

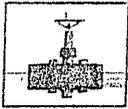
AP -

12

# ANNUAL MONITORING REPORT

YEAR(S):

2010



PLAINS  
ALL AMERICAN

RECEIVED

March 23, 2011

MAR 29 2011

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

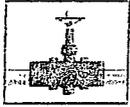
Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

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 ✓	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 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	1R-0103	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



PLAINS  
ALL AMERICAN

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,

Jason Henry  
Remediation Coordinator  
Plains All American

CC: Geoff Leking, NMOCD, Hobbs, NM

Enclosures



**2010  
ANNUAL MONITORING REPORT**

**TNM 98-05A  
NE 1/4 NW 1/4 OF SECTION 26, TOWNSHIP 21 SOUTH, RANGE 37 EAST  
LEA COUNTY, NEW MEXICO  
PLAINS SRS NUMBER: TNM-98-05A  
NMOCD Reference AP-12**

Prepared for:

**PLAINS MARKETING L.P.**  
333 Clay Street, Suite 1600  
Houston, Texas 77002

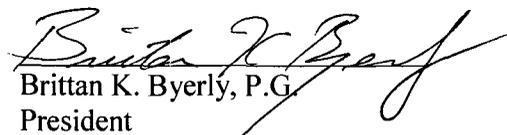


Prepared By:

**NOVA Safety and Environmental**  
2057 Commerce Street  
Midland, Texas 79703

**March 2011**

  
\_\_\_\_\_  
Ronald K. Rounsaville  
Senior Project Manager

  
Brittan K. Byerly, P.G.  
President

## TABLE OF CONTENTS

INTRODUCTION .....	1
SITE DESCRIPTION AND BACKGROUND INFORMATION .....	1
FIELD ACTIVITIES .....	2
LABORATORY RESULTS .....	3
SUMMARY .....	5
ANTICIPATED ACTIONS .....	6
LIMITATIONS .....	6
DISTRIBUTION .....	7

### FIGURES

Figure 1 – Site Location Map

Figure 2A – Inferred Groundwater Gradient Map – February 4, 2010

2B – Inferred Groundwater Gradient Map – May 7, 2010

2C – Inferred Groundwater Gradient Map – August 6, 2010

2D – Inferred Groundwater Gradient Map – November 5, 2010

Figure 3A – Groundwater Concentration and Inferred PSH Extent Map – February 4, 2010

3B – Groundwater Concentration and Inferred PSH Extent Map – May 7, 2010

3C – Groundwater Concentration and Inferred PSH Extent Map – August 6, 2010

3D – Groundwater Concentrations and Inferred PSH Extent Map – November 5, 2010

### TABLES

Table 1 – 2010 Groundwater Elevation Data

Table 2 – 2010 Concentrations of BTEX and TPH in Groundwater

Table 3 – 2010 Concentrations of PAH in Groundwater

### APPENDICES

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

### ENCLOSED ON DATA DISK

2010 Annual Monitoring Report

2010 Tables 1, 2 and 3 – Groundwater Elevation, BTEX and PAH Concentration Data

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

Electronic Copies of Laboratory Reports

Historic Table 1, 2 and 3 – Groundwater Elevation, BTEX and PAH Concentration Tables

## **INTRODUCTION**

NOVA Safety and Environmental (NOVA), on behalf of Plains Pipeline, L.P. (Plains), has prepared this 2010 Annual Groundwater 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. This report is intended to be viewed as a complete document with figures, attachments, tables, and text. The report presents the results of four quarterly groundwater monitoring/sampling events conducted at the TNM 98-05A crude oil Release Site (the site), located in Lea County, New Mexico. The site, formerly the responsibility of Enron Oil Trading and Transportation (EOTT) is now the responsibility of Plains. For reference, the Site Location Map is provided as Figure 1.

Groundwater gauging and sampling was conducted during each quarter of 2010 to assess the levels and extent of Phase Separated Hydrocarbons (PSH) and dissolved phase constituents. The groundwater monitoring events consisted of measuring static water levels in the monitor wells, and purging and sampling of each well exhibiting sufficient recharge. Monitor wells were not sampled if a measurable thickness of PSH were detected during gauging activities.

## **SITE DESCRIPTION AND BACKGROUND INFORMATION**

The site is located approximately two miles northeast of the city of Eunice, New Mexico. The legal description of the site is NE  $\frac{1}{4}$ , NW  $\frac{1}{4}$ , Section 26, Township 21 South, Range 37 East (Figure 1). On February 5, 1998, an estimated 38 barrels of crude oil were released from a six inch crude oil pipeline. Approximately four barrels of crude oil were recovered during the initial response activities. The release was attributed to internal corrosion of the pipeline. The Release Notification and Corrective Action Form (C-141) is provided as Appendix A. Approximately 3,300 cubic yards of impacted soil was excavated and applied to an on-site treatment cell. In December 2004, a Site Restoration Work Plan and Proposed Soil Closure Strategy Report was submitted to the NMOCD. The report was approved by the NMOCD in a letter dated June 2, 2005. In October 2005, additional excavation along the east sidewall was completed, the excavation was backfilled with remediated soil and the site was graded to match the surrounding topography. In December 2005, a Soil Closure Request was submitted to the NMOCD and this request was approved by the NMOCD in a letter dated January 31, 2006, which concurred that no further action was necessary with regard to soil remediation at the TNM-98-05A Site.

During the October 2005 excavation backfilling activities, monitor well MW-4 was damaged and could not be repaired. On January 9, 2006, Plains representatives requested NMOCD approval to plug and abandon monitor well MW-4. On January 19, 2006, NMOCD approved the request to plug and abandon the monitor well. On March 6, 2006, monitor well MW-4 was plugged and abandoned utilizing approved New Mexico Office of the State Engineer plugging and abandonment procedures.

Currently, there are ten monitor wells (MW-1 through MW-3 and MW-5 through MW-11) onsite. For reference, the analytical results are shown in Table 2, 2010 Concentrations of BTEX in Groundwater.

## FIELD ACTIVITIES

During the reporting period, no measurable thickness of PSH was detected in any of the site monitor wells. Table 1 displays the groundwater gauging data for the reporting period. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

### Groundwater Monitoring

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD in correspondence dated April 28, 2004 and amended by correspondence date January 19, 2006. The table below illustrates the current groundwater sampling schedule approved by the NMOCD.

Sample Location	Sampling Schedule
MW-1	Quarterly
MW-2	Quarterly
MW-3	Quarterly
MW-4	Plugged and Abandoned March 6, 2006
MW-5	Semi-annual
MW-6	Semi-annual
MW-7	Semi-annual
MW-8	Annual
MW-9	Quarterly
MW-10	Quarterly
MW-11	Quarterly

Quarterly sampling events for the calendar year 2010 were performed on February 4, May 7, August 6, and November 5, 2010. Each quarterly sampling event consisted of gauging all wells and purging and sampling monitor wells as per the approved sampling schedule. During each sampling event, the monitor wells were purged of a minimum of three well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos pump. 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.

The most recent inferred groundwater gradient, Figure 2D, indicates a general gradient of approximately 0.005 feet/foot to the southeast as measured between monitor wells MW-5 and MW-8. This data is consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevations ranged between 3,343.01 and 3,344.66 feet above mean sea level, in monitor well MW-1 on March 16, 2010 and from monitor well MW-5 January 12, 2010, respectively. Groundwater elevation data for the calendar year 2010 is provided in Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed disk.

## LABORATORY RESULTS

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 on monitor wells MW-1, MW-2 and MW-10 during the 2010 calendar year. 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-1** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 2.250 mg/L during the 4<sup>th</sup> quarter to 2.940 mg/L during the 2<sup>nd</sup> quarter of 2010. Benzene concentrations were above the NMOCD regulatory standard of 0.01 mg/L during all four quarters of the reporting period. Toluene concentrations were below the MDL and below the NMOCD regulatory standard during all four quarters of the reporting period. Ethyl-benzene concentrations ranged from 0.156 mg/L during the 1<sup>st</sup> quarter to 0.657 mg/L during the 2<sup>nd</sup> quarter of 2010. Ethyl-benzene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during all four quarters of the reporting period. Xylene concentrations ranged from <0.050 mg/L during the 4<sup>th</sup> quarter to 0.118 mg/L during the 3<sup>rd</sup> quarter of 2010. Xylene concentrations were below the NMOCD regulatory standard of 0.62 mg/L during all four quarters of the reporting period. Laboratory analysis for PAH during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.0407 mg/L), 1-methylnaphthalene (0.138 mg/L) and 2-methylnaphthalene (0.0768 mg/L). Additional PAH constituents detected above MDLs include fluorine (0.0114 mg/L), phenanthrene (0.0250 mg/L) and dibenzofuran (0.0219 mg/L), which are below the WQCC Drinking Water Standards.

**Monitor well MW-2** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.385 mg/L during the 1<sup>st</sup> quarter to 1.210 mg/L during the 2<sup>nd</sup> quarter of 2010. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethyl-benzene concentrations ranged from 0.217 mg/L during the 1<sup>st</sup> quarter to 0.494 mg/L during the 2<sup>nd</sup> quarter of 2010. Ethyl-benzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.100 mg/L during the 1<sup>st</sup> quarter to 0.480 mg/L during the 4<sup>th</sup> quarter of 2010. Xylene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Laboratory analysis for PAH during the 4<sup>th</sup> quarter sampling event indicated detectable concentrations above MDLs for naphthalene (0.00139 mg/L), 1-methylnaphthalene (0.0053 mg/L) and 2-methylnaphthalene (0.000936 mg/L), fluorine (0.00106 mg/L), phenanthrene (0.00238 mg/L) and dibenzofuran (0.00168 mg/L), which are below the WQCC Drinking Water Standards.

