

AP - 17

# ANNUAL MONITORING REPORT

YEAR(S):

2012

**2012  
ANNUAL MONITORING REPORT**

**TNM 97-17**

UNIT LTR K (NE ¼, SW ¼) SECTION 21, TOWNSHIP 20 SOUTH RANGE 37 EAST  
LEA COUNTY, NEW MEXICO  
PLAINS MARKETING SRS NUMBER: TNM 97-17  
NMOCD REFERENCE AP-017

PREPARED FOR:

**PLAINS MARKETING, L.P.**  
333 CLAY STREET SUITE 1600  
HOUSTON, TEXAS 77022

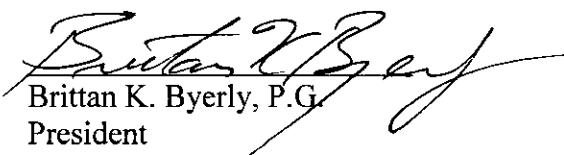


PREPARED BY:

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

**March 2013**

  
Nathan Callicoate  
Project Manager

  
Brittan K. Byerly, P.G.  
President

RECEIVED OGD  
2013 MAR 28 A 11:07



# PLAINS ALL AMERICAN

March 15, 2013

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

RECEIVED OCD  
2013 MAR 28 A 11:07

Re: Plains All American – 2012 Annual Monitoring Reports  
15 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
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
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

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.



**PLAINS  
ALL AMERICAN**

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

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### ENCLOSED ON DATA DISK

2012 Annual Monitoring Report

2012 Tables 1, 2 and 3 – Groundwater Elevation, BTEX and PAH Concentration Data

2012 Figures 1, 2A-2C, and 3A-3C

Electronic Copies of Laboratory Reports

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

## INTRODUCTION

On behalf of Plains Marketing, L.P., (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this 2012 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 97-17 Pipe Line Release Site, formally the responsibility of Enron Oil Trading and Transportation (EOTT), is the responsibility of Plains. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A. This report is intended to be viewed as a complete document with figures, attachments, tables and text. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2012 only. For reference, the Site Location Map is provided as Figure 1. Cumulative tables and laboratory data are provided on the enclosed data disk.

Groundwater monitoring was conducted during the 1<sup>st</sup>, 2<sup>nd</sup>, and 4<sup>th</sup> quarters of 2012 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). Sampling was not conducted during the 3<sup>rd</sup> quarter of 2012 due to site excavation. 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 as per a NMOCD directive.

## SITE DESCRIPTION AND BACKGROUND INFORMATION

The legal description of the site is NE 1/4 SW 1/4 Section 21, Township 20 South, Range 37 East, Lea County, New Mexico. The TNM 97-17 release was discovered by Texas New Mexico Pipe Line Company (TNM) and reported on August 19, 1997. An estimated 170 barrels of crude oil were released with 160 barrels recovered. The release occurred from a 16-inch pipeline and was attributed to structural failure associated with internal pipeline corrosion. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A. Following completion of repairs to the pipeline, approximately 1,160 cubic yards of impacted soil was excavated and stockpiled on-site pending treatment. The groundwater at this site ranges from approximately 17 to 21 feet below ground surface (bgs).

A total of 28 groundwater monitor wells (MW-1 through MW-28) and six PSH recovery wells (RW-1 through RW-6) are currently on-site. A pneumatic product recovery system formerly operated on-site, incorporating recovery well RW-6 and monitor wells MW-8, MW-14 and MW-15. The automated recovery system was decommissioned in the summer of 2007, due to declining PSH thickness, which cannot be efficiently recovered utilizing the automated recovery system. Currently, manual PSH recovery is performed on a weekly basis for monitor and recovery wells exhibiting PSH.

During the 3<sup>rd</sup> quarter of 2012, groundwater monitoring activities were not conducted due to site excavation. The excavation was backfilled in October, 2012, with remediated soil exhibiting BTEX and TPH concentrations less than NMOCD regulatory guidelines. A soil closure report will be submitted to the NMOCD during the 1<sup>st</sup> quarter of 2013.

## FIELD ACTIVITIES

### Product Recovery Efforts

A measurable thickness of PSH was recorded on five monitor wells and three recovery wells during the reporting period. The average thickness of PSH in monitor wells and recovery wells exhibiting PSH was 0.19 feet. The maximum thickness of PSH in monitor wells and recovery wells during the 2012 reporting period was 1.10 feet in monitor well MW-4 on December 11, 2012. Groundwater elevation data for the 2012 gauging events can be found in Table 1. Approximately 104 gallons (2.5 barrels) of PSH were recovered from the site during the reporting period. Approximately 2,496 gallons (approximately 59 barrels) of PSH has been recovered since project inception.

### 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 NMOCD by correspondence dated June 22, 2005.

NMOCD APPROVED SAMPLING SCHEDULE					
Location	Schedule	Location	Schedule	Location	Schedule
MW-1	Annually	MW-13	Annually	MW-25	Semi-Annually
MW-2	Annually	MW-14	Quarterly	MW-26	Quarterly
MW-3	Annually	MW-15	Quarterly	MW-27	Semi-Annually
MW-4	Quarterly	MW-16	Annually	MW-28	Annually
MW-5	Quarterly	MW-17	Annually	RW-1	Quarterly
MW-6	Quarterly	MW-18	Annually	RW-2	Quarterly
MW-7	Quarterly	MW-19	Quarterly	RW-3	Quarterly
MW-8	Quarterly	MW-20	Quarterly	RW-4	Quarterly
MW-9	Quarterly	MW-21	Quarterly	RW-5	Quarterly
MW-10	Quarterly	MW-22	Semi-Annually	RW-6	Quarterly
MW-11	Annually	MW-23	Semi-Annually		
MW-12	Annually	MW-24	Annually		

The site monitor wells were gauged and sampled on February 29, May 02, and December 07, 2012. Groundwater sampling was not conducted at the site in the third quarter due to excavation activities. 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.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during the four quarterly monitoring events, are depicted on Figures 2A through 2D, the Inferred Groundwater Gradient Maps. Groundwater elevation data for 2012 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.004 feet/foot to the south-southeast as measured between monitor well MW-1 and MW-22. This is consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevations ranged between 3486.94 to 3489.44 feet above mean sea level, in monitor well MW-22 on December 6, 2012 and in monitor well MW-4 on April 18, 2012, respectively.

## LABORATORY RESULTS

Monitor wells MW-4, MW-6, MW-7, MW-8, MW-14, MW-15 and MW-19 and recovery wells RW-1, RW-5 and RW-6 contained measurable PSH throughout the 2012 reporting period. Monitor wells MW-4, MW-7, MW-8 and MW-14 contained measurable PSH during at least three quarters of the reporting period and were not sampled.

Groundwater samples obtained during the quarterly sampling events of 2012 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 2012 calendar year on monitor wells MW-5, and MW-10, and recovery wells RW-3 and RW-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 2012 are summarized in Table 2 and the Historic PAH constituent concentrations are summarized in Table 3. Copies of the laboratory reports generated for 2012 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 an annual schedule and analytical results indicate BTEX constituent concentrations were below laboratory method detection limits (MDL) and NMOCD regulatory standards of 0.01 mg/L for benzene, 0.75 mg/L for toluene, 0.75 mg/L for ethylbenzene and 0.62 for xylene during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty-nine consecutive quarters. PAH analysis was not required on samples from MW-1 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-2** is sampled on an annual schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty-nine consecutive quarters. PAH analysis was not required on samples from MW-2 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-3** is sampled on an annual schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards, during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty-nine consecutive quarters. PAH analysis was not required on samples from MW-3 during the 4<sup>th</sup> quarter sampling event.



**Monitor well MW-4** is monitored on a quarterly schedule. Monitor well MW-4 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 0.36 feet, 0.24 feet and 1.09 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2012, respectively. PAH analysis was not conducted on samples from MW-4 during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-5** is sampled on a quarterly schedule. Analytical results on groundwater samples collected indicate benzene concentrations ranged from 0.0295 mg/L during the 4<sup>th</sup> quarter to 0.1040 mg/L during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the three quarters of the reporting period in which it was sampled. Toluene concentrations were below MDLs and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0404 mg/L during the 1<sup>st</sup> quarter of 2012. Ethylbenzene concentrations were below NMOCD regulatory standards during the three quarters of the reporting period in which it was sampled. Xylene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0422 mg/L during the 1<sup>st</sup> quarter of 2012. Xylene concentrations were below NMOCD regulatory standards during the three quarters of the reporting period in which it was sampled. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above MDLs for 1-methylnaphthalene (0.00739 mg/L), which is below WQCC standards.

**Monitor well MW-6** is monitored on a quarterly schedule. Analytical results on groundwater samples collected indicate benzene concentrations were 0.0270 mg/L during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the first quarter of the reporting period. Toluene, ethyl-benzene and xylene concentrations were below the MDL and NMOCD regulatory standards during the reporting period. Samples were not taken during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters due to site excavation and PSH in the monitor well. PSH thickness of 0.09 feet was reported during the 4<sup>th</sup> quarter of 2012. PAH analysis was not conducted on samples from MW-6 during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-7** is monitored on a quarterly schedule. Monitor well MW-7 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH in the monitor well. Monitor well MW-7 was not sampled during the 3<sup>rd</sup> quarter due to site excavation. PSH thicknesses of 0.54 feet, 0.61 feet and 0.70 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2012, respectively. PAH analysis was not conducted on samples from MW-7 during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-8** is monitored on a quarterly schedule. Monitor well MW-8 was not sampled during the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH in the monitor well. Monitor well MW-8 was not sampled during the 3<sup>rd</sup> quarter due to site excavation. PSH thicknesses of 0.62 feet, 0.73 feet and 0.91 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2012, respectively. PAH analysis was not conducted on samples from MW-8 during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-9** is sampled on a quarterly schedule. Monitor well MW-9 was not sampled during the 3<sup>rd</sup> and 4<sup>th</sup> quarters due to site excavation and low water levels. Analytical results indicate benzene concentrations ranged from 0.0055 mg/L during the 2<sup>nd</sup> quarter to 0.0105 mg/L during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the 1<sup>st</sup> quarter of the reporting period. Toluene, ethylbenzene and xylene concentrations were below the MDL and the NMOCD regulatory standards during the reporting period. PAH analysis was not required on samples from MW-9 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-10** is sampled on a quarterly schedule. Monitor well MW-10 was not sampled during the 3<sup>rd</sup> quarter due to site excavation. Analytical results indicate benzene concentrations ranged from <0.005 mg/L during the 4<sup>th</sup> quarter to 0.0121 mg/L during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the 1<sup>st</sup> quarter of the reporting period. Toluene, ethylbenzene and xylene concentrations were below the MDL and the NMOCD regulatory standards during the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated all concentrations were below WQCC Drinking Water Standards during the reporting period.

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

**Monitor well MW-12** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty consecutive quarters. PAH analysis was not required on samples from MW-12 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-13** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty-one consecutive quarters. PAH analysis was not required on samples from MW-13 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-14** is monitored on a quarterly schedule. Monitor well MW-14 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 in the monitor well and site excavation. PSH thicknesses of 1.04 feet, 0.68 feet and 0.76 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2012, respectively. PAH analysis was not required on samples from MW-14 during the 4<sup>th</sup> quarter sampling event, due to the presence of PSH.

