

1R - 102

Annual GW Mon. Report

Year:
2011

LF-37
SECTION 19
TOWNSHIP 19 SOUTH, RANGE 37 EAST
PLAINS SRS NUMBER: 1999-LF-37
LEA COUNTY, NEW MEXICO
NMOCD #1R-0102

RECEIVED

APR - 4 2012

2011
Annual Groundwater
Monitoring Report

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

April 2012

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

Prepared By:

BBC International, Inc.

World-Wide Environmental Specialists
Hobbs, New Mexico



**PLAINS
ALL AMERICAN**

RECEIVED OCD
2012 APR -4 A 11: 05

March 29, 2012

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
1 Site in Lea County, New Mexico

Dear Mr. Hansen:

Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains All American hereby submits an Annual Monitoring report for the following site:

LF-37 1R-0102 Section 19, Township 19 South, Range 37 East, Lea County

Please note that the 2011 Annual Monitoring Report for the subject site includes a request for site closure. Due to the current state of vegetative growth present at the site, no re-seeding activities are scheduled to be performed. Photographs taken at the site during March 2012 are included with the 2011 Annual Monitoring Report.

BBC International, Inc. (BBC) prepared this document and has vouched for its accuracy and completeness, and on behalf of Plains All American, I have personally reviewed the document and interviewed BBC personnel in order to verify the accuracy and completeness of the report. 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

TABLE OF CONTENTS

INTRODUCTION.....	1
FIELD ACTIVITIES	1
GROUNDWATER GRADIENT	1
LABORATORY RESULTS	2
SUMMARY	2
CONCLUSION	3
LIMITATIONS	4
DISTRIBUTION.....	5

FIGURES

- Figure 1 – Site Location Map
- Figure 2 – Inferred Groundwater Gradient Map March 28, 2011
- Figure 3 – Inferred Groundwater Gradient Map June 28, 2011
- Figure 4 – Inferred Groundwater Gradient Map September 28, 2011
- Figure 5 – Inferred Groundwater Gradient Map December 29, 2011 /
- Figure 6 – BTEX Concentration Map March 28, 2011
- Figure 7 – BTEX Concentration Map June 28, 2011
- Figure 8 – BTEX Concentration Map September 28, 2011
- Figure 9 – BTEX Concentration Map December 29, 2011

TABLES

- Table 1 – Groundwater Elevation Data
- Table 2 – Concentrations of BTEX in Groundwater

APPENDICES

- Appendix I: 1st Quarter Analytical Data, 03/28/11
 - Appendix II: 2nd Quarter Analytical Data, 06/28/11
 - Appendix III: 3rd Quarter Analytical Data, 09/28/11
 - Appendix IV: 4th Quarter Analytical Data, 12/29/11
 - Appendix V: NMOCD Form C-141
 - Appendix VI: Site Pictures
-

INTRODUCTION

On behalf of Plains Marketing, L.P. (Plains), BBC International, Inc. (BBC) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on October 19, 2004, project management responsibilities were assumed by BBC. 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. For reference, the Site Location Map is provided as **Figure 1**.

Groundwater monitoring was conducted in four (4) quarters during the calendar year of 2011 to assess the levels and extent of dissolved phase and Phase Separated Hydrocarbon (PSH) constituents. The groundwater monitoring events consisted of measuring static water levels in the monitor wells and checking for the presence of PSH in all four (4) quarters.

A copy of this report with all figures and appendices is included on the enclosed CD.

FIELD ACTIVITIES

In compliance with the New Mexico Oil Conservation Division (NMOCD) letter of April 28, 2004, allowing Plains to modify the quarterly gauging of the monitor wells as follows: quarterly sampling of MW-3, semi-annual sampling of MW-4, and annual sampling of MW-2, MW-5, MW-6, MW-8, and MW-9. The monitor wells were gauged and sampled on March 28, June 28, September 28, and December 29, 2011.

No detectable or measurable amounts of PSH were recorded during the monitoring period. During each sampling event, the monitor wells were purged of approximately three well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon samplers. Water samples were collected in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in polystyrene drums and disposed of by BBC utilizing the NMOCD-approved disposal facility near Eunice, NM operated by Sundance Services.

GROUNDWATER GRADIENT

Locations of the monitor wells and the inferred groundwater gradient, constructed from measurements collected during quarterly sampling events are depicted on **Figures 2-5**, the Inferred Groundwater Gradient Maps. Cumulative groundwater elevation data is provided as **Table 1**. Groundwater elevation contours, generated from water level measurements acquired during the quarterly sampling events of 2011 indicated a general gradient of approximately 0.007 ft/ft to the east southeast. The depth to groundwater as measured from the top of the well casing ranged between 17.65 to 24.10 feet for the shallow aquifer.

LABORATORY RESULTS

Groundwater samples collected during each quarter of 2011 monitoring events were delivered to Trace Analysis, Inc. of Lubbock, Texas for determination of BTEX constituent concentrations by EPA Method SW846-8021b. A cumulative listing of BTEX constituent concentrations is summarized in **Table 2**. Copies of the laboratory reports generated during this reporting period are provided as **Appendix I-IV**. Quarterly groundwater sample results reflecting benzene and BTEX constituent concentrations are depicted on **Figures 6-9**, the BTEX Concentration Maps.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2011 monitoring period indicate that benzene and BTEX constituent concentrations are below NMOCD regulatory standards in monitor wells MW-2, MW-3, MW-4, MW-5, MW-6, MW-8, and MW-9. The results are available in **Appendix I-IV**.

Ground water monitor wells MW-2, MW-4, MW-6, MW-8, and MW-9 have been below NMOCD regulatory standards for twelve (12) consecutive quarters, MW-5 was below NMOCD regulatory standards for four (4) quarters in 2003, then in 2004, MW-5 was changed to annual sampling per the NMOCD letter of April 28, 2004 and has been below NMOCD regulatory standards for the last five years. Ground water monitor well MW-3 has been below NMOCD regulatory standards for four (4) quarters in 2011.

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 groundwater monitoring activities for the annual monitoring period 2011. No detectable or measurable amounts of PSH were recorded during the monitoring period.

Groundwater elevation contours, generated from water level measurements acquired during the quarterly sampling events of 2011 indicated a general gradient of approximately 0.007 ft/ft to the east southeast.

Review of laboratory analytical results generated from analysis of the groundwater samples obtained during the 2011 monitoring period indicate that benzene and BTEX constituent concentrations are below NMOCD regulatory standards in monitor wells MW-2, MW-3, MW-4, MW-5, MW-6, MW-8, and MW-9.

No detectable or measurable amounts of PSH were recorded during the monitoring period. The groundwater monitoring wells MW-2, MW-4, MW-5, MW-6, MW-8, and MW-9 have now recorded twelve (12) consecutive sampling quarters for constituent concentrations below NMOCD regulatory standards. Ground water monitor well MW-3

has been below NMOCD regulatory standards for four (4) quarters in 2011. The Release Notification and Corrective Action Form (C-141) is provided as **Appendix V**.

In addition, the site has been revegetated as evidenced by the photographs located in **Appendix VI**.

CONCLUSION

The ground water monitoring wells MW-2, MW-4, MW-5, MW-6, MW-8, and MW-9 have now recorded twelve (12) consecutive sampling quarters for constituent concentration below NMOCD regulatory standards. Ground water monitor well MW-3 has been below NMOCD regulatory standards for four (4) consecutive quarters in 2011.

Therefore, based on the analytical data and discussions with Mr. Ed Hansen of the NMOCD, Plains recommends and is requesting that all ground water sampling and monitoring activities be terminated for the LF-37 site. Upon receipt of NMOCD approval for termination of monitoring activities, Plains will commence the plugging and abandoning of all of the ground water monitoring wells and the surface restoration of the well pad locations.

When the well abandonment is completed, Plains will notify the NMOCD. This will conclude all activities for the site and it will be considered a complete closure.

LIMITATIONS

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

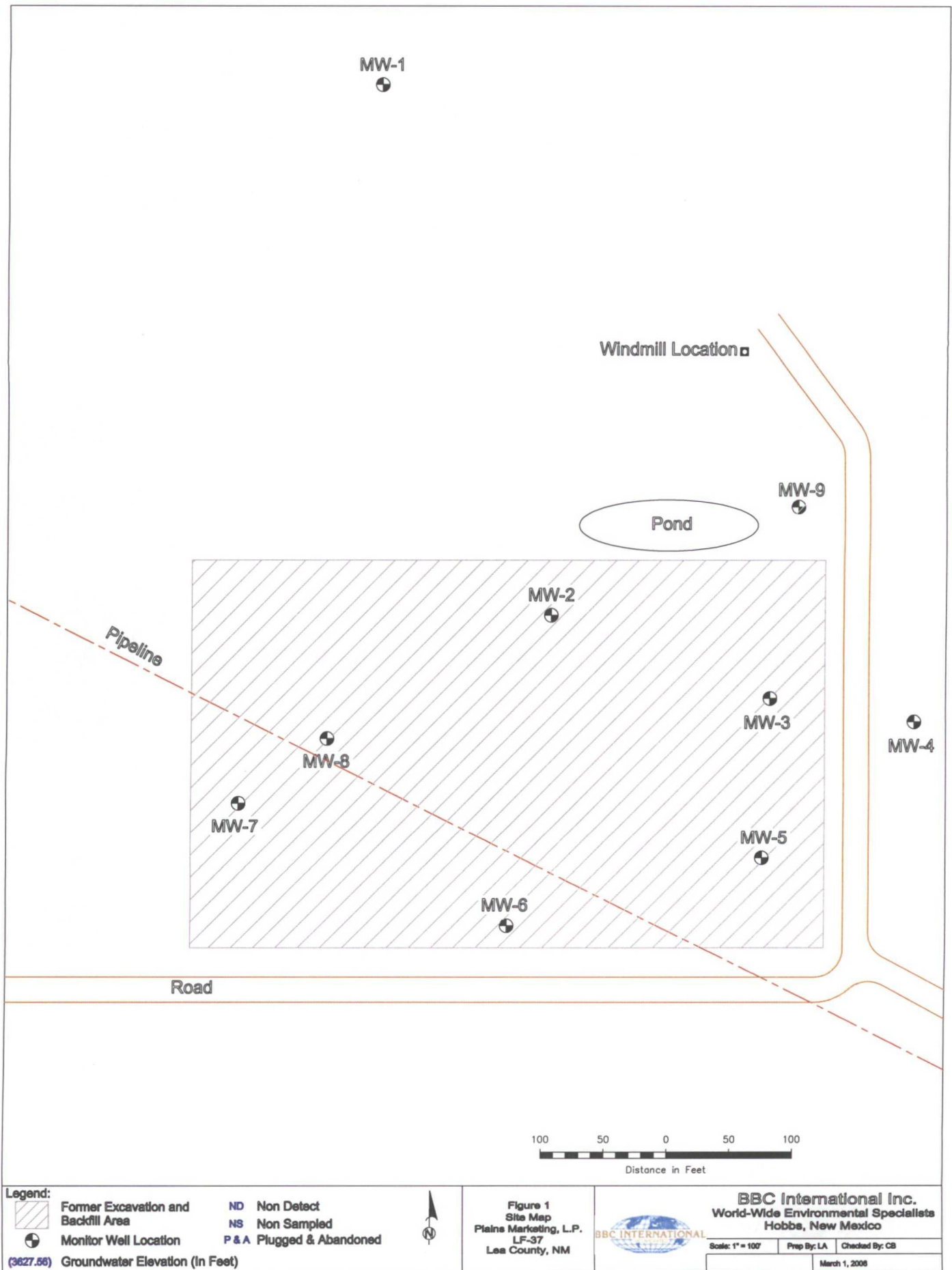
BBC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. BBC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. BBC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. BBC 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 BBC and/or Plains.

DISTRIBUTION

- Copy 1: Ed Hansen
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
- Copy 2: Larry Johnson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
1625 French Drive
Hobbs, New Mexico 88240
- Copy 3: Jason Henry
Plains Marketing, L.P.
3112 Highway 82
Lovington, NM 88260
- Copy 4: Jeff Dann
Plains Marketing, L.P.
333 Clay Street
Suite 1600
Houston, Texas 77002
jpdann@paalp.com
- Copy 5: BBC International, Inc.
1324 W. Marland
Hobbs, NM 88240

Copy Number: _____



MW-1
P&A

Windmill Location

MW-9
(3627.19)

Pond

MW-2
(3628.64)

0.008 ft/ft

3628.5

MW-8
(3628.04)

Pipeline

MW-7
P&A

3627.5

MW-6
(3627.64)

MW-5
(3627.17)

MW-4
(3627.00)

Road

3628



Legend:

- Former Excavation and Backfill Area
- Monitor Well Location
- (3627.56) Groundwater Elevation (In Feet)
- ND Non Detect
- NS Non Sampled
- P & A Plugged & Abandoned

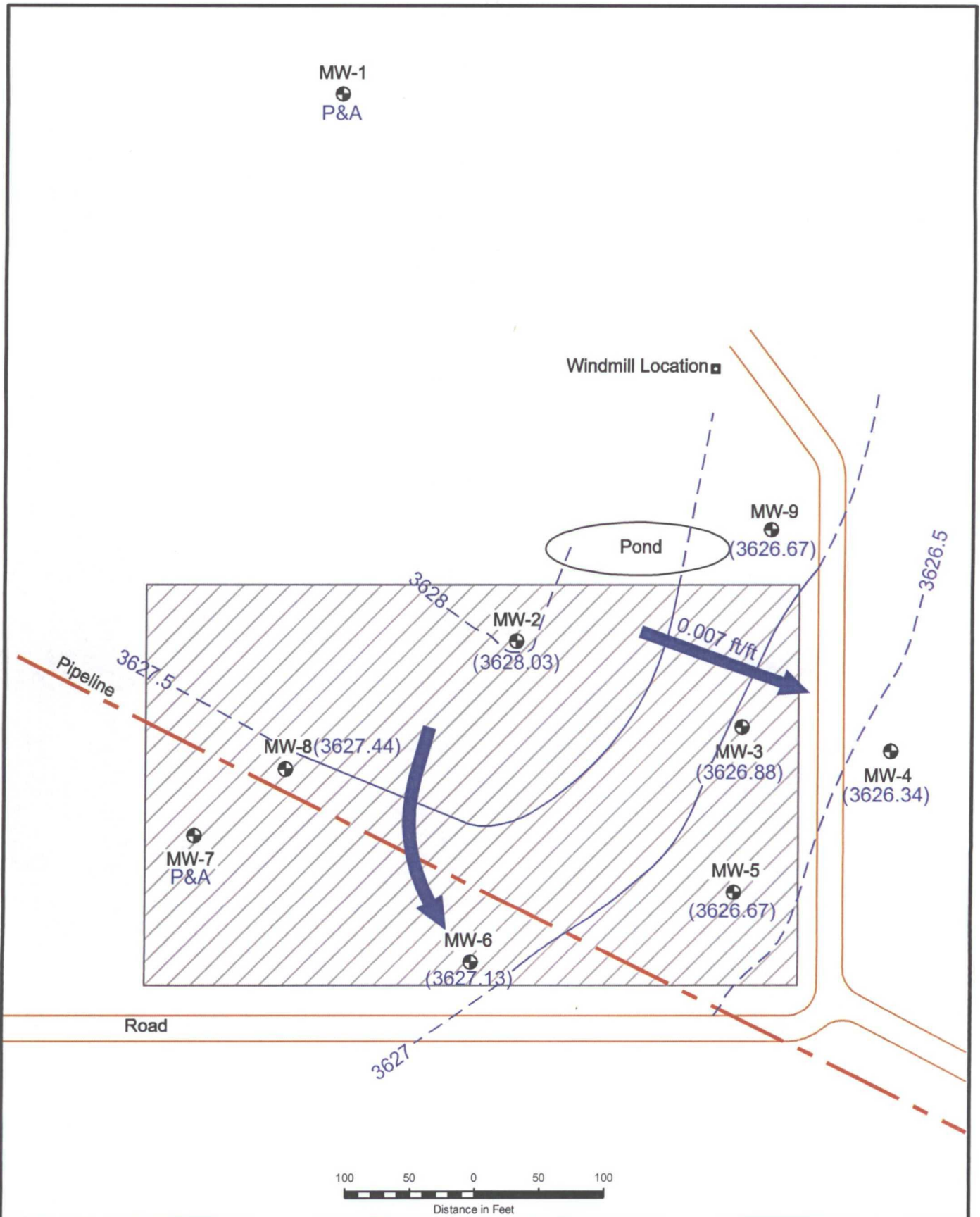


Figure 2
Groundwater Gradient
Map 3/28/11
1st Quarter
Plains Marketing, L.P.
LF-37
Lea County, NM



BBC International Inc.
World-Wide Environmental Specialists
Hobbs, New Mexico

Scale: 1" = 100'	Prep By: DSS	Checked By: CB
		March 28, 2011



Legend:

- Former Excavation and Backfill Area
- Monitor Well Location
- (3627.56) Groundwater Elevation (In Feet)
- ND Non Detect
- NS Non Sampled
- P & A Plugged & Abandoned

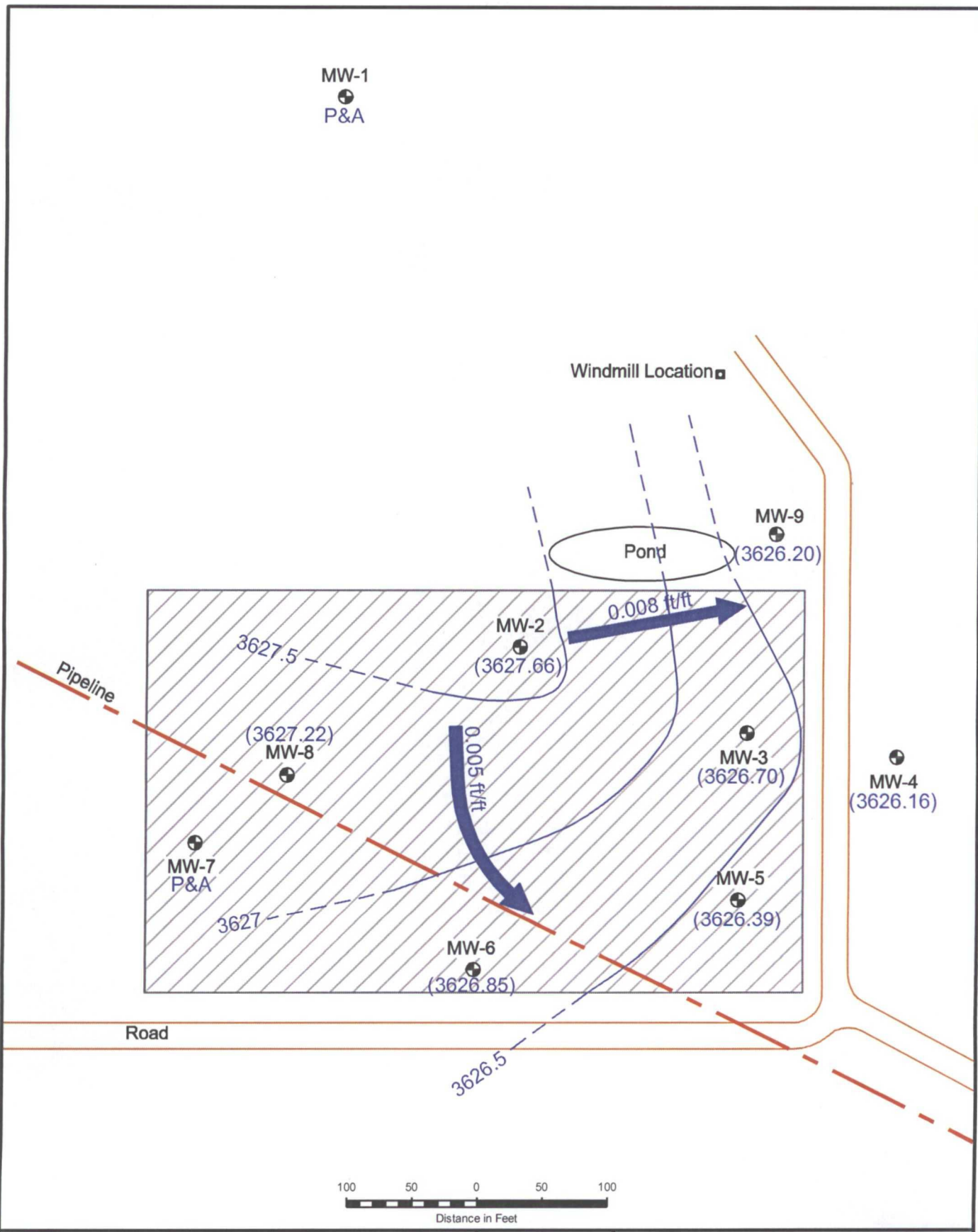


Figure 3
Groundwater Gradient
Map 6/28/11
2nd Quarter
Plains Marketing, L.P.
LF-37
Lea County, NM

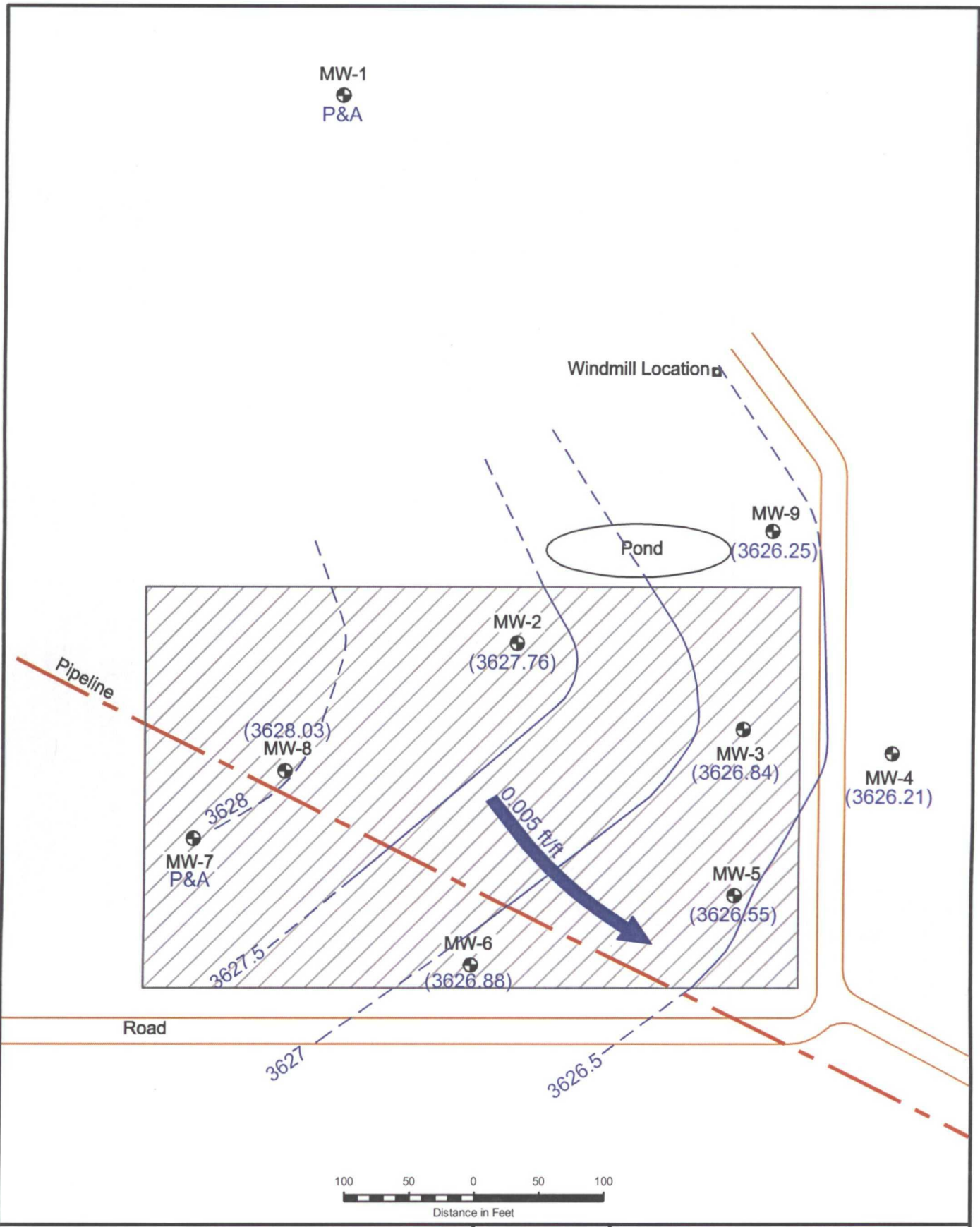


BBC International Inc.
World-Wide Environmental Specialists
Hobbs, New Mexico

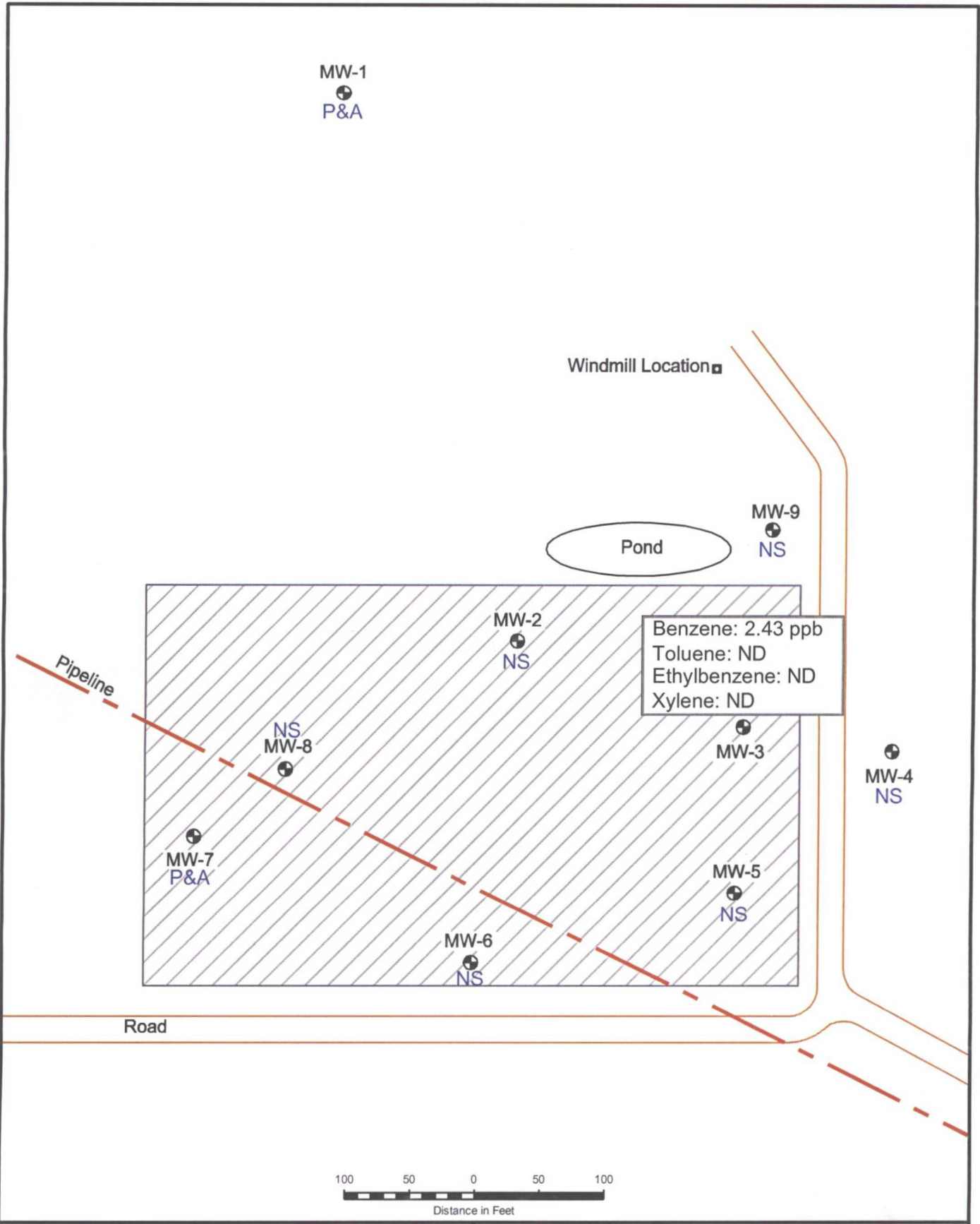
Scale: 1" = 100'	Prep By: DSS	Checked By: CB
June 28, 2011		



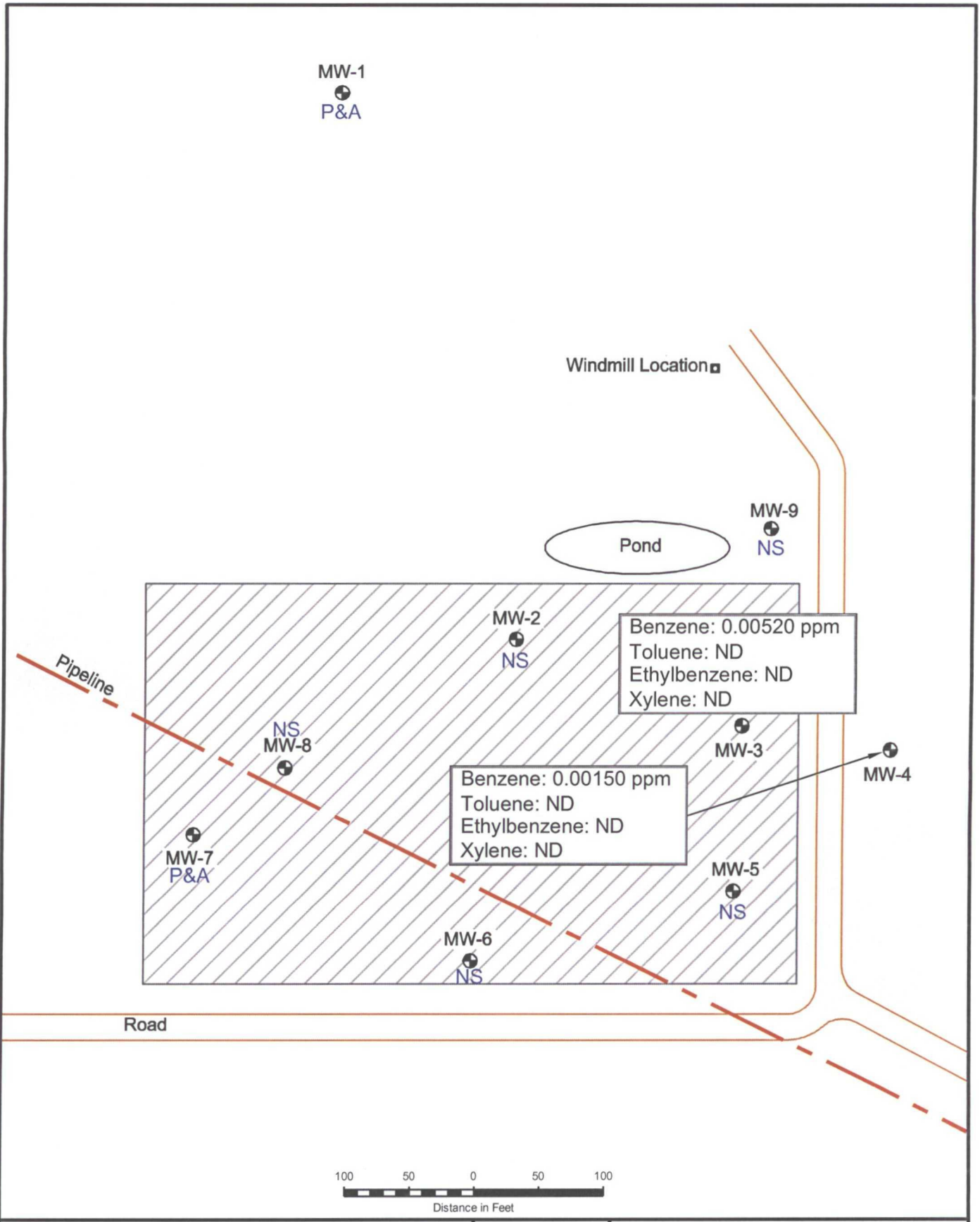
Legend: Former Excavation and Backfill Area Monitor Well Location (3627.56) Groundwater Elevation (In Feet)		ND Non Detect NS Non Sampled P & A Plugged & Abandoned	Figure 4 Groundwater Gradient Map 9/28/11 3rd Quarter Plains Marketing, L.P. LF-37 Lea County, NM	 BBC International Inc. World-Wide Environmental Specialists Hobbs, New Mexico Scale: 1" = 100' Prep By: DSS Checked By: CB September 28, 2011
---	--	--	--	--



Legend: Former Excavation and Backfill Area Monitor Well Location (3627.56) Groundwater Elevation (In Feet)		ND Non Detect NS Non Sampled P & A Plugged & Abandoned	Figure 5 Groundwater Gradient Map 12/29/11 4th Quarter Plains Marketing, L.P. LF-37 Lea County, NM	 BBC International Inc. World-Wide Environmental Specialists Hobbs, New Mexico Scale: 1" = 100' Prep By: DSS Checked By: CB December 29, 2011
---	--	--	---	---



Legend: Former Excavation and Backfill Area Monitor Well Location ppm Parts Per Million		ND Non Detect NS Non Sampled P & A Plugged & Abandoned ppb Parts Per Billion	 Distance in Feet	Figure 6 BTEX Concentration 3/28/11 1st Quarter Plains Marketing, L.P. LF-37 Lea County, NM	 BBC International Inc. World-Wide Environmental Specialists Hobbs, New Mexico	Scale: 1" = 100' Prep By: DSS Checked By: CB March 28, 2011
---	--	---	----------------------	--	--	--



Legend:

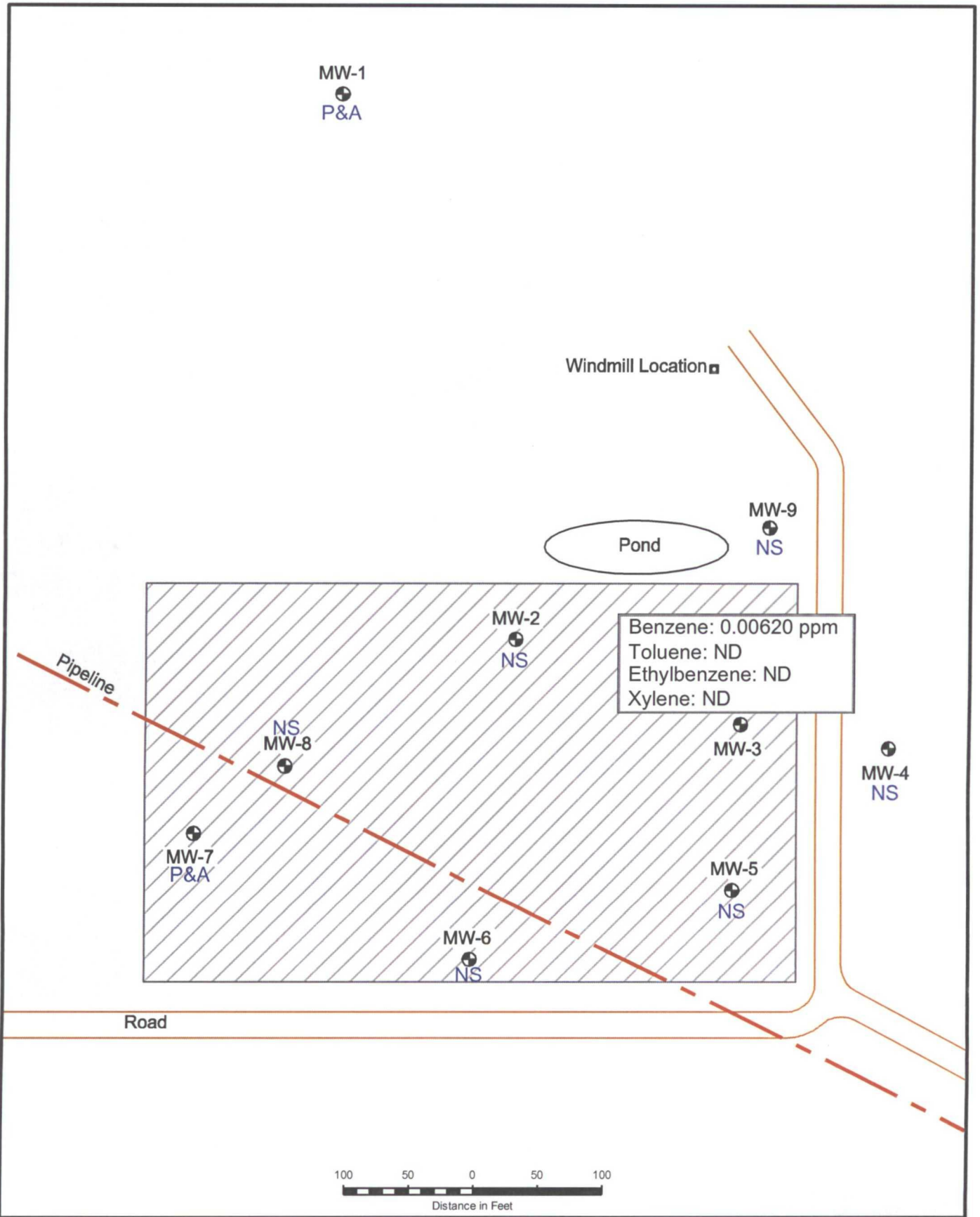
- | | |
|-------------------------------------|---------------------------|
| Former Excavation and Backfill Area | ND Non Detect |
| Monitor Well Location | NS Non Sampled |
| ppm Parts Per Million | P & A Plugged & Abandoned |
| | ppb Parts Per Billion |

Figure 7
BTEX Concentration
6/28/11
2nd Quarter
Plains Marketing, L.P.
LF-37
Lea County, NM



BBC International Inc.
World-Wide Environmental Specialists
Hobbs, New Mexico

Scale: 1" = 100'	Prep By: DSS	Checked By: CB
June 28, 2011		



Legend:



Former Excavation and Backfill Area



Monitor Well Location

ppm Parts Per Million

ND Non Detect

NS Non Sampled

P & A Plugged & Abandoned

ppb Parts Per Billion



Figure 8
BTEX Concentration
9/28/11
3rd Quarter
Plains Marketing, L.P.
LF-37
Lea County, NM



BBC International Inc.
World-Wide Environmental Specialists
Hobbs, New Mexico

Scale: 1" = 100'

Prep By: DSS

Checked By: CB

September 28, 2011

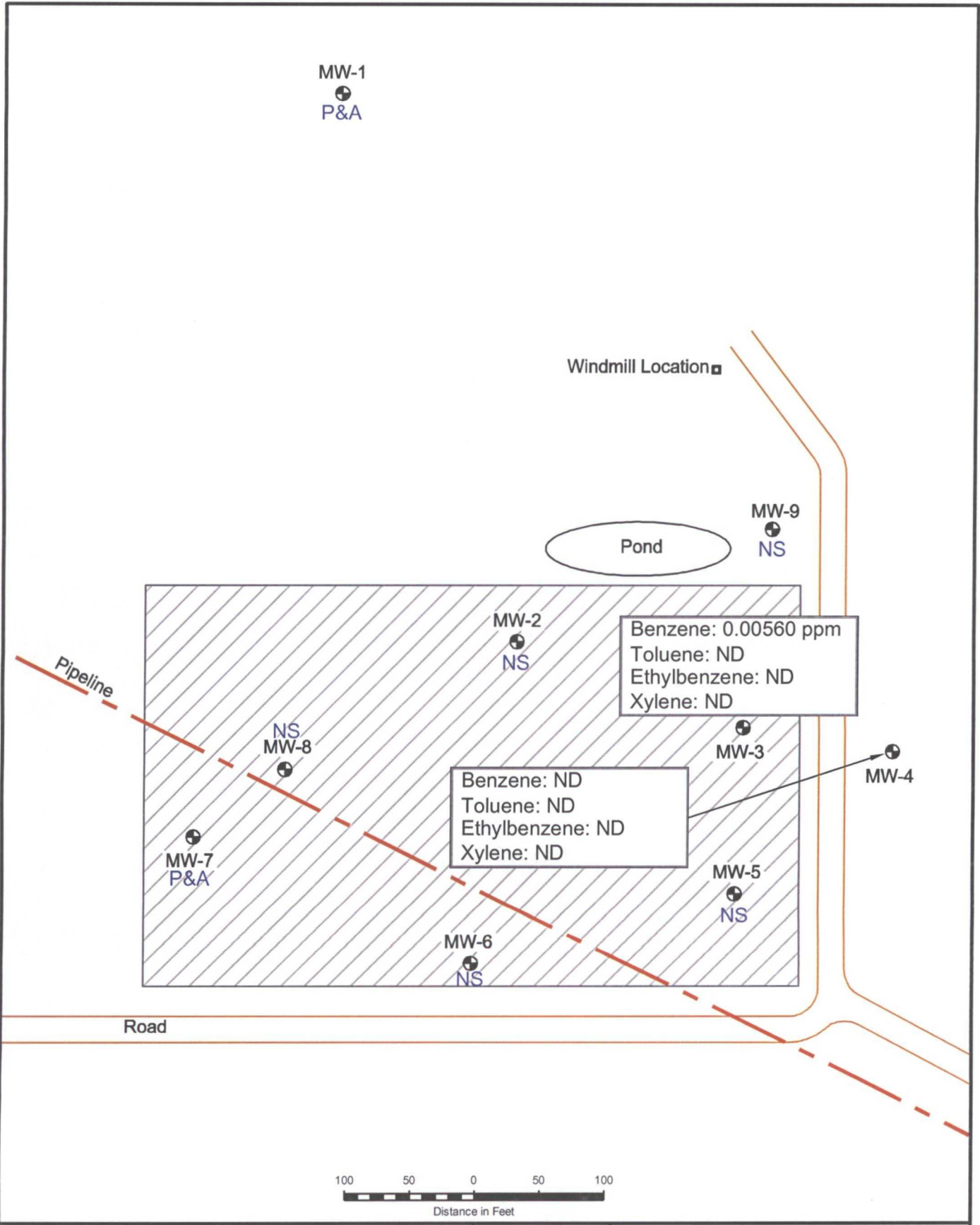


TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 1	01/24/02	3,656.43	ND	28.94	0.00	3,627.49
	01/29/02	3,656.43	ND	28.87	0.00	3,627.56
	06/26/02	3,656.43	ND	28.88	0.00	3,627.55
	09/17/02	3,656.43	ND	29.04	0.00	3,627.39
	11/14/02	3,656.43	ND	28.98	0.00	3,627.45
	02/03/03	3,656.43	ND	29.03	0.00	3,627.40
	05/05/03	3,656.43	ND	29.07	0.00	3,627.36
	08/14/03	3,656.43	ND	29.05	0.00	3,627.38
	11/06/03	3,656.43	ND	29.10	0.00	3,627.33
	02/03/04	3,656.43	ND	29.07	0.00	3,627.36
	05/03/04	3,656.43	ND	28.42	0.00	3,628.01
	08/31/04	3,656.43	ND	28.63	0.00	3,627.80
	09/23/04	3,656.43	ND	19.57	0.00	3,636.86
	10/07/04	3,656.43	ND	14.76	0.00	3,641.67
	12/21/04	3,656.43	25.16	25.17	0.01	3,631.27
	03/16/05	3,656.43	ND	25.88	0.00	3,630.55
		P&A				

TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 2	01/24/02	3,645.76	ND	19.93	0.00	3,625.83
	01/29/02	3,645.76	ND	19.81	0.00	3,625.95
	06/26/02	3,645.76	ND	19.83	0.00	3,625.93
	09/17/02	3,645.76	ND	20.04	0.00	3,625.72
	11/14/02	3,645.76	ND	19.82	0.00	3,625.94
	02/03/03	3,645.76	ND	19.90	0.00	3,625.86
	05/05/03	3,645.76	ND	19.99	0.00	3,625.77
	08/14/03	3,645.76	ND	20.11	0.00	3,625.65
	11/06/03	3,645.76	ND	20.18	0.00	3,625.58
	02/03/04	3,645.76	ND	20.15	0.00	3,625.61
	05/03/04	3,645.76	ND	19.41	0.00	3,626.35
	08/31/04	3,645.76	ND	19.77	0.00	3,625.99
	12/21/04	3,645.76	ND	16.31	0.00	3,629.45
	03/16/05	3,646.76	ND	17.24	0.00	3,629.52
	06/14/05	3,646.76	ND	17.73	0.00	3,629.03
	09/28/05	3,646.76	ND	16.65	0.00	3,630.11
	12/07/05	3,646.76	ND	18.00	0.00	3,628.76
	03/08/06	3,646.76	ND	18.07	0.00	3,628.69
	06/24/06	3,646.76	ND	18.43	0.00	3,628.33
	09/25/06	3,646.76	ND	17.56	0.00	3,629.20
	12/29/06	3,646.76	ND	17.33	0.00	3,629.43
	03/31/07	3,646.76	ND	18.68	0.00	3,628.08
	06/27/07	3,646.76	ND	17.70	0.00	3,629.06
	09/26/07	3,646.76	ND	17.90	0.00	3,628.86
	12/19/07	3,646.76	ND	18.21	0.00	3,628.55
	03/22/08	3,646.76	ND	18.39	0.00	3,628.37
	06/26/08	3,646.76	ND	18.75	0.00	3,628.01
	09/25/08	3,646.76	ND	18.82	0.00	3,627.94
	12/18/08	3,646.76	ND	18.46	0.00	3,628.30
	03/25/09	3,646.76	ND	18.62	0.00	3,628.14
	06/23/09	3,646.76	ND	18.60	0.00	3,628.16
	09/25/09	3,646.76	ND	18.61	0.00	3,628.15
	12/14/09	3,646.76	ND	18.85	0.00	3,627.91
	03/17/10	3,646.76	ND	18.76	0.00	3,628.00
	06/30/10	3,646.76	ND	19.09	0.00	3,627.67
	09/22/10	3,646.76	ND	18.75	0.00	3,628.01
	12/27/10	3,646.76	ND	18.11	0.00	3,628.65
	03/28/11	3,646.76	ND	18.12	0.00	3,628.64
	06/28/11	3,646.76	ND	18.73	0.00	3,628.03
	09/28/11	3,646.76	ND	19.10	0.00	3,627.66
	12/29/11	3,646.76	ND	19.00	0.00	3,627.76

TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 3	01/24/02	3,644.25	ND	19.31	0.00	3,624.94
	01/29/02	3,644.25	ND	19.23	0.00	3,625.02
	06/26/02	3,644.25	ND	19.23	0.00	3,625.02
	09/17/02	3,644.25	ND	19.43	0.00	3,624.82
	11/14/02	3,644.25	ND	19.27	0.00	3,624.98
	02/03/03	3,644.25	ND	19.28	0.00	3,624.97
	05/05/03	3,644.25	ND	19.33	0.00	3,624.92
	08/14/03	3,644.25	ND	19.51	0.00	3,624.74
	11/06/03	3,644.25	ND	19.57	0.00	3,624.68
	02/03/04	3,644.25	ND	19.56	0.00	3,624.69
	05/03/04	3,644.25	ND	18.70	0.00	3,625.55
	08/31/04	3,644.25	ND	19.04	0.00	3,625.21
	12/21/04	3,644.25	Sheen	15.76	0.00	3,628.49
	03/16/05	3,645.25	ND	16.74	0.00	3,628.51
	06/14/05	3,645.25	ND	17.27	0.00	3,627.98
	09/28/05	3,645.25	ND	17.19	0.00	3,628.06
	12/07/05	3,645.25	ND	17.50	0.00	3,627.75
	03/08/06	3,645.25	ND	17.58	0.00	3,627.67
	06/24/06	3,645.25	ND	18.06	0.00	3,627.19
	09/25/06	3,645.25	ND	17.19	0.00	3,628.06
	12/29/06	3,645.25	ND	16.90	0.00	3,628.35
	03/31/07	3,645.25	ND	18.23	0.00	3,627.02
	06/27/07	3,645.25	ND	17.38	0.00	3,627.87
	09/26/07	3,645.25	ND	17.77	0.00	3,627.48
	12/19/07	3,645.25	ND	17.67	0.00	3,627.58
	03/22/08	3,645.25	ND	17.88	0.00	3,627.37
	06/26/08	3,645.25	ND	18.22	0.00	3,627.03
	09/25/08	3,645.25	ND	18.30	0.00	3,626.95
	12/18/08	3,645.25	ND	17.87	0.00	3,627.38
	03/25/09	3,645.25	ND	18.03	0.00	3,627.22
	06/23/09	3,645.25	ND	18.04	0.00	3,627.21
	09/25/09	3,645.25	ND	18.03	0.00	3,627.22
	12/14/09	3,645.25	ND	18.30	0.00	3,626.95
	03/17/10	3,645.25	ND	18.21	0.00	3,627.04
	06/30/10	3,645.25	ND	18.57	0.00	3,626.68
	09/22/10	3,645.25	ND	18.25	0.00	3,627.00
	12/27/10	3,645.25	ND	18.11	0.00	3,627.14
	03/28/11	3,645.25	ND	17.65	0.00	3,627.60
	06/28/11	3,645.25	ND	18.37	0.00	3,626.88
	09/28/11	3,645.25	ND	18.55	0.00	3,626.70
	12/29/11	3,645.25	ND	18.41	0.00	3,626.84

TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 4	01/24/02	3,643.81	ND	19.43	0.00	3,624.38
	01/29/02	3,643.81	ND	19.31	0.00	3,624.50
	06/26/02	3,643.81	ND	19.24	0.00	3,624.57
	09/17/02	3,643.81	ND	19.52	0.00	3,624.29
	11/14/02	3,643.81	ND	19.37	0.00	3,624.44
	02/03/03	3,643.81	ND	19.45	0.00	3,624.36
	05/05/03	3,643.81	ND	19.48	0.00	3,624.33
	08/14/03	3,643.81	ND	19.59	0.00	3,624.22
	11/06/03	3,643.81	ND	19.65	0.00	3,624.16
	02/03/04	3,643.81	ND	19.61	0.00	3,624.20
	05/03/04	3,643.81	ND	18.70	0.00	3,625.11
	08/31/04	3,643.81	ND	19.20	0.00	3,624.61
	09/23/04	3,643.81	Sheen	21.60	0.00	3,622.21
	10/07/04	3,643.81	Sheen	19.40	0.00	3,624.41
	12/21/04	3,643.81	ND	16.00	0.00	3,627.81
	03/16/05	3,644.81	ND	16.92	0.00	3,627.89
	06/14/05	3,644.81	ND	17.41	0.00	3,627.40
	09/28/05	3,644.81	ND	16.33	0.00	3,628.48
	12/07/05	3,644.81	ND	17.70	0.00	3,627.11
	03/08/06	3,644.81	ND	17.78	0.00	3,627.03
	06/24/06	3,644.81	ND	18.23	0.00	3,626.58
	09/25/06	3,644.81	ND	17.41	0.00	3,627.40
	12/29/06	3,644.81	ND	17.10	0.00	3,627.71
	03/31/07	3,644.81	ND	17.44	0.00	3,627.37
	06/27/07	3,644.81	ND	17.55	0.00	3,627.26
	09/26/07	3,644.81	ND	17.77	0.00	3,627.04
	12/19/07	3,644.81	ND	17.86	0.00	3,626.95
	03/22/08	3,644.81	ND	18.00	0.00	3,626.81
	06/26/08	3,644.81	ND	18.32	0.00	3,626.49
	09/25/08	3,644.81	ND	18.42	0.00	3,626.39
	12/18/08	3,644.81	ND	18.06	0.00	3,626.75
	03/25/09	3,644.81	ND	18.24	0.00	3,626.57
	06/23/09	3,644.81	ND	18.20	0.00	3,626.61
	09/25/09	3,644.81	ND	18.20	0.00	3,626.61
	12/14/09	3,644.81	ND	19.24	0.00	3,625.57
	03/17/10	3,644.81	ND	18.37	0.00	3,626.44
	06/30/10	3,644.81	ND	18.67	0.00	3,626.14
	09/22/10	3,644.81	ND	18.41	0.00	3,626.40
	12/27/10	3,644.81	ND	17.79	0.00	3,627.02
	03/28/11	3,644.81	ND	17.81	0.00	3,627.00
	06/28/11	3,644.81	ND	18.47	0.00	3,626.34
	09/28/11	3,644.81	ND	18.65	0.00	3,626.16
	12/29/11	3,644.81	ND	18.60	0.00	3,626.21

TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 5	01/24/02	3,644.69	ND	20.18	0.00	3,624.51
	01/29/02	3,644.69	ND	20.12	0.00	3,624.57
	06/26/02	3,644.69	ND	20.13	0.00	3,624.56
	09/17/02	3,644.69	ND	20.29	0.00	3,624.40
	11/14/02	3,644.69	ND	21.50	0.00	3,623.19
	02/03/03	3,644.69	ND	20.13	0.00	3,624.56
	05/05/03	3,644.69	ND	20.25	0.00	3,624.44
	08/14/03	3,644.69	ND	20.35	0.00	3,624.34
	11/06/03	3,644.69	ND	20.39	0.00	3,624.30
	02/03/04	3,644.69	ND	20.43	0.00	3,624.26
	05/03/04	3,644.69	ND	19.64	0.00	3,625.05
	08/31/04	3,644.69	ND	19.99	0.00	3,624.70
	09/23/04	3,644.69	Sheen	19.41	0.00	3,625.28
	12/21/04	3,644.69	ND	16.94	0.00	3,627.75
	03/16/05	3,645.69	ND	17.78	0.00	3,627.91
	06/14/05	3,645.69	ND	18.23	0.00	3,627.46
	09/28/05	3,645.69	ND	17.16	0.00	3,628.53
	12/07/05	3,645.69	ND	19.22	0.00	3,626.47
	03/08/06	3,645.69	ND	19.30	0.00	3,626.39
	06/24/06	3,645.69	ND	18.81	0.00	3,626.88
	09/25/06	3,645.69	ND	17.98	0.00	3,627.71
	12/29/06	3,645.69	ND	17.97	0.00	3,627.72
	03/31/07	3,645.69	ND	18.15	0.00	3,627.54
	06/27/07	3,645.69	ND	18.24	0.00	3,627.45
	09/26/07	3,645.69	ND	18.41	0.00	3,627.28
	12/19/07	3,645.69	ND	18.65	0.00	3,627.04
	03/22/08	3,645.69	ND	18.82	0.00	3,626.87
	06/26/08	3,645.69	ND	19.12	0.00	3,626.57
	09/25/08	3,645.69	ND	19.09	0.00	3,626.60
	12/18/08	3,645.69	ND	18.66	0.00	3,627.03
	03/25/09	3,645.69	ND	18.86	0.00	3,626.83
	06/23/09	3,645.69	ND	18.84	0.00	3,626.85
	09/25/09	3,645.69	ND	18.97	0.00	3,626.72
	12/14/09	3,645.69	ND	19.15	0.00	3,626.54
	03/17/10	3,645.69	ND	19.17	0.00	3,626.52
	06/30/10	3,645.69	ND	19.42	0.00	3,626.27
	09/22/10	3,645.69	ND	19.10	0.00	3,626.59
	12/27/10	3,645.69	ND	18.49	0.00	3,627.20
	03/28/11	3,645.69	ND	18.52	0.00	3,627.17
	06/28/11	3,645.69	ND	19.02	0.00	3,626.67
	09/28/11	3,645.69	ND	19.30	0.00	3,626.39
	12/29/11	3,645.69	ND	19.14	0.00	3,626.55

TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 6	01/24/02	3,649.95	ND	24.83	0.00	3,625.12
	01/29/02	3,649.95	ND	24.80	0.00	3,625.15
	06/26/02	3,649.95	ND	24.85	0.00	3,625.10
	09/17/02	3,649.95	ND	24.95	0.00	3,625.00
	11/14/02	3,649.95	ND	24.86	0.00	3,625.09
	02/03/03	3,649.95	ND	24.80	0.00	3,625.15
	05/05/03	3,649.95	ND	24.93	0.00	3,625.02
	08/14/03	3,649.95	ND	25.01	0.00	3,624.94
	11/06/03	3,649.95	ND	25.05	0.00	3,624.90
	02/03/04	3,649.95	ND	25.07	0.00	3,624.88
	05/03/04	3,649.95	ND	24.49	0.00	3,625.46
	08/31/04	3,649.95	ND	24.73	0.00	3,625.22
	12/21/04	3,649.95	ND	21.95	0.00	3,628.00
	03/16/05	3,650.95	ND	22.48	0.00	3,628.47
	06/14/05	3,650.95	ND	22.85	0.00	3,628.10
	09/28/05	3,650.95	ND	21.77	0.00	3,629.18
	12/07/05	3,650.95	ND	23.16	0.00	3,627.79
	03/08/06	3,650.95	ND	23.22	0.00	3,627.73
	06/24/06	3,650.95	ND	23.76	0.00	3,627.19
	09/25/06	3,650.95	ND	22.88	0.00	3,628.07
	12/29/06	3,650.95	ND	22.60	0.00	3,628.35
	03/31/07	3,650.95	ND	22.94	0.00	3,628.01
	06/27/07	3,650.95	ND	22.98	0.00	3,627.97
	09/26/07	3,650.95	ND	23.00	0.00	3,627.95
	12/19/07	3,650.95	ND	23.33	0.00	3,627.62
	03/22/08	3,650.95	ND	23.49	0.00	3,627.46
	06/26/08	3,650.95	ND	23.80	0.00	3,627.15
	09/25/08	3,650.95	ND	23.85	0.00	3,627.10
	12/18/08	3,650.95	ND	23.59	0.00	3,627.36
	03/25/09	3,650.95	ND	23.74	0.00	3,627.21
	06/23/09	3,650.95	ND	23.71	0.00	3,627.24
	09/25/09	3,650.95	ND	23.72	0.00	3,627.23
	12/14/09	3,650.95	ND	23.95	0.00	3,627.00
	03/17/10	3,650.95	ND	23.86	0.00	3,627.09
	06/30/10	3,650.95	ND	24.08	0.00	3,626.87
	09/22/10	3,650.95	ND	23.92	0.00	3,627.03
	12/27/10	3,650.95	ND	23.29	0.00	3,627.66
	03/28/11	3,650.95	ND	23.31	0.00	3,627.64
	06/28/11	3,650.95	ND	23.82	0.00	3,627.13
	09/28/11	3,650.95	ND	24.10	0.00	3,626.85
	12/29/11	3,650.95	ND	24.07	0.00	3,626.88

TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 7	01/24/02	3,652.02	ND	25.76	0.00	3,626.26
	01/29/02	3,652.02	ND	25.74	0.00	3,626.28
	06/26/02	3,652.02	ND	25.79	0.00	3,626.23
	09/17/02	3,652.02	ND	25.90	0.00	3,626.12
	11/14/02	3,652.02	ND	25.73	0.00	3,626.29
	02/03/03	3,652.02	ND	25.76	0.00	3,626.26
	05/05/03	3,652.02	ND	25.88	0.00	3,626.14
	08/14/03	3,652.02	ND	25.95	0.00	3,626.07
	11/06/03	3,652.02	ND	25.99	0.00	3,626.03
	02/03/04	3,652.02	ND	26.03	0.00	3,625.99
	05/03/04	3,652.02	ND	25.48	0.00	3,626.54
	08/31/04	3,652.02	ND	25.65	0.00	3,626.37
	12/21/04	3,652.02	ND	22.80	0.00	3,629.22
	03/16/05	3,653.02	ND	23.28	0.00	3,629.74
		P&A				

TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 8	01/24/02	3,649.12	ND	23.00	0.00	3,626.12
	01/29/02	3,649.12	ND	22.90	0.00	3,626.22
	06/26/02	3,649.12	ND	22.95	0.00	3,626.17
	09/17/02	3,649.12	ND	23.05	0.00	3,626.07
	11/14/02	3,649.12	ND	22.91	0.00	3,626.21
	02/03/03	3,649.12	ND	22.95	0.00	3,626.17
	05/05/03	3,649.12	ND	23.05	0.00	3,626.07
	08/14/03	3,649.12	ND	23.12	0.00	3,626.00
	11/06/03	3,649.12	ND	23.15	0.00	3,625.97
	02/03/04	3,649.12	ND	23.19	0.00	3,625.93
	05/03/04	3,649.12	ND	22.62	0.00	3,626.50
	08/31/04	3,649.12	ND	22.78	0.00	3,626.34
	12/21/04	3,649.12	ND	19.57	0.00	3,629.55
	03/16/05	3,649.12	ND	19.37	0.00	3,629.75
	06/14/05	3,649.12	ND	20.63	0.00	3,628.49
	09/28/05	3,649.12	ND	19.57	0.00	3,629.55
	12/07/05	3,649.12	ND	20.25	0.00	3,628.87
	03/08/06	3,649.12	ND	20.98	0.00	3,628.14
	06/24/06	3,649.12	ND	21.40	0.00	3,627.72
	09/25/06	3,649.12	ND	20.56	0.00	3,628.56
	12/29/06	3,649.12	ND	22.30	0.00	3,626.82
	03/31/07	3,649.12	ND	20.69	0.00	3,628.43
	06/27/07	3,649.12	ND	20.77	0.00	3,628.35
	09/26/07	3,649.12	ND	20.95	0.00	3,628.17
	12/19/07	3,649.12	ND	21.05	0.00	3,628.07
	03/22/08	3,649.12	ND	21.25	0.00	3,627.87
	06/26/08	3,649.12	ND	21.48	0.00	3,627.64
	09/25/08	3,649.12	ND	21.66	0.00	3,627.46
	12/18/08	3,649.12	ND	21.41	0.00	3,627.71
	03/25/09	3,649.12	ND	21.58	0.00	3,627.54
	06/23/09	3,649.12	ND	21.55	0.00	3,627.57
	09/25/09	3,649.12	ND	21.53	0.00	3,627.59
	12/14/09	3,649.12	ND	21.75	0.00	3,627.37
	03/17/10	3,649.12	ND	21.69	0.00	3,627.43
	06/30/10	3,649.12	ND	21.93	0.00	3,627.19
	09/22/10	3,649.12	ND	21.67	0.00	3,627.45
	12/27/10	3,649.12	ND	21.06	0.00	3,628.06
	03/28/11	3,649.12	ND	21.08	0.00	3,628.04
	06/28/11	3,649.12	ND	21.68	0.00	3,627.44
	09/28/11	3,649.12	ND	21.90	0.00	3,627.22
	12/29/11	3,649.12	ND	21.09	0.00	3,628.03

TABLE 1
GROUNDWATER ELEVATION DATA
LF - 37
LEA COUNTY, NEW MEXICO
Plains EMS Number: 1999-LF-37

SAMPLE LOCATION	SAMPLE DATE	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 9	01/24/02	3,646.40	ND	21.06	0.00	3,625.34
	01/29/02	3,646.40	ND	20.90	0.00	3,625.50
	06/26/02	3,646.40	ND	20.92	0.00	3,625.48
	09/17/02	3,646.40	ND	21.19	0.00	3,625.21
	11/14/02	3,646.40	ND	20.98	0.00	3,625.42
	02/03/03	3,646.40	ND	22.15	0.00	3,624.25
	05/05/03	3,646.40	ND	21.13	0.00	3,625.27
	08/14/03	3,646.40	ND	21.22	0.00	3,625.18
	11/06/03	3,646.40	ND	21.30	0.00	3,625.10
	02/03/04	3,646.40	ND	21.27	0.00	3,625.13
	05/03/04	3,646.40	ND	20.38	0.00	3,626.02
	08/31/04	P&A	ND	20.85	0.00	-20.85
	12/21/04	3,646.40	ND	17.09	0.00	3,629.31
	03/16/05	3,646.40	ND	18.19	0.00	3,628.21
	06/14/05	3,646.40	ND	18.88	0.00	3,627.52
	09/28/05	3,646.40	ND	18.01	0.00	3,628.39
	12/07/05	3,646.40	ND	19.12	0.00	3,627.28
	03/08/06	3,646.40	ND	19.21	0.00	3,627.19
	06/24/06	3,646.40	ND	19.63	0.00	3,626.77
	09/25/06	3,646.40	ND	18.75	0.00	3,627.65
	12/29/06	3,646.40	ND	18.38	0.00	3,628.02
	03/31/07	3,646.40	ND	18.81	0.00	3,627.59
	06/27/07	3,646.40	ND	18.80	0.00	3,627.60
	09/26/07	3,646.40	ND	18.97	0.00	3,627.43
	12/19/07	3,646.40	ND	19.18	0.00	3,627.22
	03/22/08	3,646.40	ND	19.46	0.00	3,626.94
	06/26/08	3,646.40	ND	19.83	0.00	3,626.57
	09/25/08	3,646.40	ND	19.94	0.00	3,626.46
	12/18/08	3,646.40	ND	19.57	0.00	3,626.83
	03/25/09	3,646.40	ND	19.65	0.00	3,626.75
	06/23/09	3,646.40	ND	19.61	0.00	3,626.79
	09/25/09	3,646.40	ND	19.67	0.00	3,626.73
	12/14/09	3,646.40	ND	19.87	0.00	3,626.53
	03/17/10	3,646.40	ND	19.82	0.00	3,626.58
	06/30/10	3,646.40	ND	20.27	0.00	3,626.13
	09/22/10	3,646.40	ND	19.72	0.00	3,626.68
	12/27/10	3,646.40	ND	19.20	0.00	3,627.20
	03/28/11	3,646.40	ND	19.21	0.00	3,627.19
	06/28/11	3,646.40	ND	19.73	0.00	3,626.67
	09/28/11	3,646.40	ND	20.20	0.00	3,626.20
	12/29/11	3,646.40	ND	20.15	0.00	3,626.25

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

LF - 37

LEA COUNTY, NEW MEXICO

Plains EMS Number: 1999-LF-37

All concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 1	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001
	11/14/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/05/03	<0.001	<0.001	<0.001	<0.001	<0.001
	08/14/03	<0.001	<0.001	<0.001	<0.001	<0.001
	11/06/03	<0.001	<0.001	<0.001	<0.002	<0.001
	02/03/04	<0.001	<0.001	<0.001	<0.002	<0.001
	12/21/04	<0.001	<0.001	<0.001	<0.001	<0.001
	Plugged and Abandoned					
SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 2	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001
	11/14/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/05/03	<0.001	<0.001	<0.001	<0.001	<0.001
	08/14/03	<0.001	<0.001	<0.001	<0.001	<0.001
	11/06/03	<0.001	<0.001	<0.001	<0.002	<0.001
	02/03/04	<0.001	<0.001	<0.001	<0.002	<0.001
	12/21/04	<0.001	<0.001	<0.001	<0.001	<0.001
	12/07/05	<0.00100	<0.00100	<0.00100	<0.00100	
	12/29/06	<0.00100	<0.00100	<0.00100	<0.00100	
	12/19/07	<0.00100	<0.00100	<0.00100	<0.00100	
	12/18/08	<0.00100	<0.00100	<0.00100	<0.00100	
	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	
	12/27/10	<0.00100	<0.00100	<0.00100	<0.00100	
	12/29/12	<0.00100	<0.00100	<0.00100	<0.00100	

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

LF - 37

LEA COUNTY, NEW MEXICO

Plains EMS Number: 1999-LF-37

All concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 3	01/29/02	0.006	<0.001	<0.001	0.001	<0.001
	06/26/02	0.014	<0.001	0.004	0.012	<0.001
	09/17/02	0.011	<0.001	<0.001	0.005	<0.001
	11/14/02	0.018	<0.001	0.003	0.028	<0.001
	02/04/03	0.035	<0.001	0.004	0.044	<0.001
	05/05/03	0.011	<0.001	0.002	0.012	<0.001
	08/14/03	0.011	0.001	0.002	0.016	<0.001
	11/06/03	0.016	<0.001	0.003	0.019	<0.001
	02/03/04	0.013	<0.001	0.003	0.015	<0.001
	05/03/04	0.0236	0.00177	0.0109	<0.001	<0.001
	08/31/04	0.00902	<0.001	0.00175	0.00442	<0.001
	12/21/04	0.0999	<0.005	<0.005	0.0099	<0.005
	03/16/05	0.037	<0.005	<0.005	<0.005	<0.005
	06/14/05	0.023	<0.005	<0.005	<0.005	<0.005
	09/28/05	0.0576	<0.001	0.00374	0.00578	<0.001
	12/07/05	0.0219	<0.00100	0.0038	<0.00100	
	03/08/06	0.0186	<0.00100	0.0021	0.00640	
	06/24/06	0.0085	<0.00100	0.00100	0.0028	
	09/25/06	0.0969	<0.00100	<0.00100	0.00280	
	12/29/06	0.406	<0.0200	<0.0200	<0.0200	
	03/20/07	28.2	<5.00	<5.00	<5.00	
	06/27/07	<0.00100	<0.00100	<0.00100	0.00130	
	09/26/07	0.0632	<0.00100	0.00170	0.00490	
	12/19/07	0.00940	<0.00100	0.00150	0.00100	
	03/22/08	0.00300	<0.00100	<0.00100	<0.00100	
	06/26/08	0.00480	<0.00100	0.0011	0.00170	
	09/25/08	0.00240	0.0018	<0.00100	0.00710	
	12/18/08	0.04320	<0.00100	0.00230	0.0119	
	03/25/09	0.0352	<0.00100	0.00130	0.00780	
	06/23/09	0.0160	<0.00100	0.00120	<0.00100	
	09/25/09	0.0287	<0.00100	<0.00100	<0.00100	
	12/14/09	0.00350	<0.00100	<0.00100	<0.00100	
	03/22/10	0.0165	<0.00100	<0.00100	0.00450	
	06/30/10	0.0125	<0.00100	<0.00100	0.00260	
	09/22/10	0.0610	0.00210	0.00270	0.00380	
	12/27/10	0.0110	<0.00100	<0.00100	0.00410	
	03/28/11	2.43	<1.00	<1.00	<1.00	<1.00
	06/28/11	0.00520	<0.00100	<0.00100	<0.00100	
	09/28/11	0.00620	<0.00100	<0.00100	<0.00100	
	12/29/11	0.00560	<0.00100	<0.00100	<0.00100	

mg/L

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

LF - 37

LEA COUNTY, NEW MEXICO

Plains EMS Number: 1999-LF-37

All concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 4	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001
	11/14/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/05/03	<0.001	<0.001	<0.001	<0.001	<0.001
	08/14/03	<0.001	<0.001	<0.001	<0.001	<0.001
	11/06/03	<0.001	<0.001	<0.001	<0.002	<0.001
	02/03/04	<0.001	<0.001	<0.001	<0.002	<0.001
	12/21/04	<0.001	<0.001	<0.001	<0.001	<0.001
	06/16/05	<0.001	<0.001	<0.001	<0.001	<0.001
	12/07/05	<0.00100	<0.00100	<0.00100	0.0031	
	03/09/06	<0.00100	<0.00100	<0.00100	<0.00100	
	06/24/06	<0.00100	<0.00100	<0.00100	<0.00100	
	12/29/06	<0.00100	<0.00100	<0.00100	<0.00100	
	06/27/07	<0.00100	<0.00100	<0.00100	<0.00100	
	12/19/07	<0.00100	<0.00100	<0.00100	<0.00100	
	06/26/08	<0.00100	<0.00100	<0.00100	0.00220	
	12/18/08	<0.00100	<0.00100	<0.00100	<0.00100	
	06/23/09	<0.00100	<0.00100	<0.00100	<0.00100	
	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	
	06/30/10	<0.00100	<0.00100	<0.00100	<0.00100	
	12/27/10	<0.00100	<0.00100	<0.00100	<0.00100	
	06/28/11	0.00150	<0.00100	<0.00100	<0.00100	
	12/29/11	<0.00100	<0.00100	<0.00100	<0.00100	

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

LF - 37

LEA COUNTY, NEW MEXICO

Plains EMS Number: 1999-LF-37

All concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 5	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001
	11/14/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/05/03	<0.001	<0.001	<0.001	<0.001	<0.001
	08/14/03	<0.001	<0.001	<0.001	<0.001	<0.001
	11/06/03	<0.001	<0.001	<0.001	<0.002	<0.001
	02/03/04	<0.001	<0.001	<0.001	<0.002	<0.001
	12/21/04	0.0198	<0.001	0.00527	0.00587	<0.001
	12/07/05	<0.00100	<0.00100	<0.00100	<0.00100	
	12/29/06	<0.00100	<0.00100	<0.00100	<0.00100	
	12/19/07	<0.00100	<0.00100	<0.00100	<0.00100	
	12/18/08	<0.00100	<0.00100	<0.00100	<0.00100	
	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	
	12/27/10	0.00360	<0.00100	<0.00100	<0.00100	
	12/29/11	0.00110	<0.00100	<0.00100	<0.00100	

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

LF - 37

LEA COUNTY, NEW MEXICO

Plains EMS Number: 1999-LF-37

All concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 6	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001
	11/14/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/05/03	<0.001	<0.001	<0.001	<0.001	<0.001
	08/14/03	<0.001	<0.001	<0.001	<0.001	<0.001
	11/06/03	<0.001	<0.001	<0.001	<0.002	<0.001
	02/03/04	<0.001	<0.001	<0.001	<0.002	<0.001
	12/21/04	<0.001	<0.001	<0.001	<0.001	<0.001
	12/07/05	<0.00100	<0.00100	<0.00100	<0.00100	
	12/29/06	<0.00100	<0.00100	<0.00100	<0.00100	
	12/19/07	<0.00100	<0.00100	<0.00100	<0.00100	
	12/18/08	<0.00100	<0.00100	<0.00100	<0.00100	
	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	
	12/27/10	<0.00100	<0.00100	<0.00100	<0.00100	
	12/29/11	<0.00100	<0.00100	<0.00100	<0.00100	
SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 7	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001
	11/14/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/05/03	<0.001	<0.001	<0.001	<0.001	<0.001
	08/14/03	<0.001	<0.001	<0.001	<0.001	<0.001
	11/06/03	<0.001	<0.001	<0.001	<0.002	<0.001
	02/03/04	<0.001	<0.001	<0.001	<0.002	<0.001
	12/21/04	<0.001	<0.001	<0.001	<0.001	<0.001
Plugged and Abandoned						

TABLE 2

CONCENTRATIONS OF BTEX IN GROUNDWATER

LF - 37

LEA COUNTY, NEW MEXICO

Plains EMS Number: 1999-LF-37

All concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 8	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001
	11/14/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/05/03	<0.001	<0.001	<0.001	<0.001	<0.001
	08/14/03	<0.001	<0.001	<0.001	<0.001	<0.001
	11/06/03	<0.001	<0.001	<0.001	<0.002	<0.001
	02/03/04	<0.001	<0.001	<0.001	<0.002	<0.001
	12/21/04	<0.001	<0.001	<0.001	<0.001	<0.001
	12/07/05	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/29/06	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/19/07	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/18/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/27/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/29/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
MW - 9	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	06/26/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001
	11/14/02	<0.001	<0.001	<0.001	<0.001	<0.001
	02/04/03	<0.001	<0.001	<0.001	<0.001	<0.001
	05/05/03	<0.001	<0.001	<0.001	<0.001	<0.001
	08/14/03	<0.001	<0.001	<0.001	<0.001	<0.001
	02/03/04	<0.001	<0.001	<0.001	<0.002	<0.001
	12/07/05	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/19/07	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/27/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	12/29/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
SAMPLE LOCATION	SAMPLE DATE	METHOD: 8260b, 8021b				
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
EB - 1	01/29/02	<0.001	<0.001	<0.001	<0.001	<0.001
	09/17/02	<0.001	<0.001	<0.001	<0.001	<0.001

Note: EB denotes Equipment Blank collected during sampling event.

APPENDIX I

Laboratory Results
1st Quarter 2011

LF-37

April 2012

Plains Marketing, L.P.
Houston, Texas

Prepared by:
BBC International, Inc.

Summary Report

Jason Henry
Plains All American Houston

Report Date: April 4, 2011

P.O. Box 4648
Houston, Tx 77210-4648

Work Order: 11032913



EMS#: 1999-LF-37
Project Location: Monument, NM
Project Name: LF-37

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
262013	MW #3	water	2011-03-28	10:30	2011-03-29

Sample: 262013 - MW #3

Param	Flag	Result	Units	RL
Benzene		2.43	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00



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

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

Jason Henry
Plains All American Houston

Report Date: April 4, 2011

P.O. Box 4648
Houston, Tx, 77210-4648

Work Order: 11032913



EMS#: 1999-LF-37
Project Location: Monument, NM
Project Name: LF-37
Project Number: LF-37 (Plains)

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
262013	MW #3	water	2011-03-28	10:30	2011-03-29

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.

This report consists of a total of 6 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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 LF-37 were received by TraceAnalysis, Inc. on 2011-03-29 and assigned to work order 11032913. Samples for work order 11032913 were received intact at a temperature of 3.4 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Volatiles	S 8260 C	67859	2011-03-31 at 12:00	79975	2011-03-31 at 12:00

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 11032913 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.

Report Date: April 4, 2011
LF-37 (Plains)

Work Order: 11032913
LF-37

Page Number: 4 of 6
Monument, NM

Analytical Report

Sample: 262013 - MW #3

Laboratory: Lubbock
Analysis: Volatiles
QC Batch: 79975
Prep Batch: 67859

Analytical Method: S 8260 C
Date Analyzed: 2011-03-31
Sample Preparation: 2011-03-31

Prep Method: S 5030B
Analyzed By: KB
Prepared By: KB

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		2.43	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		46.2	µg/L	1	50.0	92	70 - 130
Toluene-d8		56.6	µg/L	1	50.0	113	70 - 130
4-Bromofluorobenzene (4-BFB)		50.8	µg/L	1	50.0	102	70 - 130

Method Blank (1) QC Batch: 79975

QC Batch: 79975
Prep Batch: 67859

Date Analyzed: 2011-03-31
QC Preparation: 2011-03-31

Analyzed By: KB
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.240	µg/L	1
Toluene		<0.260	µg/L	1
Ethylbenzene		<0.230	µg/L	1
m,p-Xylene		<0.470	µg/L	1
o-Xylene		<0.240	µg/L	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		46.0	µg/L	1	50.0	92	70 - 130
Toluene-d8		56.7	µg/L	1	50.0	113	70 - 130
4-Bromofluorobenzene (4-BFB)		50.2	µg/L	1	50.0	100	70 - 130

Report Date: April 4, 2011
LF-37 (Plains)

Work Order: 11032913
LF-37

Page Number: 5 of 6
Monument, NM

Laboratory Control Spike (LCS-1)

QC Batch: 79975
Prep Batch: 67859

Date Analyzed: 2011-03-31
QC Preparation: 2011-03-31

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	43.4	µg/L	1	50.0	<0.240	87	78.2 - 119
Toluene	43.6	µg/L	1	50.0	<0.260	87	76.9 - 124
Ethylbenzene	51.3	µg/L	1	50.0	<0.230	103	85.2 - 119
m,p-Xylene	103	µg/L	1	100	<0.470	103	84.4 - 120
o-Xylene	52.6	µg/L	1	50.0	<0.240	105	82.5 - 123

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	42.8	µg/L	1	50.0	<0.240	86	78.2 - 119	1	
Toluene	43.0	µg/L	1	50.0	<0.260	86	76.9 - 124	1	
Ethylbenzene	51.1	µg/L	1	50.0	<0.230	102	85.2 - 119	0	
m,p-Xylene	103	µg/L	1	100	<0.470	103	84.4 - 120	0	
o-Xylene	52.2	µg/L	1	50.0	<0.240	104	82.5 - 123	1	

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
Dibromofluoromethane	46.1	46.0	µg/L	1	50.0	92	92	70 - 130
Toluene-d8	55.5	56.2	µg/L	1	50.0	111	112	70 - 130
4-Bromofluorobenzene (4-BFB)	52.4	52.2	µg/L	1	50.0	105	104	70 - 130

Matrix Spike (xMS-1) Spiked Sample:

QC Batch: 79975
Prep Batch: 67859

Date Analyzed: 2011-03-31
QC Preparation: 2011-03-31

Analyzed By: KB
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	42.2	µg/L	1	50.0	<0.240	84	70.7 - 125
Toluene	41.5	µg/L	1	50.0	<0.260	83	66.3 - 138
Ethylbenzene	47.9	µg/L	1	50.0	<0.230	96	81.6 - 121
m,p-Xylene	96.8	µg/L	1	100	<0.470	97	80.6 - 121
o-Xylene	49.9	µg/L	1	50.0	<0.240	100	82.4 - 124

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

continued ...

Report Date: April 4, 2011
LF-37 (Plains)

Work Order: 11032913
LF-37

Page Number: 6 of 6
Monument, NM

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	43.8	µg/L	1	50.0	<0.240	88	70.7 - 125	4	20
Toluene	43.1	µg/L	1	50.0	<0.260	86	66.3 - 138	4	20
Ethylbenzene	50.5	µg/L	1	50.0	<0.230	101	81.6 - 121	5	20
m,p-Xylene	102	µg/L	1	100	<0.470	102	80.6 - 121	5	20
o-Xylene	51.8	µg/L	1	50.0	<0.240	104	82.4 - 124	4	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
Dibromofluoromethane	46.6	46.4	µg/L	1	50	93	93	70 - 130
Toluene-d8	56.1	56.4	µg/L	1	50	112	113	70 - 130
4-Bromofluorobenzene (4-BFB)	52.3	52.4	µg/L	1	50	105	105	70 - 130

Standard (CCV-1)

QC Batch: 79975

Date Analyzed: 2011-03-31

Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		µg/L	50.0	44.3	89	80 - 120	2011-03-31
Toluene		µg/L	50.0	44.4	89	80 - 120	2011-03-31
Ethylbenzene		µg/L	50.0	52.0	104	80 - 120	2011-03-31
m,p-Xylene		µg/L	100	105	105	80 - 120	2011-03-31
o-Xylene		µg/L	50.0	53.4	107	80 - 120	2011-03-31

APPENDIX II

Laboratory Results
2nd Quarter 2011

LF-37

April 2012

Plains Marketing, L.P.
Houston, Texas

Prepared by:
BBC International, Inc.

Summary Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM 88240

Report Date: July 11, 2011

Work Order: 11070124



EMS#: 1999-LF-37
Project Location: Monument, NM
Project Name: LF-37

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
271047	MW #3	water	2011-06-28	09:50	2011-07-01
271048	MW #4	water	2011-06-28	11:40	2011-07-01

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
271047 - MW #3	0.00520 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	
271048 - MW #4	0.00150 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	<0.00100 Qr,Qs	



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

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: July 11, 2011

Work Order: 11070124



EMS#: 1999-LF-37
Project Location: Monument, NM
Project Name: LF-37
Project Number: LF-37 (Plains)

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
271047	MW #3	water	2011-06-28	09:50	2011-07-01
271048	MW #4	water	2011-06-28	11:40	2011-07-01

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.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report	4
Sample 271047 (MW #3)	4
Sample 271048 (MW #4)	4
Method Blanks	5
QC Batch 82856 - Method Blank (1)	5
Laboratory Control Spikes	6
QC Batch 82856 - LCS (1)	6
QC Batch 82856 - MS (1)	6
Calibration Standards	8
QC Batch 82856 - CCV (1)	8
QC Batch 82856 - CCV (2)	8
Appendix	9
Laboratory Certifications	9
Standard Flags	9
Attachments	9

Case Narrative

Samples for project LF-37 were received by TraceAnalysis, Inc. on 2011-07-01 and assigned to work order 11070124. Samples for work order 11070124 were received intact without headspace and at a temperature of 4.4 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	70382	2011-07-07 at 15:55	82856	2011-07-07 at 15:55

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 11070124 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.

Report Date: July 11, 2011
LF-37 (Plains)

Work Order: 11070124
LF-37

Page Number: 4 of 9
Monument, NM

Analytical Report

Sample: 271047 - MW #3

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 82856
Prep Batch: 70382

Analytical Method: S 8021B
Date Analyzed: 2011-07-07
Sample Preparation: 2011-07-07

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs	1	0.00520	mg/L	1	0.00100
Toluene	Qr,Qs	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0829	mg/L	1	0.100	83	73 - 123
4-Bromofluorobenzene (4-BFB)			0.0963	mg/L	1	0.100	96	75.9 - 129

Sample: 271048 - MW #4

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 82856
Prep Batch: 70382

Analytical Method: S 8021B
Date Analyzed: 2011-07-07
Sample Preparation: 2011-07-07

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs	1	0.00150	mg/L	1	0.00100
Toluene	Qr,Qs	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0929	mg/L	1	0.100	93	73 - 123
4-Bromofluorobenzene (4-BFB)			0.0900	mg/L	1	0.100	90	75.9 - 129

Report Date: July 11, 2011
LF-37 (Plains)

Work Order: 11070124
LF-37

Page Number: 5 of 9
Monument, NM

Method Blanks

Method Blank (1) QC Batch: 82856

QC Batch: 82856
Prep Batch: 70382

Date Analyzed: 2011-07-07
QC Preparation: 2011-07-07

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0952	mg/L	1	0.100	95	73 - 123
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	75.9 - 129

Report Date: July 11, 2011
LF-37 (Plains)

Work Order: 11070124
LF-37

Page Number: 6 of 9
Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 82856
Prep Batch: 70382

Date Analyzed: 2011-07-07
QC Preparation: 2011-07-07

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0986	mg/L	1	0.100	<0.000765	99	80.5 - 112
Toluene		1	0.0977	mg/L	1	0.100	<0.000719	98	79.6 - 114
Ethylbenzene		1	0.0964	mg/L	1	0.100	<0.000860	96	78.4 - 115
Xylene		1	0.294	mg/L	1	0.300	<0.000942	98	77 - 114

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0967	mg/L	1	0.100	<0.000765	97	80.5 - 112	2	20
Toluene		1	0.0955	mg/L	1	0.100	<0.000719	96	79.6 - 114	2	20
Ethylbenzene		1	0.0955	mg/L	1	0.100	<0.000860	96	78.4 - 115	1	20
Xylene		1	0.291	mg/L	1	0.300	<0.000942	97	77 - 114	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0879	0.0854	mg/L	1	0.100	88	85	68.9 - 116
4-Bromofluorobenzene (4-BFB)	0.0976	0.0949	mg/L	1	0.100	98	95	68.5 - 116

Matrix Spike (MS-1) Spiked Sample: 271254

QC Batch: 82856
Prep Batch: 70382

Date Analyzed: 2011-07-07
QC Preparation: 2011-07-07

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0965	mg/L	1	0.100	<0.000765	96	39.9 - 132
Toluene		1	0.0936	mg/L	1	0.100	<0.000719	94	36.3 - 136
Ethylbenzene		1	0.0928	mg/L	1	0.100	<0.000860	93	38.4 - 135
Xylene		1	0.284	mg/L	1	0.300	<0.000942	95	35.2 - 134

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

Report Date: July 11, 2011
LF-37 (Plains)

Work Order: 11070124
LF-37

Page Number: 7 of 9
Monument, NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr, Qs	1	0.135	mg/L	1	0.100	<0.000765	135	39.9 - 132	33	20
Toluene	Qr, Qs	1	0.148	mg/L	1	0.100	<0.000719	148	36.3 - 136	45	20
Ethylbenzene	Qr, Qs	1	0.147	mg/L	1	0.100	<0.000860	147	38.4 - 135	45	20
Xylene	Qr, Qs	1	0.436	mg/L	1	0.300	<0.000942	145	35.2 - 134	42	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)	0.0926	0.126	mg/L	1	0.1	93	126	64.2 - 125
4-Bromofluorobenzene (4-BFB)	0.0960	0.116	mg/L	1	0.1	96	116	67.8 - 122

Calibration Standards

Standard (CCV-1)

QC Batch: 82856

Date Analyzed: 2011-07-07

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0971	97	80 - 120	2011-07-07
Toluene		1	mg/L	0.100	0.0952	95	80 - 120	2011-07-07
Ethylbenzene		1	mg/L	0.100	0.0931	93	80 - 120	2011-07-07
Xylene		1	mg/L	0.300	0.285	95	80 - 120	2011-07-07

Standard (CCV-2)

QC Batch: 82856

Date Analyzed: 2011-07-07

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0934	93	80 - 120	2011-07-07
Toluene		1	mg/L	0.100	0.0933	93	80 - 120	2011-07-07
Ethylbenzene		1	mg/L	0.100	0.0913	91	80 - 120	2011-07-07
Xylene		1	mg/L	0.300	0.281	94	80 - 120	2011-07-07

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	T104704219-11-TX	Lubbock

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 than 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 #

11070124

Page 1 of 1

Trace Analysis, 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) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAnalytic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Phone #: (575) 397-6388

Fax #:

E-mail:

334 International
(Street, City, Zip)

1324 W. Midland

(575) 397-0397

Contact Person:

Cliff Barron

Invoice to:
(if different from above)

Project #:

Project Name:

Project Location (including state):

Newport NM

Sampler Signature:

LAB #

FIELD CODE

(LAB USE ONLY)

CONTAINERS

Volume / Amount

WATER
SOIL
AIR
SLUDGE

MATRIX

PRESERVATIVE
METHOD

SAMPLING

HCl
HNO₃
H₂SO₄
NaOH
ICE
NONE

DATE

TIME

MTBE 8021 / 602 / 8260 / 624

BTEX (8021) 8021 / 602 / 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, F, S04, NO3, NO2, Alkalinity

Na, Ca, Mg, K, TDS, EC

Turn Around Time if different from standard

Hold

ANALYSIS REQUEST

(Circle or Specify Method No.)

Relinquished by: Patricia Hernandez Date: 6-28-11 Time: 5:00 PM Company: McCony TAReceived by: Patricia Hernandez Date: 6-28-11 Time: 1030 Company: McCony TAINST 9
OBS 4
COR 4
COR 0LAB USE ONLY
Inlet X / N
Headspace X / NAREMARKS:
☐ 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 # Fed 7972 5885 7140

APPENDIX III

Laboratory Results
3rd Quarter 2011

LF-37

April 2012

Plains Marketing, L.P.
Houston, Texas

Prepared by:
BBC International, Inc.

Summary Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM 88240

Report Date: October 4, 2011

Work Order: 11093018



EMS#: 1999-LF-37
Project Location: Monument, NM
Project Name: LF-37

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
278707	MW #3	water	2011-09-28	11:30	2011-09-30

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
278707 - MW #3	0.00620	<0.00100	<0.00100	<0.00100	



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

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: October 4, 2011

Work Order: 11093018



EMS#: 1999-LF-37
Project Location: Monument, NM
Project Name: LF-37
Project Number: LF-37 (Plains)

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
278707	MW #3	water	2011-09-28	11:30	2011-09-30

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.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report	4
Sample 278707 (MW #3)	4
Method Blanks	5
QC Batch 85222 - Method Blank (1)	5
Laboratory Control Spikes	6
QC Batch 85222 - LCS (1)	6
QC Batch 85222 - MS (1)	6
Calibration Standards	8
QC Batch 85222 - CCV (1)	8
QC Batch 85222 - CCV (2)	8
Appendix	9
Laboratory Certifications	9
Standard Flags	9
Attachments	9

Case Narrative

Samples for project LF-37 were received by TraceAnalysis, Inc. on 2011-09-30 and assigned to work order 11093018. Samples for work order 11093018 were received intact without headspace and at a temperature of 5.9 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	72355	2011-10-03 at 12:06	85222	2011-10-03 at 12:06

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 11093018 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.

Report Date: October 4, 2011
LF-37 (Plains)

Work Order: 11093018
LF-37

Page Number: 4 of 9
Monument, NM

Analytical Report

Sample: 278707 - MW #3

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 85222
Prep Batch: 72355

Analytical Method: S 8021B
Date Analyzed: 2011-10-03
Sample Preparation: 2011-10-03

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00620	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)			0.103	mg/L	1	0.100	103	70 - 130
4-Bromofluorobenzene (4-BFB)			0.113	mg/L	1	0.100	113	70 - 130

Report Date: October 4, 2011
LF-37 (Plains)

Work Order: 11093018
LF-37

Page Number: 5 of 9
Monument, NM

Method Blanks

Method Blank (1) QC Batch: 85222

QC Batch: 85222
Prep Batch: 72355

Date Analyzed: 2011-10-03
QC Preparation: 2011-10-03

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.114	mg/L	1	0.100	114	70 - 130
4-Bromofluorobenzene (4-BFB)			0.115	mg/L	1	0.100	115	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 85222
Prep Batch: 72355

Date Analyzed: 2011-10-03
QC Preparation: 2011-10-03

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.118	mg/L	1	0.100	<0.000765	118	70 - 130
Toluene		1	0.0993	mg/L	1	0.100	<0.000719	99	70 - 130
Ethylbenzene		1	0.0956	mg/L	1	0.100	<0.000860	96	70 - 130
Xylene		1	0.290	mg/L	1	0.300	<0.000942	97	70 - 130

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	0.116	mg/L	1	0.100	<0.000765	116	70 - 130	2	20
Toluene		1	0.0983	mg/L	1	0.100	<0.000719	98	70 - 130	1	20
Ethylbenzene		1	0.0957	mg/L	1	0.100	<0.000860	96	70 - 130	0	20
Xylene		1	0.288	mg/L	1	0.300	<0.000942	96	70 - 130	1	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)	0.110	0.0997	mg/L	1	0.100	110	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.105	0.0956	mg/L	1	0.100	105	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 278650

QC Batch: 85222
Prep Batch: 72355

Date Analyzed: 2011-10-03
QC Preparation: 2011-10-03

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	25.0	mg/L	100	10.0	13.9	111	70 - 130
Toluene		1	9.52	mg/L	100	10.0	0.144	94	70 - 130
Ethylbenzene		1	9.22	mg/L	100	10.0	0.264	90	70 - 130
Xylene		1	27.2	mg/L	100	30.0	0.251	90	70 - 130

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

Report Date: October 4, 2011
LF-37 (Plains)

Work Order: 11093018
LF-37

Page Number: 7 of 9
Monument, NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	25.2	mg/L	100	10.0	13.9	113	70 - 130	1	20
Toluene		1	9.69	mg/L	100	10.0	0.144	95	70 - 130	2	20
Ethylbenzene		1	9.46	mg/L	100	10.0	0.264	92	70 - 130	3	20
Xylene		1	27.9	mg/L	100	30.0	0.251	92	70 - 130	2	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)	9.70	9.53	mg/L	100	10	97	95	70 - 130
4-Bromofluorobenzene (4-BFB)	9.07	9.09	mg/L	100	10	91	91	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 85222

Date Analyzed: 2011-10-03

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.120	120	80 - 120	2011-10-03
Toluene		1	mg/L	0.100	0.0989	99	80 - 120	2011-10-03
Ethylbenzene		1	mg/L	0.100	0.0953	95	80 - 120	2011-10-03
Xylene		1	mg/L	0.300	0.290	97	80 - 120	2011-10-03

Standard (CCV-2)

QC Batch: 85222

Date Analyzed: 2011-10-03

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.116	116	80 - 120	2011-10-03
Toluene		1	mg/L	0.100	0.0967	97	80 - 120	2011-10-03
Ethylbenzene		1	mg/L	0.100	0.0922	92	80 - 120	2011-10-03
Xylene		1	mg/L	0.300	0.281	94	80 - 120	2011-10-03

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	T104704219-11-4	Lubbock

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 than 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.

APPENDIX IV

Laboratory Results
4th Quarter 2011

LF-37

April 2012

Plains Marketing, L.P.
Houston, Texas

Prepared by:
BBC International, Inc.

Summary Report

Cliff Bruunson
BBC International
1324 W. Marland
Hobbs, NM 88240

Report Date: January 3, 2012

Work Order: 11123009



Project Location: Monument, NM
Project Name: Plains LF-37

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
285530	MW #2	water	2011-12-29	10:00	2011-12-30
285531	MW #5	water	2011-12-29	10:36	2011-12-30
285532	MW #6	water	2011-12-29	11:11	2011-12-30
285533	MW #8	water	2011-12-29	11:47	2011-12-30
285534	MW #9	water	2011-12-29	12:47	2011-12-30
285535	MW #4	water	2011-12-29	12:00	2011-12-30
285536	MW #3	water	2011-12-29	13:51	2011-12-30

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
285530 - MW #2	<0.00100	<0.00100	<0.00100	<0.00100	
285531 - MW #5	0.00110	<0.00100	<0.00100	<0.00100	
285532 - MW #6	<0.00100	<0.00100	<0.00100	<0.00100	
285533 - MW #8	<0.00100	<0.00100	<0.00100	<0.00100	
285534 - MW #9	<0.00100	<0.00100	<0.00100	<0.00100	
285535 - MW #4	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	
285536 - MW #3	0.00560 Qr	<0.00100 Qr	<0.00100 Qr	<0.00100 Qr	



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
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

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: January 3, 2012

Work Order: 11123009



Project Location: Monument, NM
Project Name: Plains LF-37
Project Number: Plains LF-37

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
285530	MW #2	water	2011-12-29	10:00	2011-12-30
285531	MW #5	water	2011-12-29	10:36	2011-12-30
285532	MW #6	water	2011-12-29	11:11	2011-12-30
285533	MW #8	water	2011-12-29	11:47	2011-12-30
285534	MW #9	water	2011-12-29	12:47	2011-12-30
285535	MW #4	water	2011-12-29	12:00	2011-12-30
285536	MW #3	water	2011-12-29	13:51	2011-12-30

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.

This report consists of a total of 15 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

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

Report Contents

Case Narrative	4
Analytical Report	5
Sample 285530 (MW #2)	5
Sample 285531 (MW #5)	5
Sample 285532 (MW #6)	5
Sample 285533 (MW #8)	6
Sample 285534 (MW #9)	6
Sample 285535 (MW #4)	7
Sample 285536 (MW #3)	7
Method Blanks	9
QC Batch 87506 - Method Blank (1)	9
QC Batch 87540 - Method Blank (1)	9
Laboratory Control Spikes	10
QC Batch 87506 - LCS (1)	10
QC Batch 87540 - LCS (1)	10
QC Batch 87506 - MS (1)	11
QC Batch 87540 - MS (1)	11
Calibration Standards	13
QC Batch 87506 - CCV (2)	13
QC Batch 87506 - CCV (3)	13
QC Batch 87540 - CCV (1)	13
QC Batch 87540 - CCV (2)	13
Appendix	15
Report Definitions	15
Laboratory Certifications	15
Standard Flags	15
Attachments	15

Case Narrative

Samples for project Plains LF-37 were received by TraceAnalysis, Inc. on 2011-12-30 and assigned to work order 11123009. Samples for work order 11123009 were received intact without headspace and at a temperature of 3.5 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	74301	2011-12-30 at 08:53	87506	2011-12-30 at 08:53
BTEX	S 8021B	74339	2012-01-02 at 12:27	87540	2012-01-02 at 12:27

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 11123009 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.

Report Date: January 3, 2012
Plains LF-37

Work Order: 11123009
Plains LF-37

Page Number: 5 of 15
Monument, NM

Analytical Report

Sample: 285530 - MW #2

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 87506

Prep Batch: 74301

Analytical Method: S 8021B

Date Analyzed: 2011-12-30

Sample Preparation: 2011-12-30

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	70 - 130

Sample: 285531 - MW #5

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 87506

Prep Batch: 74301

Analytical Method: S 8021B

Date Analyzed: 2011-12-30

Sample Preparation: 2011-12-30

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00110	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)			0.0977	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	70 - 130

Report Date: January 3, 2012
Plains LF-37

Work Order: 11123009
Plains LF-37

Page Number: 6 of 15
Monument, NM

Sample: 285532 - MW #6

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 87506
Prep Batch: 74301

Analytical Method: S 8021B
Date Analyzed: 2011-12-30
Sample Preparation: 2011-12-30

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	70 - 130
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Sample: 285533 - MW #8

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 87506
Prep Batch: 74301

Analytical Method: S 8021B
Date Analyzed: 2011-12-30
Sample Preparation: 2011-12-30

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	70 - 130
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Report Date: January 3, 2012
Plains LF-37

Work Order: 11123009
Plains LF-37

Page Number: 7 of 15
Monument, NM

Sample: 285534 - MW #9

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 87506

Prep Batch: 74301

Analytical Method: S 8021B

Date Analyzed: 2011-12-30

Sample Preparation: 2011-12-30

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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)			0.0975	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0985	mg/L	1	0.100	98	70 - 130

Sample: 285535 - MW #4

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 87540

Prep Batch: 74339

Analytical Method: S 8021B

Date Analyzed: 2012-01-02

Sample Preparation: 2012-01-02

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0943	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0989	mg/L	1	0.100	99	70 - 130

Report Date: January 3, 2012
Plains LF-37

Work Order: 11123009
Plains LF-37

Page Number: 8 of 15
Monument, NM

Sample: 285536 - MW #3

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 87540

Prep Batch: 74339

Analytical Method: S 8021B

Date Analyzed: 2012-01-02

Sample Preparation: 2012-01-02

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr	1	0.00560	mg/L	1	0.00100
Toluene	Qr,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0966	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Method Blanks

Method Blank (1) QC Batch: 87506

QC Batch: 87506
Prep Batch: 74301

Date Analyzed: 2011-12-30
QC Preparation: 2011-12-30

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.105	mg/L	1	0.100	105	70 - 130
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Method Blank (1) QC Batch: 87540

QC Batch: 87540
Prep Batch: 74339

Date Analyzed: 2012-01-02
QC Preparation: 2012-01-02

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000765	mg/L	0.001
Toluene		1	<0.000719	mg/L	0.001
Ethylbenzene		1	<0.000860	mg/L	0.001
Xylene		1	<0.000942	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.108	mg/L	1	0.100	108	70 - 130
4-Bromofluorobenzene (4-BFB)			0.109	mg/L	1	0.100	109	70 - 130

Report Date: January 3, 2012
Plains LF-37

Work Order: 11123009
Plains LF-37

Page Number: 10 of 15
Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 87506
Prep Batch: 74301

Date Analyzed: 2011-12-30
QC Preparation: 2011-12-30

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0985	mg/L	1	0.100	<0.000765	98	70 - 130
Toluene		1	0.101	mg/L	1	0.100	<0.000719	101	70 - 130
Ethylbenzene		1	0.0965	mg/L	1	0.100	<0.000860	96	70 - 130
Xylene		1	0.280	mg/L	1	0.300	<0.000942	93	70 - 130

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0996	mg/L	1	0.100	<0.000765	100	70 - 130	1	20
Toluene		1	0.104	mg/L	1	0.100	<0.000719	104	70 - 130	3	20
Ethylbenzene		1	0.0987	mg/L	1	0.100	<0.000860	99	70 - 130	2	20
Xylene		1	0.286	mg/L	1	0.300	<0.000942	95	70 - 130	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0870	0.0946	mg/L	1	0.100	87	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0862	0.0937	mg/L	1	0.100	86	94	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 87540
Prep Batch: 74339

Date Analyzed: 2012-01-02
QC Preparation: 2012-01-02

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0985	mg/L	1	0.100	<0.000765	98	70 - 130
Toluene		1	0.0993	mg/L	1	0.100	<0.000719	99	70 - 130
Ethylbenzene		1	0.0938	mg/L	1	0.100	<0.000860	94	70 - 130
Xylene		1	0.274	mg/L	1	0.300	<0.000942	91	70 - 130

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

Report Date: January 3, 2012
Plains LF-37

Work Order: 11123009
Plains LF-37

Page Number: 11 of 15
Monument, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0993	mg/L	1	0.100	<0.000765	99	70 - 130	1	20
Toluene		1	0.101	mg/L	1	0.100	<0.000719	101	70 - 130	2	20
Ethylbenzene		1	0.0967	mg/L	1	0.100	<0.000860	97	70 - 130	3	20
Xylene		1	0.280	mg/L	1	0.300	<0.000942	93	70 - 130	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)	0.102	0.0930	mg/L	1	0.100	102	93	70 - 130
4-Bromofluorobenzene (4-BFB)	0.101	0.0919	mg/L	1	0.100	101	92	70 - 130

Matrix Spike (MS-1) Spiked Sample: 285456

QC Batch: 87506
Prep Batch: 74301

Date Analyzed: 2011-12-30
QC Preparation: 2011-12-30

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0987	mg/L	1	0.100	<0.000765	99	70 - 130
Toluene		1	0.102	mg/L	1	0.100	<0.000719	102	70 - 130
Ethylbenzene		1	0.0980	mg/L	1	0.100	<0.000860	98	70 - 130
Xylene		1	0.284	mg/L	1	0.300	<0.000942	95	70 - 130

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	0.0955	mg/L	1	0.100	<0.000765	96	70 - 130	3	20
Toluene		1	0.0994	mg/L	1	0.100	<0.000719	99	70 - 130	3	20
Ethylbenzene		1	0.0968	mg/L	1	0.100	<0.000860	97	70 - 130	1	20
Xylene		1	0.281	mg/L	1	0.300	<0.000942	94	70 - 130	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)	0.0903	0.0942	mg/L	1	0.1	90	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0888	0.0957	mg/L	1	0.1	89	96	70 - 130

Report Date: January 3, 2012
Plains LF-37

Work Order: 11123009
Plains LF-37

Page Number: 12 of 15
Monument, NM

Matrix Spike (MS-1) Spiked Sample: 285578

QC Batch: 87540
Prep Batch: 74339

Date Analyzed: 2012-01-02
QC Preparation: 2012-01-02

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0956	mg/L	1	0.100	<0.000765	96	70 - 130
Toluene		1	0.0975	mg/L	1	0.100	<0.000719	98	70 - 130
Ethylbenzene		1	0.0943	mg/L	1	0.100	<0.000860	94	70 - 130
Xylene		1	0.272	mg/L	1	0.300	<0.000942	91	70 - 130

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

Param			MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
	F	C	Result	Units								
Benzene	Q _r	Q _r	1	0.0775	mg/L	1	0.100	<0.000765	78	70 - 130	21	20
Toluene	Q _r	Q _r	1	0.0793	mg/L	1	0.100	<0.000719	79	70 - 130	21	20
Ethylbenzene	Q _r	Q _r	1	0.0764	mg/L	1	0.100	<0.000860	76	70 - 130	21	20
Xylene	Q _r	Q _r	1	0.220	mg/L	1	0.300	<0.000942	73	70 - 130	21	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)	0.102	0.0948	mg/L	1	0.1	102	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.100	0.0932	mg/L	1	0.1	100	93	70 - 130

Calibration Standards

Standard (CCV-2)

QC Batch: 87506

Date Analyzed: 2011-12-30

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0974	97	80 - 120	2011-12-30
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2011-12-30
Ethylbenzene		1	mg/L	0.100	0.0968	97	80 - 120	2011-12-30
Xylene		1	mg/L	0.300	0.282	94	80 - 120	2011-12-30

Standard (CCV-3)

QC Batch: 87506

Date Analyzed: 2011-12-30

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0964	96	80 - 120	2011-12-30
Toluene		1	mg/L	0.100	0.0995	100	80 - 120	2011-12-30
Ethylbenzene		1	mg/L	0.100	0.0958	96	80 - 120	2011-12-30
Xylene		1	mg/L	0.300	0.275	92	80 - 120	2011-12-30

Standard (CCV-1)

QC Batch: 87540

Date Analyzed: 2012-01-02

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.103	103	80 - 120	2012-01-02
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2012-01-02
Ethylbenzene		1	mg/L	0.100	0.0980	98	80 - 120	2012-01-02
Xylene		1	mg/L	0.300	0.282	94	80 - 120	2012-01-02

Report Date: January 3, 2012
Plains LF-37

Work Order: 11123009
Plains LF-37

Page Number: 14 of 15
Monument, NM

Standard (CCV-2)

QC Batch: 87540

Date Analyzed: 2012-01-02

Analyzed By: ZLM

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	2012-01-02
Toluene		1	mg/L	0.100	0.103	103	80 - 120	2012-01-02
Ethylbenzene		1	mg/L	0.100	0.0981	98	80 - 120	2012-01-02
Xylene		1	mg/L	0.300	0.284	95	80 - 120	2012-01-02

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	T104704219-11-5	Lubbock

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 than 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.

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: BBC International Phone #: 575-397-6388
 Address: 1324 W. Marland (Street, City, Zip) Fax #: 575-397-0397
 Contact Person: Cliff Brunson E-mail:

Invoice to:
(If different from above)Project #: Project Name: Plains / LF-37Project Location (including state): Monument, NM Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		MTBE 8021 / 602 / 8260 / 625	BTEX 8021 / 602 / 8260 / 625	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, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
285530	MW # 2	3	V09	X				X				X			12/29/11	1000	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</

Relinquished by: [Signature] Company: BBC Date: 12-29-11 Time: 3:45

Relinquished by: _____ Company: _____ Date: _____ Time: _____

Relinquished by: _____ Company: _____ Date: _____ Time: _____

Received by: _____ Company: _____ Date: _____ Time: _____

Received by: _____ Company: _____ Date: _____ Time: _____

Received by: Brenda Wood Trace Lubbock 12/29/11 10:00INST _____
OBS _____
COR _____INST _____
OBS _____
COR _____INST IR
OBS 3.4
COR 3.5**LAB USE ONLY**Intac Y / N
Headspace Y / N / NALog-in Review [Signature]

REMARKS:

- ☐ 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 # FedEx 797898576891

ORIGINAL COPY

APPENDIX V

FORM C-141

LF-37

April 2012

Plains Marketing, L.P.
Houston, Texas

Prepared by:
BBC International, Inc.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

LF-37

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

Name of Company EOTT Energy Pipeline Limited Partnership	Contact Lennah Frost
Address P.O. Box 1660, Midland, TX 79702	Telephone No. 915/684-3467
Facility Name Monument 6"	Facility Type pipeline

Surface Owner State of New Mexico	Mineral Owner	Lease No.
---	---------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 19	Township 19-S	Range 37-E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
-------------	---------------	------------------	---------------	---------------	------------------	---------------	----------------	---------------

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 5 bbls	Volume Recovered 3 bbls
Source of Release Pipeline corrosion leak	Date and Hour of Occurrence 5/4/99, 3 pm	Date and Hour of Discovery 5/4/99, 3 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Sylvia	
By Whom? Lennah Frost	Date and Hour 5/4/99, 4:30 pm	
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.*

Line had been idled but not de-oiled. The line has since been de-oiled and taken out of service.

Describe Area Affected and Cleanup Action Taken.*

Contaminated soil was excavated. Approx. 1992 cu. yds of soil was disposed of at C&C Landfarm. The remainder of the soil was remediated on site using microbes. All analysis are attached. EOTT requests closure at this 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:	OIL CONSERVATION DIVISION		
Printed Name: Lennah Frost	Approved by District Supervisor:		
Title: Sr. Environmental Engineer	Approval Date:	Expiration Date:	
Date: 1/5/00	Phone: 915/684-3467	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary

APPENDIX VI

SITE PICTURES

LF-37

April 2012

Plains Marketing, L.P.
Houston, Texas

Prepared by:
BBC International, Inc.





6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1298 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: April 17, 2012

Work Order: 12041315



EMS #: 1999-LF-37
Project Location: Monument, NM
Project Name: LF-37
Project Number: LF-37 (Plains)

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
294197	MW #3	water	2012-04-11	11:29	2012-04-13

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.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report	4
Sample 294197 (MW #3)	4
Method Blanks	5
QC Batch 90267 - Method Blank (1)	5
Laboratory Control Spikes	6
QC Batch 90267 - LCS (1)	6
QC Batch 90267 - xMS (1)	6
Calibration Standards	8
QC Batch 90267 - CCV (2)	8
QC Batch 90267 - CCV (3)	8
Appendix	9
Report Definitions	9
Laboratory Certifications	9
Standard Flags	9
Attachments	9

Case Narrative

Samples for project LF-37 were received by TraceAnalysis, Inc. on 2012-04-13 and assigned to work order 12041315. Samples for work order 12041315 were received intact without headspace and at a temperature of 4.1 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	76589	2012-04-16 at 14:01	90267	2012-04-16 at 14:01

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 12041315 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.

Report Date: April 17, 2012
LF-37 (Plains)

Work Order: 12041315
LF-37

Page Number: 4 of 9
Monument, NM

Analytical Report

Sample: 294197 - MW #3

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 90267

Prep Batch: 76589

Analytical Method: S 8021B

Date Analyzed: 2012-04-16

Sample Preparation: 2012-04-16

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00680	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	0.00400	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	70 - 130
4-Bromofluorobenzene (4-BFB)			0.122	mg/L	1	0.100	122	70 - 130

Report Date: April 17, 2012
LF-37 (Plains)

Work Order: 12041315
LF-37

Page Number: 5 of 9
Monument, NM

Method Blanks

Method Blank (1) QC Batch: 90267

QC Batch: 90267
Prep Batch: 76589

Date Analyzed: 2012-04-16
QC Preparation: 2012-04-16

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Report Date: April 17, 2012
LF-37 (Plains)

Work Order: 12041315
LF-37

Page Number: 6 of 9
Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 90267
Prep Batch: 76589

Date Analyzed: 2012-04-16
QC Preparation: 2012-04-16

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000371	101	78.6 - 120
Toluene		1	0.0988	mg/L	1	0.100	<0.000347	99	79.6 - 120
Ethylbenzene		1	0.102	mg/L	1	0.100	<0.000326	102	80 - 120
Xylene		1	0.302	mg/L	1	0.300	<0.000357	100	79.3 - 120

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	0.102	mg/L	1	0.100	<0.000371	102	78.6 - 120	1	20
Toluene		1	0.101	mg/L	1	0.100	<0.000347	101	79.6 - 120	2	20
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000326	101	80 - 120	1	20
Xylene		1	0.305	mg/L	1	0.300	<0.000357	102	79.3 - 120	1	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)	0.0982	0.0979	mg/L	1	0.100	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0958	0.0954	mg/L	1	0.100	96	95	70 - 130

Matrix Spike (xMS-1) Spiked Sample:

QC Batch: 90267
Prep Batch: 76589

Date Analyzed: 2012-04-16
QC Preparation: 2012-04-16

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0996	mg/L	1	0.100	<0.000371	100	42.2 - 136
Toluene		1	0.0975	mg/L	1	0.100	<0.000347	98	44.3 - 133
Ethylbenzene		1	0.0989	mg/L	1	0.100	<0.000326	99	45.6 - 132
Xylene		1	0.296	mg/L	1	0.300	<0.000357	99	44.7 - 128

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

Report Date: April 17, 2012
LF-37 (Plains)

Work Order: 12041315
LF-37

Page Number: 7 of 9
Monument, NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0972	mg/L	1	0.100	<0.000371	97	42.2 - 136	2	20
Toluene		1	0.0956	mg/L	1	0.100	<0.000347	96	44.3 - 133	2	20
Ethylbenzene		1	0.0968	mg/L	1	0.100	<0.000326	97	45.6 - 132	2	20
Xylene		1	0.290	mg/L	1	0.300	<0.000357	97	44.7 - 128	2	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)	0.0989	0.0987	mg/L	1	0.1	99	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0977	0.0965	mg/L	1	0.1	98	96	70 - 130

Calibration Standards

Standard (CCV-2)

QC Batch: 90267

Date Analyzed: 2012-04-16

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0993	99	80 - 120	2012-04-16
Toluene		1	mg/L	0.100	0.0985	98	80 - 120	2012-04-16
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2012-04-16
Xylene		1	mg/L	0.300	0.302	100	80 - 120	2012-04-16

Standard (CCV-3)

QC Batch: 90267

Date Analyzed: 2012-04-16

Analyzed By: ZLM

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	2012-04-16
Toluene		1	mg/L	0.100	0.0982	98	80 - 120	2012-04-16
Ethylbenzene		1	mg/L	0.100	0.0998	100	80 - 120	2012-04-16
Xylene		1	mg/L	0.300	0.299	100	80 - 120	2012-04-16

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	T104704219-12-7	Lubbock

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 than 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.

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:	BBC International	Phone #:	(575) 397-6388
Address:	(Street, City, Zip)	Fax #:	(575) 397-0397
Contact Person:	1324 W. Maryland	E-mail:	
	Cliff Bryson		

Invoice to:
(If different from above)

Project #: _____ Project Name: LF-37

Project Location (including state):	
Newman, NM	

Sampler Signature:

[illegible][illegible]

Relinquished by:	Company:	Date:	Time:
<i>[Signature]</i>	BBC	4-11-12	6:00
Relinquished by:	Company:	Date:	Time:

Relinquished by: _____ Company: _____ Date: _____ Time: _____

Relinquished by: Company: Date: Time:

Received by:	Company:	Date:	Time:	INST _____
				OBS _____
				COR _____
Received by:	Company:	Date:	Time:	INST _____

Received by: Company: Date: Time: INST_____

Received by: _____ Company: _____ Date: _____ Time: _____ INST: _____

INST _____
OBS _____
COR _____

INST _____
OBS _____
COR _____

INST 4.1
OBS 4.1
COR 4.1

LAB USE ONLY

Impact Y/N
Headspace Y/N/NA

Log-in-Review

REMARKS:

☐ 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