

1R - 386

**Annual GW Mon.
REPORTS**

DATE:

2008



2008
ANNUAL MONITORING REPORT

RECEIVED
2009 MAR 18 PM 1 27

JUNCTION 34 TO LEA STATION
LEA COUNTY, NEW MEXICO
NW ¼ SW ¼, SECTION 21, TOWNSHIP 20 SOUTH, RANGE 37 EAST
PLAINS SRS NUMBER: 2002-10286
NMOCD Reference # 1R-0386

PREPARED FOR:

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

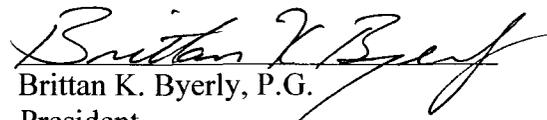


PREPARED BY:

NOVA Safety and Environmental
2057 Commerce
Midland, Texas 79703

February 2009


Ronald K. Rounsaville
Project Manager


Brittan K. Byerly, P.G.
President



**PLAINS
ALL AMERICAN**

RECEIVED
2009 MAR 18 PM 1 27

March 13, 2009

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

Re: Plains All American – 2008 Annual Monitoring Reports
22 Sites in Lea County, New Mexico

Dear Mr. Hansen:

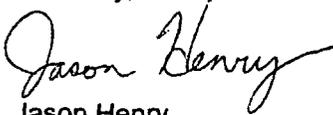
Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico 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 AP-3	Section 02, Township 17 South, Range 36 East, Lea County
Bob Durham	AP-0016	Section 32, Township 19 South, Range 37 East, Lea County
Darr Angell #1	AP-007	Section 11, Township 15 South, Range 37 East, Lea County
Darr Angell #2	AP-007	Section 11, Township 15 South, Range 37 East, Lea County Section 14, Township 15 South, Range 37 East, Lea County
Darr Angell #4	AP-007	Section 11, Township 15 South, Range 37 East, Lea County Section 02, Township 15 South, Range 37 East, Lea County
Denton Station	1R-0234	Section 14, Township 15 South, Range 37 East, Lea County
HDO-90-23	AP-009	Section 06, Township 20 South, Range 37 East, Lea County
LF-59	1R-0103	Section 32, Township 19 South, Range 37 East, Lea County
Monument 2	1R-0110	Section 06, Township 20 South, Range 37 East, Lea County Section 07, Township 20 South, Range 37 East, Lea, County
Monument 10	1R-0119	Section 30, Township 19 South, Range 37 East, Lea County
Monument 11	1R-120	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
Red Byrd #1	1R-0085	Section 01, Township 20 South, Range 36 East, Lea County
S. Mon. Gath. Sour	1R-951	Section 05, Township 20 South, Range 37 East, Lea County
SPS-11	GW-0140	Section 18, Township 18 South, Range 36 East, Lea County
Texaco Skelly F	1R-0420	Section 11, Township 21 South, Range 37 East, Lea County
TNM 97-04	GW-0294	Section 11, Township 16 South, Range 35 East, Lea County
TNM 97-17	AP-017	Section 21, Township 20 South, Range 37 East, Lea County
TNM 97-18	AP-0013	Section 28, Township 20 South, Range 37 East, Lea County
TNM 98-05A	AP-12	Section 26, Township 21 South, Range 37 East, Lea County

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

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

Sincerely,

A handwritten signature in cursive script that reads "Jason Henry".

Jason Henry
Remediation Coordinator
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

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2B – Inferred Groundwater Gradient Map – May 22, 2008

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Figure 3A – Groundwater Concentration and Inferred PSH Extent Map – February 26, 2008

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3D – Groundwater Concentrations and Inferred PSH Extent Map – November 20, 2008

TABLES

Table 1 – 2008 Groundwater Elevation Data

Table 2 – 2008 Concentrations of BTEX and TPH in Groundwater

Table 2 – 2008 Concentrations of PAH in Groundwater

APPENDICES

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

ENCLOSED ON DATA DISK

2008 Annual Monitoring Report

2008 Tables 1, 2 and 3 – Groundwater Elevation, BTEX, TPH and PAH Concentration Data

2008 Figures 1, 2A-2D, and 3A-3D

Electronic Copies of Laboratory Reports

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

Historic Table 1 and 2 – Groundwater Elevation and BTEX, TPH, PAH 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. Beginning on or about January 16, 2007, project management responsibilities were assumed by NOVA. The site was previously managed by Environmental Plus, Inc. (EPI). This report is intended to be viewed as a complete document with figures, appendices, tables and text. The report presents the results of the four quarterly groundwater monitoring events conducted in calendar year 2007. For reference, the Site Location Map is provided as Figure 1.

Groundwater monitoring was conducted during each quarter of 2008 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). Each groundwater monitoring event consisted of measuring static water levels in monitor wells, checking for the presence of PSH on the water column and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were sampled as per a NMOCD directive.

SITE DESCRIPTION AND BACKGROUND INFORMATION

The Junction 34 to Lea (2002-10286) Release Site is located approximately 10-miles northwest of Eunice in Lea County, New Mexico. The site is located in the NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 21, Township 20 South, Range 37 East. The Release Notification and Corrective Action (Form C-141) submitted by EOTT reported approximately 300 barrels of crude oil released with 190 barrels recovered. The release is reported to have been due to internal corrosion of the pipeline. The release covered approximately 10,769 square feet of pipeline right-of-way, caliche road and land owned by the Deck Estate. Upon discovery of the release on November 6, 2002, a contractor and EOTT personnel mobilized to the site, exposed the pipeline and installed a pipe repair clamp. Hydrocarbon impacted soil excavated during the emergency response activities was transported to an NMOCD approved land farm. In February 2003, hydrocarbon impacted soil, previously identified by the advancement of nine soil borings, was excavated to a depth of approximately twenty five (25) below ground surface (bgs). The excavated soil was stockpiled on site for future remediation.

Currently, there are eleven groundwater monitor wells (MW-1 through MW-11) on site.

FIELD ACTIVITIES

Product Recovery Efforts

Based on the gauging data collected during the reporting period, none of the monitor wells exhibited a measurable thickness of PSH with the exception of monitor well MW-3, which exhibited a thickness of 0.02 feet during the 3rd quarter sampling event on August 28, 2008. Gauging data for the 2008 monitoring events is provided in Table 1.

Groundwater Monitoring

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD.

NMOCD Approved Sampling Schedule							
MW-1	Quarterly	MW-4	Annual	MW-7	Quarterly	MW-10	Quarterly
MW-2	Quarterly	MW-5	Quarterly	MW-8	Quarterly	MW-11	Quarterly
MW-3	Quarterly	MW-6	Quarterly	MW-9	Quarterly		

The site monitor wells were gauged and sampled on February 26, May 22, August 28, and November 20, 2008. During each sampling event, monitor wells were purged of a minimum of three well volumes of water or until the wells failed to produce water. Purging was performed using a disposable polyethylene bailer for each well or electrical Grundfos pump and dedicated tubing. Groundwater was allowed to recharge and samples were collected using disposable Teflon samplers. Water samples were placed in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of at a licensed disposal facility.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during quarterly sampling events performed in 2008, are depicted on the Inferred Groundwater Gradient Maps, Figures 2A-2D. Groundwater elevation data for 2008 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 0.008 feet/foot to the south-southeast as measured between monitor wells MW-5 and MW-9. This is consistent with data presented on Figures 2A through 2C from earlier in the year.

LABORATORY RESULTS

During the 2008 reporting period, PSH was reported in one monitor well (MW-3) during the 3rd quarter sampling event.