**Monitor well MW-15** is monitored on a quarterly schedule. Monitor well MW-15 was not sampled during the 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period due to the presence of PSH in the monitor well and site excavation. PSH thicknesses of 0.22 feet were reported during 4<sup>th</sup> quarter

of 2012. Analytical results indicate benzene concentrations ranged from 0.1420 mg/L during the 2<sup>nd</sup> quarter to 0.2550 during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of the reporting period. Toluene, ethylbenzene and xylene concentrations were below the MDL and the NMOCD regulatory standards during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of the reporting period. PAH analysis was not conducted on samples from MW-15 during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-16** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty consecutive quarters. PAH analysis was not required on samples from MW-16 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-17** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last thirty-nine consecutive quarters. PAH analysis was not required on samples from MW-17 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-18** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty consecutive quarters. PAH analysis was not required on samples from MW-18 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-19** is monitored on a quarterly schedule. Monitor well MW-19 was not sampled during the 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period due to the presence of PSH in the monitor well and site excavation. Analytical results indicate benzene concentrations ranged from 0.2550 mg/L during the 2<sup>nd</sup> quarter to 0.3070 mg/L during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the reporting period. Toluene concentrations were below MDLs and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0404 mg/L in the 2<sup>nd</sup> quarter to 0.0515 mg/L in the 1<sup>st</sup> quarter of 2012. Ethylbenzene concentrations were below NMOCD regulatory standards during the reporting period. Xylene concentrations ranged from 0.0471 mg/L during the 2<sup>nd</sup> quarter to 0.0635 mg/L during the 1<sup>st</sup> quarter of 2012. Xylene concentrations were below NMOCD regulatory standards during the reporting period. PAH analysis was not conducted on samples from MW-19 during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-20** is sampled on a quarterly schedule. Monitor well MW-20 was not sampled during the 3<sup>rd</sup> quarter due to site excavation. Analytical results indicate benzene concentrations ranged from 0.0136 mg/L during the 4<sup>th</sup> quarter to 0.0245 mg/L during the 2<sup>nd</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the reporting period. Toluene and ethylbenzene concentrations were below the MDL and NMOCD regulatory standards during the four quarterly sampling events of 2012. Xylene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0246 mg/L during the 1<sup>st</sup> quarter of 2012. Xylene concentrations were below the NMOCD regulatory standard during the

reporting period. PAH analysis was not required on samples from MW-20 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-21** is sampled on a quarterly schedule. Monitor well MW-21 was not sampled during the 3<sup>rd</sup> quarter due to site excavation. Analytical results indicate benzene concentrations ranged from <0.005 mg/L during the 4<sup>th</sup> quarter to 0.0146 mg/L during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the 1<sup>st</sup> and 2<sup>nd</sup> quarter of the reporting period. Toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during the reporting period. PAH analysis was not required on samples from MW-21 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-22** is sampled on a semi-annual schedule. Analytical results on groundwater samples collected during the 2<sup>nd</sup> and 4<sup>th</sup> quarter events indicated BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-four consecutive quarters. PAH analysis was not required on samples from MW-22 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-23** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last twenty-four consecutive quarters. PAH analysis was not required on samples from MW-23 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-24** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty consecutive quarters. PAH analysis was not required on samples from MW-24 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-25** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards during the 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty-one consecutive quarters. PAH analysis was not required on samples from MW-25 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-26** is sampled on a quarterly schedule. Monitor well MW-26 was not sampled during the 3<sup>rd</sup> quarter due to site excavation. Analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0086 mg/L during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were below the NMOCD regulatory standard during the reporting period. Toluene, ethyl-benzene and xylene concentrations were below the MDL and NMOCD regulatory standards during the reporting period. PAH analysis was not required on samples from MW-26 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-27** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards during the 2<sup>nd</sup> and 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty-one consecutive quarters. PAH analysis was not required on samples from MW-27 during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-28** is sampled on an annual schedule. Analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards during the 4<sup>th</sup> quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below regulatory standards for the last forty consecutive quarters. PAH analysis was not conducted on samples from MW-28 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>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH in the monitor well and site excavation. PSH thickness of 0.01 feet was reported during the 4<sup>th</sup> quarter. Analytical results indicate benzene concentrations were 0.3220 mg/L during the 2<sup>nd</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the 2<sup>nd</sup> quarter of the reporting period. Toluene, ethylbenzene and xylene concentrations were below NMOCD and MDLs regulatory standards during the reporting period. PAH analysis was not conducted on samples from RW-1 during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Recovery well RW-2** is sampled on a quarterly schedule. Recovery well RW-2 was not sampled during the 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period due to site excavation and low water levels. Analytical results indicate benzene concentrations ranged from 0.0131 mg/L during the 2<sup>nd</sup> quarter to 0.0547 mg/L during the 1<sup>st</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the reporting period. Toluene and xylene concentrations were below the MDL and NMOCD regulatory standards during 2012. Ethylbenzene concentrations ranged from <0.001 mg/L during the 2<sup>nd</sup> quarter to 0.0086 mg/L during the 1<sup>st</sup> quarter of 2012. Ethylbenzene concentrations were below the NMOCD regulatory standard during the reporting period. PAH analysis was not conducted on samples from RW-2 during the 4<sup>th</sup> quarter sampling event.

**Recovery well RW-3** is sampled on a quarterly schedule. Recovery well RW-3 was not sampled during the 3<sup>rd</sup> quarter of the reporting period due to site excavation. Analytical results indicate benzene concentrations ranged from 0.0209 mg/L during the 4<sup>th</sup> quarter to 0.2510 mg/L during the 2<sup>nd</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the reporting period. Toluene concentrations ranged from <0.005 mg/L during the 4<sup>th</sup> quarter to <0.020 mg/L during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2012. Ethylbenzene concentrations ranged from <0.005 mg/L during the 4<sup>th</sup> quarter to <0.020 mg/L during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2012. Ethylbenzene concentrations were below the NMOCD regulatory standard during the reporting period. Xylene concentrations ranged from <0.005 mg/L during the 4<sup>th</sup> quarter to <0.020 mg/L during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2012. Xylene concentrations were below the NMOCD regulatory standard during the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above MDLs for 1-methylnaphthalene (0.00760 mg/L), which is below WQCC standards.

**Recovery well RW-4** is sampled on a quarterly schedule. Recovery well RW-4 was not sampled during the 3<sup>rd</sup> quarter of the reporting period due to site excavation. Analytical results indicate benzene concentrations ranged from 0.2760 mg/L during the 4<sup>th</sup> quarter to 0.6290 mg/L during the 2<sup>nd</sup> quarter of 2012. Benzene concentrations were above the NMOCD regulatory standard during the reporting period. Toluene concentrations ranged from <0.005 mg/L during the 4<sup>th</sup> quarter to <0.020 mg/L during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2012. Ethylbenzene concentrations ranged from <0.020 mg/L during the 1<sup>st</sup> quarter to 0.2110 mg/L during the 2<sup>nd</sup> quarter of 2012. Ethylbenzene concentrations were below the NMOCD regulatory standard during the reporting period. Xylene concentrations ranged from <0.020 mg/L during the 1<sup>st</sup> quarter to 0.3200 mg/L during the 2<sup>nd</sup> quarter of 2012. Xylene concentrations were below the NMOCD regulatory standard during the reporting period. PAH analysis during the 4<sup>th</sup> quarter sampling event indicated elevated concentrations above MDLs for 1-methylnaphthalene (0.0076 mg/L), which is below WQCC standards.

**Recovery well RW-5** is monitored on a quarterly schedule. Recovery well RW-5 was not sampled during the 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period, due to the presence of PSH in the monitor well and site excavation. PSH thicknesses of 0.01 feet and 0.90 feet were reported during the 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2012, respectively. Analytical results indicate benzene concentrations were 0.3490 mg/L during the 2<sup>nd</sup> quarter of 2012. Toluene concentrations were below the NMOCD and MDLs regulatory standards during the reporting period. Ethylbenzene concentrations were 0.2010 mg/L during the 2<sup>nd</sup> quarter of 2012, which is below NMOCD regulatory standards. Xylene concentrations were 0.1940 mg/L during the 2<sup>nd</sup> quarter of 2012, which is below NMOCD regulatory standards. PAH analysis was not conducted on samples from RW-5 during the 4<sup>th</sup> quarter sampling event, due to the presence of PSH.

**Recovery well RW-6** is monitored on a quarterly schedule. Recovery well RW-6 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 in the monitor well and site excavation. PSH thicknesses of 0.52 feet, 0.31 feet and 0.01 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2012, respectively. PAH analysis was not conducted on samples from RW-6 during the 4<sup>th</sup> quarter sampling event, due to the presence of PSH.

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 2012 annual monitoring period. Currently, there are 28 groundwater monitor wells (MW-1 through MW-28) and six product recovery wells (RW-1 through RW-6) on-site. A pneumatic product recovery system operated on-site, incorporating recovery well RW-6 and monitor wells MW-8, MW-14 and MW-15. The automated recovery system was decommissioned in the summer of 2007, due to declining PSH thickness, which cannot be efficiently recovered utilizing the automated recovery system. Currently, manual PSH recovery is performed on a weekly basis for monitor and recovery wells

exhibiting PSH. Approximately 104 gallons (2.5 barrels) of PSH were recovered from the site during the reporting period. Approximately 2,496 gallons (approximately 59 barrels) of PSH has been recovered since project inception.

During the reporting period, five monitor wells (MW-4, MW-7, MW-8, MW-14 and MW-15) and three recovery wells (RW-1, RW-5 and RW-6) contained measurable PSH during at least three or more quarters of the 2012 reporting period.

The average thickness of PSH in monitor wells and recovery wells exhibiting PSH was 0.19 feet. The maximum thickness of PSH in monitor wells and recovery wells during the 2012 reporting period was 1.10 feet in monitor well MW-4 on December 11, 2012. In comparison, the maximum PSH thickness reported during the 2010 reporting period was 2.05 feet.

Groundwater elevation contours generated from water level measurements acquired indicated a general gradient of approximately 0.004 feet/foot to the south-southeast.

Review of laboratory analytical results of the groundwater samples obtained during the 2012 monitoring period indicates the BTEX constituent concentrations are below applicable NMOCD standards in 15 of the 28 monitor wells currently on-site. Dissolved phase and phase separated hydrocarbon impact appears to be limited to monitor wells MW-4 through MW-8, MW-14, MW-15 and MW-19 and recovery wells RW-1, RW-5 and RW-6. Analytical results on groundwater samples collected indicate PAH concentrations are demonstrating a fluctuating trend in MW-4 and MW-5 and a decreasing trend in MW-10 and RW-3.

#### **ANTICIPATED ACTIONS**

Quarterly gauging and sampling will continue in 2013. Manual product recovery will continue weekly and will be adjusted according to site conditions. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2014.

Monitor well MW-9 and recovery well RW-2 were damaged during excavation to a point where they can no longer be sampled. Plains respectfully requests NMOCD approval to plug and abandon these wells.

Based on the results of the PAH analysis over the past several years, further PAH analysis will be conducted only on those monitor wells (MW-5, MW-6, MW-10, MW-19) and recovery wells (RW-1 through RW-4) which have historically exhibited elevated constituents near or above the WQCC standards. PAH analysis will also be conducted on those monitoring wells where NAPL is no longer detected (including MW-15).

## 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.

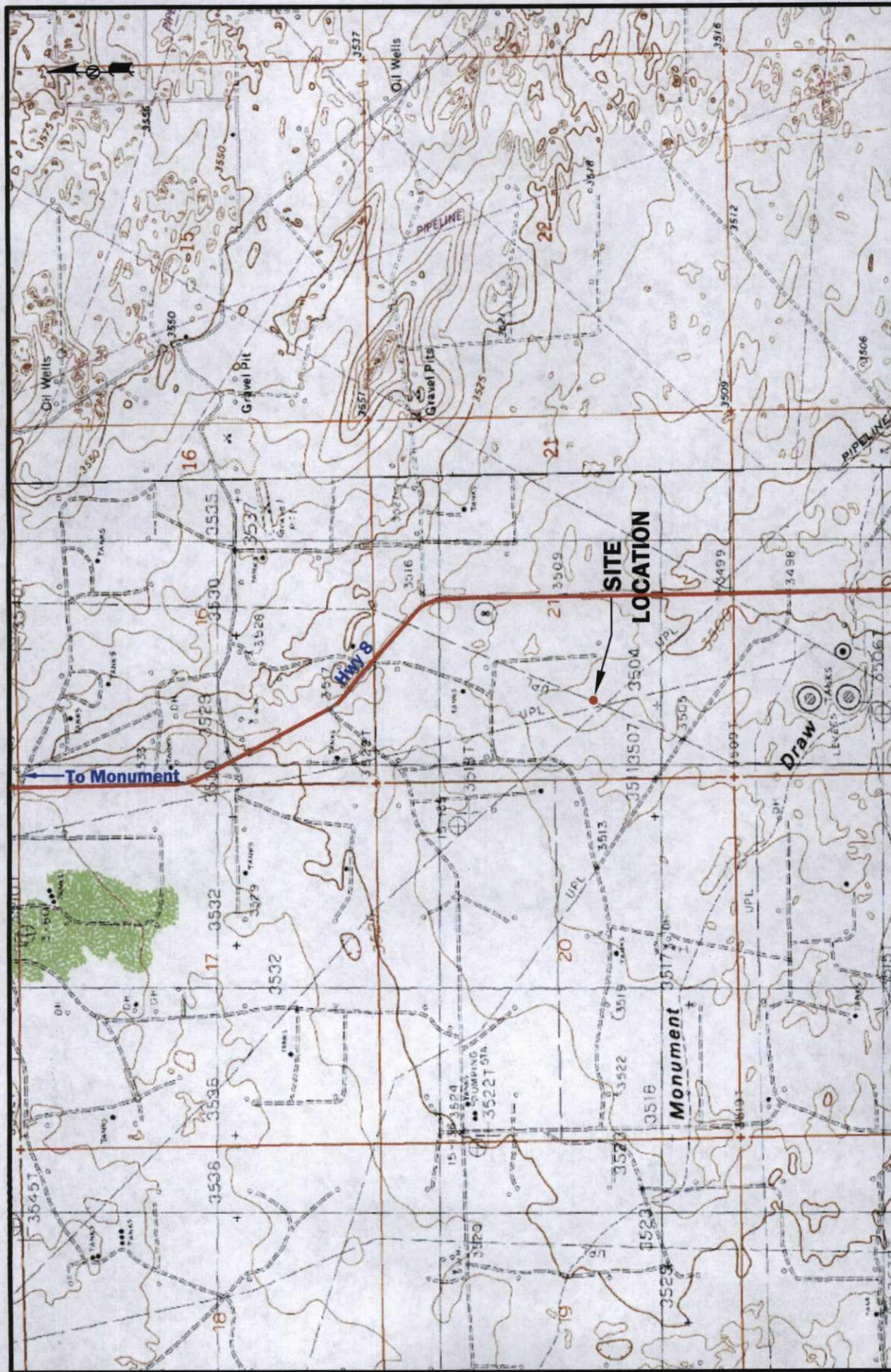


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2057 Commerce Street  
Midland, TX 79703  
ncallicoatte@novatraining.cc