**Monitor well MW-3** is sampled on a quarterly schedule. Analytical results indicate BTEX constituent concentrations were below the MDL and/or NMOCD regulatory standards during all four quarters of the reporting period. Monitor well MW-3 has exhibited thirty-two consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-5** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each constituent during the 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling events. Monitor well MW-5 has exhibited thirty consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-6** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each constituent during the 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling event. Monitor well MW-6 has exhibited thirty-four consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-7** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each constituent during the 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling event. Monitor well MW-7 has exhibited thirty-four consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-8** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each constituent during the 4<sup>th</sup> quarter sampling event. Monitor well MW-8 has exhibited twenty-five consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-9** is sampled on a quarterly schedule and analytical results indicate benzene concentrations were below the MDLs and NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDLs and NMOCD regulatory standard during the all four quarters of the reporting period. Ethyl-benzene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.010 mg/L during the 1<sup>st</sup> quarter of 2010. Ethyl-benzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0107 mg/L during the 3<sup>rd</sup> quarter of 2010. Xylene concentrations were below the NMOCD regulatory standard 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-10** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 5.400 mg/L during the 4<sup>th</sup> quarter to 8.450 mg/L during the 3<sup>rd</sup> quarter of 2010. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDL and below

the NMOCD regulatory standard during all four quarters of the reporting period. Ethyl-benzene concentrations ranged from 1.070 mg/L during the 1<sup>st</sup> quarter to 1.180 mg/L during the 3<sup>rd</sup> quarter of 2010. Ethyl-benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from 0.218 mg/L during the 1<sup>st</sup> quarter to 0.700 mg/L during the 2<sup>nd</sup> quarter of 2010. Xylene concentrations were above the NMOCD regulatory standard during the 2<sup>nd</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 (0.0358 mg/L), 1-methylnaphthalene (0.0569 mg/L) and 2-methylnaphthalene (0.041 mg/L). Additional PAH constituents detected above MDLs include fluorine (0.00495 mg/L), phenanthrene (0.00732 mg/L) and dibenzofuran (0.00602 mg/L), which are below the WQCC Drinking Water Standards.

**Monitor well MW-11** is sampled on a quarterly schedule. Analytical results indicate BTEX constituent concentrations were below the MDL and/or NMOCD regulatory standards during all four quarters of the reporting period. Monitor well MW-11 has exhibited twenty-four consecutive monitoring events below NMOCD regulatory limits. 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 four groundwater monitoring and sampling events for the annual monitoring period of calendar year 2010. Currently, there are ten groundwater monitor wells (MW-1 through MW-3 and MW-5 through MW-11) onsite. The most recent inferred groundwater gradient indicates a general gradient of approximately 0.005 feet/foot to the southeast.

During the reporting period, no measurable thickness of PSH was detected in any of the site monitor wells.

Benzene concentrations were above NMOCD regulatory standards in three monitor wells (MW-1, MW-2 and MW-10) during the reporting period. Benzene concentrations were below NMOCD regulatory standards in seven monitor wells.

Toluene concentrations were below NMOCD regulatory standards for all ten monitor wells during the four quarters of the 2010 reporting period.

Ethyl-benzene concentrations were above NMOCD regulatory standards for one monitor well. Monitor well MW-10 exhibited elevated concentrations above NMOCD regulatory standards during all four quarters of 2010. Ethyl-benzene concentrations were below NMOCD regulatory standards for nine monitor wells for the 2010 reporting period.

Xylene concentrations were above NMOCD regulatory standards for one monitor well. Monitor well MW-10 exhibited two quarters above and two quarter below NMOCD regulatory standards. Xylene concentrations were below NMOCD regulatory standards for nine monitor wells for the 2010 reporting period. Review of PAH analysis indicates a decreasing trend in constituent concentrations in monitor wells MW-2 and MW-10 and an increasing trend in MW-1.

### **ANTICIPATED ACTIONS**

Plains will continue to monitor and perform quarterly groundwater sampling activities at the site. Based on the results of the PAH analysis over the past several years, NOVA will conduct PAH analysis only on monitor wells MW-1, MW-2 and MW-10, which have historically exhibited elevated constituents near or above the WQCC standards.

An Annual Monitoring Report will be submitted to the NMOCD by April 1, 2012.

### **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 recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

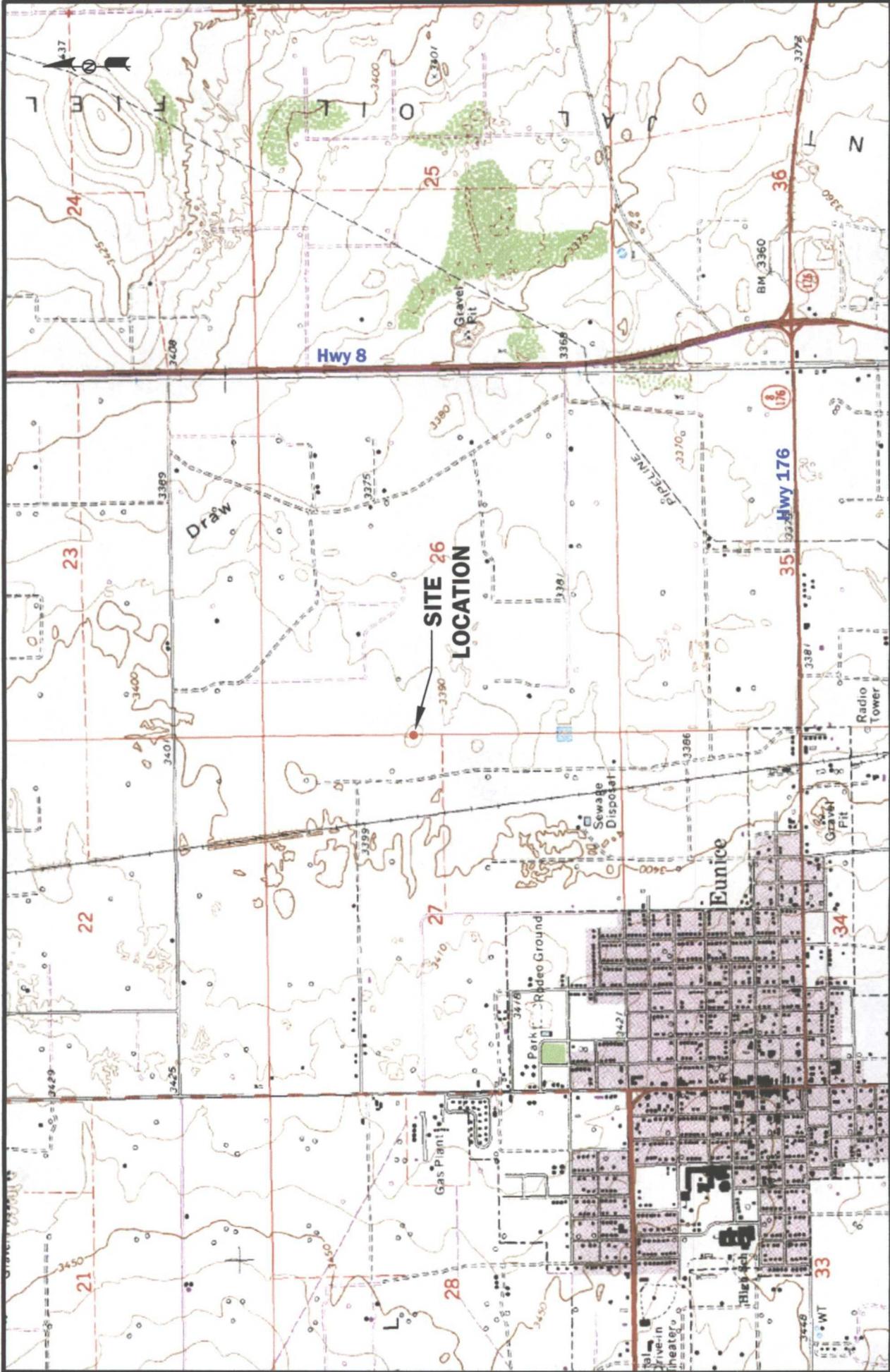
This report has been prepared for the benefit of Plains. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of NOVA and/or Plains.

