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# Annual GW Mon. REPORTS

DATE:

2007



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**2007  
ANNUAL MONITORING REPORT**

2008 APR 1 PM 2 06

**RED BYRD #1**

SE ¼ NE ¼, SECTION 1, TOWNSHIP 20 SOUTH, RANGE 36 EAST  
LEA COUNTY, NEW MEXICO  
PLAINS EMS NUMBER: TNM RED BYRD #1  
NMOCD REFERENCE NUMBER 1R-0085

PREPARED FOR:

**PLAINS MARKETING, L.P.**

333 Clay Street, Suite 1600  
Houston, Texas 77002

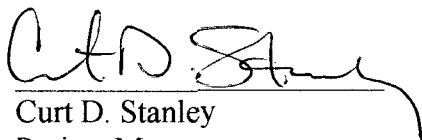



PREPARED BY:

**NOVA Safety and Environmental**

2057 Commerce Street  
Midland, Texas 79703

**March 2008**

  
Curt D. Stanley  
Project Manager

  
Todd K. Choban, P.G.  
Vice President Technical Services



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March 28, 2008

2008 APR 1 PM 2 07

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

Re: Plains All American – Annual Monitoring Reports  
25 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:

TNM 97-17	Section 21, Township 20 South, Range 37 East, Lea County
TNM 97-18	Section 28, Township 20 South, Range 37 East, Lea County
TNM 98-05A	Section 26, Township 21 South, Range 37 East, Lea County
TNM 98-05B	Section 26, Township 21 South, Range 37 East, Lea County
TNM 97-04	Section 11, Township 16 South, Range 35 East, Lea County
Texaco Skelly "F"	Section 21, Township 20 South, Range 37 East, Lea County
Darr Angell #2	Section 14, Township 15 South, Range 37 East, Lea County
LF-59	Section 32, Township 19 South, Range 37 East, Lea County
SPS-11	Section 18, Township 18 South, Range 36 East, Lea County
Monument #10	Section 32, Township 19 South, Range 37 East, Lea County
Monument #17	Section 29, Township 19 South, Range 37 East, Lea County
Monument #18	Section 7, Township 20 South, Range 37 East, Lea County
Lea Station to Monument 6"	Section 5, Township 20 South, Range 37 East, Lea County
34 Junction South Station	Section 2, Township 17 South, Range 36 East, Lea County
Bob Durham	Section 32, Township 19 South, Range 37 East, Lea County
Darr Angell #1	Section 11, Township 15 South, Range 37 East, Lea County
Darr Angell #4	Sections 2 and 11, Township 15 South, Range 37 East, Lea County
HDO 90-23	Section 6, Township 20 South, Range 37 East, Lea County
Junction 34 to Lea	Section 21, Township 20 South, Range 37 East, Lea County
Monument #2	Section 6, Township 20 South, Range 37 East, Lea County
Monument Barber 10" Sour	Section 32, Township 19 South, Range 37 East, Lea County
Monument #11	Section 30, Township 19 South, Range 37 East, Lea County
Red Byrd #1	Section 1, Township 20 South, Range 36 East, Lea County
South Monument Gathering	Section 5, Township 20 South, Range 37 East, Lea County
Denton Station	Section 14, Township 15 South, Range 37 East, Lea County

order to verify the accuracy and completeness of these documents. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Reports for the above facilities.

If you have any questions or require further information, please contact me at (505) 441-0965.

Sincerely,

A handwritten signature in cursive script that reads "Camille Reynolds". The signature is written in dark ink and is positioned above the printed name and title.

Camille Reynolds  
Remediation Coordinator  
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

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Figure 2A – Inferred Groundwater Gradient Map February 14, 2007

2B – Inferred Groundwater Gradient Map May 11, 2007

2C – Inferred Groundwater Gradient Map August 14, 2007

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Figure 3A – Groundwater Concentration and Inferred PSH Extent Map February 14, 2007

3B – Groundwater Concentration and Inferred PSH Extent Map May 11, 2007

3C – Groundwater Concentration and Inferred PSH Extent Map August 14, 2007

3D – Groundwater Concentration and Inferred PSH Extent Map November 1, 2007

### TABLES

Table 1 – 2007 Groundwater Elevation Data

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### APPENDICES

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

### ENCLOSED ON DATA DISK

2007 Annual Monitoring Report

2007 Tables 1 and 2

2007 Figures 1, 2A-2D, 3A-3D

Electronic Copies of Laboratory Reports

Historic Groundwater Elevation Data Tables

Historic BTEX Concentration Tables

## **INTRODUCTION**

On behalf of Plains Marketing, L.P. (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. The Red Byrd #1 site, which was formally the responsibility of Texas New Mexico Pipeline Company (TNM), is now 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 text, figures, tables and appendices. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2007 only. However, historic data tables as well as 2007 laboratory analytical reports are provided on the enclosed data disk. A site location map is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2007 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). The groundwater monitoring events consisted of measuring static water levels in the monitor wells, checking for the presence of PSH and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were not sampled.

## **SITE DESCRIPTION AND BACKGROUND INFORMATION**

The site is located approximately four miles southwest of the town of Monument, New Mexico in the SE 1/4 of the NE 1/4 of Section 1, Township 20 South, Range 36 East. Evidence of a historical release was brought to the attention of Link Energy (formerly Enron Oil Trading and Transportation (EOTT) who acquired the pipeline from TNM in 1999), by Mr. Red Byrd in January 2000.

Approximately 8,900 cubic yards of impacted soil was excavated, shredded and blended with nutrients. Approximately 3,700 cubic yards of the impacted soil was transported to Plains Lea Station to be used as berm material. Upon completion of excavation activities, confirmation soil samples were collected from the excavation and stockpiles. Review of analytical results indicated soil samples collected from the excavation to be below NMOCD regulatory standards. The excavation was backfilled with the blended soil and approximately 3,500 cubic yards of topsoil was transported onsite and the area was contoured to topographic grade.

Groundwater monitoring and gauging is conducted weekly at selected monitor wells at the site. During the reporting period approximately 13 gallons (0.3 barrels) of PSH was recovered from monitor well MW-12, the monitor well containing PSH. Approximately 389 gallons (9.2 barrels) of PSH has been recovered by manual recovery since project inception. All wells are currently sampled on a quarterly schedule.

At the Red Byrd #1 site, two areas of hydrocarbon impact related to the Plains pipeline have been identified. The first area of impact (Red Byrd#1) is the subject of this Annual Monitoring Report and is centered on and around monitor well MW-1. The soil issues at the Red Byrd #1 site have been remediated and groundwater monitoring and sampling are on going. The second area of impact related to the Plains pipeline is centered on monitor well MW-12. In the spring and summer of 2007, the second area of impact was investigated utilizing soil borings

and limited excavation. This second area of impact has been designated as the Red Byrd Ranch TNM Historical site. Plains is in the process of delineating the soil issues at the Red Byrd Ranch TNM Historical site and will be submitting a Site Investigation Results Report to the NMOCD in 2008. At the request of the NMOCD – Hobbs District Office, a Release Notification and Corrective Action (Form C-141) was filed for the Red Byrd Ranch TNM Historical Site.

Currently, a total of 17 monitor wells are located on the Red Byrd #1 site.

## RECENT FIELD ACTIVITIES

A measurable thickness of PSH was detected in monitor well MW-12 throughout the 2007 reporting period. The average PSH thickness reported in monitor well MW-12 during the reporting period was 1.08 feet. The maximum PSH thickness was 1.62 feet on November 30, 2007. A PSH thickness of 0.01 feet was reported in monitor well MW-15 on July 11, 2007 and monitor well MW-3 exhibited a hydrocarbon sheen during the 1<sup>st</sup> quarter sampling event of the 2007 reporting period.

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 confirmed by NMOCD correspondence dated June 22, 2005.

NMOCD APPROVED SAMPLING SCHEDULE					
Location	Schedule	Location	Schedule	Location	Schedule
MW-1	Quarterly	MW-7	Quarterly	MW-13	Quarterly
MW-2	P&A 11/9/06	MW-8	Quarterly	MW-14	Quarterly
MW-3	Quarterly	MW-9	Quarterly	MW-15	Quarterly
MW-4	Quarterly	MW-10	Quarterly	MW-16	Quarterly
MW-5	Quarterly	MW-11	Quarterly	MW-17	Quarterly
MW-6	Quarterly	MW-12	Quarterly	MW-18	Quarterly

The site monitor wells were gauged and sampled on February 14, May 11, August 14 and November 1, 2007. During each sampling event, sampled 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 obtained using disposable Teflon samplers. Water samples were collected 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 2007 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 as measured between monitor well MW-1 and MW-9. This is consistent with data presented from earlier in the year. The corrected groundwater elevation has ranged between 3533.37 and 3536.73 feet above mean sea level, in monitor wells MW-15 on November 1, 2007 and MW-13 on May 11, 2007, respectively.