## FIGURES





LEGEND:

2000 1000 0 1000 2000

Distance in Feet

Figure 1  
Site Location Map  
TNM 97-17  
Plains Marketing, L.P.  
Lea County, NM



2057 Commerce Drive  
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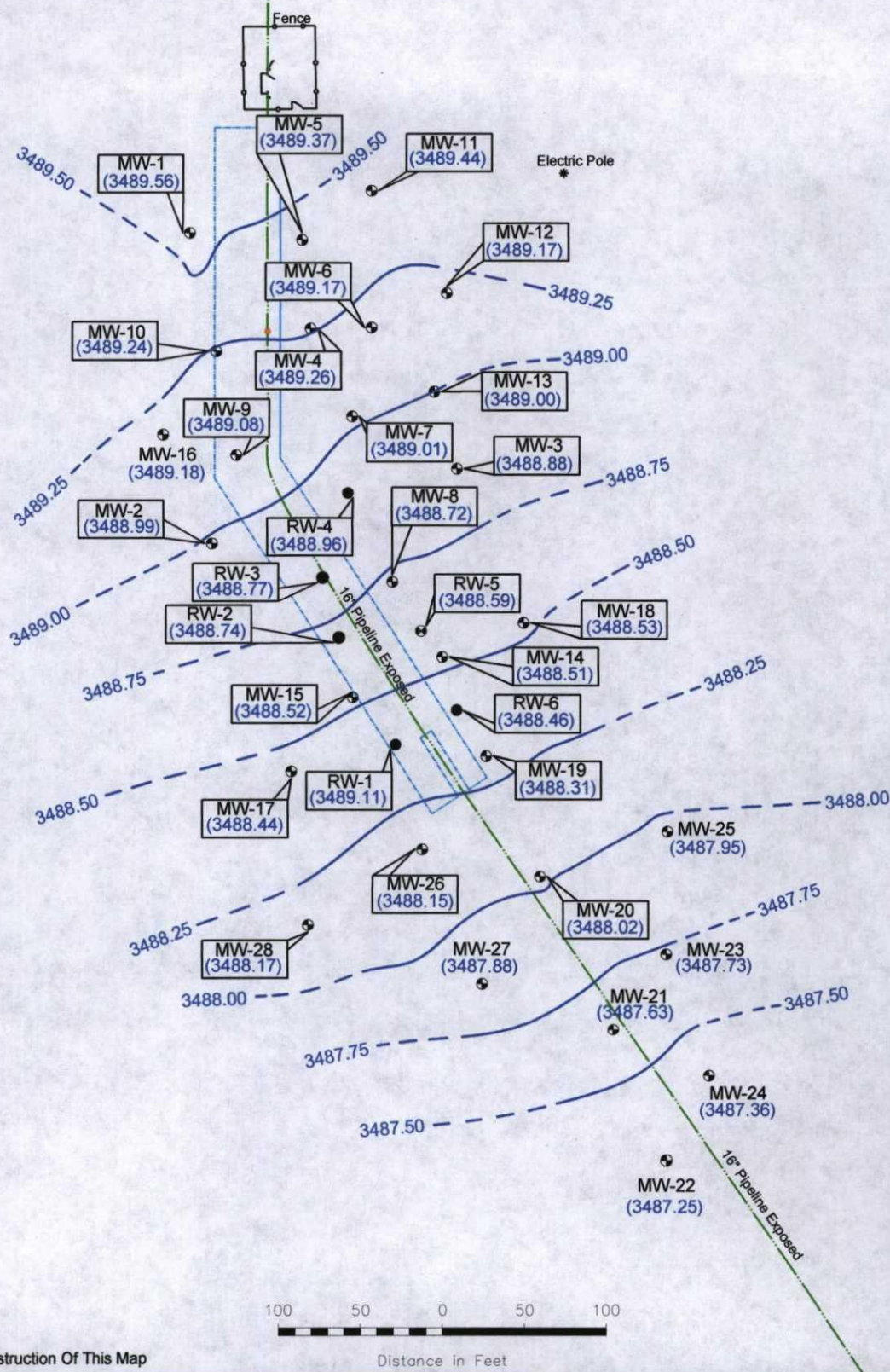
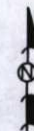
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March 8, 2013

LATITUDE & LONGITUDE COORDINATES: N 32° 33' 24.00" W 103° 15' 37.3"

NIMOC Reference #AP-017





NOTE:  
Contour Interval = 0.25'  
RW-1 Not Used In The Construction Of This Map

100 50 0 50 100  
Distance in Feet

LEGEND:

- Monitor Well Location
- Recovery Well Location
- Release Point
- Pipeline
- Former 2012 Excavation
- Groundwater Elevation Contour Line
- (NW) Dry Well / No Water

Figure 2A  
Inferred Groundwater  
Gradient Map  
(2/29/2012)  
NMOC Reference # AP-017  
Plains Marketing, L.P.  
TNM 97-17  
Lea County, NM



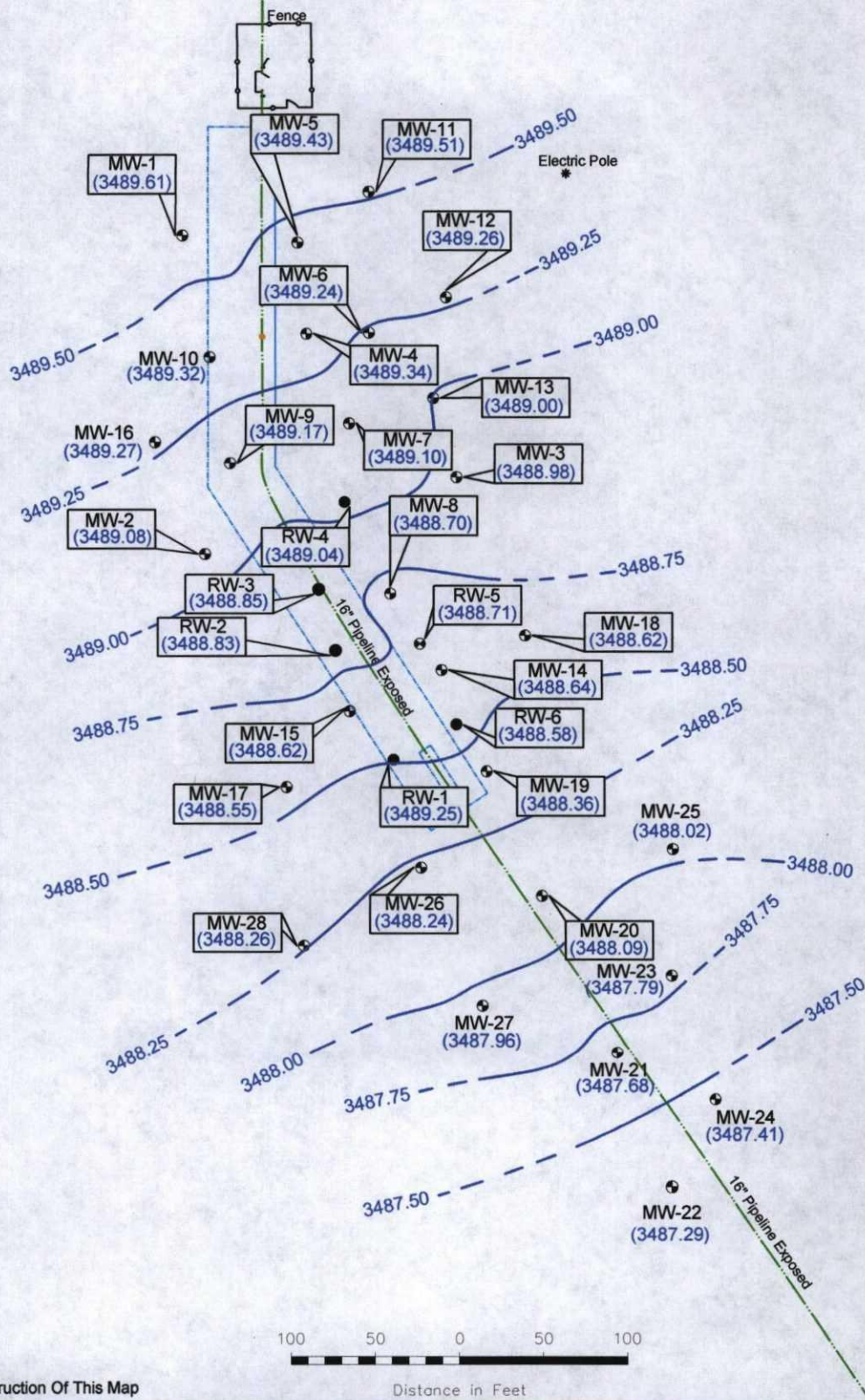
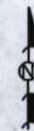
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March 25, 2013 Scale: 1" = 100' CAD By: CAS Checked By: RKR

Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"





NOTE:  
Contour Interval = 0.25'  
RW-1 Not Used In The Construction Of This Map

LEGEND:

- Monitor Well Location
- Recovery Well Location
- Release Point
- Pipeline
- Former 2012 Excavation
- Groundwater Elevation Contour Line
- (NW) Dry Well / No Water

Figure 2B  
Inferred Groundwater  
Gradient Map  
(5/2/2012)  
NMOC Reference # AP-017  
Plains Marketing, L.P.  
TNM 97-17  
Lea County, NM



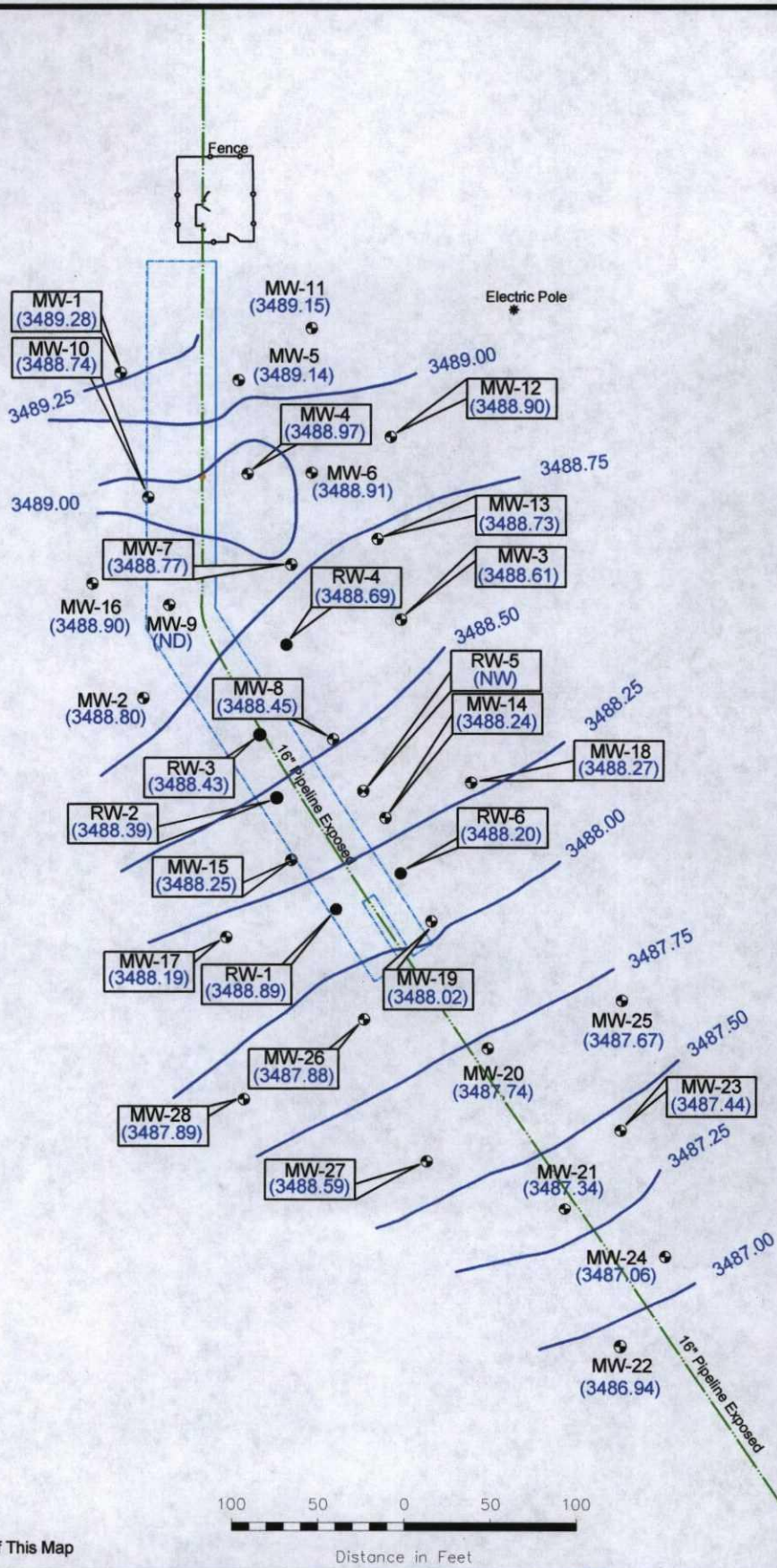
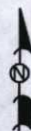
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Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"

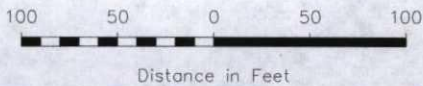




**NOTE:**

Contour Interval = 0.25'

RW-1 Not Used In The Construction Of This Map



**LEGEND:**

- Monitor Well Location
- Recovery Well Location
- Release Point
- Pipeline
- Former 2012 Excavation
- Groundwater Elevation Contour Line
- (NW) Dry Well / No Water

**Figure 2C**  
**Inferred Groundwater**  
**Gradient Map**  
(12/6/2012)  
NMOCD Reference # AP-017  
Plains Marketing, L.P.  
TNM 97-17  
Lea County, NM

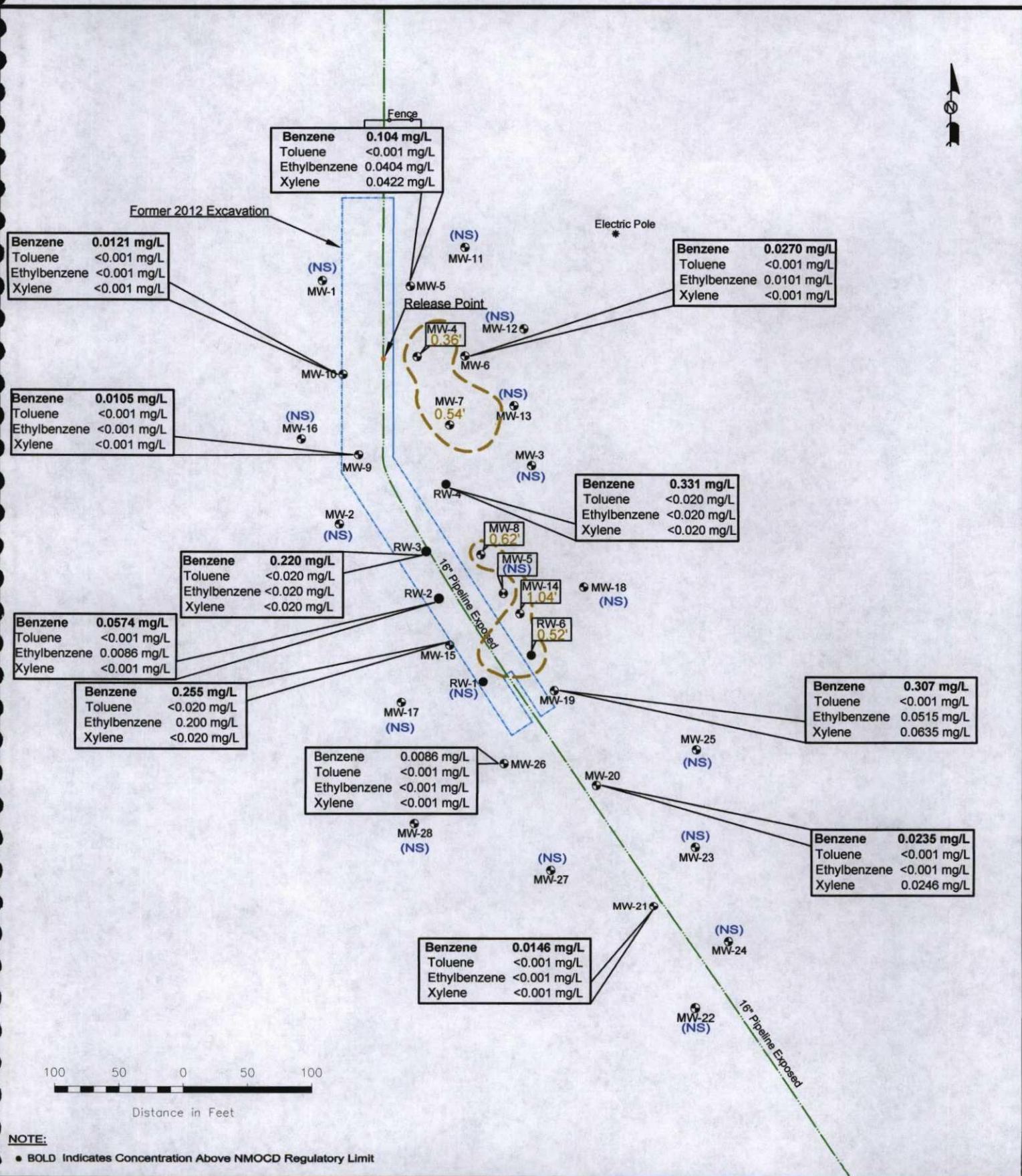


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Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"			





**NOTE:**

- BOLD Indicates Concentration Above NMOCD Regulatory Limit

**LEGEND:**

- Monitor Well Location
- Recovery Well Location
- Release Point
- Pipeline
- Former 2012 Excavation
- Inferred PSH Extent
- 0.18" Thickness of PSH (feet)
- <0.001 Constituent Concentration (mg/L)
- (NW) No Water
- (NS) Not Sampled

**Figure 3A**  
Groundwater Concentration  
and Inferred PSH Extent  
Map (2/29/2012)  
NMOCD Reference # AP-017  
Plains Marketing, L.P.  
TNM 97-17  
Lea County, NM



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Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"



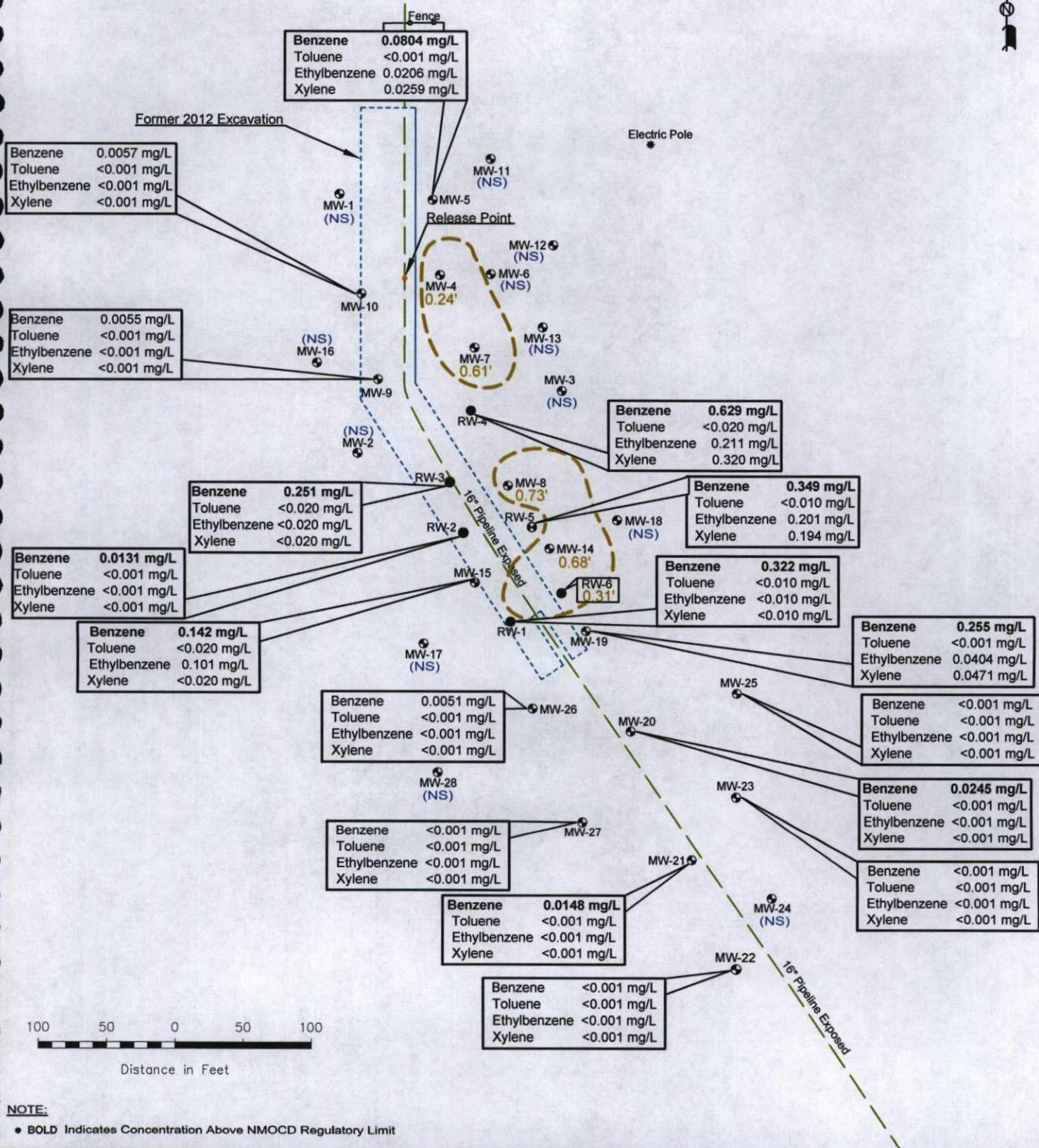
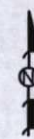


Figure 3B  
Groundwater Concentration and Inferred PSH Extent  
Map (5/2/2012)  
NMOCD Reference # AP-017  
Plains Marketing, L.P.  
TNM 97-17  
Lea County, NM



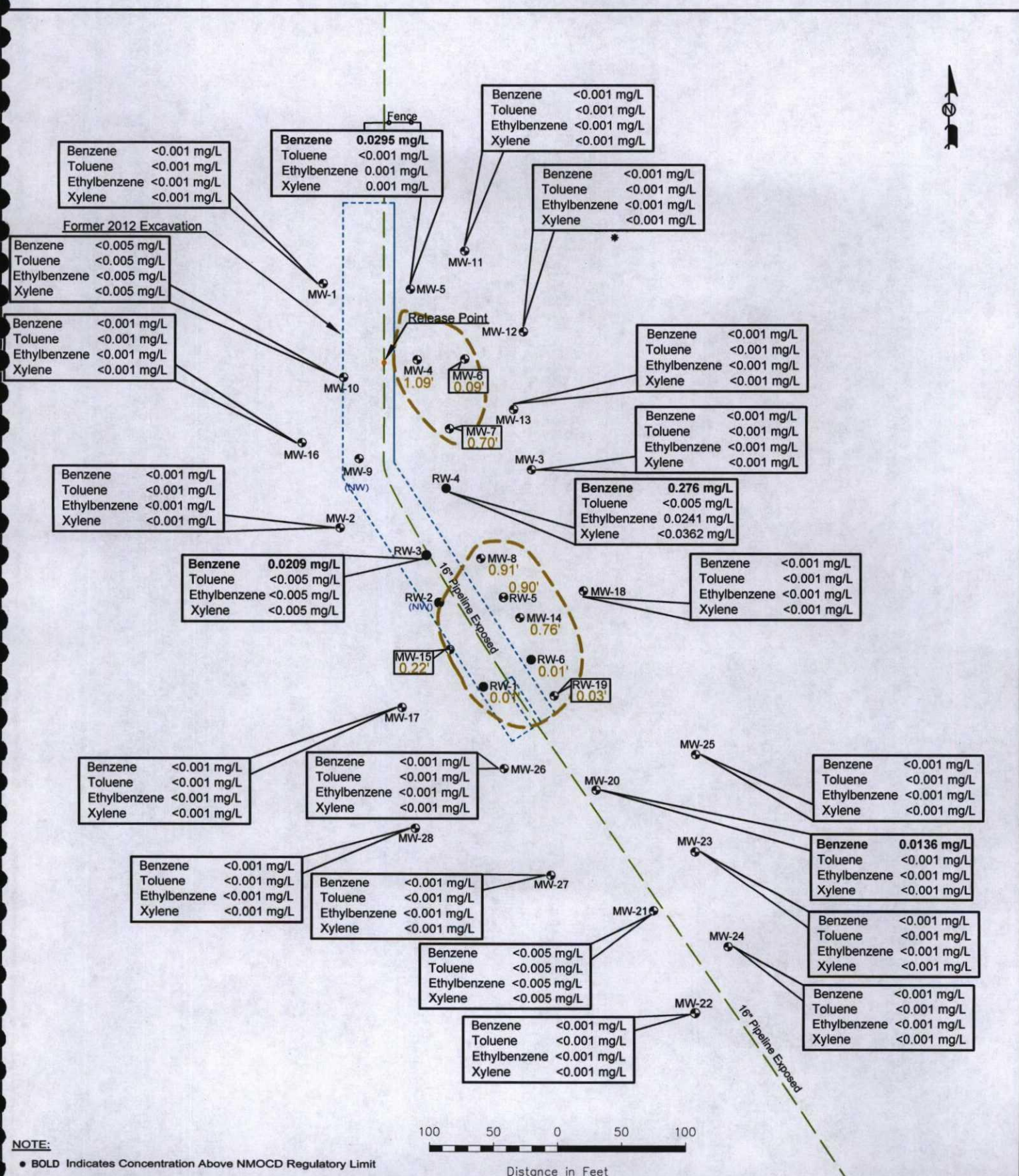
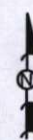
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March 25, 2013 Scale: 1" = 100' CAD By: CAS Checked By: RKR

Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"





**NOTE:**  
● BOLD Indicates Concentration Above NMOCD Regulatory Limit

**LEGEND:**  
● Monitor Well Location  
● Recovery Well Location  
● Release Point  
— Pipeline  
— Former 2012 Excavation  
— Inferred PSH Extent  
0.18' Thickness of PSH (feet)

<0.001 Constituent Concentration (mg/L)  
(NW) No Water

**Figure 3C**  
Groundwater Concentration and Inferred PSH Extent Map (12/6/2012)  
NMOCD Reference # AP-017  
Plains Marketing, L.P.  
TNM 97-17  
Lea County, NM



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March 25, 2013	Scale: 1" = 100'	CAD By: CAS	Checked By: RKR
Lat. N 32° 33' 24.0" Long. W 103° 15' 37.3"			



## TABLES

**TABLE 1**  
**GROUNDWATER ELEVATION DATA - 2012**

TNM 97- 17  
LEA COUNTY, NEW MEXICO  
PLAINS MARKETING, L.P.  
NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 1	02/29/12	3510.90	-	21.34	0.00	3489.56
MW - 1	05/02/12	3510.90	-	21.29	0.00	3489.61
MW - 1	12/06/12	3510.90	-	21.62	0.00	3489.28
MW - 2	02/29/12	3509.23	-	20.24	0.00	3488.99
MW - 2	05/02/12	3509.23	-	20.15	0.00	3489.08
MW - 2	12/06/12	3509.23	-	20.43	0.00	3488.80
MW - 3	02/29/12	3508.82	-	19.94	0.00	3488.88
MW - 3	05/02/12	3508.82	-	19.84	0.00	3488.98
MW - 3	12/06/12	3508.82	-	20.21	0.00	3488.61
MW - 4	01/12/12	3509.15	20.03	20.25	0.22	3489.09
MW - 4	01/19/12	3509.15	19.99	20.20	0.21	3489.13
MW - 4	02/03/12	3509.15	19.95	20.19	0.24	3489.16
MW - 4	02/29/12	3509.15	19.84	20.20	0.36	3489.26
MW - 4	03/14/12	3509.15	19.79	20.13	0.34	3489.31
MW - 4	03/19/12	3509.15	19.70	19.95	0.25	3489.41
MW - 4	03/29/12	3509.15	19.74	20.00	0.26	3489.37
MW - 4	04/05/12	3509.15	19.71	19.97	0.26	3489.40
MW - 4	04/18/12	3509.15	19.67	19.93	0.26	3489.44
MW - 4	04/27/12	3509.15	19.71	19.97	0.26	3489.40
MW - 4	05/02/12	3509.15	19.77	20.01	0.24	3489.34
MW - 4	05/31/12	3509.15	19.72	20.10	0.38	3489.37
MW - 4	06/08/12	3509.15	19.76	20.34	0.58	3489.30
MW - 4	06/12/12	3509.15	19.83	20.18	0.35	3489.27
MW - 4	06/21/12	3509.15	19.82	20.17	0.35	3489.28
MW - 4	06/29/12	3509.15	19.90	20.05	0.15	3489.23
MW - 4	07/13/12	3509.15	20.10	20.35	0.25	3489.01
MW - 4	12/06/12	3509.15	20.52	21.61	1.09	3488.47
MW - 4	12/11/12	3509.15	20.53	21.63	1.10	3488.46
MW - 4	12/18/12	3509.15	20.52	21.47	0.95	3488.49
MW - 5	01/12/12	3509.96	-	20.80		3489.16
MW - 5	01/19/12	3509.96	-	20.70		3489.26
MW - 5	02/03/12	3509.96	-	20.89		3489.07
MW - 5	02/09/12	3509.96	-	20.59		3489.37
MW - 5	03/14/12	3509.96	-	20.50		3489.46
MW - 5	03/19/12	3509.96	-	20.56		3489.40
MW - 5	03/29/12	3509.96	-	20.46		3489.50
MW - 5	04/05/12	3509.96	-	20.43		3489.53
MW - 5	04/18/12	3509.96	-	20.39		3489.57
MW - 5	04/27/12	3509.96	-	20.43		3489.53
MW - 5	05/02/12	3509.96	-	20.53		3489.43
MW - 5	05/31/12	3509.96	-	20.45		3489.51



**TABLE 1**  
**GROUNDWATER ELEVATION DATA - 2012**

TNM 97- 17  
LEA COUNTY, NEW MEXICO  
PLAINS MARKETING, L.P.  
NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 5	06/08/12	3509.96	-	20.50		3489.46
MW - 5	06/12/12	3509.96	-	20.59		3489.37
MW - 5	06/21/12	3509.96	-	20.59		3489.37
MW - 5	06/29/12	3509.96	-	20.68		3489.28
MW - 5	07/13/12	3509.96	-	20.86		3489.10
MW - 5	12/06/12	3509.96	-	20.82		3489.14
MW - 5	12/11/12	3509.96	-	20.84		3489.12
MW - 5	12/18/12	3509.96	-	20.84		3489.12
MW - 6	01/12/12	3507.94	-	18.92	0.00	3489.02
MW - 6	01/19/12	3507.94	-	18.90	0.00	3489.04
MW - 6	02/03/12	3507.94	-	18.88	0.00	3489.06
MW - 6	02/29/12	3507.94	-	18.77	0.00	3489.17
MW - 6	03/14/12	3507.94	-	18.72	0.00	3489.22
MW - 6	03/19/12	3507.94	-	18.72	0.00	3489.22
MW - 6	03/29/12	3507.94	-	18.70	0.00	3489.24
MW - 6	04/05/12	3507.94	-	18.66	0.00	3489.28
MW - 6	04/18/12	3507.94	-	18.62	0.00	3489.32
MW - 6	04/27/12	3507.94	-	18.66	0.00	3489.28
MW - 6	05/02/12	3507.94	-	18.70	0.00	3489.24
MW - 6	05/31/12	3507.94	-	18.66	0.00	3489.28
MW - 6	06/08/12	3507.94	-	19.63	0.00	3488.31
MW - 6	06/12/12	3507.94	-	18.76	0.00	3489.18
MW - 6	06/21/12	3507.94	-	18.76	0.00	3489.18
MW - 6	06/29/12	3507.94	-	18.83	0.00	3489.11
MW - 6	07/13/12	3507.94	-	19.02	0.00	3488.92
MW - 6	12/06/12	3507.94	19.02	19.11	0.09	3488.91
MW - 6	12/11/12	3507.94	19.02	19.14	0.12	3488.90
MW - 6	12/18/12	3507.94	19.01	19.07	0.06	3488.92
MW - 7	01/12/12	3507.08	18.19	18.49	0.30	3488.85
MW - 7	01/19/12	3507.08	18.13	18.33	0.20	3488.92
MW - 7	02/03/12	3507.08	18.08	18.49	0.41	3488.94
MW - 7	02/29/12	3507.08	17.99	18.53	0.54	3489.01
MW - 7	03/14/12	3507.08	17.94	18.51	0.57	3489.05
MW - 7	03/19/12	3507.08	17.90	18.41	0.51	3489.10
MW - 7	03/29/12	3507.08	17.88	18.46	0.58	3489.11
MW - 7	04/05/12	3507.08	17.85	18.47	0.62	3489.14
MW - 7	04/18/12	3507.08	17.81	18.42	0.61	3489.18
MW - 7	04/27/12	3507.08	17.85	18.47	0.62	3489.14
MW - 7	05/02/12	3507.08	17.89	18.50	0.61	3489.10
MW - 7	05/31/12	3507.08	17.89	18.65	0.76	3489.08
MW - 7	06/08/12	3507.08	17.95	18.83	0.88	3489.00
MW - 7	06/12/12	3507.08	17.99	18.78	0.79	3488.97
MW - 7	06/21/12	3507.08	17.94	18.46	0.52	3489.06

**TABLE 1**  
**GROUNDWATER ELEVATION DATA - 2012**

TNM 97- 17  
LEA COUNTY, NEW MEXICO  
PLAINS MARKETING, L.P.  
NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 7	06/29/12	3507.08	18.02	18.55	0.53	3488.98
MW - 7	07/13/12	3507.08	18.21	18.69	0.48	3488.80
MW - 7	12/06/12	3507.08	18.21	18.91	0.70	3488.77
MW - 7	12/11/12	3507.08	18.21	18.94	0.73	3488.76
MW - 7	12/18/12	3507.08	18.19	18.83	0.64	3488.79
MW - 8	01/12/12	3506.39	17.78	18.24	0.46	3488.54
MW - 8	01/19/12	3506.39	17.71	18.13	0.42	3488.62
MW - 8	02/03/12	3506.39	17.68	18.19	0.51	3488.63
MW - 8	02/29/12	3506.39	17.58	18.20	0.62	3488.72
MW - 8	03/14/12	3506.39	17.54	18.09	0.55	3488.77
MW - 8	03/19/12	3506.39	17.53	17.99	0.46	3488.79
MW - 8	03/29/12	3506.39	17.48	18.01	0.53	3488.83
MW - 8	04/05/12	3506.39	17.46	18.02	0.56	3488.85
MW - 8	04/18/12	3506.39	17.43	18.00	0.57	3488.87
MW - 8	04/27/12	3506.39	17.46	18.02	0.56	3488.85
MW - 8	05/02/12	3506.39	17.58	18.31	0.73	3488.70
MW - 8	05/31/12	3506.39	17.49	18.17	0.68	3488.80
MW - 8	06/08/12	3506.39	17.52	18.19	0.67	3488.77
MW - 8	06/12/12	3506.39	17.55	18.13	0.58	3488.75
MW - 8	06/21/12	3506.39	17.49	18.01	0.52	3488.82
MW - 8	06/29/12	3506.39	17.58	18.06	0.48	3488.74
MW - 8	07/13/12	3506.39	17.78	18.33	0.55	3488.53
MW - 8	12/06/12	3506.39	19.85	20.76	0.91	3486.40
MW - 8	12/11/12	3506.39	19.85	20.77	0.92	3486.40
MW - 8	12/18/12	3506.39	19.83	20.69	0.86	3486.43
MW - 9	02/29/12	3509.36	-	20.28	0.00	3489.08
MW - 9	05/02/12	3509.36	-	20.19	0.00	3489.17
MW - 9	12/06/12	3509.36	-	-	-	-
MW - 10	12/06/12	3509.91	-	21.17	0.00	3488.74
MW - 10	12/11/12	3509.91	-	21.17	0.00	3488.74
MW - 10	12/18/12	3509.91	-	21.16	0.00	3488.75
MW - 11	02/29/12	3509.27	-	19.83	0.00	3489.44
MW - 11	05/02/12	3509.27	-	19.76	0.00	3489.51
MW - 11	12/06/12	3509.27	-	20.12	0.00	3489.15
MW - 12	02/29/12	3508.63	-	19.46	0.00	3489.17
MW - 12	05/02/12	3508.63	-	19.37	0.00	3489.26
MW - 12	12/06/12	3508.63	-	19.73	0.00	3488.90
MW - 13	02/29/12	3507.96	-	18.96	0.00	3489.00
MW - 13	05/02/12	3507.96	-	18.96	0.00	3489.00

