

Annual GW Mon. REPORTS



2007 ANNUAL MONITORING REPORT RECEIVED 2003 APR 1 PM 2 C

SOUTH MONUMENT GATHERING SOUR

NW ¼, NE ¼, SECTION 5, TOWNSHIP 20 SOUTH, RANGE 37 EAST LEA COUNTY, NEW MEXICO PLAINS SRS # 2001-11193 RP #951

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

safety and environmental

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

2057 Commerce Drive Midland, Texas 79703 432 520-7720 432 520-7701 fax



March 28, 2008

RECEIVED

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 TNM 97-18 TNM 98-05A TNM 98-05B TNM 97-04 Texaco Skelly "F" Darr Angell #2 LF-59 SPS-11 Monument #10 Monument #17 Monument #18 Lea Station to Monument 6" 34 Junction South Station Bob Durham Darr Angell #1 ~ Darr Angell #4 HDO 90-23 Junction 34 to Lea Monument #2 Monument Barber 10" Sour Monument #11 Red Byrd #1 South Monument Gathering **Denton Station**

Section 21, Township 20 South, Range 37 East, Lea County Section 28, Township 20 South, Range 37 East, Lea County Section 26, Township 21 South, Range 37 East, Lea County Section 26, Township 21 South, Range 37 East, Lea County Section 11, Township 16 South, Range 35 East, Lea County Section 21, Township 20 South, Range 37 East, Lea County Section 14, Township 15 South, Range 37 East, Lea County Section 32, Township 19 South, Range 37 East, Lea County Section 18, Township 18 South, Range 36 East, Lea County Section 32, Township 19 South, Range 37 East, Lea County Section 29, Township 19 South, Range 37 East, Lea County Section 7, Township 20 South, Range 37 East, Lea County Section 5, Township 20 South, Range 37 East, Lea County Section 2, Township 17 South, Range 36 East, Lea County Section 32, Township 19 South, Range 37 East, Lea County Section 11, Township 15 South, Range 37 East, Lea County Sections 2 and 11, Township 15 South, Range 37 East, Lea County Section 6, Township 20 South, Range 37 East, Lea County Section 21, Township 20 South, Range 37 East, Lea County Section 6, Township 20 South, Range 37 East, Lea County Section 32, Township 19 South, Range 37 East, Lea County Section 30, Township 19 South, Range 37 East, Lea County Section 1, Township 20 South, Range 36 East, Lea County Section 5, Township 20 South, Range 37 East, Lea County Section 14, Township 15 South, Range 37 East, Lea County

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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,

Keynolds amile

Camille Reynolds Remediation Coordinator Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

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APPENDICES

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

ENCLOSED ON DATA DISK

2007 Annual Monitoring Report 2007 Tables 1 and 2 – Groundwater Elevation and BTEX Concentration Data 2007 Figures 1, 2A-2D, 3A-3D, 4 Electronic Copies of Laboratory Reports Historic Groundwater Elevation Data Table Historic BTEX Concentration Table

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 South Monument Gathering Sour site, which was formally the responsibility of EOTT Energy, is now the responsibility of Plains. This report is intended to be viewed as a complete document with text, figures, tables and appendices. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 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 of four quarters in calendar year 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

On November 20, 2001, EOTT Energy, Corp.(EOTT) reported a 1,200 barrel release of sour crude oil from a pipeline located approximately one half mile southwest of Monument, New Mexico. The site is located in the NW ¼ NE ¼ , Section 5, Township 20 South, Range 37 East, Lea County, New Mexico. The initial response was conducted by Allstate Environmental Services (AES) in November 2001. According to AES's *Summary of Cleanup Activities and Site Delineation* (November 27 to December 12, 2001), on November 30, 2001, AES began excavating, stockpiling and transporting impacted soil to the C & C Landfarm. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A. According to documentation prepared by AES, on November 30 and December 1, 2001, approximately 408 cubic yards (cy) of hydrocarbon impacted soil was transported to the landfarm. On December 5, 2001, excavation of the site ceased while EOTT and the landowner (Mr. Jimmy Cooper) entered into negotiations. From December 3 through December 11, 2001, AES collected samples and began mapping the site.

On March 3, 2005, NOVA, on behalf of Plains, collected excavation sidewall, floor, stockpile, and flow path soil samples. Stockpile and flow path soil samples were collected as five point composites collected at the surface as well as depths of three, six, twelve and eighteen inches below ground surface (bgs). Soil samples were collected at intervals of approximately 100 linear feet along the flow path and approximately one sample per three hundred square feet in the existing excavation bottom and existing stockpiles.

On July 25, 2006, four soil borings were advanced adjacent to or within the existing excavation to investigate the vertical and horizontal extent of hydrocarbon impact in these areas.

On September 13, 2006, a backhoe was utilized to excavate five investigation trenches along the reported crude oil flow path. The result of trenching activities in the flow path indicated hydrocarbon impact is present at depth, but limited to the lateral extent of the flow path.

On November 30 through December 4, 2006, nine additional soil borings were advanced and three groundwater monitoring wells were installed to further delineate the site. The results of drilling activities indicate hydrocarbon impacted soil is limited to areas immediately adjacent to the leak source and the subsequent flow path.

RECENT FIELD ACTIVITIES

No measurable thicknesses of PSH were reported on any of the monitor wells during the reporting period.

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule.

Sampling Schedule					
MW-1	Quarterly				
MW-2	Quarterly				
MW-3	Quarterly				

The site monitor wells were gauged and sampled on February 19, May 14, August 28, and November 5, 2007. During each sampling event, sampled monitor wells were purged 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 utilizing measurements collected during the four quarterly monitoring events, are depicted on Figures 2A through 2D. 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 0.0007 feet/foot to the south as measured between monitor wells MW-2 and MW-1. During the 1st and 2nd quarters of the reporting period, the groundwater gradient progressed to the southeast during the 3rd and 4th quarters, the inferred groundwater gradient progressed to the south. The corrected groundwater elevation has ranged between 3,531.64 and 3,532.29 feet above mean sea level, in monitor wells MW-1 on November 5, 2007 and MW-3 on February 19, 2007, respectively.

Currently, three monitor wells are located on site.

