9178.2
	11/5/2004	3078.2	<5	380.2	10657
	5/20/2006	2689.1	<50	723.3	13427.2
	4/26/2007	1275	857.4	30.2	16931.1
	3/19/2008	650	<250	<25	3400
	4/30/2010	3700	<25	660	6100
	4/12/2011	2500	<120	660	4300

**NOTES:**

All "&lt;" values were less than the Lab Detection Limit.

FP - Not sampled - free product present in well.

D - Diluted Sample.

Table 3

Historical BTEX Concentrations in Groundwater  
Fort Lupton Compressor Station

Well ID	Sample Event Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW010	6/2/1998	58	<5	82	890
	10/18/1999	3	2.3	22	75
	4/6/2000	2.2	4.5	28	135
	10/12/2000	<0.5	4	18	51
	4/23/2001	0.8	2.6	9.1	19
	11/5/2001	<0.5	1.7	4	14
	3/27/2002	1.48	<2	2.72	18.6
	4/25/2003	<2	<2	23.9	46.3
	7/15/2003	<2.5	<2.5	7	15.1
	10/20/2003	1.6	<0.5	3.6	5.8
	2/2/2004	<0.5	<0.5	14	28.1
	5/12/2004	2.1	<0.5	8.3	16
	7/13/2004	1.1	<0.5	7.6	18
	11/5/2004	<0.5	<0.5	<0.5	<0.5
	5/20/2006	1	<0.5	17.4	6.2
	4/26/2007	1.2	9.3	1	7.5
	3/19/2008	14	<5.0	31	82
MW011	4/30/2010	<1.0	<5.0	49	250
	4/12/2011	1.1	<5.0	16	98
	6/2/1998	290	<12	340	1600
	10/18/1999	20	8.3	270	880
	4/6/2000	6.8	13	160	610
	10/12/2000	4	<2.5	160	530
	4/23/2001	0.9	3.4	76	240
	11/5/2001	0.9	4.6	110	380
	3/27/2002	1.06	<2	26.6	41.44
	9/26/2002	0.83	<0.2	45.2	89.1
	4/25/2003	<5	<5	43.9	134.5
	7/15/2003	<10	<10	58	133
MW012	10/20/2003	195	<10	45.4	95.6
	11/7/2003	2.2	<0.5	51.1	101.5
	11/5/2004	<0.5	<0.5	2	42.4
	6/2/1998	<0.5	<0.5	<0.5	<0.5
	10/18/1999	<0.5	<0.5	<0.5	<2
	4/6/2000	3.2	<0.5	0.6	9.6
	10/12/2000	<0.5	<0.5	<0.5	<2
	4/23/2001	<0.5	<0.5	<0.5	<2
	11/5/2001	<0.5	<0.5	<0.5	<2
	3/27/2002	0.84	<2	<2	<4
	4/25/2003	<1	<1	<1	<2
	10/17/2003	<5	<5	<5	<10
	2/2/2004	<0.5	<0.5	<0.5	0.5
	5/13/2004	<0.5	<0.5	<0.5	<0.5
TMW13	7/13/2004	<0.5	<0.5	<0.5	<0.5
	11/5/2004	<1	<1	<1	<1
	4/30/2010	<1.0	<5.0	<1.0	<3.0
	4/12/2011	<1.0	<5.0	<1.0	<3.0
	2/2/2004	<0.5	<0.5	<0.5	0.7
TMW14	5/13/2004	<0.5	<0.5	<0.5	<0.5
	7/13/2004	<0.5	<0.5	<0.5	<0.5
	11/5/2004	0.5	<1	<1	3.2
	2/2/2004	<0.5	<0.5	<0.5	0.8
	5/13/2004	<0.5	<0.5	<0.5	<0.5
	7/13/2004	<0.5	<0.5	<0.5	<0.5
	11/8/2004	0.9	<1	<1	2.3

**NOTES:**

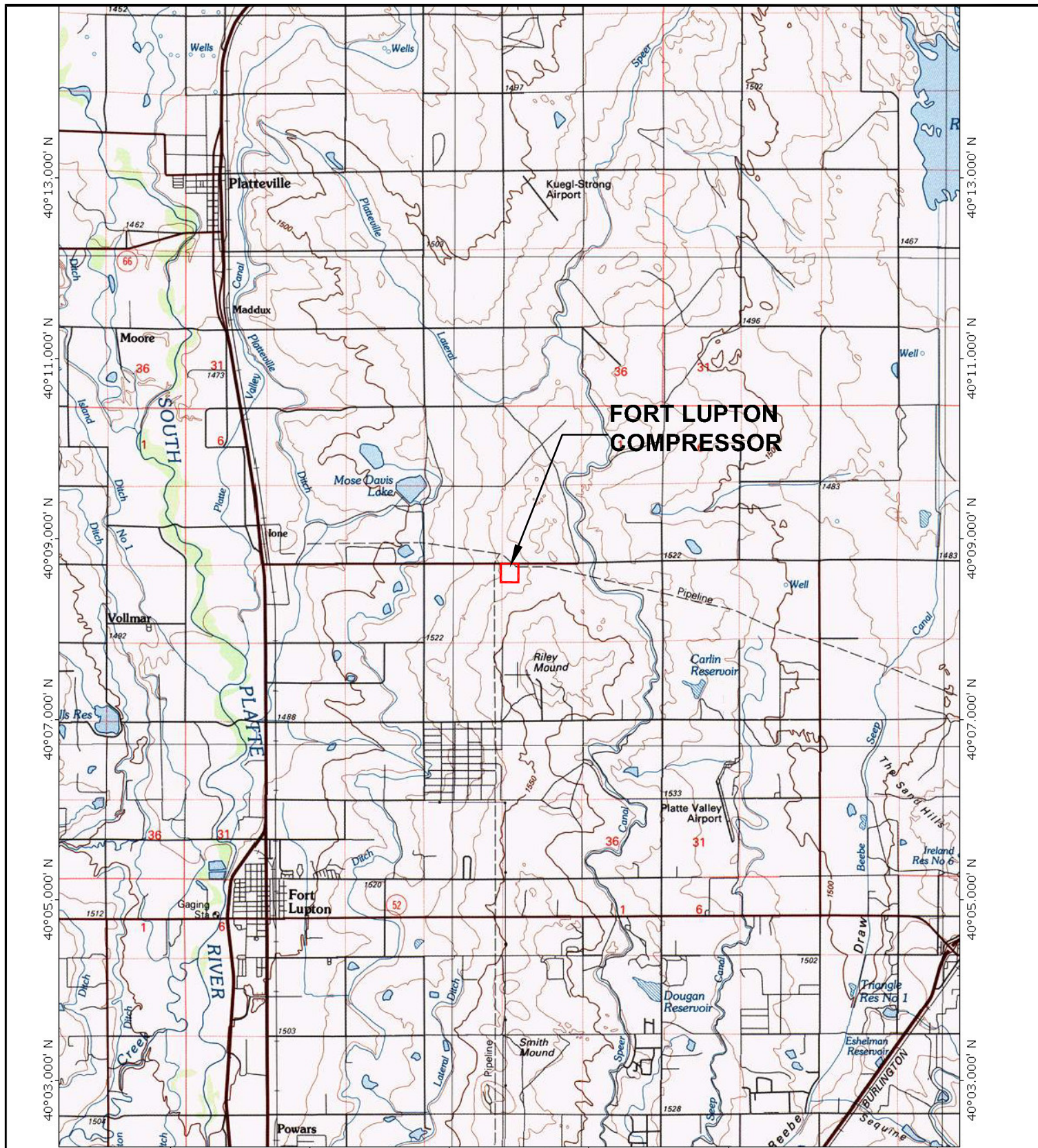
All "&lt;" values were less than the Lab Detection Limit.

FP - Not sampled - free product present in well.

D - Diluted Sample.

## **FIGURES**





Map from TOPO! (c) 2000 National Geographic Holdings

### VICINITY MAP

SECTION 14  
T2S-R66W

0 4400 8800 17,600



SCALE IN FEET  
1" = 8800'



CLIENT/PROJECT:

**PAN ENERGY CORP**  
**FORT LUPTON COMPRESSOR STATION**  
**COGCC REMEDIATION NO. 17**  
Section 14, T.2 N., R.66 W.  
**WELD COUNTY, COLORADO**

TITLE:

### SITE LOCATION MAP



7761 Shaffer Parkway  
Suite 100  
Littleton, CO 80127  
Phone 303-792-5555

DRAWN BY:

KS

DATE:

06/16/08

REVIEWED BY:

MF

PROJECT NO.:

105521

APPROVED BY:

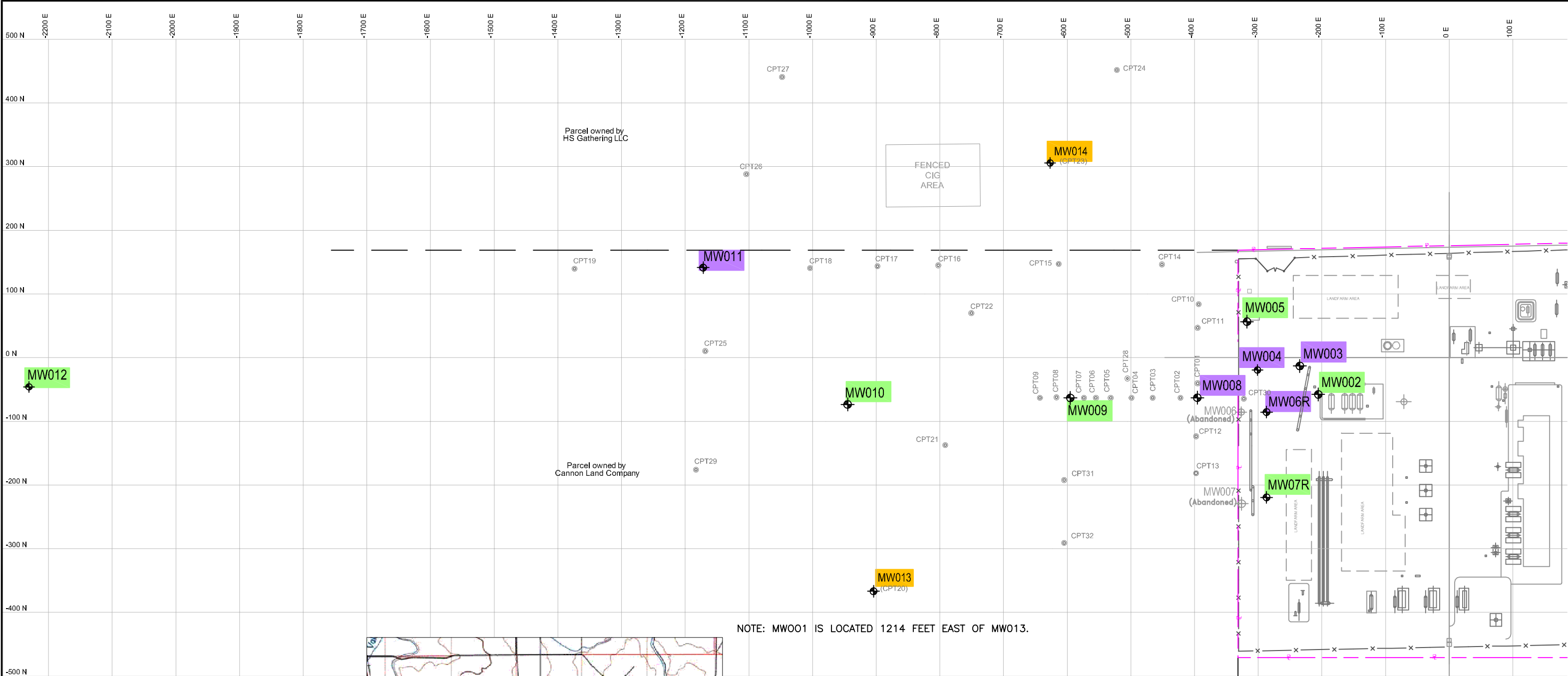
SR

FILE:  
LUP Flg 1 Loc Map

FIGURE:

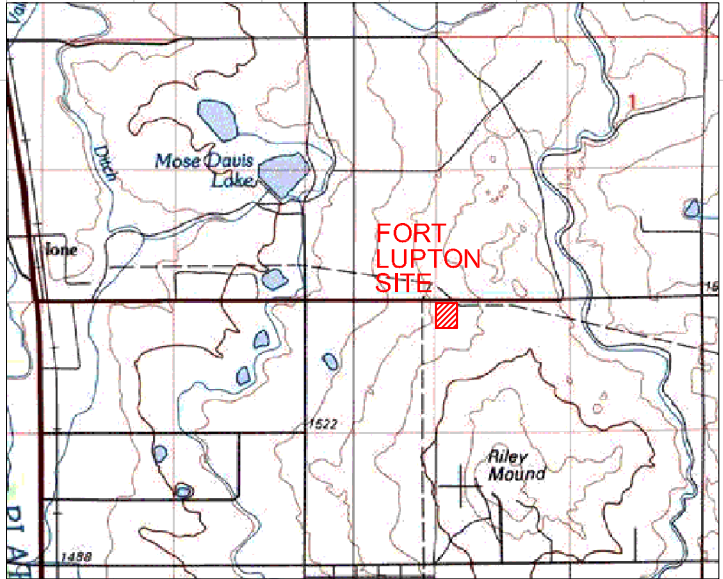
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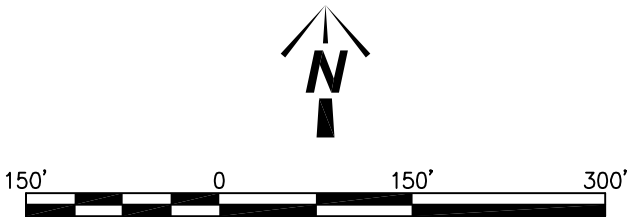


LEGEND

- MW009 MONITORING WELL - MNA
- MW003 MONITORING WELL - FLUID LEVEL
- MW012 MONITORING WELL - TO BE PLUGGED & ABANDONED
- MW006 MONITORING WELL PLUGGED AND ABANDONED
- CPT13 CPT PROBE
- PROPERTY LINE
- APPROXIMATE PARCEL BOUNDARY
- FENCE
- BUILDING, STRUCTURE OR EQUIPMENT
- FORMER LANDFARM AREA
- RECOVERY TRENCH

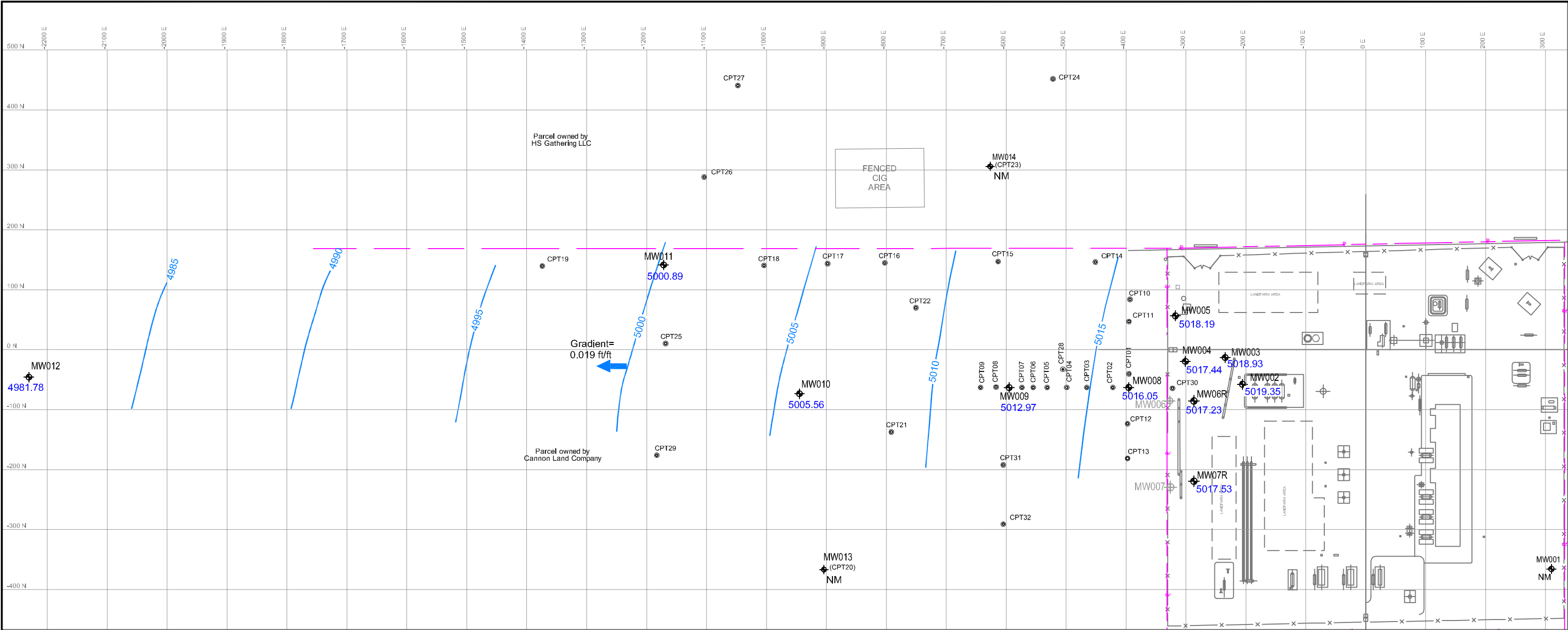


Map from TOPO! (c) 2000 National Geographic Holdings  
**LOCATION MAP**  
SECTION 14  
T2N, R66W



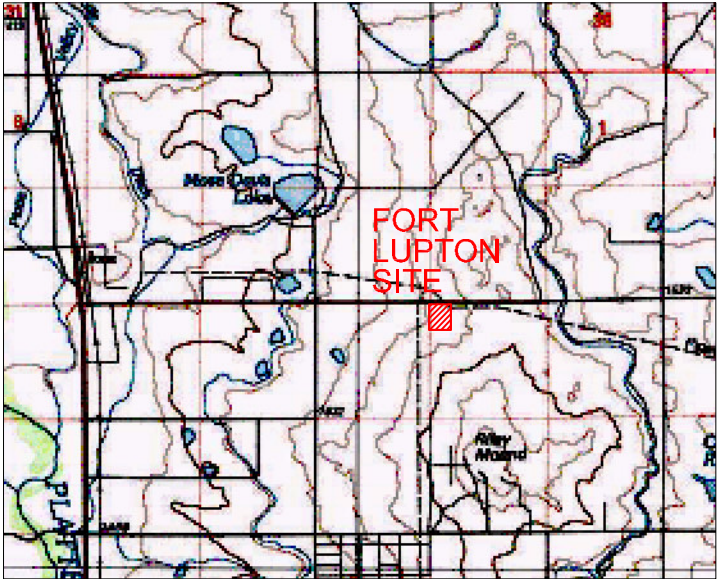
NOTE: THIS SITE MAP DEVELOPED FROM WALSH ENVIRONMENTAL SCIENTISTS AND ENGINEERS BASE MAP. SCANNED BY DDS INC. JANUARY 2002.