TABLE 1  
GROUNDWATER ELEVATION DATA - 2012

TNM 97- 17  
LEA COUNTY, NEW MEXICO  
PLAINS MARKETING, L.P.  
NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 13	12/06/12	3507.96	-	19.23	0.00	3488.73
MW - 14	01/12/12	3507.46	19.00	19.90	0.90	3488.33
MW - 14	01/19/12	3507.46	18.93	19.82	0.89	3488.40
MW - 14	02/03/12	3507.46	18.91	19.85	0.94	3488.41
MW - 14	02/29/12	3507.46	18.79	19.83	1.04	3488.51
MW - 14	03/14/12	3507.46	18.76	19.71	0.95	3488.56
MW - 14	03/19/12	3507.46	18.77	19.46	0.69	3488.59
MW - 14	03/29/12	3507.46	18.73	19.43	0.70	3488.63
MW - 14	04/05/12	3507.46	18.71	19.42	0.71	3488.64
MW - 14	04/18/12	3507.46	18.67	19.36	0.69	3488.69
MW - 14	04/27/12	3507.46	18.71	19.42	0.71	3488.64
MW - 14	05/02/12	3507.46	18.72	19.40	0.68	3488.64
MW - 14	05/31/12	3507.46	18.69	19.62	0.93	3488.63
MW - 14	06/08/12	3507.46	18.73	19.50	0.77	3488.61
MW - 14	06/12/12	3507.46	18.81	19.62	0.81	3488.53
MW - 14	06/21/12	3507.46	18.81	19.63	0.82	3488.53
MW - 14	06/29/12	3507.46	18.82	19.81	0.99	3488.49
MW - 14	07/13/12	3507.46	19.03	20.04	1.01	3488.28
MW - 14	12/06/12	3507.46	19.82	20.58	0.76	3487.53
MW - 14	12/11/12	3507.46	19.84	20.44	0.60	3487.53
MW - 14	12/18/12	3507.46	19.83	19.97	0.14	3487.61
MW - 15	02/03/12	3506.48	-	18.04	0.00	3488.44
MW - 15	02/29/12	3506.48	-	17.96	0.00	3488.52
MW - 15	03/14/12	3506.48	-	17.88	0.00	3488.60
MW - 15	03/19/12	3506.48	-	17.96	0.00	3488.52
MW - 15	03/29/12	3506.48	-	17.89	0.00	3488.59
MW - 15	04/05/12	3506.48	-	17.84	0.00	3488.64
MW - 15	04/18/12	3506.48	-	17.78	0.00	3488.70
MW - 15	04/27/12	3506.48	-	17.84	0.00	3488.64
MW - 15	05/02/12	3506.48	-	17.86	0.00	3488.62
MW - 15	05/31/12	3506.48	-	17.83	0.00	3488.65
MW - 15	06/08/12	3506.48	-	17.85	0.00	3488.63
MW - 15	06/12/12	3506.48	-	17.89	0.00	3488.59
MW - 15	06/21/12	3506.48	-	17.91	0.00	3488.57
MW - 15	06/29/12	3506.48	-	17.93	0.00	3488.55
MW - 15	07/13/12	3506.48	18.11	18.43	0.32	3488.32
MW - 15	12/06/12	3506.48	20.09	20.31	0.22	3486.36
MW - 15	12/11/12	3506.48	20.08	20.27	0.19	3486.37
MW - 15	12/18/12	3506.48	20.07	20.22	0.15	3486.39
MW - 16	02/29/12	3509.38	-	20.20	0.00	3489.18
MW - 16	05/02/12	3509.38	-	20.11	0.00	3489.27
MW - 16	12/06/12	3509.38	-	20.48	0.00	3488.90

**TABLE 1**  
**GROUNDWATER ELEVATION DATA - 2012**

TNM 97- 17  
LEA COUNTY, NEW MEXICO  
PLAINS MARKETING, L.P.  
NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 17	02/29/12	3507.56	-	19.12	0.00	3488.44
MW - 17	05/02/12	3507.56	-	19.01	0.00	3488.55
MW - 17	12/06/12	3507.56	-	20.19	0.00	3487.37
MW - 18	02/29/12	3509.12	-	20.59	0.00	3488.53
MW - 18	05/02/12	3509.12	-	20.50	0.00	3488.62
MW - 18	12/06/12	3509.12	-	20.86	0.00	3488.26
MW - 19	01/12/12	3507.28	-	19.18	0.00	3488.10
MW - 19	01/19/12	3507.28	-	19.09	0.00	3488.19
MW - 19	02/03/12	3507.28	-	19.10	0.00	3488.18
MW - 19	02/29/12	3507.28	-	18.97	0.00	3488.31
MW - 19	03/14/12	3507.28	-	18.94	0.00	3488.34
MW - 19	03/19/12	3507.28	-	18.95	0.00	3488.33
MW - 19	03/29/12	3507.28	-	18.90	0.00	3488.38
MW - 19	04/05/12	3507.28	-	18.88	0.00	3488.40
MW - 19	04/18/12	3507.28	-	18.83	0.00	3488.45
MW - 19	04/27/12	3507.28	-	18.88	0.00	3488.40
MW - 19	05/02/12	3507.28	-	18.92	0.00	3488.36
MW - 19	05/31/12	3507.28	-	18.90	0.00	3488.38
MW - 19	06/08/12	3507.28	-	19.83	0.00	3487.45
MW - 19	06/12/12	3507.28	-	18.97	0.00	3488.31
MW - 19	06/21/12	3507.28	-	18.96	0.00	3488.32
MW - 19	06/29/12	3507.28	-	19.02	0.00	3488.26
MW - 19	07/13/12	3507.28	-	19.19	0.00	3488.09
MW - 19	12/06/12	3507.28	19.26	19.29	0.03	3488.02
MW - 19	12/11/12	3507.28	19.26	19.32	0.06	3488.01
MW - 19	12/18/12	3507.28	19.24	19.31	0.07	3488.03
MW - 20	01/12/12	3508.43	-	20.56	0.00	3487.87
MW - 20	01/19/12	3508.43	-	20.53	0.00	3487.90
MW - 20	02/03/12	3508.43	-	20.49	0.00	3487.94
MW - 20	02/29/12	3508.43	-	20.41	0.00	3488.02
MW - 20	03/14/12	3508.43	-	20.36	0.00	3488.07
MW - 20	03/19/12	3508.43	-	20.35	0.00	3488.08
MW - 20	03/29/12	3508.43	-	20.31	0.00	3488.12
MW - 20	04/05/12	3508.43	-	20.29	0.00	3488.14
MW - 20	04/18/12	3508.43	-	20.26	0.00	3488.17
MW - 20	04/27/12	3508.43	-	20.29	0.00	3488.14
MW - 20	05/02/12	3508.43	-	20.34	0.00	3488.09
MW - 20	05/31/12	3508.43	-	20.31	0.00	3488.12
MW - 20	06/08/12	3508.43	-	20.36	0.00	3488.07
MW - 20	06/12/12	3508.43	-	20.40	0.00	3488.03
MW - 20	06/21/12	3508.43	-	20.39	0.00	3488.04

**TABLE 1**  
**GROUNDWATER ELEVATION DATA - 2012**

TNM 97- 17  
LEA COUNTY, NEW MEXICO  
PLAINS MARKETING, L.P.  
NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 20	06/29/12	3508.43	-	20.46	0.00	3487.97
MW - 20	07/13/12	3508.43	-	20.62	0.00	3487.81
MW - 20	12/06/12	3508.43	-	20.69	0.00	3487.74
MW - 20	12/11/12	3508.43	-	20.69	0.00	3487.74
MW - 20	12/18/12	3508.43	-	20.69	0.00	3487.74
MW - 21	02/29/12	3506.98	-	19.35	0.00	3487.63
MW - 21	05/02/12	3506.98	-	19.30	0.00	3487.68
MW - 21	12/06/12	3506.98	-	19.64	0.00	3487.34
MW - 22	02/29/12	3505.61	-	18.36	0.00	3487.25
MW - 22	05/02/12	3505.61	-	18.32	0.00	3487.29
MW - 22	12/06/12	3505.61	-	18.67	0.00	3486.94
MW - 23	02/29/12	3509.79	-	22.06	0.00	3487.73
MW - 23	05/02/12	3509.79	-	22.00	0.00	3487.79
MW - 23	12/06/12	3509.79	-	22.35	0.00	3487.44
MW - 24	02/29/12	3509.68	-	22.32	0.00	3487.36
MW - 24	05/02/12	3509.68	-	22.27	0.00	3487.41
MW - 24	12/06/12	3509.68	-	22.62	0.00	3487.06
MW - 25	02/29/12	3509.65	-	21.70	0.00	3487.95
MW - 25	05/02/12	3509.65	-	21.63	0.00	3488.02
MW - 25	12/06/12	3509.65	-	21.98	0.00	3487.67
MW - 26	02/29/12	3507.49	-	19.34	0.00	3488.15
MW - 26	05/02/12	3507.49	-	19.25	0.00	3488.24
MW - 26	12/06/12	3507.49	-	19.61	0.00	3487.88
MW - 27	02/29/12	3507.66	-	19.78	0.00	3487.88
MW - 27	05/02/12	3507.66	-	19.70	0.00	3487.96
MW - 27	12/06/12	3507.66	-	20.07	0.00	3487.59
MW - 28	02/29/12	3508.37	-	20.20	0.00	3488.17
MW - 28	05/02/12	3508.37	-	20.11	0.00	3488.26
MW - 28	12/06/12	3508.37	-	20.48	0.00	3487.89
RW - 1	01/12/12	3507.27	-	19.18	0.00	3488.94
RW - 1	01/19/12	3507.27	-	19.11	0.00	3489.01
RW - 1	02/03/12	3507.27	-	19.11	0.00	3489.01
RW - 1	02/29/12	3507.27	-	19.01	0.00	3489.11
RW - 1	03/14/12	3507.27	-	18.86	0.00	3489.26
RW - 1	03/19/12	3507.27	-	19.10	0.00	3489.02
RW - 1	03/29/12	3507.27	-	18.89	0.00	3489.23



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**GROUNDWATER ELEVATION DATA - 2012**

TNM 97- 17  
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NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW - 1	04/05/12	3507.27	-	18.82	0.00	3489.30
RW - 1	04/18/12	3507.27	-	18.81	0.00	3489.31
RW - 1	04/27/12	3507.27	-	18.82	0.00	3489.30
RW - 1	05/02/12	3507.27	-	18.87	0.00	3489.25
RW - 1	05/31/12	3507.27	-	18.95	0.00	3489.17
RW - 1	06/08/12	3507.27	19.81	19.82	0.01	3488.29
RW - 1	06/12/12	3507.27	18.92	18.94	0.02	3489.16
RW - 1	06/21/12	3507.27	-	19.06	0.00	3489.06
RW - 1	06/29/12	3507.27	-	19.18	0.00	3488.94
RW - 1	07/13/12	3507.27	19.21	19.27	0.06	3488.79
RW - 1	12/06/12	3507.27	20.73	20.74	0.01	3487.37
RW - 1	12/11/12	3507.27	-	20.72	0.00	3487.40
RW - 1	12/18/12	3507.27	19.69	19.70	0.01	3488.41
RW - 2	01/12/12	3507.45	-	18.98	0.00	3488.47
RW - 2	01/19/12	3507.45	-	18.90	0.00	3488.55
RW - 2	02/03/12	3507.45	-	18.88	0.00	3488.57
RW - 2	02/29/12	3507.45	-	18.71	0.00	3488.74
RW - 2	05/02/12	3507.45	-	18.62	0.00	3488.83
RW - 2	12/06/12	3507.45	-	0.00	0.00	3507.45
RW - 2	12/11/12	3507.45	-	0.00	0.00	3507.45
RW - 2	12/18/12	3507.45	-	0.00	0.00	3507.45
RW - 3	01/12/12	3507.86	-	19.29	0.00	3488.57
RW - 3	01/19/12	3507.86	-	19.31	0.00	3488.55
RW - 3	02/03/12	3507.86	-	19.23	0.00	3488.63
RW - 3	02/29/12	3507.86	-	19.09	0.00	3488.77
RW - 3	05/02/12	3507.86	-	19.01	0.00	3488.85
RW - 3	12/06/12	3507.86	-	20.20	0.00	3487.66
RW - 3	12/11/12	3507.86	-	20.20	0.00	3487.66
RW - 3	12/18/12	3507.86	20.14	20.15	0.01	3487.72
RW - 4	01/12/12	3507.22	-	18.56	0.00	3488.66
RW - 4	01/19/12	3507.22	-	18.52	0.00	3488.70
RW - 4	02/03/12	3507.22	-	18.52	0.00	3488.70
RW - 4	02/29/12	3507.22	-	18.26	0.00	3488.96
RW - 4	05/02/12	3507.22	-	18.18	0.00	3489.04
RW - 4	12/06/12	3507.22	-	20.44	0.00	3486.78
RW - 4	12/11/12	3507.22	-	20.46	0.00	3486.76
RW - 4	12/18/12	3507.22	-	20.43	0.00	3486.79
RW - 5	01/12/12	3506.91	-	18.15	0.00	3488.76
RW - 5	01/19/12	3506.91	-	18.54	0.00	3488.37
RW - 5	02/03/12	3506.91	-	18.40	0.00	3488.51
RW - 5	02/29/12	3506.91	-	18.32	0.00	3488.59

**TABLE 1**  
**GROUNDWATER ELEVATION DATA - 2012**

TNM 97- 17  
LEA COUNTY, NEW MEXICO  
PLAINS MARKETING, L.P.  
NMOCD REFERENCE NUMBER AP-017

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW - 5	03/14/12	3506.91	-	18.22	0.00	3488.69
RW - 5	03/19/12	3506.91	18.19	18.21	0.02	3488.72
RW - 5	03/29/12	3506.91		18.25	0.00	3488.66
RW - 5	04/05/12	3506.91		18.15	0.00	3488.76
RW - 5	04/18/12	3506.91		18.15	0.00	3488.76
RW - 5	04/27/12	3506.91		18.15	0.00	3488.76
RW - 5	05/02/12	3506.91	18.20	18.21	0.01	3488.71
RW - 5	05/31/12	3506.91		18.30	0.01	3488.62
RW - 5	06/08/12	3506.91		18.31	0.01	3488.61
RW - 5	06/12/12	3506.91	18.25	18.27	0.02	3488.66
RW - 5	06/21/12	3506.91	18.36	18.37	0.01	3488.55
RW - 5	06/29/12	3506.91	18.36	18.39	0.03	3488.55
RW - 5	07/13/12	3506.91	18.50	18.77	0.27	3488.37
RW - 5	12/06/12	3506.91	20.15	21.05	0.90	3486.63
RW - 5	12/11/12	3506.91	20.15	21.08	0.00	3485.83
RW - 5	12/18/12	3506.91	20.13	21.04	0.00	3485.87
RW - 6	01/12/12	3507.45	19.12	19.63	0.51	3488.25
RW - 6	01/19/12	3507.45	19.08	19.49	0.41	3488.31
RW - 6	02/03/12	3507.45	19.02	19.57	0.55	3488.35
RW - 6	02/29/12	3507.45	18.91	19.43	0.52	3488.46
RW - 6	03/14/12	3507.45	18.88	19.33	0.45	3488.50
RW - 6	03/19/12	3507.45	18.87	19.21	0.34	3488.53
RW - 6	03/29/12	3507.45	18.83	19.19	0.36	3488.57
RW - 6	04/05/12	3507.45	18.81	19.15	0.34	3488.59
RW - 6	04/18/12	3507.45	18.77	19.06	0.29	3488.64
RW - 6	04/27/12	3507.45	18.81	19.15	0.34	3488.59
RW - 6	05/02/12	3507.45	18.82	19.13	0.31	3488.58
RW - 6	05/31/12	3507.45	18.90	19.15	0.25	3488.51
RW - 6	06/08/12	3507.45	18.83	19.43	0.60	3488.53
RW - 6	06/12/12	3507.45	18.95	19.31	0.36	3488.45
RW - 6	06/21/12	3507.45	18.90	19.40	0.50	3488.48
RW - 6	06/29/12	3507.45	18.92	19.51	0.59	3488.44
RW - 6	07/13/12	3507.45	19.14	19.58	0.44	3488.24
RW - 6	12/06/12	3507.45	20.74	20.75	0.01	3486.71
RW - 6	12/11/12	3507.45		20.78	0.00	3486.67
RW - 6	12/18/12	3507.45	20.72	20.73	0.01	3486.73

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

**TABLE 2**  
**CONCENTRATIONS OF BTEX IN GROUNDWATER - 2012**

**PLAINS MARKETING, L.P.**  
**TNM 97-17**  
**LEA COUNTY, NM**  
**NMOCD REFERENCE NUMBER AP-017**

*All concentrations are reported in mg/L*

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL- BENZENE	m, p, - XYLENES	o - XYLENE
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62	
MW - 1	02/29/12			Not Sampled on Current Sample Schedule				
MW - 1	05/02/12			Not Sampled on Current Sample Schedule				
MW - 1	08/10/12			Not Sampled Due to Site Excavation				
MW - 1	12/06/12			<0.001	<0.001	<0.001	<0.001	
MW - 2	02/29/12			Not Sampled on Current Sample Schedule				
MW - 2	05/02/12			Not Sampled on Current Sample Schedule				
MW - 2	08/10/12			Not Sampled Due to Site Excavation				
MW - 2	12/06/12			<0.001	<0.001	<0.001	<0.001	
MW - 3	02/29/12			Not Sampled on Current Sample Schedule				
MW - 3	05/02/12			Not Sampled on Current Sample Schedule				
MW - 3	08/10/12			Not Sampled due to Site Excavation				
MW - 3	12/06/12			<0.001	<0.001	<0.001	<0.001	
MW - 4	02/29/12			Not Sampled Due to PSH in Well				
MW - 4	05/02/12			Not Sampled Due to PSH in Well				
MW - 4	08/10/12			Not Sampled Due to Site Excavation				
MW - 4	12/07/12			Not Sampled Due to PSH in Well				
MW - 5	02/29/12			0.1040	<0.001	0.0404	0.0422	
MW - 5	05/02/12			0.0804	<0.001	0.0206	0.0259	
MW - 5	08/10/12			Not Sampled due to Site Excavation				
MW - 5	12/06/12			0.0295	<0.001	<0.001	<0.001	
MW - 6	02/29/12			0.0270	<0.001	0.0101	<0.001	
MW - 6	05/02/12			Not Sampled Due to				
MW - 6	08/10/12			Not Sampled due to Site Excavation				
MW - 6	12/07/12			Not Sampled Due to PSH in Well				
MW - 7	02/29/12			Not Sampled Due to PSH in Well				
MW - 7	05/02/12			Not Sampled Due to PSH in Well				
MW - 7	08/10/12			Not Sampled due to Site Excavation				
MW - 7	12/07/12			Not Sampled Due to PSH in Well				
MW - 8	02/29/12			Not Sampled Due to PSH in Well				
MW - 8	05/02/12			Not Sampled Due to PSH in Well				
MW - 8	08/10/12			Not Sampled due to Site Excavation				
MW - 8	12/07/12			Not Sampled Due to PSH in Well				

TABLE 2

## CONCENTRATIONS OF BTEX IN GROUNDWATER - 2012

PLAINS MARKETING, L.P.  
TNM 97-17  
LEA COUNTY, NM  
NMOCD REFERENCE NUMBER AP-017

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030					
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE	
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62		
MW - 9	02/29/12			0.0105	<0.001	<0.001	<0.001		
MW - 9	05/02/12			0.0055	<0.001	<0.001	<0.001		
MW - 9	08/10/12			Not Sampled due to Site Excavation					
MW - 9	12/07/12			Not Sampled Due to Low Water Levels					
MW - 10	02/29/12			0.0121	<0.001	<0.001	<0.001		
MW - 10	05/02/12			0.0057	<0.001	<0.001	<0.001		
MW - 10	08/10/12			Not Sampled due to Site Excavation					
MW - 10	12/06/12			<0.005	<0.005	<0.005	<0.005		
MW - 11	02/29/12			Not Sampled on Current Sample Schedule					
MW - 11	05/02/12			Not Sampled on Current Sample Schedule					
MW - 11	08/10/12			Not Sampled due to Site Excavation					
MW - 11	12/07/12			<0.001	<0.001	<0.001	<0.001		
MW - 12	02/29/12			Not Sampled on Current Sample Schedule					
MW - 12	05/02/12			Not Sampled on Current Sample Schedule					
MW - 12	08/10/12			Not Sampled due to Site Excavation					
MW - 12	12/06/12			<0.001	<0.001	<0.001	<0.001		
MW - 13	02/29/12			Not Sampled on Current Sample Schedule					
MW - 13	05/02/12			Not Sampled on Current Sample Schedule					
MW - 13	08/10/12			Not Sampled due to Site Excavation					
MW - 13	12/07/12			<0.001	<0.001	<0.001	<0.001		
MW - 14	02/29/12			Not Sampled Due to PSH in Well					
MW - 14	05/02/12			Not Sampled Due to PSH in Well					
MW - 14	08/10/12			Not Sampled due to Site Excavation					
MW - 14	12/07/12			Not Sampled Due to PSH in Well					
MW - 15	02/29/12			0.2550	<0.020	0.2000	<0.020		
MW - 15	05/02/12			0.1420	<0.020	0.1010	<0.020		
MW - 15	08/10/12			Not Sampled due to Site Excavation					
MW - 15	12/07/12			Not Sampled due to PSH in Well					
MW - 16	02/29/12			Not Sampled on Current Sample Schedule					
MW - 16	05/02/12			Not Sampled on Current Sample Schedule					
MW - 16	08/10/12			Not Sampled due to Site Excavation					
MW - 16	12/06/12			<0.001	<0.001	<0.001	<0.001		

TABLE 2

## CONCENTRATIONS OF BTEX IN GROUNDWATER - 2012

PLAINS MARKETING, L.P.  
TNM 97-17  
LEA COUNTY, NM  
NMOCD REFERENCE NUMBER AP-017

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62	
MW - 17	02/29/12			Not Sampled on Current Sample Schedule				
MW - 17	05/02/12			Not Sampled on Current Sample Schedule				
MW - 17	08/10/12			Not Sampled due to Site Excavation				
MW - 17	12/07/12			<0.001	<0.001	<0.001	<0.001	
MW - 18	02/29/12			Not Sampled on Current Sample Schedule				
MW - 18	05/02/12			Not Sampled on Current Sample Schedule				
MW - 18	08/10/12			Not Sampled due to Site Excavation				
MW - 18	12/06/12			<0.001	<0.001	<0.001	<0.001	
MW - 19	02/29/12			0.3070	<0.001	0.0515	0.0635	
MW - 19	05/02/12			0.2550	<0.001	0.0404	0.0471	
MW - 19	08/10/12			Not Sampled due to Site Excavation				
MW - 19	12/07/12			Not Sampled due to PSH in Well				
MW - 20	02/29/12			0.0235	<0.001	<0.001	0.0246	
MW - 20	05/02/12			0.0245	<0.001	<0.001	<0.001	
MW - 20	08/10/12			Not Sampled due to Site Excavation				
MW - 20	12/06/12			0.0136	<0.001	<0.001	<0.001	
MW - 21	02/29/12			0.0146	<0.001	<0.001	<0.001	
MW - 21	05/02/12			0.0148	<0.001	<0.001	<0.001	
MW - 21	08/10/12			Not Sampled due to Site Excavation				
MW - 21	12/06/12			<0.005	<0.005	<0.005	<0.005	
MW - 22	02/29/12			Not Sampled on Current Sample Schedule				
MW - 22	05/02/12			<0.001	<0.001	<0.001	<0.001	
MW - 22	08/10/12			Not Sampled due to Site Excavation				
MW - 22	12/06/12			<0.001	<0.001	<0.001	<0.001	
MW - 23	02/29/12			Not Sampled on Current Sample Schedule				
MW - 23	05/02/12			<0.001	<0.001	<0.001	<0.001	
MW - 23	08/10/12			Not Sampled due to Site Excavation				
MW - 23	12/07/12			<0.001	<0.001	<0.001	<0.001	
MW - 24	02/29/12			Not Sampled on Current Sample Schedule				
MW - 24	05/02/12			Not Sampled on Current Sample Schedule				
MW - 24	08/10/12			Not Sampled due to Site Excavation				
MW - 24	12/06/12			<0.001	<0.001	<0.001	<0.001	

TABLE 2

## CONCENTRATIONS OF BTEX IN GROUNDWATER - 2012

PLAINS MARKETING, L.P.  
TNM 97-17  
LEA COUNTY, NM  
NMOCD REFERENCE NUMBER AP-017

All concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62	
MW - 25	02/29/12			Not Sampled on Current Sample Schedule				
MW - 25	05/02/12			<0.001	<0.001	<0.001	<0.001	
MW - 25	08/10/12			Not Sampled due to Site Excavation				
MW - 25	12/07/12			<0.001	<0.001	<0.001	<0.001	
MW - 26	02/29/12			0.0086	<0.001	<0.001	<0.001	
MW - 26	05/02/12			0.0051	<0.001	<0.001	<0.001	
MW - 26	08/10/12			Not Sampled due to Site Excavation				
MW - 26	12/06/12			<0.001	<0.001	<0.001	<0.001	
MW - 27	02/29/12			Not Sampled on Current Sample Schedule				
MW - 27	05/02/12			<0.001	<0.001	<0.001	<0.001	
MW - 27	08/10/12			Not Sampled due to Site Excavation				
MW - 27	12/06/12			<0.001	<0.001	<0.001	<0.001	
MW - 28	02/29/12			Not Sampled on Current Sample Schedule				
MW - 28	05/02/12			Not Sampled on Current Sample Schedule				
MW - 28	08/10/12			Not Sampled due to Site Excavation				
MW - 28	12/06/12			<0.001	<0.001	<0.001	<0.001	
RW - 1	02/29/12			Not Sampled Due to PSH in Well				
RW - 1	05/02/12			0.3220	<0.001	<0.001	<0.001	
RW - 1	08/10/12			Not Sampled due to Site Excavation				
RW - 1	12/07/12			Not Sampled Due to PSH in Well				
RW - 2	02/29/12			0.0574	<0.001	0.0086	<0.001	
RW - 2	05/02/12			0.0131	<0.001	<0.001	<0.001	
RW - 2	08/10/12			Not Sampled due to Site Excavation				
RW - 2	12/07/12			Not Sampled due to Low Water Levels				
RW - 3	02/29/12			0.2200	<0.020	<0.020	<0.020	
RW - 3	05/02/12			0.2510	<0.020	<0.020	<0.020	
RW - 3	08/10/12			Not Sampled due to Site Excavation				
RW - 3	12/06/12			0.0209	<0.005	<0.005	<0.005	
RW - 4	02/29/12			0.3310	<0.0200	<0.020	<0.020	
RW - 4	05/02/12			0.6290	<0.0200	0.2110	0.3200	
RW - 4	08/10/12			Not Sampled due to Site Excavation				
RW - 4	12/06/12			0.2760	<0.005	0.0841	0.0362	

TABLE 2

## CONCENTRATIONS OF BTEX IN GROUNDWATER - 2012

PLAINS MARKETING, L.P.  
 TNM 97-17  
 LEA COUNTY, NM  
 NMOCD REFERENCE NUMBER AP-017

*All concentrations are reported in mg/L*

SAMPLE LOCATION	SAMPLE DATE	EPA SW 846-8015M		SW 846-8012B, 5030				
		GRO C6-C12 mg/L	DRO C12-C35 mg/L	BENZENE	TOLUENE	ETHYL-BENZENE	m, p, -XYLENES	o -XYLENE
NMOCD Regulatory Limit				0.010	0.75	0.75	0.62	
RW - 5	02/29/12			Not Sampled Due to PSH in Well				
RW - 5	05/02/12			0.3490	<0.0100	0.2010	0.1940	
RW - 5	08/10/12			Not Sampled due to Site Excavation				
RW - 5	12/07/12			Not Sampled Due to PSH in Well				
RW - 6	02/29/12			Not Sampled Due to PSH in Well				
RW - 6	05/02/12			Not Sampled Due to PSH in Well				
RW - 6	08/10/12			Not Sampled due to Site Excavation				
RW - 6	12/07/12			Not Sampled Due to PSH in Well				

\* Complete Historical Data Tables are presented on the attached CD.

## POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.

TNM 97-17

LEA COUNTY, NEW MEXICO

NMOCD REFERENCE NUMBER AP-017

All water concentrations are reported in mg/L

		EPA SW846-8270C, 3510																			
SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	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.UU and 3-103.A.		--	--	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L		---	
	MW-1	11/12/08	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	
		11/17/09	<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	
		11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
		12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
		12/06/12	Not Sampled as part of Quarterly Monitoring Event.																		
	MW-2	11/12/08	<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	
		11/17/09	<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	
		11/11/10	Not Sampled as part of Quarterly Monitoring Event.																		
		12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
	MW-3	11/12/08	<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	
		11/17/09	<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	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																			
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																			
MW-4	11/12/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	0.00238	<0.000917	0.00337	<0.000917	<0.000917	0.00682	0.015	0.0131	0.00239	
	11/18/09	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	0.00834	<0.000926	0.0121	<0.000926	<0.000926	0.0229	0.0802	0.0574	0.00851	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																			
	12/14/11	Not Sampled due to the presence of PSH.																			
	12/06/12	Not Sampled due to the presence of PSH.																			
MW-5	11/12/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00233	<0.000922	0.00189	<0.000922	<0.000922	<0.000922	0.00183	<0.000922	0.0023	
	11/18/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.00116	<0.000185	0.000814	<0.000185	<0.000185	<0.000185	0.00234	<0.000185	0.00109	
	11/11/10	Not Sampled as part of Quarterly Monitoring Event.																			
	12/14/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00106	<0.000183	0.00129	<0.000183	<0.000183	<0.000183	0.00281	<0.000183	0.00138	
	12/06/12	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	<0.000957	0.00739	<0.000957	<0.000957	



## POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

TABLE 3

PLAINS MARKETING, L.P.

TNM 97-17

LEA COUNTY, NEW MEXICO

NMOCD REFERENCE NUMBER AP-017

All water concentrations are reported in mg/L.

		EPA SW846-8270C, 3510																		
SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	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.UU and 3-103.A.		---	---	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	---	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L			---
	MW-6	<0.00183	<0.00183	0.00361	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	0.00357	<0.00183	0.00782	0.0115	0.00712	<0.00183	
	11/18/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000842	<0.000184	0.000596	<0.000184	<0.000184	0.00277	<0.000184	0.00112	
	11/11/10																			
	12/14/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000755	<0.000183	<0.000183	0.00264	<0.000183	<0.000183	
	12/06/12																			
	MW-7	11/12/08	<0.00185	<0.00185	0.0059	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	0.00539	<0.00185	0.00582	<0.00185	0.0106	0.0285	0.0175	<0.00185
	11/18/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00894	<0.000922	0.0108	<0.000922	0.0151	0.0792	0.0383	0.00773
	11/11/10																			
12/14/11																				
MW-8	11/12/08	<0.00186	<0.00186	0.00454	<0.00186	<0.00186	<0.00186	<0.00186	<0.00186	<0.00186	<0.00186	<0.00186	<0.00186	0.0045	<0.00186	0.012	0.0261	0.0168	<0.00186	
11/18/09	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	0.0341	<0.00185	0.0486	<0.00185	0.038	0.249	0.123	0.0295	
11/11/10																				
12/14/11																				
MW-9	11/12/08	<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	0.000746	<0.000183	0.000341	
11/18/09	<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	<0.000184	
11/11/10																				
12/14/11																				
MW-10	11/12/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00344	<0.000922	0.00296	<0.000922	<0.000922	0.00477	<0.000922	<0.000922	
11/18/09	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	0.0042	<0.000926	0.00418	<0.000926	<0.000926	0.00958	<0.000926	0.00441	
11/11/10																				
12/14/11																				

## TABLE

TNM 97-17

LEA COUNTY, NEW MEXICO

**NMOC D REFERENCE NUMBER AP-017**

*All water concentrations are reported in mg/L*

Page 3 of 7

## TABLE

TNNM 97-17

**NMOC D REFERENCE NUMBER AP-017**

*All water concentrations are reported in mg/L*

EPA SW846-8270C.3510

EPA SW846-8270C, 3510																				
SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benz[a]pyrene	Benz[b]fluoranthene	Benzo[e,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	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.UU and 3-103.A.		---	---	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	---	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L			
	MW-16	11/12/08	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193	<0.000193
		11/17/09	<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
		11/11/10			Not Sampled as part of Quarterly Monitoring Event.															
		12/14/11			Not Sampled as part of Quarterly Monitoring Event.															
		12/06/12			Not Sampled as part of Quarterly Monitoring Event.															
MW-17		11/12/08	<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
		11/17/09	<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
		11/11/10			Not Sampled as part of Quarterly Monitoring Event.															
		12/14/11			Not Sampled as part of Quarterly Monitoring Event.															
		12/06/12			Not Sampled as part of Quarterly Monitoring Event.															
MW-18		11/12/08	<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
		11/17/09	<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
		11/11/10			Not Sampled as part of Quarterly Monitoring Event.															
		12/14/11			Not Sampled as part of Quarterly Monitoring Event.															
		12/06/12			Not Sampled as part of Quarterly Monitoring Event.															
MW-19		11/12/08			Not Sampled due to Insufficient water volume															
		11/18/09	<0.000922	<0.000922	0.000931	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00387	<0.000922	0.00471	<0.000922	0.00526	0.0275	0.00258	0.0051	
		11/11/10			Not Sampled as part of Quarterly Monitoring Event.															
		12/14/11	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00624	<0.000184	0.00656	0.0293	0.00517	0.00518	
		12/06/12			Not Sampled due to the presence of PSH.															
MW-20		11/12/08	<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
		11/18/09	<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
		11/11/10			Not Sampled as part of Quarterly Monitoring Event.															
		12/14/11			Not Sampled as part of Quarterly Monitoring Event.															
		12/06/12			Not Sampled as part of Quarterly Monitoring Event.															

## TABLE 3

**TNM 97-17**

**LEA COUNTY, NEW MEXICO**

NMOC D REFERENCE NUMBER AP-017

*All water concentrations are reported in mg/L*

EPA SW846-8270C.3510

Page 5 of 7

## TABLE

TNMM 97-17

**NMOC D REFERENCE NUMBER AP-017**

*All water concentrations are reported in mg/L*

EPA SW846-8270C, 3510

EPA SW846-8270C, 3510																			
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.UU and 3-103.A.		---	---	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L		
	MW-26	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000312	<0.000185	0.000308	<0.000185	<0.000185	0.000204	<0.000185	0.000471
	11/18/09	<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
	11/11/10																		
	12/14/11																		
	12/06/12																		
MW-27	11/12/08	<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
	11/17/09	<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
	11/11/10																		
	12/14/11																		
	12/06/12																		
MW-28	11/12/08	<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
	11/18/09	<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
	11/11/10																		
	12/14/11																		
	12/06/12																		
RW-1	11/12/08	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	<0.0184	0.0723	<0.0184	<0.0184	0.0941	<0.0184	<0.0184
	11/18/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00771	<0.000922	0.00884	<0.000922	<0.000922	0.0262	<0.000922	0.00722
	11/11/10																		
	12/14/11																		
	12/06/12																		
RW-2	11/12/08	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.00424	<0.00184	0.00488	<0.00184	<0.00184	0.00552	<0.00184	0.00476
	11/18/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.001	<0.00184	<0.000184	0.000874	<0.000184	<0.000184	0.00155	<0.000184	0.00146
	11/11/10																		
	12/14/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00344	<0.000183	<0.000183	<0.000183	<0.000183	0.00275
	12/06/12																		

## POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

TABLE 3

PLAINS MARKETING, L.P.

TNM 97-17

LEA COUNTY, NEW MEXICO

NMOCID REFERENCE NUMBER AP-017

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]pyrene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	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.UU and 3-103.A.																			
	RW-3	11/12/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00212	<0.000922	0.000922	<0.000922	0.000993	0.00787	<0.000922	0.0021
		11/18/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000906	<0.000185	<0.000185	<0.000185	0.00132	0.00526	<0.000185	0.00101
		11/11/10	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.
		12/14/11	<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	0.00364	<0.000184	0.00126
		12/06/12	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	<0.000948	0.0076	<0.000948	<0.000948
RW-4		11/12/08	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.00391	<0.00184	0.00442	<0.00184	0.00766	0.0201	0.00836	0.00372
		11/18/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00118	<0.000184	0.000935	<0.000184	0.00989	0.0168	0.00425	0.00144
		11/11/10	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00154	<0.000184	0.000887	0.00489	0.000475	0.00111
		12/14/11	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00161	<0.000184	0.00261	0.0106	<0.000184	0.00166
		12/06/12	<0.000962	<0.000962	<0.000962	<0.000962	<0.000962	<0.000962	<0.000962	<0.000962	<0.000962	<0.000962	<0.000962	0.00666	<0.000962	0.00583	0.0166	0.00838	<0.000962
RW-5		11/12/08	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.00466	<0.00184	0.0172	0.0266	0.0192	<0.00184
		11/18/09	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	<0.000926	0.00522	<0.000926	0.00683	<0.000926	0.0107	0.0461	0.0236	0.00484
		11/11/10	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.
		12/14/11	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.
RW-6		12/06/12	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.
		11/12/08	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.0106	<0.00184	0.011	<0.00184	<0.00184	0.0381	0.0245	0.00901
		11/18/09	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	0.0748	<0.00463	0.107	<0.00463	0.0222	0.413	0.0617	0.0690
		11/11/10	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.
		12/14/11	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.
		12/06/12	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.	Not Sampled due to the presence of PSH.

## APPENDICES

**APPENDIX A:**  
**Release Notification and**  
**Corrective Action (Form-C-141)**



District I - (505) 393-6161  
P.O. Box 1980  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
811 South First  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Road  
Aztec, NM 87410  
District IV - (505) 827-7131

State of New Mexico  
Enc 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

Submit 2 copies to  
Appropriate District  
Office in accordance  
with Rule 116 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, San Angelo, TX 76906	Telephone No. (915) 947-9000	
Facility Name <i>Vacuum Jet to Gal Main Line</i>	Facility Type <i>pipe line</i>	
Surface Owner <i>Millard Bush</i>	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	<i>21</i>	<i>20S</i>	<i>37E</i>					<i>Lea</i>

NATURE OF RELEASE

Type of Release <i>Down crude</i>	Volume of Release <i>170 barrels</i>	Volume Recovered <i>160 barrels</i>
Source of Release <i>8" pipeline on scraper trap bypass</i>	Date and Hour of Occurrence <i>Unknown</i>	Date and Hour of Discovery <i>8-13-97 3:00 PM CST</i>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <i>Delene T. Wardlaw</i>	
By Whom? <i>Johnny W. Chapman</i>	Date and Hour <i>8-13-97 4:45 pm CST</i>	
Was Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

*External Corrosion  
Leak successfully changed off.*

Describe Area Affected and Cleanup Action Taken.\*

*Approximately 360 sq. ft. scraper trap area.  
Contaminated soil was removed*

Describe General Conditions Prevailing (Temperature, Precipitation, etc.).\*

*Clear 90°*

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *E. H. Gripp*

Printed Name: Edwin H. Gripp

Title: District Manager

Date: 8-14-97

Phone: 915-947-9001

OIL CONSERVATION DIVISION

Approved by  
District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

\* Attach Additional Sheets If Necessary

State Corp. Commission  
Pipe Line Division

Hazardous Waste Section  
NM Environmental Improvement Div.

TNM-97-17 IWC IAS