Groundwater samples obtained during the quarterly sampling events of 2008 were delivered to TraceAnalysis, Inc. in Midland, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021B, and Polynuclear Aromatic Hydrocarbons (PAH) concentrations by EPA Method 8270C. Monitoring wells containing measurable amounts of PSH were analyzed for Total Petroleum Hydrocarbons (TPH) concentrations by EPA Method 8015M. A listing of BTEX and TPH constituent concentrations for 2008 are summarized in Table 2 and the PAH constituent concentrations for 2008 are summarized in Table 3. Copies of the laboratory reports generated for 2008 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 0.463 during the 2nd quarter to 0.870 mg/L during the 1st quarter of 2008. Benzene concentrations were above the NMOCD regulatory standard of 0.01 mg/L during all four quarters of the reporting period. Toluene concentrations were below the laboratory method detection limit (MDL) and NMOCD regulatory standard of 0.75 mg/L during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.468 mg/L during the 4th quarter to 0.770 mg/L during the 1st quarter of 2008. Ethylbenzene concentrations were above the NMOCD regulatory standard of 0.75 mg/L during the 1st quarter of the reporting period. Xylene concentrations ranged from 0.102 mg/L during the 2nd quarter to 0.195 mg/L during the 1st quarter of 2008. Xylene concentrations were below regulatory standard of 0.62 mg/L during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards of 1-methylnaphthalene (0.0303 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.010 mg/L), 2-methylnaphthalene (0.00294 mg/L), fluorene (0.00216 mg/L), phenanthrene (0.00139 mg/L) and dibenzofuran (0.00134 mg/L), which are below the WQCC Drinking Water Standards.

Monitor well MW-2 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0546 mg/L during the 4th quarter to 0.4080 mg/L during the 1st quarter of 2008. Benzene concentrations were above the NMOCD regulatory standard during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0227 mg/L during the 4th quarter to 0.1830 mg/L during the 1st quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from 0.0220 mg/L during the 4th quarter to 0.150 mg/L during the 1st quarter of 2008. Xylene concentrations were below regulatory standard during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for naphthalene (0.000269 mg/L), 1-methylnaphthalene (0.00614 mg/L), fluorine (0.000383 mg/L) and phenanthrene (0.000367 mg/L), which are below the WQCC Drinking Water Standards.

Monitor well MW-3 is sampled on a quarterly schedule and was not sampled during the 3rd quarter of 2008, due to the presence of PSH in the monitor well. A PSH thickness of 0.02 feet was reported in the 3rd quarter of 2008. Analytical results collected during the 1st, 2nd and 4th quarters of the reporting period indicate benzene concentrations ranged from 0.948 mg/L during the 4th quarter to 1.280 mg/L during the 2nd quarter. Benzene concentrations were above the NMOCD regulatory standard during the 1st, 2nd and 4th quarters of the reporting period. Toluene concentrations ranged from <0.005 mg/L during the 4th quarter to 0.0298 mg/L during the 1st quarter of 2008. Toluene concentrations were below the NMOCD regulatory standard during the 1st, 2nd and 4th quarters of the reporting period. Ethylbenzene concentrations ranged from 0.381 mg/L during the 4th quarter to 0.582 mg/L during the 1st quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during the 1st, 2nd and 4th quarters of the reporting period. Xylene concentrations ranged from 0.1180 mg/L during the 4th quarter to 0.2080 mg/L during the 1st quarter of 2008. Xylene concentrations were below regulatory standard during the 1st, 2nd and 4th quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards of 1-

methylnaphthalene (0.0366 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.00547 mg/L), 2-methylnaphthalene (0.00206 mg/L), fluorene (0.00329 mg/L), phenanthrene (0.00263 mg/L), fluoranthene (0.000218 mg/L) and dibenzofuran (0.00245 mg/L), which are below the WQCC Drinking Water Standards.

Monitor well MW-4 is sampled on an annual schedule and analytical results indicate all constituents of BTEX were below the MDL and NMOCD regulatory standards during the 4th quarter sampling event. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twenty consecutive quarters. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for fluorine (0.00045 mg/L) and dibenzofuran (0.00035 mg/L), which are below the WQCC Drinking Water Standards.

Monitor well MW-5 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0053 mg/L during the 2nd quarter to 0.0282 mg/L during the 4th quarter. Benzene concentrations were above the NMOCD regulatory standard during the 1st, 3rd and 4th quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0098 mg/L during the 2nd and 3rd quarters to 0.0225 mg/L during the 1st quarter. 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 1st quarter to 0.0206 mg/L during the 4th quarter of 2008. Xylene concentrations were below regulatory standard during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for 1-methylnaphthalene (0.0034 mg/L), fluorine (0.000555 mg/L), phenanthrene (0.000788 mg/L) and dibenzofuran (0.00086 mg/L), which are below the WQCC Drinking Water Standards.

Monitor well MW-6 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last seventeen consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-7 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 1.060 mg/L during the 1st and 2nd quarters to 1.180 mg/L during the 4th quarter. Benzene concentrations were above the NMOCD regulatory standard all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.672 mg/L during the 3rd quarter to 0.704 mg/L during the 1st quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from 0.264 mg/L during the 1st quarter to 0.293 mg/L during the 4th quarter. Xylene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for naphthalene (0.0216 mg/L), 1-methylnaphthalene (0.0212 mg/L), 2-methylnaphthalene (0.00878 mg/L), fluorine

(0.00125 mg/L), phenanthrene (0.00073 mg/L) and dibenzofuran (0.00104 mg/L), which are below the WQCC Drinking Water Standards.

Monitor well MW-8 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last twelve consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-9 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last seventeen consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

Monitor well MW-10 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0302 mg/L during the 3rd quarter to 0.084 mg/L during the 1st quarter. 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 3rd and 4th quarters to 0.002 mg/L during the 1st quarter. Toluene concentrations were below NMOCD regulatory standard during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0261 mg/L during the 3rd quarter to 0.171 mg/L during the 1st quarter. Ethylbenzene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. Xylene concentrations ranged from 0.0079 mg/L during the 3rd quarter to 0.0572 mg/L during the 1st quarter. Xylene concentrations were below the NMOCD regulatory standard during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above MDLs for naphthalene (0.000646 mg/L), 1-methylnaphthalene (0.000828 mg/L) and 2-methylnaphthalene (0.000196 mg/L), which are below the WQCC Drinking Water Standards.

Monitor well MW-11 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethylbenzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. The analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last seventeen consecutive quarters. PAH analysis during the 4th quarter sampling event indicated no elevated concentrations were detected above the respective MDLs.

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 2008 annual monitoring period. Currently, there are eleven groundwater monitor wells (MW-1 through MW-11) on site. The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.008 feet/foot to the south-southeast.

Monitor well MW-3 exhibited a PSH thickness of 0.02 feet during the 3rd quarter sampling event conducted on August 28, 2008. No measurable thicknesses of PSH were reported in any of the remaining site monitor wells during the reporting period.

Review of the laboratory analytical results of the groundwater samples obtained during this annual reporting period indicate BTEX constituent concentrations are below the applicable NMOCD regulatory standards in five of the eleven monitor wells on site.

ANTICIPATED ACTIONS

Quarterly monitoring and groundwater sampling will continue in 2009. Gauging will continue on a monthly schedule and will be adjusted according to site conditions. An Annual Monitoring Report will be submitted to the NMOCD by April 1, 2010.

Soil remediation activities are scheduled to commence during the 1st quarter of 2009. A Soil Closure Request will be submitted to the NMOCD following the completion of these activities.