LABORATORY RESULTS

No measurable thicknesses of PSH were reported on any of the monitor wells during the reporting period.

Groundwater samples obtained during the sampling events of 2007 were delivered to. TraceAnalysis, Inc. in Lubbock, Texas, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021b. A cumulative 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-3D.

Monitor well MW-1 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.0015 mg/L during the 4th quarter to 0.0084 mg/L during the 2nd quarter of 2007. Benzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.001 mg/L during the 2nd, 3rd and 4th quarter to 0.0049 mg/L during the 1st quarter of 2007. Ethylbenzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1st quarter of 2007. Xylene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1st quarter of 2007. Xylene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1st quarter of 2007. Xylene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-2 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from <0.001 mg/L during the 4th quarter to 0.0665 mg/L during the 3rd quarter of 2007. Benzene concentrations were above NMOCD regulatory standards during the 1st, 2nd and 3rd quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.001 mg/L during the 4th quarter to 0.0152 mg/L during the 2nd quarter of 2007. Ethylbenzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 4th quarter to 0.001 mg/L during the 2nd quarter of 2007. Ethylbenzene concentrations ranged from <0.001 mg/L during the 2nd quarter of 2007. Xylene concentrations were below NMOCD regulatory standards during the 2nd quarter to 0.0414 mg/L during the 2nd quarter of 2007. Xylene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period.

Monitor well MW-3 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.

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 annual monitoring period of 2007. Currently, there are three groundwater monitor wells (MW-1 through MW-3) on-site. The most

recent Groundwater Gradient Map, Figure 2D indicates a general gradient of approximately 0.0007 feet/foot to the southeast. During the 1^{st} and 2^{nd} quarters of the reporting period the groundwater gradient was to the southeast, a shift to the south appears to have occurred between the 2^{nd} and 3^{rd} quarters of 2007.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2007 monitoring period indicates benzene concentrations in monitor well MW-2 were above the NMOCD regulatory standards during the 1st, 2nd, and 3rd quarter sampling events. Toluene, ethylbenzene and xylene concentrations were below NMOCD regulatory standards in all three monitor wells for each quarterly sampling event.

ANTICIPATED ACTIONS

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

In the event the benzene concentrations in monitor well MW-2 exceed the NMOCD regulatory standard of 0.010 mg/L for an extended period of time, Plains will install an additional monitor well to the north and to the east of the monitor well.

A Stage 1 and Stage 2 Abatement Plan will be submitted to the NMOCD in 2008.

LIMITATIONS

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

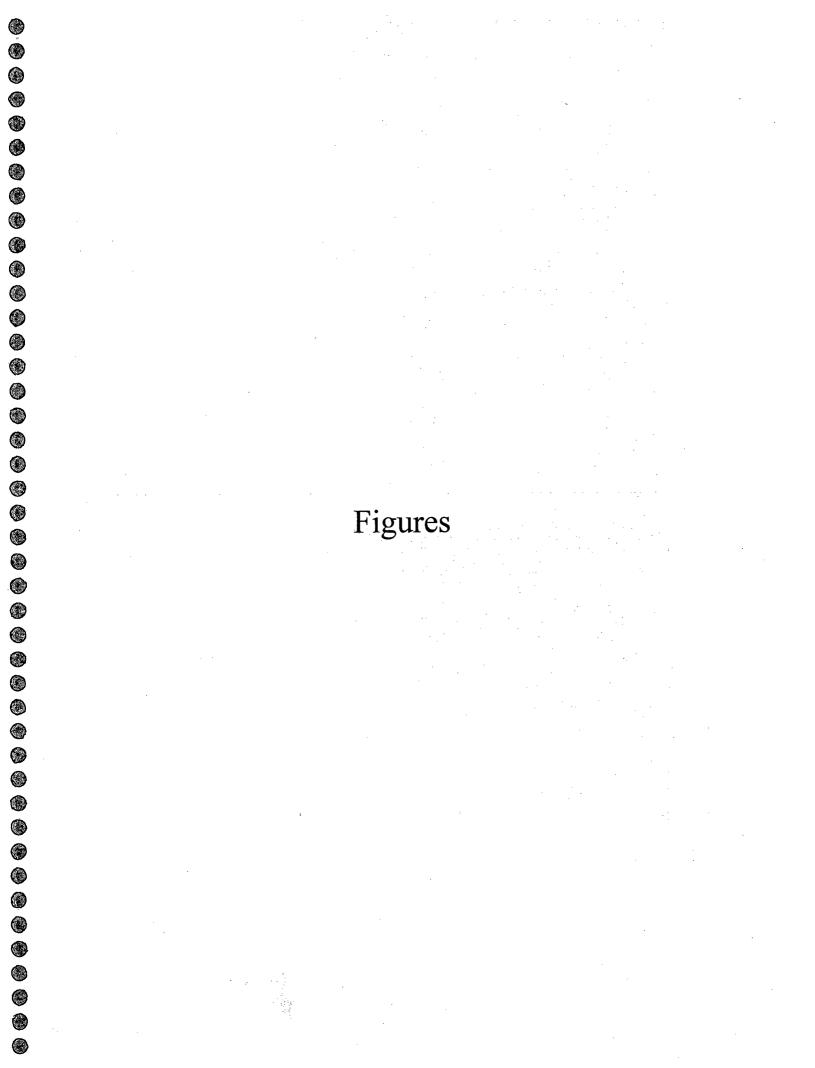
NOVA has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that 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.