CLIENT/PROJECT:		PAN ENERGY CORP FORT LUPTON COMPRESSOR STATION COGCC REMEDIATION NO. 17 Section 14, T.2 N., R.66 W. WELD COUNTY, COLORADO	
TITLE:		2011 WATER QUALITY SAMPLING WELLS	
	7761 Shaffer Parkway Suite 100 Littleton, CO 80127 Phone 303-792-5555	DRAWN BY: KS REVIEWED BY: MF APPROVED BY: SR	DATE: 05/17/11 PROJECT NO.: 105521/009005/- FILE: 2011 Sampl Wells.dwg
	FIGURE:		2

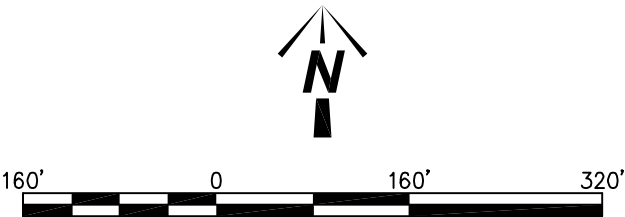


**LEGEND**

- MW009 5012.97 MONITORING WELL LOCATION  
GROUND WATER ELEVATION (APRIL 2011)
- MW006 MONITORING WELL PLUGGED AND ABANDONED
- CPT31 CPT PROBE LOCATION
- NM NOT MEASURED
- R— PROPERTY LINE
- - - - - APPROXIMATE PARCEL BOUNDARY
- x-x- FENCE
- [ ] BUILDING, STRUCTURE OR EQUIPMENT
- [ - - - ] FORMER LANDFARM AREA
- RECOVERY TRENCH
- POTENTIOMETRIC SURFACE (APRIL 2011)
- ← GROUND WATER FLOW DIRECTION



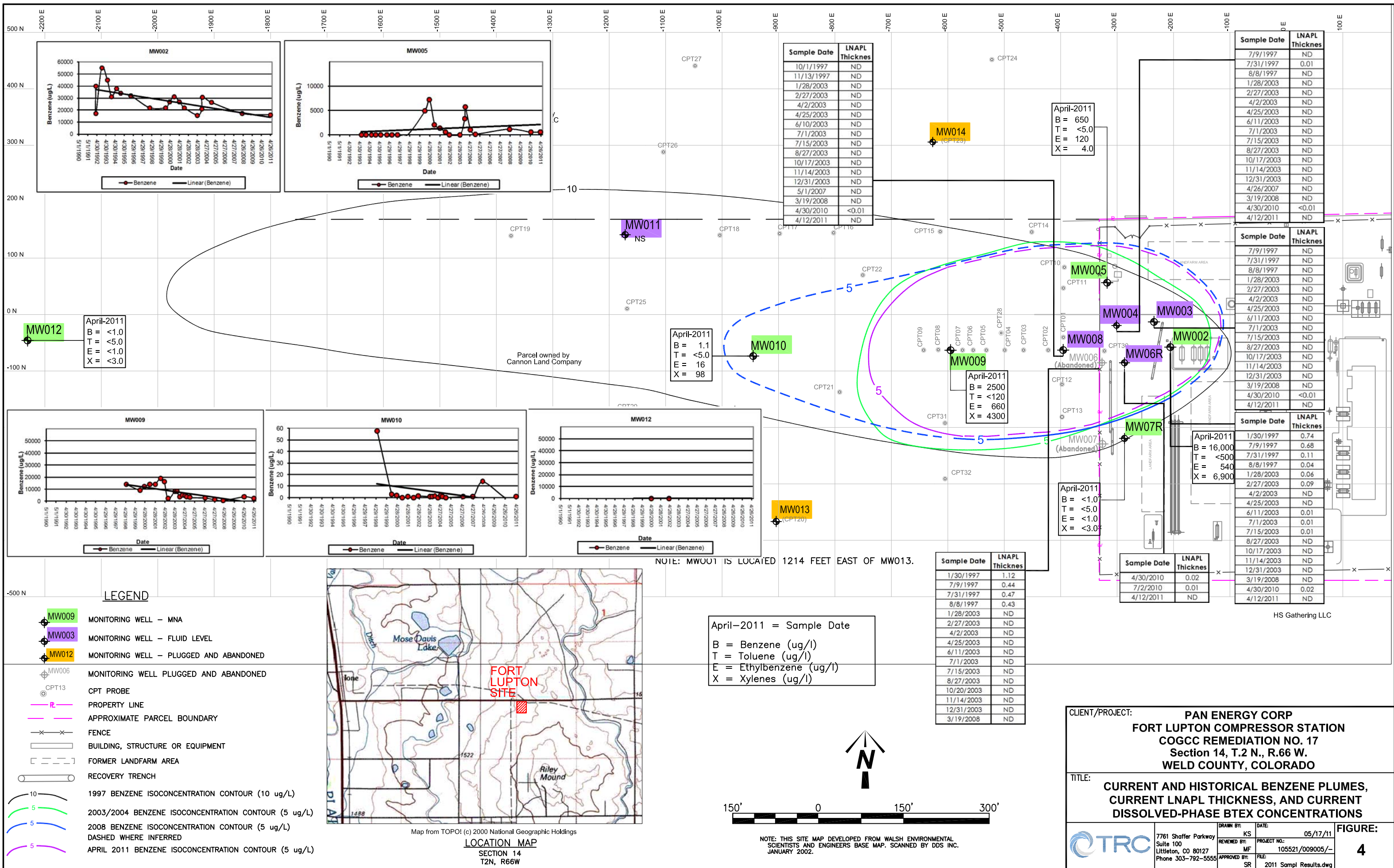
Map from TOPO! (c) 2000 National Geographic Holdings  
**LOCATION MAP**  
SECTION 14  
T2N, R66W



NOTE: THIS SITE MAP DEVELOPED FROM WALSH ENVIRONMENTAL SCIENTISTS AND ENGINEERS BASE MAP. SCANNED BY DDS INC. JANUARY 2002.

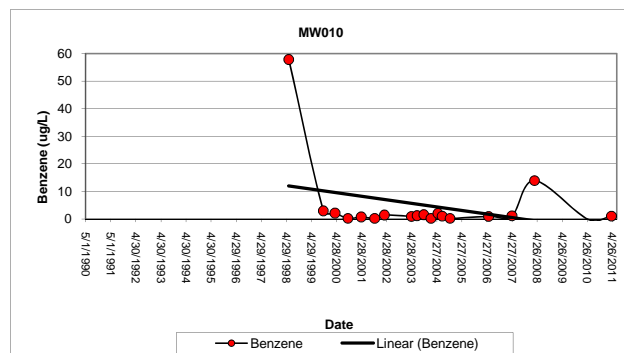
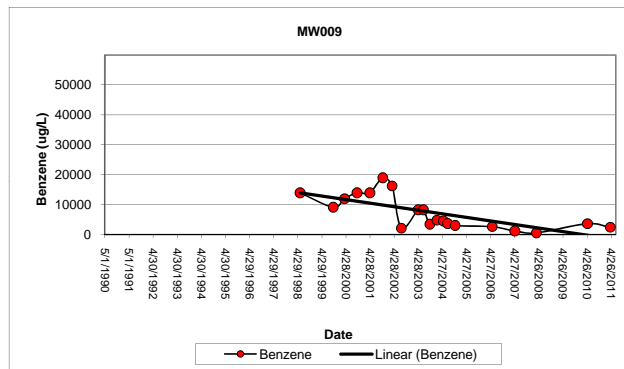
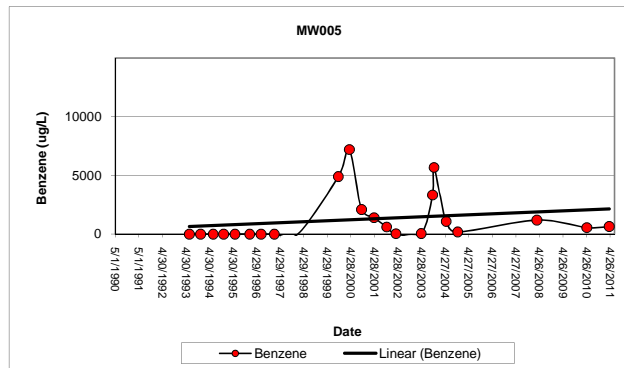
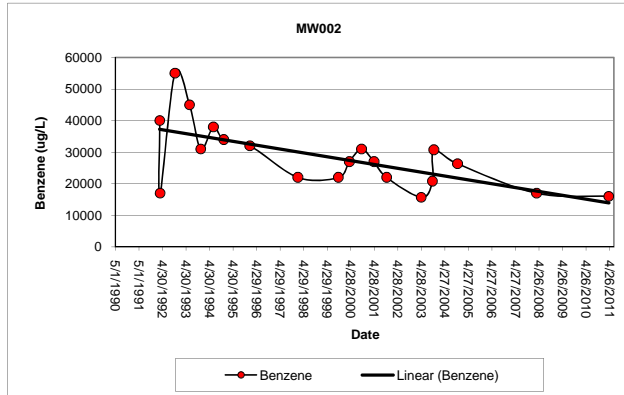
CLIENT/PROJECT:		PAN ENERGY CORP FORT LUPTON COMPRESSOR STATION COGCC REMEDIATION NO. 17 Section 14, T.2 N., R.66 W. WELD COUNTY, COLORADO		
TITLE:		POTENTIOMETRIC SURFACE WITH WATER LEVEL ELEVATIONS		
	7761 Shaffer Parkway Suite 100 Littleton, CO 80127 Phone 303-792-5555	DRAWN BY: KS REVIEWED BY: MF APPROVED BY: SR	DATE: 05/16/11 PROJECT NO.: 105521/009005/- FILE: 2011 Sampl Wells.dwg	FIGURE: <b>3</b>