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

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

DISTRIBUTION

- Copy 1 Ed Hansen
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
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New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1625 French Drive
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Plains Marketing, L.P.
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jpdann@paalp.com
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2057 Commerce Street
Midland, TX 79703
rrounsville@novatraining.cc

FIGURES

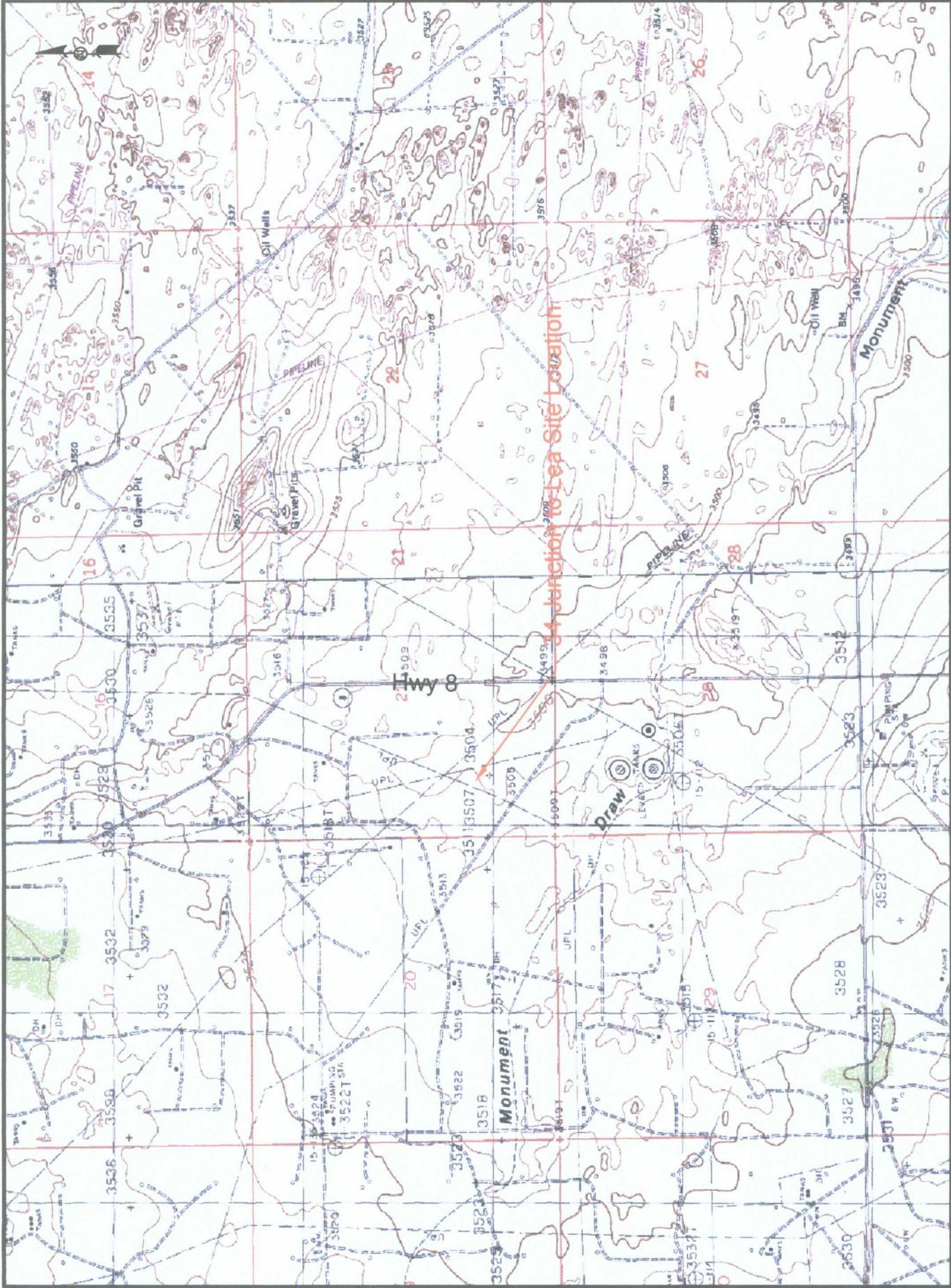


Figure 1
Site Location Map
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

Lat. N32° 33' 18.8"N Long. W103° 15' 39.7"W

NMOCED Reference # 1R-0386



(3491.53)
MW-4

MW-5
(3490.35)

3490.00

0.008 Feet/Foot

(3487.63)
MW-3

(3490.28)
MW-2

(3489.87)
MW-1

3490.00

MW-6
(3489.75)

(3489.59)
MW-7

MW-8
(3489.26)

3489.00

3489.50

3489.00

MW-9
(3488.26)

MW-10
(3488.36)

MW-11
(NA)



NOTE:
● Contour Interval = 0.50'
● Gradient Measured between MW-5 and MW-9

Legend:

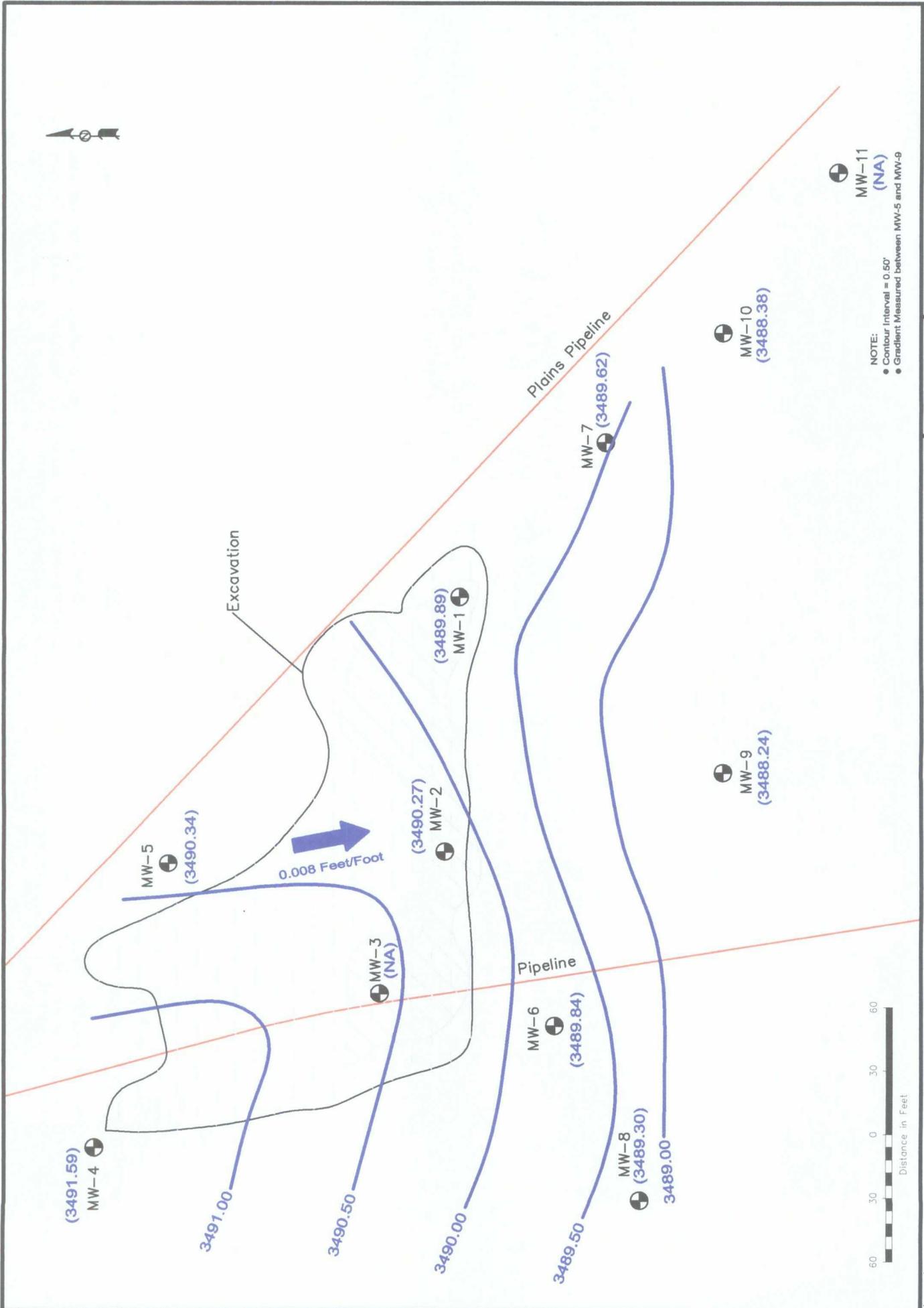
- Monitor Well Location
- (3791.66) Groundwater Elevation (Feet)
- Groundwater Elevation Contour Line
- Pipeline

Figure 2A
Groundwater Gradient
Map (02/28/08)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

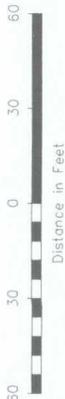
NOVA
Safety and Environmental

Scale: 1" = 60'
October 15, 2008
Checked By: DDC

NIMOC Ref# 1R-0386



NOTE:
 ● Contour Interval = 0.50'
 ● Gradient Measured between MW-5 and MW-9



Legend:

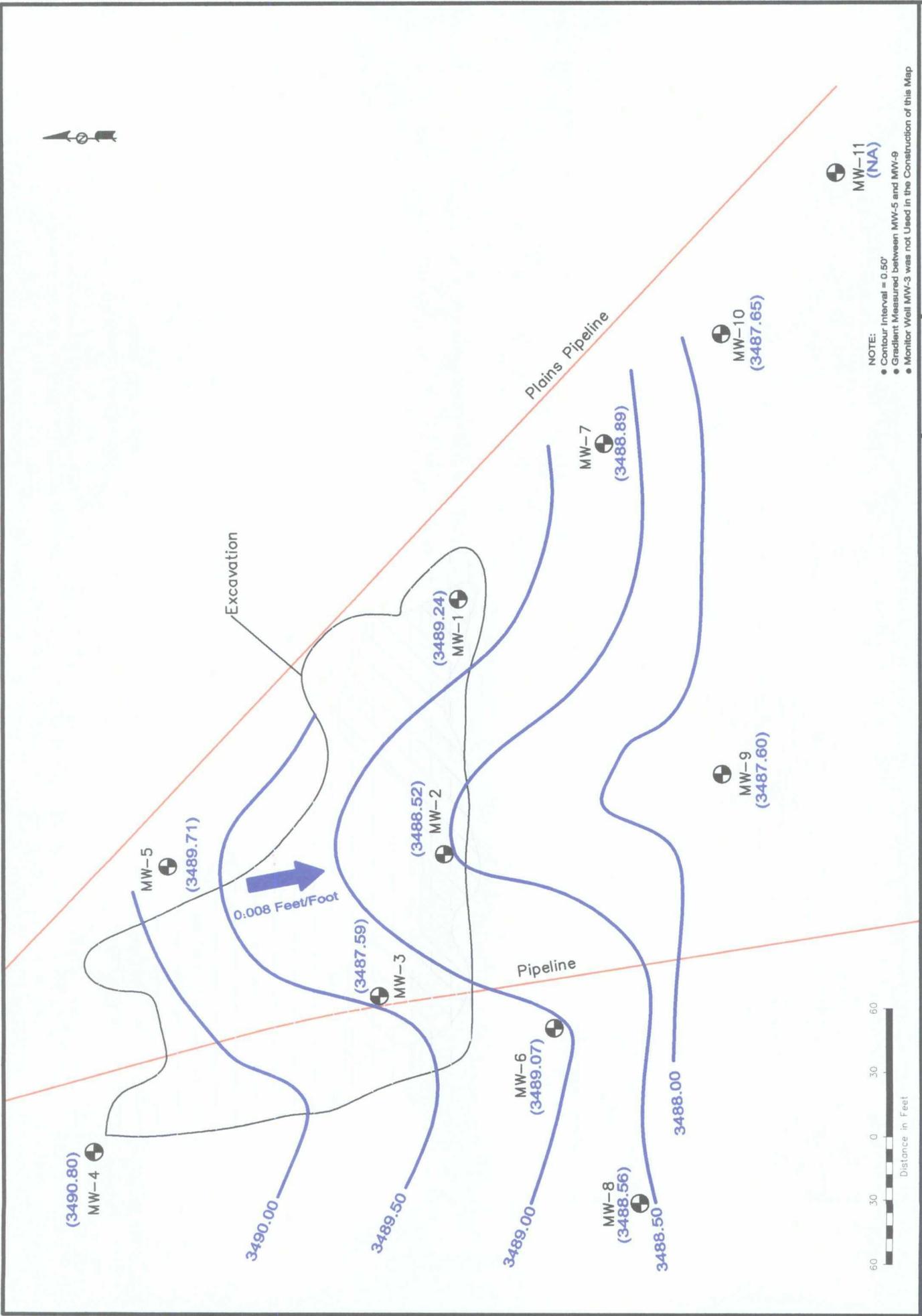
- Monitor Well Location
- (3791.69) Groundwater Elevation (Feet)
- Groundwater Direction and Magnitude
- Groundwater Elevation Contour Line
- Pipeline

Figure 2B
 Groundwater Gradient
 Map (05/22/08)
 Plains Marketing, L.P.
 34 Junction to Lea
 Lea County, NM

NMOCOD Ref# 1R-0396

NOVA Safety and Environmental

Scale: 1" = 60'
 CUD By: DGC
 Checked By: CDS
 October 15, 2008



NOTE:
 • Contour Interval = 0.50'
 • Gradient Measured between MW-5 and MW-9
 • Monitor Well MW-3 was not Used in the Construction of this Map

MW-11
(NA)

Scale: 1" = 60'
 October 15, 2008

Legend:

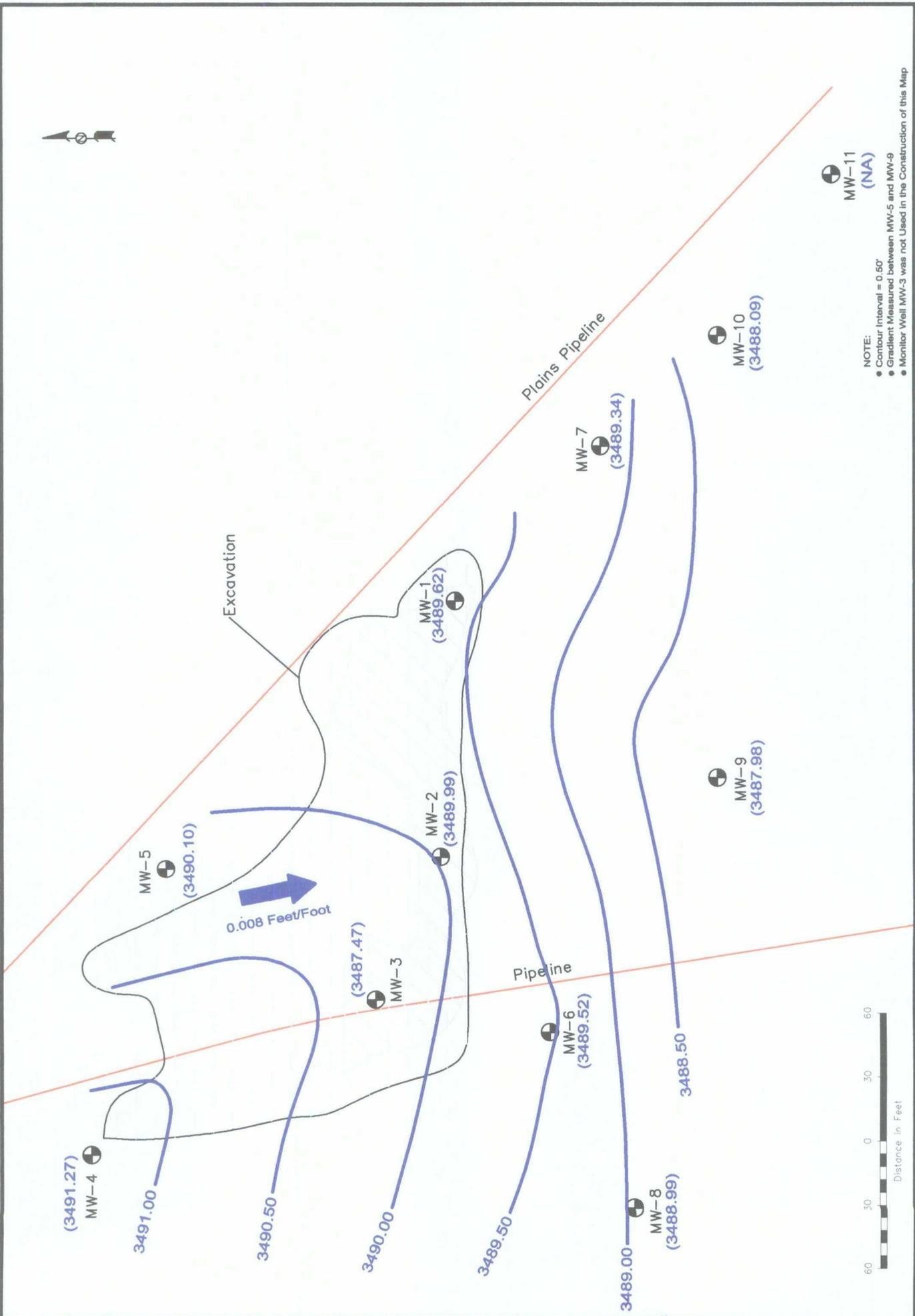
- Monitor Well Location
- Groundwater Elevation (Feet)
- Groundwater Elevation Contour Line
- Pipeline
- Groundwater Direction and Magnitude