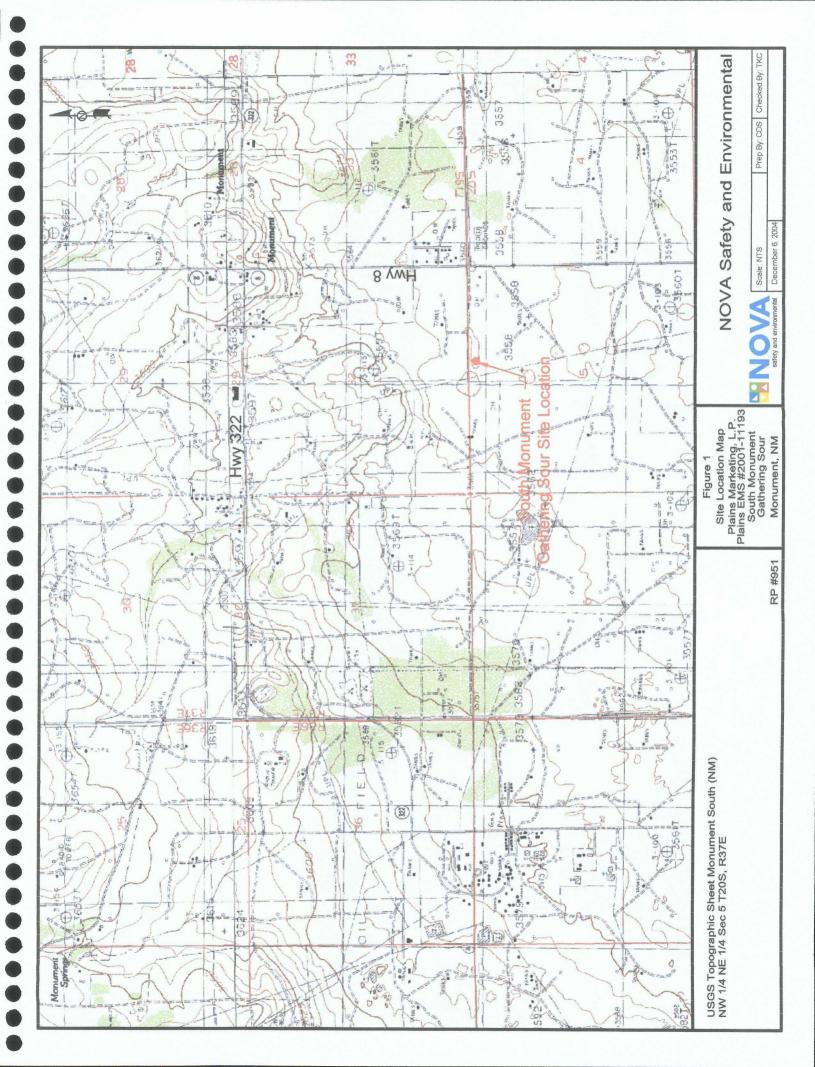
This report has been prepared for the benefit of Plains. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of NOVA and/or Plains.

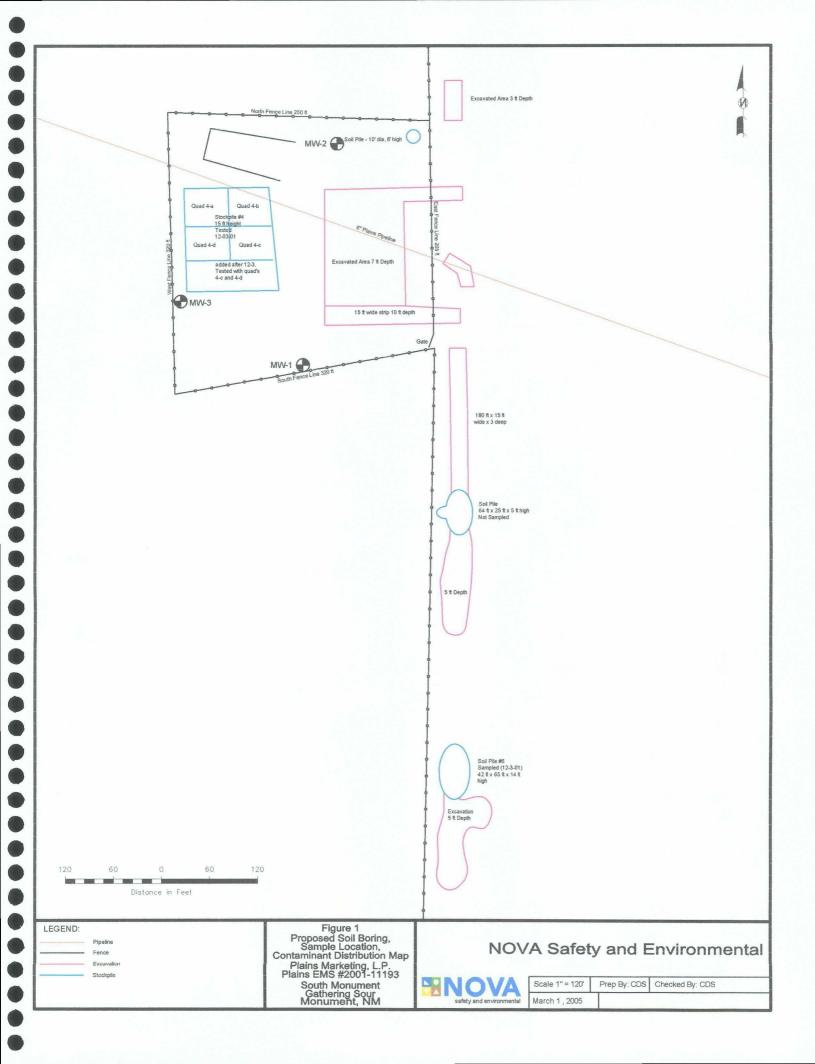
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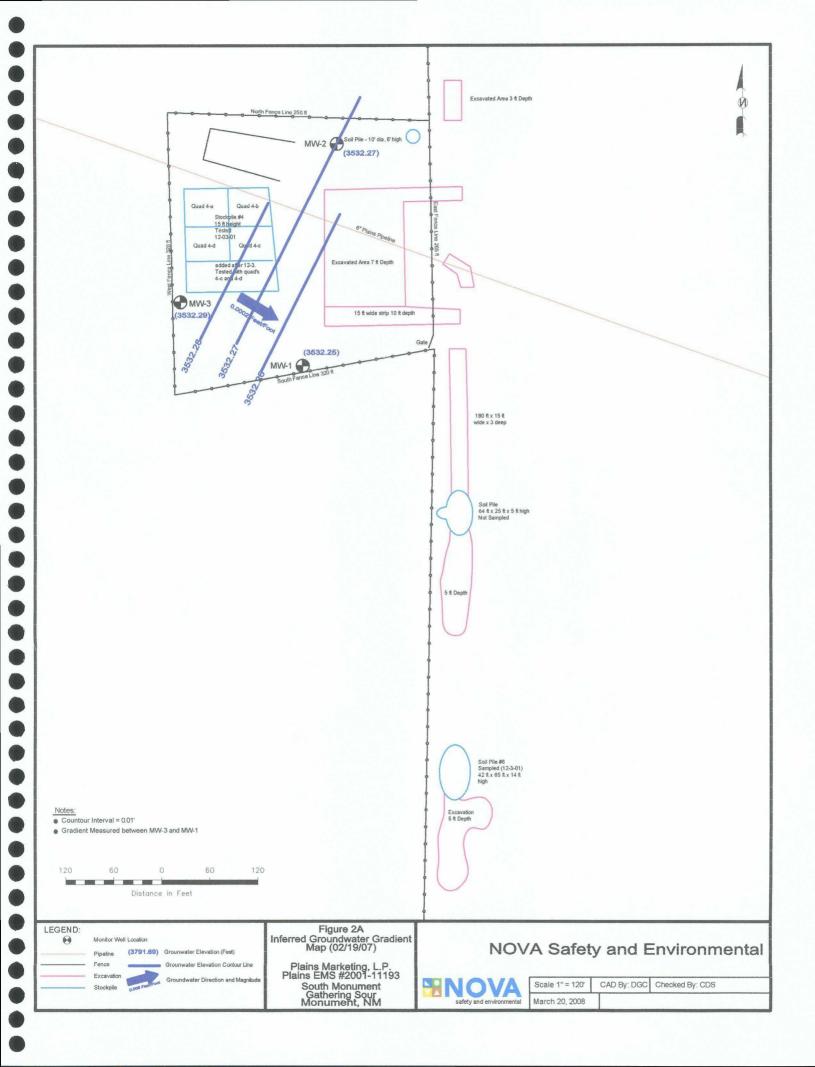
Copy 1	Ed Hansen New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505
Copy 2:	Larry Johnson New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, District 1 1625 French Drive Hobbs, NM 88240
Copy 3:	Camille Reynolds Plains Marketing, L.P. 3112 Highway 82 Lovington, NM cjreynolds@paalp.com
Copy 4:	Jeff Dann Plains Marketing, L.P. 333 Clay Street Suite 1600 Houston, TX 77002 jpdann@paalp.com
Copy 5:	NOVA Safety and Environmental 2057 Commerce Street Midland, TX 79703 cstanley@novatraining.cc