## DISTRIBUTION

- Copy 1      Ed Hansen  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505
- Copy 2:      Geoffrey R. Leking  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division, District 1  
1625 French Drive  
Hobbs, NM 88240
- Copy 3:      Jason Henry  
Plains Marketing, L.P.  
2530 State Highway 214  
Denver City, TX 79323  
jhenry@paalp.com
- Copy 4:      Jeff Dann  
Plains Marketing, L.P.  
333 Clay Street  
Suite 1600  
Houston, TX 77002  
jpdann@paalp.com
- Copy 5:      NOVA Safety and Environmental  
2057 Commerce Street  
Midland, TX 79703  
rrounsaville@novatraining.cc



## Figures



LEGEND:



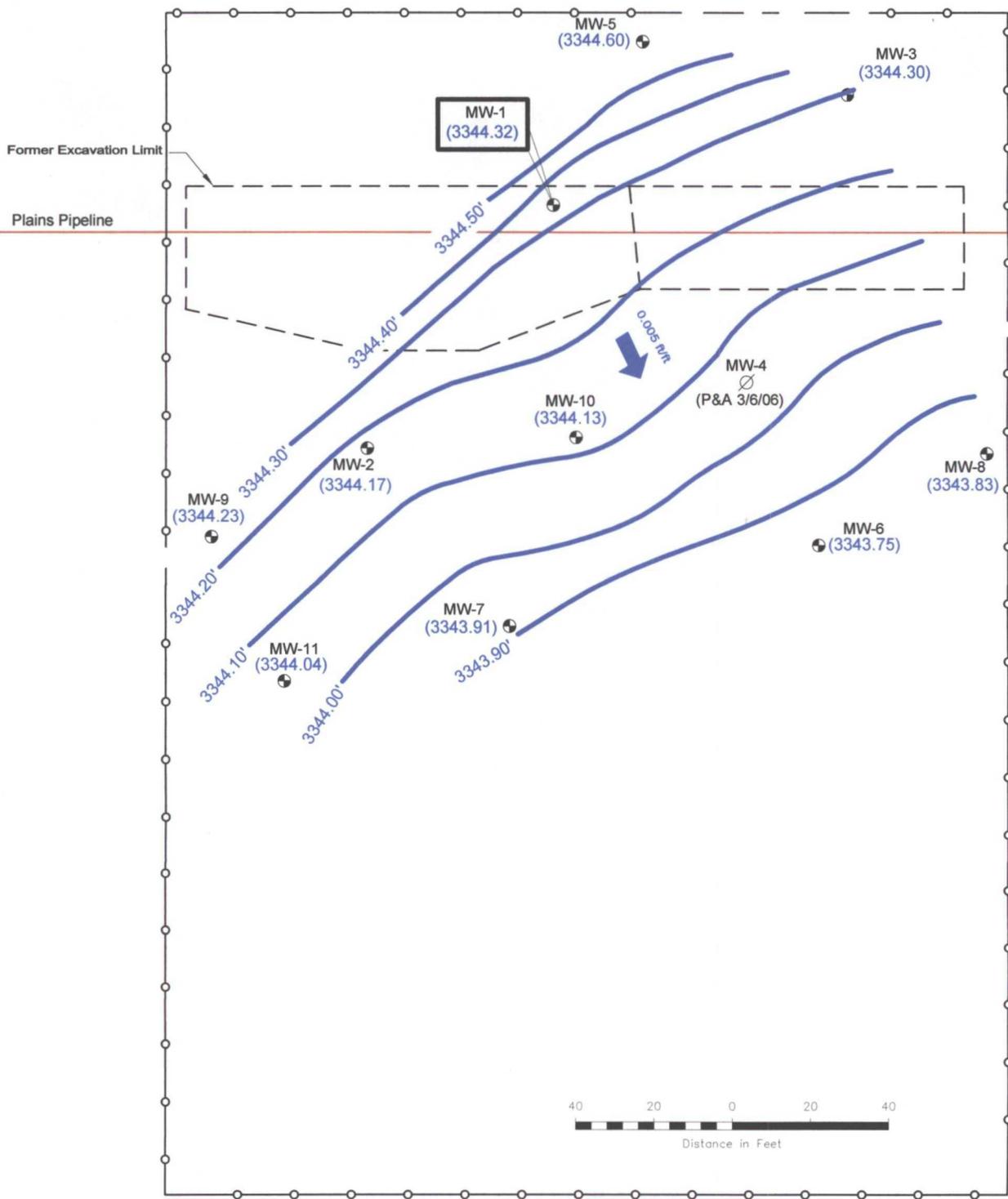
NMOC Reference # AP-12

**Figure 1**  
**Site Location Map**  
 TNM 98-05A  
 Plains Marketing, L.P.  
 Lea County, NM



2057 Commerce Drive  
 Midland, Texas 79703  
 432.520.7720  
[www.novasafetyandenvironmental.com](http://www.novasafetyandenvironmental.com)  
 March 3, 2011 Scale: 1" = 2000' CAD By: TA Checked By: RKR  
 LATITUDE & LONGITUDE COORDINATES: N 32° 27' 3.98" W 103° 8' 31.18"

**Note:** MW-6 not used to determine gradient. Gradient measured between MW-1 and MW-6.  
**Contour Intervals:** = 0.10'



**Legend:**

- Monitor Well Location
- Fence
- Pipeline
- Former Excavation Limits
- (3728.80) Groundwater Elevation (feet)
- 0.001 ft/ft

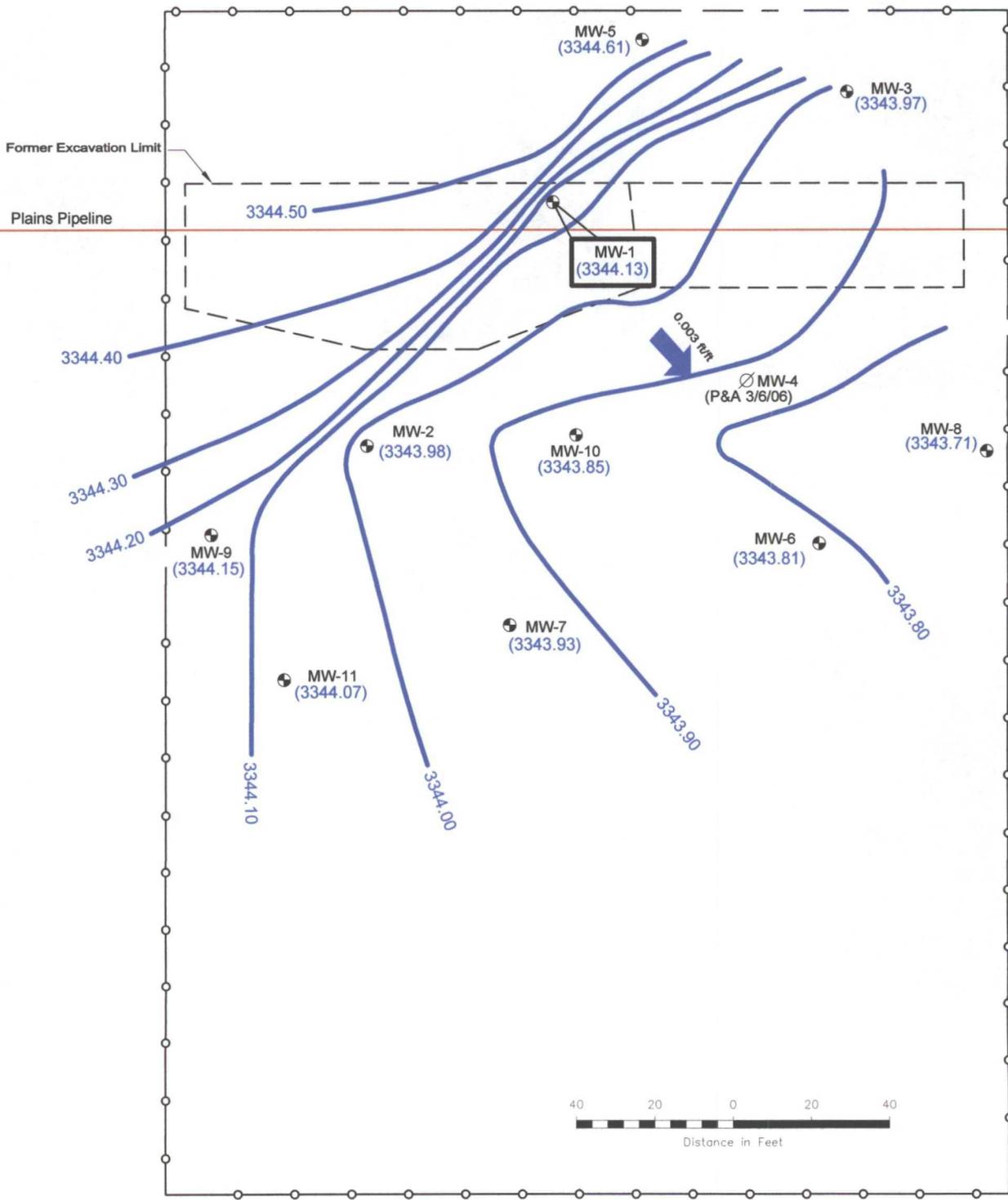
**Figure 2A**  
**Inferred Groundwater**  
**Groundwater Gradient Map**  
 (02/04/2010)  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM  
 NMOCD Ref# AP-12

**NOVA Safety and Environmental**



NE1/4 NW1/4 Sec 26 T21S R37E	32° 27' 03.9"N 103° 08' 29.2"W
Scale: 1" = 40'	Cad By: SAT
May 05, 2010	Checked By: RKR

**Note:** Groundwater Gradient measured between MW-1 and MW-6.  
**Contour Intervals:** = 0.10'



**Legend:**

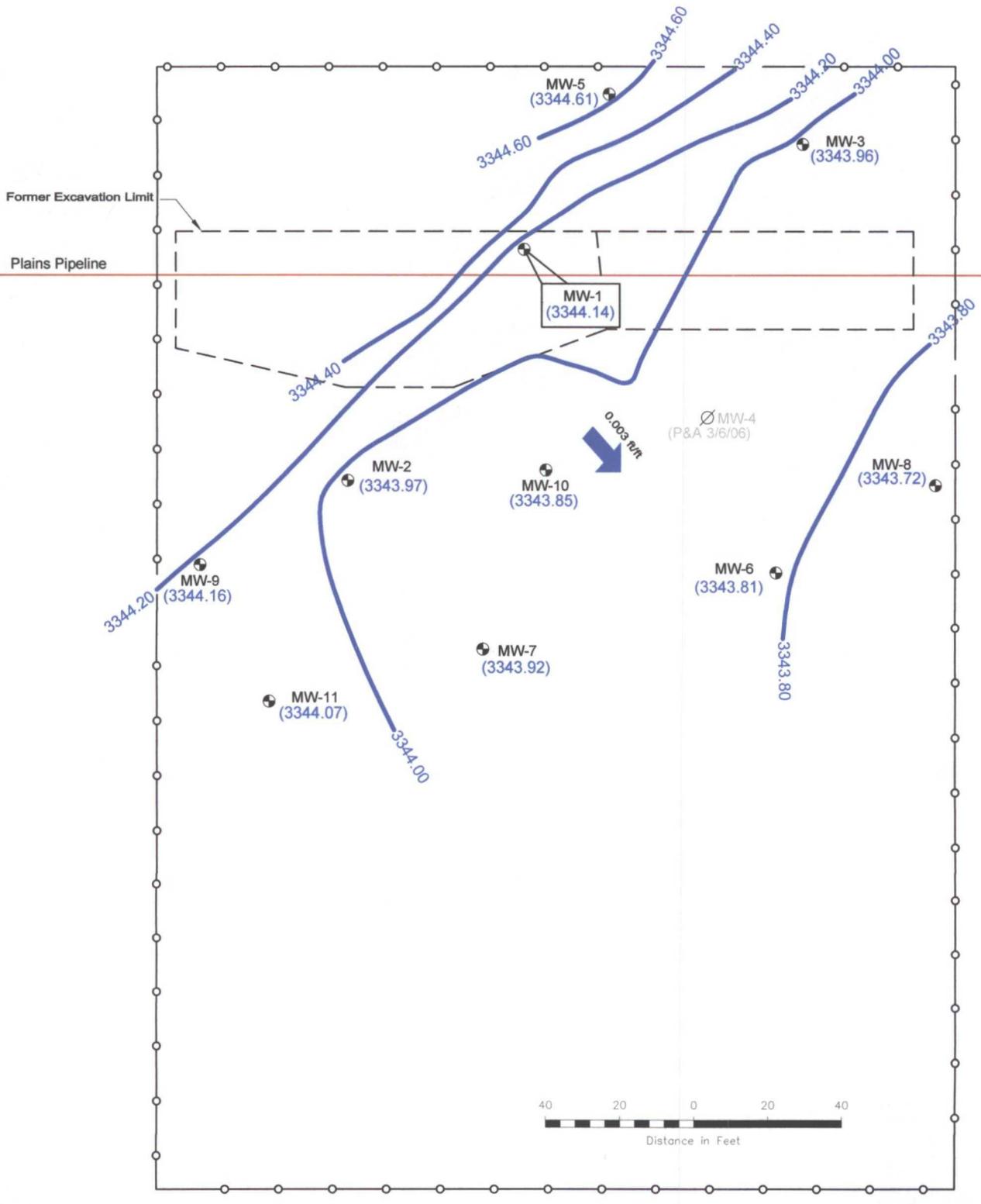
	Monitor Well Location		(3728.80) Groundwater Elevation (feet)
	Fence		0.001 ft/ft
	Pipeline		
	Former Excavation Limits		

**Figure 2B**  
**Inferred Groundwater**  
**Groundwater Gradient Map**  
 (05/07/2010)  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM  
 NMOCD Ref# AP-12

**NOVA Safety and Environmental**

NE1/4 NW1/4 Sec 26 T21S R37E	32° 27' 03.9"N 103° 08' 29.2"W
Scale: 1" = 40'	Prep By: SAT    Checked By: RKR
May 27, 2010	

**Note:** Groundwater Gradient measured between MW-1 and MW-6.  
**Contour Intervals:** = 0.20'



**Legend:**

- Monitor Well Location
- Fence
- Pipeline
- Former Excavation Limits
- (3728.80) Groundwater Elevation (feet)
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

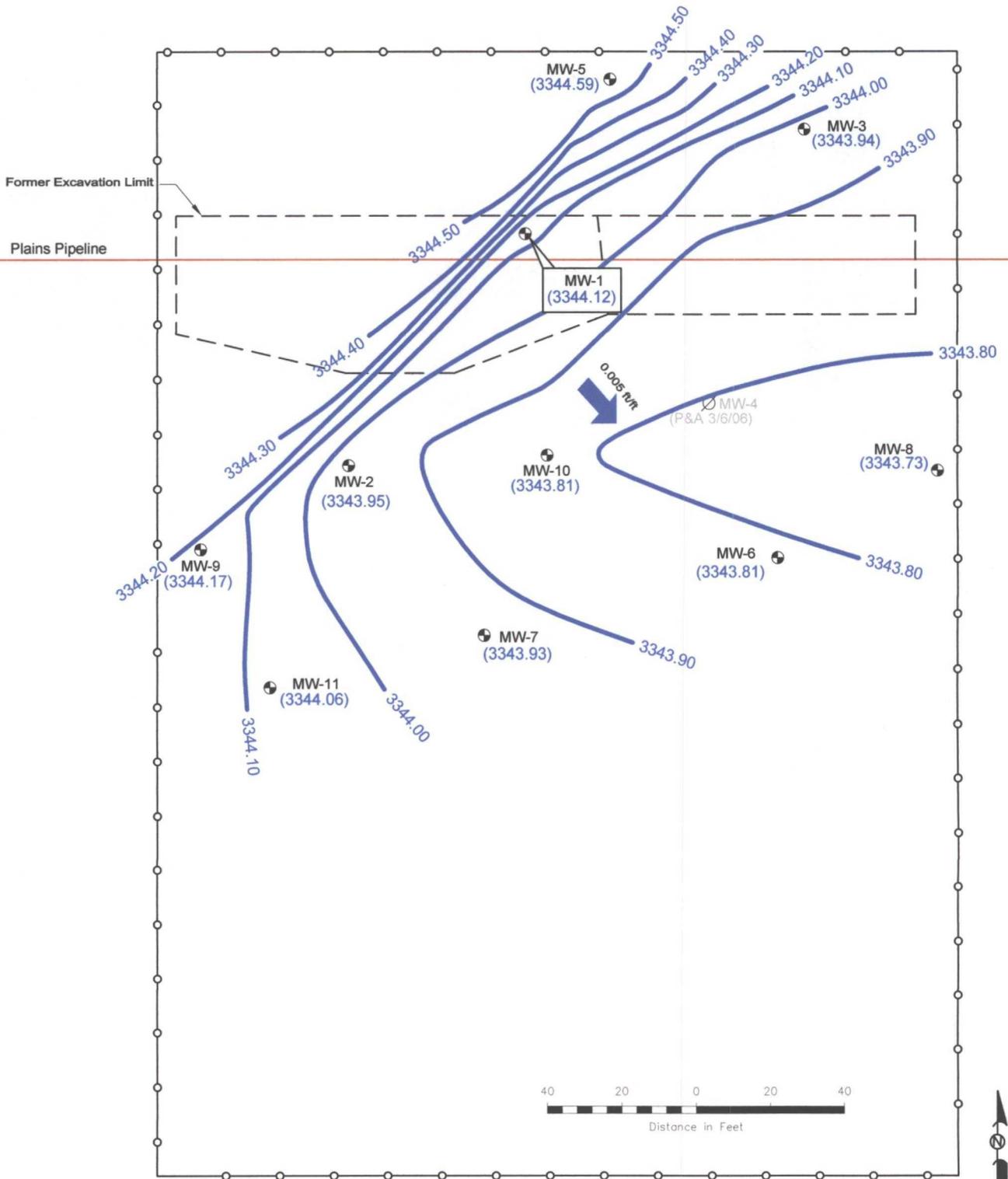
Figure 2C  
 Inferred Groundwater  
 Groundwater Gradient Map  
 (08/06/2010)  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM  
 NMOCD Ref# AP-12

**NOVA Safety and Environmental**



NE1/4 NW1/4 Sec 26 T21S R37E 32° 27' 03.9"N 103° 08' 29.2"W  
 Scale: 1" = 40' Prep By: TA Checked By: RKR  
 September 14, 2010

**Note:** Groundwater Gradient measured between MW-5 and MW-8.  
**Contour Intervals:** = 0.10'



**Legend:**

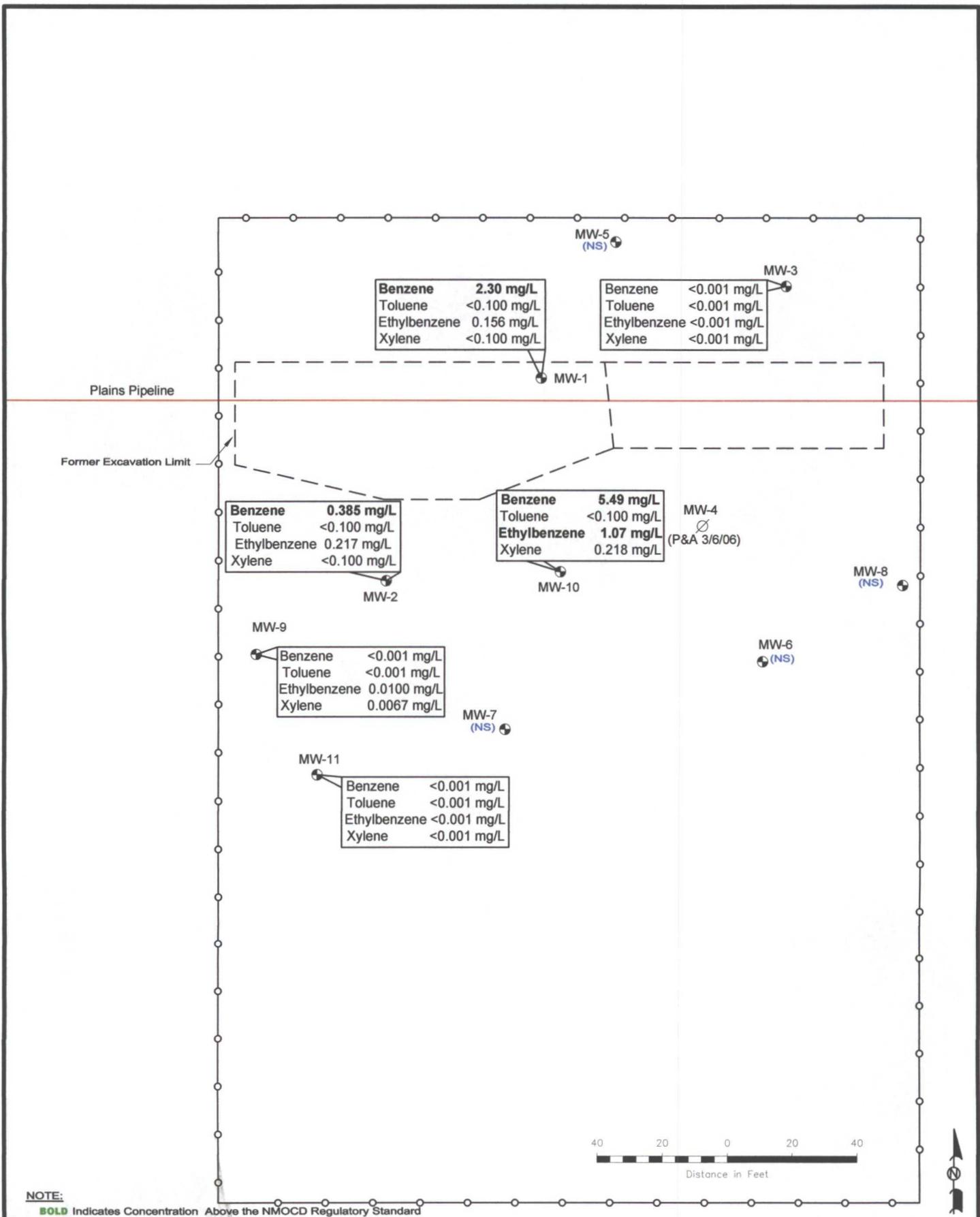
- Monitor Well Location
- Fence
- Pipeline
- Former Excavation Limits
- (3728.80) Groundwater Elevation (feet)
- Groundwater Elevation Contour Line
- 0.001 ft/ft Groundwater Gradient and Magnitude

**Figure 2D**  
**Inferred Groundwater**  
**Groundwater Gradient Map**  
 (11/05/2010)  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM  
 NMOCD Ref# AP-12

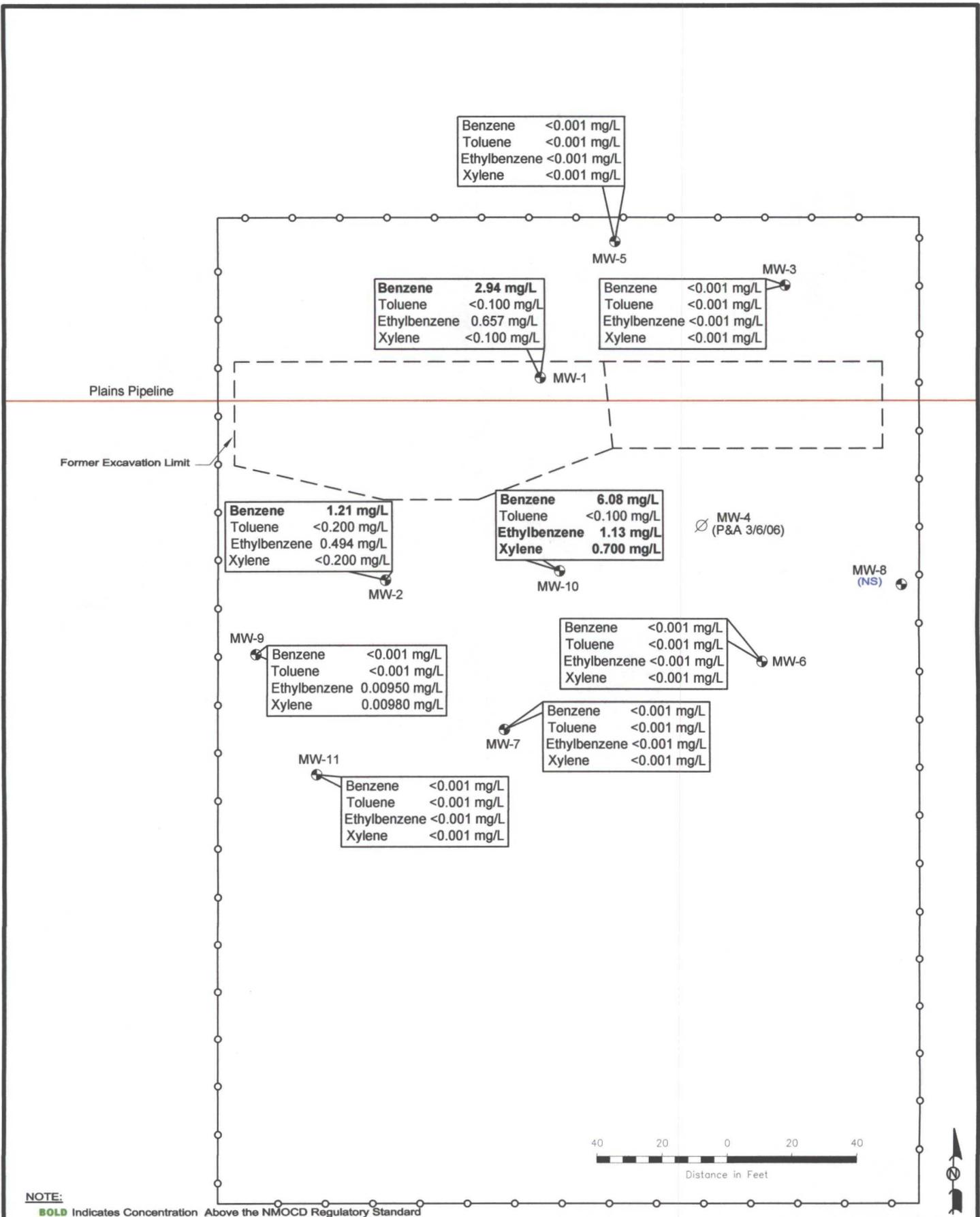
**NOVA Safety and Environmental**



NE14 NW1/4 Sec 26 T21S R37E	32° 27' 03.9"N 103° 08' 29.2"W
Scale: 1" = 40'	Prep By: TA
December 29, 2010	Checked By: RKR



<b>Legend:</b> Monitor Well Location Plugged and Abandoned Former Excavation Limits Fence	<0.001 Constituent Concentration in mg/L (NS) Not Sampled	<b>Figure 3A</b> Groundwater Concentration and Inferred PSH Extent (02/04/2010) Plains Marketing, L.P. TNM98-05A Lea County, NM NMOCD Ref# AP-12		<b>NOVA Safety and Environmental</b> 	
		NE1/4 NW1/4 Sec 26 T21S R37E 32° 27' 03.9"N 103° 08' 29.2"W Scale: 1" = 40' CAD By: SAT Checked By: RKR May 05, 2010			



**NOTE:**  
**BOLD** Indicates Concentration Above the NMOCD Regulatory Standard

**Legend:**

	Monitor Well Location	<0.001	Constituent Concentration in mg/L
	Plugged and Abandoned	(NS)	Not Sampled
	Former Excavation Limits		
	Fence		

**Figure 3B**  
 Groundwater Concentration  
 and Inferred PSH Extent  
 (05/07/2010)  
 Plains Marketing, L.P.  
 TNM98-05A  
 Lea County, NM  
 NMOCD Ref# AP-12

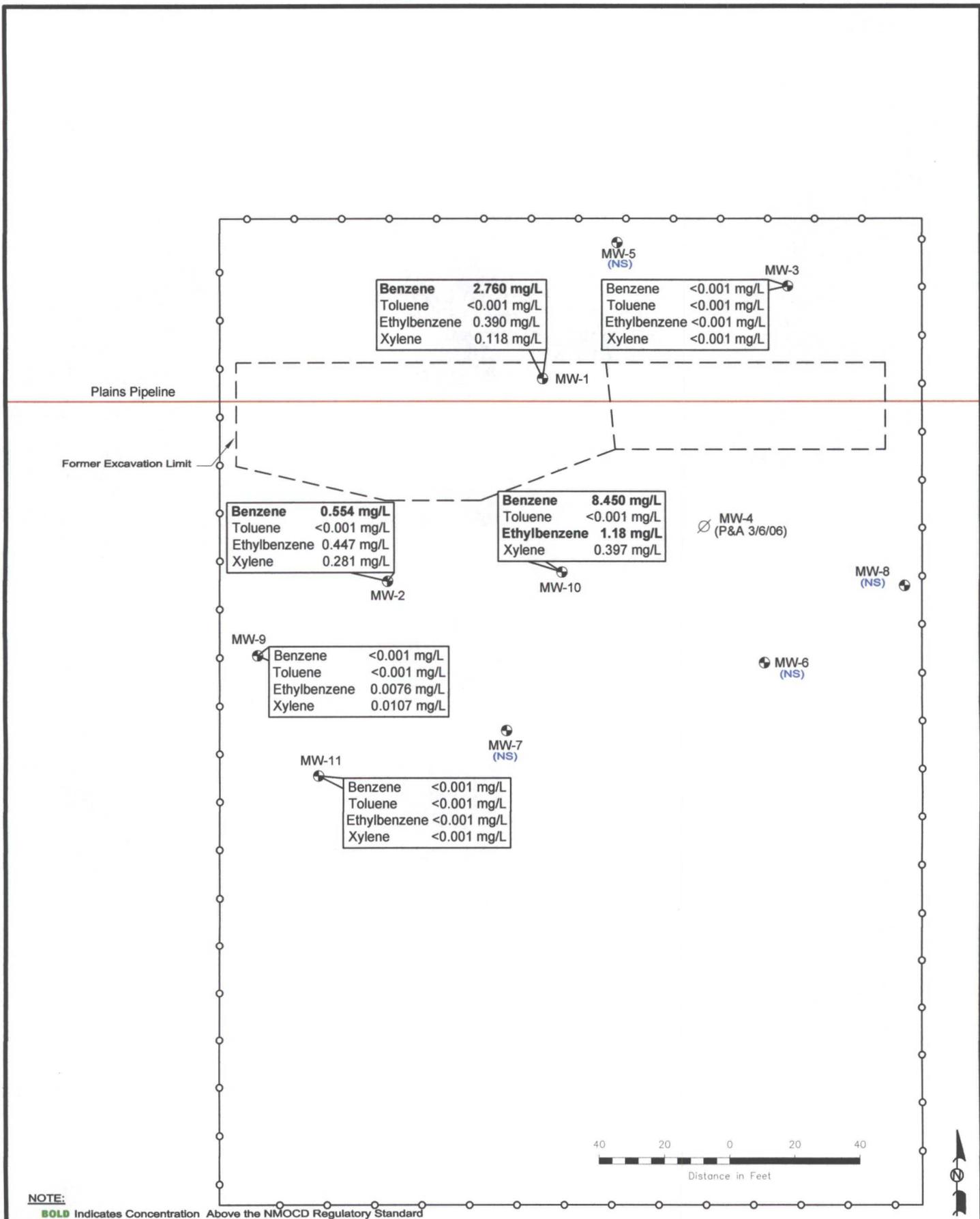
**NOVA Safety and Environmental**

NE14 NW14 Sec 26 T21S R37E 32° 27' 03.9"N 103° 08' 29.2"W

Scale: 1" = 40' CAD By: SAT Checked By: RKR

May 27, 2010

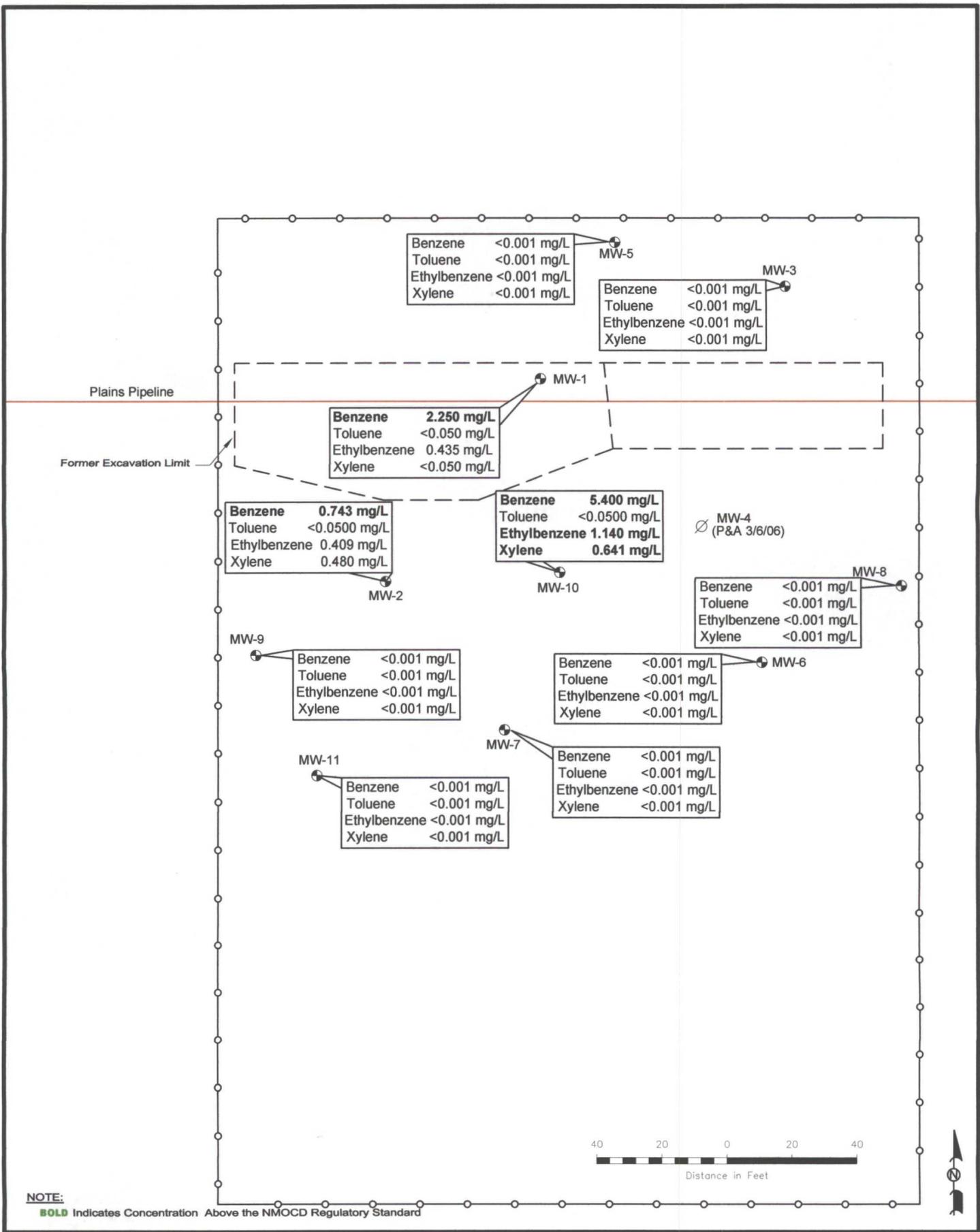
safety and environmental



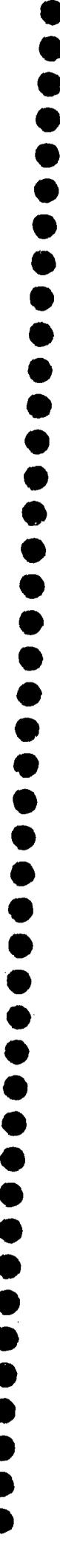
**NOTE:**  
**BOLD** Indicates Concentration Above the NMOCD Regulatory Standard



<b>Legend:</b> Monitor Well Location Plugged and Abandoned Former Excavation Limits Fence		<b>Figure 3C</b> Groundwater Concentration and Inferred PSH Extent (08/06/2010) Plains Marketing, L.P. TNM98-05A Lea County, NM NMOCD Ref# AP-12	<b>NOVA Safety and Environmental</b> 
<b>&lt;0.001</b> Constituent Concentration in mg/L (NS) Not Sampled	NE1/4 NW1/4 Sec 26 T21S R37E   32° 27' 03.9"N 103° 08' 29.2"W Scale: 1" = 40'   CAD By: TA   Checked By: RKR September 14, 2010		



<b>Legend:</b> Monitor Well Location Plugged and Abandoned Former Excavation Limits Fence		<0.001 Constituent Concentration in mg/L (NS) Not Sampled	<b>Figure 3D</b> Groundwater Concentration and Inferred PSH Extent (11/05/2010) Plains Marketing, L.P. TNM98-05A Lea County, NM NMOC Ref# AP-12	<b>NOVA Safety and Environmental</b> 	NE1/4 NW1/4 Sec 26 T21S R37E 32° 27' 03.9"N 103° 08' 29.2"W Scale: 1" = 40' CAD By: TA Checked By: RKR December 10, 2010
---	--	--	--	--	--



## Tables

TABLE 1  
GROUNDWATER ELEVATION DATA - 2010

PLAINS MARKETING, LP  
TNM 98-05A  
LEA COUNTY, NEW MEXICO  
NMOC REFERENCE NUMBER AP-12

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	01/12/10	3391.62	-	47.20	0.00	3,344.42
MW - 1	01/22/10	3391.62	-	47.16	0.00	3,344.46
MW - 1	02/04/10	3391.62	-	47.30	0.00	3,344.32
MW - 1	03/03/10	3391.62	-	47.49	0.00	3,344.13
MW - 1	03/16/10	3391.62	-	48.61	0.00	3,343.01
MW - 1	04/15/10	3391.62	-	47.53	0.00	3,344.09
MW - 1	05/07/10	3391.62	-	47.49	0.00	3,344.13
MW - 1	05/28/10	3391.62	-	47.61	0.00	3,344.01
MW - 1	06/08/10	3391.62	-	47.53	0.00	3,344.09
MW - 1	06/25/10	3391.62	-	47.49	0.00	3,344.13
MW - 1	07/08/10	3391.62	-	47.56	0.00	3,344.06
MW - 1	07/28/10	3391.62	-	47.51	0.00	3,344.11
MW - 1	08/06/10	3391.62	-	47.48	0.00	3,344.14
MW - 1	08/31/10	3391.62	-	47.62	0.00	3,344.00
MW - 1	09/10/10	3391.62	-	47.61	0.00	3,344.01
MW - 1	09/24/10	3391.62	-	47.63	0.00	3,343.99
MW - 1	10/06/10	3391.62	-	47.65	0.00	3,343.97
MW - 1	10/26/10	3391.62	-	47.16	0.00	3,344.46
MW - 1	11/05/10	3391.62	-	47.50	0.00	3,344.12
MW - 1	12/17/10	3391.62	-	47.14	0.00	3,344.48
MW - 2	01/12/10	3390.85	-	46.60	0.00	3,344.25
MW - 2	01/22/10	3390.85	-	46.58	0.00	3,344.27
MW - 2	02/04/10	3390.85	-	46.68	0.00	3,344.17
MW - 2	03/03/10	3390.85	-	46.89	0.00	3,343.96
MW - 2	03/16/10	3390.85	-	46.90	0.00	3,343.95
MW - 2	04/15/10	3390.85	-	46.91	0.00	3,343.94
MW - 2	05/07/10	3390.85	-	46.87	0.00	3,343.98
MW - 2	05/28/10	3390.85	-	46.96	0.00	3,343.89
MW - 2	06/08/10	3390.85	-	46.90	0.00	3,343.95
MW - 2	06/25/10	3390.85	-	46.88	0.00	3,343.97
MW - 2	07/08/10	3390.85	-	46.86	0.00	3,343.99
MW - 2	07/28/10	3390.85	-	46.90	0.00	3,343.95
MW - 2	08/06/10	3390.85	-	46.88	0.00	3,343.97
MW - 2	08/31/10	3390.85	-	46.99	0.00	3,343.86
MW - 2	09/10/10	3390.85	-	46.99	0.00	3,343.86
MW - 2	09/24/10	3390.85	-	46.95	0.00	3,343.90
MW - 2	10/06/10	3390.85	-	46.96	0.00	3,343.89
MW - 2	10/26/10	3390.85	-	46.58	0.00	3,344.27
MW - 2	11/05/10	3390.85	-	46.90	0.00	3,343.95
MW - 2	12/17/10	3390.85	-	46.57	0.00	3,344.28
MW - 3	01/12/10	3391.08	-	46.72	0.00	3,344.36
MW - 3	02/04/10	3391.08	-	46.78	0.00	3,344.30
MW - 3	03/03/10	3391.08	-	46.99	0.00	3,344.09
MW - 3	04/15/10	3391.08	-	47.09	0.00	3,343.99
MW - 3	05/07/10	3391.08	-	47.11	0.00	3,343.97
MW - 3	08/06/10	3391.08	-	47.12	0.00	3,343.96
MW - 3	11/05/10	3391.08	-	47.14	0.00	3,343.94
MW - 5	01/12/10	3391.53	-	46.87	0.00	3,344.66
MW - 5	02/04/10	3391.53	-	46.93	0.00	3,344.60
MW - 5	05/07/10	3391.53	-	46.92	0.00	3,344.61
MW - 5	08/06/10	3391.53	-	46.92	0.00	3,344.61
MW - 5	11/05/10	3391.53	-	46.94	0.00	3,344.59
MW - 6	01/12/10	3391.14	-	47.27	0.00	3,343.87
MW - 6	02/04/10	3391.14	-	47.39	0.00	3,343.75
MW - 6	05/07/10	3391.14	-	47.33	0.00	3,343.81
MW - 6	08/06/10	3391.14	-	47.33	0.00	3,343.81
MW - 6	11/05/10	3391.14	-	47.33	0.00	3,343.81

TABLE 1

## GROUNDWATER ELEVATION DATA - 2010

PLAINS MARKETING, LP  
 TNM 98-05A  
 LEA COUNTY, NEW MEXICO  
 NMOCD REFERENCE NUMBER AP-12

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 7	01/12/10	3391.21	-	47.19	0.00	3,344.02
MW - 7	02/04/10	3391.21	-	47.30	0.00	3,343.91
MW - 7	05/07/10	3391.21	-	47.28	0.00	3,343.93
MW - 7	08/06/10	3391.21	-	47.29	0.00	3,343.92
MW - 7	11/05/10	3391.21	-	47.28	0.00	3,343.93
MW - 8	01/12/10	3391.14	-	47.18	0.00	3,343.96
MW - 8	02/04/10	3391.14	-	47.31	0.00	3,343.83
MW - 8	05/07/10	3391.14	-	47.43	0.00	3,343.71
MW - 8	08/06/10	3391.14	-	47.42	0.00	3,343.72
MW - 8	11/05/10	3391.14	-	47.41	0.00	3,343.73
MW - 9	01/12/10	3391.47	-	47.11	0.00	3,344.36
MW - 9	02/04/10	3391.47	-	47.24	0.00	3,344.23
MW - 9	03/03/10	3391.47	-	47.44	0.00	3,344.03
MW - 9	04/15/10	3391.47	-	47.48	0.00	3,343.99
MW - 9	05/07/10	3391.47	-	47.32	0.00	3,344.15
MW - 9	06/25/10	3391.47	-	47.45	0.00	3,344.02
MW - 9	08/06/10	3391.47	-	47.31	0.00	3,344.16
MW - 9	11/05/10	3391.47	-	47.30	0.00	3,344.17
MW - 10	01/12/10	3391.26	-	47.13	0.00	3,344.13
MW - 10	01/22/10	3391.26	-	47.06	0.00	3,344.20
MW - 10	02/04/10	3391.26	-	47.13	0.00	3,344.13
MW - 10	03/03/10	3391.26	-	47.33	0.00	3,343.93
MW - 10	03/16/10	3391.26	-	47.42	0.00	3,343.84
MW - 10	04/15/10	3391.26	-	47.43	0.00	3,343.83
MW - 10	05/07/10	3391.26	-	47.41	0.00	3,343.85
MW - 10	05/28/10	3391.26	-	47.43	0.00	3,343.83
MW - 10	06/08/10	3391.26	-	47.38	0.00	3,343.88
MW - 10	06/25/10	3391.26	-	47.36	0.00	3,343.90
MW - 10	07/08/10	3391.26	-	47.35	0.00	3,343.91
MW - 10	07/28/10	3391.26	-	47.37	0.00	3,343.89
MW - 10	08/06/10	3391.26	-	47.41	0.00	3,343.85
MW - 10	08/31/10	3391.26	-	47.44	0.00	3,343.82
MW - 10	09/10/10	3391.26	-	47.49	0.00	3,343.77
MW - 10	09/24/10	3391.26	-	47.37	0.00	3,343.89
MW - 10	10/06/10	3391.26	-	47.35	0.00	3,343.91
MW - 10	10/26/10	3391.26	-	47.06	0.00	3,344.20
MW - 10	11/05/10	3391.26	-	47.45	0.00	3,343.81
MW - 10	12/17/10	3391.26	-	47.07	0.00	3,344.19
MW - 11	01/12/10	3390.73	-	46.56	0.00	3,344.17
MW - 11	02/04/10	3390.73	-	46.69	0.00	3,344.04
MW - 11	05/07/10	3390.73	-	46.66	0.00	3,344.07
MW - 11	08/06/10	3390.73	-	46.66	0.00	3,344.07
MW - 11	11/05/10	3390.73	-	46.67	0.00	3,344.06

\* Complete Historical Tables are provided on the attached CD.