Figure 2C
 Groundwater Gradient Map (08/27/08)
 Plains Marketing, L.P.
 34 Junction to Lea
 Lea County, NM

NMOCID Ref# 1R-0386

NOVA
 Safety and Environmental

Scale: 1" = 60'
 CAD By: DCC
 Checked By: CDS
 October 15, 2008



NOTE:

- Contour Interval = 0.50'
- Gradient Measured between MW-5 and MW-9
- Monitor Well MW-3 was not Used in the Construction of this Map

NOVA Safety and Environmental

Figure 2D
Groundwater Gradient
Map (11/20/08)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

Scale: 1" = 60'
December 5, 2008
CAD By: DOC
Checked By: RKR

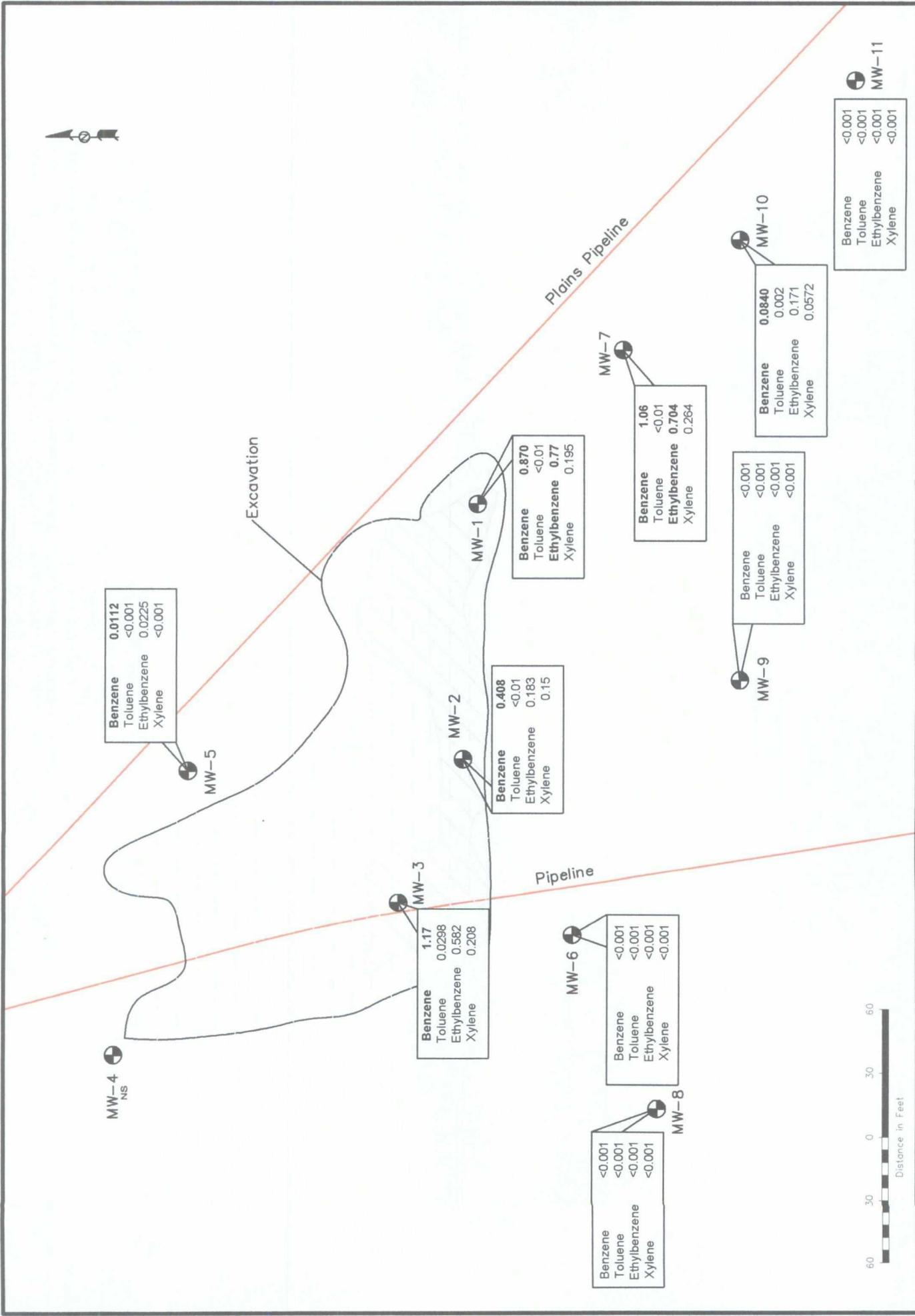
NMOCOD Ref# 1R-0388

Legend:

- Monitor Well Location
- (3791.69) Groundwater Elevation (Feet)
- Groundwater Elevation Contour Line
- Groundwater Direction and Magnitude
- Pipeline

Distance in Feet

0 30 60



Legend:

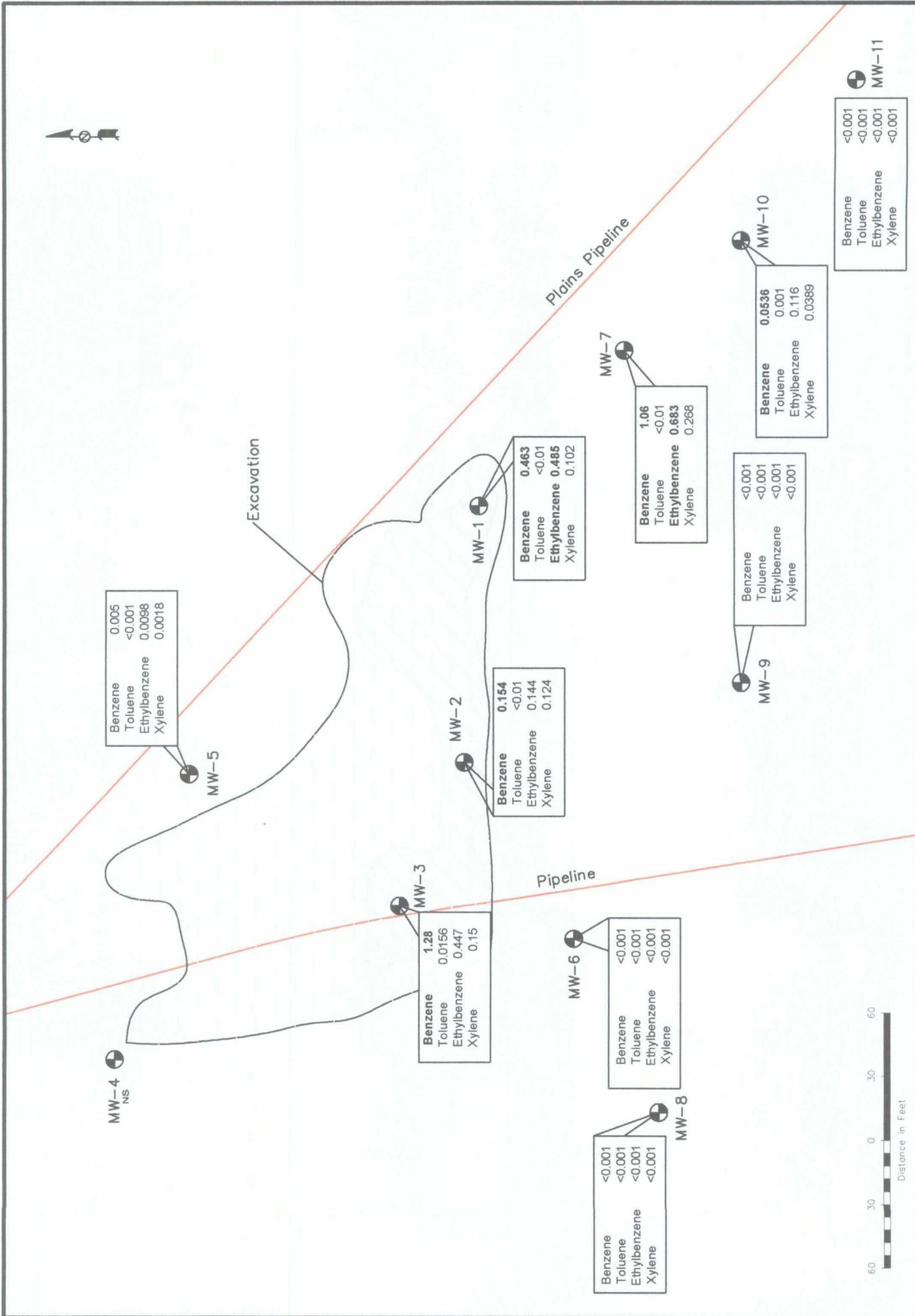
- Monitor Well Location
- Pipeline
- Inferred PSH Extant
- PSH Thickness (In feet)
- Constituent Concentration (mg/L)
- NS
- Not Sampled