## LABORATORY RESULTS

A measurable thickness of PSH was detected in monitor well MW-12 throughout the 2007 reporting period. The average PSH thickness reported in monitor well MW-12 during the reporting period was 1.08 feet. The maximum PSH thickness was 1.62 feet on November 30, 2007. During the reporting period approximately 13 gallons (0.3 barrels) of PSH was recovered from monitor well MW-12. A PSH thickness of 0.01 feet was reported in monitor well MW-15 on July 11, 2007 and monitor well MW-3 exhibited a hydrocarbon sheen during the 1<sup>st</sup> quarter sampling event of the 2007 reporting period.

Groundwater samples obtained during the quarterly sampling events of 2007 were delivered to TraceAnalysis, Inc. in Lubbock, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021b. A listing of BTEX constituent concentrations for 2007 is summarized in Table 2. Copies of the laboratory reports generated for 2007 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 3A through 3D.

**Monitor well MW-1** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.111 mg/L during the 1<sup>st</sup> quarter to 0.432 mg/L during the 2<sup>nd</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard of 0.01 mg/L during all four quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> quarter to <0.2 mg/L during the 2<sup>nd</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0519 mg/L during the 3<sup>rd</sup> quarter to 0.520 mg/L during the 2<sup>nd</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard of 0.75 mg/L during all four quarters of the reporting period. Xylene concentrations ranged from 0.057 mg/L during the 3<sup>rd</sup> quarter to 0.459 mg/L during the 2<sup>nd</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard of 0.62 mg/L during all four quarters of the reporting period.

**Monitor well MW-3** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.463 mg/L during the 4<sup>th</sup> quarter to 0.923 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations ranged from <0.02 mg/L during the 1<sup>st</sup> and 4<sup>th</sup> quarters to <0.2 mg/L during the 2<sup>nd</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.200 mg/L during the 2<sup>nd</sup> quarter to 2.050 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were above the NMOCD regulatory standard of during the 1<sup>st</sup> quarter of the reporting period. Xylene concentrations ranged from 0.206 mg/L during the 4<sup>th</sup> quarter to 1.750 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were above the NMOCD regulatory standard during the 1<sup>st</sup> and 2<sup>nd</sup> quarters of the reporting period.

**Monitor well MW-4** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> quarter to 0.046 mg/L during the 2<sup>nd</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Toluene concentrations ranged from <0.001



mg/L during the 1<sup>st</sup> quarter to 0.0177 mg/L during the 2<sup>nd</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.146 mg/L during the 4<sup>th</sup> quarter to 0.285 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from 0.112 mg/L during the 3<sup>rd</sup> quarter to 0.222 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-5** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.111 mg/L during the 4<sup>th</sup> quarter to 0.239 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard all four quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> and 4<sup>th</sup> quarters to 0.0609 mg/L during the 2<sup>nd</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0097 mg/L during the 4<sup>th</sup> quarter to 0.166 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from 0.177 mg/L during the 4<sup>th</sup> quarter to 0.412 mg/L during the 2<sup>nd</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-6** is sampled on a quarterly schedule. Groundwater sampling activities were not conducted during the 3<sup>rd</sup> quarter due to excavation activities at the site. Analytical results indicate benzene concentrations ranged from 0.205 mg/L during the 4<sup>th</sup> quarter to 0.571 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during the three quarterly sampling events of 2007. Toluene concentrations ranged from 0.0254 mg/L during the 3<sup>rd</sup> quarter to 0.827 mg/L during the 1<sup>st</sup> quarter of 2007. Toluene concentrations were above the NMOCD regulatory standard during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations ranged from 0.0174 mg/L during the 2<sup>nd</sup> quarter to 0.0933 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard during the three quarterly sampling events of 2007. Xylene concentrations ranged from 0.0154 mg/L during the 2<sup>nd</sup> quarter to 0.114 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard during the three quarterly sampling events of 2007.

**Monitor well MW-7** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0143 mg/L during the 3<sup>rd</sup> quarter to 0.0551 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDL of <0.001 and the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0017 mg/L during the 4<sup>th</sup> quarter to 0.005 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> and 4<sup>th</sup> quarters to 0.0207 mg/L during the 3<sup>rd</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-8** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0251 mg/L during the 4<sup>th</sup> quarter to 0.0718 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDL of <0.001 and the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0063 mg/L during the 4<sup>th</sup> quarter to 0.0253 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from 0.0125 mg/L during the 4<sup>th</sup> quarter to 0.0384 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-9** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0983 mg/L during the 3<sup>rd</sup> quarter to 0.276 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> and 4<sup>th</sup> quarters to <0.02 mg/L during the 3<sup>rd</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.020 mg/L during the 2<sup>nd</sup> quarter to 0.0381 mg/L during the 3<sup>rd</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0352 mg/L during the 3<sup>rd</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-10** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0784 mg/L during the 3<sup>rd</sup> quarter to 0.183 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> and 4<sup>th</sup> quarters to <0.01 mg/L during the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2007. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0291 mg/L during the 3<sup>rd</sup> quarter to 0.162 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from 0.0177 mg/L during the 3<sup>rd</sup> quarter to 0.0819 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-11** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.144 mg/L during the 3<sup>rd</sup> quarter to 0.276 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0011 mg/L during the 1<sup>st</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0290 mg/L during the 3<sup>rd</sup> quarter to 0.0602 mg/L during the 4<sup>th</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from <0.010 mg/L during the 2<sup>nd</sup> quarter to 0.0178 mg/L during the 4<sup>th</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-12** is sampled on a quarterly schedule. Monitor well MW-12 was not sampled during any of the four quarters of the reporting period, due to the reported presence of PSH in the monitor well. PSH thicknesses of 1.07 feet, 0.96 feet, 1.11 feet and 1.17 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quarters of 2007, respectively.

**Monitor well MW-13** is sampled on a quarterly schedule and analytical results indicate benzene, toluene and ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 3<sup>rd</sup> and 4<sup>th</sup> quarters to 0.0098 mg/L during the 2<sup>nd</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-14** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> quarter to 0.0110 mg/L during the 2<sup>nd</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during the 2<sup>nd</sup> quarter of the reporting period. Toluene and ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 4<sup>th</sup> quarter to 0.0164 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-15** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.254 mg/L during the 1<sup>st</sup> quarter to 1.070 mg/L during the 4<sup>th</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> quarter to <0.1 mg/L during the 4<sup>th</sup> quarter of 2007. Toluene concentrations were below the MDL and the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.148 mg/L during the 1<sup>st</sup> quarter to 0.358 mg/L during the 4<sup>th</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from 0.087 mg/L during the 2<sup>nd</sup> quarter to 0.175 mg/L during the 4<sup>th</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-16** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.100 mg/L during the 2<sup>nd</sup> quarter to 0.192 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 1<sup>st</sup> and 4<sup>th</sup> quarters to <0.1 mg/L during the 2<sup>nd</sup> quarter of 2007. Toluene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0454 mg/L during the 3<sup>rd</sup> quarter to 0.142 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from <0.1 mg/L during the 2<sup>nd</sup> quarter to 0.106 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-17** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0318 mg/L during the 4<sup>th</sup> quarter to 0.0812 mg/L during the 1<sup>st</sup>

quarter of 2007. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDL and the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0254 mg/L during the 4<sup>th</sup> quarter to 0.060 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from 0.0184 mg/L during the 4<sup>th</sup> quarter to 0.0549 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

**Monitor well MW-18** is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.005 mg/L during the 4<sup>th</sup> quarter to 0.009 mg/L during the 1<sup>st</sup> quarter of 2007. Benzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations ranged from <0.001 mg/L during the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters to 0.0034 mg/L during the 1<sup>st</sup> quarter of 2007. Toluene concentrations were below the MDL and the NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0518 mg/L during the 3<sup>rd</sup> quarter to 0.0667 mg/L during the 1<sup>st</sup> quarter of 2007. Ethylbenzene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period. Xylene concentrations ranged from 0.0419 mg/L during the 3<sup>rd</sup> quarter to 0.0651 mg/L during the 1<sup>st</sup> quarter of 2007. Xylene concentrations were below the NMOCD regulatory standard all four quarters of the reporting period.

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 2007 annual monitoring period.. Currently, there are seventeen groundwater monitor wells (MW-1 and MW-3 through MW-18) on-site. The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.004 feet/foot to the south.

A measurable thickness of PSH was detected in monitor well MW-12 throughout the 2007 reporting period. The average PSH thickness reported in monitor well MW-12 during the reporting period was 1.08 feet. The maximum PSH thickness was 1.62 feet on November 30, 2007. All wells are currently sampled on a quarterly schedule. A PSH thickness of 0.01 feet was reported in monitor well MW-15 on July 11, 2007 and monitor well MW-3 exhibited a hydrocarbon sheen during the 1<sup>st</sup> quarter sampling event of the 2007 reporting period.

During the reporting period approximately 13 gallons (0.3 barrels) of PSH was recovered from monitor well MW-12. Approximately 389 gallons (9.2 barrels) of PSH has been recovered by manual recovery since project inception.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2007 monitoring period indicates the benzene concentrations were above the

NMOCD regulatory standard in sixteen of the eighteen site monitor wells at least one of the four quarters of the reporting period.

Analytical results indicate benzene concentrations are fluctuating throughout the site monitor wells. Toluene, ethylbenzene and xylene concentrations are generally stable and are of relatively low magnitude, with the exception of the monitor well MW-3.

### **ANTICIPATED ACTIONS**

Groundwater monitoring and groundwater sampling will continue in 2008. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2009.

In 2008, Plains will submit a Soil Investigation Results Report to the NMOCD, documenting the excavation and investigation of hydrocarbon stained soil around the monitor well MW-12 (Red Byrd Ranch TNM Historical) location. In addition, Plains will submit a Site Evaluation Report, documenting the numerous crude oil releases and hydrocarbon production facilities in the vicinity of the Red Byrd #1 site.

### **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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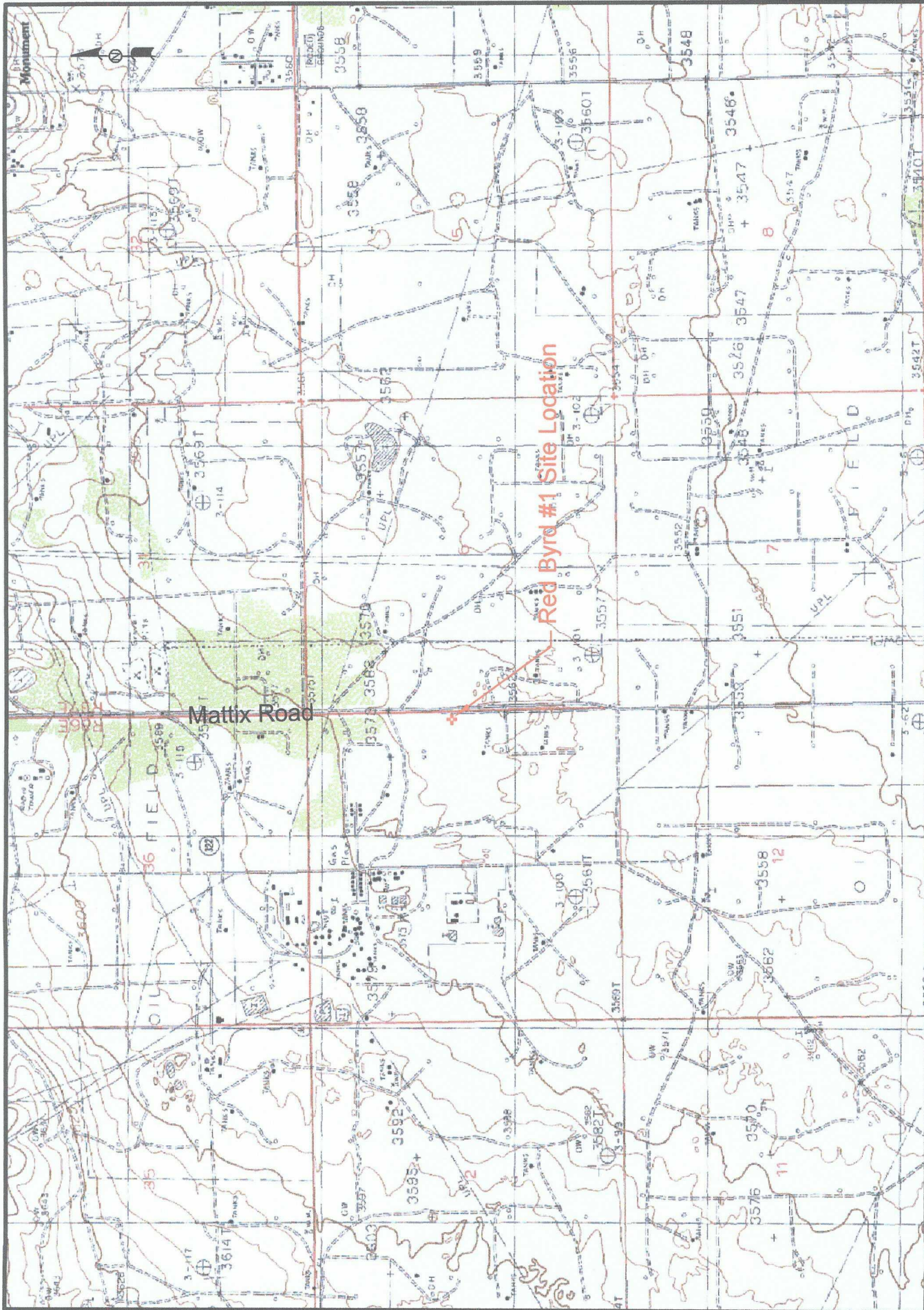
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Midland, TX 79703  
cstanley@novatraining.cc

## Figures





# NOVA Safety and Environmental

Figure 1  
Site Location Map

SE1/4 NE1/4 Sec 1 T20S R36E 32° 39' 09.2"N 103° 17' 58"W  
Scale: NTS  
Prep By: CDS  
Checked By: TKC  
February 23, 2005

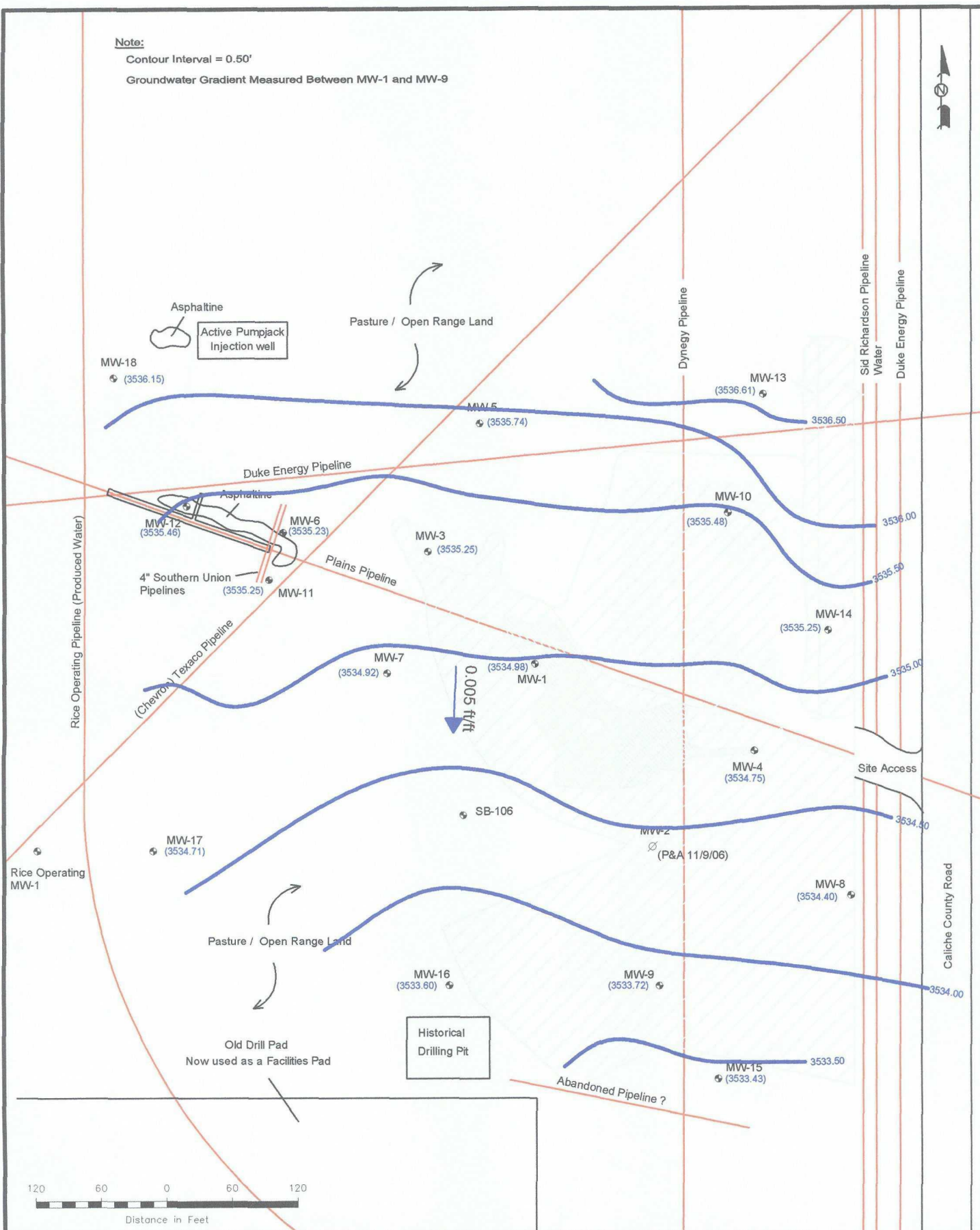


Plains Marketing, L.P.  
Red Byrd No. 1  
Lea County, NM

NMOCD Reference #1R-0085



**Note:**  
 Contour Interval = 0.50'  
 Groundwater Gradient Measured Between MW-1 and MW-9



**Legend:**

Monitor Well Location (3473.00)	Excavation
Pipeline	Deep Excavation
Groundwater Contour Line	Not Gauged
	Groundwater Gradient and Magnitude

**Figure 2A**  
 Inferred Groundwater  
 Gradient Map (02/14/07)  
 Plains Marketing, L.P.  
 Red Byrd No. 1  
 Lea County, NM  
 NMOCD Reference # 1R-0085

**NOVA Safety and Environmental**

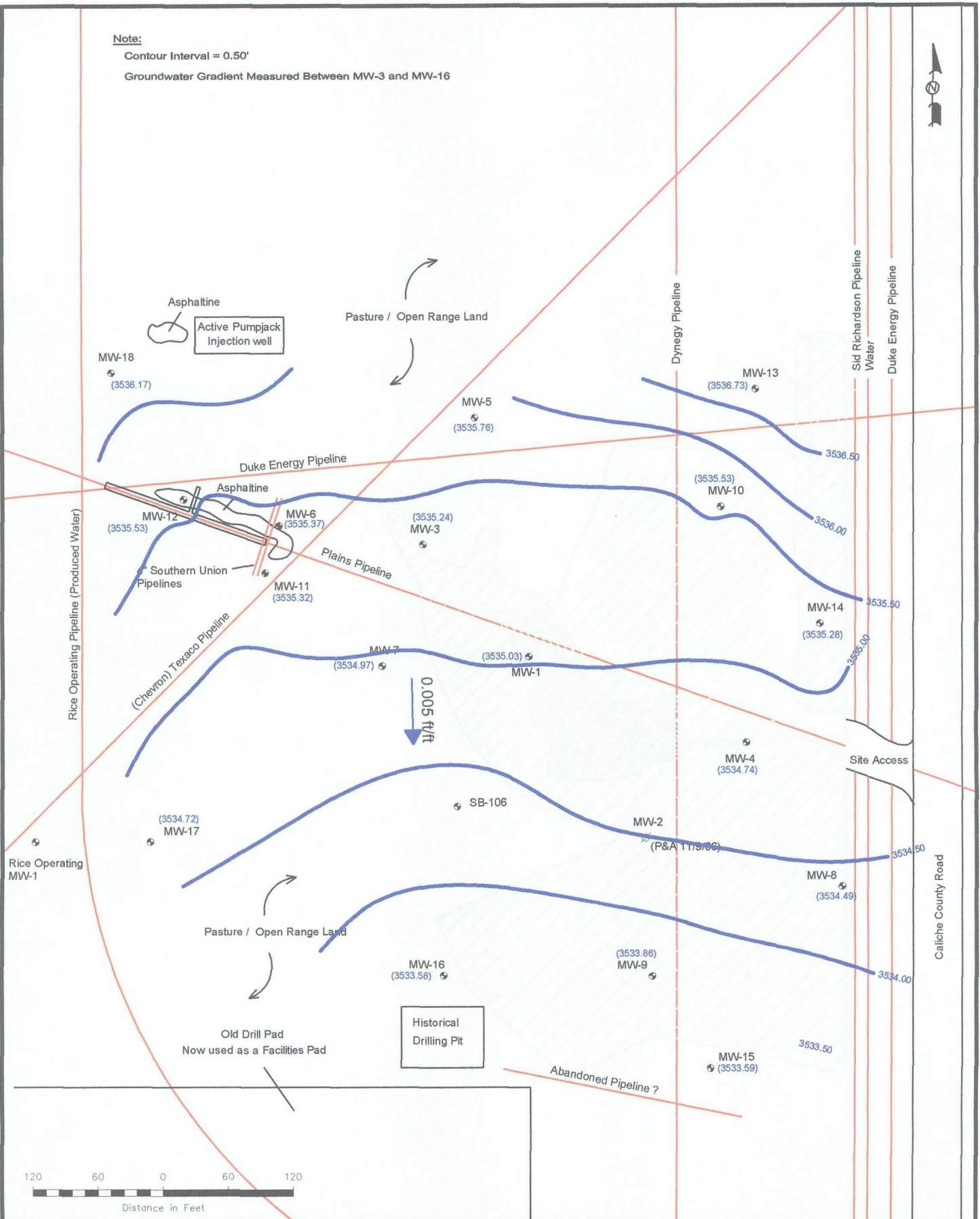


SE1/4 NE1/4 Sec 1 T20S R38E	32° 36' 00.2"N 103° 17' 56.9"W
Scale: 1" = 100'	CAD By: DGC
October 26, 2007	Checked By: CDS

**Note:**

Contour Interval = 0.50'

Groundwater Gradient Measured Between MW-3 and MW-16



**Legend:**

- |                                 |  |
|---------------------------------|--|
| Excavation                      | Deep Excavation                                |
| Monitor Well Location (3473.00) | Groundwater Elevation in Feet                  |
| Pipeline                        | NG Not Gauged                                  |
| Groundwater Contour Line        | 0.001 ft/ft Groundwater Gradient and Magnitude |

Figure 2B  
Inferred Groundwater  
Gradient Map (05/11/07)  
Plains Marketing, L.P.  
Red Byrd No. 1  
Lea County, NM  
NMOCD Reference # 1R-0085

**NOVA Safety and Environmental**



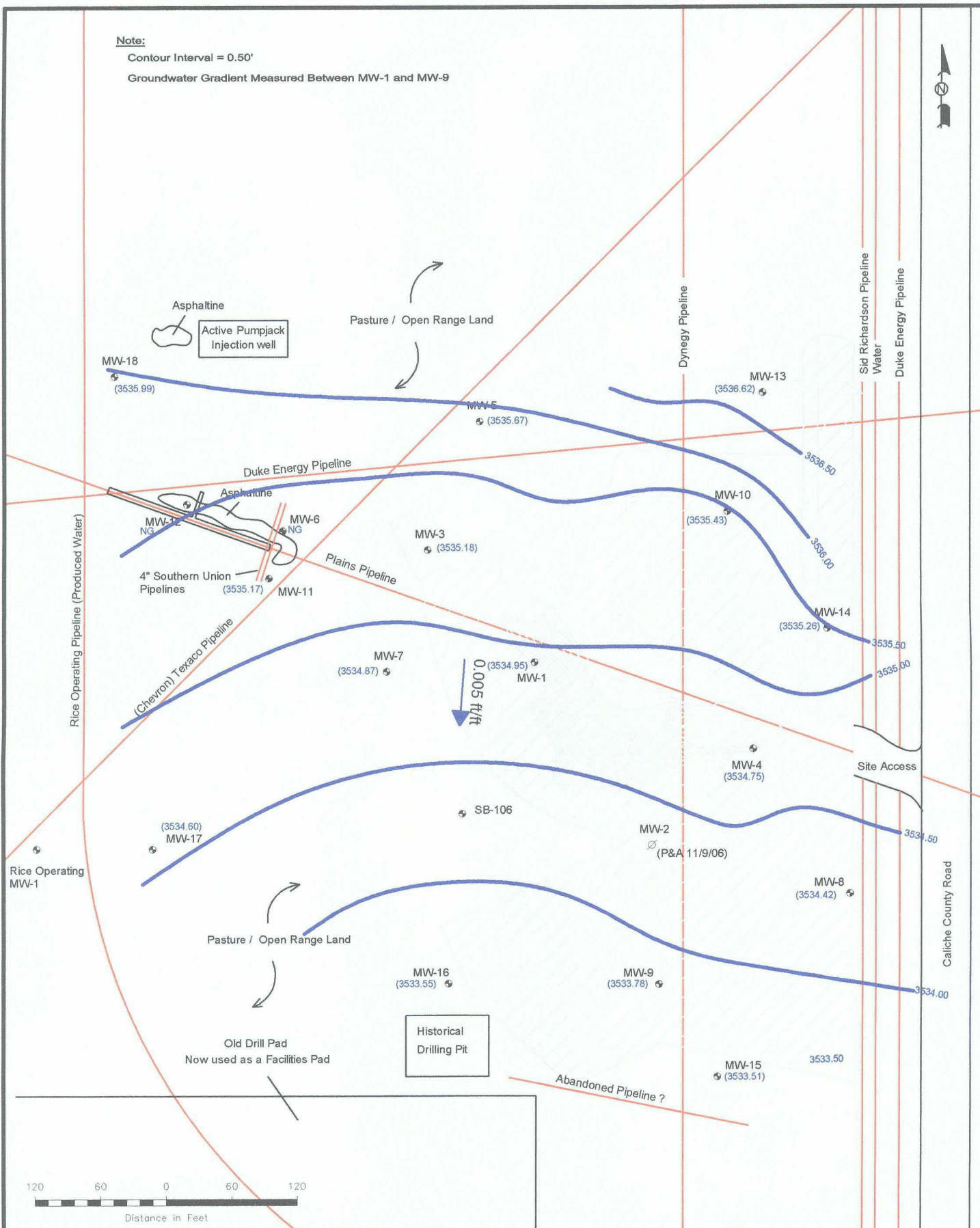
SE1/4 NE1/4 Sec 1 T20S R36E 32° 36' 09.2"N 103° 17' 56.9"  
Scale: 1" = 100' CAD By: DGC Checked By: CDS  
January 30, 2008



**Note:**

Contour Interval = 0.50'

Groundwater Gradient Measured Between MW-1 and MW-9



Monitor Well Location	Excavation	Deep Excavation
Pipeline	Groundwater Elevation In Feet	Groundwater Gradient and Magnitude
Groundwater Contour Line	NG	Not Gauged
	0.001 ft/ft	