## **GRAPHS**

Graph 1  
Dissolved-Phase Benzene vs. Time Graphs  
Fort Lupton Compressor Station  
Weld County, Colorado



## **APPENDIX A**





# TRC Solutions - Littleton

7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Billing information:

Mr. Michael Furtaw  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Analysis/Container/Preservative

E028

Chain of Custody  
Page 1 of 4



12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

L512162

Acctnum: **TRCSOLLCO** (lab use only)  
Template/Prelogin: **T70578/P351056**  
Cooler #:  
Shipped Via: **FedEX Ground**

Remarks/Contaminant Sample # (lab only)

MS/MSD included - 01

02

03

04

05

06

07

08

09

Report to: **Mr. Michael Furtaw** Email: **mfurtaw@trcsolutions.com**

Project Description: **PEC Brighton** City/State Collected: **Colorado**  
Phone: (303) 792-5555 Client Project #: **1055210000000009005** Lab Project #: **TRCSOLLCO-1055219005**  
FAX: (303) 792-0122

Collected by (print): **Michael Furtaw** Site/Facility ID#: **PEC** P.O.#: **32219**

Collected by (signature): *[Signature]* Rush? (Lab MUST Be Notified)  
 Same Day ..... 200%  
 Next Day ..... 100%  
 Two Day ..... 50%  
 Three Day ..... 25%  
 Date Results Needed  
 Email? ☐ No ☒ Yes  
 FAX? ☐ No ☐ Yes  
 No. of Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
BRG-MW005		GW		4/18/11	1235	24 X
BRG-MW06R		GW		4/18/11	1205	2 X
BRG-MW007		GW		4/18/11	1115	2 X
DGN-MW007		GW		4/14/11	1250	2 X
DGN-MW007 DUP		GW		4/14/11	1250	2 X
DGN-MW008		GW		4/14/11	1310	2 X
DGN-MW011		GW		4/14/11	1100	2 X
LUP-MW002		GW		4/12/11	1120	2 X
LUP-MW005		GW		4/12/11	1005	2 X

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

Flow Other

Relinquished by: (Signature) <i>[Signature]</i>	Date: 4/19/11	Time: 1100	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) OK
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1 Bottles Received: 730	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 4/20/11 Time: 0900	pH Checked: NCF:

41355 9318 0680

# TRC Solutions - Littleton

7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Billing information:

Mr. Michael Furtaw  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Analysis/Container/Preservative

Chain of Custody  
Page 2 of 4



12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

Report to: **Mr. Michael Furtaw**

Email: **mfurtaw@trcsolutions.com**

Project Description: **PEC Brighton**

City/State Collected **Colorado**

Phone: (303) 792-5555  
FAX: (303) 792-0122

Client Project #: **10552100000000009005**

Lab Project #: **TRCSOLLCO-1055219005**

Collected by (print): **Michael Furtaw**

Site/Facility ID#: **PEC**

P.O.#: **32219**

Collected by (signature):

**Rush?** (Lab MUST Be Notified)

Date Results Needed

Immediately  
Packed on Ice N ☐ Y ☒

☐ Same Day ..... 200%  
☐ Next Day ..... 100%  
☐ Two Day ..... 50%  
☐ Three Day ..... 25%

Email? ☐ No ☐ Yes  
FAX? ☐ No ☐ Yes

No.  
of  
Cnts

V8260BTEX 40mlAmb-HCI

Acctnum: **TRCSOLLCO** (lab use only)  
Template/Prelogin **T70578 P351056**  
Cooler #:  
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cnts											Remarks/Contaminant	Sample # (lab only)
LUP-MW07R		GW		4/12/11	1040	2	X											L512162-10
LUP-MW07R DUP		GW		4/12/11	1040	2	X											11
LUP-MW009		GW		4/12/11	1215	2	X											12
LUP-MW010		GW		4/12/11	1300	2	X											13
LUP-MW012		GW		4/12/11	1410	2	X											14
HMB-MW002		GW		4/14/11	0900	2	X											15
HMB-MW009		GW		4/14/11	0830	2	X											16
HMB-MW011		GW		4/13/11	1500	2	X											17
HMB-MW013		GW		4/13/11	1330	2	X											18

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

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

Remarks:

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

Relinquished by: (Signature)	Date: 4/19/11	Time: 1100	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1°C	Bottles Received: 730
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/20/11	Time: 0900
				COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	pH Checked: <input checked="" type="checkbox"/> NCF: <input type="checkbox"/>

# TRC Solutions - Littleton

7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Billing information:

Mr. Michael Furtaw  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Analysis/Container/Preservative

Chain of Custody

Page 3 of 4



L-A-B S-C-I-E-N-C-E-S

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

1512162

Report to: **Mr. Michael Furtaw**  
Email: **mfurtaw@trcsolutions.com**

Project Description: **PEC Brighton**  
City/State Collected: **Colorado**

Phone: (303) 792-5555  
FAX: (303) 792-0122  
Client Project #: **10552100000000009005**  
Lab Project #: **TRCSOLLCO-1055219005**

Collected by (print): **Michael Furtaw**  
Site/Facility ID#: **PEC**  
P.O.#: **32219**

Collected by (signature):  
Immediately Packed on Ice N    Y    ☒  
**Rush? (Lab MUST Be Notified)**  
Same Day .....200%  
Next Day .....100%  
Two Day .....50%  
Three Day .....25%  
Date Results Needed  
Email?    No    Yes  
FAX?    No    Yes  
No. of Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
HMB-MW014		GW		4/13/11	1200	4
HMB-MW018		GW		4/13/11	1010	2
HMB-MW019		GW		4/13/11	1115	2
HUD-MW008		GW		4/15/11	0840	2
HUD-MW011		GW		4/15/11	0755	2
HUD-MW012		GW		4/15/11	0720	2
HUD-MW014		GW		4/15/11	1000	2
HUD-MW009		GW		4/15/11	0925	2
VLL-MW03A		GW		4/11/11	0950	2

V8260BTEX 40mlAmb-HCI

Acctnum: **TRCSOLLCO** (lab use only)  
Template/Prelogin: **T70578 P351056**  
Cooler #:  
Shipped Via: **FedEx Ground**

Remarks/Contaminant Sample # (lab only)

MS/MSD included 19  
20  
21  
22  
23  
24  
25  
26  
27

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

Remarks:

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

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

Relinquished by: (Signature) <i>[Signature]</i>	Date: 4/19/11	Time: 1100	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input checked="" type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only) <i>[Signature]</i>
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1	Bottles Received: 73
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 4/20/11	Time: 0900
				COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	pH Checked: NCF:

# TRC Solutions - Littleton

7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Billing information:

Mr. Michael Furtaw  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Analysis/Container/Preservative

Chain of Custody

Page 4 of 4



12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

Report to: **Mr. Michael Furtaw**  
Email: **mfurtaw@trcsolutions.com**

Project Description: **PEC Brighton**  
City/State Collected: **Colorado**  
Lab Project #: **TRCSOLLCO-1055219005**

Phone: (303) 792-5555  
FAX: (303) 792-0122  
Client Project #: **1055210000000009005**

Collected by (print): **Michael Furtaw**  
Site/Facility ID#: **PEC**  
P.O.#: **32219**

Collected by (signature):  
Immediately Packed on Ice N    Y    ☒  
**Rush?** (Lab MUST Be Notified)  
Same Day ..... 200%  
Next Day ..... 100%  
Two Day ..... 50%  
Three Day ..... 25%  
Date Results Needed  
Email?    No    Yes  
FAX?    No    Yes  
No. of Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
VLL-MW03B		GW		4/11/11	1035	2
VLL-MW005		GW		4/11/11	1130	2
VLL-MW007		GW		4/11/11	1200	2
VLL-MW009		GW		4/11/11	1315	2
VLL-MW010		GW		4/11/11	1350	2
VLL-MW011		GW		4/12/11	0845	2
VLL-MW013		GW		4/11/11	1435	2
TRIP BLANK		GW		—	—	1

V8260BTEX 40mlAmb-HCI

Acctnum: **TRCSOLLCO** (lab use only)  
Template/Prelogin: **T70578 P351056**  
Cooler #:  
Shipped Via: **FedEX Ground**

Remarks/Contaminant Sample # (lab only)

LS12162-28  
29  
30  
31  
32  
33  
34  
35

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

Remarks:

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

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

Relinquished by: (Signature) <i>[Signature]</i>	Date: 4/19/11	Time: 1100	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) <i>[Signature]</i>
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 3.1 Bottles Received: 730	COC Seal Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 4/20/11 Time: 0900	pH Checked: NCF:



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Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

## Report Summary

Wednesday April 27, 2011

Report Number: L512162

Samples Received: 04/20/11

Client Project: 10552100000000009005

Description: PEC Brighton

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
Terrie Fudge, ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : BRG-MW005  
Collected By : Michael Furtaw  
Collection Date : 04/18/11 12:35

ESC Sample # : L512162-01

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0019	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	102.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : BRG-MW06R  
Collected By : Michael Furtaw  
Collection Date : 04/18/11 12:05

ESC Sample # : L512162-02

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0015	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	107.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	109.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : BRG-MW007  
Collected By : Michael Furtaw  
Collection Date : 04/18/11 11:15