Figure 3A
Inferred PSH and Discolored Phase Extant Map (02/26/08)
Plains Marketing, L.P.
34 Junction to Lea
Lee County, NM

NOVA
NOVA Safety and Environmental

Scale: 1" = 60'
October 15, 2008
CAD By: DCC
Checked By: CDS

NMOCD Ref#: 1R-0396



Legend:

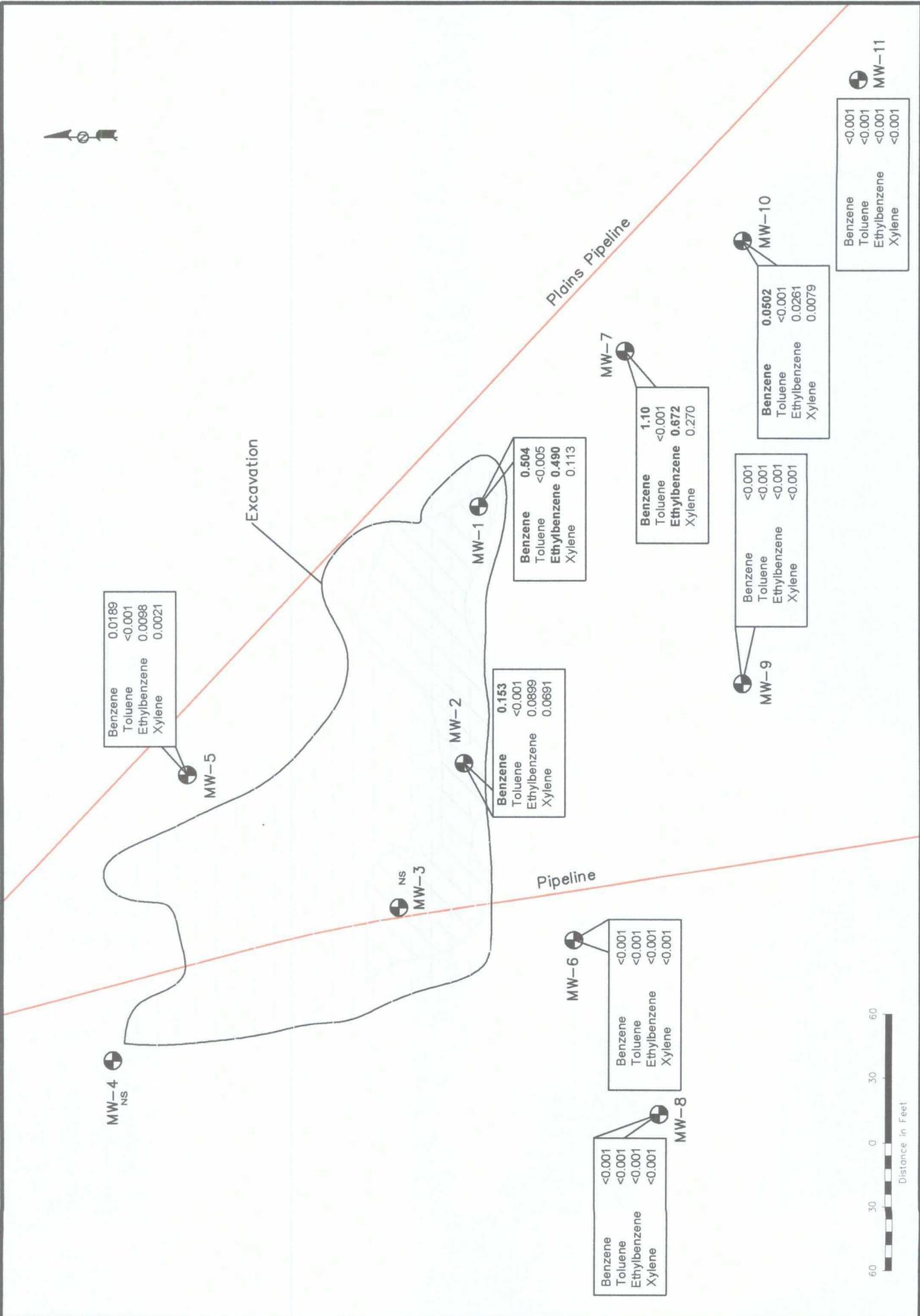
- Monitor Well Location
- Inferred PSH Extant
- PSH Thickness (in feet)
- Constituent Concentration (mg/L)
- Not Sampled
- NS
- Pipeline

Figure 3B
 Inferred PSH Extant
 Disclosed Phase Extant
 Map (05/22/08)
 Plains Marketing, L.P.
 34 Junction to Lea
 Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 60'
 October 16, 2008
 CAD By: DOC
 Checked By: CBS

NMOCD Ref# 1R-0386



Legend:

- Monitor Well Location
- Pipeline
- Inferred PSH Extent
- PSH Thickness (in feet)
- Constituent Concentration (mg/L)
- Not Sampled
- NS