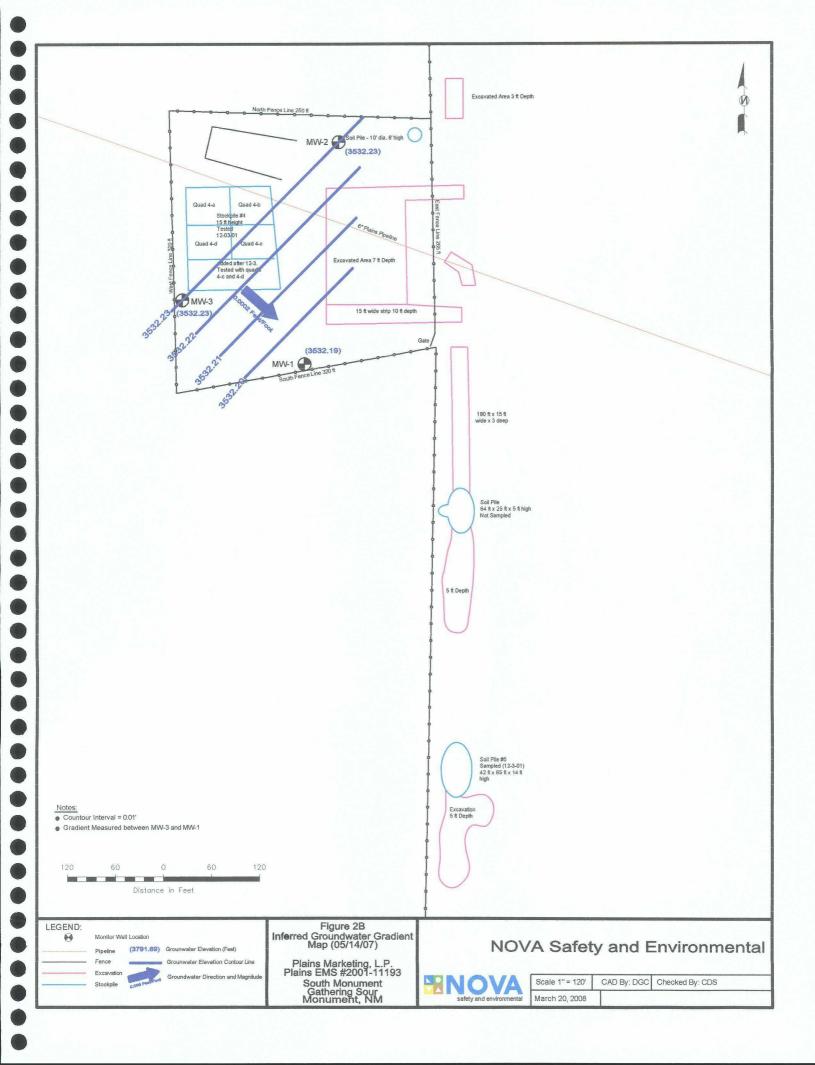
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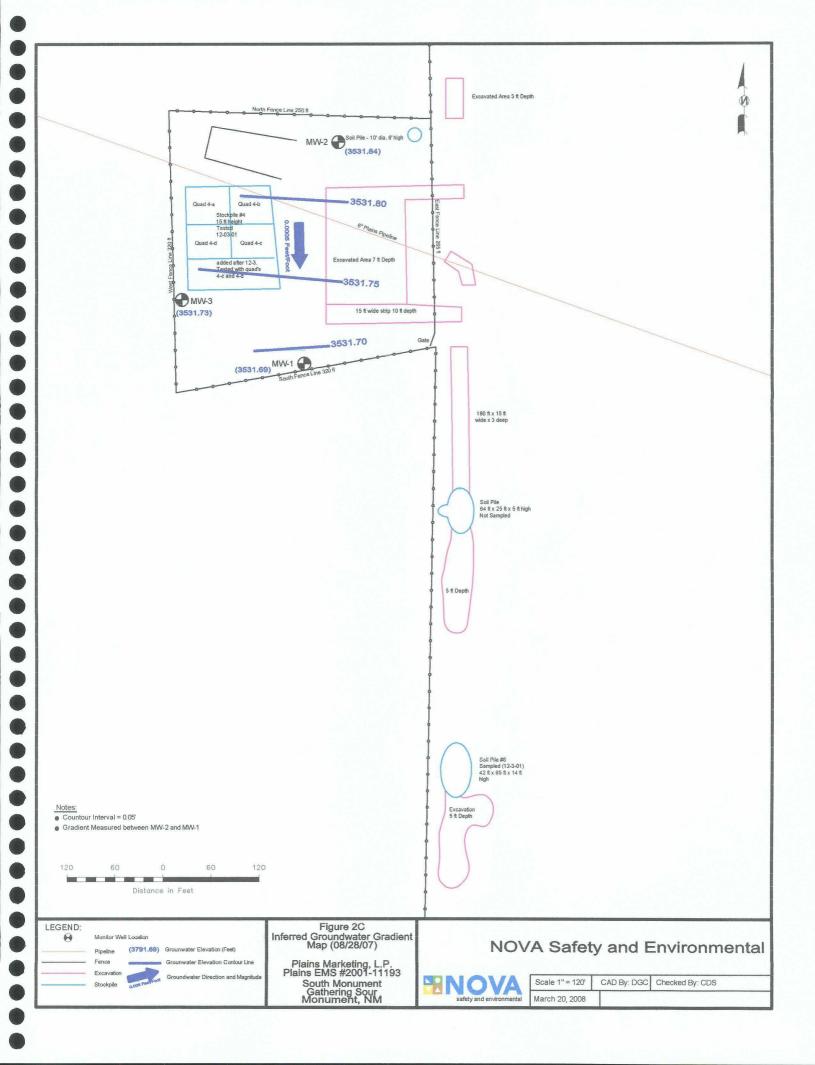


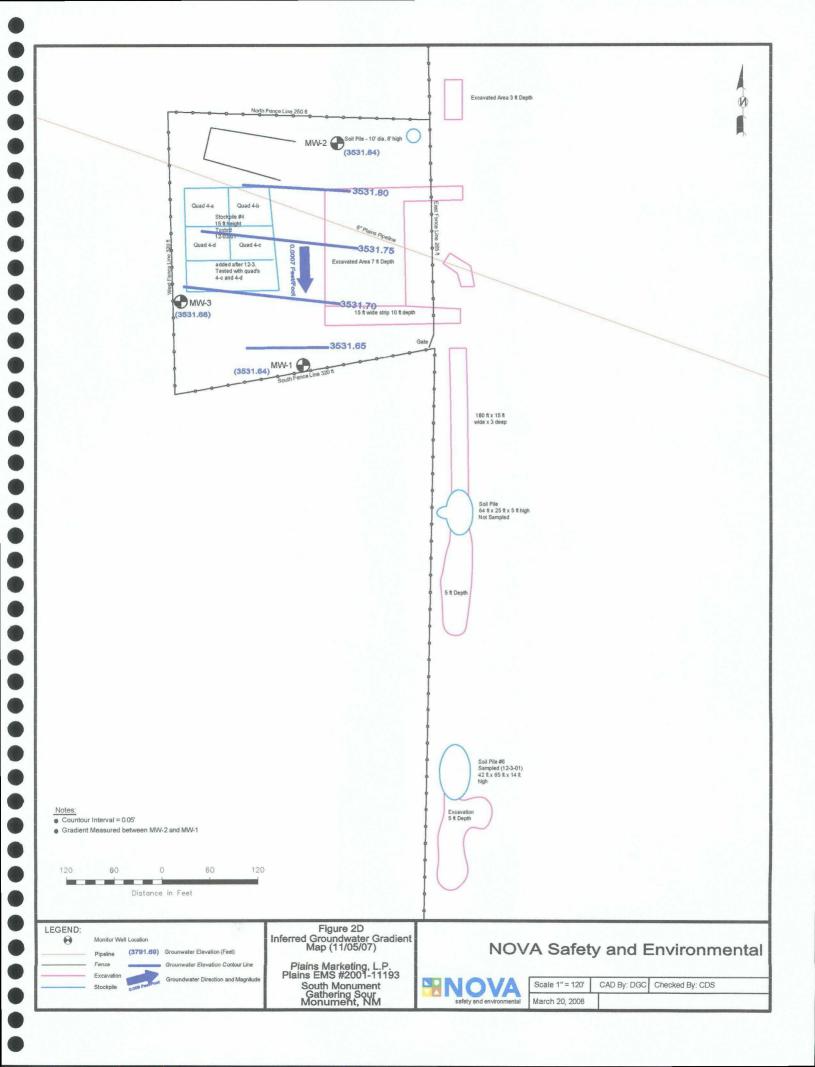


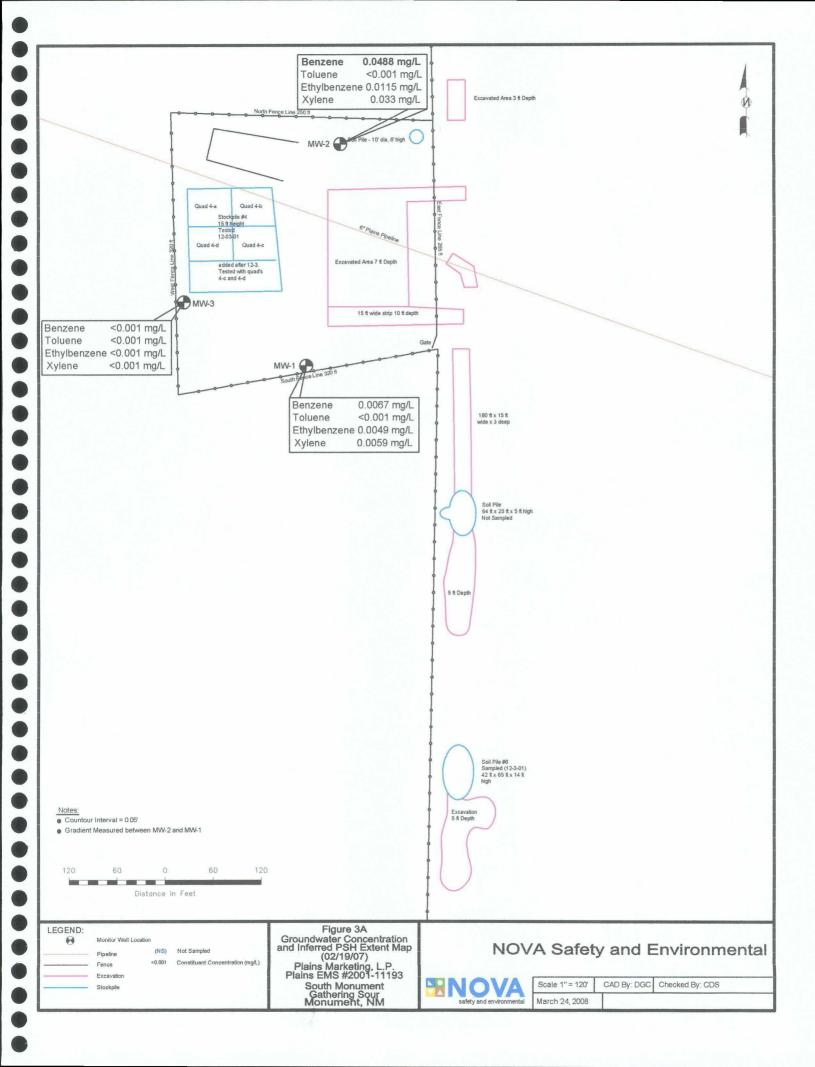


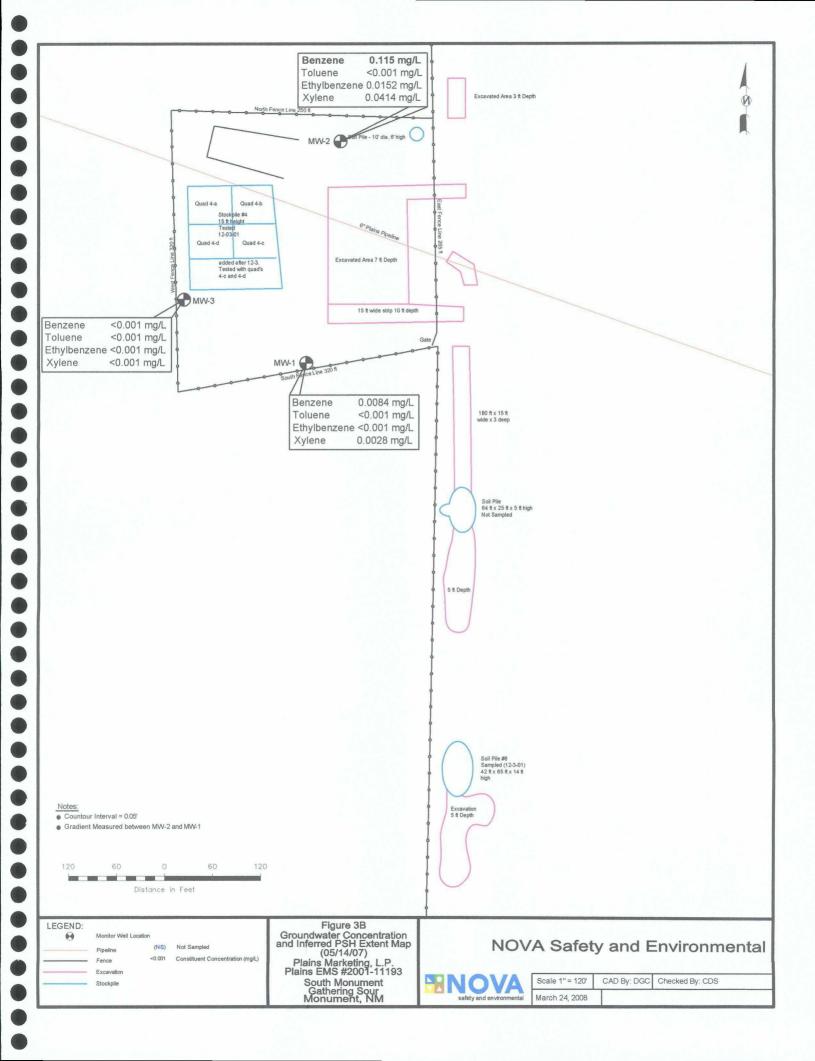


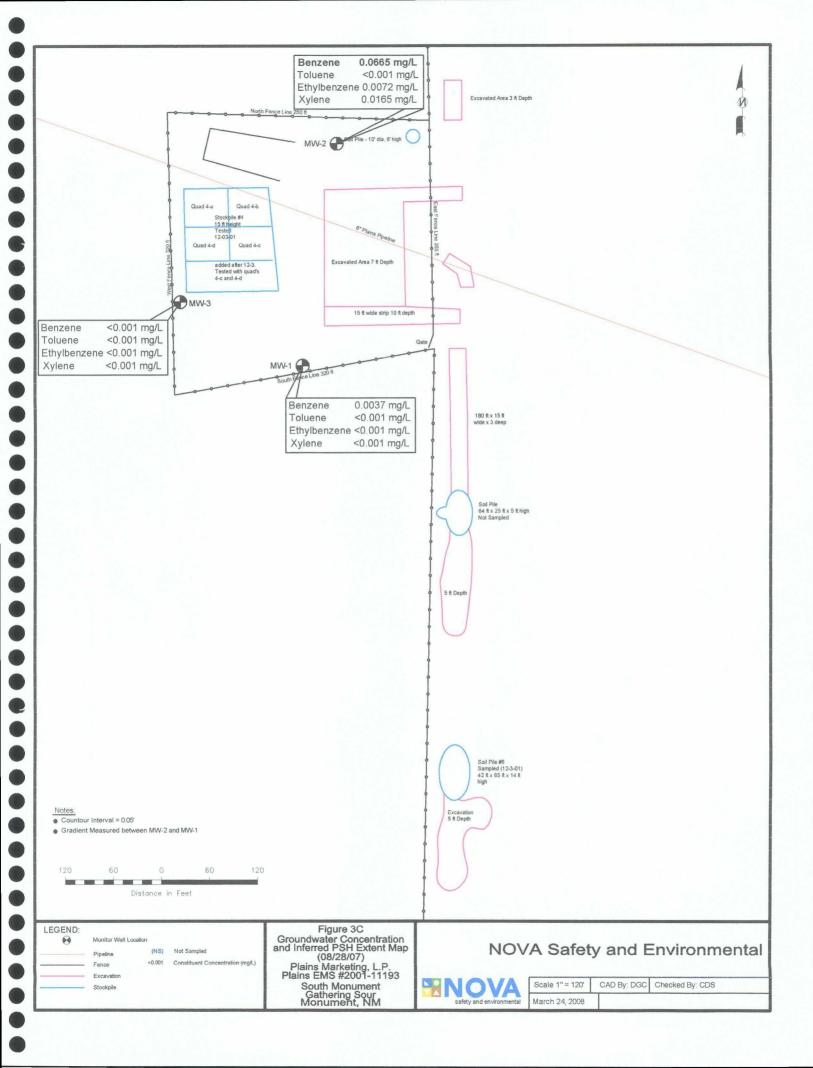


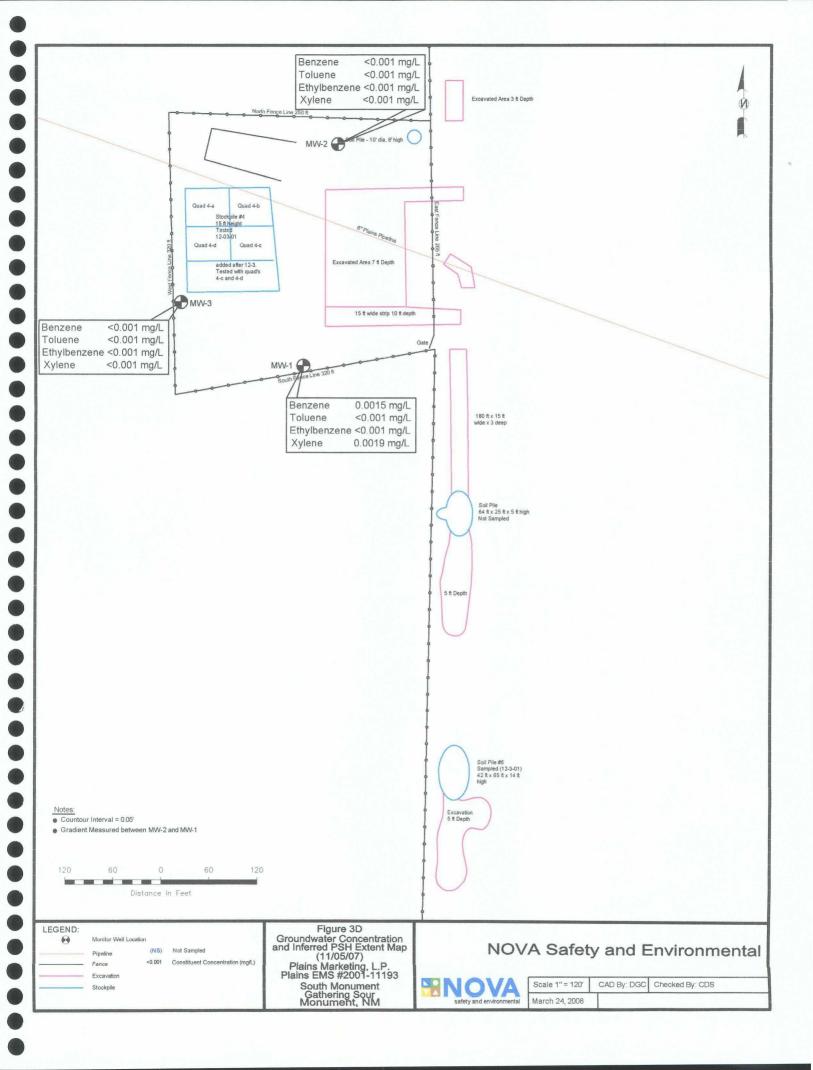












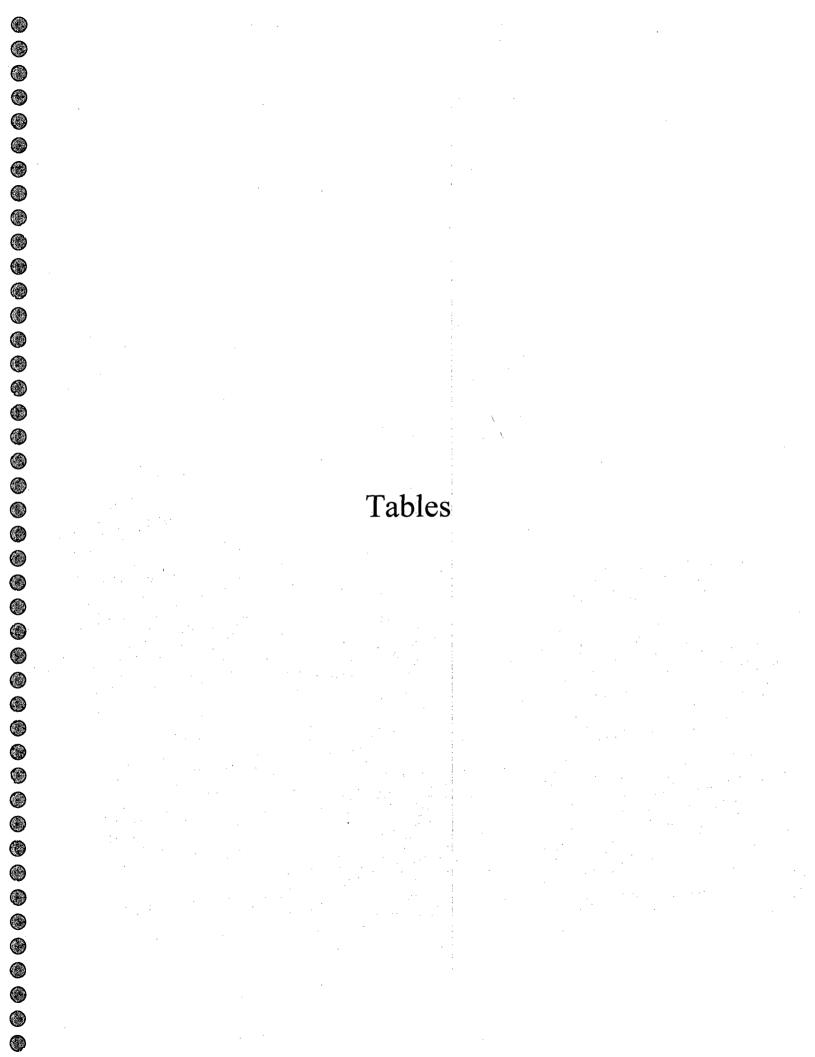


TABLE 1

2007 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P. South Monument Gathering Sour LEA COUNTY, NEW MEXICO PLAINS SRS# 2001-11193 RP #951

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	02/19/07	3,564.20	-	31.95	0.00	3,532.25
	03/16/07	3,564.20	-	31.99	0.00	3,532.21
	05/14/07	3,564.20	-	32.01	0.00	3,532.19
	08/28/07	3,564.20	-	32.51	0.00	3,531.69
	11/05/07	3,564.20	-	32.56	0.00	3,531.64
	1750 Barris					
MW-2	02/19/07	3,563.83	-	31.56	0.00	3,532.27
	03/16/07	3,563.83	-	31.59	0.00	3,532.24
	05/14/07	3,563.83	-	31.60	0.00	3,532.23
	08/28/07	3,563.83	-	31.99	0.00	3,531.84
	11/05/07	3,563.83	-	31.99	0.00	3,531.84
MW-3	02/19/07	3,564.42	-	32.13	0.00	3,532.29
	03/16/07	3,564.42	-	32.18	0.00	3,532.24
	05/14/07	3,564.42	-	32.19	0.00	3,532.23
	08/28/07	3,564.42	_	32.69	0.00	3,531.73
	11/05/07	3,564.42	-	32.74	0.00	3,531.68
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Table 2

2007 CONCENTRATIONS OF BTEX IN GROUNDWATER PLAINS MARKETING, L.P.

SOUTH MONUMENT GATHERING SOUR

Lea County, New Mexico

Plains SRS# 2001-11193

RP #951 All concentrations are in mg/L

	T		ure m mg/D		
SAMPLE LOCATION	SAMPLE DATE	Benzene	Toluene	Ethylbenzene	Xylene
NMOCD REGULATORY STANDARD		0.01	0.75	0.75	0.62
MW-1	02/19/07	0.0067	< 0.001	0.0049	0.0059
	03/16/07	0.0082	< 0.001	0.004	0.0036
	05/14/07	0.0084	< 0.001	< 0.001	0.0028
	08/28/07	0.0037	< 0.001	< 0.001	< 0.001
	11/06/07	0.0015	< 0.001	< 0.001	0.0019
(i) A statistical statistic					
MW-2	02/19/07	0.0488	< 0.001	0.0115	0.033
	03/16/07	0.0362	< 0.001	0.0034	0.0095
	05/14/07	0.115	< 0.001	0.0152	0.0414
	08/28/07	0.0665	< 0.001	0.0072	0.0165
	11/05/07	< 0.001	< 0.001	< 0.001	< 0.001
and the second					
MW-3	02/19/07	< 0.001	< 0.001	< 0.001	< 0.001
	03/16/07	< 0.001	< 0.001	< 0.001	< 0.001
	05/14/07	< 0.001	< 0.001	< 0.001	<0.001
	08/28/07	< 0.001	< 0.001	< 0.001	< 0.001
	11/05/07	< 0.001	< 0.001	< 0.001	< 0.001

Appendices

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

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		Rel	ease Notifi				ction			
					OPER A		x Init	ial Report	Final Re	
Name of Compan Address 5805 Eas			70706			nille Reynolds No. 505-441-09	65			
Facility Name So						be 6"Steel Pipel		-		
Surface Owner Jimmie Cooper Mineral Owner							Lease	No.	· · · · · ·	
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				ruri	E OF REL			_		
Type of Release Cr					Volume of	Release 1200 ba		Recovered 9		
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Was Immediate No		x Yes 🔲	No 🔲 Not Rea	quired	If YES, To Paul Sheel		11200			
By Whom? Frank H			······			Iour 11-20-01@1			· · · · · · · · · · · · · · · · · · ·	
Was a Watercourse	-] Yes 🛛	No No		If YES, Volume Impacting the Watercourse.					
Describe Cause of I the line to mitigate Describe Area Affe Initial response acti soil and groundwate	the release. ected and Cleanup ivities included ex	Action Ta	ken.* The crude of a stockpiling of a	oil was	vacuumed up imately 5,000 t	and the impacted	soil was excavate	d and stockp	iled on plastic.	
NOTE: This informinformation to be		ined from	historical EOTT	files,]	Plains acquire	d EOTT/Link E	nergy on April 1,	2004 and P	ains assumes th	
I hereby certify that regulations all oper public health or the should their operati or the environment. federal, state, or loc	ators are required environment. The ions have failed to . In addition, NM	to report a ne acceptan de adequatel IOCD acce	nd/or file certain ace of a C-141 rep y investigate and a	release ort by remedi	notifications a the NMOCD m ate contaminati	nd perform corre- narked as "Final R ion that pose a th	ctive actions for re report" does not re reat to ground wat	leases which lieve the ope er, surface w	may endanger rator of liability ater, human healt	
Signature:						OIL CON	SERVATION	I DIVISIO	<u>DN</u>	
					Approved by District Supervisor:					
					Approval Da	te:	Expiratior	Expiration Date:		
The. Remediation	E-mail Address: cjreynolds@paalp.com				Conditions of Approval:		Attached			
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	reynolds@paalp.o		Phone:505-441-	0965				Attacheu		