TABLE 2

## CONCENTRATIONS OF BTEX IN GROUNDWATER - 2010

PLAINS MARKETING, L.P.  
TNM 98-05 A  
LEA COUNTY, NEW MEXICO  
NMOCD Reference #AP-12

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030					
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	
NMOCD Regulatory Limit		0.010	0.750	0.750	0.620		
MW - 1	02/04/10	2.300	<0.100	0.156	<0.100		
MW - 1	05/07/10	2.940	<0.100	0.657	<0.100		
MW - 1	08/06/10	2.760	<0.050	0.390	0.118		
MW - 1	11/05/10	2.250	<0.050	0.435	<0.050		
MW - 2	02/04/10	0.385	<0.100	0.217	<0.100		
MW - 2	05/07/10	1.210	<0.200	0.494	<0.200		
MW - 2	08/06/10	0.554	<0.050	0.447	0.281		
MW - 2	11/05/10	0.743	<0.050	0.409	0.480		
MW - 3	02/04/10	<0.001	<0.001	<0.001	<0.001		
MW - 3	05/07/10	<0.001	<0.001	<0.001	<0.001		
MW - 3	08/06/10	<0.001	<0.001	<0.001	<0.001		
MW - 3	11/05/10	<0.001	<0.001	<0.001	<0.001		
MW - 5	02/04/10	Not Sampled due to sample reduction					
MW - 5	05/07/10	<0.001	<0.001	<0.001	<0.001		
MW - 5	08/06/10	Not Sampled due to sample reduction					
MW - 5	11/05/10	<0.001	<0.001	<0.001	<0.001		
MW - 6	02/04/10	Not Sampled due to sample reduction					
MW - 6	05/07/10	<0.001	<0.001	<0.001	<0.001		
MW - 6	08/06/10	Not Sampled due to sample reduction					
MW - 6	11/05/10	<0.001	<0.001	<0.001	<0.001		
MW - 7	02/04/10	Not Sampled due to sample reduction					
MW - 7	05/07/10	<0.001	<0.001	<0.001	<0.001		
MW - 7	08/06/10	Not Sampled due to sample reduction					
MW - 7	11/05/10	<0.001	<0.001	<0.001	<0.001		
MW - 8	02/04/10	Not Sampled due to sample reduction					
MW - 8	05/07/10	Not Sampled due to sample reduction					
MW - 8	08/06/10	Not Sampled due to sample reduction					
MW - 8	11/05/10	<0.001	<0.001	<0.001	<0.001		
MW - 9	02/04/10	<0.001	<0.001	0.0100	0.0067		
MW - 9	05/07/10	<0.001	<0.001	0.0095	0.0098		
MW - 9	08/06/10	<0.001	<0.001	0.0076	0.0107		
MW - 9	11/05/10	<0.001	<0.001	<0.001	<0.001		

**TABLE 2**

**CONCENTRATIONS OF BTEX IN GROUNDWATER - 2010**

**PLAINS MARKETING, L.P.  
TNM 98-05 A  
LEA COUNTY, NEW MEXICO  
NMOCD Reference #AP-12**

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030			
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES o - XYLENE
<b>NMOCD Regulatory Limit</b>		<b>0.010</b>	<b>0.750</b>	<b>0.750</b>	<b>0.620</b>
MW - 10	02/04/10	5.490	<0.100	1.070	0.218
MW - 10	05/07/10	6.080	<0.100	1.130	0.700
MW - 10	08/06/10	8.450	<0.050	1.180	0.397
MW - 10	11/05/10	5.400	<0.050	1.140	0.641
MW - 11	02/04/10	<0.001	<0.001	<0.001	<0.001
MW - 11	05/07/10	<0.001	<0.001	<0.001	<0.001
MW - 11	08/06/10	<0.001	<0.001	<0.001	<0.001
MW - 11	11/05/10	<0.001	<0.001	<0.001	<0.001

\* Complete Historical Tables are provided on the attached CD.

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.

TNM 98-05A

LEA COUNTY, NEW MEXICO

NMOCID REFERENCE NUMBER AP-12

EPA SW846-8270C, 3510

All water concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran	
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.0U and 3-103.A.																				
MW-1	11/19/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	0.00193	<0.000917	<0.000917	0.0104	<0.000917	0.014	<0.000917	0.047	0.0806	0.0587	0.0152	
	11/1/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	0.0110	<0.000917	0.0257	0.0706	0.0474	0.0103	
	11/05/10	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	<0.00188	0.0114	0.0114	<0.00188	0.0230	<0.00188	0.0407	0.138	0.0768	0.0219	
MW-2	11/19/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00525	<0.000922	0.00739	<0.000922	0.0163	0.0252	0.0335	0.00806	
	11/1/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.0114	<0.000922	0.0488	0.0930	0.0735	0.0116	
	11/05/10	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00106	0.00106	<0.000922	0.00238	<0.000922	0.00139	0.0053	0.000936	0.00168	
MW-3	11/19/08	<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	0.00022	<0.000184	<0.000184	<0.000184	
	11/1/09	<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	<0.000184	<0.000184	<0.000184	<0.000184	
	11/05/10	<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	<0.000184	<0.000184	<0.000184	<0.000184	
Not Sampled as part of Quarterly Monitoring Event.																				
MW-5	11/19/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	
	11/1/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	
	11/05/10	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	
Not Sampled as part of Quarterly Monitoring Event.																				
MW-6	11/19/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	
	11/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	
	11/05/10	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	
Not Sampled as part of Quarterly Monitoring Event.																				
MW-7	11/19/08	<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	<0.000184	<0.000184	<0.000184	<0.000184	
	11/1/09	<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	<0.000184	<0.000184	<0.000184	<0.000184	
	11/05/10	<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	<0.000184	<0.000184	<0.000184	<0.000184	
Not Sampled as part of Quarterly Monitoring Event.																				
MW-8	11/19/08	<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	<0.000184	<0.000184	<0.000184	<0.000184	
	11/1/09	<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	<0.000184	<0.000184	<0.000184	<0.000184	
	11/05/10	<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	<0.000184	<0.000184	<0.000184	<0.000184	

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.

TNM 98-05A

LEA COUNTY, NEW MEXICO

NMOCID REFERENCE NUMBER AP-12

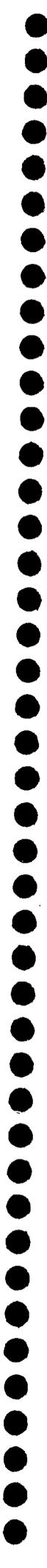
EPA SW846-8270C, 3510

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[e]h[hi]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylanthracene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.0U and 3-103.A.		-	-	-	0.0001 mg/L	0.0007 mg/L	0.0002 mg/L	-	0.0002 mg/L	0.0002 mg/L	0.0003 mg/L	-	-	0.0004 mg/L	-	-	-	0.03 mg/L	-	-
MW-9	11/19/08	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	<0.000935	0.00553	<0.000935	0.00202	0.00876	0.00297	0.00586
	11/11/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00358	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922
	11/05/10	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.
MW-10	11/19/08	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	<0.00367	0.050	<0.00367	0.0652	<0.00367	0.175	0.412	0.380	0.0765
	11/11/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.0101	<0.000922	0.0474	0.0934	0.0713	0.0125
	11/05/10	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	0.00495	<0.000188	0.00732	<0.000188	0.0358	0.0569	0.041	0.00602
MW-11	11/19/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/11/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/05/10	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.	Not Sampled as part of Quarterly Monitoring Event.



# Appendices



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

District I - (505) 393-8181  
 P.O. Box 1940  
 Hobbs, NM 88241-1980  
 District II - (505) 748-1283  
 111 South First  
 Lordsburg, NM 88210  
 District III - (505) 394-6178  
 600 Rio Brazos Road  
 Lordsburg, NM 87410  
 District IV - (505) 827-7181

**State of New Mexico**  
**Energy, Minerals and Natural Resources Department**  
**Oil Conservation Division**  
 2040 South Pacheco Street  
 Santa Fe, New Mexico 87505  
 (505) 827-7131

Form C-141  
 Originated 2/13/97

98-05A

Submit 3 copies to  
 Appropriate District  
 Office in accordance  
 with Rule 118 on  
 back side of form

**Release Notification and Corrective Action**  
**OPERATOR**

Initial Report     Final Report

Name Texas-New Mexico Pipe Line Company		Contact Edwin H. Gripp	
Address Box 60028		Telephone No. 915-947-9000	
Facility Name San Angelo, TX 76906		Facility Type pipe line	
Surface Owner Nadine Owen	Mineral Owner	Lease No.	

**LOCATION OF RELEASE**

Unit/Corner	Section	Township	Range	Feet from the	Norby/South Line	Feet from the	East/West Line	County
	26	21S	37E					Lea

**NATURE OF RELEASE**

Type of Release Sour Crude	Volume of Release 38 barrels	Volume Recovered 4 barrels
Source of Release 6" gathering line	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 2/5/98; 10:25 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Linda Williams (Clerk #4)	
By Whom? Johnny W. Chapman	Date and Hour 2/5/98; 3:00 p.m.	
Was a Whorecourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacted the Whorecourse. N/A	

If a Whorecourse was Impacted, Describe Fully:  
 N/A

Describe Cause of Problem and Remedial Action Taken:  
 Internal Corrosion  
 Leak successfully clamped off.

Describe Area Affected and Cleanup Action Taken:  
 Approximately 1260 sq.ft. pasture land.  
 Contaminated soil will be excavated and put on plastic.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.):  
 Cloudy; 60 degrees

I hereby certify that the information given above is true and complete to the best of  
 my knowledge and belief.  
 Signature: *Edwin H. Gripp*  
 Printed Name: Edwin H. Gripp

**OIL CONSERVATION DIVISION**

Approved by District Supervisor	Approval Date	Expiration Date
Conditions of Approval:	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary