1R - 951

Annual GW Mon. Report

Year: 2011

PLAINS
ALL AMERICAN

March 22, 2012

RECEIVED

MAR 26 2012

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

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

Re: Plains All American – 2011 Annual Monitoring Report
South Monument Gathering Sour
NMOCD Reference # 1R-951
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 report for the following site:

S. Mon. Gath. Sour 1R-951 Section 05, Township 20 South, Range 37 East, Lea County

Please note that the 2011 Annual Monitoring Report for the subject site includes a request for site closure. The NMOCD approved soil closure for this site in July 2011, contingent upon the submittal of documentation of re-seeding activities. At the direction of the landowner, re-seeding at this site was postponed indefinitely until adequate rainfall has been received. If the current drought conditions relent during the 2012 growing season, the site will be re-seeded and documentation will be submitted to the NMOCD.

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

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

Sincerely,

Jason Henry
Remediation Coordinator
Plains All American

CC: Geoff Leking, NMOCD, Hobbs, NM

Enclosures

2011
ANNUAL MONITORING REPORT

SOUTH MONUMENT GATHERING SOUR

NW ¼, NE ¼, SECTION 5, TOWNSHIP 20 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO
PLAINS SRS # 2001-11193
NMOCD Reference # 1R-951

PREPARED FOR:

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

NOVA
safety and environmental

PREPARED BY:

NOVA Safety and Environmental
2057 Commerce Street
Midland, Texas 79703

March 2012

Ronald K. Rounsaville
Senior Project Manager

Brittan K. Byerly, P.G.
President

TABLE OF CONTENTS

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 2011 only. However, historic data tables as well as 2011 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 2011 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.

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 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. Samples were also collected every 500 square feet from the existing soil 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 the area of the release point.

On September 13, 2006, a backhoe was utilized to excavate five investigation trenches along the crude oil flow path. The result of trenching activities in the flow path indicated hydrocarbon impact was 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.

On August 5, 2010, soil excavation activities began to address the soil remediation at the leak source and flowpath areas. An estimated 40,700 cubic yards of soil was brought to surface and combined with an existing 5,000 cubic yard soil stockpile excavated during the 2001 emergency abatement activities and transported off-site to an NMOCD approved landfarm. Following the completion of the soil excavation activities, a *Soil Closure Request,* dated June 2011, was submitted to the NMOCD for approval. Plains is currently awaiting a response from the NMOCD.

On November 8, 2011, the NMOCD provided Plains with approval to suspending PAH analysis for the South Monument Gathering Sour site.

Currently, three monitor wells are located on site.

FIELD ACTIVITIES

Groundwater Monitoring

During the 2011 reporting period, measurable PSH or hydrocarbon sheen was not observed in any of the site monitor wells. The 2011 gauging data is provided in Table 1.

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 25, May 4, August 9, and November 10, 2011. 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 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 utilizing measurements collected during the four quarterly monitoring events, are depicted on

Figures 2A through 2D. Groundwater elevation data for 2011 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-southwest as measured between monitor wells MW-2 and MW-3. The corrected groundwater elevation has ranged between 3,530.45 and 3,531.61 feet above mean sea level, in monitor wells MW-3 on November 10, 2011 and MW-2 on August 9, 2011, respectively.

LABORATORY RESULTS

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

Groundwater samples obtained during the quarterly sampling events of 2011 were delivered to Trace Analysis, Inc. in Midland, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021B. Polynuclear Aromatic Hydrocarbons (PAH) analysis was not conducted during the 2011 calendar year. Based upon historic PAH analytical data, only those wells exhibiting elevated constituent concentrations above WQCC standards will be sampled, with the exclusion of those wells containing measurable PSH thicknesses. A listing of BTEX constituent concentrations for 2011 are summarized in Table 2 and the historic PAH constituent concentrations are summarized in Table 3. Copies of the laboratory reports generated for 2011 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, toluene, ethyl-benzene 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 at least four consecutive quarters. PAH analysis is no longer required at this site.

Monitor well MW-2 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethyl-benzene 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 17 consecutive quarters.

Monitor well MW-3 is sampled on a quarterly schedule and analytical results indicate benzene, toluene, ethyl-benzene 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 22 consecutive quarters.

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 2011. 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 0.004 feet/foot to the south-southwest.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2011 monitoring period indicates BTEX constituent concentrations were below NMOCD regulatory standard in all three monitor wells during the 2011 reporting period. PAH analysis is no longer required at this site.

From August 2, 2010 through April 4, 2011, soil excavation activities were conducted to address the soil remediation at the leak source and flowpath areas. An estimated 40,700 cubic yards of soil was brought to surface and combined with an existing 5,000 cubic yard soil stockpile excavated during the 2001 emergency abatement activities and transported off-site to an NMOCD approved landfarm. Following the completion of the soil excavation activities, a *Soil Closure Request,* dated June 2011, was submitted to the NMOCD for approval. Plains is awaiting NMOCD approval to close the soil remediation portion at the site.

Review of laboratory analytical results of the groundwater samples obtained from the three site monitoring wells since 2006 indicate that benzene and total BTEX constituent concentrations have been below NMOCD regulatory standards for a minimum of 16 consecutive quarters prior to the 3rd quarter of 2010 when remediation excavation activities began. Elevated benzene concentrations slightly above the NMOCD cleanup standards were detected in monitor well MW-1 during the 3rd and 4th quarters of 2010 and appear to coincide with excavation activity conducted in the vicinity of MW-1. Subsequent groundwater analysis on samples collected from MW-1 following the completion of all excavation activities during the 2nd quarter of 2011 and during the remaining two quarters of 2011 exhibited BTEX concentrations below laboratory method detection limits.

ANTICIPATED ACTIONS

Plains is requesting approval for termination of groundwater monitoring at this site including plugging and abandoning of the three monitor wells and is requesting NMOCD approval for Final Site Closure (soil and groundwater) for the crude oil leak site known as South Monument Gathering Sour.

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.

DISTRIBUTION

Copy 1
Ed Hansen
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

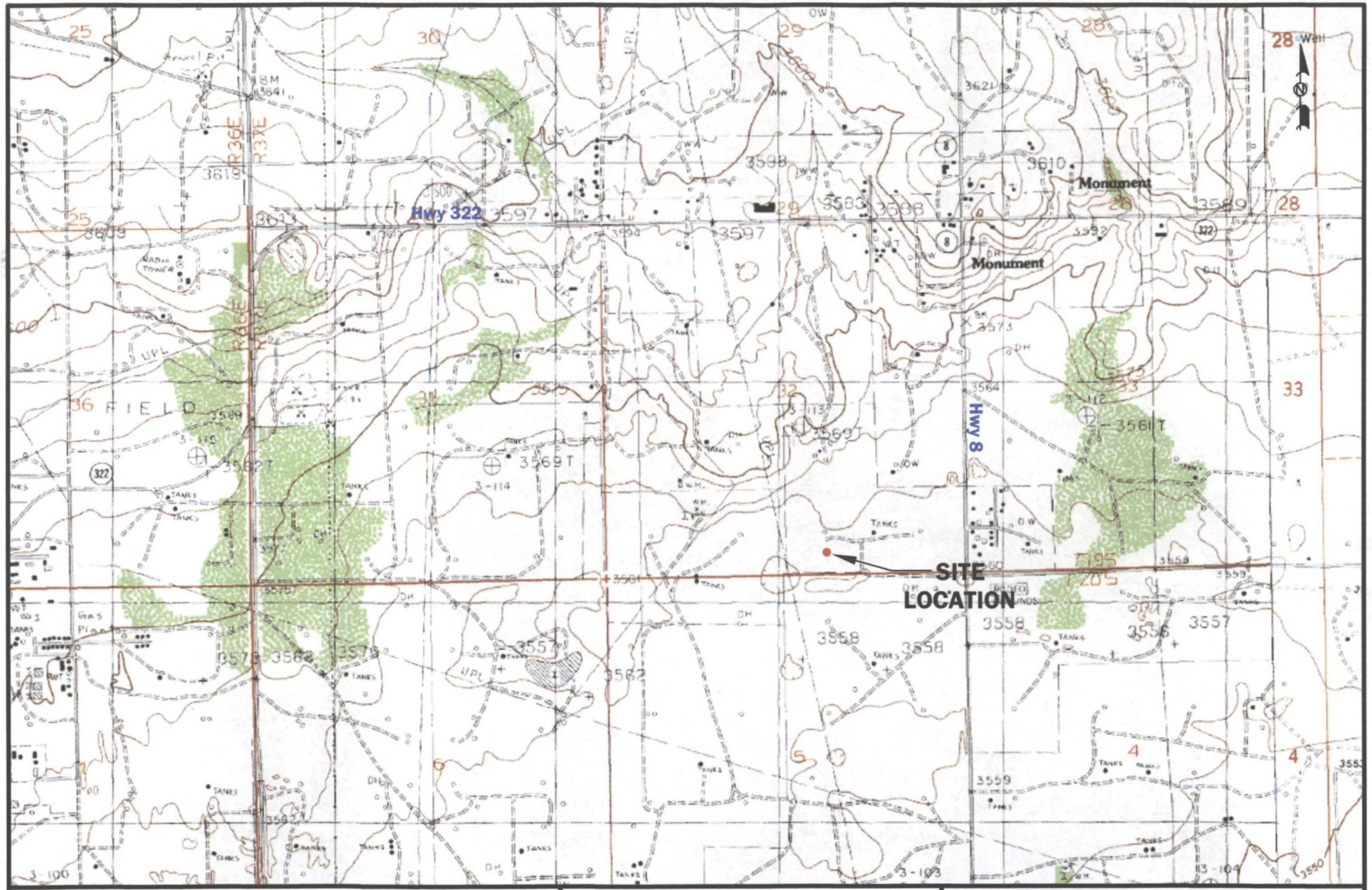
Copy 2:
Geoffrey R. Leking
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1625 French Drive
Hobbs, NM 88240

Copy 3:
Jason Henry
Plains Marketing, L.P.
2530 State Highway 214
Denver City, TX 79323
jhenry@paalp.com

Copy 4:
Jeff Dann
Plains Marketing, L.P.
333 Clay Street
Suite 1600
Houston, TX 77002
jpdann@paalp.com

Copy 5:
NOVA Safety and Environmental
2057 Commerce Street
Midland, TX 79703
rrounsaville@novatraining.cc

Figures



LEGEND:

2000 1000 0 1000 2000

Distance in Feet

Plains EMS # 2001-11193
NMOCD Reference # RP-951

Figure 1
Site Location Map
South Monument (6) Gathering Station
Plains Marketing, L.P.
Lea County, NM

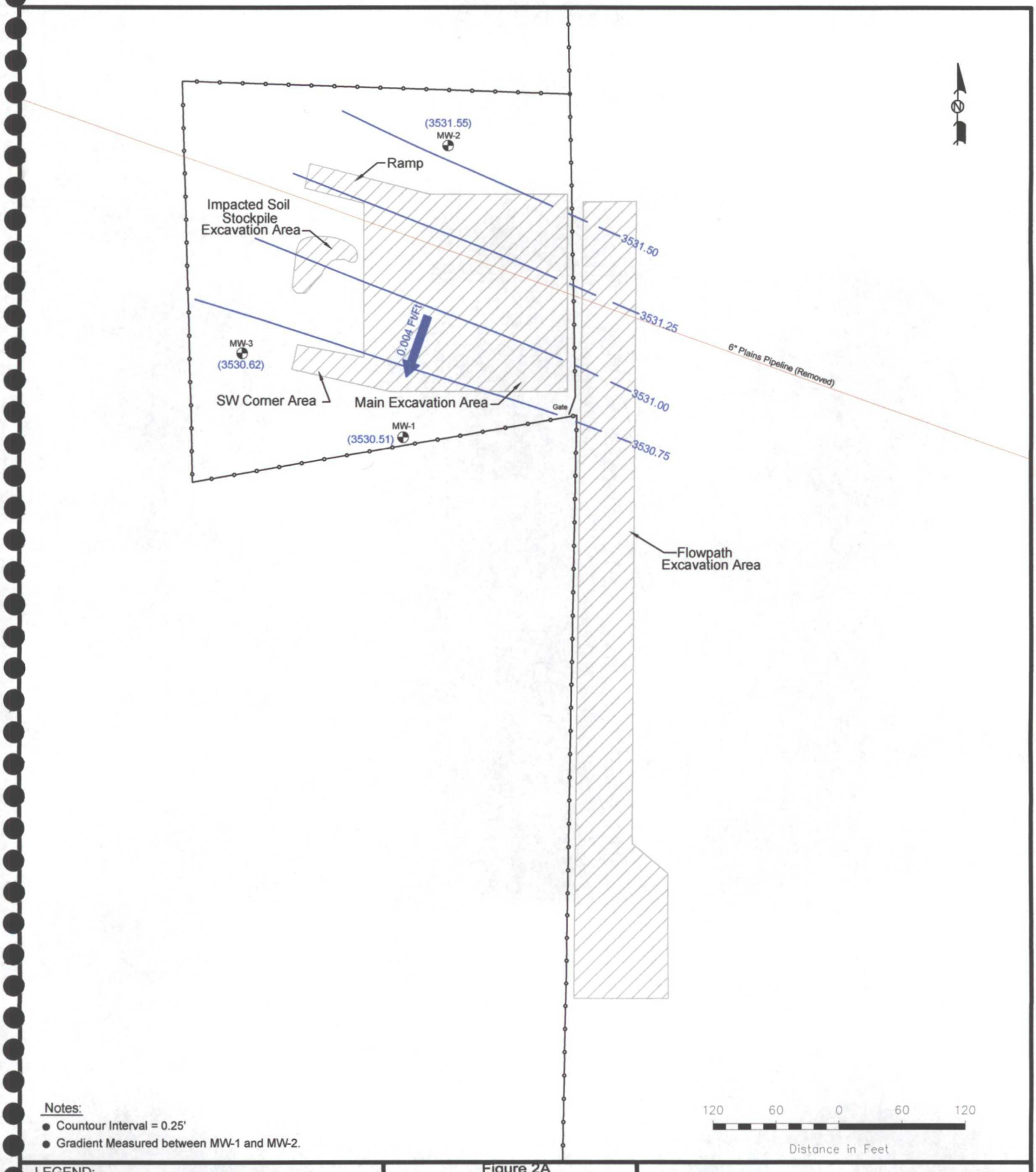
NOVA safety and environmental

2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

February 28, 2011	Scale: 1" = 2000'	CAD By: TA	Checked By: RKR

LATITUDE & LONGITUDE COORDINATES: N 32° 36' 38.41" W 103° 16' 22.16"



Notes:

- Countour Interval = 0.25'
- Gradient Measured between MW-1 and MW-2.

120 60 0 60 120

Distance in Feet

LEGEND:

- Monitor Well
- Pipeline
- Fence
- Excavation
- Stockpile
- (3791.69) Grounwater Elevation (Feet)
- Grounwater Elevation Contour Line
- 0.008 Ft/Ft Groundwater Direction and Magnitude

Figure 2A
Inferred Groundwater Gradient Map
(02/25/2011)
NMOCD Reference # RP #951
Plains Marketing, L.P.
Plains EMS #2001-11193
South Monument Gathering
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

April 1, 2011	Scale: 1" = 120'	CAD By: TA	Checked By: RKR
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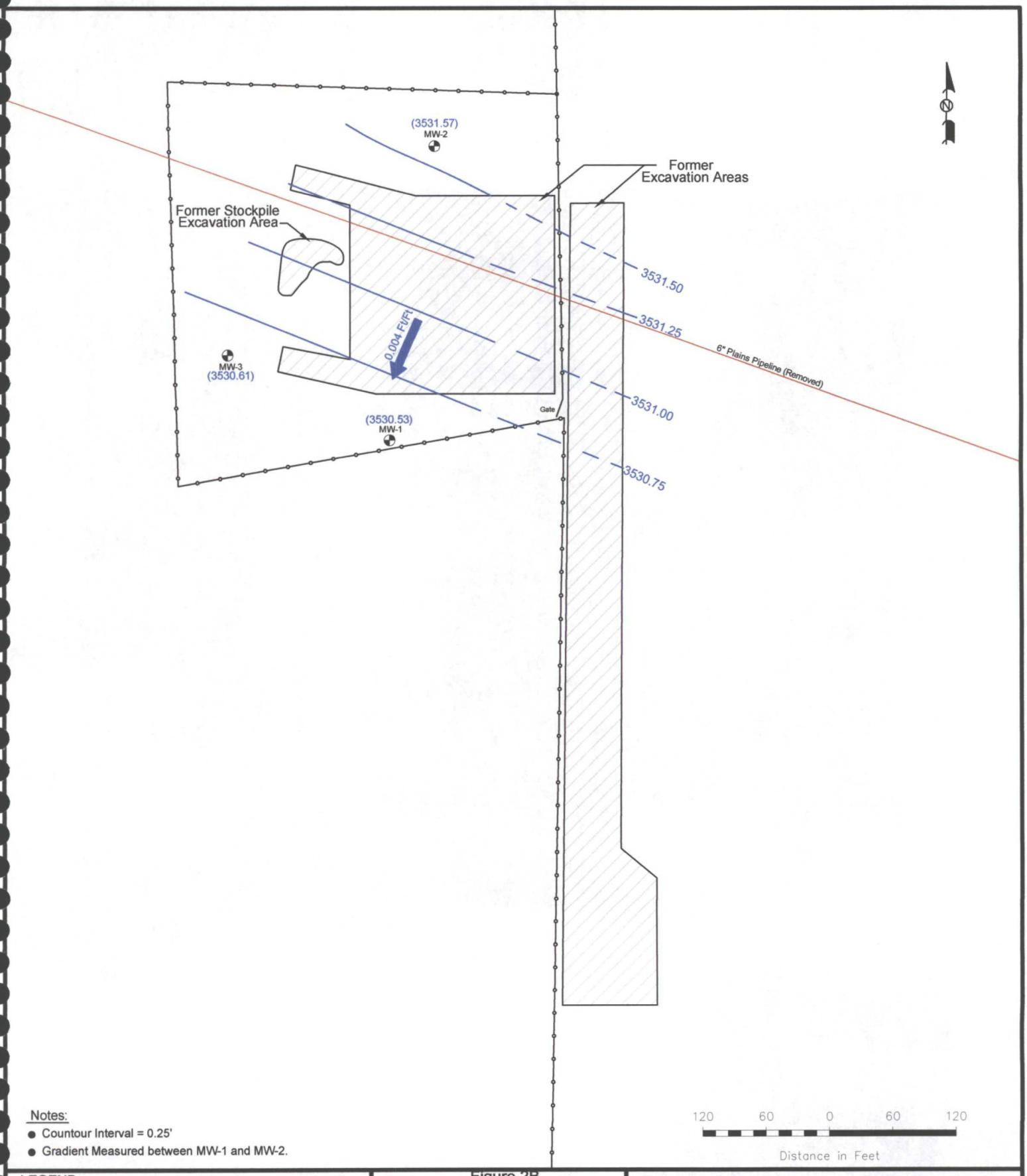

Notes:

- Countour Interval = 0.25'
- Gradient Measured between MW-1 and MW-2.

LEGEND:

- (3791.69) Grounwater Elevation (Feet)
- Monitor Well
- Grounwater Elevation Contour Line
- Pipeline
- Fence
- Excavation
- Stockpile
- 0.008 F/Ft Groundwater Direction and Magnitude

Figure 2B
Inferred Groundwater Gradient Map
(05/04/2011)
NMOCD Reference # RP #951
Plains Marketing, L.P.
Plains EMS #2001-11193
South Monument Gathering
Lea County, NM

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2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

June 7, 2011	Scale: 1" = 120'	CAD By: TA	Checked By: RKR
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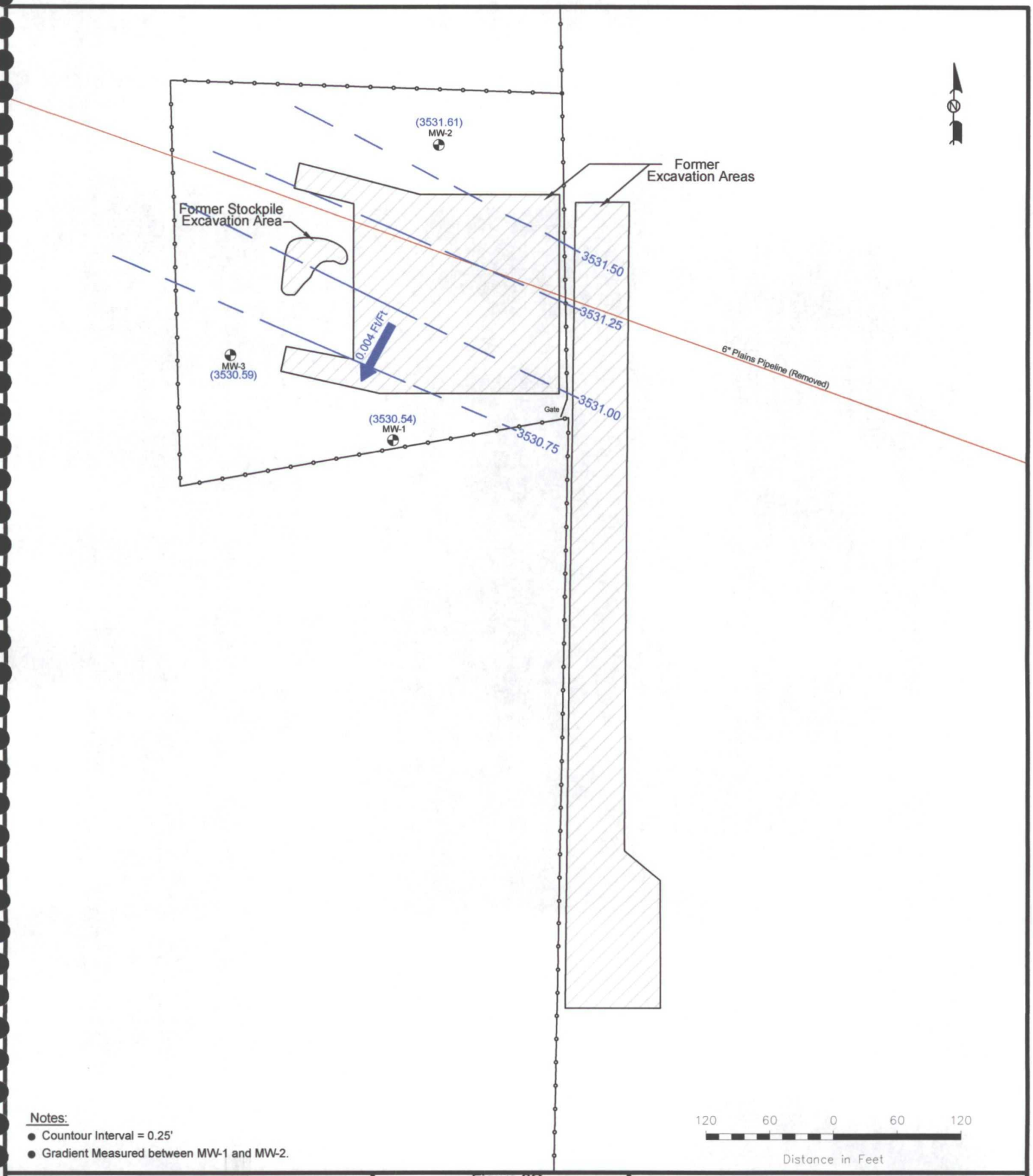


Notes:

- Countour Interval = 0.25'
- Gradient Measured between MW-1 and MW-2.

120 60 0 60 120

Distance in Feet

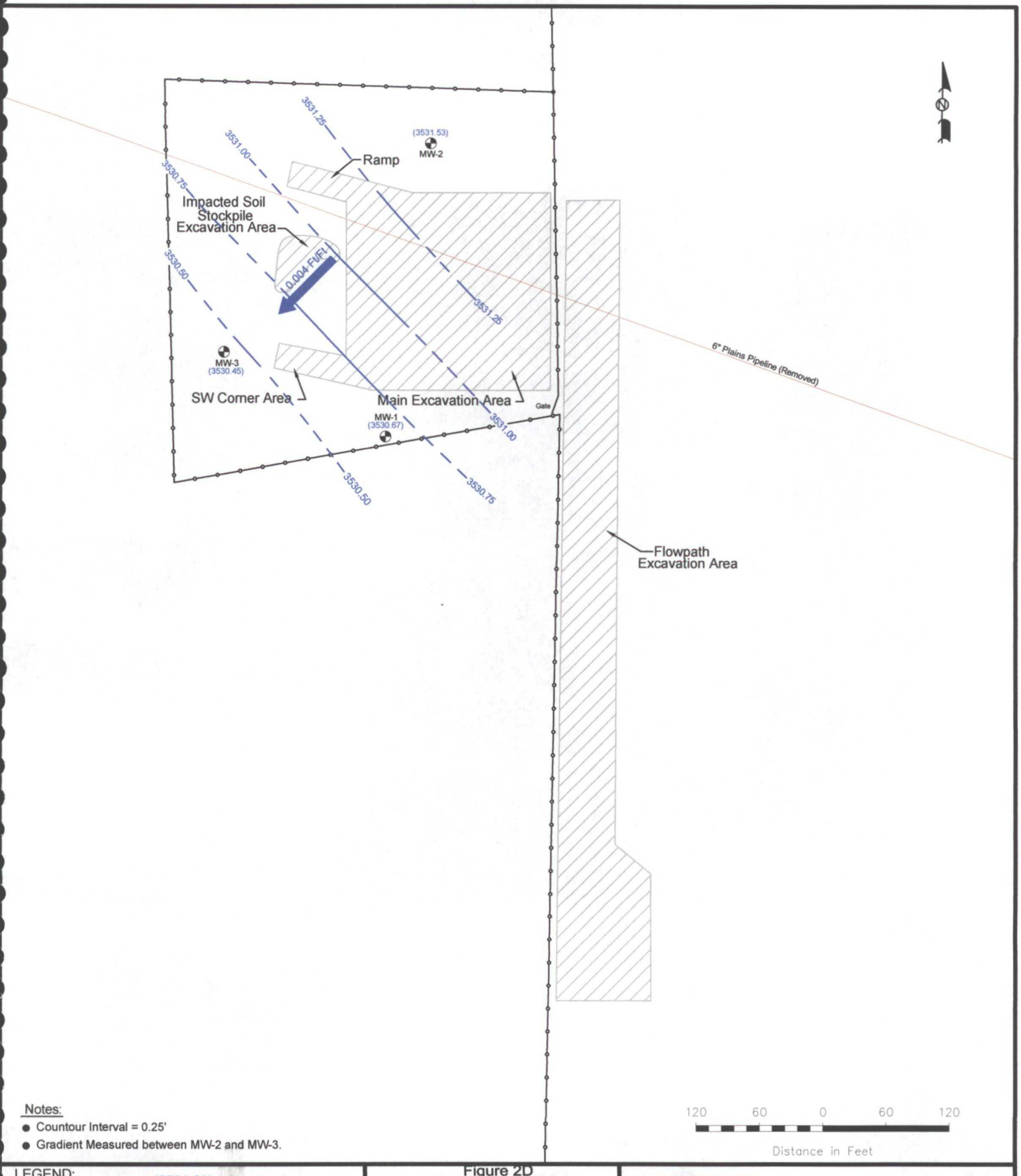
LEGEND:

- Monitor Well
- Pipeline
- Fence
- Excavation
- Stockpile
- (3791.69) Grounwater Elevation (Feet)
- Grounwater Elevation Contour Line
- 0.008 Ft/Ft Groundwater Direction and Magnitude

Figure 2C
Inferred Groundwater Gradient Map
(08/09/2011)
NMOCD Reference # RP #951
Plains Marketing, L.P.
Plains EMS #2001-11193
South Monument Gathering
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

September 12, 2011	Scale: 1" = 120'	CAD By: TA	Checked By: RKR
Lat. N 32° 36' 38.41" Long. W 103° 16' 22.16"	NW1/4 NE1/4 Sec 5 T20S R37E		



Notes:

- Countour Interval = 0.25'
- Gradient Measured between MW-2 and MW-3.

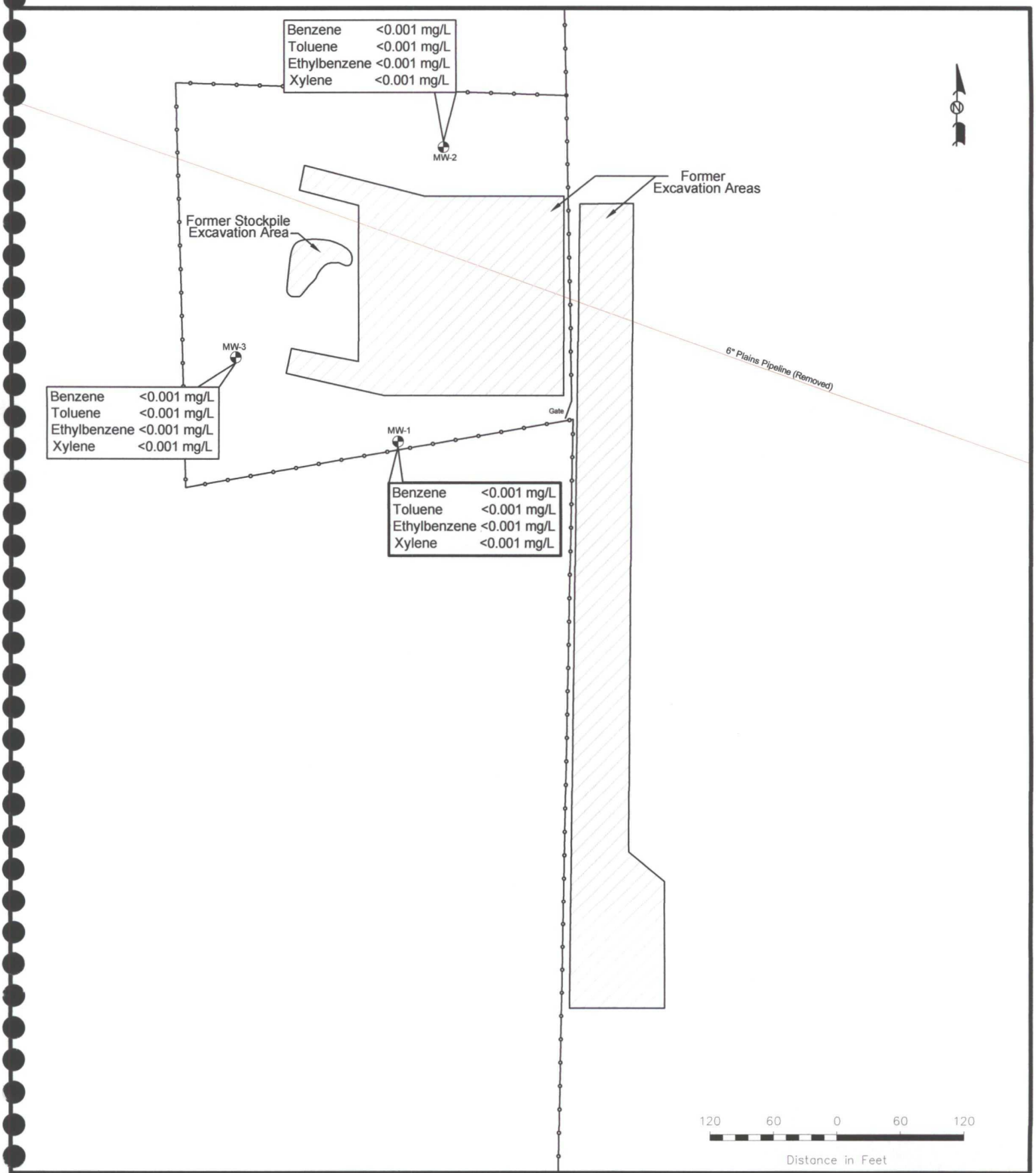
LEGEND:

- (3791.69) Grounwater Elevation (Feet)
- Monitor Well
- Grounwater Elevation Contour Line
- Pipeline
- Fence
- Excavation
- Stockpile
- 0.008 Ft/Ft Groundwater Direction and Magnitude

Figure 2D
Inferred Groundwater Gradient Map
(11/10/2011)
NMOCD Reference # RP #951
Plains Marketing, L.P.
Plains EMS #2001-11193
South Monument Gathering
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

November 16, 2011	Scale: 1" = 120'	CAD By: TA	Checked By: RKR
Lat. N 32° 36' 38.41" Long. W 103° 16' 22.16"	NW1/4 NE1/4 Sec 5 T20S R37E		



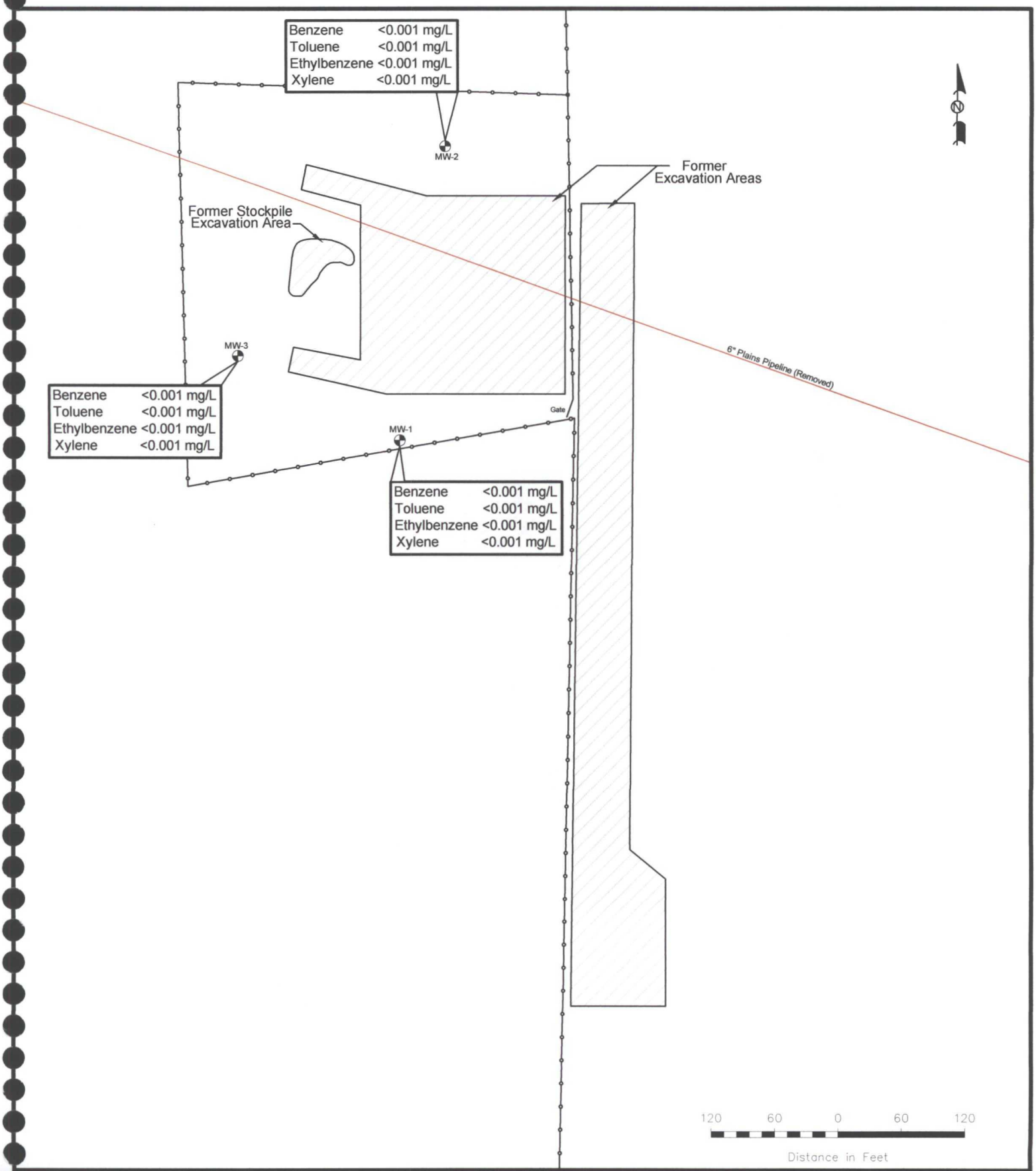
LEGEND:

- Monitor Well
- Pipeline
- Fence
- Excavation
- Stockpile
- (NS) Not Sampled
- <0.001 Constituent Concentration (mg/L)

Figure 3A
Groundwater Concentration and Inferred PSH Extent Map
(02/25/2011)
NMOCD Reference # RP #951
Plains Marketing, L.P.
Plains EMS #2001-11193
South Monument Gathering
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

April 1, 2011	Scale: 1" = 120'	CAD By: TA	Checked By: RKR
Lat. N 32° 36' 38.41" Long. W 103° 16' 22.16"	NW1/4 NE1/4 Sec 5 T20S R37E		



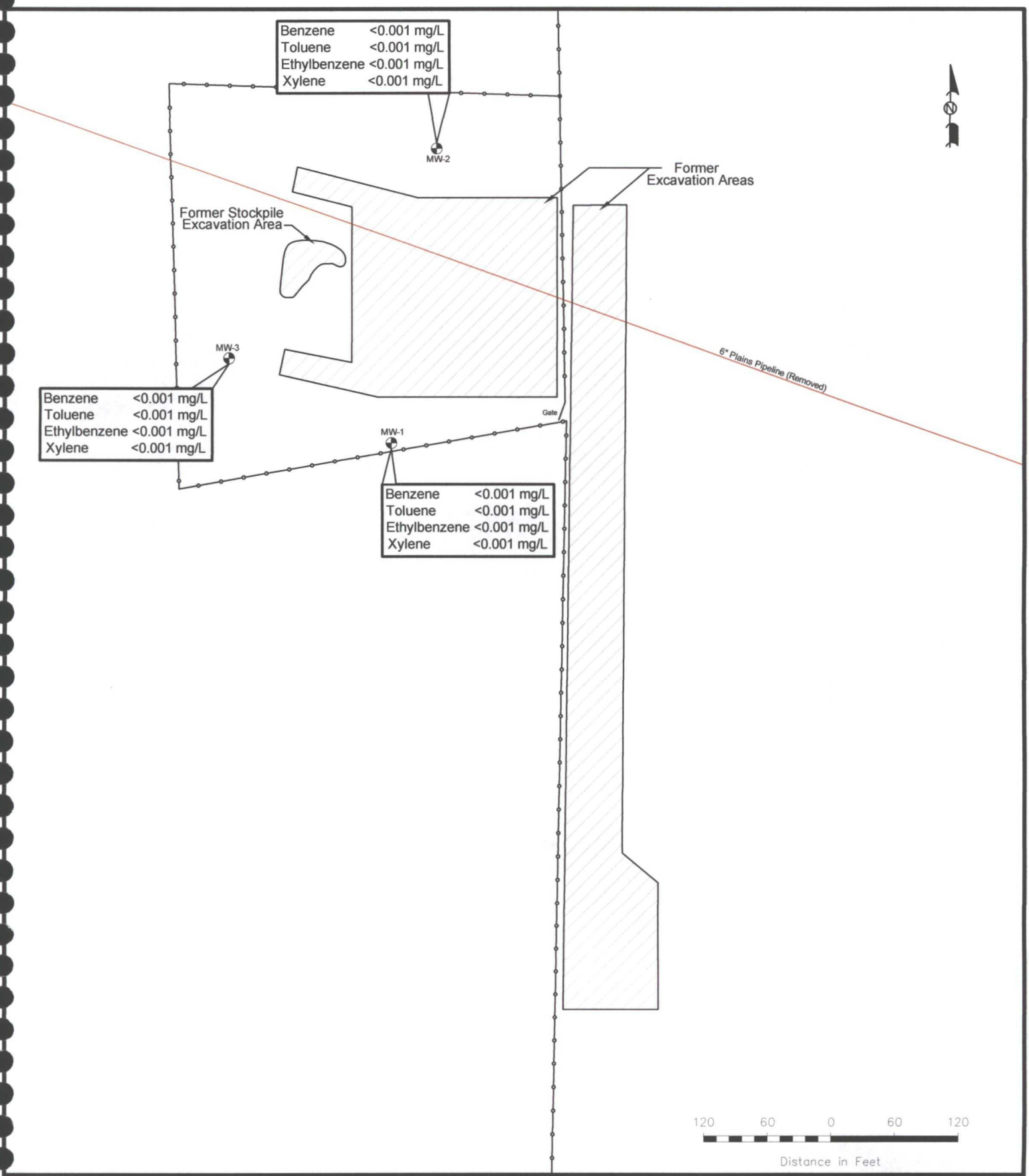
LEGEND:

- Monitor Well
- Pipeline
- Fence
- Excavation
- Stockpile
- (NS) Not Sampled
- <0.001 Constituent Concentration (mg/L)

Figure 3B
Groundwater Concentration and Inferred PSH Extent Map
(05/04/2011)
NMOCD Reference # RP #951
Plains Marketing, L.P.
Plains EMS #2001-11193
South Monument Gathering
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

June 7, 2011	Scale: 1" = 120'	CAD By: TA	Checked By: RKR
Lat. N 32° 36' 38.41"	Long. W 103° 16' 22.16"	NW1/4 NE1/4 Sec 5 T20S R37E	



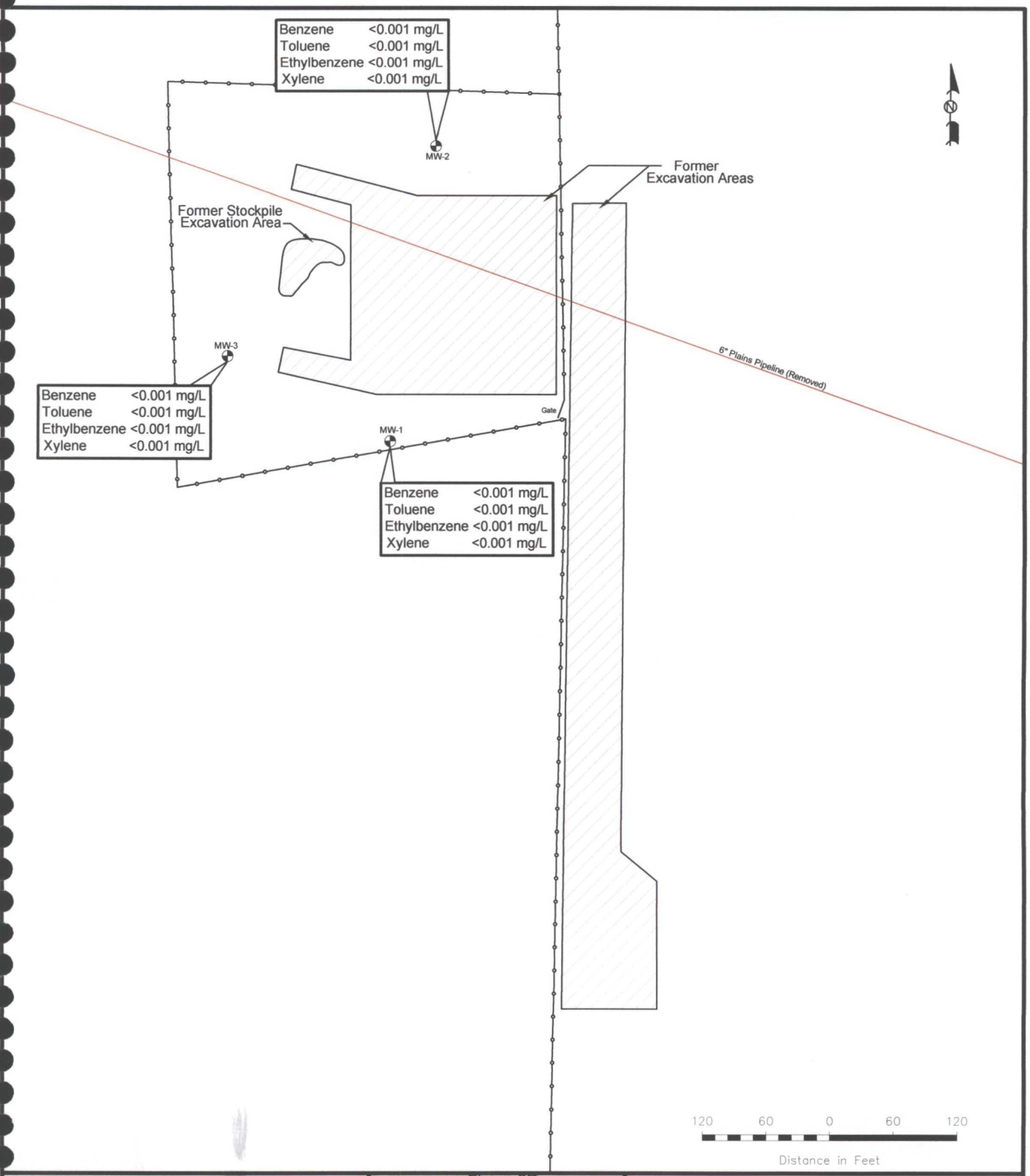
LEGEND:

- Monitor Well
- Pipeline
- Fence
- Excavation
- Stockpile
- (NS) Not Sampled
- <0.001 Constituent Concentration (mg/L)

Figure 3C
Groundwater Concentration and Inferred PSH Extent Map
(08/09/2011)
NMOCD Reference # RP #951
Plains Marketing, L.P.
Plains EMS #2001-11193
South Monument Gathering
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

September 12, 2011	Scale: 1" = 120'	CAD By: TA	Checked By: RKR
Lat. N 32° 36' 38.41" Long. W 103° 16' 22.16"	NW1/4 NE1/4 Sec 5 T20S R37E		



LEGEND:

- Monitor Well
- Pipeline
- Fence
- Excavation
- Stockpile
- (NS) Not Sampled
- <0.001 Constituent Concentration (mg/L)

Figure 3D
Groundwater Concentration and Inferred PSH Extent Map
(11/10/2011)
NMOCD Reference # RP #951
Plains Marketing, L.P.
Plains EMS #2001-11193
South Monument Gathering
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

November 16, 2011	Scale: 1" = 120'	CAD By: TA	Checked By: RKR
Lat. N 32° 36' 38.41" Long. W 103° 16' 22.16"	NW1/4 NE1/4 Sec 5 T20S R37E		

Tables

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

PLAINS MARKETING, L.P.
SOUTH MONUMENT GATHERING SOUR
LEA COUNTY, NEW MEXICO
NMOCD Reference # 1R-951

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	*02/25/11*	3,564.20	-	33.69	0.00	3,530.51
MW-1	*05/04/11*	3,564.20	-	33.67	0.00	3,530.53
MW-1	08/01/11	3,564.20	-	33.43	0.00	3,530.77
MW-1	08/08/11	3,564.20	-	33.45	0.00	3,530.75
MW-1	*08/09/11*	3,564.20	-	33.66	0.00	3,530.54
MW-1	08/15/11	3,564.20	-	33.62	0.00	3,530.58
MW-1	08/22/11	3,564.20	-	33.07	0.00	3,531.13
MW-1	08/29/11	3,564.20	-	33.54	0.00	3,530.66
MW-1	*11/10/11*	3,564.20	-	33.53	0.00	3,530.67
MW-2	*02/25/11*	3,563.83	-	32.28	0.00	3,531.55
MW-2	*05/04/11*	3,563.83	-	32.26	0.00	3,531.57
MW-2	*08/09/11*	3,563.83	-	32.22	0.00	3,531.61
MW-2	*11/10/11*	3,563.83	-	32.30	0.00	3,531.53
MW-3	*02/25/11*	3,564.42	-	33.80	0.00	3,530.62
MW-3	*05/04/11*	3,564.42	-	33.81	0.00	3,530.61
MW-3	*08/09/11*	3,564.42	-	33.83	0.00	3,530.59
MW-3	*11/10/11*	3,564.42	-	33.97	0.00	3,530.45

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

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
SOUTH MONUMENT GATHERING SOUR
LEA COUNTY, NEW MEXICO
NMOCD Reference # 1R-951

All concentrations are in mg/kg

Sample Date	Sample Location	Benzene	Toluene	Ethylbenzene	Xylene	BTEX
NMOCD REGULARY LIMIT		**0.010**	**0.750**	**0.750**	**0.620**	
02/25/11	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001
05/04/11	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001
08/09/11	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001
11/10/11	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001
02/25/11	MW-2	<0.001	<0.001	<0.001	<0.001	<0.001
05/04/11	MW-2	<0.001	<0.001	<0.001	<0.001	<0.001
08/09/11	MW-2	<0.001	<0.001	<0.001	<0.001	<0.001
11/10/11	MW-2	<0.001	<0.001	<0.001	<0.001	<0.001
02/25/11	MW-3	<0.001	<0.001	<0.001	<0.001	<0.001
05/04/11	MW-3	<0.001	<0.001	<0.001	<0.001	<0.001
08/09/11	MW-3	<0.001	<0.001	<0.001	<0.001	<0.001
11/10/11	MW-3	<0.001	<0.001	<0.001	<0.001	<0.001

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

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
SOUTH MONUMENT GATHERING SOUR
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER RP #951

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		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	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L			—
MW-1	11/05/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000922	<0.000185	0.000758	<0.000185	0.00173	0.00357	0.000875	<0.000185
	11/19/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000627	<0.000184	0.00043	<0.000184	<0.000184	0.000584
	11/03/10	Not Sampled as part of Quarterly Monitoring Event.																		
	11/10/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-2	11/05/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/19/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/03/10	Not Sampled as part of Quarterly Monitoring Event.																		
	11/10/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-3	11/05/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/19/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/03/10	Not Sampled as part of Quarterly Monitoring Event.																		
	11/10/11	Not Sampled as part of Quarterly Monitoring 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

x Initial Report ☐ Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name South Monument Gathering Sour	Facility Type 6"Steel Pipeline

Surface Owner Jimmie Cooper	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	5	20S	37E					Lea

Latitude 32° 36'29.0" **Longitude** 103° 16' 26.8"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 1200 barrels	Volume Recovered 910 barrels
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 11-20-01	Date and Hour of Discovery 11-20-01
Was Immediate Notice Given? x Yes ☐ No ☐ Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Frank Hernandez	Date and Hour 11-20-01@16:15	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Internal corrosion of 6 inch steel pipeline resulted in crude oil release. Clamp was applied to the line to mitigate the release.

Describe Area Affected and Cleanup Action Taken.* The crude oil was vacuumed up and the impacted soil was excavated and stockpiled on plastic. Initial response activities included excavation and stockpiling of approximately 5,000 to 7,000 cubic yards of soil. Future response activities will include a soil and groundwater investigation and preparation of a remedial action plan.

NOTE: This information was obtained from historical EOTT files, Plains acquired EOTT/Link Energy on April 1, 2004 and Plains assumes this information to be correct.

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:	OIL CONSERVATION DIVISION	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cjreynolds@paalp.com	Conditions of Approval:	Attached ☐
Date: 12-29-04 Phone:505-441-0965		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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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.
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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

NMOCD Reference # 1R-951

OPERATOR

☐ Initial Report ☒ **Final Report**

Name of Company	**Plains Pipeline, LP**	Contact	**Jason Henry**
Address	**2530 Hwy 214 – Denver City, TX 79323**	Telephone No.	**(575) 441-1099**
Facility Name	**South Monument Gathering Sour**	Facility Type	**Pipeline**

Surface Owner **Jimmie Cooper**	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	**5**	**20S**	**37E**					**Lea**

Latitude N 32° 36' 29'' Longitude W 103° 16' 26.8''

NATURE OF RELEASE

Type of Release **Crude Oil**	Volume of Release **1,250 bbls**	Volume Recovered **910 bbls**
Source of Release **6" Steel Pipeline**	Date and Hour of Occurrence **11/20/2001**	Date and Hour of Discovery **11/20/2001**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Paul Sheeley**	
By Whom? **Frank Hernandez**	Date and Hour **11/20/2001 @ 16:15**	
Was a Watercourse Reached? ☐ Yes ☒ **No**	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Internal corrosion of 6-inch steel pipeline resulted in a crude oil release. Clamp was applied to the line to mitigate the release.

Describe Area Affected and Cleanup Action Taken.*

Please see the June 2011, Nova Safety and Environmental *Soil Closure Request* report for details regarding the soil remediation activities conducted at the site.

Please see the attached Nova Safety and Environmental *2011 Annual Monitoring Report* for details regarding groundwater remediation activities conducted at the site.

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: Jason Henry	OIL CONSERVATION DIVISION	
Printed Name: Jason Henry	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: jhenry@paalp.com	Conditions of Approval:	Attached ☐
Date: 03/21/2012 Phone: (575) 441-1099		

* Attach Additional Sheets If Necessary

Laboratory Analytical Reports

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
5015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: March 14, 2011

Work Order: 11022808

Project Location: New Mexico
Project Name: South Monument Gathering Sour
Project Number: 2001-11193

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
258948	MW-3	water	2011-02-25	07:30	2011-02-28
258949	MW-2	water	2011-02-25	08:30	2011-02-28
258950	MW-1	water	2011-02-25	09:30	2011-02-28

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Michael Abel

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project South Monument Gathering Sour were received by TraceAnalysis, Inc. on 2011-02-28 and assigned to work order 11022808. Samples for work order 11022808 were received damaged without headspace and at a temperature of 2.1 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	67064	2011-03-03 at 09:20	79030	2011-03-03 at 09:20

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11022808 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

Sample MW-3 had one broken VOA.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 258948 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79030	Date Analyzed:	2011-03-03	Analyzed By:	ME
Prep Batch:	67064	Sample Preparation:	2011-03-03	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0936	mg/L	1	0.100	94	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.104	mg/L	1	0.100	104	51.1 - 128

Sample: 258949 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79030	Date Analyzed:	2011-03-03	Analyzed By:	ME
Prep Batch:	67064	Sample Preparation:	2011-03-03	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0971	mg/L	1	0.100	97	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.104	mg/L	1	0.100	104	51.1 - 128

Sample: 258950 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	79030	Date Analyzed:	2011-03-03	Analyzed By:	ME
Prep Batch:	67064	Sample Preparation:	2011-03-03	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0941	mg/L	1	0.100	94	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.105	mg/L	1	0.100	105	51.1 - 128

Method Blank (1) QC Batch: 79030

QC Batch: 79030 | Date Analyzed: 2011-03-03 | Analyzed By: ME
Prep Batch: 67064 | QC Preparation: 2011-03-03 | Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000400	mg/L	0.001
Toluene		<0.000300	mg/L	0.001
Ethylbenzene		<0.000300	mg/L	0.001
Xylene		<0.000333	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0923	mg/L	1	0.100	92	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.0931	mg/L	1	0.100	93	47.3 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 79030 | Date Analyzed: 2011-03-03 | Analyzed By: ME
Prep Batch: 67064 | QC Preparation: 2011-03-03 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0936	mg/L	1	0.100	<0.000400	94	82.9 - 108
Toluene	0.0937	mg/L	1	0.100	<0.000300	94	82.7 - 107
Ethylbenzene	0.0901	mg/L	1	0.100	<0.000300	90	78.8 - 106
Xylene	0.273	mg/L	1	0.300	<0.000333	91	79.3 - 106

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0960	mg/L	1	0.100	<0.000400	96	82.9 - 108	2	20
Toluene	0.0961	mg/L	1	0.100	<0.000300	96	82.7 - 107	2	20
Ethylbenzene	0.0929	mg/L	1	0.100	<0.000300	93	78.8 - 106	3	20
Xylene	0.280	mg/L	1	0.300	<0.000333	93	79.3 - 106	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0946	0.0929	mg/L	1	0.100	95	93	67.3 - 113
4-Bromofluorobenzene (4-BFB)	0.100	0.0977	mg/L	1	0.100	100	98	68.2 - 124

Matrix Spike (MS-1) Spiked Sample: 258719

QC Batch: 79030 | Date Analyzed: 2011-03-03 | Analyzed By: ME
Prep Batch: 67064 | QC Preparation: 2011-03-03 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.41	mg/L	20	2.00	0.5671	92	77.9 - 114
Toluene	1.97	mg/L	20	2.00	0.1741	90	78.3 - 111
Ethylbenzene	1.91	mg/L	20	2.00	<0.00600	96	75.3 - 110
Xylene	5.75	mg/L	20	6.00	0.4576	88	75.7 - 109

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.37	mg/L	20	2.00	0.5671	90	77.9 - 114	2	20
Toluene	1.95	mg/L	20	2.00	0.1741	89	78.3 - 111	1	20
Ethylbenzene	1.88	mg/L	20	2.00	<0.00600	94	75.3 - 110	2	20
Xylene	5.73	mg/L	20	6.00	0.4576	88	75.7 - 109	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.78	1.83	mg/L	20	2	89	92	68.3 - 107
4-Bromofluorobenzene (4-BFB)	2.19	2.24	mg/L	20	2	110	112	60.1 - 135

Standard (CCV-1)

QC Batch: 79030 | Date Analyzed: 2011-03-03 | Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0922	92	80 - 120	2011-03-03
Toluene		mg/L	0.100	0.0911	91	80 - 120	2011-03-03
Ethylbenzene		mg/L	0.100	0.0877	88	80 - 120	2011-03-03
Xylene		mg/L	0.300	0.267	89	80 - 120	2011-03-03

Standard (CCV-2)

QC Batch: 79030 | Date Analyzed: 2011-03-03 | Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0917	92	80 - 120	2011-03-03
Toluene		mg/L	0.100	0.0908	91	80 - 120	2011-03-03
Ethylbenzene		mg/L	0.100	0.0860	86	80 - 120	2011-03-03
Xylene		mg/L	0.300	0.261	87	80 - 120	2011-03-03

LAB Order ID # 1102280 8

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: Apex
Phone #: 432-520-7720
Address: (Street, City, Zip) 2057 Commerce Midland TX 79703
Fax #: 432-520-7701
Contact Person: Ron R.
E-mail:
Invoice to: (If different from above)
Project #: 2001-11193
Project Name: South Monument Gathering Sour
Project Location (including state): New Mexico
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 802) / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, Fl, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold
288948	mw-3	3	120a	X				X				X		2-25	7:30		X																			
949	mw-2	↓	↓	↓				↓				↓		↓	8:30		↓																			
950	mw-1	↓	↓	↓				↓				↓		↓	9:30		↓																			

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	Apex	2-28	8:00		TA	2-28-11	8:00	INST ____ OBS 2.1 °C COR 2.1 °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:
* All tests Midland
*MW-3 had one broken VOA

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Carrier # carry in

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: May 10, 2011

Work Order: 11050504

Project Location: South of Monument, NM
Project Name: South Monument Gathering Sour
Project Number: 2001-11193

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
265597	MW-3	water	2011-05-04	16:00	2011-05-05
265598	MW-2	water	2011-05-04	16:30	2011-05-05
265599	MW-1	water	2011-05-04	17:00	2011-05-05

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project South Monument Gathering Sour were received by TraceAnalysis, Inc. on 2011-05-05 and assigned to work order 11050504. Samples for work order 11050504 were received intact without headspace and at a temperature of 2.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	68782	2011-05-06 at 14:42	81036	2011-05-07 at 00:18

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11050504 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 265597 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	81036	Date Analyzed:	2011-05-07	Analyzed By:	ME
Prep Batch:	68782	Sample Preparation:	2011-05-06	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0929	mg/L	1	0.100	93	51.1 - 128

Sample: 265598 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	81036	Date Analyzed:	2011-05-07	Analyzed By:	ME
Prep Batch:	68782	Sample Preparation:	2011-05-06	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0932	mg/L	1	0.100	93	51.1 - 128

Sample: 265599 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	81036	Date Analyzed:	2011-05-07	Analyzed By:	ME
Prep Batch:	68782	Sample Preparation:	2011-05-06	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0950	mg/L	1	0.100	95	51.1 - 128

Method Blanks

Method Blank (1) QC Batch: 81036

QC Batch:	81036	Date Analyzed:	2011-05-07	Analyzed By:	ME
Prep Batch:	68782	QC Preparation:	2011-05-06	Prepared By:	ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0982	mg/L	1	0.100	98	70.2 - 118
4-Bromofluorobenzene (4-BFB)			0.0916	mg/L	1	0.100	92	47.3 - 116

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 81036 | Date Analyzed: 2011-05-07 | Analyzed By: ME
Prep Batch: 68782 | QC Preparation: 2011-05-06 | Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0994	mg/L	1	0.100	<0.000400	99	76.8 - 110
Toluene		1	0.0999	mg/L	1	0.100	<0.000300	100	81 - 108
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000300	101	78.8 - 118
Xylene		1	0.305	mg/L	1	0.300	<0.000333	102	80.3 - 119

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000400	103	76.8 - 110	4	20
Toluene		1	0.105	mg/L	1	0.100	<0.000300	105	81 - 108	5	20
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000300	106	78.8 - 118	5	20
Xylene		1	0.322	mg/L	1	0.300	<0.000333	107	80.3 - 119	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0999	0.101	mg/L	1	0.100	100	101	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.102	0.105	mg/L	1	0.100	102	105	68.2 - 124

Matrix Spike (MS-1) Spiked Sample: 265703

QC Batch: 81036 | Date Analyzed: 2011-05-07 | Analyzed By: ME
Prep Batch: 68782 | QC Preparation: 2011-05-06 | Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	12.1	mg/L	50	5.00	7.6654	89	77.9 - 114
Toluene		1	5.43	mg/L	50	5.00	0.5529	98	78.3 - 111
Ethylbenzene		1	5.46	mg/L	50	5.00	<0.0150	109	75.3 - 110
Xylene		1	16.2	mg/L	50	15.0	1.3093	99	75.7 - 109

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	12.0	mg/L	50	5.00	7.6654	87	77.9 - 114	1	20
Toluene		1	5.34	mg/L	50	5.00	0.5529	96	78.3 - 111	2	20
Ethylbenzene		1	5.45	mg/L	50	5.00	<0.0150	109	75.3 - 110	0	20
Xylene		1	16.0	mg/L	50	15.0	1.3093	98	75.7 - 109	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.79	4.87	mg/L	50	5	96	97	68.3 - 107
4-Bromofluorobenzene (4-BFB)	5.02	4.77	mg/L	50	5	100	95	60.1 - 135

Calibration Standards

Standard (CCV-1)

QC Batch: 81036 | Date Analyzed: 2011-05-07 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0972	97	80 - 120	2011-05-07
Toluene		1	mg/L	0.100	0.100	100	80 - 120	2011-05-07
Ethylbenzene		1	mg/L	0.100	0.102	102	80 - 120	2011-05-07
Xylene		1	mg/L	0.300	0.309	103	80 - 120	2011-05-07

Standard (CCV-2)

QC Batch: 81036 | Date Analyzed: 2011-05-07 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0980	98	80 - 120	2011-05-07
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2011-05-07
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2011-05-07
Xylene		1	mg/L	0.300	0.302	101	80 - 120	2011-05-07

Standard (CCV-3)

QC Batch: 81036 | Date Analyzed: 2011-05-07 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0970	97	80 - 120	2011-05-07
Toluene		1	mg/L	0.100	0.100	100	80 - 120	2011-05-07
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2011-05-07
Xylene		1	mg/L	0.300	0.300	100	80 - 120	2011-05-07

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 1105054

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: Conoco
Phone #: 432-520-7720
Address: (Street, City, Zip) 2057 Commerce Midland TX 79703
Fax #: 432-520-7701
Contact Person: Ben R.
E-mail:
Invoice to: (If different from above)
Project #: 2001-11193
Project Name: South Mon. Gathering Sour
Project Location (including state):
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, Fl, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
20597	mw-3	3	voa	X				X				X		5-4	16:00		X																						
598	mw-2	↓	↓	↓				↓				↓		↓	16:30		↓																							
599	mw-1	↓	↓	↓				↓				↓		↓	17:00		↓																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	Conoco	5-5	6:30		TA	5-5-11	9:30	INST ___ OBS 2.4 °C COR 2.4 °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ___ OBS ___ °C COR ___ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ___ OBS ___ °C COR ___ °C

LAB USE ONLY
Intact (Y) N
Headspace Y (N) NA
Log-In-Review ___

REMARKS:
All tests Midland

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # ___

ORIGINAL COPY

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: August 17, 2011

Work Order: 11081025

Project Location: South of Monument, NM
Project Name: South Monument Gathering Sour
Project Number: 2001-11193

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
274209	MW-3	water	2011-08-09	17:00	2011-08-10
274210	MW-2	water	2011-08-09	17:30	2011-08-10
274211	MW-1	water	2011-08-09	18:15	2011-08-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project South Monument Gathering Sour were received by TraceAnalysis, Inc. on 2011-08-10 and assigned to work order 11081025. Samples for work order 11081025 were received intact without headspace and at a temperature of 3.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	71215	2011-08-16 at 09:24	83858	2011-08-16 at 09:24

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11081025 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 274209 - MW-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83858	Date Analyzed:	2011-08-16	Analyzed By:	ME
Prep Batch:	71215	Sample Preparation:	2011-08-16	Prepared By:	ME

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0981	mg/L	1	0.100	98	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0961	mg/L	1	0.100	96	67.5 - 140.8

Sample: 274210 - MW-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83858	Date Analyzed:	2011-08-16	Analyzed By:	ME
Prep Batch:	71215	Sample Preparation:	2011-08-16	Prepared By:	ME

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	67.5 - 140.8

Sample: 274211 - MW-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	83858	Date Analyzed:	2011-08-16	Analyzed By:	ME
Prep Batch:	71215	Sample Preparation:	2011-08-16	Prepared By:	ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.105	mg/L	1	0.100	105	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	67.5 - 140.8

Method Blanks

Method Blank (1) QC Batch: 83858

QC Batch: 83858 | Date Analyzed: 2011-08-16 | Analyzed By: ME
Prep Batch: 71215 | QC Preparation: 2011-08-16 | Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0931	mg/L	1	0.100	93	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0869	mg/L	1	0.100	87	45.9 - 126.4

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 83858 | Date Analyzed: 2011-08-16 | Analyzed By: ME
Prep Batch: 71215 | QC Preparation: 2011-08-16 | Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0984	mg/L	1	0.100	<0.000400	98	88 - 116.8
Toluene		1	0.103	mg/L	1	0.100	<0.000300	103	90.9 - 122.2
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000300	105	72.7 - 120.2
Xylene		1	0.317	mg/L	1	0.300	<0.000333	106	72.1 - 121.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0979	mg/L	1	0.100	<0.000400	98	88 - 116.8	0	20
Toluene		1	0.103	mg/L	1	0.100	<0.000300	103	90.9 - 122.2	0	20
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000300	105	72.7 - 120.2	0	20
Xylene		1	0.317	mg/L	1	0.300	<0.000333	106	72.1 - 121.5	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0996	0.0987	mg/L	1	0.100	100	99	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0998	0.0988	mg/L	1	0.100	100	99	56.4 - 127.9

Matrix Spike (MS-1) Spiked Sample: 274394

QC Batch: 83858 | Date Analyzed: 2011-08-16 | Analyzed By: ME
Prep Batch: 71215 | QC Preparation: 2011-08-16 | Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.17	mg/L	20	2.00	0.3037	93	66.9 - 128.2
Toluene		1	1.94	mg/L	20	2.00	<0.00600	97	81.6 - 122.9
Ethylbenzene		1	2.03	mg/L	20	2.00	<0.00600	102	62.7 - 117.9
Xylene		1	5.98	mg/L	20	6.00	<0.00666	100	62.9 - 118.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.06	mg/L	20	2.00	0.3037	88	66.9 - 128.2	5	20
Toluene		1	1.89	mg/L	20	2.00	<0.00600	94	81.6 - 122.9	3	20
Ethylbenzene		1	1.96	mg/L	20	2.00	<0.00600	98	62.7 - 117.9	4	20
Xylene		1	5.80	mg/L	20	6.00	<0.00666	97	62.9 - 118.2	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.02	1.81	mg/L	20	2	101	90	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	2.05	1.87	mg/L	20	2	102	94	52.2 - 135.8

Calibration Standards

Standard (CCV-1)

QC Batch: 83858 | Date Analyzed: 2011-08-16 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0968	97	80 - 120	2011-08-16
Toluene		1	mg/L	0.100	0.0994	99	80 - 120	2011-08-16
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2011-08-16
Xylene		1	mg/L	0.300	0.308	103	80 - 120	2011-08-16

Standard (CCV-2)

QC Batch: 83858 | Date Analyzed: 2011-08-16 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2011-08-16
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2011-08-16
Ethylbenzene		1	mg/L	0.100	0.107	107	80 - 120	2011-08-16
Xylene		1	mg/L	0.300	0.321	107	80 - 120	2011-08-16

Standard (CCV-3)

QC Batch: 83858 | Date Analyzed: 2011-08-16 | Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0941	94	80 - 120	2011-08-16
Toluene		1	mg/L	0.100	0.0984	98	80 - 120	2011-08-16
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2011-08-16
Xylene		1	mg/L	0.300	0.301	100	80 - 120	2011-08-16

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 11081025

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: XTO
Phone #: 432-620-7720
Address: (Street, City, Zip) 2057 Commerce Midland TX 79703
Fax #: 432-620-7701
Contact Person: Ron R
E-mail:
Invoice to: (If different from above)
Project #: 2001-11193
Project Name: South Mon Geothermal Sour
Project Location (including state):
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
27409	mw-3	3	40ml	X				X				X		8-9	17:00
210	mw-2	"	"	"				"				"		"	17:30
211	mw-1	"	"	"				"				"		"	18:15

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, Fl, SO4, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
	X																									
	"																									
	"																									

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
		8/10/11	1200		TA	8/10/11	12:00	INST ___ OBS 3.6 °C COR 3.6 °C
								INST ___ OBS ___ °C COR ___ °C
								INST ___ OBS ___ °C COR ___ °C

LAB USE ONLY
Intact (Y) N
Headspace Y (N) NA
Log-In-Review

REMARKS: all tests Midland

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier #

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TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
5015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: November 15, 2011

Work Order: 11111409

Project Location: South of Monument, NM
Project Name: South Monument Gathering Sour
Project Number: 2001-11193

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
282307	MW 3	water	2011-11-10	11:25	2011-11-11
282308	MW 2	water	2011-11-10	11:30	2011-11-11
282309	MW 1	water	2011-11-10	11:35	2011-11-11

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project South Monument Gathering Sour were received by TraceAnalysis, Inc. on 2011-11-11 and assigned to work order 11111409. Samples for work order 11111409 were received intact without headspace and at a temperature of 6.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	73378	2011-11-14 at 13:50	86423	2011-11-14 at 14:26

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11111409 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 282307 - MW 3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86423	Date Analyzed:	2011-11-14	Analyzed By:	AG
Prep Batch:	73378	Sample Preparation:	2011-11-14	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0933	mg/L	1	0.100	93	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0795	mg/L	1	0.100	80	67.5 - 140.8

Sample: 282308 - MW 2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86423	Date Analyzed:	2011-11-14	Analyzed By:	AG
Prep Batch:	73378	Sample Preparation:	2011-11-14	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0927	mg/L	1	0.100	93	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0768	mg/L	1	0.100	77	67.5 - 140.8

Sample: 282309 - MW 1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	86423	Date Analyzed:	2011-11-14	Analyzed By:	AG
Prep Batch:	73378	Sample Preparation:	2011-11-14	Prepared By:	AG

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0937	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0904	mg/L	1	0.100	90	67.5 - 140.8

Method Blanks

Method Blank (1) QC Batch: 86423

QC Batch:	86423	Date Analyzed:	2011-11-14	Analyzed By:	AG
Prep Batch:	73378	QC Preparation:	2011-11-14	Prepared By:	AG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000400	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000300	mg/L	0.001
Xylene		1	<0.000333	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0930	mg/L	1	0.100	93	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0815	mg/L	1	0.100	82	45.9 - 126.4

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 86423 | Date Analyzed: 2011-11-14 | Analyzed By: AG
Prep Batch: 73378 | QC Preparation: 2011-11-14 | Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0953	mg/L	1	0.100	<0.000400	95	76.8 - 120.3
Toluene		1	0.0912	mg/L	1	0.100	<0.000300	91	80.9 - 122.2
Ethylbenzene		1	0.0886	mg/L	1	0.100	<0.000300	89	72.7 - 120.2
Xylene		1	0.266	mg/L	1	0.300	<0.000333	89	72.1 - 121.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0994	mg/L	1	0.100	<0.000400	99	76.8 - 120.3	4	20
Toluene		1	0.0945	mg/L	1	0.100	<0.000300	94	80.9 - 122.2	4	20
Ethylbenzene		1	0.0923	mg/L	1	0.100	<0.000300	92	72.7 - 120.2	4	20
Xylene		1	0.277	mg/L	1	0.300	<0.000333	92	72.1 - 121.5	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0921	0.0929	mg/L	1	0.100	92	93	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0935	0.0940	mg/L	1	0.100	94	94	56.4 - 127.9

Matrix Spike (MS-1) Spiked Sample: 282285

QC Batch: 86423 | Date Analyzed: 2011-11-14 | Analyzed By: AG
Prep Batch: 73378 | QC Preparation: 2011-11-14 | Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.135	mg/L	1	0.100	0.0318	103	66.9 - 128.2
Toluene		1	0.0986	mg/L	1	0.100	<0.000300	99	81.6 - 122.9
Ethylbenzene		1	0.0953	mg/L	1	0.100	<0.000300	95	62.7 - 117.9
Xylene		1	0.284	mg/L	1	0.300	0.0022	94	62.9 - 118.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.131	mg/L	1	0.100	0.0318	99	66.9 - 128.2	3	20
Toluene		1	0.0989	mg/L	1	0.100	<0.000300	99	81.6 - 122.9	0	20
Ethylbenzene		1	0.0963	mg/L	1	0.100	<0.000300	96	62.7 - 117.9	1	20
Xylene		1	0.287	mg/L	1	0.300	0.0022	95	62.9 - 118.2	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0973	0.0932	mg/L	1	0.1	97	93	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	0.0907	0.0908	mg/L	1	0.1	91	91	52.2 - 135.8

Calibration Standards

Standard (CCV-1)

QC Batch: 86423 | Date Analyzed: 2011-11-14 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0942	94	80 - 120	2011-11-14
Toluene		1	mg/L	0.100	0.0874	87	80 - 120	2011-11-14
Ethylbenzene		1	mg/L	0.100	0.0832	83	80 - 120	2011-11-14
Xylene		1	mg/L	0.300	0.250	83	80 - 120	2011-11-14

Standard (CCV-2)

QC Batch: 86423 | Date Analyzed: 2011-11-14 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0990	99	80 - 120	2011-11-14
Toluene		1	mg/L	0.100	0.0937	94	80 - 120	2011-11-14
Ethylbenzene		1	mg/L	0.100	0.0890	89	80 - 120	2011-11-14
Xylene		1	mg/L	0.300	0.267	89	80 - 120	2011-11-14

Standard (CCV-3)

QC Batch: 86423 | Date Analyzed: 2011-11-14 | Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2011-11-14
Toluene		1	mg/L	0.100	0.0944	94	80 - 120	2011-11-14
Ethylbenzene		1	mg/L	0.100	0.0899	90	80 - 120	2011-11-14
Xylene		1	mg/L	0.300	0.269	90	80 - 120	2011-11-14

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 11111409

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
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200 East Sunset Rd., Suite E
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Tel (915) 585-3443
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1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: NOVA Safety & Environmental
Phone #: 432-520-7720
Address: (Street, City, Zip) 2057 Commerce, Midland, TX, 79705
Fax #:
Contact Person: ~~Brythe Lee~~ Ron Rousaville
E-mail:
Invoice to: (If different from above)
Project #:
Project Name: South Monument Gathering
Project Location (including state): Monument, NM
Sampler Signature: ~~Brythe Lee~~

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
28235	MW 3	3	VOA	X				X				X		11/10	1125
308	MW 2	1	1	1				1				1		1	1130
309	MW 1	1	1	1				1				1		1	1135

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, Fl, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
	Y																							
	1																							
	1																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
~~Brythe Lee~~	NOVA	11/11	1530		T/A	11/11/11	16:00	INST ____ OBS 6.0 °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # Courier

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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Historical Data Tables

TABLE 1

GROUNDWATER ELEVATION DATA

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

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	*12/13/06*	3,564.20	-	32.04	0.00	3,532.16
MW-1	*02/19/07*	3,564.20	-	31.95	0.00	3,532.25
MW-1	*03/16/07*	3,564.20	-	31.99	0.00	3,532.21
MW-1	*05/14/07*	3,564.20	-	32.01	0.00	3,532.19
MW-1	*08/28/07*	3,564.20	-	32.51	0.00	3,531.69
MW-1	*11/05/07*	3,564.20	-	32.56	0.00	3,531.64
MW-1	*02/07/08*	3,564.20	-	32.55	0.00	3,531.65
MW-1	*06/05/08*	3,564.20	-	32.76	0.00	3,531.44
MW-1	*08/08/08*	3,564.20	-	32.19	0.00	3,532.01
MW-1	*11/05/08*	3,564.20	-	33.33	0.00	3,530.87
MW-1	*02/05/09*	3,564.20	-	33.49	0.00	3,530.71
MW-1	*05/30/09*	3,564.20	-	33.45	0.00	3,530.75
MW-1	*08/15/09*	3,564.20	-	33.56	0.00	3,530.64
MW-1	*11/19/09*	3,564.20	-	33.69	0.00	3,530.51
MW-1	01/13/10	3,564.20	-	33.64	0.00	3,530.56
MW-1	*02/01/10*	3,564.20	-	33.25	0.00	3,530.95
MW-1	*05/04/10*	3,564.20		33.45	0.00	3,530.75
MW-1	*08/03/10*	3,564.20	-	33.84	0.00	3,530.36
MW-1	*11/03/10*	3,564.20	-	33.72	0.00	3,530.48
MW-1	*02/25/11*	3,564.20	-	33.69	0.00	3,530.51
MW-1	*05/04/11*	3,564.20	-	33.67	0.00	3,530.53
MW-1	08/01/11	3,564.20	-	33.43	0.00	3,530.77
MW-1	08/08/11	3,564.20	-	33.45	0.00	3,530.75
MW-1	*08/09/11*	3,564.20	-	33.66	0.00	3,530.54
MW-1	*08/15/11*	3,564.20	-	33.62	0.00	3,530.58
MW-1	*08/22/11*	3,564.20	-	33.07	0.00	3,531.13
MW-1	*08/29/11*	3,564.20	-	33.54	0.00	3,530.66
MW-1	*11/10/11*	3,564.20	-	33.53	0.00	3,530.67
MW-2	*12/13/06*	3,563.83	-	31.64	0.00	3,532.19
MW-2	*02/19/07*	3,563.83	-	31.56	0.00	3,532.27
MW-2	*03/16/07*	3,563.83	-	31.59	0.00	3,532.24
MW-2	*05/14/07*	3,563.83	-	31.60	0.00	3,532.23
MW-2	*08/28/07*	3,563.83	-	31.99	0.00	3,531.84
MW-2	*11/05/07*	3,563.83	-	31.99	0.00	3,531.84
MW-2	*02/07/08*	3,563.83	-	32.02	0.00	3,531.81
MW-2	*06/05/08*	3,563.83		32.12	0.00	3,531.71
MW-2	*08/08/08*	3,563.83		32.19	0.00	3,531.64
MW-2	*11/05/08*	3,563.83		32.12	0.00	3,531.71
MW-2	*02/05/09*	3,563.83	-	32.21	0.00	3,531.62
MW-2	*05/30/09*	3,563.83	-	32.24	0.00	3,531.59
MW-2	*08/15/09*	3,563.83	-	32.25	0.00	3,531.58
MW-2	*11/19/09*	3,563.83	-	32.26	0.00	3,531.57
MW-2	01/13/10	3,563.83	-	32.27	0.00	3,531.56
MW-2	*02/01/10*	3,563.83	-	32.10	0.00	3,531.73
MW-2	*05/04/10*	3,563.83		32.26	0.00	3,531.57
MW-2	*08/03/10*	3,563.83	-	32.27	0.00	3,531.56
MW-2	*11/03/10*	3,563.83		32.27	0.00	3,531.56
MW-2	*02/25/11*	3,563.83	-	32.28	0.00	3,531.55

TABLE 1

GROUNDWATER ELEVATION DATA

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

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-2	*05/04/11*	3,563.83	-	32.26	0.00	3,531.57
MW-2	*08/09/11*	3,563.83	-	32.22	0.00	3,531.61
MW-2	*11/10/11*	3,563.83	-	32.30	0.00	3,531.53
MW-3	*12/13/06*	3,564.42	-	32.12	0.00	3,532.30
MW-3	*02/19/07*	3,564.42	-	32.13	0.00	3,532.29
MW-3	*03/16/07*	3,564.42	-	32.18	0.00	3,532.24
MW-3	*05/14/07*	3,564.42	-	32.19	0.00	3,532.23
MW-3	*08/28/07*	3,564.42	-	32.69	0.00	3,531.73
MW-3	*11/05/07*	3,564.42	-	32.74	0.00	3,531.68
MW-3	*02/07/08*	3,564.42	-	32.73	0.00	3,531.69
MW-3	*06/05/08*	3,564.42	-	32.91	0.00	3,531.51
MW-3	*08/08/08*	3,564.42	-	33.31	0.00	3,531.11
MW-3	*11/05/08*	3,564.42	-	33.52	0.00	3,530.90
MW-3	*02/05/09*	*3,564.42*	-	*33.37*	*0.00*	*3,531.05*
MW-3	05/30/09	*3,564.42*		33.54	0.00	3,530.88
MW-3	*08/15/09*	*3,564.42*		33.61	0.00	3,530.81
MW-3	*11/19/09*	*3,564.42*		33.84	0.00	3,530.58
MW-3	01/13/10	*3,564.42*		33.79	0.00	3,530.63
MW-3	*02/01/10*	*3,564.42*		33.56	0.00	3,530.86
MW-3	*05/04/10*	3,564.42		33.37	0.00	3,531.05
MW-3	*08/03/10*	3,564.42	-	33.68	0.00	3,530.74
MW-3	*11/03/10*	3,564.42		33.83	0.00	3,530.59
MW-3	*02/25/11*	3,564.42	-	33.80	0.00	3,530.62
MW-3	*05/04/11*	3,564.42	-	33.81	0.00	3,530.61
MW-3	*08/09/11*	3,564.42	-	33.83	0.00	3,530.59
MW-3	*11/10/11*	3,564.42	-	33.97	0.00	3,530.45

TABLE 2

PLAINS MARKETING, L.P.
SOUTH MONUMENT GATHERING SOUR
Lea County, New Mexico
Plains SRS# 2001-11193

All concentrations are in mg/kg

Sample Date	Sample Location	Benzene	Toluene	Ethylbenzene	Xylene
NMOCD REGULARY LIMIT		**0.010**	**0.750**	**0.750**	**0.620**
12/13/06	MW-1	0.005	<0.005	0.0116	0.0165
02/19/07	MW-1	0.0067	<0.001	0.0049	0.0059
03/16/07	MW-1	0.0082	<0.001	0.004	0.0036
05/14/07	MW-1	0.0084	<0.001	<0.001	0.0028
08/28/07	MW-1	0.0037	<0.001	<0.001	<0.001
11/06/07	MW-1	0.0015	<0.001	<0.001	0.0019
02/07/08	MW-1	0.003	<0.001	<0.001	0.0380
06/05/08	MW-1	<0.001	<0.001	<0.001	<0.001
08/08/08	MW-1	<0.001	<0.001	<0.001	<0.001
11/05/08	MW-1	0.0067	0.0028	0.0019	0.0085
02/05/09	MW-1	<0.001	<0.001	<0.001	<0.001
05/30/09	MW-1	<0.001	<0.001	<0.001	<0.001
08/15/09	MW-1	<0.001	<0.001	<0.001	<0.001
11/19/09	MW-1	<0.001	<0.001	<0.001	<0.001
02/01/10	MW-1	<0.001	<0.001	<0.001	<0.001
05/04/10	MW-1	<0.001	<0.001	<0.001	<0.001
08/03/10	MW-1	**0.14**	<0.001	0.0109	0.1100
11/03/10	MW-1	**0.0141**	<0.001	<0.001	<0.001
02/25/11	MW-1	<0.001	<0.001	<0.001	<0.001
05/04/11	MW-1	<0.001	<0.001	<0.001	<0.001
08/09/11	MW-1	<0.001	<0.001	<0.001	<0.001
11/10/11	MW-1	<0.001	<0.001	<0.001	<0.001
12/13/06	MW-2	0.0054	<0.001	<0.001	<0.001
02/19/07	MW-2	**0.0488**	<0.001	0.0115	0.0330
03/16/07	MW-2	**0.0362**	<0.001	0.0034	0.0095
05/14/07	MW-2	**0.115**	<0.001	0.0152	0.0414
08/28/07	MW-2	**0.0665**	<0.001	0.0072	0.0165
11/05/07	MW-2	<0.001	<0.001	<0.001	<0.001
02/07/08	MW-2	0.0016	<0.001	<0.001	<0.001
06/05/08	MW-2	0.0027	<0.001	<0.001	<0.001
08/08/08	MW-2	0.0019	<0.001	<0.001	<0.001
11/05/08	MW-2	<0.001	<0.001	<0.001	<0.001
02/05/09	MW-2	<0.001	<0.001	<0.001	<0.001
05/30/09	MW-2	<0.001	<0.001	<0.001	<0.001
08/15/09	MW-2	<0.001	<0.001	<0.001	<0.001
11/19/09	MW-2	<0.001	<0.001	<0.001	<0.001
02/01/10	MW-2	<0.001	<0.001	<0.001	<0.001
05/04/10	MW-2	<0.001	<0.001	<0.001	<0.001
08/03/10	MW-2	<0.001	<0.001	<0.001	<0.001
11/03/10	MW-2	0.0047	<0.001	<0.001	<0.001
02/25/11	MW-2	<0.001	<0.001	<0.001	<0.001
05/04/11	MW-2	<0.001	<0.001	<0.001	<0.001
08/09/11	MW-2	<0.001	<0.001	<0.001	<0.001
11/10/11	MW-2	<0.001	<0.001	<0.001	<0.001

TABLE 2

PLAINS MARKETING, L.P.
SOUTH MONUMENT GATHERING SOUR
Lea County, New Mexico
Plains SRS# 2001-11193

All concentrations are in mg/kg

Sample Date	Sample Location	Benzene	Toluene	Ethylbenzene	Xylene
NMOCD REGULARY LIMIT		0.010	0.750	0.750	0.620
12/13/06	MW-3	<0.001	<0.001	<0.001	<0.001
02/19/07	MW-3	<0.001	<0.001	<0.001	<0.001
03/16/07	MW-3	<0.001	<0.001	<0.001	<0.001
05/14/07	MW-3	<0.001	<0.001	<0.001	<0.001
08/28/07	MW-3	<0.001	<0.001	<0.001	<0.001
11/05/07	MW-3	<0.001	<0.001	<0.001	<0.001
02/07/08	MW-3	<0.001	<0.001	<0.001	<0.001
06/05/08	MW-3	<0.001	<0.001	<0.001	<0.001
08/08/08	MW-3	<0.001	<0.001	<0.001	<0.001
11/05/08	MW-3	<0.001	<0.001	<0.001	<0.001
02/05/09	MW-3	<0.001	<0.001	<0.001	0.0036
05/30/09	MW-3	<0.001	<0.001	<0.001	<0.001
08/15/09	MW-3	<0.001	<0.001	<0.001	<0.001
11/19/09	MW-3	<0.001	<0.001	<0.001	<0.001
02/01/10	MW-3	<0.001	<0.001	<0.001	<0.001
05/04/10	MW-3	<0.001	<0.001	<0.001	<0.001
08/03/10	MW-3	<0.001	<0.001	<0.001	<0.001
11/03/10	MW-3	<0.001	<0.001	<0.001	<0.001
02/25/11	MW-3	<0.001	<0.001	<0.001	<0.001
05/04/11	MW-3	<0.001	<0.001	<0.001	<0.001
08/09/11	MW-3	<0.001	<0.001	<0.001	<0.001
11/10/11	MW-3	<0.001	<0.001	<0.001	<0.001

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
SOUTH MONUMENT GATHERING SOUR
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER RP #951

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		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	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		---	---	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	---	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L			---
MW-1	11/05/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	0.000922	<0.000185	0.000758	<0.000185	0.00173	0.00357	0.000875	<0.000185
	11/19/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000627	<0.000184	0.00043	<0.000184	<0.000184	0.000584
	11/03/10	Not Sampled as part of Quarterly Monitoring Event.																		
	11/10/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-2	11/05/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/19/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/03/10	Not Sampled as part of Quarterly Monitoring Event.																		
	11/10/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-3	11/05/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/19/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/03/10	Not Sampled as part of Quarterly Monitoring Event.																		
	11/10/11	Not Sampled as part of Quarterly Monitoring Event.																		

Hansen, Edward J., EMNRD

From: Jason Henry [JHenry@paalp.com]
Sent: Thursday, March 29, 2012 8:16 AM
To: Hansen, Edward J., EMNRD
Cc: Jeffrey P Dann
Subject: FW: ARCHIVE: South Monument Gathering Sour (12021001)
Attachments: South_Monument_Gathering_Sour_Report.pdf

Ed,

Attached is the 1Q 2012, South Monument Gathering Sour (1R-951) analytical report that you requested.

Please let me know if you have any questions or need more information.

Thank you,
Jason Henry
575-441-1099

From: emr@traceanalysis.com [mailto:emr@traceanalysis.com]
Sent: Thursday, February 16, 2012 5:28 PM
To: Shawn M Harris; Jason Henry; Margie L Minchew
Subject: Fwd: ARCHIVE: South Monument Gathering Sour (12021001)

TRACEANALYSIS, INC.

Carla Terry
TraceAnalysis, Inc.
(806) 794-1296
6701 Aberdeen Ave., Suite 9
Lubbock, TX 79424

From: rrounsaville@novatraining.cc
To: emr@traceanalysis.com
Sent: Thursday, February 16, 2012 5:28:00 PM
Subject: ARCHIVE: South Monument Gathering Sour (12021001)

TraceAnalysis, Inc.

(attachments enclosed)

Work Order: 12021001
Contact Person: Ron Rounsaville

Project Location: South of Monument, NM
Project Name: South Monument Gathering Sour
Project Number: 2001-11193

Note: To ensure you receive email, please add reports@traceanalysis.com to your address book.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
5015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: February 16, 2012

Work Order: 12021001

Project Location: South of Monument, NM
Project Name: South Monument Gathering Sour
Project Number: 2001-11193

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
288691	MW 3	water	2012-02-09	15:15	2012-02-10
288692	MW 2	water	2012-02-09	15:15	2012-02-10
288693	MW 1	water	2012-02-09	15:30	2012-02-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project South Monument Gathering Sour were received by TraceAnalysis, Inc. on 2012-02-10 and assigned to work order 12021001. Samples for work order 12021001 were received intact without headspace and at a temperature of 7.3 C. Samples were received on ice.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	75244	2012-02-15 at 09:50	88644	2012-02-15 at 10:08

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12021001 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 288691 - MW 3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	88644	Date Analyzed:	2012-02-15	Analyzed By:	tc
Prep Batch:	75244	Sample Preparation:	2012-02-15	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.115	mg/L	1	0.100	115	73.5 - 123.1
4-Bromofluorobenzene (4-BFB)			0.0738	mg/L	1	0.100	74	51.1 - 122.9

Sample: 288692 - MW 2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	88644	Date Analyzed:	2012-02-15	Analyzed By:	tc
Prep Batch:	75244	Sample Preparation:	2012-02-15	Prepared By:	tc

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.116	mg/L	1	0.100	116	73.5 - 123.1
4-Bromofluorobenzene (4-BFB)			0.0741	mg/L	1	0.100	74	51.1 - 122.9

Sample: 288693 - MW 1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	88644	Date Analyzed:	2012-02-15	Analyzed By:	tc
Prep Batch:	75244	Sample Preparation:	2012-02-15	Prepared By:	tc

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	73.5 - 123.1
4-Bromofluorobenzene (4-BFB)			0.0681	mg/L	1	0.100	68	51.1 - 122.9

Method Blanks

Method Blank (1) QC Batch: 88644

QC Batch: 88644 | Date Analyzed: 2012-02-15 | Analyzed By: tc
Prep Batch: 75244 | QC Preparation: 2012-02-15 | Prepared By: tc

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000600	mg/L	0.001
Toluene		1	<0.000400	mg/L	0.001
Ethylbenzene		1	<0.000600	mg/L	0.001
Xylene		1	<0.00130	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.118	mg/L	1	0.100	118	74.2 - 126
4-Bromofluorobenzene (4-BFB)			0.0851	mg/L	1	0.100	85	54.3 - 104.6

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 88644 | Date Analyzed: 2012-02-15 | Analyzed By: tc
Prep Batch: 75244 | QC Preparation: 2012-02-15 | Prepared By: tc

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000600	102	89.7 - 117.6
Toluene		1	0.102	mg/L	1	0.100	<0.000400	102	83.9 - 113.9
Ethylbenzene		1	0.0982	mg/L	1	0.100	<0.000600	98	76.8 - 110.8
Xylene		1	0.286	mg/L	1	0.300	<0.00130	95	76.2 - 110.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.105	mg/L	1	0.100	<0.000600	105	89.7 - 117.6	3	20
Toluene		1	0.104	mg/L	1	0.100	<0.000400	104	83.9 - 113.9	2	20
Ethylbenzene		1	0.102	mg/L	1	0.100	<0.000600	102	76.8 - 110.8	4	20
Xylene		1	0.294	mg/L	1	0.300	<0.00130	98	76.2 - 110.5	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.109	0.110	mg/L	1	0.100	109	110	72.5 - 117
4-Bromofluorobenzene (4-BFB)	0.0913	0.0948	mg/L	1	0.100	91	95	69.4 - 114

Matrix Spike (MS-1) Spiked Sample: 288673

QC Batch: 88644 | Date Analyzed: 2012-02-15 | Analyzed By: tc
Prep Batch: 75244 | QC Preparation: 2012-02-15 | Prepared By: tc

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.14	mg/L	10	1.00	0.0304	111	86.6 - 130.3
Toluene		1	1.07	mg/L	10	1.00	<0.00400	107	82.2 - 120.1
Ethylbenzene		1	1.71	mg/L	10	1.00	0.678	103	66.8 - 119.2
Xylene		1	2.92	mg/L	10	3.00	<0.0130	97	66.5 - 118.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.07	mg/L	10	1.00	0.0304	104	86.6 - 130.3	6	20
Toluene		1	1.00	mg/L	10	1.00	<0.00400	100	82.2 - 120.1	7	20
Ethylbenzene		1	1.64	mg/L	10	1.00	0.678	96	66.8 - 119.2	4	20
Xylene		1	2.78	mg/L	10	3.00	<0.0130	93	66.5 - 118.4	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.16	1.11	mg/L	10	1	116	111	73.2 - 116.6
4-Bromofluorobenzene (4-BFB)	0.928	0.878	mg/L	10	1	93	88	64.8 - 125.7

Calibration Standards

Standard (CCV-1)

QC Batch: 88644 | Date Analyzed: 2012-02-15 | Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2012-02-15
Toluene		1	mg/L	0.100	0.0950	95	80 - 120	2012-02-15
Ethylbenzene		1	mg/L	0.100	0.0904	90	80 - 120	2012-02-15
Xylene		1	mg/L	0.300	0.264	88	80 - 120	2012-02-15

Standard (CCV-2)

QC Batch: 88644 | Date Analyzed: 2012-02-15 | Analyzed By: tc

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.110	110	80 - 120	2012-02-15
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2012-02-15
Ethylbenzene		1	mg/L	0.100	0.0997	100	80 - 120	2012-02-15
Xylene		1	mg/L	0.300	0.289	96	80 - 120	2012-02-15

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-11-3	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 126210001

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: NOVA
Phone #: 432 520 7720
Address: (Street, City, Zip) 2057 Commerce Drive
Fax #:
Contact Person: ~~Lorenzo Gonzalez~~ Ron Lounsbury
E-mail:
Invoice to:
(If different from above)
Project #:
Project Name: South Monument Gathering Sour
Project Location (including state): New Mexico
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
28691	MW 3	3	VOA	✓				✓				✓		2/9/12	1515
692	MW 2	3	VOA	✓				✓				✓		2/9/12	1515
693	MW 1	3	VOA	✓				✓				✓		2/9/12	1530

ANALYSIS REQUEST (Circle or Specify Method No.)	Turn Around Time if different from standard	Hold
MTBE 8021 / 602 / 8260 / 624		
BTEX 8021 / 602 / 8260 / 624	✓	
TPH 418.1 / TX1005 / TX1005 Ext(C35)		
TPH 8015 GRO / DRO / TVHC		
PAH 8270 / 625		
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7		
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Volatiles		
TCLP Semi Volatiles		
TCLP Pesticides		
RCI		
GC/MS Vol. 8260 / 624		
GC/MS Semi. Vol. 8270 / 625		
PCB's 8082 / 608		
Pesticides 8081 / 608		
BOD, TSS, pH		
Moisture Content		
Cl, Fl, S04, NO3, NO2, Alkalinity		
Na, Ca, Mg, K, TDS, EC		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	NOVA	2/10/12	8:10		TA	2/10/12	8:10	INST 4.3 °C OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ °C OBS ____ °C COR ____ °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST ____ °C OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: All tests Midland

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Carry in

ORIGINAL COPY