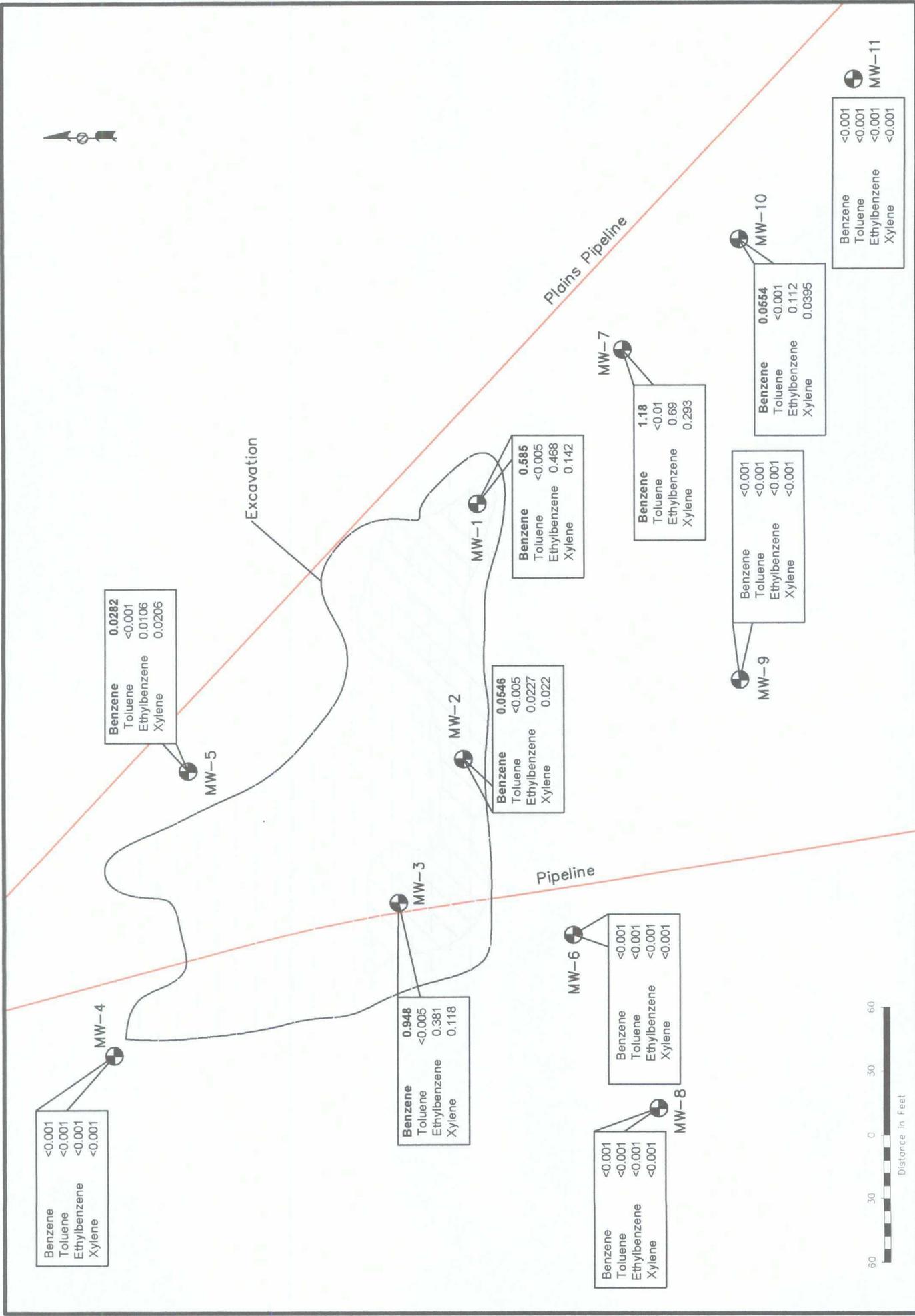
0.15' <0.001

Figure 3C
 Inferred PSH and
 Dissolved Phase Extent
 Map (08/28/08)
 Plains Marketing, L.P.
 34 Junction to Lea
 Lea County, NM

NOVA Safety and Environmental

Scale: 1" = 60'
 October 15, 2008
 CAD By: DOC
 Checked By: COS

NMOCID Ref#: 1R-0386



Legend:

- Monitor Well Location
- Pipeline
- Inferred PSH Extent
- PSH Thickness (in feet)
- Constituent Concentration (mg/L)
- NS Not Sampled

0.18' <0.001

NOVA Safety and Environmental

Figure 3D
Inferred PSH and
Dissolved Phase Extent
Map (11/20/08)
Plains Marketing, L.P.
34 Junction to Lea
Lea County, NM

Scale: 1" = 60'
December 16, 2008
CAD By: DGC
Checked By: RKR

NMOC Ref#: 1R-0386



TABLES

TABLE 1

2008 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
 34 JUNCTION TO LEA STATION
 LEA COUNTY, NEW MEXICO
 NMOCD Reference Number 1R-0386

Well Number	Date Measured	Casing Well Elevation	Depth To Product	Depth To Water	PSH Thickness	Corrected Groundwater Elevation	
MW - 1	02/26/08	3,508.17	-	18.30	0.00	3,489.87	
MW - 1	05/22/08	3,508.17	-	18.28	0.00	3,489.89	
MW - 1	08/28/08	3,508.17	-	18.93	0.00	3,489.24	
MW - 1	11/20/08	3,508.17	-	18.55	0.00	3,489.62	
MW - 2	02/26/08	3,501.45	-	11.17	0.00	3,490.28	
MW - 2	05/22/08	3,501.45	-	11.18	0.00	3,490.27	
MW - 2	08/28/08	3,501.45	-	12.93	0.00	3,488.52	
MW - 2	11/20/08	3,501.45	-	11.46	0.00	3,489.99	
MW - 3	02/26/08	3,495.97	-	8.34	0.00	3,487.63	
MW - 3	04/25/08	3,495.97	-	8.34	0.00	3,487.63	
MW - 3	05/22/08	3,495.97	NOT GAUGED				
MW - 3	08/19/08	3,495.97	-	8.44	0.00	3,487.53	
MW - 3	08/28/08	3,495.97	8.72	8.74	0.02	3,487.25	
MW - 3	09/12/08	3,495.97	-	8.38	0.00	3,487.59	
MW - 3	09/25/08	3,495.97	-	8.54	0.00	3,487.43	
MW - 3	09/30/08	3,495.97	-	8.60	0.00	3,487.37	
MW - 3	10/09/08	3,495.97	-	8.55	0.00	3,487.42	
MW - 3	10/23/08	3,495.97	-	8.37	0.00	3,487.60	
MW - 3	10/28/08	3,495.97	-	8.40	0.00	3,487.57	
MW - 3	11/20/08	3,495.97	-	8.50	0.00	3,487.47	
MW - 3	12/03/08	3,495.97	-	8.73	0.00	3,487.24	
MW - 3	12/16/08	3,495.97	-	8.31	0.00	3,487.66	
MW - 4	02/26/08	3,509.01	-	17.48	0.00	3,491.53	
MW - 4	05/22/08	3,509.01	-	17.42	0.00	3,491.59	
MW - 4	08/28/08	3,509.01	-	18.21	0.00	3,490.80	
MW - 4	11/20/08	3,509.01	-	17.74	0.00	3,491.27	
MW - 5	02/26/08	3,508.74	-	18.39	0.00	3,490.35	
MW - 5	05/22/08	3,508.74	-	18.40	0.00	3,490.34	
MW - 5	08/28/08	3,508.74	-	19.03	0.00	3,489.71	
MW - 5	11/20/08	3,508.74	-	18.64	0.00	3,490.10	
MW - 6	02/26/08	3,509.76	-	20.01	0.00	3,489.75	
MW - 6	05/22/08	3,509.76	-	19.92	0.00	3,489.84	
MW - 6	08/28/08	3,509.76	-	20.69	0.00	3,489.07	
MW - 6	11/20/08	3,509.76	-	20.24	0.00	3,489.52	
MW - 7	02/26/08	3,507.38	-	17.79	0.00	3,489.59	
MW - 7	05/22/08	3,507.38	-	17.76	0.00	3,489.62	
MW - 7	08/28/08	3,507.38	-	18.49	0.00	3,488.89	
MW - 7	11/20/08	3,507.38	-	18.04	0.00	3,489.34	
MW - 8	02/26/08	3,512.14	-	22.88	0.00	3,489.26	
MW - 8	05/22/08	3,512.14	-	22.84	0.00	3,489.30	
MW - 8	08/28/08	3,512.14	-	23.58	0.00	3,488.56	
MW - 8	11/20/08	3,512.14	-	23.15	0.00	3,488.99	

TABLE 1

2008 GROUNDWATER ELEVATION DATA

**PLAINS MARKETING, L.P.
 34 JUNCTION TO LEA STATION
 LEA COUNTY, NEW MEXICO
 NMOCD Reference Number 1R-0386**

Well Number	Date Measured	Casing Well Elevation	Depth To Product	Depth To Water	PSH Thickness	Corrected Groundwater Elevation
MW - 9	02/26/08	3,509.34	-	21.08	0.00	3,488.26
MW - 9	05/22/08	3,509.34	-	21.10	0.00	3,488.24
MW - 9	08/28/08	3,509.34	-	21.74	0.00	3,487.60
MW - 9	11/20/08	3,509.34	-	21.36	0.00	3,487.98
MW - 10	02/26/08	3,506.66	-	18.30	0.00	3,488.36
MW - 10	05/22/08	3,506.66	-	18.28	0.00	3,488.38
MW - 10	08/28/08	3,506.66	-	19.01	0.00	3,487.65
MW - 10	11/20/08	3,506.66	-	18.57	0.00	3,488.09
MW - 11	02/26/08		-	20.24	0.00	
MW - 11	05/22/08		-	20.17	0.00	
MW - 11	08/28/08		-	20.85	0.00	
MW - 11	11/20/08		-	20.51	0.00	

** Complete Historical Tables presented on the attached CD.*

TABLE 2

2008 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
 34 JUNCTION TO LEA
 LEA COUNTY, NEW MEXICO
 NMOCD Reference Number 1R-0386

Sample Location	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	m,p-Xylenes (mg/L)	o-Xylene (mg/L)
NMOCD Regulatory Limit		0.01	0.75	0.75	0.62	
MW - 1	02/26/08	0.870	<0.01	0.770	0.195	
MW - 1	05/22/08	0.463	<0.0100	0.485	0.102	
MW - 1	08/28/08	0.504	<0.005	0.490	0.113	
MW - 1	11/20/08	0.585	<0.005	0.468	0.142	
MW - 2	02/26/08	0.4080	<0.01	0.1830	0.1500	
MW - 2	05/22/08	0.1540	<0.010	0.1440	0.1240	
MW - 2	08/28/08	0.1530	<0.001	0.0899	0.0691	
MW - 2	11/20/08	0.0546	<0.005	0.0227	0.0220	
MW - 3	02/26/08	1.170	0.0298	0.5820	0.2080	
MW - 3	05/22/08	1.280	0.0156	0.4470	0.1500	
MW - 3	08/28/08	Not Sampled due to PSH				
MW - 3	11/20/08	0.948	<0.005	0.3810	0.1180	
MW - 4	02/26/08	Not Sampled on Current Sample Schedule				
MW - 4	05/22/08	Not Sampled on Current Sample Schedule				
MW - 4	08/28/08	Not Sampled on Current Sample Schedule				
MW - 4	11/20/08	<0.001	<0.001	<0.001	<0.001	
MW - 5	02/26/08	0.0112	<0.001	0.0225	<0.001	
MW - 5	05/22/08	0.0053	<0.001	0.0098	0.0018	
MW - 5	08/28/08	0.0189	<0.001	0.0098	0.0021	
MW - 5	11/20/08	0.0282	<0.001	0.0106	0.0206	
MW - 6	02/26/08	<0.001	<0.001	<0.001	<0.001	
MW - 6	05/22/08	<0.001	<0.001	<0.001	<0.001	
MW - 6	08/27/08	<0.001	<0.001	<0.001	<0.001	
MW - 6	11/20/08	<0.001	<0.001	<0.001	<0.001	
MW - 7	02/26/08	1.060	<0.01	0.704	0.2640	
MW - 7	05/22/08	1.060	<0.0100	0.683	0.2680	
MW - 7	08/28/08	1.100	<0.0100	0.672	0.2700	
MW - 7	11/20/08	1.180	<0.0100	0.690	0.2930	
MW - 8	02/26/08	<0.001	<0.001	<0.001	<0.001	
MW - 8	05/22/08	<0.001	<0.001	<0.001	<0.001	
MW - 8	08/27/08	<0.001	<0.001	<0.001	<0.001	
MW - 8	11/20/08	<0.001	<0.001	<0.001	<0.001	

TABLE 2

2008 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
 34 JUNCTION TO LEA
 LEA COUNTY, NEW MEXICO
 NMOCD Reference Number 1R-0386

Sample Location	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	m,p-Xylenes (mg/L)	o-Xylene (mg/L)
NMOCD Regulatory Limit		0.01	0.75	0.75	0.62	
MW - 9	02/26/08	<0.001	<0.001	<0.001	<0.001	
MW - 9	05/22/08	<0.001	<0.001	<0.001	<0.001	
MW - 9	08/27/08	<0.001	<0.001	<0.001	<0.001	
MW - 9	11/20/08	<0.001	<0.001	<0.001	<0.001	
MW - 10	02/26/08	0.0840	0.002	0.1710	0.0572	
MW - 10	05/22/08	0.0536	0.001	0.1160	0.0389	
MW - 10	08/28/08	0.0302	<0.001	0.0261	0.0079	
MW - 10	11/20/08	0.0554	<0.001	0.1120	0.0395	
MW - 11	02/26/08	<0.001	<0.001	<0.001	<0.001	
MW - 11	05/22/08	<0.001	<0.001	<0.001	<0.001	
MW - 11	08/27/08	<0.001	<0.001	<0.001	<0.001	
MW - 11	11/20/08	<0.001	<0.001	<0.001	<0.001	

* Complete Historical Tables presented on the attached CD.

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER - 2008

PLAINS MARKETING, L.P.
 34 JUNCTION TO LEA STATION
 LEA COUNTY, NEW MEXICO
 NMOCD REFERENCE NUMBER 1R-0386

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	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.	03/20/07	<0.0002	<0.0002	0.0019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	0.0003 mg/L	0.0004 mg/L	0.0026	<0.0004	0.0558	<0.0002	<0.0002	0.0303	0.00294	0.00025
	11/20/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.00216	<0.000185	<0.000185	0.01	0.00139	<0.000185	0.0303	0.00294	0.00134
MW-1	03/20/07	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	0.001	0.00383	<0.000185	0.000269	0.000367	<0.0002	0.00614	<0.000185	<0.000185
	11/20/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000329	0.00045	<0.000185	0.000269	0.000367	<0.000185	0.00614	<0.000185	<0.000185
MW-2	03/20/07	<0.0002	<0.0002	0.0019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	0.001	0.00383	<0.000185	0.000269	0.000367	<0.0002	0.00614	<0.000185	<0.000185
	11/20/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000329	0.00045	<0.000185	0.000269	0.000367	<0.000185	0.00614	<0.000185	<0.000185
MW-3	03/20/07	0.0166	<0.0002	0.0067	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	0.0315	<0.0002	0.148	0.0006	<0.0004	0.417	<0.0002	0.0246	0.0366	0.00206	0.111
	11/20/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000329	0.00045	<0.000185	0.00547	0.00263	<0.000185	0.0366	0.00206	0.00245
MW-4	03/20/07	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	0.0006	0.00045	<0.0004	<0.0002	<0.0002	<0.0002	0.0366	0.00206	0.00007
	11/20/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.00045	0.00045	<0.000185	<0.000185	<0.000185	<0.000185	0.0366	0.00206	0.00035
MW-5	03/20/07	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	0.0006	0.00045	<0.0004	0.0059	<0.0002	<0.0002	0.0366	0.00206	0.00006
	11/20/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000555	0.000555	<0.000185	<0.000185	0.000788	<0.000185	0.0366	0.00206	0.00086
MW-6	03/20/07	<0.0002	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	0.0006	0.00045	<0.0004	<0.0002	<0.0002	<0.0002	0.0366	0.00206	0.00003
	11/20/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000555	0.000555	<0.000185	<0.000185	0.000788	<0.000185	0.0366	0.00206	0.00086
MW-7	03/20/07	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	0.0006	0.00045	<0.0004	<0.0002	<0.0002	<0.0002	0.0366	0.00206	0.00092
	11/20/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000555	0.000555	<0.000185	<0.000185	0.000788	<0.000185	0.0366	0.00206	0.00104



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 March 17, 1999

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 EOTT Energy LLC	Contact Frank Hernandez
Address PO Box 1660 5805 East Highway 80 Midland, Texas 79702	Telephone No. 915.638.3799
Facility Name Juction JCT 34 Line to Lea #2002-10286	Facility Type 10" Steel Pipeline

Surface Owner Deck Estate	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter 21	Section 21	Township T20S	Range R37E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea Lat. 32 32' 20.828"N Lon. 103 15' 38.480"W
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NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 300 bbls. barrels	Volume Recovered 190 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 11-06-02 @ 11:00 AM	Date and Hour of Discovery 11-6-02 @ 4:00 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Pat McCasland, EPI	Date and Hour 11-07-02 @ 6:30 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	
If a Watercourse was Impacted, Describe Fully.* NA		
Describe Cause of Problem and Remedial Action Taken.* Pipe repair clamp installed.		
Describe Area Affected and Cleanup Action Taken.* Site will be delineated and a remediation plan developed. Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.		

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.

Signature: 	<u>OIL CONSERVATION DIVISION</u>	
	Approved by District Supervisor:	
Printed Name: Frank Hernandez	Approval Date:	Expiration Date:
Title: District Environmental Supervisor	Conditions of Approval:	
Date: 9-10-02 Phone: 915.638.3799	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary