GW - 2004

# MONITORING REPORTS

DATE: 20/0



March 23, 2011

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MAR 29 2011

Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, NM 87505

Mr. Edward Hansen New Mexico Oil Conservation Division Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re.

Plains All American - 2010 Annual Monitoring Reports

20 Sites in Lea County, New Mexico

Dear Mr. Hansen:

Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains All American hereby submits our Annual Monitoring reports for the following sites:

34 Junc. to Lea Sta	. 1R-0386 <sup>/</sup>	Section 21, Township 20 South, Range 37 East, Lea County
34 Junction South	1R-0456 /	Section 02, Township 17 South, Range 36 East, Lea County
Bob Durham	AP-0016 /	Section 32, Township 19 South, Range 37 East, Lea County
Darr Angell #1	AP-007 🖊	Section 11, Township 15 South, Range 37 East, Lea County
Darr Angell #2	AP-007 ✓	Section 11, Township 15 South, Range 37 East, Lea County
	· · · · · · · · · · · · · · · · · · ·	Section 14, Township 15 South, Range 37 East, Lea County
Darr Angell #4	AP-007 🖊	Section 11, Township 15 South, Range 37 East, Lea County
<u> </u>		Section 02, Township 15 South, Range 37 East, Lea County
Denton Station	1R-0234 /	Section 14, Township 15 South, Range 37 East, Lea County
HDO-90-23	AP-009 /	Section 06, Township 20 South, Range 37 East, Lea County
LF-59	<u>1R-0103</u>	Section 32, Township 19 South, Range 37 East, Lea County
Monument 2	) 1R-0110	Section 06, Township 20 South, Range 37 East, Lea County
	:	Section 07, Township 20 South, Range 37 East, Lea, County
Monument 10	√1R-0119	Section 30, Township 19 South, Range 37 East, Lea County
Monument 17	1R-123	Section 29, Township 19 South, Range 37 East, Lea County
Monument 18	, 1R-0124	Section 07, Township 20 South, Range 37 East, Lea County
S. Mon. Gath. Sour	1R-951	Section 05, Township 20 South, Range 37 East, Lea County
SPS-11	· GW-0140	Section 18, Township 18 South, Range 36 East, Lea County
Texaco Skelly F	1R-0420	Section 11, Township 21 South, Range 37 East, Lea County
TNM 97-04	GW-0294 /	Section 11, Township 16 South, Range 35 East, Lea County
TNM 97-17	AP-017 /	Section 21, Township 20 South, Range 37 East, Lea County
TNM 97-18	AP-0013	Section 28, Township 20 South, Range 37 East, Lea County
TNM 98-05A	₹ AP-12	Section 26, Township 21 South, Range 37 East, Lea County
41		



Nova Safety and Environmental (Nova) prepared these documents and has vouched for their accuracy and completeness, and on behalf of Plains All American, I have personally reviewed the documents and interviewed Nova personnel in order to verify the accuracy and completeness of these documents. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Reports for the above facilities.

If you have any questions or require further information, please contact me at (575) 441-1099.

Sincerely,

bason Henry

Remediation Coordinator

Plains All American

CC: Geoff Leking, NMOCD, Hobbs, NM

**Enclosures** 



# 2010 ANNUAL MONITORING REPORT

# TNM 97-04

SE ¼ SE ¼ of SECTION 11, TOWNSHIP 16 SOUTH, RANGE 35 EAST LEA COUNTY, NEW MEXICO PLAINS SRS NUMBER: TNM 97-04 NMOCD Reference GW-0294

# PREPARED FOR:

PLAINS MARKETING, L.P. 333 CLAY STREET, SUITE 1600 HOUSTON, TEXAS 77002



# PREPARED BY:

NOVA Safety and Environmental 2057 Commerce Midland, Texas 79703

March 2011

Ronald K. Rounsaville Senior Project Manager

Brittan K. Byerly, P.G. President

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2010 Figures 1, 2A-2D, and 3A-3D

# **INTRODUCTION**

On behalf of Plains Marketing, L.P. (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by NOVA. The TNM 97-04 Release Site (the site), which was formerly the responsibility of Texas New Mexico Pipeline Company (TNM), is now the responsibility of Plains. This report is intended to be viewed as a complete document with text, figures, tables and appendices. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2010 only. However, historic data tables as well as 2010 laboratory analytical reports are provided on the enclosed data disk. A Site Location Map is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2010 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). Each groundwater monitoring event consisted of measuring static water levels in monitor wells, checking for the presence of PSH on the water column and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were not sampled.

# SITE DESCRIPTION AND BACKGROUND INFORMATION

The site is located in the SE 1/4 of the SE 1/4 of Section 11, Township 16 South, Range 35 East in Lea County, New Mexico. Initial site investigation activities were performed for TNM by other environmental consultants. No other specifics concerning the release are currently available. The Release Notification and Corrective Action Form (C-141) is provided as Appendix A.

In October 2009, an *Enhanced Recovery System Workplan* was submitted and subsequently approved by the NMOCD. In March 2009, Plains installed eight air-sparging wells (SW-1 through SW-8) and three recovery wells (RW-2, RW-3 and RW-4) at the site as part of the Enhanced Recovery System. In April 2010, Plains completed the installation of the trailer mounted air-sparging system with ancillary air lines connected to the eight sparging wells. Four total fluid pumps were installed within the four, 4-inch diameter recovery wells.

The Enhanced Recovery System was initially started during the 3<sup>rd</sup> quarter of 2010.

There are currently fifteen monitor wells (MW-2 through MW-7, and MW-9 through MW-16 and MW-18) on site along with the eight air-sparging and four recovery wells. An infiltration gallery associated with the enhanced recovery system is located on the northwest corner of the site.

# FIELD ACTIVITIES

# **Remediation Efforts**

The enhanced recovery system utilizes compressed air to power the eight air-sparging wells along with the four total fluid pumps placed in recovery wells RW-1 through RW-4. The total fluid pumps operate at a pumping rate of approximately 2-3 gallons per minute (gpm) from each recovery well with a combined pumping rate of 8-12 gpm. Recovered oil and water is then passed through an oil-water separator with the oil transferred to a 550 gallon poly tank for staging and later transporting off site. Recovered groundwater is pumped to a large poly aeration tank to allow for volatilization of the hydrocarbons. Groundwater is then transferred through a two bag filter system prior to being pumped through two 500 lbs. carbon filtration canisters. The treated groundwater is sampled from post carbon sampling ports on a monthly basis and is then discharged under Discharge Permit GW-294 to an infiltration gallery located upgradient to the northwest of the release point.

The eight air-sparging wells were each installed to a depth of approximately 65 feet below ground surface (bgs) and operate at a pressure of approximately 5 psi per well. The air-sparging array is designed to buffer the downgradient migration of the dissolved phase hydrocarbon plume while pressing the PSH plume upgradient towards the four recovery wells.

A measurable thickness of PSH was present in five of fifteen monitor wells (MW-2, MW-3, MW-5, MW-6, and MW-9) and the recovery well (RW-1) during at least three or more quarters of the reporting period. The average thickness of PSH in monitor wells and recovery wells exhibiting PSH was 0.67 feet. The maximum thickness of PSH in monitor wells and recovery wells was 2.15 feet as recorded in monitor well MW-5 on June 28, 2010. PSH data for the 2010 gauging events can be found in Table 1. Approximately 235 gallons (approximately 5.6 barrels) of PSH was recovered from the site during the 2010 reporting period. A total of approximately 7,684 gallons (approximately 183 barrels) of PSH have been recovered since project inception.

# **Groundwater Monitoring**

Quarterly monitoring events for the reporting period were performed according to the following reduced sampling schedule, which was approved by the NMOCD in correspondence dated April 28, 2004 and amended in correspondences dated June 22, 2005 and May 5, 2006.

NMOCE	Approved Sampling Scho	edule	and the second of the second of the second		
MW-1	Plugged & Abandoned	MW-8	Plugged & Abandoned	MW-15	Quarterly
MW-2	Quarterly	MW-9	Quarterly	MW-16	Semi-Annual
MW-3	Quarterly	MW-10	Annual	MW-17	Plugged & Abandoned
MW-4	Quarterly	MW-11	Annual	MW-18	Quarterly
MW-5	Quarterly	MW-12	Annual	RW-1	Quarterly
MW-6	Quarterly	MW-13	Quarterly		
MW-7	Annual	MW-14	Quarterly		

The site monitor wells were gauged and sampled on February 11, May 17, August 16, and November 10, 2010. During each sampling event, monitor wells were purged of a minimum of three well volumes of water or until the wells failed to produce water. Purging was performed using a disposable polyethylene bailer for each well or electrical Grundfos pump and dedicated

tubing. Groundwater was allowed to recharge and samples were collected using disposable Teflon samplers. Water samples were placed in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of at a licensed disposal facility.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during each quarterly sampling event of 2010, are depicted on the Inferred Groundwater Gradient Maps, Figures 2A-2D. Groundwater elevation data for 2010 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Inferred Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.002 feet/foot to the southeast as measured between monitor well MW-9 and MW-13. This is consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevations ranged between 3,920.39 and 3,923.87 feet above mean sea level, in recovery well RW-1 on May 17, 2010 and on February 25, 2010, respectively.

# LABORATORY RESULTS

Monitor wells MW-2, MW-3, MW-5, MW-9 and recovery well RW-1 contained PSH throughout the reporting period and were not sampled during 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2010. Monitor well MW-6 contained PSH during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters and was not sampled during those sampling events.

Groundwater samples obtained during the quarterly sampling events of 2010 were delivered to Trace Analysis, Inc. in Midland, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021B. Polynuclear Aromatic Hydrocarbons (PAH) analysis was conducted during the 2010 calendar year on monitor well MW-4. Based upon historic PAH analytical data, only those wells exhibiting elevated constituent concentrations above WQCC standards are sampled, with the exclusion of those wells containing measurable PSH thicknesses. A listing of BTEX constituent concentrations for 2010 are summarized in Table 2 and the Historic PAH constituent concentrations are summarized in Table 3. Copies of the laboratory reports generated for 2010 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 3A through 3D.

**Monitor well MW-2** is monitored on a quarterly schedule. Monitor well MW-2 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 0.85 feet, 1.64 feet, 0.53 feet and 0.91 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2010, respectively. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-3 is monitored on a quarterly schedule. Monitor well MW-3 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 0.94 feet, 1.22 feet, 0.75 feet and 1.58 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>

and 4<sup>th</sup> quarters of 2010, respectively. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-4 is monitored on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.583 mg/L during the 4th quarter to 2.150 mg/L during the 1<sup>st</sup> quarter. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations ranged from 0.125 mg/L during the 2<sup>nd</sup> quarter to 1.230 mg/L during the 1st quarter. Toluene concentrations were below the NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters and above NMOCD regulatory standards during the 1<sup>st</sup> quarter of the reporting period. Ethyl-benzene concentrations ranged from 0.335 mg/L during the 2<sup>nd</sup> quarter to 0.825 mg/L during the 1<sup>st</sup> quarter of 2010. Ethyl-benzene concentrations were below the NMOCD regulatory standards during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters and above NMOCD regulatory standards during the 1<sup>st</sup> quarter of the reporting period. Xylene concentrations ranged from 0.549 mg/L during the 2<sup>nd</sup> quarter to 2.150 mg/L during the 1<sup>st</sup> quarter of 2010. Xylene concentrations were below the NMOCD regulatory standards during the 2<sup>nd</sup> and 3<sup>rd</sup> quarters and above NMOCD regulatory standards during the 1<sup>st</sup> and 4<sup>th</sup> quarters of the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.0279 mg/L), 1methylnaphthalene (0.035 mg/L) and 2-methylnaphthalene (0.0188 mg/L). Additional PAH constituents detected above MDLs include fluorene (0.00338 mg/L), phenanthrene (0.00404 mg/L) and dibenzofuran (0.00247 mg/L), which are below WOCC standards.

**Monitor well MW-5** is monitored on a quarterly schedule. Monitor well MW-5 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 1.17 feet, 1.31 feet, 0.80 feet and 1.55 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2010, respectively. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-6 is monitored on a quarterly schedule. Monitor well MW-6 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarters of the reporting period, due to the presence of PSH. A PSH thickness of 0.31 feet during the 1<sup>st</sup> quarter and a sheen were reported during the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2010, respectively. Benzene concentrations were above the NMOCD regulatory standard during the 4<sup>th</sup> quarter of the reporting period with a concentration of 4.04 mg/L. Toluene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 2.830 mg/L. Ethylbenzene concentrations were below NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 0.494 mg/L. Xylene concentrations were above NMOCD regulatory standards during the 4<sup>th</sup> quarter of the reporting period with a concentration of 1.710 mg/L. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-7 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-six consecutive quarters. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-9** is monitored on a quarterly schedule. Monitor well MW-9 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 0.27 feet, 0.04 feet, 0.19 feet and 0.08 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2010, respectively. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-10 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty-four consecutive quarters. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-11 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last fifteen consecutive quarters. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-12 is sampled on an annual schedule. Analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 4<sup>th</sup> quarter sampling event. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-13 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.666 mg/L in the 2<sup>nd</sup> quarter to 2.040 mg/L during the 4<sup>th</sup> quarter of the reporting period. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below MDL and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.005 mg/L during the 1<sup>st</sup> and 2<sup>nd</sup> quarters to 0.0367 mg/L during the 3<sup>rd</sup> quarter of the reporting period. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations were below MDL and NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-14 is sampled on a quarterly schedule and was inadvertently not sampled during the 1<sup>st</sup> quarter of 2010. Analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 3<sup>rd</sup> quarter to 0.0107 mg/L during the 2<sup>nd</sup> quarter of 2010. Benzene concentrations were above the NMOCD regulatory standard during the 2<sup>nd</sup> quarter of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 2<sup>nd</sup> and 4<sup>th</sup> quarters to 0.0024 mg/L during the 3<sup>rd</sup> quarter of 2010. Toluene concentrations were below the NMOCD regulatory standard during 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0127 mg/L during the 4<sup>th</sup> quarter to 0.0681 mg/L during the 2<sup>nd</sup> quarter of 2010. Ethylbenzene concentrations were below the NMOCD regulatory standard during 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Xylene concentrations ranged from 0.0494 mg/L during the 4<sup>th</sup> quarter to 0.248 mg/L during the 2<sup>nd</sup> quarter of 2010. Xylene

concentrations were below the NMOCD regulatory standard during 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-15 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0785 mg/L during the 4<sup>th</sup> quarter to 1.640 mg/L during the 1<sup>st</sup> quarter of 2010. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below MDL and NMOCD regulatory standards during all four quarters of 2010. Ethylbenzene concentrations ranged from <0.010 mg/L during the 4<sup>th</sup> quarter to 0.1410 mg/L during the 1<sup>st</sup> quarter of 2010. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.0100 mg/L during the 4<sup>th</sup> quarter to 0.0821 mg/L during the 1<sup>st</sup> quarter of 2010. Xylene concentrations were below the NMOCD regulatory standard during the all four quarters of the reporting period. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-16** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling events. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-18** is sampled on a quarterly schedule. Analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during all four quarters of the reporting period. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Recovery well RW-1** is monitored on a quarterly schedule. Recovery well RW-1 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 0.67 feet and 0.07 feet were reported during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2010. A permanent total fluid pump was installed in RW-1 associated with the on-site remediation system and was not gauged during the 3<sup>rd</sup> and 4<sup>th</sup> quarterly sampling events. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Laboratory analytical results were compared to NMOCD regulatory limits based on the New Mexico groundwater standards found in section 20.6.2.3103 of the New Mexico Administrative Code.

## **SUMMARY**

This report presents the results of monitoring activities for the 2010 annual monitoring period. There are currently fifteen monitor wells (MW-2 through MW-7, and MW-9 through MW-16, and MW-18) and one recovery well (RW-1) on site. Groundwater elevation contours generated from water level measurements indicate a general gradient of approximately 0.002 feet/foot to the southeast.

A measurable thickness of PSH was present in five monitor wells (MW-2, MW-3, MW-5, MW-6, and MW-9) and the recovery well (RW-1) during each quarter of the reporting period.

Monitor well MW-4 exhibited measurable PSH during at least three quarters of the reporting period. Approximately 235 gallons (approximately 5.6 barrels) of PSH was recovered from the site during the 2010 reporting period. A total of approximately 7,684 gallons (approximately 183 barrels) of PSH have been recovered since project inception. The average thickness of PSH in monitor wells and recovery wells displaying PSH was 0.67 feet. Generally, 2010 PSH thickness data indicates declining PSH thicknesses in the affected monitor and recovery wells.

Review of laboratory analytical results of groundwater samples collected during the 2010 reporting period indicates BTEX constituent concentrations are below NMOCD regulatory standards in six of the fifteen on site monitor wells and recovery well. The remaining nine monitor wells either contained measurable thicknesses of PSH and were not sampled during the four quarterly events or exhibited analytical results above the NMOCD regulatory standard during the reporting period of 2010. Review of PAH analysis indicates a decreasing trend in monitor well MW-4.

# **ANTICIPATED ACTIONS**

PSH recovery, quarterly groundwater monitoring and sampling will continue in 2011. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2012. In October 2008, an *Enhanced Recovery System Workplan* was submitted and subsequently approved by the NMOCD. The automated system started up during the 3<sup>rd</sup> quarter of 2010. The Initial System Start up Report will be submitted following complete system operational start up.

Based on the results of the PAH analysis over the past several years, further PAH analysis will be conducted only on monitor well MW-4. As the PSH plume diminishes, other wells will be sampled for PAH as necessary, which have historically exhibited elevated constituents near or above the WOCC standards.

## LIMITATIONS

NOVA has prepared this Annual Monitoring Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

NOVA has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. NOVA has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. NOVA also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of NOVA and/or Plains.

# **DISTRIBUTION**

Copy 1 Ed Hansen

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Santa Fe, NM 87505

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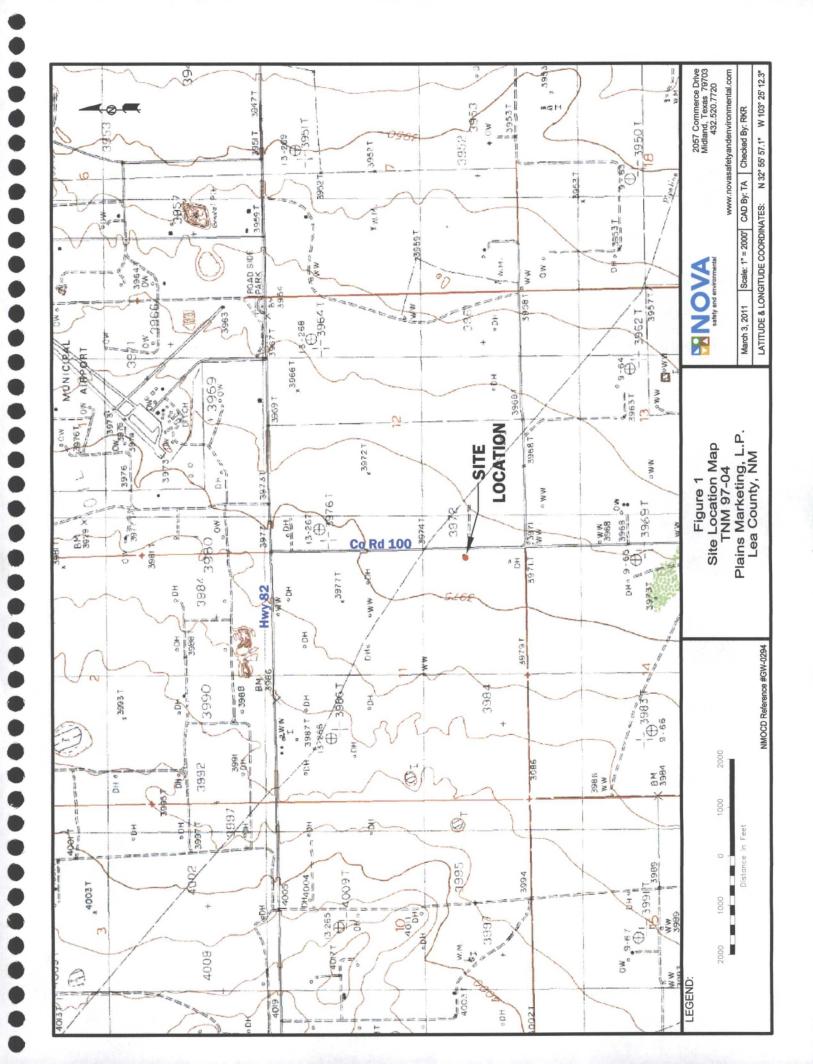
Houston, TX 77002 jpdann@paalp.com

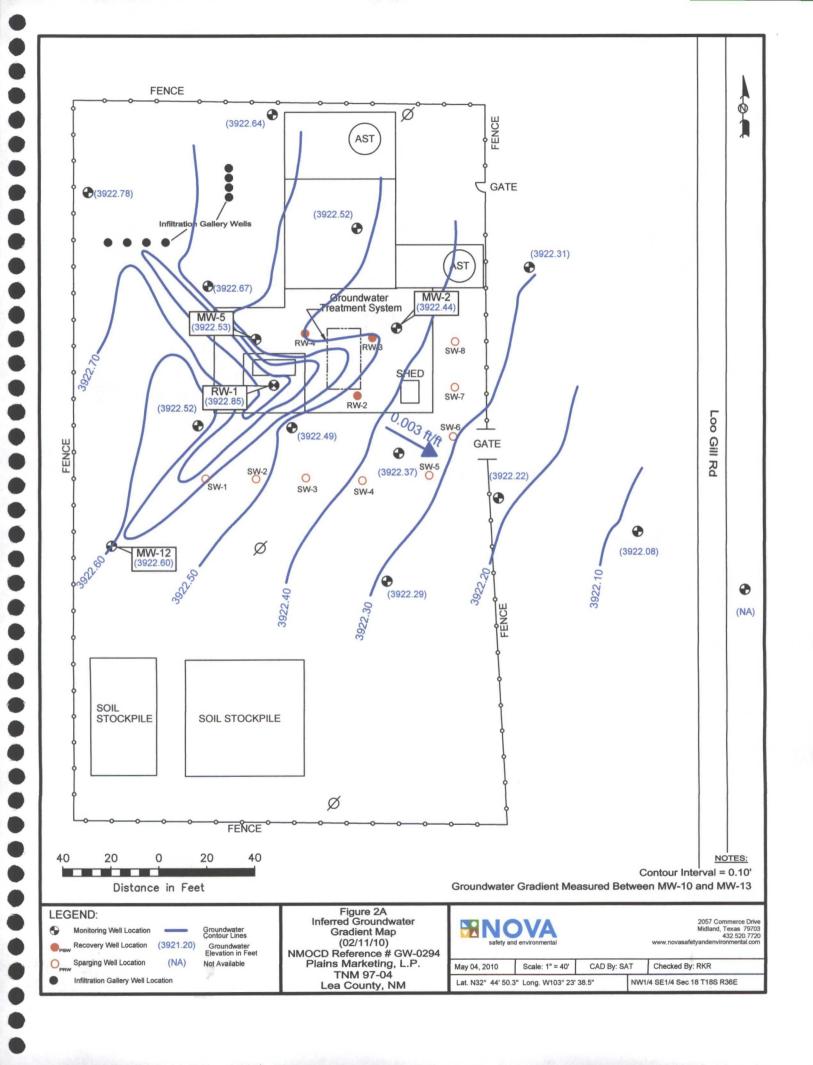
Copy 5: NOVA Safety and Environmental

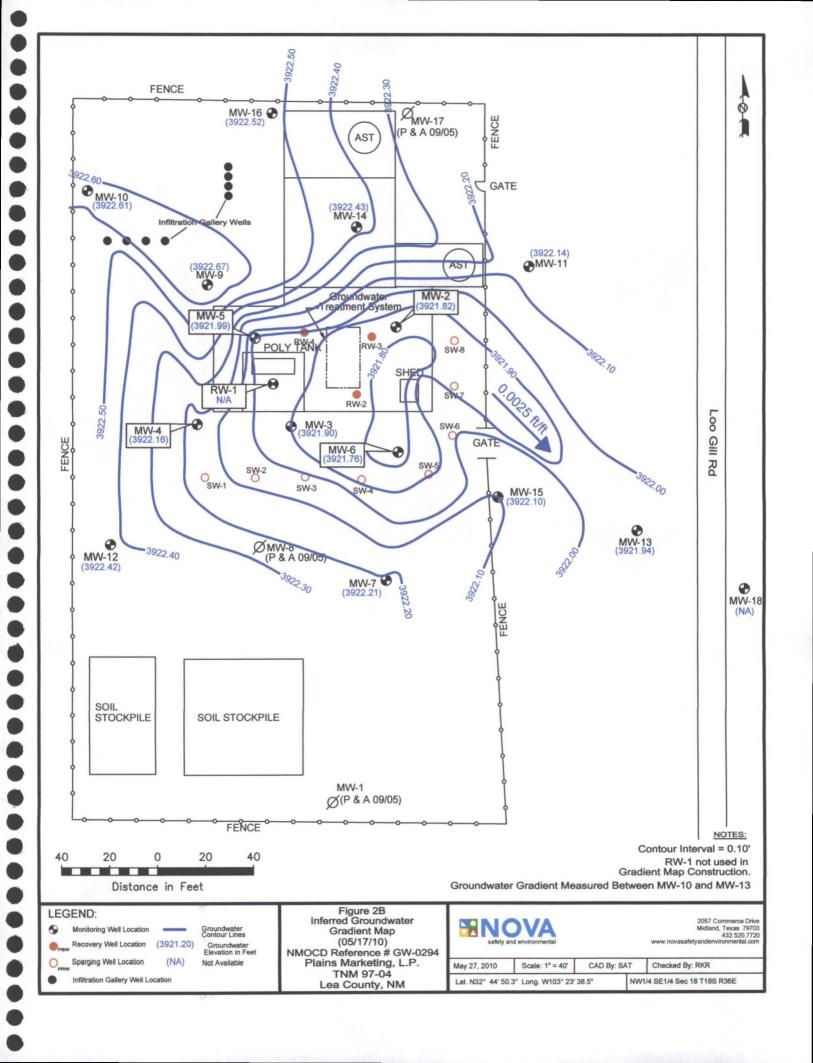
2057 Commerce Street Midland, TX 79703

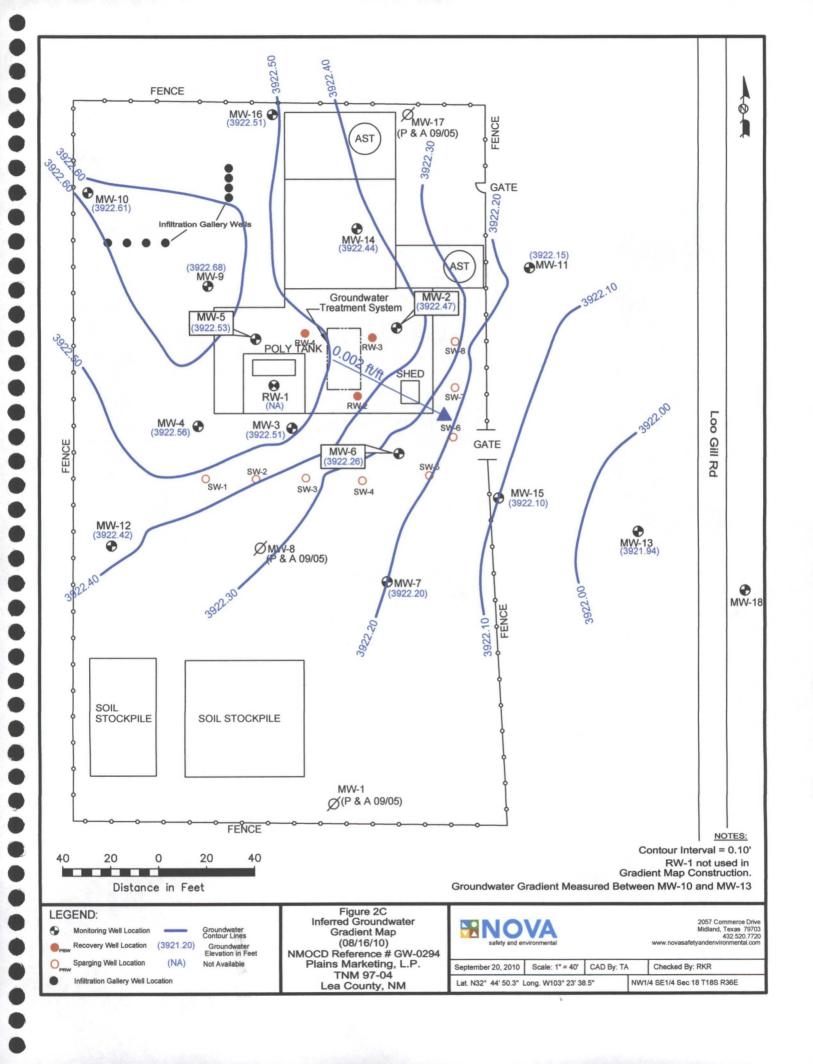
rrounsaville@novatraining.cc

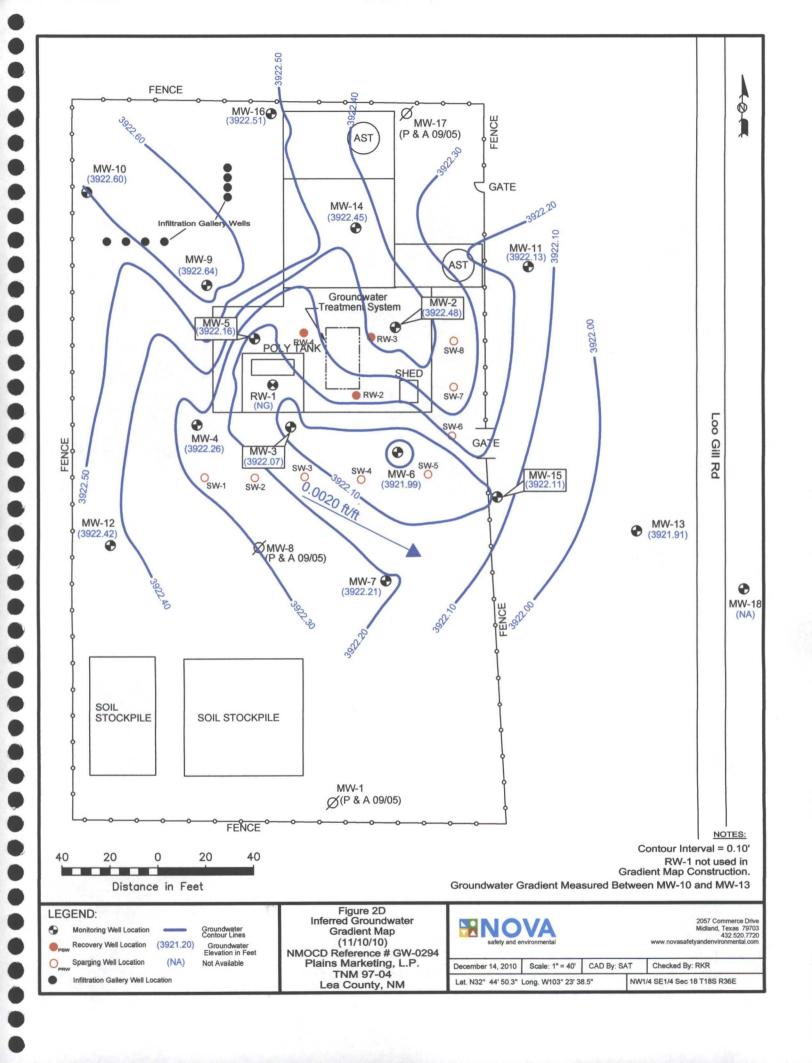
Figures

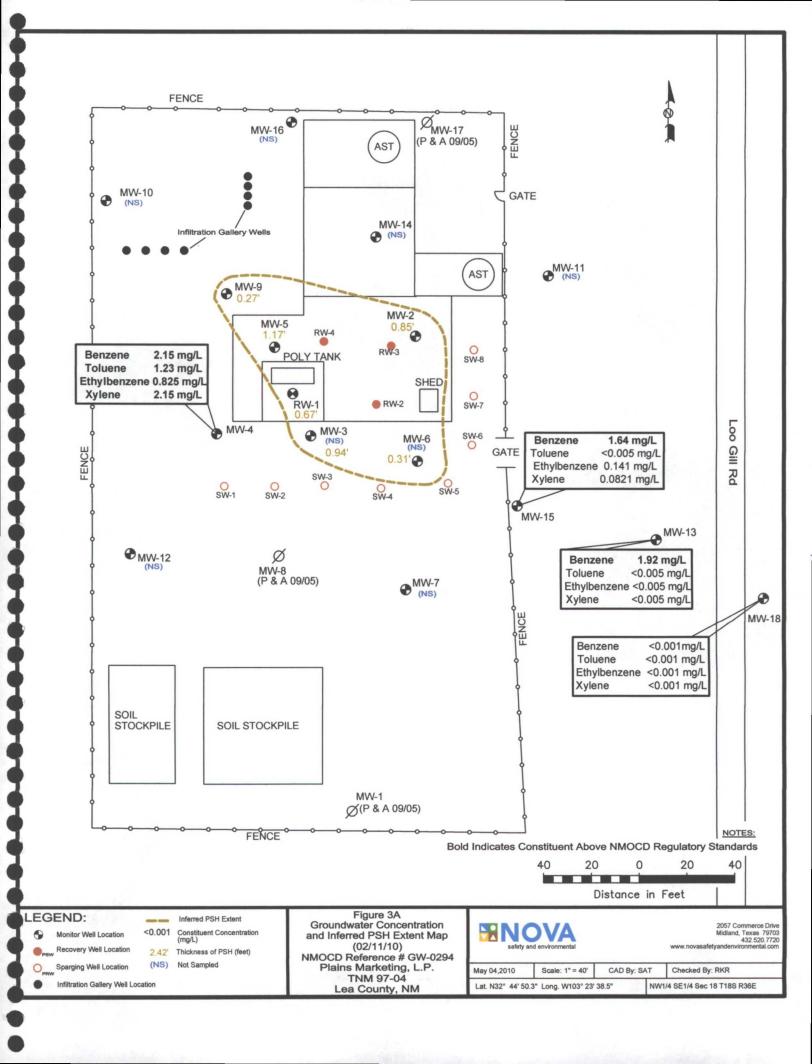


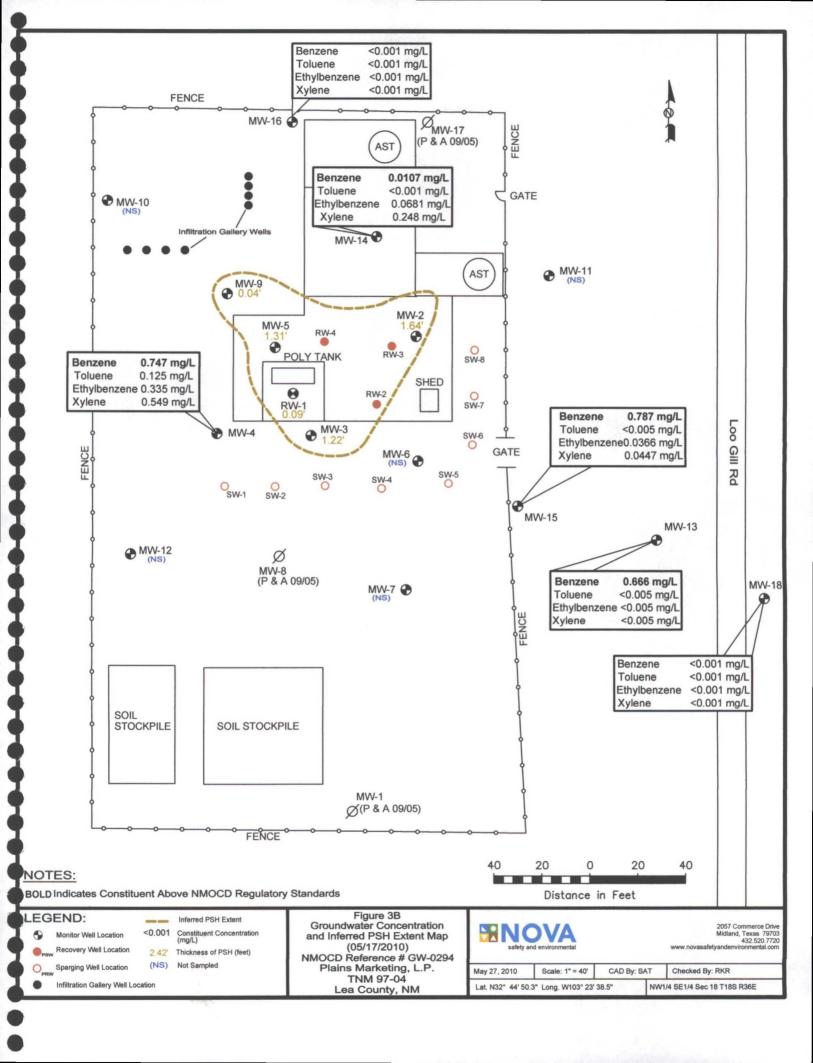


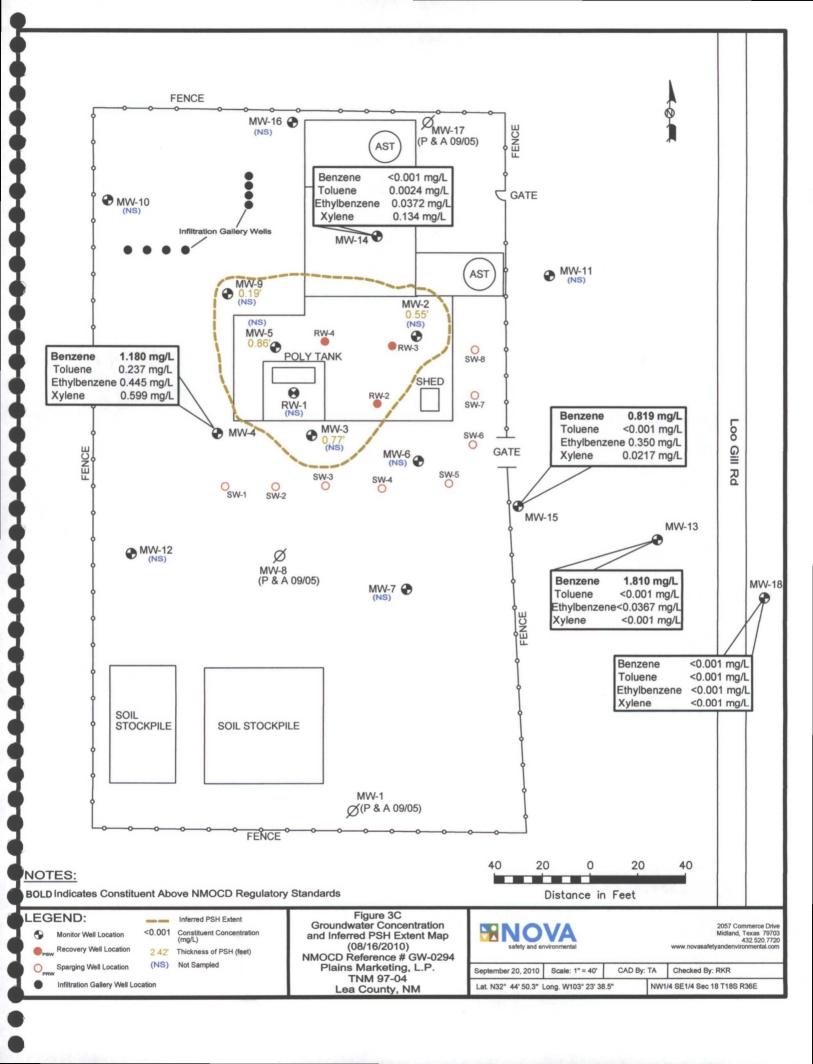


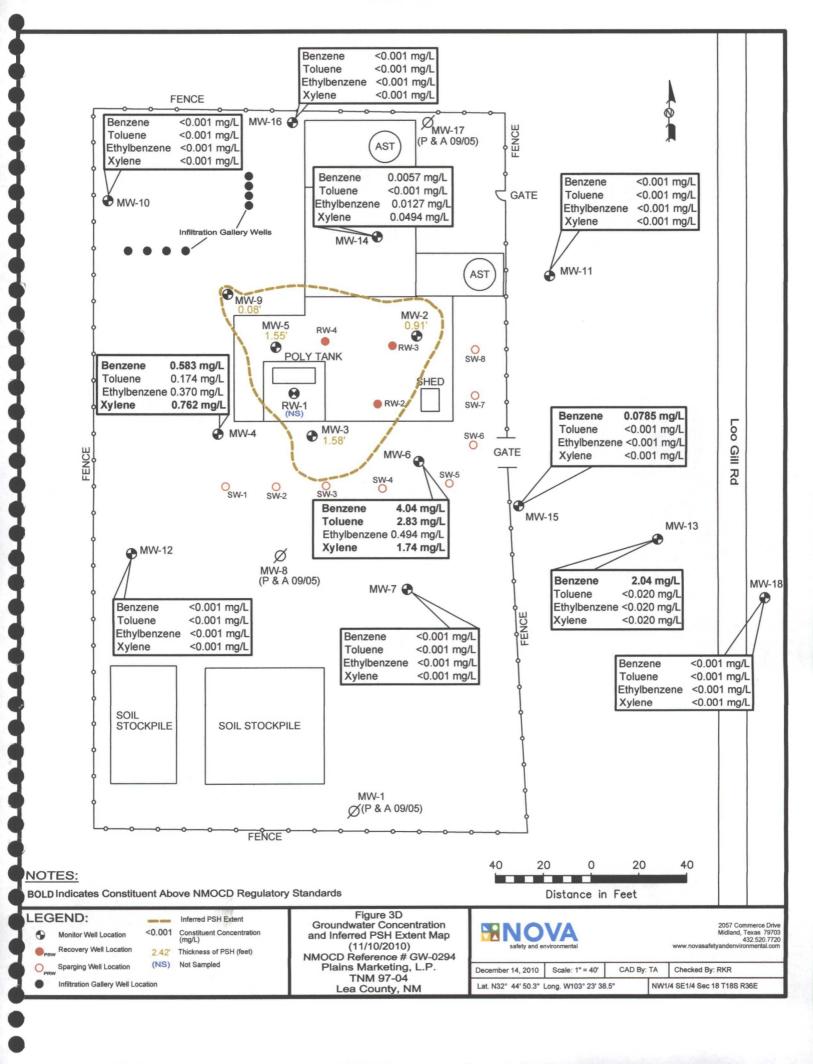












Tables

# **GROUNDWATER ELEVATION DATA - 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 2	01/07/10	3974.62	52.09	52.85	0.76	3922.42
MW - 2	01/18/10	3974.62	52.04	52.92	0.88	3922.45
MW - 2	02/11/10	3974.62	52.05	52.90	0.85	3922.44
MW - 2	02/18/10	3974.62	52.04	52.90	0.86	3922.45
MW - 2	02/25/10	3974.62	52.08	52.95	0.87	3922.41
MW - 2	03/02/10	3974.62	52.11	52.92	0.81	3922.39
MW - 2	03/04/10	3974.62	52.09	52.83	0.74	3922.42
MW - 2	03/10/10	3974.62	52.08	52.93	0.85	3922.41
MW - 2	03/12/10	3974.62	52.15	52.86	0.71	3922.36
MW - 2	03/15/10	3974.62	52.09	52.74	0.65	3922.43
MW - 2	03/18/10	3974.62	52.10	52.69	0.59	3922.43
MW - 2	03/22/10	3974.62	52.18	52.74	0.56	3922.36
MW - 2	03/24/10	3974.62	52.17	52.68	0.51	3922.37
MW - 2	03/30/10	3974.62	52.15	52.65	0.50	3922.40
MW - 2	04/07/10	3974.62	52.18	52.63	0.45	3922.37
MW - 2	04/12/10	3974.62	52.03	52.81	0.78	3922.47
MW - 2	04/16/10	3974.62	52.69	54.59	1.90	3921.65
MW - 2	04/20/10	3974.62	52.55	54.31	1.76	3921.81
MW - 2	04/27/10	3974.62	52.54	54.40	1.86	3921.80
MW - 2	04/30/10	3974.62	52.58	54.08	1.50	3921.82
MW - 2	05/12/10	3974.62	52.52	54.20	1.68	3921.85
MW - 2	05/14/10	3974.62	52.54	54.39	1.85	3921.80
MW - 2	05/17/10	3974.62	52.55	54.19	1.64	3921.82
MW - 2	05/20/10	3974.62	52.50	54.19	1.69	3921.87
MW - 2	05/25/10	3974.62	52.38	53.90	1.52	3922.01
MW - 2	06/01/10	3974.62	52.39	53.89	1.50	3922.01
MW - 2	06/09/10	3974.62	52.37	53.86	1.49	3922.03
MW - 2	06/16/10	3974.62	52.43	53.11	0.68	3922.09
MW - 2	06/28/10	3974.62	52.36	53.47	1.11	3922.09
MW - 2	07/09/10	3974.62	52.44	53.12	0.68	3922.08
MW - 2	07/14/10	3974.62	52.06	52.58	0.52	3922.48
MW - 2	07/23/10	3974.62	52.09	52.60	0.51	3922.45
MW - 2	07/29/10	3974.62	52.07	52.60	0.53	3922.47
MW - 2	08/05/10	3974.62	52.08	52.60	0.52	3922.46
MW - 2	08/12/10	3974.62	52.07	52.60	0.53	3922.47
MW - 2	08/16/10	3974.62	52.07	52.60	0.53	3922.47
MW - 2	08/18/10	3974.62	52.07	52.62	0.55	3922.47
MW - 2	08/26/10	3974.62	52.34	53.05	0.71	3922.17
MW - 2	09/02/10	3974.62	52.41	53.40	0.99	3922.06
MW - 2	09/09/10	3974.62	52.09	52.59	0.50	3922.46
MW - 2	09/30/10	3974.62	52.09	52.61	0.52	3922.45
MW - 2	10/07/10	3974.62	52.09	52.72	0.63	3922.44
MW - 2	10/14/10	3974.62	52.48	53.43	0.95	3922.00
MW - 2	10/21/10	3974.62	52.51	53.42	0.91	3921.97
MW - 2	11/04/10	3974.62	52.08	52.71	0.63	3922.45

# **GROUNDWATER ELEVATION DATA - 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 2	11/10/10	3974.62	52.51	53.42	0.91	3921.97
MW - 2	12/01/10	3974.62	52.02	52.85	0.83	3922.48
MW - 2	12/08/10	3974.62	52.39	53.22	0.83	3922.11
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MW - 3	01/07/10	3974.6	52.06	52.72	0.66	3922.44
MW - 3	01/18/10	3974.6	52.08	52.64	0.56	3922.44
MW - 3	02/11/10	3974.6	51.97	52.91	0.94	3922.49
MW - 3	02/18/10	3974.6	51.98	51.99	0.01	3922.62
MW - 3	02/25/10	3974.6	52.04	53.00	0.96	3922.42
MW - 3	03/02/10	3974.6	52.05	52.95	0.90	3922.42
MW - 3	03/04/10	3974.6	52.00	52.83	0.83	3922.48
MW - 3	03/10/10	3974.6	51.98	52.93	0.95	3922.48
MW - 3	03/12/10	3974.6	52.07	52.84	0.77	3922.41
MW - 3	03/15/10	3974.6	52.03	52.77	0.74	3922.46
MW - 3	03/18/10	3974.6	52.06	52.77	0.71	3922.43
MW - 3	03/22/10	3974.6	52.10	52.80	0.70	3922.40
MW - 3	03/24/10	3974.6	52.12	52.73	0.61	3922.39
MW - 3	03/30/10	3974.6	52.08	52.74	0.66	3922.42
MW - 3	04/07/10	3974.6	52.10	52.74	0.64	3922.40
MW - 3	04/12/10	3974.6	52.00	52.72	0.72	3922.49
MW - 3	04/16/10	3974.6	52.39	54.08	1.69	3921.96
MW - 3	04/20/10	3974.6	52.34	53.61	1.27	3922.07
MW - 3	04/27/10	3974.6	52.42	53.74	1.32	3921.98
MW - 3	04/30/10	3974.6	52.32	53.31	0.99	3922.13
MW - 3	05/12/10	3974.6	52.36	53.78	1.42	3922.03
MW - 3	05/14/10	3974.6	52.33	53.33	1.00	3922.12
MW - 3	05/17/10	3974.6	52.52	53.74	1.22	3921.90
MW - 3	05/20/10	3974.6	52.37	53.78	1.41	3922.02
MW - 3	05/25/10	3974.6	52.26	53.13	0.87	3922.21
MW - 3	06/01/10	3974.6	52.25	53.14	0.89	3922.22
MW - 3	06/09/10	3974.6	52.27	53.11	0.84	3922.20
MW - 3	06/16/10	3974.6	52.28	52.96	0.68	3922.22
MW - 3	06/28/10	3974.6	52.32	53.37	1.05	3922.12
MW - 3	07/09/10	3974.6	52.29	52.94	0.65	3922.21
MW - 3	07/23/10	3974.6	51.99	52.67	0.68	3922.51
MW - 3	07/29/10	3974.6	51.99	52.68	0.69	3922.51
MW - 3	08/05/10	3974.6	51.98	52.70	0.72	3922.51
MW - 3	08/12/10	3974.6	51.98	52.73	0.75	3922.51
MW - 3	08/16/10	3974.6	51.98	52.73	0.75	3922.51
MW - 3	08/18/10	3974.6	51.98	52.75	0.77	3922.50
MW - 3	08/26/10	3974.6	52.11	53.04	0.93	3922.35
MW - 3	09/02/10	3974.6	52.19	53.40	1.21	3922.23
MW - 3	09/09/10	3974.6	51.96	52.71	0.75	3922.53
MW - 3	09/30/10	3974.6	52.04	52.58	0.54	3922.48
MW - 3	10/07/10	3974.6	52.04	52.65	0.61	3922.47
MW - 3	10/14/10	3974.6	52.30	53.90	1.60	3922.06

# **GROUNDWATER ELEVATION DATA - 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 3	10/21/10	3974.6	52.28	53.89	1.61	3922.08
MW - 3	11/04/10	3974.6	52.18	53.24	1.06	3922.26
MW - 3	11/10/10	3974.6	52.29	53.87	1.58	3922.07
MW - 3	12/01/10	3974.6	51.96	52.81	0.85	3922.51
MW - 3	12/08/10	3974.6	52.09	53.16	1.07	3922.35
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MW - 4	01/07/10	3974.53	_	52.00	0.00	3922.53
MW - 4	01/18/10	3974.53	-	52.02	0.00	3922.51
MW - 4	02/11/10	3974.53	-	52.01	0.00	3922.52
MW - 4	02/18/10	3974.53	-	51.99	0.00	3922.54
MW - 4	02/25/10	3974.53	-	52.02	0.00	3922.51
MW - 4	03/02/10	3974.53	-	52.09	0.00	3922.44
MW - 4	03/04/10	3974.53	-	51.92	0.00	3922.61
MW - 4	03/10/10	3974.53	-	51.99	0.00	3922.54
MW - 4	03/12/10	3974.53	-	52.05	0.00	3922.48
MW - 4	03/15/10	3974.53	-	51.99	0.00	3922.54
MW - 4	03/18/10	3974.53	-	52.00	0.00	3922.53
MW - 4	03/22/10	3974.53	-	52.05	0.00	3922.48
MW - 4	03/24/10	3974.53	-	52.08	0.00	3922.45
MW - 4	03/30/10	3974.53	-	52.04	0.00	3922.49
MW - 4	04/07/10	3974.53	-	52.07	0.00	3922.46
MW - 4	04/12/10	3974.53	-	51.98	0.00	3922.55
MW - 4	04/16/10	3974.53	-	52.29	0.00	3922.24
MW - 4	04/20/10	3974.53	-	52.18	0.00	3922.35
MW - 4	04/27/10	3974.53	-	52.24	0.00	3922.29
MW - 4	04/30/10	3974.53	-	52.17	0.00	3922.36
MW - 4	05/12/10	3974.53	-	52.23	0.00	3922.30
MW - 4	05/14/10	3974.53	-	52.18	0.00	3922.35
MW - 4	05/17/10	3974.53	-	52.37	0.00	3922.16
MW - 4	05/20/10	3974.53	-	52.25	0.00	3922.28
MW - 4	05/25/10	3974.53	_	52.10	0.00	3922.43
MW - 4	06/01/10	3974.53	-	52.09	0.00	3922.44
MW - 4	06/09/10	3974.53	-	52.07	0.00	3922.46
MW - 4	06/16/10	3974.53	· -	52.05	0.00	3922.48
MW - 4	06/28/10	3974.53	52.15	52.16	0.01	3922.38
MW - 4	07/09/10	3974.53		52.07	0.00	3922.46
MW - 4_	07/14/10	3974.53	-	51.96	0.00	3922.57
MW - 4	07/23/10	3974.53		51.95	0.00	3922.58
MW - 4	07/29/10	3974.53		51.94	0.00	3922.59
MW - 4	08/05/10	3974.53	-	51.95	0.00	3922.58
MW - 4	08/12/10	3974.53		51.97	0.00	3922.56
MW - 4	08/16/10	3974.53	-	51.97	0.00	3922.56
MW - 4	08/18/10	3974.53	-	51.95	0.00	3922.58
MW - 4	08/25/10	3974.53	-	52.03	0.00	3922.50
MW - 4	09/09/10	3974.53	•	51.95	0.00	3922.58
MW - 4	09/30/10	3974.53	-	51.95	0.00	3922.58
MW - 4	10/07/10	3974.53		52.00	0.00	3922.53
MW - 4	10/14/10	3974.53	-	52.19	0.00	3922.34
MW - 4	10/21/10	3974.53		52.21	0.00	3922.32

# **GROUNDWATER ELEVATION DATA - 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 4	11/04/10	3974.53	<u>-</u>	52.02	0.00	3922.51
MW - 4	11/10/10	3974.53	-	52.27	0.00	3922.26
MW - 4	12/01/10	3974.53	-	51.99	0.00	3922.54
MW - 4	12/08/10	3974.53	-	52.13	0.00	3922.40
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MW - 5	01/07/10	3974.27	51.65	52.66	1.01	3922.47
MW - 5	01/18/10	3974.27	51.57	52.66	1.09	3922.54
MW - 5	02/11/10	3974.27	51.56	52.73	1.17	3922.53
MW - 5	02/18/10	3974.27	51.55	52.74	1.19	3922.54
MW - 5	02/25/10	3974.27	51.60	52.80	1.20	3922.49
MW - 5	03/02/10	3974.27	51.64	52.82	1.18	3922.45
MW - 5	03/04/10	3974.27	51.57	52.09	0.52	3922.62
MW - 5	03/10/10	3974.27	51.59	52.78	1.19	3922.50
MW - 5	03/12/10	3974.27	51.61	52.86	1.25	3922.47
MW - 5	03/15/10	3974.27	51.60	52.73	1.13	3922.50
MW - 5	03/18/10	3974.27	51.59	52.73	1.14	3922.51
MW - 5	03/22/10	3974.27	51.62	52.78	1.16	3922.48
MW - 5	03/24/10	3974.27	51.63	52.76	1.13	3922.47
MW - 5	03/30/10	3974.27	51.61	52.79	1.18	3922.48
MW - 5	04/07/10	3974.27	51.64	52.79	1.15	3922.46
MW - 5	04/12/10	3974.27	51.53	52.70	1.17	3922.56
MW - 5	04/16/10	3974.27	51.96	53.95	1.99	3922.01
MW - 5	04/20/10	3974.27	51.85	53.52	1.67	3922.17
MW - 5	04/27/10	3974.27	51.98	53.60	1.62	3922.05
MW - 5	04/30/10	3974.27	51.91	53.39	1.48	3922.14
MW - 5	05/12/10	3974.27	51.91	53.50	1.59	3922.12
MW - 5	05/14/10	3974.27	51.93	53.38	1.45	3922.12
MW - 5	05/17/10	3974.27	52.08	53.39	1.31	3921.99
MW - 5	05/20/10	3974.27	51.90	53.51	1.61	3922.13
MW - 5	05/25/10	3974.27	51.86	53.12	1.26	3922.22
MW - 5	06/01/10	3974.27	51.88	53.11	1.23	3922.21
MW - 5	06/09/10	3974.27	51.88	53.12	1.24	3922.20
MW - 5	06/16/10	3974.27	51.85	52.92	1.07	3922.26
MW - 5	06/28/10	3974.27	51.63	53.78	2.15	3922.32
MW - 5	07/09/10	3974.27	51.87	52.91	1.04	3922.24
MW - 5	07/14/10	3974.27	51.58	52.40	0.82	3922.57
MW - 5	07/23/10	3974.27	51.60	52.49	0.89	3922.54
MW - 5	07/29/10	3974.27	51.59	52.40	0.81	3922.56
MW - 5	08/05/10	3974.27	51.61	52.40	0.79	3922.54
MW - 5	08/03/10	3974.27	51.62	52.42	0.80	3922.53
MW - 5	08/12/10	3974.27	51.62	52.42	0.80	3922.53
MW - 5	08/18/10	3974.27	51.59	52.45	0.86	3922.55
	08/18/10	3974.27	51.81	52.84	1.03	3922.33
MW - 5		3974.27	51.81	52.88	1.07	3922.30
MW - 5	09/02/10				0.79	3922.53
MW - 5	09/09/10	3974.27	51.62	52.41		
MW - 5	09/30/10	3974.27	51.61	52.36	0.75	3922.55
MW - 5	10/07/10	3974.27	51.64	52.35	0.71	3922.52
MW - 5	10/14/10	3974.27	51.88	53.49	1.61	3922.15
MW - 5	10/21/10	3974.27	51.88	53.46	1.58	3922.15

# **GROUNDWATER ELEVATION DATA - 2010**

WELL.	D.A. COPE	TOP OF	DEDELL TO	DEPTH TO	DOLL	CORRECTED
WELL	DATE	CASING	DEPTH TO	DEPTH TO	PSH	GROUNDWATER
NUMBER	MEASURED	ELEVATION	PRODUCT	WATER	THICKNESS	ELEVATION
MW - 5	11/04/10	3974.27	51.86	52.77	0.91	3922.27
MW - 5	11/10/10	3974.27	51.88	53.43	1.55	3922.16
MW - 5	12/01/10	3974.27	51.70	52.44	0.74	3922.46
MW - 5	12/08/10	3974.27	51.85	52.77	0.92	3922.28
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MW - 6	01/07/10	3974.72	52.35	52.55	0.20	3922.34
MW - 6	01/18/10	3974.72	52.4	52.52	0.12	3922.30
MW - 6	02/11/10	3974.72	52.3	52.61	0.31	3922.37
MW - 6	02/18/10	3974.72	52.3	52.68	0.38	3922.36
MW - 6	02/25/10	3974.72	52.41	52.61	0.20	3922.28
MW - 6	03/02/10	3974.72	52.43	52.58	0.15	3922.27
MW - 6	03/04/10	3974.72	52.46	52.56	0.10	3922.25
MW - 6	03/10/10	3974.72	52.37	52.53	0.16	3922.33
MW - 6	03/12/10	3974.72	52.43	52.56	0.13	3922.27
MW - 6	03/15/10	3974.72	52.36	52.50	0.14	3922.34
MW - 6	03/18/10	3974.72	52.35	52.46	0.11	3922.35
MW - 6	03/22/10	3974.72	52.41	52.54	0.13	3922.29
MW - 6	03/24/10	3974.72	52.48	52.54	0.06	3922.23
MW - 6	03/30/10	3974.72	52.49	52.55	0.06	3922.22
MW - 6	04/07/10	3974.72	52.50	52.53	0.03	3922.22
MW - 6	04/12/10	3974.72	52.40	52.41	0.01	3922.32
MW - 6	04/16/10	3974.72	52.87	52.89	0.02	3921.85
MW - 6	04/20/10	3974.72	52.98	53.00	0.02	3921.74
MW - 6	04/27/10	3974.72	52.83	52.84	0.01	3921.89
MW - 6	04/30/10	3974.72	52.80	52.82	0.02	3921.92
MW - 6	05/12/10	3974.72	sheen	52.74	0.00	3921.98
MW - 6	05/14/10	3974.72	sheen	52.84	0.00	3921.88
MW - 6	05/17/10	3974.72	sheen	52.96	0.00	3921.76
MW - 6	05/20/10	3974.72	52.72	52.73	0.00	3921.99
MW - 6	05/25/10	3974.72	sheen	52.57	0.00	3922.15
MW - 6	06/01/10	3974.72	52.26	52.28	0.00	3922.46
MW - 6	06/09/10	3974.72	52.59	52.60	0.01	3922.13
MW - 6	06/16/10	3974.72	52.55	52.56	0.01	3922.17
MW - 6	06/28/10	3974.72	52.60	52.63	0.03	3922.12
MW - 6	07/09/10	3974.72	52.53	52.54	0.01	3922.19
MW - 6	07/14/10	3974.72	52.35	52.36	0.01	3922.37
MW - 6	07/23/10	3974.72	52.40	52.42	0.02	3922.32
MW - 6	07/29/10	3974.72	52.40	52.43	0.03	3922.32
MW - 6	08/05/10	3974.72	sheen	52.40	0.00	3922.32
MW - 6	08/12/10	3974.72	sheen	52.46	0.00	3922.26
MW - 6	08/12/10	3974.72	sheen	52.46	0.00	3922.26
MW - 6	08/18/10	3974.72	sheen	52.35	0.00	3922.37
MW - 6	08/18/10	3974.72	52.41	52.33	0.00	3922.31
MW - 6	09/02/10	3974.72	52.27	52.42	0.01	3922.45
MW - 6	09/02/10	3974.72	52.45	52.46	0.02	3922.27
MW - 6	09/08/10	3974.72	52.33	52.37	0.01	3922.27
		3974.72	52.33	52.45	0.04	3922.30
MW - 6	10/07/10		52.74	52.45	0.04	3921.98
MW - 6	10/14/10	3974.72				3921.98
MW - 6	10/21/10	3974.72	sheen	52.73	0.00	3921.99

# **GROUNDWATER ELEVATION DATA - 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 6	11/04/10	3974.72	sheen	52.35	0.00	3922.37
MW - 6	11/10/10	3974.72	sheen	52.73	0.00	3921.99
MW - 6	12/01/10	3974.72	sheen	52.41	0.00	3922.31
MW - 6	12/08/10	3974.72	sheen	52.44	0.00	3922.28
	Free Barrier Spark, Service.	The state of the s		\$ 36 W. 11 12	100.00	
MW - 7	01/07/10	3974.6	-	52.33	0.00	3922.27
MW - 7	02/11/10	3974.6	-	52.31	0.00	3922.29
MW - 7	05/17/10	3974.6	-	52.39	0.00	3922.21
MW - 7	08/16/10	3974.6	-	52.40	0.00	3922.20
MW - 7	11/10/10	3974.6		52.39	0.00	3922.21
MW - 9	01/07/10	3975.06	52.39	52.61	0.22	3922.64
MW - 9	01/18/10	3975.06	52.36	52.69	0.33	3922.65
MW - 9	02/11/10	3975.06	52.35	52.62	0.27	3922.67
MW - 9	02/18/10	3975.06	52.34	52.66	0.32	3922.67
MW - 9	02/25/10	3975.06	52.44	52.70	0.26	3922.58
MW - 9	03/02/10	3975.06	52.45	52.68	0.23	3922.58
MW - 9	03/04/10	3975.06	52.34	52.58	0.24	3922.68
MW - 9	03/10/10	3975.06	52.36	52.60	0.24	3922.66
MW - 9	03/12/10	3975.06	52.48	52.64	0.16	3922.56
MW - 9	03/15/10	3975.06	52.38	52.58	0.20	3922.65
MW - 9	03/18/10	3975.06	52.37	52.56	0.19	3922.66
MW - 9	03/22/10	3975.06	52.43	52.64	0.21	3922.60
MW - 9	03/24/10	3975.06	52.47	52.60	0.13	3922.57
MW - 9	03/30/10	3975.06	52.44	52.64	0.20	3922.59
MW - 9	04/07/10	3975.06	52.45	52.71	0.26	3922.57
MW - 9	04/12/10	3975.06	52.34	52.52	0.18	3922.69
MW - 9	04/16/10	3975.06	52.51	52.69	0.18	3922.52
MW - 9	04/20/10	3975.06	52.41	52.53	0.12	3922.63
MW - 9	04/27/10	3975.06	52.41	52.50	0.09	3922.64
MW - 9	04/30/10	3975.06	52.39	52.49	0.10	3922.66
MW - 9	05/12/10	3975.06	52.27	52.33	0.06	3922.78
MW - 9	05/14/10	3975.06	52.41	52.51	0.10	3922.64
MW - 9	05/17/10	3975.06	52.38	52.42	0.04	3922.67
MW - 9	05/20/10	3975.06	52.29	52.32	0.03	3922.77
MW - 9	05/25/10	3975.06	52.27	52.34	0.07	3922.78
MW - 9	06/01/10	3975.06	52.28	52.33	0.05	3922.77
MW - 9	06/09/10	3975.06	52.3	52.34	0.04	3922.75
MW - 9	06/16/10	3975.06	52.4	52.50	0.10	3922.65
MW - 9	06/28/10	3975.06	52.39	52.49	0.10	3922.66
MW - 9	07/09/10	3975.06	52.42	52.50	0.08	3922.63

# **GROUNDWATER ELEVATION DATA - 2010**

WELL	DATE	TOP OF CASING	<b>DEPTH TO</b>	<b>ДЕРТН ТО</b>	PSH	CORRECTED GROUNDWATER
NUMBER	MEASURED	ELEVATION	PRODUCT	WATER	THICKNESS	ELEVATION
MW - 9	07/14/10	3975.06	52.34	52.50	0.16	3922.70
MW - 9	07/23/10	3975.06	52.35	52.51	0.16	3922.69
MW - 9	07/29/10	3975.06	52.35	52.52	0.17	3922.68
MW - 9	08/05/10	3975.06	52.35	52.60	0.25	3922.67
MW - 9	08/12/10	3975.06	52.35	52.54	0.19	3922.68
MW - 9	08/16/10	3975.06	52.35	52.54	0.19	3922.68
MW - 9	08/18/10	3975.06	52.35	52.54	0.19	3922.68
MW - 9	08/25/10	3975.06	52.41	52.63	0.22	3922.62
MW - 9	09/02/10	3975.06	52.35	52.51	0.16	3922.69
MW - 9	09/08/10	3975.06	52.37	52.52	0.15	3922.67
MW - 9	09/30/10	3975.06	52.35	52.53	0.18	3922.68
MW - 9	10/07/10	3975.06	52.36	52.52	0.16	3922.68
MW - 9	10/14/10	3975.06	52.37	52.54	0.17	3922.66
MW - 9	10/21/10	3975.06	52.39	52.52	0.13	3922.65
MW - 9	11/04/10	3975.06	52.35	52.53	0.18	3922.68
MW - 9	11/10/10	3975.06	52.41	52.49	0.08	3922.64
MW - 9	12/01/10	3975.06	52.31	52.56	0.25	3922.71
MW - 9	12/08/10	3975.06	52.39	52.54	0.15	3922.65
	A STATE OF THE STA		-kolakansa ara			manadir anta are a ara
MW - 10	01/07/10	3975.02	-	52.25	0.00	3922.77
MW - 10	02/11/10	3975.02	-	52.24	0.00	3922.78
MW - 10	05/17/10	3975.02	-	52.41	0.00	3922.61
MW - 10	08/16/10	3975.02	-	52.41	0.00	3922.61
MW - 10	11/10/10	3975.02	-	52.42	0.00	3922.60
3000	11 1000 - 12				73573	
MW - 11	01/07/10	3975.3	-	53.02	0.00	3922.28
MW - 11	02/11/10	3975.3	-	52.99	0.00	3922.31
MW - 11	05/17/10	3975.3	-	53.16	0.00	3922.14
MW - 11	08/16/10	3975.3	-	53.15	0.00	3922.15
MW - 11	11/10/10	3975.3	-	53.17	0.00	3922.13
						Figure Max Co. Pellagraph p. St
MW - 12	01/07/10	3974.55	-	51.95	0.00	3922.60
MW - 12	02/11/10	3974.55	<u>-</u>	51.95	0.00	3922.60
MW - 12	05/17/10	3974.55	-	52.13	0.00	3922.42
MW - 12	08/16/10	3974.55	-	52.13	0.00	3922.42
MW - 12	11/10/10	3974.55	-	52.13	0.00	3922.42
A CONTRACTOR OF THE PERSON NAMED IN	tarn Helig				properties.	2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 /
MW - 13	01/07/10	3975	•	52.94	0.00	3922.06
MW - 13	02/11/10	3975	-	52.92	0.00	3922.08
MW - 13	05/17/10	3975	-	53.06	0.00	3921.94
MW - 13	08/16/10	3975	•	53.06	0.00	3921.94
MW - 13	11/10/10	3975	-	53.09	0.00	3921.91
	100 Aug 100			100 mg/d 200 mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/m		
MW - 14	01/07/10	3976.15	-	53.64	0.00	3922.51
MW - 14	02/11/10	3976.15	-	53.63	0.00	3922.52
MW - 14	05/17/10	3976.15	-	53.72	0.00	3922.43

# **GROUNDWATER ELEVATION DATA - 2010**

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 14	08/16/10	3976.15	-	53.71	0.00	3922.44
MW - 14	11/10/10	3976.15	-	53.70	0.00	3922.45
				a arreservati essegur	graphical and a second	
MW - 15	01/07/10	3974.69	-	52.50	0.00	3922.19
MW - 15	02/11/10	3974.69	-	52.47	0.00	3922.22
MW - 15	05/17/10	3974.69		52.59	0.00	3922.10
MW - 15	08/16/10	3974.69	•	52.59	0.00	3922.10
MW - 15	11/10/10	3974.69	-	52.58	0.00	3922.11
			ristoria dell'Alteria			Suppose and the same of the suppose of the
MW - 16	01/07/10	3975.12	<b>-</b>	52.51	0.00	3922.61
MW - 16	02/11/10	3975.12	-	52.48	0.00	3922.64
MW - 16	05/17/10	3975.12	-	52.60	0.00	3922.52
MW - 16	08/16/10	3975.12	-	52.61	0.00	3922.51
MW - 16	11/10/10	3975.12	-	52.61	0.00	3922.51
	th Pallson C	74 Bir	IOACS 7		Harry and control	2.70 mm (2.40 mm)
MW - 18	01/07/10		-	53.70	0.00	-53.70
MW - 18	02/11/10		-	53.67	0.00	-53.67
MW - 18	05/17/10			53.79	0.00	-53.79
MW - 18	08/16/10		-	53.79	0.00	-53.79
MW - 18	11/10/10		-	53.80	0.00	-53.80
	A District Conference	Series and admit	man are the second	Son A. maker D. terret of the Co.		
RW - 1	01/07/10	3970.79	47.95	48.20	0.25	3922.80
RW - 1	01/18/10	3970.79	47.91	48.28	0.37	3922.82
RW - 1	02/02/10	3970.79	47.88	48.55	0.67	3922.81
RW - 1	02/11/10	3970.79	47.84	48.51	0.67	3922.85
RW - 1	02/18/10	3970.79	47.82	48.60	0.67	3922.76
RW - 1	02/25/10	3970.79	47.99	48.34	1.67	3923.87
RW - 1	03/02/10	3970.79	48.05	48.28	0.23	3922.71
RW - 1	03/04/10	3970.79	47.97	48.10	0.13	3922.80
RW - 1	03/10/10	3970.79	47.93	48.26	0.33	3922.81
RW - 1	03/12/10	3970.79	47.98	48.37	0.39	3922.75
RW - 1	03/15/10	3970.79	48.00	48.10	0.10	3922.78
RW - 1	03/18/10	3970.79	47.88	48.42	0.54	3922.83
RW - 1	03/22/10	3970.79	48.00	48.23	0.23	3922.76
RW - 1	05/17/10	3970.79	50.39	50.48	0.09	3920.39
RW - 1	05/20/10	3970.79	50.08	50.39	0.31	3920.66
A Co. A RESIDE				and the second	Company Company	The second secon
RW - 2	05/20/10	-	-	54.42	0	-54.42
and the second	ALC: NO.					the Parketing
RW - 3	05/20/10	-	54.73	58.8	4.07	-55.34
		The Lines			74.	
RW - 4	05/20/10	-	55.62	59.23	3.61	-56.16

<sup>\*</sup> Complete Historical Data Tables are presented on the attached CD.

# CONCENTRATIONS OF BTEX IN GROUNDWATER

# PLAINS PIPELINE, L.P. TNM 97-04 LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER GW-0294

All Concentrations are reported in mg/L

<del></del>		All Concentr	rations are report	ed in mg/L			
		EPA SW 846-8021B, 5030					
SAMPLE LOCACTION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	m, p - XYLENES	o - XYLENES	
NMOCD REC		0.01	0.75	0.75	0.0	62	
MW - 2	02/11/10	Not Sampled I	Oue to PSH in	Well			
MW - 2	05/17/10	Not Sampled I					
MW - 2	08/16/10	Not Sampled I	Due to PSH in	Well			
MW - 2	11/10/10	Not Sampled I	Due to PSH in	Well			
6 116				100		A CONTRACTOR OF THE STATE OF TH	
MW - 3	02/11/10	Not Sampled I	Due to PSH in	Well			
MW - 3	05/17/10	Not Sampled I	Due to PSH in	Well			
MW - 3	08/16/10	Not Sampled I	Due to PSH in	Well			
MW - 3	11/10/10	Not Sampled I		Well			
					BINGS OF THE STATE	1000	
MW - 4	02/11/10	2.150	1.230	0.825	2.1	50	
MW - 4	05/17/10	0.747	0.125	0.335	0.5	49	
MW - 4	08/16/10	1.180	0.237	0.445	0.5	99	
MW - 4	11/10/10	0.583	0.174	0.370	0.7	62	
Complete Company		Approximation of the second		A DECEMBER OF THE PROPERTY OF	April 1	3.00	
MW - 5	02/11/10	Not Sampled I	Due to PSH in	Well			
MW - 5	05/17/10	Not Sampled I	Due to PSH in	Well			
MW - 5	08/16/10	Not Sampled I	Due to PSH in	Well			
MW - 5	11/10/10	Not Sampled I	Due to PSH in	Well			
		dina sa is		Ummarket in the second			
MW - 6	02/11/10	Not Sampled I	Due to PSH in	Well			
MW - 6	05/17/10	Not Sampled I	Due to PSH in	Well			
MW - 6	08/16/10	Not Sampled I	Due to PSH in	Well			
MW - 6	11/10/10	4.04	2.830	0.494	1.7	10	
COLUMN TO SERVICE STATE OF THE							
MW - 7	02/11/10	Not Sampled I					
MW - 7	05/17/10	Not Sampled I			<u> </u>		
MW - 7	08/16/10	Not Sampled I		Reduction			
MW - 7	11/10/10	< 0.001	<0.001	< 0.001	<0.0	001	
	And the second second			acconent 15	politica con a consideration of the	a pagin dan mas	
MW - 9	02/11/10	Not Sampled I					
MW - 9	05/17/10	Not Sampled I					
MW - 9	08/16/10	Not Sampled I					
MW - 9	11/10/10	Not Sampled I	Due to PSH in	Well	2000 Ngo o gago sara a communica	Control Colored & Chapter State Control	
		E. Children		Gyria 55	188 Sept. 196_6		
MW - 10	02/11/10	Not Sampled I					
MW - 10	05/17/10	Not Sampled I					
MW - 10	08/16/10	Not Sampled I					
MW - 10	11/10/10	<0.001	<0.001	< 0.001	<0.0	001	
	220000000000000000000000000000000000000		1000	A Control		10 1112	

# CONCENTRATIONS OF BTEX IN GROUNDWATER

# PLAINS PIPELINE, L.P. TNM 97-04 LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER GW-0294

All Concentrations are reported in mg/L

		EPA SW 846-8021B, 5030												
SAMPLE	SAMPLE			ETHYL-	m, p -	0 -								
LOCACTION	DATE	BENZENE	TOLUENE	BENZENE	XYLENES	XYLENES								
NMOCD REC	ULATORY	0.01	0.55	0.55	0.62									
LIM	IT	0.01	0.75	0.75	0.62									
MW - 11	02/11/10	Not Sampled I	Due to Sample	Reduction										
MW - 11	05/17/10	Not Sampled I	Due to Sample	Reduction										
MW - 11	08/16/10	Not Sampled I	Due to Sample	Reduction										
MW - 11	11/10/10	< 0.001	< 0.001	< 0.001	<0.0	001								
						diae lispois suras. Pedentos ser duntopid								
MW - 12	02/11/10	Not Sampled I	Due to Sample	Reduction										
MW - 12	05/17/10	Not Sampled I	Due to Sample	Reduction										
MW - 12	08/16/10	Not Sampled I	Due to Sample	Reduction										
MW - 12	11/10/10	< 0.001	< 0.001	< 0.001	<0.0	001								
			13 (12) 01 (13)	Secretary transferred to the		data da la composition de la composition della c								
MW - 13	02/11/10	1.920	< 0.005	< 0.005	<0.0	005								
MW - 13	05/17/10	0.666	< 0.005	< 0.005	<0.0	005								
MW - 13	08/16/10	1.810	< 0.020	0.0367	<0.0	020								
MW - 13	11/10/10	2.040	< 0.020	< 0.020	<0.0	020								
			Historia Salah	A A A A A A A A A A A A A A A A A A A										
MW - 14	02/11/10	Not Sampled												
MW - 14	05/17/10	0.0107	< 0.001	0.0681	0.2	48								
MW - 14	08/16/10	< 0.001	0.0024	0.0372	0.1	34								
MW - 14	11/10/10	0.0057	< 0.001	0.0127	0.04	194								
			Partie de la company de la Company de la company de la com		The second second									
MW - 15	02/11/10	1.640	< 0.005	0.1410	0.08	321								
MW - 15	05/21/10	0.787	< 0.005	0.0366	0.04	147								
MW - 15	08/16/10	0.819	< 0.010	0.0350	0.02	217								
MW - 15	11/10/10	0.0785	< 0.010	< 0.010	<0.0	010								
÷24		2.1074500 A. C.			MARKE I									
MW - 16	02/11/10	Not Sampled I												
MW - 16	05/21/10	< 0.001	< 0.001	< 0.001	<0.0	001								
MW - 16	08/16/10	Not Sampled I		Reduction										
MW - 16	11/10/10	< 0.001	< 0.001	< 0.001	<0.0	001								
						regi de lipe Zar sue mitra que li la Salva esca								
MW - 18	02/11/10	< 0.001	< 0.001	< 0.001	<0.0									
MW - 18	05/17/10	< 0.001	< 0.001	< 0.001	<0.0									
MW - 18	08/16/10	< 0.001	< 0.001	< 0.001	<0.0									
MW - 18	11/10/10	< 0.001	< 0.001	<0.001	<0.0	001								
Was to the same of		The Landson States		The state of the s	Alles and the second se									
RW - 1	02/11/10	Not Sampled I												
RW - 1	05/17/10	Not Sampled I												
RW - 1	08/16/10	Not Sampled I												
RW - 1	11/10/10	Not Sampled I		Well										

<sup>\*</sup> Complete Historical Data Tables are presented on the attached CD.

# POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER PLAINS MARKETING, L.P. TIM 97-04 TOWNSEND LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER GW-0294

		Dibenzofuran		0.0377	0.0267			0.0228	0.626			0.00414	0.0123	0.00247		0.0316	0.00848			0.00635	0.0467			<0.000184	<0.000183		
		2-Methylnaphthalene		0.417	0.337			0.40	8.74			0.0423	0.089	0.0188		0.346	0.107			0.0744	695.0			_	<0.000183		
		I-Methylnaphthalene	J\2m £0.0	0.354	0.274			0.348	7.02			0.0435	0.118	0.035		0.301	0.0931			0.0687	0.498		n de		<0.000183		
		Naphthalene		0.232	0.207			0.192	3.87			8990.0	0.103	0.0279		0.192	0.0905		<b>不能够</b>	0.0921	0.294		4.4	0.0002	<0.000183		
		Pyrene	·	<0.000922	<0.000922		A CONTRACTOR	<0.000184	<0.0370			<0.000184	<0.000917	<0.000184		<0.000935	<0.000184			<0.000184	<0.000922		24	<0.000184	<0.000183		
		Phenanthrene		0.0587 <	> 8760.0			> 89£0.0	1.06	-		0.00376 <	0.0181	0.00404		0.0424 <	0.0104			> 90,000.0	0.0648 <				<0.000183 <		
		Indeno[1,2,3-cd)pyrene	J/gm \$000.0	<0.000922	<0.000922			<0.000184	<0.0370			<0.000184	<0.000917	<0.000184		<0.000935	<0.000184			<0.000184	<0.000922				<0.000183		
		eneroulA		1	0.0276			0.024	0.788			0.0039	0.0143	0.00338		5	0.00909			<0.000184	0.0528			_	<0.000183		
	3510	Fluoranthene		<0.000922	<0.000922		E S	<0.000184	<0.0370			<0.000184	<0.000917	<0.000184	100	_	<0.000184			<0.000184	<0.000922				<0.000183		
ted in mg/L	EPA SW846-8270C, 3510	Dibenz(a,h)anthracene	J\gm E000.0	<0.000922	<0.000922			<0.000184	<0.0370			<0.000184		<0.000184	100	<0.000935	<0.000184			<0.000184	<0.000922		5000	_	<0.000183		
tions are repor	EPA SW	Сыгузепе	J\gm \$600.0	0.0109	<0.000922			0.00578	<0.0370					<0.000184	1.00		<0.000184				<0.000922			_	<0.000183		
water concentrations are reported in mg/L		Benzo[k]fluoranthene	J\gm 2000.0	<0.000922	<0.000922 <0.000922	Event.	1000年	<0.000184	<0.0370	Event.		<0.000184		<0.000184			0184			<0.000184	0922	Event.			0183		
Allw		Benzo[g,h,i]perylene		<0.000922	<0.000922	Monitoring 1	# 10 K	<0.000184	<0.0370	Not Sampled as part of Quarterly Monitoring Event	1000年	<0.000184		<0.000184			<0.000184	Not Sampled as part of Quarterly Monitoring Event			<0.000922	Not Sampled as part of Quarterly Monitoring Event			<0.000183	Not Sampled as part of Quarterly Monitoring Event	
		Benzo b fluoranthene	J\gm 2000.0	22	77	Not Sampled as part of Quarterly Monitoring	是不是是	<0.000184	<0.0370	of Quarterly		84	2	84		2	<0.000184	of Quarterly	TERN	<0.000184	<0.000922	of Quarterly		4	<0.000183	of Quarterly	
		Benzo[a]pyrene	J\gm 7000.0	<0.000922	<0.000922 <0.000922 <0.0009	pled as part	<b>表</b> 三海	<0.000184	<0.0370	pled as part			<0.000917	<0.000184			<0.000184	pled as part		<0.000184	<0.000922	pled as part		<0.000184	<0.000183 <0.00018	pled as part	
		Benzo[a]anthracene	Л/ <b>з</b> ш 1000.0	<0.000922	<0.000922	Not Sam		<0.000184	<0.0370	Not Sam				<0.000184		<0.000935	<0.000184	Not Sam		<0.000184	<0.000922	Not Sam		<0.000184	<0.000183	Not Sam	12.5
		эпээвтита	-	<0.000922 <0.000922	<0.000922		<b>建建设</b>	<0.000184 <0.000184	<0.0370				<0.000917	<0.000184		<0.000935				<0.000184 < 0.000184 < 0.000184   < 0.000184	<0.000922				<0.000183		
		<b>√сеивр</b> и≀рујене	<del></del>	<0.000922	<0.000922			0.00934	<0.0370	'			<0.000917	<0.000184		<0.000935	<0.000184 <0.000184			<0.000184	<0.000922			<0.000184	<0.000183		
		Acensphthene	. — —	<0.000922	<0.000922 <0.000922 <0.000922			<0.000184	<0.0370			<0.000184	<0.000917	<0.000184		<0.000935	<0.000184			<0.000184	<0.000922			<0.000184	<0.000183		
		SAMPLE	Itaminant M mg water ions 1-103.A.	12/10/08	11/25/09	01/01/11		12/10/08	11/25/09	11/10/10		-	-	_		$\dashv$	-1	11/10/10		-	11/25/09	11/10/10		$\vdash$	$\dashv$	_	
		SAMPLE S LOCATION	Maximum Contaminant Levels from NM WQCC Drinking water standards Sections I- 101.UU and 3-103.A.	MW-2				MW-3				MW-4		_		MW-5				MW-6				MW-7		$\rightarrow$	

# POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER PLAINS MARKETING, L.P. TIMM 97-04 TOWNSEND LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER GW-0294

		Dibenzofuran	_	0.0127	0.0201			<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184			0.00116	0.000638			0.000355	<0.000184		
		2-Methylnaphthalene	·	0.138	0.253			<0.000184	<0.000183			<0.000184	<0.000183		<b>阿里斯斯</b>	<0.000183	<0.000184			<0.000184	<0.000184			0.00298	0.00321		1900
i		I-Methylnaphthalene	J\2m £0.0	0.122	0.221			<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184			0.00314	0.00516		
		Naphthalene		0.102	0.125			<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184			0.00328	0.00605	C TOTAL DESIGNATION OF THE PERSON OF THE PER	
		Pyrene	-	<0.000926	<0.000917			<0.000184	<0.000183	_	100	<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184			<0.000185	<0.000184	_	
		Руспантрисис	_	910.0	0.0315			<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184		100	0.000311	<0.000184	S diployed some semples	
		onoryq(bo-£,2,1 Jonobn1	J\2m \$000.0	<0.000926	<0.000917			<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184				<0.000184	_	
:		Fluorene	-	0.0134	0.0250		200	<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184		2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.000294	<0.000184				<0.000184	S CHEST SHOW AND THE CO.	
	, 3510	Fluoranthene		<0.000926	<0.000917			<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184				<0.000184	W. W	
rted in mg/L	EPA SW846-8270C,	Dibenz[a,h]anthracene	Л\ <b>з</b> т £000.0	<0.000926	<0.000917			<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184				<0.000184		
itions are repo	EPA SW	Chrysene	.1\gm £000.0	<0.000926	<0.000917			<0.000184	<0.000183		<b>多是是</b>	<0.000184	<0.000183		1.0	<0.000183	<0.000184		<b>医基础或</b> 证	<0.000184	<0.000184				<0.000184	of education, published outside	
All water concentrations are reported in mg/L		Вепго[k]Лиогапіћене	J\gm \$000.0	<0.000926	<0.000917	Event.		<0.000184	<0.000183	Event.			<0.000183	اند		<0.000183 <0.000183	<0.000184 <0.000184	Event.	付酒動	<0.000184	0184				0184	Event.	
All v		Benzo[g,h,i]perylene	-	<0.000926	<0.000917	Not Sampled as part of Quarterly Monitoring		<0.000184	<0.000183	Not Sampled as part of Quarterly Monitoring Even	16 To	<0.000184 <0.000184	<0.000183	Not Sampled as part of Quarterly Monitoring Event	181	<0.000183	<0.000184	Not Sampled as part of Quarterly Monitoring Event		<0.000184	<0.000184	Not Sampled as part of Quarterly Monitoring Event			<0.000184	Not Sampled as part of Quarterly Monitoring Event	
		Benzo[b]fluoranthene	J\gm £000.0	<0.000926	<0.000917	of Quarterly			3	of Quarterly			3	of Quarterly		3		of Quarterly	<b>建筑</b> 建筑		<0.000184	of Quarterly	Kolli:	5	<0.000184	ot Quarterny	
		Benzo[a]pyrene	J\gm 7000.0	<0.000926	<0.000917	pled as part	<b>建物学等</b>	<0.000184 <0.000184	<0.000183 <0.00018	pled as part	主義。	<0.000184 <0.000184	<0.000183 <0.00018	pled as part		<0.000183 <0.00018	<0.000184	pled as part	. A 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	< 0.000184	<0.000184	pled as part		<0.000185	<0.000184	pled as part	
		Benzo[a]anthracene	J\3m 1000.0	<0.000926	<0.000917	Not Sam		<0.000184	<0.000183	Not Sam		<0.000184 <0.000184	<0.000183	Not Sam		<0.000183 <0.000183 <0.000183	<0.000184   <0.000184   <0.000184   <0.000184   <0.000184   <0.000184			<0.000184	0>	Not Sam	B. S.	<0.000185 <0.000185 <0.000185	<0.000184   <0.000184   <0.000184   <0.000184   <	School	
		Апthгасепе	_	<0.000926	<0.000917			<0.000184	<0.000183			<0.000184	<0.000183 <0.000183			<0.000183	<0.000184			<0.000184	<0.000184			<0.000185	<0.000184	The first of the f	
		Усепарћіћујепе		<0.000926	<0.000917		100 A	<0.000184	<0.000183		75 TE	<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184			<0.000185	<0.000184	Ext. : "SZEV =" Jupite et plus	
		Асепарћ≀ћеве	-	<0.000926	<0.000917		1. 《清水縣》	<0.000184	<0.000183			<0.000184	<0.000183			<0.000183	<0.000184			<0.000184	<0.000184			<0.000185	<0.000184	Mary Control	
	1	SAMPLE	M M ing water tions 1-	12/10/08	11/25/09	11/10/10		12/08/08	11/25/09	01/01/11		12/08/08	11/25/09	11/10/10		12/08/08	11/25/09	11/10/10		12/08/08	11/25/09	11/10/10		12/08/08	11/25/09		
		SAMPLE	Maximum Contaminan Levels from NM WQCC Drinking water standards Sections 1- 101.UU and 3-103.A.	6-MM				MW-10				MW-11				MW-12				MW-13				MW-14		-+-	

# POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

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	Dibenzofuran	-	0.000687	<0.000184	-		000 0>	<0.000184			<0.000184			0.00817	0.0100	
	Z-Methylnaphthalene		0.00386	<0.000184				<0.000184			<0.000184			0.0912	0.126	
	1-Methyinaphthalene	J\gm £0.0	0.00525	0.00101	_	はなると	<0.000184	<0.000184		の情報を	<0.000184			0.0857	0.113	
	9nəlahihqaV		0.00993	0.00209	# 10 TO 10 T			<0.000184			<0.000184			0.075	0.0961	
	Pyrene	<del>-</del>	< 0.000184	<0.000184				<0.000184			< 0.000184			< 0.000184	< 0.000184	
	Phenanthrene		0.000384	<0.000184	Appelle design to the first to			<0.000184			<0.000184			0.0104	0.0131	
	Indeno[1,2,3-cd)pyrene	J\gm \$000.0	<0.000184	<0.000184	100 Marie 11			<0.000184			<0.000184			< 0.000184	<0.000184	
	enerouf <sup>4</sup>		0.000558	<0.000184	district a delication of the control			<0.000184			< 0.000184			0.0085	0.0120	
3510	Fluoranthene	-	<0.000184	<0.000184	The second of the second			<0.000184			<0.000184		38 W	<0.000184	<0.000184	
s are reported in mg/L	Dibenz[a,a]anthracene	J\gm £000.0	<0.000184	<0.000184				<0.000184			<0.000184		超 報	<0.000184	<0.000184	
All water concentrations are reported in mg/L	Сигузеве	J\2m 2000.0	<0.000184	<0.000184	The second second second			<0.000184			<0.000184			<0.000184	<0.000184	
water concentr	Benzo[k]Auoranthene	J\gm 2000.0	<0.000184	<0.000184	ا اند	10 mar 20 1. 18	<0.000184 <0.000184	<0.000184 <0.000184	Event.		<0.000184 <0.000184	Event.		<0.000184	<0.000184	Event.
All	Benzo[g,h,i]perylene	<del></del>	<0.000184	<0.000184	Monitoring Even		<0.000184	<0.000184	/ Monitoring Event		<b>20.000184</b>	Monitoring Event		<0.000184	<0.000184	/ Monitoring Event
	Benzo[b]fluoranthene	J\gm 2000.0	<0.000184	<0.000184	of Quarterly		<0.000184	<0.000184	of Quarterly		<0.000184	Not Sampled as part of Quarterly		<0.000184	<0.000184	Not Sampled as part of Quarterly
	Benzo[a]pyrene	J\gm 7000.0	<0.000184	<0.000184	<b>~</b> •		<0.000184	<0.000184	Not Sampled as part of Quarterly	推	<0.000184 < 0.000184 < 0.000184	npled as part		<0.000184 <0.000184	<0.000184 < 0.000184 < 0.000184	npled as part
	Benzo[s]anthracene	J\2m 1000.0	<0.000184	8		4	<0.000184	<0.000184	Not San			Not San		<0.000184		Not Sar
	эпээвчйэпА		<0.000184	<0.000184 < 0.000184	THE PERSON NAMED IN		<0.000184 < 0.000184 < 0.000184 < 0.000184 < 0.000184	<0.000184 < 0.000184   < 0.000184   < 0.000184   < 0.000184   < 0.000184			<0.000184			<0.000184	<0.000184	
	Acensphthylene		<0.000184	<0.000184	Andrew Control of the Land of the Land		<0.000184	<0.000184			<0.000184			<0.000184	<0.000184	
	эпэнііндвпээА	- -	<0.000184	<0.000184			<0.000184	<0.000184			<0.000184			<0.000184	<0.000184	
	SAMPLE	ntaminant IM ing water tions 1- -103.A.	12/08/08	11/25/09	11/10/10	1	12/08/08	11/25/09	11/10/10		11/25/09	11/10/10		12/10/08	11/25/09	01/01/11
	SAMPLE	Maximum Contaminan Levels from NM WQCC Drinking water standards Sections 1- 101.UU and 3-103.A.	MW-15				MW-16				MW-18			RW-1		

Appendices

Appendix A
Release Notification and Corrective Action
(Form C-141)

P.O. BOX 1990, HOBBS, NM 88241-1980

State of New Mexico Energy, Minerals and Natural Resources 1 riment SUBMIT 2 COPIES TO APPROPRIATE DISTRICT OFFICE IN ACCORDANCE WITH RULE 116 PRINTED ON BACK SIDE OF FORM

DISTRICT II P.O. DRAWER DD, ARTESIA, NM 88211OIL CONSERVATION DIVISION

0719 DISTRICT III

1000 Rie Brazos Rd, Astro, NM 87410

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

NOTIFICATION OF FIRE, BREAKS, SPILLS, LEAKS, AND BLOWOUTS OPERATOR ADDRESS TELEPHONE P. O. Box 60028, San Angelo, TX 76906 Texas-New Mexico Pipe Line Company (915) 947-9000 BLOWOUT OTHER. REPORT FIRE BREAK SPILL LEAK OTHER. PIPE GASO OIL TYPE OF DRIG TANK PROD RFY FACILITY WELL WELL BTRY LINEX PLANT FACILITY NAME: 4"gathering line RCE COUNTY LOCATION OF FACILITY 5E/4 35E Otr/Otr Sec. or Footage: SW/4 SW/4 Lca DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK 2 miles west of Lovington DATE AND HOUR DATE AND HOUR 4:00 p.m. OF DISCOVERY April 16, 1997 OF OCCURRENCE Unknown IF YES, NOT RE-WAS IMMEDIATE OUIRED X TO WHOM Wayne Price NOTICE GIVEN? DATE AND HOUR BY April 25, 1997 WHOM: B.D. Chapman (reported that quantity may be more than 10 barrals 9:00 a.m. VOLUME QUANTITY TYPE OF Unknown ("see note below) RECOVERED None OF LOSS FLUID LOST Sweet Crude QUANTITY DID ANY FLUIDS REACH YES NO A WATERCOURSE? IF YES DESCRIBE FULLY DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN External Corrosion. Leak successfully clamped off. DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN Approximately 1500 sq.ft. pasture land. Will remediate on site: Originally estimated at 10 barrels. Under investigation. An amended report will be issued when quantity is determined. OTHER. GRAZING URBAN FARMING DESCRIPTION OF AREA SNOW WET ROCKY CLAY SANDY SANDY LOAM SURFACE CONDITION L CONDITIONS PREVAILING (TEMPERATURE PRECIPITATION, ETC.)\*\* 75 degrees, clear

I HEREBY CENTURY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

SIGNES ECIFY

PRINTED NAME AND TITLE Edwin H. Gripp, District Manager

DATE April 25, 1997

State Corp. Commission Pipe Line Division

ATTACH ADDITIONAL SHEETS IF NECESSARY

Hazardous Waste Section NM Environmental Improvement Div.

TNM-97-04

BDC