ESC Sample # : L512162-03

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0016	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	109.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	108.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	103.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : DGN-MW007  
Collected By : Michael Furtaw  
Collection Date : 04/14/11 12:50

ESC Sample # : L512162-04

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	103.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	105.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	99.8		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Michael Furtaw  
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April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : DGN-MW007 DUP  
Collected By : Michael Furtaw  
Collection Date : 04/14/11 12:50

ESC Sample # : L512162-05

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	104.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	110.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	99.4		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : DGN-MW008  
Collected By : Michael Furtaw  
Collection Date : 04/14/11 13:10

ESC Sample # : L512162-06

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	102.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	111.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	100.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

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April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : DGN-MW011  
Collected By : Michael Furtaw  
Collection Date : 04/14/11 11:00

ESC Sample # : L512162-07

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.081	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	0.0014	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	103.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	106.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	98.7		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : LUP-MW002  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 11:20

ESC Sample # : L512162-08

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	16.	0.10	mg/l	8260B	04/20/11	100
Toluene	BDL	0.50	mg/l	8260B	04/20/11	100
Ethylbenzene	0.54	0.10	mg/l	8260B	04/20/11	100
Total Xylenes	6.9	0.30	mg/l	8260B	04/20/11	100
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/20/11	100
Dibromofluoromethane	96.4		% Rec.	8260B	04/20/11	100
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/20/11	100
4-Bromofluorobenzene	99.0		% Rec.	8260B	04/20/11	100

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : LUP-MW005  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 10:05

ESC Sample # : L512162-09

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.65	0.010	mg/l	8260B	04/25/11	10
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	0.12	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	0.0040	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	111.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	94.6		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	105.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Michael Furtaw  
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7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : LUP-MW07R  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 10:40

ESC Sample # : L512162-10

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/25/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	96.4		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	98.5		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : LUP-MW07R DUP  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 10:40

ESC Sample # : L512162-11

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/25/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	107.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	97.2		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	98.6		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : LUP-MW009  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 12:15

ESC Sample # : L512162-12

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	2.5	0.025	mg/l	8260B	04/21/11	25
Toluene	BDL	0.12	mg/l	8260B	04/21/11	25
Ethylbenzene	0.66	0.025	mg/l	8260B	04/21/11	25
Total Xylenes	4.3	0.075	mg/l	8260B	04/21/11	25
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	25
Dibromofluoromethane	95.9		% Rec.	8260B	04/21/11	25
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/21/11	25
4-Bromofluorobenzene	96.5		% Rec.	8260B	04/21/11	25

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : LUP-MW010  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 13:00

ESC Sample # : L512162-13

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0011	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	0.016	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	0.098	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	98.1		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	97.4		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : LUP-MW012  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 14:10

ESC Sample # : L512162-14

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	96.4		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	96.2		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
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7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HMB-MW002  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 09:00

ESC Sample # : L512162-15

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	107.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	97.6		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	97.3		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
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7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HMB-MW009  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 08:30

ESC Sample # : L512162-16

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0013	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	0.0077	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	0.025	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	96.2		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	99.9		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	98.8		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HMB-MW011  
Collected By : Michael Furtaw  
Collection Date : 04/13/11 15:00

ESC Sample # : L512162-17

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.012	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	0.38	0.010	mg/l	8260B	04/21/11	10
Total Xylenes	1.3	0.030	mg/l	8260B	04/21/11	10
Surrogate Recovery						
Toluene-d8	92.5		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	99.7		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	92.9		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	97.3		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HMB-MW013  
Collected By : Michael Furtaw  
Collection Date : 04/13/11 13:30

ESC Sample # : L512162-18

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.74	0.010	mg/l	8260B	04/21/11	10
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	0.51	0.010	mg/l	8260B	04/21/11	10
Total Xylenes	3.3	0.030	mg/l	8260B	04/21/11	10
Surrogate Recovery						
Toluene-d8	93.5		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	90.0		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	93.0		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	93.2		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HMB-MW014  
Collected By : Michael Furtaw  
Collection Date : 04/13/11 12:00

ESC Sample # : L512162-19

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.067	0.0010	mg/l	8260B	04/22/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/22/11	1
Ethylbenzene	0.17	0.0010	mg/l	8260B	04/22/11	1
Total Xylenes	0.92	0.060	mg/l	8260B	04/23/11	20
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/22/11	1
Dibromofluoromethane	119.		% Rec.	8260B	04/22/11	1
a,a,a-Trifluorotoluene	98.4		% Rec.	8260B	04/22/11	1
4-Bromofluorobenzene	112.		% Rec.	8260B	04/22/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HMB-MW018  
Collected By : Michael Furtaw  
Collection Date : 04/13/11 10:10

ESC Sample # : L512162-20

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.018	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	0.0086	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	0.011	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	99.3		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	93.8		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	110.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	112.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HMB-MW019  
Collected By : Michael Furtaw  
Collection Date : 04/13/11 11:15

ESC Sample # : L512162-21

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	103.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	104.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

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7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HUD-MW005  
Collected By : Michael Furtaw  
Collection Date : 04/15/11 08:40

ESC Sample # : L512162-22

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0010	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	0.028	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	0.21	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	95.4		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	104.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	106.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HUD-MW011  
Collected By : Michael Furtaw  
Collection Date : 04/15/11 07:55

ESC Sample # : L512162-23

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.025	mg/l	8260B	04/26/11	25
Toluene	BDL	0.12	mg/l	8260B	04/26/11	25
Ethylbenzene	0.17	0.025	mg/l	8260B	04/26/11	25
Total Xylenes	0.69	0.075	mg/l	8260B	04/26/11	25
Surrogate Recovery						
Toluene-d8	99.0		% Rec.	8260B	04/26/11	25
Dibromofluoromethane	96.5		% Rec.	8260B	04/26/11	25
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/26/11	25
4-Bromofluorobenzene	106.		% Rec.	8260B	04/26/11	25

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HUD-MW012  
Collected By : Michael Furtaw  
Collection Date : 04/15/11 07:20

ESC Sample # : L512162-24

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	99.9		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	99.6		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	104.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	94.6		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HUD-MW014  
Collected By : Michael Furtaw  
Collection Date : 04/15/11 10:00

ESC Sample # : L512162-25

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.0018	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	103.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	101.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	108.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	105.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : HUD-MW009  
Collected By : Michael Furtaw  
Collection Date : 04/15/11 09:25

ESC Sample # : L512162-26

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	100.		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	109.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	101.		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : VLL-MW03A  
Collected By : Michael Furtaw  
Collection Date : 04/11/11 09:50

ESC Sample # : L512162-27

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	5.2	0.050	mg/l	8260B	04/21/11	50
Toluene	0.25	0.25	mg/l	8260B	04/21/11	50
Ethylbenzene	0.52	0.050	mg/l	8260B	04/21/11	50
Total Xylenes	7.4	0.15	mg/l	8260B	04/21/11	50
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	50
Dibromofluoromethane	95.4		% Rec.	8260B	04/21/11	50
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	04/21/11	50
4-Bromofluorobenzene	97.0		% Rec.	8260B	04/21/11	50

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : VLL-MW03B  
Collected By : Michael Furtaw  
Collection Date : 04/11/11 10:35

ESC Sample # : L512162-28

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.43	0.010	mg/l	8260B	04/21/11	10
Toluene	BDL	0.050	mg/l	8260B	04/21/11	10
Ethylbenzene	0.34	0.010	mg/l	8260B	04/21/11	10
Total Xylenes	1.8	0.030	mg/l	8260B	04/21/11	10
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	10
Dibromofluoromethane	95.1		% Rec.	8260B	04/21/11	10
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/21/11	10
4-Bromofluorobenzene	98.5		% Rec.	8260B	04/21/11	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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# REPORT OF ANALYSIS

Mr. Michael Furtaw  
TRC Solutions - Littleton  
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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : VLL-MW005  
Collected By : Michael Furtaw  
Collection Date : 04/11/11 11:30

ESC Sample # : L512162-29

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	96.1		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	97.1		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : VLL-MW007  
Collected By : Michael Furtaw  
Collection Date : 04/11/11 12:00

ESC Sample # : L512162-30

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	0.72	0.050	mg/l	8260B	04/21/11	50
Toluene	1.5	0.25	mg/l	8260B	04/21/11	50
Ethylbenzene	0.66	0.050	mg/l	8260B	04/21/11	50
Total Xylenes	9.1	0.15	mg/l	8260B	04/21/11	50
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	04/21/11	50
Dibromofluoromethane	95.9		% Rec.	8260B	04/21/11	50
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	04/21/11	50
4-Bromofluorobenzene	98.0		% Rec.	8260B	04/21/11	50

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : VLL-MW009  
Collected By : Michael Furtaw  
Collection Date : 04/11/11 13:15

ESC Sample # : L512162-31

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	6.3	0.20	mg/l	8260B	04/25/11	200
Toluene	BDL	0.12	mg/l	8260B	04/21/11	25
Ethylbenzene	0.38	0.025	mg/l	8260B	04/21/11	25
Total Xylenes	3.5	0.075	mg/l	8260B	04/21/11	25
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	04/21/11	25
Dibromofluoromethane	96.1		% Rec.	8260B	04/21/11	25
a,a,a-Trifluorotoluene	99.7		% Rec.	8260B	04/21/11	25
4-Bromofluorobenzene	96.4		% Rec.	8260B	04/21/11	25

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : VLL-MW010  
Collected By : Michael Furtaw  
Collection Date : 04/11/11 13:50

ESC Sample # : L512162-32

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/25/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	97.0		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	96.4		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : VLL-MW011  
Collected By : Michael Furtaw  
Collection Date : 04/12/11 08:45

ESC Sample # : L512162-33

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/25/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/21/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/21/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/21/11	1
Surrogate Recovery						
Toluene-d8	107.		% Rec.	8260B	04/21/11	1
Dibromofluoromethane	98.5		% Rec.	8260B	04/21/11	1
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	04/21/11	1
4-Bromofluorobenzene	94.6		% Rec.	8260B	04/21/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : VLL-MW013  
Collected By : Michael Furtaw  
Collection Date : 04/11/11 14:35

ESC Sample # : L512162-34

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	6.9	0.20	mg/l	8260B	04/25/11	200
Toluene	BDL	0.12	mg/l	8260B	04/21/11	25
Ethylbenzene	0.43	0.025	mg/l	8260B	04/21/11	25
Total Xylenes	4.6	0.075	mg/l	8260B	04/21/11	25
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/21/11	25
Dibromofluoromethane	96.2		% Rec.	8260B	04/21/11	25
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	04/21/11	25
4-Bromofluorobenzene	96.9		% Rec.	8260B	04/21/11	25

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

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TRC Solutions - Littleton  
7761 Shaffer Pkwy, Ste 100  
Littleton, CO 80127

April 27, 2011

Date Received : April 20, 2011  
Description : AIG - Panenergy Corp - Annual GW Monitoring  
Sample ID : TRIPBLANK  
Collected By : Michael Furtaw  
Collection Date : 04/11/11 00:00

ESC Sample # : L512162-35

Site ID : PEC

Project # : 10552100000000009005

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzene	BDL	0.0010	mg/l	8260B	04/20/11	1
Toluene	BDL	0.0050	mg/l	8260B	04/20/11	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	04/20/11	1
Total Xylenes	BDL	0.0030	mg/l	8260B	04/20/11	1
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/20/11	1
Dibromofluoromethane	97.2		% Rec.	8260B	04/20/11	1
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	04/20/11	1
4-Bromofluorobenzene	97.7		% Rec.	8260B	04/20/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L512162-19	WG532192	SAMP	Ethylbenzene	R1660130	V

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

[illegible]



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Littleton, CO 80127

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Level II

L512162

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April 27, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Benzene	< .001	mg/l			WG531994	04/21/11 01:54
Ethylbenzene	< .001	mg/l			WG531994	04/21/11 01:54
Toluene	< .005	mg/l			WG531994	04/21/11 01:54
Total Xylenes	< .003	mg/l			WG531994	04/21/11 01:54
4-Bromofluorobenzene		% Rec.	98.25	75-128	WG531994	04/21/11 01:54
Dibromofluoromethane		% Rec.	105.9	79-125	WG531994	04/21/11 01:54
Toluene-d8		% Rec.	101.6	87-114	WG531994	04/21/11 01:54
a,a,a-Trifluorotoluene		% Rec.	106.1	84-114	WG531994	04/21/11 01:54
Benzene	< .001	mg/l			WG532110	04/21/11 12:04
Ethylbenzene	< .001	mg/l			WG532110	04/21/11 12:04
Toluene	< .005	mg/l			WG532110	04/21/11 12:04
Total Xylenes	< .003	mg/l			WG532110	04/21/11 12:04
4-Bromofluorobenzene		% Rec.	113.2	75-128	WG532110	04/21/11 12:04
Dibromofluoromethane		% Rec.	92.98	79-125	WG532110	04/21/11 12:04
Toluene-d8		% Rec.	100.4	87-114	WG532110	04/21/11 12:04
a,a,a-Trifluorotoluene		% Rec.	112.1	84-114	WG532110	04/21/11 12:04
Benzene	< .001	mg/l			WG532012	04/21/11 07:34
Ethylbenzene	< .001	mg/l			WG532012	04/21/11 07:34
Toluene	< .005	mg/l			WG532012	04/21/11 07:34
Total Xylenes	< .003	mg/l			WG532012	04/21/11 07:34
4-Bromofluorobenzene		% Rec.	97.10	75-128	WG532012	04/21/11 07:34
Dibromofluoromethane		% Rec.	105.1	79-125	WG532012	04/21/11 07:34
Toluene-d8		% Rec.	105.5	87-114	WG532012	04/21/11 07:34
a,a,a-Trifluorotoluene		% Rec.	111.2	84-114	WG532012	04/21/11 07:34
Benzene	< .001	mg/l			WG532192	04/22/11 13:14
Ethylbenzene	< .001	mg/l			WG532192	04/22/11 13:14
Toluene	< .005	mg/l			WG532192	04/22/11 13:14
4-Bromofluorobenzene		% Rec.	97.24	75-128	WG532192	04/22/11 13:14
Dibromofluoromethane		% Rec.	122.7	79-125	WG532192	04/22/11 13:14
Toluene-d8		% Rec.	102.8	87-114	WG532192	04/22/11 13:14
a,a,a-Trifluorotoluene		% Rec.	99.86	84-114	WG532192	04/22/11 13:14
Benzene	< .001	mg/l			WG531986	04/20/11 22:11
Ethylbenzene	< .001	mg/l			WG531986	04/20/11 22:11
Toluene	< .005	mg/l			WG531986	04/20/11 22:11
Total Xylenes	< .003	mg/l			WG531986	04/20/11 22:11
4-Bromofluorobenzene		% Rec.	95.34	75-128	WG531986	04/20/11 22:11
Dibromofluoromethane		% Rec.	96.03	79-125	WG531986	04/20/11 22:11
Toluene-d8		% Rec.	105.8	87-114	WG531986	04/20/11 22:11
a,a,a-Trifluorotoluene		% Rec.	102.3	84-114	WG531986	04/20/11 22:11
Benzene	< .001	mg/l			WG532582	04/25/11 05:00
4-Bromofluorobenzene		% Rec.	101.7	75-128	WG532582	04/25/11 05:00
Dibromofluoromethane		% Rec.	100.8	79-125	WG532582	04/25/11 05:00
Toluene-d8		% Rec.	100.8	87-114	WG532582	04/25/11 05:00
a,a,a-Trifluorotoluene		% Rec.	102.8	84-114	WG532582	04/25/11 05:00
Total Xylenes	< .003	mg/l			WG532385	04/23/11 01:14
4-Bromofluorobenzene		% Rec.	104.9	75-128	WG532385	04/23/11 01:14
Dibromofluoromethane		% Rec.	96.85	79-125	WG532385	04/23/11 01:14

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



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7761 Shaffer Pkwy, Ste 100

Littleton, CO 80127

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April 27, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Toluene-d8		% Rec.	106.6	87-114		04/23/11 01:14
a,a,a-Trifluorotoluene		% Rec.	100.6	84-114		04/23/11 01:14
Benzene	< .001	mg/l			WG532817	04/26/11 11:46
Ethylbenzene	< .001	mg/l			WG532817	04/26/11 11:46
Toluene	< .005	mg/l			WG532817	04/26/11 11:46
Total Xylenes	< .003	mg/l			WG532817	04/26/11 11:46
4-Bromofluorobenzene		% Rec.	101.2	75-128	WG532817	04/26/11 11:46
Dibromofluoromethane		% Rec.	99.27	79-125	WG532817	04/26/11 11:46
Toluene-d8		% Rec.	99.52	87-114	WG532817	04/26/11 11:46
a,a,a-Trifluorotoluene		% Rec.	103.4	84-114	WG532817	04/26/11 11:46

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Benzene	mg/l	.025	0.0208	83.3	67-126	WG531994
Ethylbenzene	mg/l	.025	0.0202	80.8	76-129	WG531994
Toluene	mg/l	.025	0.0210	84.2	72-122	WG531994
Total Xylenes	mg/l	.075	0.0597	79.6	75-128	WG531994
4-Bromofluorobenzene				96.79	75-128	WG531994
Dibromofluoromethane				99.12	79-125	WG531994
Toluene-d8				104.6	87-114	WG531994
a,a,a-Trifluorotoluene				103.6	84-114	WG531994
Benzene	mg/l	.025	0.0217	86.8	67-126	WG532110
Ethylbenzene	mg/l	.025	0.0282	113.	76-129	WG532110
Toluene	mg/l	.025	0.0251	100.	72-122	WG532110
Total Xylenes	mg/l	.075	0.0844	113.	75-128	WG532110
4-Bromofluorobenzene				111.7	75-128	WG532110
Dibromofluoromethane				95.53	79-125	WG532110
Toluene-d8				100.2	87-114	WG532110
a,a,a-Trifluorotoluene				112.4	84-114	WG532110
Benzene	mg/l	.025	0.0278	111.	67-126	WG532012
Ethylbenzene	mg/l	.025	0.0259	103.	76-129	WG532012
Toluene	mg/l	.025	0.0241	96.4	72-122	WG532012
Total Xylenes	mg/l	.075	0.0753	100.	75-128	WG532012
4-Bromofluorobenzene				90.41	75-128	WG532012
Dibromofluoromethane				101.3	79-125	WG532012
Toluene-d8				108.4	87-114	WG532012
a,a,a-Trifluorotoluene				109.8	84-114	WG532012
Benzene	mg/l	.025	0.0197	78.8	67-126	WG532192
Ethylbenzene	mg/l	.025	0.0206	82.4	76-129	WG532192
Toluene	mg/l	.025	0.0195	77.9	72-122	WG532192
4-Bromofluorobenzene				101.9	75-128	WG532192
Dibromofluoromethane				120.8	79-125	WG532192
Toluene-d8				103.9	87-114	WG532192
a,a,a-Trifluorotoluene				97.03	84-114	WG532192
Benzene	mg/l	.025	0.0194	77.6	67-126	WG531986
Ethylbenzene	mg/l	.025	0.0193	77.1	76-129	WG531986
Toluene	mg/l	.025	0.0198	79.2	72-122	WG531986
Total Xylenes	mg/l	.075	0.0576	76.8	75-128	WG531986
4-Bromofluorobenzene				95.87	75-128	WG531986
Dibromofluoromethane				96.32	79-125	WG531986

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Littleton, CO 80127

Quality Assurance Report  
Level II

L512162

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Tax I.D. 62-0814289

Est. 1970

April 27, 2011

Analyte	Units	Laboratory Control		Sample	% Rec	Limit	Batch
		Known	Val	Result			
Toluene-d8					105.9	87-114	
a,a,a-Trifluorotoluene					102.5	84-114	
Benzene	mg/l	.025		0.0247	98.7	67-126	WG532582
4-Bromofluorobenzene					97.21	75-128	WG532582
Dibromofluoromethane					109.6	79-125	WG532582
Toluene-d8					100.4	87-114	WG532582
a,a,a-Trifluorotoluene					101.5	84-114	WG532582
Total Xylenes	mg/l	.075		0.0688	91.8	75-128	WG532385
4-Bromofluorobenzene					95.67	75-128	WG532385
Dibromofluoromethane					101.1	79-125	WG532385
Toluene-d8					104.3	87-114	WG532385
a,a,a-Trifluorotoluene					104.8	84-114	WG532385
Benzene	mg/l	.025		0.0199	79.7	67-126	WG532817
Ethylbenzene	mg/l	.025		0.0244	97.5	76-129	WG532817
Toluene	mg/l	.025		0.0233	93.2	72-122	WG532817
Total Xylenes	mg/l	.075		0.0720	95.9	75-128	WG532817
4-Bromofluorobenzene					102.4	75-128	WG532817
Dibromofluoromethane					97.71	79-125	WG532817
Toluene-d8					99.48	87-114	WG532817
a,a,a-Trifluorotoluene					102.2	84-114	WG532817

Analyte	Units	Laboratory Control		Sample Duplicate	Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Benzene	mg/l	0.0215	0.0208	86.0	67-126	3.29	20	WG531994
Ethylbenzene	mg/l	0.0210	0.0202	84.0	76-129	3.96	20	WG531994
Toluene	mg/l	0.0215	0.0210	86.0	72-122	2.19	20	WG531994
Total Xylenes	mg/l	0.0630	0.0597	84.0	75-128	5.42	20	WG531994
4-Bromofluorobenzene				100.1	75-128			WG531994
Dibromofluoromethane				103.3	79-125			WG531994
Toluene-d8				101.8	87-114			WG531994
a,a,a-Trifluorotoluene				104.6	84-114			WG531994
Benzene	mg/l	0.0209	0.0217	84.0	67-126	3.62	20	WG532110
Ethylbenzene	mg/l	0.0277	0.0282	111.	76-129	1.88	20	WG532110
Toluene	mg/l	0.0243	0.0251	97.0	72-122	3.27	20	WG532110
Total Xylenes	mg/l	0.0820	0.0844	109.	75-128	2.86	20	WG532110
4-Bromofluorobenzene				114.6	75-128			WG532110
Dibromofluoromethane				94.14	79-125			WG532110
Toluene-d8				101.2	87-114			WG532110
a,a,a-Trifluorotoluene				112.8	84-114			WG532110
Benzene	mg/l	0.0263	0.0278	105.	67-126	5.38	20	WG532012
Ethylbenzene	mg/l	0.0253	0.0259	101.	76-129	2.36	20	WG532012
Toluene	mg/l	0.0239	0.0241	96.0	72-122	0.830	20	WG532012
Total Xylenes	mg/l	0.0747	0.0753	100.	75-128	0.870	20	WG532012
4-Bromofluorobenzene				94.34	75-128			WG532012
Dibromofluoromethane				100.1	79-125			WG532012
Toluene-d8				110.5	87-114			WG532012
a,a,a-Trifluorotoluene				106.5	84-114			WG532012
Benzene	mg/l	0.0198	0.0197	79.0	67-126	0.330	20	WG532192

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Analyte	Units	Laboratory Control		Sample Duplicate		Limit	RPD	Limit	Batch
		Result	Ref	%Rec					
Ethylbenzene	mg/l	0.0213	0.0206	85.0		76-129	3.21	20	WG532192
Toluene	mg/l	0.0193	0.0195	77.0		72-122	0.820	20	WG532192
4-Bromofluorobenzene				100.3		75-128			WG532192
Dibromofluoromethane				119.6		79-125			WG532192
Toluene-d8				103.0		87-114			WG532192
a,a,a-Trifluorotoluene				98.69		84-114			WG532192
Benzene	mg/l	0.0222	0.0194	89.0		67-126	13.3	20	WG531986
Ethylbenzene	mg/l	0.0220	0.0193	88.0		76-129	13.1	20	WG531986
Toluene	mg/l	0.0226	0.0198	90.0		72-122	13.3	20	WG531986
Total Xylenes	mg/l	0.0651	0.0576	87.0		75-128	12.2	20	WG531986
4-Bromofluorobenzene				95.41		75-128			WG531986
Dibromofluoromethane				97.19		79-125			WG531986
Toluene-d8				106.4		87-114			WG531986
a,a,a-Trifluorotoluene				103.4		84-114			WG531986
Benzene	mg/l	0.0217	0.0247	87.0		67-126	13.0	20	WG532582
4-Bromofluorobenzene				98.42		75-128			WG532582
Dibromofluoromethane				102.7		79-125			WG532582
Toluene-d8				101.9		87-114			WG532582
a,a,a-Trifluorotoluene				103.6		84-114			WG532582
Total Xylenes	mg/l	0.0622	0.0688	83.0		75-128	10.2	20	WG532385
4-Bromofluorobenzene				100.4		75-128			WG532385
Dibromofluoromethane				102.1		79-125			WG532385
Toluene-d8				101.6		87-114			WG532385
a,a,a-Trifluorotoluene				102.6		84-114			WG532385
Benzene	mg/l	0.0202	0.0199	81.0		67-126	1.56	20	WG532817
Ethylbenzene	mg/l	0.0250	0.0244	100.		76-129	2.58	20	WG532817
Toluene	mg/l	0.0237	0.0233	95.0		72-122	1.88	20	WG532817
Total Xylenes	mg/l	0.0740	0.0720	99.0		75-128	2.82	20	WG532817
4-Bromofluorobenzene				103.3		75-128			WG532817
Dibromofluoromethane				98.47		79-125			WG532817
Toluene-d8				99.52		87-114			WG532817
a,a,a-Trifluorotoluene				102.2		84-114			WG532817

Analyte	Units	Matrix Spike		TV	% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res					
Benzene	mg/l	0.0240	0.00190	.025	88.5	16-158	L512162-01	WG531994
Ethylbenzene	mg/l	0.0215	0	.025	85.9	29-150	L512162-01	WG531994
Toluene	mg/l	0.0221	0	.025	88.4	22-152	L512162-01	WG531994
Total Xylenes	mg/l	0.0627	0	.075	83.6	27-151	L512162-01	WG531994
4-Bromofluorobenzene					95.17	75-128		WG531994
Dibromofluoromethane					99.90	79-125		WG531994
Toluene-d8					102.8	87-114		WG531994
a,a,a-Trifluorotoluene					104.0	84-114		WG531994
Benzene	mg/l	0.0275	0	.025	110.	16-158	L512192-05	WG532110
Ethylbenzene	mg/l	0.0348	0	.025	139.	29-150	L512192-05	WG532110
Toluene	mg/l	0.0312	0	.025	125.	22-152	L512192-05	WG532110
Total Xylenes	mg/l	0.103	0	.075	137.	27-151	L512192-05	WG532110
4-Bromofluorobenzene					112.2	75-128		WG532110

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Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Dibromofluoromethane					91.73	79-125		
Toluene-d8					99.95	87-114		
a,a,a-Trifluorotoluene					113.6	84-114		
Benzene	mg/l	0.0277	0	.025	111.	16-158	L512178-01	WG532012
Ethylbenzene	mg/l	0.0239	0	.025	95.7	29-150	L512178-01	WG532012
Toluene	mg/l	0.0277	0	.025	111.	22-152	L512178-01	WG532012
Total Xylenes	mg/l	0.0726	0	.075	96.7	27-151	L512178-01	WG532012
4-Bromofluorobenzene					89.30	75-128		WG532012
Dibromofluoromethane					97.08	79-125		WG532012
Toluene-d8					112.2	87-114		WG532012
a,a,a-Trifluorotoluene					108.3	84-114		WG532012
Benzene	mg/l	0.0849	0.0670	.025	71.7	16-158	L512162-19	WG532192
Ethylbenzene	mg/l	0.175	0.170	.025	18.9*	29-150	L512162-19	WG532192
Toluene	mg/l	0.0224	0	.025	89.4	22-152	L512162-19	WG532192
4-Bromofluorobenzene					104.0	75-128		WG532192
Dibromofluoromethane					117.9	79-125		WG532192
Toluene-d8					101.5	87-114		WG532192
a,a,a-Trifluorotoluene					97.85	84-114		WG532192
Benzene	mg/l	0.0211	0	.025	84.6	16-158	L512144-01	WG531986
Ethylbenzene	mg/l	0.0207	0	.025	82.6	29-150	L512144-01	WG531986
Toluene	mg/l	0.0215	0	.025	86.1	22-152	L512144-01	WG531986
Total Xylenes	mg/l	0.0615	0	.075	81.9	27-151	L512144-01	WG531986
4-Bromofluorobenzene					93.80	75-128		WG531986
Dibromofluoromethane					95.72	79-125		WG531986
Toluene-d8					105.8	87-114		WG531986
a,a,a-Trifluorotoluene					102.7	84-114		WG531986
Benzene	mg/l	0.0331	0.0190	.025	56.3	16-158	L511858-03	WG532582
4-Bromofluorobenzene					100.6	75-128		WG532582
Dibromofluoromethane					103.3	79-125		WG532582
Toluene-d8					102.8	87-114		WG532582
a,a,a-Trifluorotoluene					103.8	84-114		WG532582
Total Xylenes	mg/l	0.0527	0	.075	70.3	27-151	L512595-01	WG532385
4-Bromofluorobenzene					99.53	75-128		WG532385
Dibromofluoromethane					106.0	79-125		WG532385
Toluene-d8					107.9	87-114		WG532385
a,a,a-Trifluorotoluene					104.7	84-114		WG532385
Benzene	mg/l	0.0231	0.00130	.025	87.2	16-158	L512104-11	WG532817
Ethylbenzene	mg/l	0.0273	0.00230	.025	100.	29-150	L512104-11	WG532817
Toluene	mg/l	0.0251	0	.025	100.	22-152	L512104-11	WG532817
Total Xylenes	mg/l	0.0826	0.00870	.075	98.5	27-151	L512104-11	WG532817
4-Bromofluorobenzene					102.1	75-128		WG532817
Dibromofluoromethane					101.5	79-125		WG532817
Toluene-d8					99.84	87-114		WG532817
a,a,a-Trifluorotoluene					101.8	84-114		WG532817

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Benzene	mg/l	0.0251	0.0240	92.9	16-158	4.45	21	L512162-01	WG531994

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			Ref	%Rec						
Ethylbenzene	mg/l	0.0217	0.0215	86.7	29-150	0.950	24	L512162-01	WG531994	
Toluene	mg/l	0.0228	0.0221	91.4	22-152	3.32	22	L512162-01	WG531994	
Total Xylenes	mg/l	0.0660	0.0627	88.0	27-151	5.18	23	L512162-01	WG531994	
4-Bromofluorobenzene				93.69	75-128				WG531994	
Dibromofluoromethane				108.3	79-125				WG531994	
Toluene-d8				103.1	87-114				WG531994	
a,a,a-Trifluorotoluene				110.6	84-114				WG531994	
Benzene	mg/l	0.0257	0.0275	103.	16-158	6.68	21	L512192-05	WG532110	
Ethylbenzene	mg/l	0.0318	0.0348	127.	29-150	8.85	24	L512192-05	WG532110	
Toluene	mg/l	0.0281	0.0312	112.	22-152	10.5	22	L512192-05	WG532110	
Total Xylenes	mg/l	0.0926	0.103	123.	27-151	10.4	23	L512192-05	WG532110	
4-Bromofluorobenzene				111.9	75-128				WG532110	
Dibromofluoromethane				96.69	79-125				WG532110	
Toluene-d8				100.5	87-114				WG532110	
a,a,a-Trifluorotoluene				112.4	84-114				WG532110	
Benzene	mg/l	0.0254	0.0277	102.	16-158	8.46	21	L512178-01	WG532012	
Ethylbenzene	mg/l	0.0237	0.0239	94.9	29-150	0.820	24	L512178-01	WG532012	
Toluene	mg/l	0.0237	0.0277	94.7	22-152	15.7	22	L512178-01	WG532012	
Total Xylenes	mg/l	0.0696	0.0726	92.8	27-151	4.12	23	L512178-01	WG532012	
4-Bromofluorobenzene				94.68	75-128				WG532012	
Dibromofluoromethane				105.3	79-125				WG532012	
Toluene-d8				111.2	87-114				WG532012	
a,a,a-Trifluorotoluene				103.4	84-114				WG532012	
Benzene	mg/l	0.0865	0.0849	78.0	16-158	1.82	21	L512162-19	WG532192	
Ethylbenzene	mg/l	0.172	0.175	9.28*	29-150	1.39	24	L512162-19	WG532192	
Toluene	mg/l	0.0224	0.0224	89.4	22-152	0.0200	22	L512162-19	WG532192	
4-Bromofluorobenzene				100.7	75-128				WG532192	
Dibromofluoromethane				115.4	79-125				WG532192	
Toluene-d8				100.0	87-114				WG532192	
a,a,a-Trifluorotoluene				97.93	84-114				WG532192	
Benzene	mg/l	0.0214	0.0211	85.7	16-158	1.29	21	L512144-01	WG531986	
Ethylbenzene	mg/l	0.0213	0.0207	85.0	29-150	2.91	24	L512144-01	WG531986	
Toluene	mg/l	0.0219	0.0215	87.7	22-152	1.88	22	L512144-01	WG531986	
Total Xylenes	mg/l	0.0626	0.0615	83.4	27-151	1.83	23	L512144-01	WG531986	
4-Bromofluorobenzene				93.75	75-128				WG531986	
Dibromofluoromethane				96.59	79-125				WG531986	
Toluene-d8				106.0	87-114				WG531986	
a,a,a-Trifluorotoluene				103.3	84-114				WG531986	
Benzene	mg/l	0.0328	0.0331	55.2	16-158	0.820	21	L511858-03	WG532582	
4-Bromofluorobenzene				99.90	75-128				WG532582	
Dibromofluoromethane				102.2	79-125				WG532582	
Toluene-d8				102.4	87-114				WG532582	
a,a,a-Trifluorotoluene				103.1	84-114				WG532582	
Total Xylenes	mg/l	0.0591	0.0527	78.8	27-151	11.5	23	L512595-01	WG532385	
4-Bromofluorobenzene				101.3	75-128				WG532385	
Dibromofluoromethane				104.2	79-125				WG532385	
Toluene-d8				106.2	87-114				WG532385	

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Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref	Samp	Batch
			Ref	%Rec						
a,a,a-Trifluorotoluene				104.6	84-114					
Benzene	mg/l	0.0218	0.0231	82.1	16-158	5.60	21	L512104-11		WG532817
Ethylbenzene	mg/l	0.0277	0.0273	102.	29-150	1.59	24	L512104-11		WG532817
Toluene	mg/l	0.0247	0.0251	98.8	22-152	1.47	22	L512104-11		WG532817
Total Xylenes	mg/l	0.0835	0.0826	99.7	27-151	1.03	23	L512104-11		WG532817
4-Bromofluorobenzene				102.9	75-128					WG532817
Dibromofluoromethane				99.37	79-125					WG532817
Toluene-d8				100.2	87-114					WG532817
a,a,a-Trifluorotoluene				103.4	84-114					WG532817

Batch number /Run number / Sample number cross reference

WG531994: R1658029: L512162-01 02 03 04 05 06 07 17 18  
WG532110: R1659469: L512162-17 18 20  
WG532012: R1660129: L512162-21 22 24 25 26  
WG532192: R1660130: L512162-19  
WG531986: R1661049: L512162-08 09 10 11 12 13 14 15 16 27 28 29 30 31 32 33 34 35  
WG532582: R1661849: L512162-09 10 11 31 32 33 34  
WG532385: R1662555: L512162-19  
WG532817: R1664069: L512162-23

\* \* Calculations are performed prior to rounding of reported values.

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

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Quality Assurance Report  
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Est. 1970

April 27, 2011

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



## **APPENDIX B**



## FORT LUPTON STATION QUALITY CONTROL SUMMARY REPORT 2011 WATER QUALITY MONITORING EVENT

### SECTION 1: COC, SAMPLE SHIPMENT AND DATA COMPLETENESS

#### Chain of Custody

The chain-of-custody (COC) was filled out correctly and completely.

#### Sample Preservation and Integrity

The bottles for the analysis of BTEX were pre-preserved with hydrochloric acid (HCl). The laboratory did not indicate arrival condition of samples, but there were no flags or narrative indicating any issues. Samples were couriered to the laboratory in appropriate containers. All sample preparation and analysis hold times were satisfied.

#### Data Completeness

Results for all target analytes are reported with no additional analytes. The samples were analyzed for BTEX using Method 8260B. Reported detection/reporting limits agree with the project quality objectives. Ground water samples were collected from all six monitoring wells in accordance to the sampling plan.

### SECTION 2: ANALYTICAL METHOD QA RESULTS

#### Method 8260B: BTEX

##### *Calibration and Sample Frequency*

Seven ground water samples, including one duplicate, from this site were analyzed by EPA Method SW8260B for BTEX. Initial and continuing instrument calibration analyses were performed; however calibration data are not reported. For each analytical batch, results are available for a minimum of one method blank and laboratory control sample/laboratory control sample duplicate (LCS/LCSD) pair. Matrix spike/matrix spike duplicate (MS/MSD) pair results are available for all analytical batches included in this report. Surrogate spike results are provided for each field sample. Two field duplicate samples for the entire sample event (analytical batch) were submitted for analysis, satisfying the 5% ( $2/32=6.3\%$ ) duplicate sample submittal frequency criterion. One trip blank was submitted for analysis with the one cooler shipped to the lab. No equipment blanks were submitted for analysis, because for each well, either dedicated or disposable equipment was used.

##### *QC Results*

- Method blanks show no detectable concentrations of target analytes.
- The trip blank showed no detectable concentrations of target analytes.
- LCS/LCSD recoveries are within acceptable limits.
- LCS/LCSD relative percent differences are within acceptable limits.
- MS/MSD recoveries are within acceptable limits.
- MS/MSD relative percent differences are within acceptable limits.
- Surrogate spike recoveries are all within acceptable limits.
- Field duplicates are within acceptable limits.

Results of the QA review indicate the data are suitable for intended use.