Figure 2C  
Inferred Groundwater  
Gradient Map (08/14/07)  
Plains Marketing, L.P.  
Red Byrd No. 1  
Lea County, NM  
NMOCD Reference # 1R-0085

**NOVA Safety and Environmental**

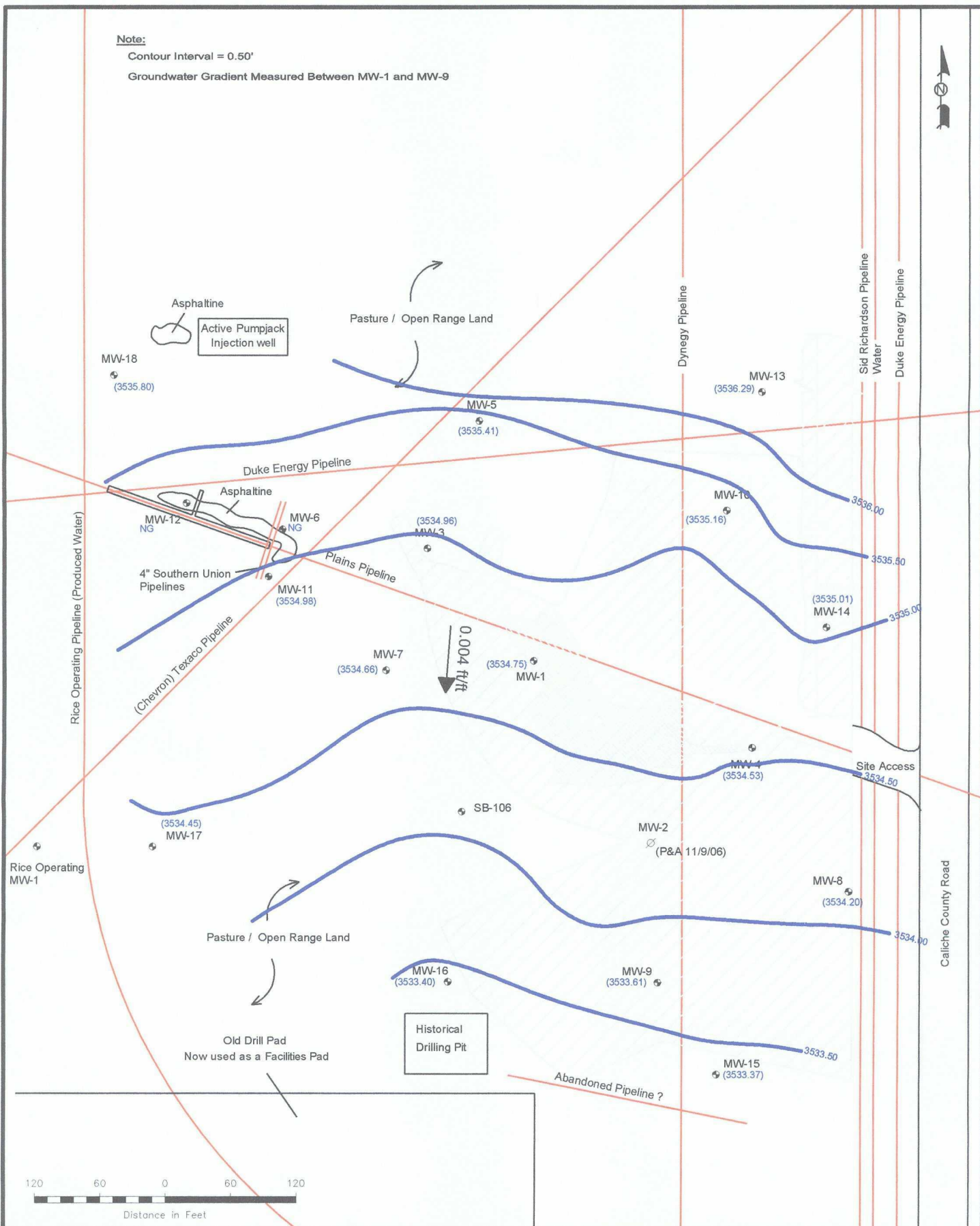


SE1/4 NE1/4 Sec 1 T20S R36E 32° 36' 09.2"N 103° 17' 56.9"  
Scale: 1" = 100' CAD By: DGC Checked By: CDS  
January 28, 2008

**Note:**

Contour Interval = 0.50'

Groundwater Gradient Measured Between MW-1 and MW-9



**Legend:**

- |  |                          |  |                                    |  |                 |
|--|--------------------------|--|------------------------------------|--|-----------------|
|  | Monitor Well Location    |  | Excavation                         |  | Deep Excavation |
|  | Pipeline                 |  | Groundwater Elevation in Feet      |  | Not Gauged      |
|  | Groundwater Contour Line |  | Groundwater Gradient and Magnitude |  |                 |

Figure 2D  
Inferred Groundwater  
Gradient Map (11/01/07)  
Plains Marketing, L.P.  
Red Byrd No. 1  
Lea County, NM  
NMOCD Reference # 1R-0085

**NOVA Safety and Environmental**

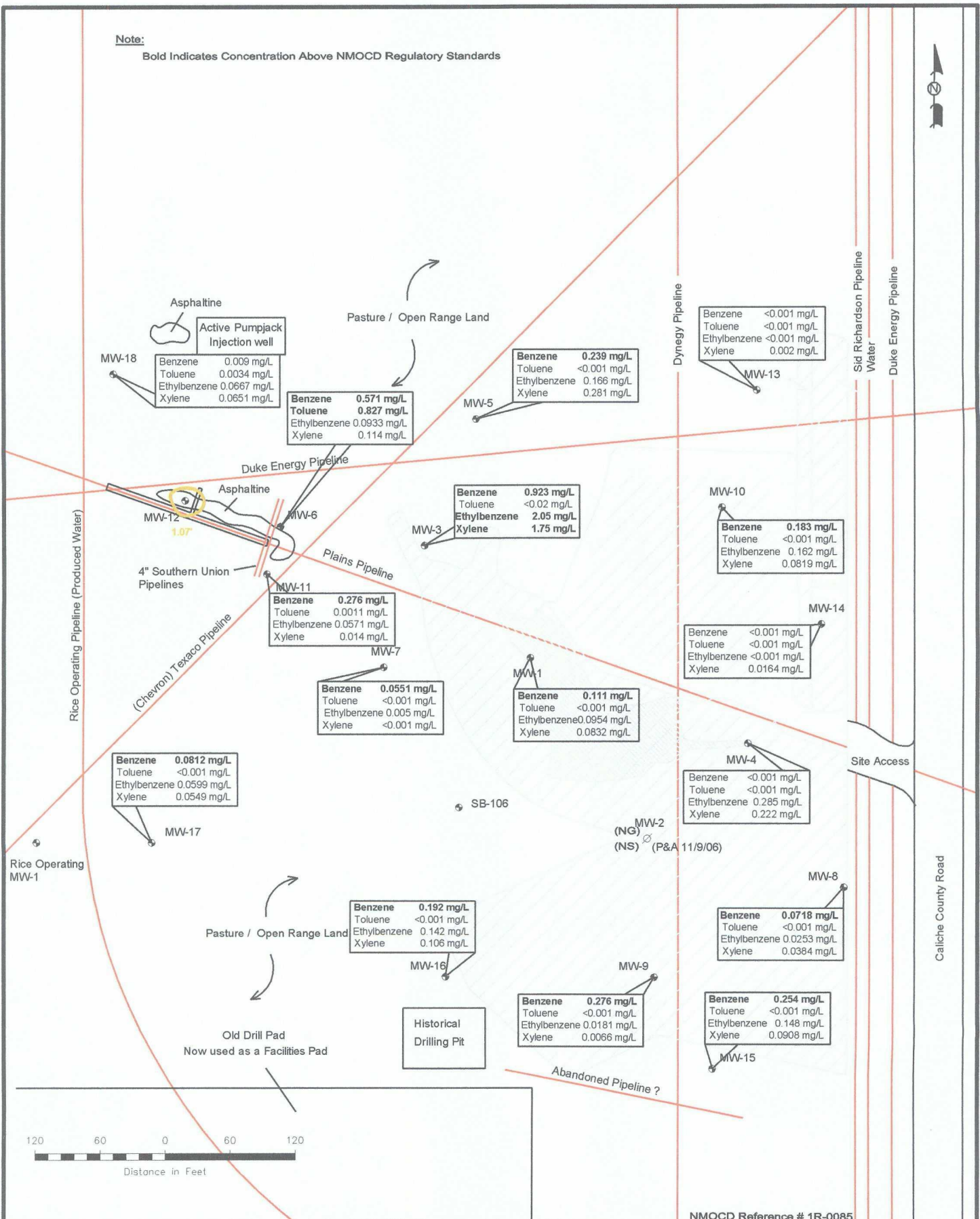


SE1/4 NE1/4 Sec 1 T20S R36E 32° 36' 09.2"N 103° 17' 56.9"  
Scale: 1" = 100' CAD By: DGC Checked By: CDS  
January 30, 2008



**Note:**

**Bold Indicates Concentration Above NMOC Regulatory Standards**



NMOC Reference # 1R-0085

**Legend:**

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- Excavation
- Deep Excavation
- (NG) Not Gauged
- (NS) Not Sampled
- Inferred PSH Extent
- Thickness of PSH (in feet)

<0.001 Constituent Concentration (mg/L)

**Figure 3A**  
Groundwater Concentration  
and Inferred PSH Extent  
Map (02/14/07)  
Plains Pipeline, L.P.  
Red Byrd No. 1  
Lea County, NM

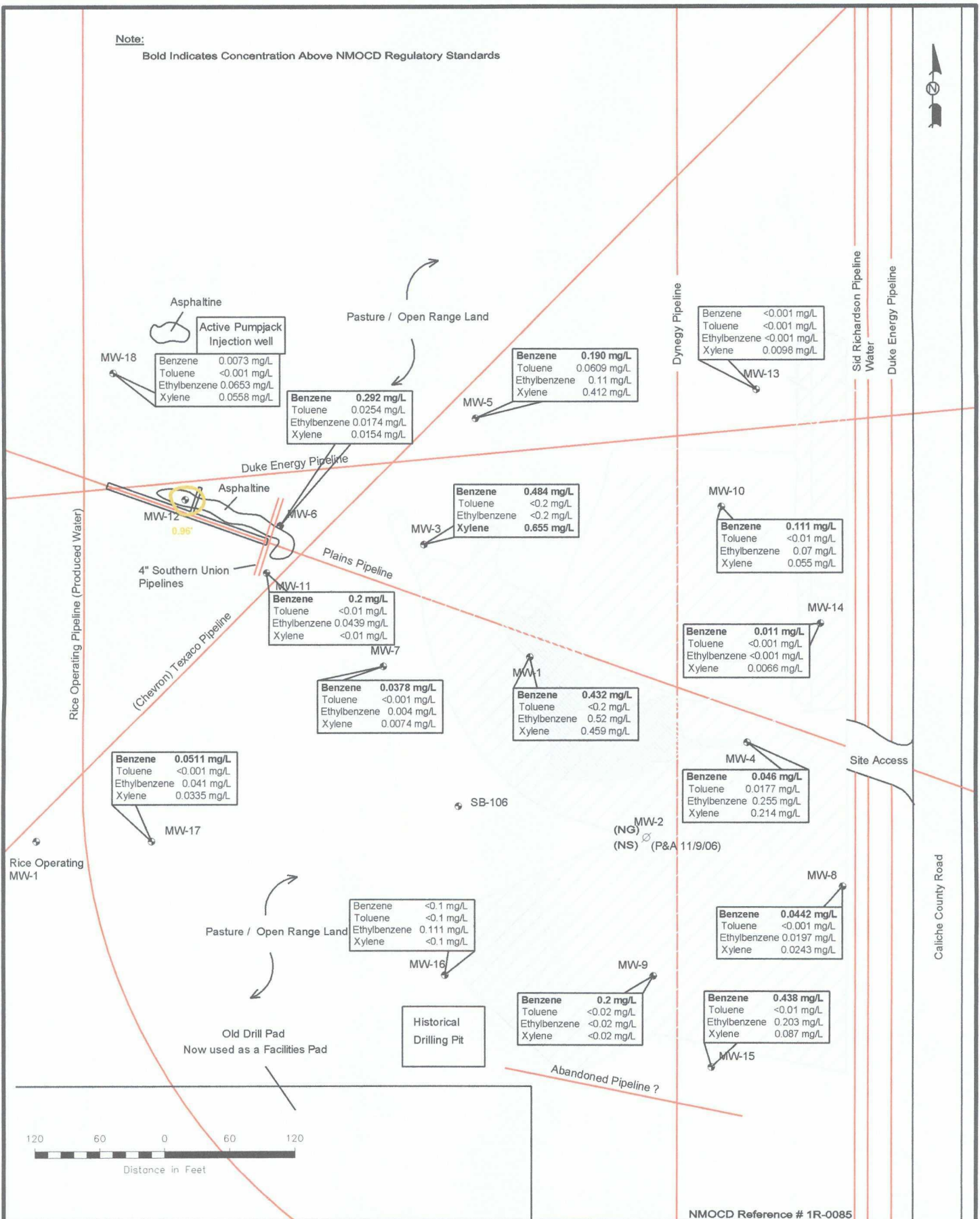


**NOVA Safety and Environmental**

SE1/4 NE1/4 Sec 1 T20S R36E 32° 38' 09.2"N 103° 17' 56.9"  
Scale: 1" = 100' Prep By: CS Checked By: TKC  
February 27, 2008

**Note:**

**Bold Indicates Concentration Above NMOC Regulatory Standards**



**Legend:**

- Monitor Well Location
- Plugged and Abandoned Well
- Pipeline
- Excavation
- Deep Excavation
- (NG) Not Gauged
- (NS) Not Sampled
- Inferred PSH Extent
- 1.04' Thickness of PSH (in feet)
- <0.001 Constituent Concentration (mg/L)

**Figure 3B**  
Groundwater Concentration  
and Inferred PSH Extent  
Map (05/11/07)  
Plains Pipeline, L.P.  
Red Byrd No. 1  
Lea County, NM

**NOVA Safety and Environmental**

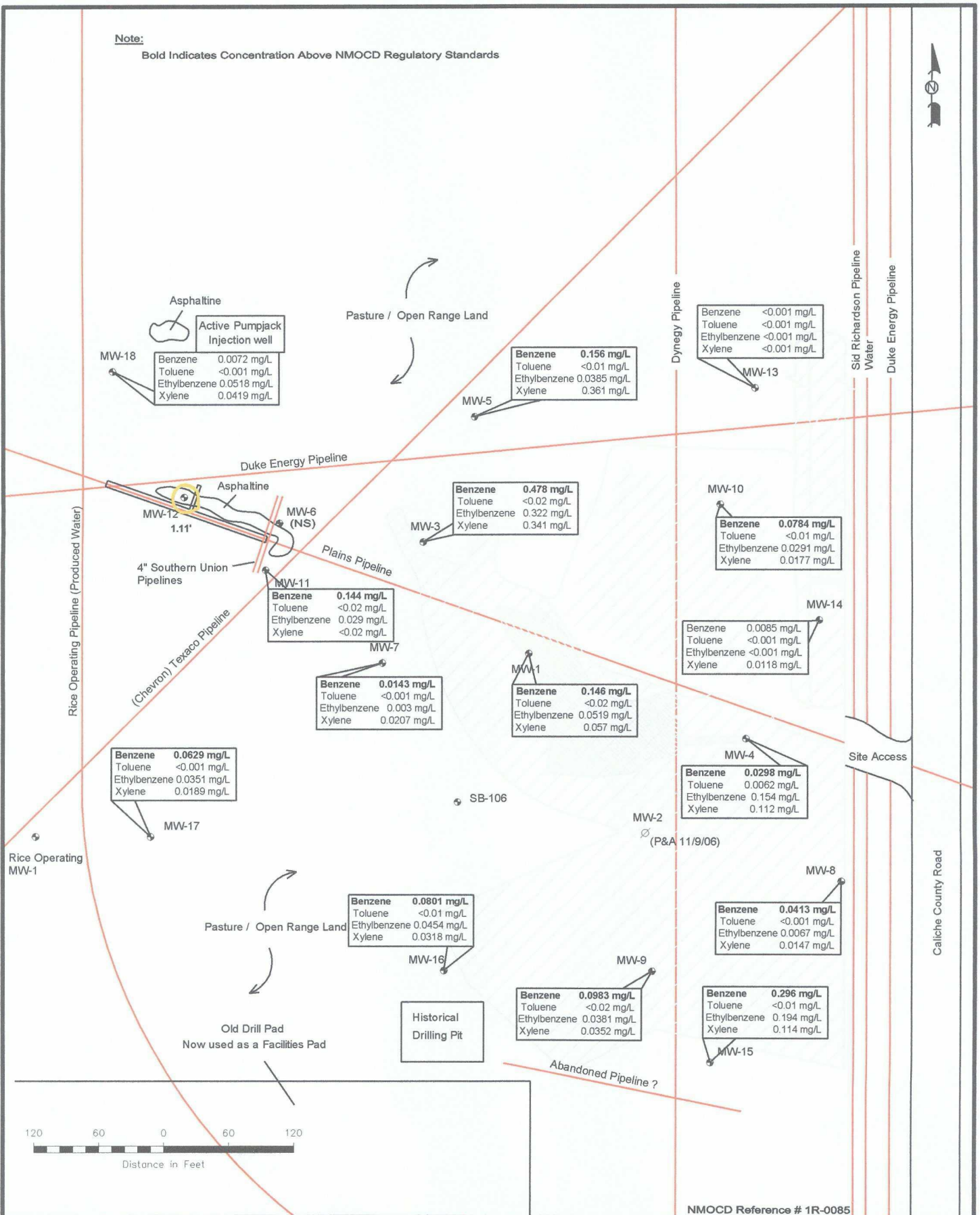


SE14 NE1/4 Sec 1 T20S R36E 32° 38' 09.2"N 103° 17' 56.9"E  
Scale: 1" = 100' Prep By: CS Checked By: TKC  
February 11, 2008



**Note:**

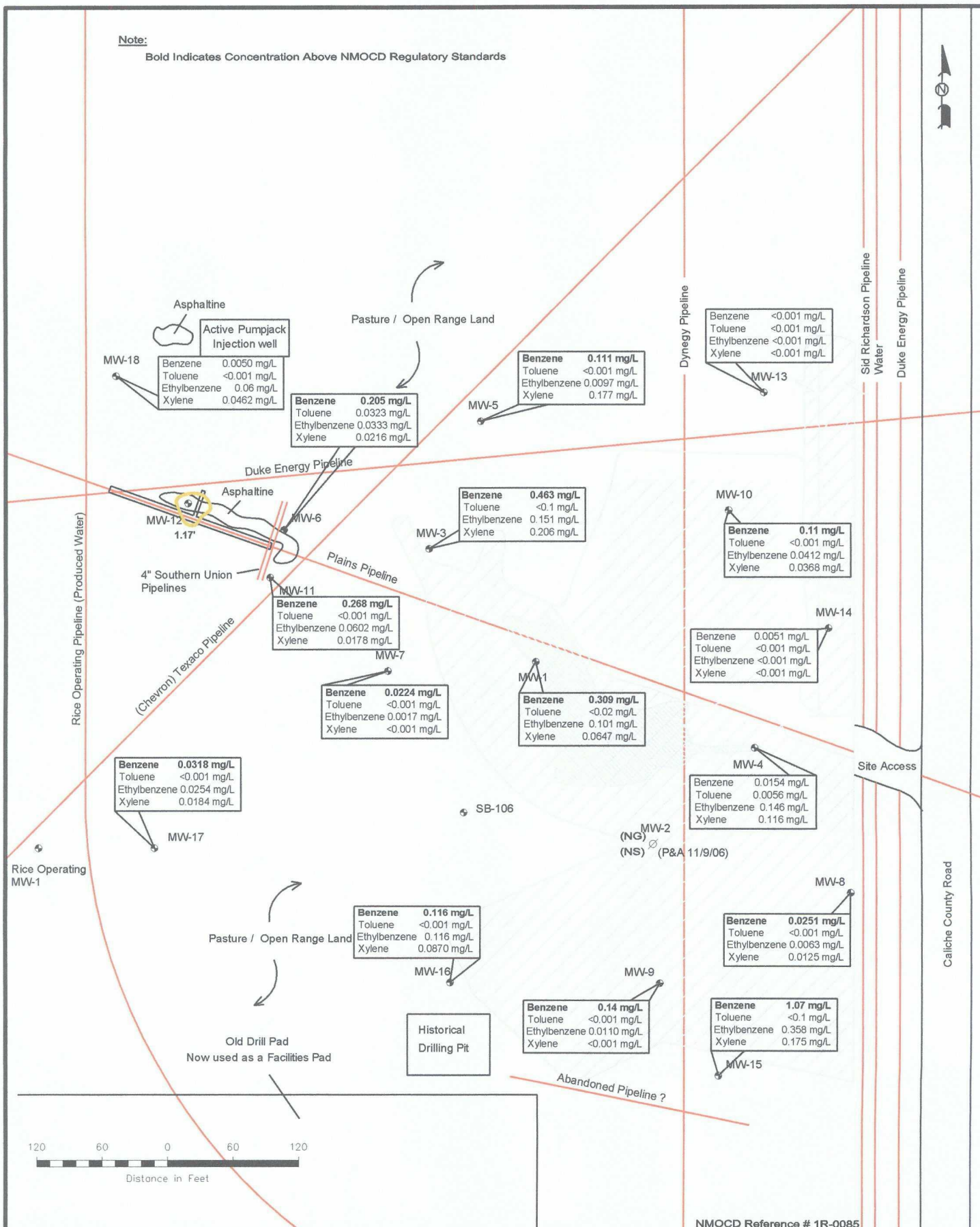
**Bold Indicates Concentration Above NMOC Regulatory Standards**



NMOC Reference # 1R-0085

**Note:**

**Bold Indicates Concentration Above NMOCD Regulatory Standards**





# Tables

TABLE 1

## 2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
 RED BYRD 1  
 LEA COUNTY, NEW MEXICO  
 NMCD REFERENCE NUMBER 1R-0085

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-1	02/14/07	3,567.59	-	32.61	0.00	3534.98
	03/22/07	3,567.59	-	32.61	0.00	3534.98
	05/11/07	3,567.59	-	32.56	0.00	3535.03
	07/11/07	3,567.59	-	32.62	0.00	3534.97
	08/14/07	3,567.59	-	32.64	0.00	3534.95
	11/01/07	3,567.59	-	32.84	0.00	3534.75
MW-3	02/14/07	3,567.55	sheen	32.30	0.00	3535.25
	03/22/07	3,567.55	-	32.30	0.00	3535.25
	05/11/07	3,567.55	-	32.31	0.00	3535.24
	07/11/07	3,567.55	-	32.34	0.00	3535.21
	08/14/07	3,567.55	-	32.37	0.00	3535.18
	11/01/07	3,567.55	-	32.59	0.00	3534.96
MW-4	02/14/07	3,567.80	-	33.05	0.00	3534.75
	05/11/07	3,567.80	-	33.06	0.00	3534.74
	08/14/07	3,567.80	-	33.05	0.00	3534.75
	11/01/07	3,567.80	-	33.27	0.00	3534.53
MW-5	02/14/07	3,569.50	-	33.76	0.00	3535.74
	03/22/07	3,569.50	-	33.77	0.00	3535.73
	05/11/07	3,569.50	-	33.74	0.00	3535.76
	08/14/07	3,569.50	-	33.83	0.00	3535.67
	11/01/07	3,569.50	-	34.09	0.00	3535.41
MW-6	02/14/07	3,569.09	-	33.86	0.00	3535.23
	05/11/07	3,569.09	-	33.72	0.00	3535.37
	08/14/07	3,569.09	Not Sampled Due to South Union Excavation			-
	11/01/07	Monitor Well Cut Down during Excavation Activities				-
MW-7	02/14/07	3,567.53	-	32.61	0.00	3534.92
	05/11/07	3,567.53	-	32.56	0.00	3534.97
	08/14/07	3,567.53	-	32.66	0.00	3534.87
	11/01/07	3,567.53	-	32.87	0.00	3534.66
MW-8	02/14/07	3,567.79	-	33.39	0.00	3534.40
	03/22/07	3,567.79	-	33.37	0.00	3534.42
	05/11/07	3,567.79	-	33.30	0.00	3534.49
	08/14/07	3,567.79	-	33.37	0.00	3534.42
	11/01/07	3,567.79	-	33.59	0.00	3534.20
MW-9	02/14/07	3,568.62	-	34.90	0.00	3533.72
	05/11/07	3,568.62	-	34.76	0.00	3533.86
	08/14/07	3,568.62	-	34.84	0.00	3533.78
	11/01/07	3,568.62	-	35.01	0.00	3533.61
MW-10	02/14/07	3,570.11	-	34.63	0.00	3535.48
	05/11/07	3,570.11	-	34.58	0.00	3535.53
	08/14/07	3,570.11	-	34.68	0.00	3535.43
	11/01/07	3,570.11	-	34.95	0.00	3535.16
MW-11	02/14/07	3,567.96	-	32.71	0.00	3535.25
	05/11/07	3,567.96	-	32.64	0.00	3535.32
	08/14/07	3,567.96	-	32.79	0.00	3535.17
	11/01/07	3,567.96	-	32.98	0.00	3534.98

TABLE 1

## 2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
RED BYRD 1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER 1R-0085

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-12	02/14/07	3,570.36	34.74	35.81	1.07	3535.46
	02/19/07	3,570.36	34.69	35.66	0.97	3535.52
	03/02/07	3,570.36	34.71	35.80	1.09	3535.49
	03/08/07	3,570.36	34.78	35.27	0.49	3535.51
	03/22/07	3,570.36	34.74	35.58	0.84	3535.49
	03/27/07	3,570.36	34.56	35.56	1.00	3535.65
	04/03/07	3,570.36	34.74	35.66	0.92	3535.48
	04/11/07	3,570.36	34.72	35.70	0.98	3535.49
	04/27/07	3,570.36	34.73	35.66	0.93	3535.49
	05/11/07	3,570.36	34.69	35.65	0.96	3535.53
	06/13/07	Excavated around and cut down MW-12			1.68	-
	06/19/07	-	-	-	0.90	-
	07/02/07	-	-	-	0.94	-
	07/11/07	-	-	-	0.90	-
	07/19/07	-	-	-	0.37	-
	07/24/07	-	-	-	1.45	-
	08/01/07	-	-	-	1.02	-
	08/08/07	-	-	-	1.04	-
	08/14/07	-	-	-	1.11	-
	08/16/07	-	-	-	1.18	-
	08/24/07	-	-	-	1.27	-
	08/29/07	-	-	-	0.93	-
	09/05/07	-	-	-	1.00	-
	09/14/07	-	-	-	1.25	-
	09/26/07	-	-	-	1.38	-
	10/03/07	-	-	-	1.32	-
	10/10/07	-	-	-	1.25	-
	10/17/07	-	-	-	1.28	-
	11/01/07	-	-	-	1.17	-
	11/30/07	-	-	-	1.62	-
MW-13	02/14/07	3,571.78	-	35.17	0.00	3536.61
	05/11/07	3,571.78	-	35.05	0.00	3536.73
	08/14/07	3,571.78	-	35.16	0.00	3536.62
	11/01/07	3,571.78	-	35.49	0.00	3536.29
MW-14	02/14/07	3,571.69	-	36.44	0.00	3535.25
	03/22/07	3,571.69	-	36.39	0.00	3535.30
	05/11/07	3,571.69	-	36.41	0.00	3535.28
	07/11/07	3,571.69	-	36.38	0.00	3535.31
	08/14/07	3,571.69	-	36.43	0.00	3535.26
	11/01/07	3,571.69	-	36.68	0.00	3535.01
MW-15	02/14/07	3,569.33	-	35.90	0.00	3533.43
	03/22/07	3,569.33	-	35.78	0.00	3533.55
	05/11/07	3,569.33	-	35.74	0.00	3533.59
	07/11/07	3,569.33	35.78	35.79	0.01	3533.55
	08/14/07	3,569.33	-	35.82	0.00	3533.51
	11/01/07	3,569.33	-	35.96	0.00	3533.37
MW-16	02/14/07	3,568.89	-	35.29	0.00	3533.60
	03/22/07	3,568.89	-	35.24	0.00	3533.65
	05/11/07	3,568.89	-	35.31	0.00	3533.58
	08/14/07	3,568.89	-	35.34	0.00	3533.55

TABLE 1

## 2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.  
RED BYRD 1  
LEA COUNTY, NEW MEXICO  
NMOCD REFERENCE NUMBER 1R-0085

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-16	11/01/07	3,568.89	-	35.49	0.00	3533.40
MW-17	02/14/07	3,569.66	-	34.95	0.00	3534.71
	03/22/07	3,569.66	-	34.97	0.00	3534.69
	05/11/07	3,569.66	-	34.94	0.00	3534.72
	08/14/07	3,569.66	-	35.06	0.00	3534.60
	11/01/07	3,569.66	-	35.21	0.00	3534.45
MW-18	02/14/07	3,571.17	-	35.02	0.00	3536.15
	05/11/07	3,571.17	-	35.00	0.00	3536.17
	08/14/07	3,571.17	-	35.18	0.00	3535.99
	11/01/07	3,571.17	-	35.37	0.00	3535.80

*Elevations based on the North American Vertical Datum of 1929.*

TABLE 2

## 2007 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.  
RED BYRD 1  
LEA COUNTY, NM  
NMOCD REFERENCE NUMBER 1R-0085

All Concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULATORY LIMIT		0.01	0.75	0.75	0.62	
MW-1	02/14/07	0.111	<0.001	0.095	0.083	
	05/11/07	0.432	<0.200	0.520	0.459	
	08/14/07	0.146	<0.02	0.0519	0.057	
	11/01/07	0.309	<0.02	0.101	0.0647	
MW-3	02/14/07	0.923	<0.02	2.050	1.750	
	05/11/07	0.484	<0.200	<0.200	0.655	
	08/14/07	0.478	<0.02	0.332	0.341	
	11/01/07	0.463	<0.100	0.151	0.206	
MW-4	02/14/07	<0.001	<0.001	0.285	0.222	
	05/11/07	0.046	0.0177	0.255	0.214	
	08/14/07	0.0298	0.0062	0.154	0.112	
	11/01/07	0.0154	0.0056	0.146	0.116	
MW-5	02/14/07	0.239	<0.001	0.166	0.281	
	05/11/07	0.190	0.0609	0.110	0.412	
	08/14/07	0.156	<0.01	0.0385	0.361	
	11/01/07	0.111	<0.001	0.0097	0.177	
MW-6	02/14/07	0.571	0.827	0.0933	0.1140	
	05/11/07	0.292	0.0254	0.0174	0.0154	
	08/14/07	Not Sampled Due to Excavation Activities				
	11/01/07	0.205	0.0323	0.0333	0.0216	
MW-7	02/14/07	0.0551	<0.001	0.005	<0.001	
	05/11/07	0.0378	<0.001	0.004	0.0074	
	08/14/07	0.0143	<0.001	0.003	0.0207	
	11/01/07	0.0224	<0.001	0.0017	<0.001	
MW-8	02/14/07	0.0718	<0.001	0.0253	0.0384	
	05/11/07	0.0442	<0.001	0.0197	0.0243	
	08/14/07	0.0413	<0.001	0.0067	0.0147	
	11/01/07	0.0251	<0.001	0.0063	0.0125	
MW-9	02/14/07	0.276	<0.001	0.0181	0.0066	
	05/11/07	0.200	<0.020	<0.020	<0.020	
	08/14/07	0.0983	<0.02	0.0381	0.0352	
	11/01/07	0.140	<0.001	0.0110	<0.001	
MW-10	02/14/07	0.183	<0.001	0.162	0.0819	
	05/11/07	0.111	<0.010	0.070	0.0550	
	08/14/07	0.0784	<0.01	0.0291	0.0177	
	11/01/07	0.110	<0.001	0.0412	0.0368	
MW-11	02/14/07	0.276	0.0011	0.0571	0.0140	
	05/11/07	0.200	<0.010	0.0439	<0.010	
	08/14/07	0.144	<0.02	0.0290	<0.02	
	11/01/07	0.268	<0.001	0.0602	0.0178	
MW-12	02/14/07	Not Sampled Due to PSH in Well				

TABLE 2

## 2007 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.

RED BYRD 1

LEA COUNTY, NM

NMOCD REFERENCE NUMBER 1R-0085

*All Concentrations are reported in mg/L.*

SAMPLE LOCATION	SAMPLE DATE	SW 846-8012B,5030				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULATORY LIMIT		0.01	0.75	0.75	0.62	
MW-12	05/11/07	Not Sampled Due to PSH in Well				
	08/14/07	Not Sampled Due to PSH in Well				
	11/01/07	Not Sampled Due to PSH in Well				
MW-13	02/14/07	<0.001	<0.001	<0.001	0.0020	
	05/11/07	<0.001	<0.001	<0.001	0.0098	
	08/14/07	<0.001	<0.001	<0.001	<0.001	
	11/01/07	<0.001	<0.001	<0.001	<0.001	
MW-14	02/14/07	<0.001	<0.001	<0.001	0.0164	
	05/11/07	0.0110	<0.001	<0.001	0.0066	
	08/14/07	0.0085	<0.001	<0.001	0.0118	
	11/01/07	0.0051	<0.001	<0.001	<0.001	
MW-15	02/14/07	0.254	<0.001	0.148	0.091	
	05/11/07	0.438	<0.010	0.203	0.087	
	08/14/07	0.296	<0.01	0.194	0.114	
	11/01/07	1.070	<0.1	0.358	0.175	
MW-16	02/14/07	0.192	<0.001	0.142	0.106	
	05/11/07	<0.100	<0.100	0.111	<0.100	
	08/14/07	0.0801	<0.01	0.0454	0.0318	
	11/01/07	0.116	<0.001	0.116	0.0870	
MW-17	02/14/07	0.0812	<0.001	0.060	0.0549	
	05/11/07	0.0511	<0.001	0.041	0.0335	
	08/14/07	0.0629	<0.001	0.0351	0.0189	
	11/01/07	0.0318	<0.001	0.0254	0.0184	
MW-18	02/14/07	0.0090	0.0034	0.0667	0.0651	
	05/11/07	0.0073	<0.001	0.0653	0.0558	
	08/14/07	0.0072	<0.001	0.0518	0.0419	
	11/01/07	0.0050	<0.001	0.0600	0.0462	

*Note: m, p and o Xylenes combined when analyzed by Trace Laboratories, Inc. only.**Note: EB denotes Equipment Blank collected during sampling event.*

## Appendices

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



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

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 of Company	Plains Pipeline, LP	Contact:	Camille Reynolds
Address:	3705 E. Hwy 158, Midland, TX 79706	Telephone No.	505-441-0965
Facility Name:	Red Byrd # 1	Facility Type:	Steel Pipeline

Surface Owner:	Red Byrd	Mineral Owner	Lease No.
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#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	I	20S	36E					Lea

Latitude 32° 36' 09.8" N Longitude 103° 17' 58.5" W

#### NATURE OF RELEASE

Type of Release:	Crude Oil	Volume of Release:	Unknown	Volume Recovered
Source of Release:	Steel Pipeline	Date and Hour of Occurrence	Date and Hour of Discovery	
Was Immediate Notice Given?	Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?		
By Whom?		Date and Hour		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.		

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Describe Area Affected and Cleanup Action Taken.\*

**NOTE: Texas-New Mexico Pipeline was the owner/operator of the pipeline system at the time of the release, initial response information is unavailable.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

#### OIL CONSERVATION DIVISION

Signature:	Approved by District Supervisor:		
Printed Name:	Camille Reynolds	Approval Date:	Expiration Date:
Title:	Remediation Coordinator	Conditions of Approval:	
E-mail Address:	cjreynolds@paalp.com	Attached <input type="checkbox"/>	
Date: 3/21/2005	Phone: (505)441-0965		

\* Attach Additional Sheets If Necessary