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# Annual GW Mon. Report

Year:
2011



### 2011 ANNUAL MONITORING REPORT

## MONUMENT 10 SE ¼ NE¼ Section 30, Township 19 South, Range 37 East LEA COUNTY, NEW MEXICO PLAINS SRS NUMBER: TNM MONUMENT-10 NMOCD Reference Number 1R-0119

Prepared For:



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

Prepared By:

NOVA Safety and Environmental 2057 Commerce Street Midland, Texas 79703

March 2012

Ronald K. Rounsaville Senior Project Manager Brittan K. Byerly, P.G.

President



March 22, 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 Reports

15 Sites in Lea County, New Mexico

RECED

MAR 26 2012

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

Dear Mr. Hansen:

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

04   01	45 0000	C. Han Of Tanasahia CO Ca the Danes C7 Fact Land Count
34 Junc. to Lea Sta.	1R-0386	Section 21, Township 20 South, Range 37 East, Lea County
34 Junction South	1R-0456	Section 02, Township 17 South, Range 36 East, Lea County
Bob Durham	AP-0016 ′	Section 32, Township 19 South, Range 37 East, Lea County
HDO-90-23	AP-009	Section 06, Township 20 South, Range 37 East, Lea County
LF-59	1R-0103	Section 32, Township 19 South, Range 37 East, Lea County
Monument 2	1R-0110 ′	Section 06, Township 20 South, Range 37 East, Lea County
		Section 07, Township 20 South, Range 37 East, Lea. County
Monument 10	1R-0119	Section 30, Township 19 South, Range 37 East, Lea County
Monument 17	1R-123	Section 29, Township 19 South, Range 37 East, Lea County
Monument 18	1R-0124	Section 07, Township 20 South, Range 37 East, Lea County
SPS-11	GW-0140	Section 18, Township 18 South, Range 36 East, Lea County
Texaco Skelly F	1R-0420	Section 11, Township 21 South, Range 37 East, Lea County
TNM 97-04	GW-0294	Section 11, Township 16 South, Range 35 East, Lea County
TNM 97-17	AP-017 ~	Section 21, Township 20 South, Range 37 East, Lea County
TNM 97-18	AP-0013	Section 28, Township 20 South, Range 37 East, Lea County
TNM 98-05A	AP-12	Section 26, Township 21 South, Range 37 East, Lea County

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



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

Sincerely,

∮ason Henry

Remediation Coordinator

Plains All American

CC:

Geoff Leking, NMOCD, Hobbs, NM

Enclosures

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ENCLOSED ON DATA DISK
2011 Annual Monitoring Report

2011 Tables 1, 2 and 3 – Groundwater Elevation and BTEX Concentration Data

2011 Figures 1, 2A-2D, and 3A-3D

Electronic Copies of Laboratory Reports
Historic Tables 1, 2 and 3 – Groundwater Elevation, BTEX and PAH Concentration Tables

#### INTRODUCTION

On behalf of Plains Marketing, L.P., (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Annual Monitoring Report in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1 of each year. Beginning on May 29, 2004, project management responsibilities were assumed by NOVA. The Monument 10 Site (the site), formally the responsibility of Enron Oil Trading and Transportation (EOTT), is now the responsibility of Plains. This report is intended to be viewed as a complete document with figures, attachments, tables and text. 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. Cumulative tables and laboratory data are provided on the enclosed data disk.

Groundwater monitoring was conducted each quarter of 2011 to assess the levels and extent of dissolved phase constituents and Phase Separated Hydrocarbon (PSH). The groundwater monitoring events consisted of measuring static water levels in the monitor wells, checking for the presence of PSH and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 foot were not sampled.

### SITE DESCRIPTION AND BACKGROUND INFORMATION

The legal description of the site location is SE ¼ NE¼ Section 30, Township 19 South, Range 37 East. No information with respect to the release date, volume of crude oil released or recovered, excavation volumes, or pipeline repair details is available. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A. The initial site investigation, consisting of the installation of seven groundwater monitor wells (MW-1 through MW-7), was performed by a previous consultant.

Seven groundwater monitor wells (MW-1 through MW-7) are currently on-site. Manual PSH recovery is conducted weekly from monitor wells MW-1, MW-2 and MW-3.

### **FIELD ACTIVITIES**

### **Product Recovery Efforts**

During the reporting period, monitor wells MW-1, MW-2 and MW-3 exhibited measurable thicknesses of PSH during all four quarters of the reporting period. The average PSH thickness for the year from the three monitor wells displaying PSH was 1.57 feet. The maximum measured PSH thickness of 4.14 feet was observed in monitor well MW-3 on May 2, 2011.

Approximately 216 gallons (approximately 5.14 barrels) of PSH were recovered from the site during the reporting period. Approximately 2,117 gallons (approximately 50.4 barrels) of PSH have been recovered from this site since the project inception.

During the reporting period, Plains contracted a third party to conduct Mobile Dual Phase Extraction (MDPE) events at the Monument 10 site to assist in PSH recovery efforts. On May 7 and September 13, 2011, 12-hour MDPE events were conducted on monitor wells MW-1, MW-2 and MW-3. During the two MDPE events, approximately 54 gallons of liquid PSH and 33.28 equivalent off-gas vapor gallons were recovered.

Recovered PSH is reintroduced into the Plains transportation system at the Plains Lea Station Facility, near Monument, New Mexico. Measurable thicknesses of PSH are recorded in Table 1 and Figures 3A-3D.

### **Groundwater Monitoring**

Quarterly monitoring events for the reporting period were performed according to the following sampling schedule, which was approved by the NMOCD in correspondence dated April 28, 2004 and amended by NMOCD correspondences dated June 22, 2005 and January 26, 2006.

NMOCD Approved Sampling Schedule						
MW-1	Annually ,					
MW-2	Quarterly					
MW-3	Quarterly					
MW-4	Annually					
MW-5	Annually					
MW-6	Semi-Annually					
MW-7	Semi-Annually					

The site monitor wells were gauged and sampled on February 7, May 10, August 8, and November 10, 2011. During each sampling event, monitor wells were purged of a minimum of three well volumes of water or until the wells failed to produce water. Purging was performed using a disposable polyethylene bailer for each well or electrical Proactive Mini-Monsoon pump and dedicated tubing. Groundwater was allowed to recharge and samples were collected using disposable Teflon samplers. Water samples were placed in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of at a licensed disposal facility.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during quarterly sampling events performed in 2011, are depicted on the Inferred Groundwater Gradient Map(s), Figures 2A-2D. Groundwater elevation data for 2011 is provided as Table 1. Historic groundwater elevation data beginning at project inception is provided on the enclosed data disk.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.0145 feet/foot to the south-southeast as measured between monitor wells MW-4 and MW-6. This is consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevations ranged between 3,604.93 and 3,609.68 feet above mean sea level, in monitor well MW-6 on September 14, 2011 and monitor well MW-4 on February 7, 2011, respectively.

### LABORATORY RESULTS

Monitor wells MW-1, MW-2 and MW-3 contained PSH during all four quarters of the reporting period and were not sampled.

Groundwater samples obtained during the quarterly sampling events of 2011 were delivered to Trace Analysis, Inc. in Midland, Texas for determination of Benzene, Toluene, Ethylbenzene and Xylene (BTEX) constituent concentrations by EPA Method 8021B. Polynuclear Aromatic Hydrocarbons (PAH) analysis was not conducted during the 2011 calendar year. Based upon

historic PAH analytical data, only those wells exhibiting elevated constituent concentrations above WQCC standards will be sampled, with the exclusion of those wells containing measurable PSH thicknesses. No other wells warrant PAH analysis based upon NMOCD directive. A listing of BTEX constituent concentrations for 2011 is summarized in Table 2. Copies of the laboratory reports generated for 2011 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 3A through 3D.

Monitor well MW-1 is monitored on an annual schedule. Monitor well MW-1 was not sampled during any quarter of the reporting period, due to the presence of PSH. PSH thicknesses of 0.23 feet, 0.07 feet, 0.05 feet and 0.04 feet was reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2011. PSH levels fluctuated between 0.00 feet and 2.87 feet from May to early July 2011. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-2** is monitored on a quarterly schedule. Monitor well MW-2 was not sampled during the four quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 2.15 feet, 0.50 feet, 0.49 feet, and 1.09 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2011, respectively. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-3** is monitored on a quarterly schedule. Monitor well MW-3 was not sampled during the four quarters of the reporting period, due to the presence of PSH. PSH thicknesses of 3.25 feet, 0.37 feet, 0.41 feet, and 3.12 feet were reported during the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2011, respectively. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event due to the presence of PSH.

**Monitor well MW-4** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-4 has exhibited thirty consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-5** is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-5 has exhibited thirty-three consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

**Monitor well MW-6** is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 2nd and 4th quarter sampling events. Monitor well MW-6 has exhibited thirty-three consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Monitor well MW-7 is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below MDL and NMOCD regulatory standards for each BTEX constituent during the 2nd and 4th quarter sampling events. Monitor well MW-7 has exhibited

thirty-eight consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not conducted during the 4<sup>th</sup> quarter sampling event.

Laboratory analytical results were compared to NMOCD regulatory limits based on the New Mexico groundwater standards found in section 20.6.2.3103 of the New Mexico Administrative Code.

### **SUMMARY**

This report presents the results of monitoring activities for the 2011 annual monitoring period. Currently, there are seven groundwater monitor wells on the site. Three monitor wells (MW-1, MW-2 and MW-3) exhibited measurable thicknesses of PSH during each of the four sampling events of the reporting period. MW-1, MW-2 and MW-3 exhibited PSH during all four quarters of the reporting period and were not sampled. Manual product recovery occurs from monitor wells MW-1, MW-2 and MW-3 on a weekly schedule. The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.0145 feet/foot to the south-southeast.

Approximately 216 gallons (approximately 5.14 barrels) of PSH were recovered from the site during the reporting period. Approximately 2,117 gallons (approximately 50.4 barrels) of PSH have been recovered from this site since the project inception.

During the reporting period, Plains contracted a third party to conduct Mobile Dual Phase Extraction (MDPE) events at the Monument 10 site to assist in PSH recovery efforts. On May 7 and September 13, 2011, two, 12-hour MDPE events were conducted on monitor wells MW-1, MW-2 and MW-3. During the two MDPE events, approximately 54 gallons of liquid PSH and 33.28 equivalent off-gas vapor gallons were recovered.

Review of the laboratory analytical results of the groundwater samples obtained during the reporting period indicated BTEX constituent concentrations remain below applicable NMOCD regulatory standards in four of the seven site monitor wells. At this time, PSH impact appears to be limited to the vicinity of monitor wells MW-1, MW-2 and MW-3.

### ANTICIPATED ACTIONS

Quarterly monitoring, aggressive PSH recovery and groundwater sampling will continue in 2012. Manual product recovery and gauging well be conducted on a weekly schedule and will be adjusted according to site conditions. Additional MDPE events will be scheduled as necessary.

An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2013.

### **LIMITATIONS**

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

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

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

### DISTRIBUTION

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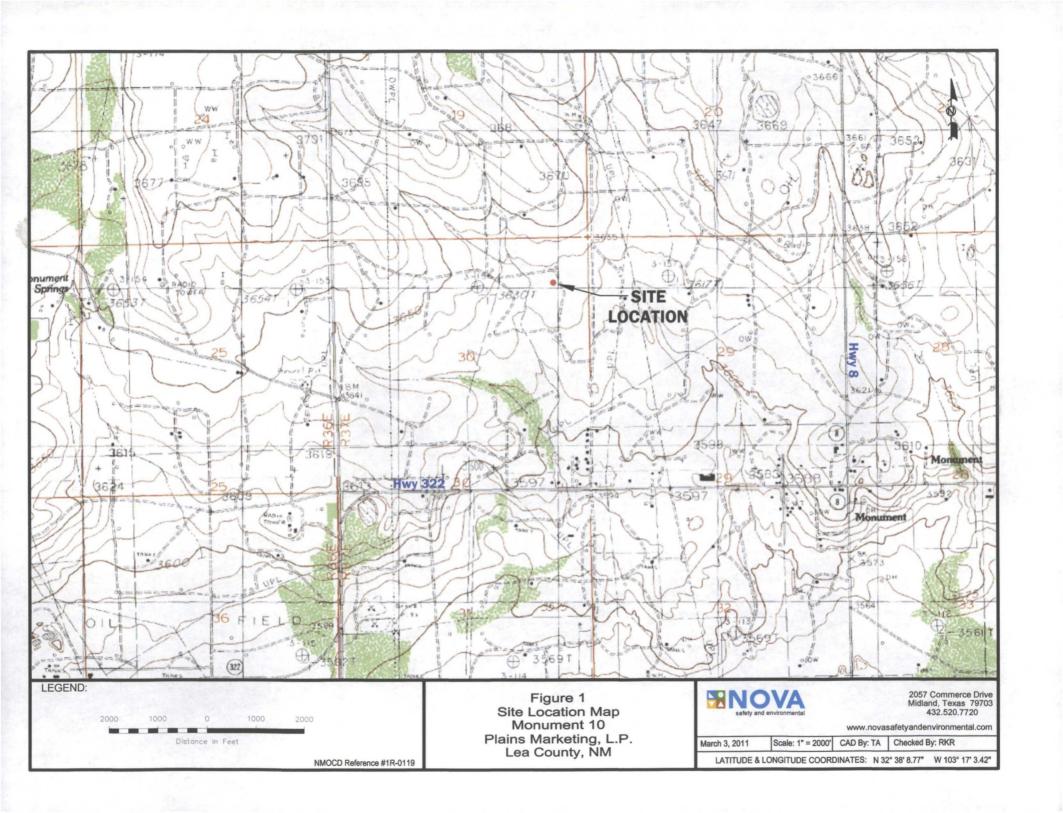
Houston, TX 77002 jpdann@paalp.com

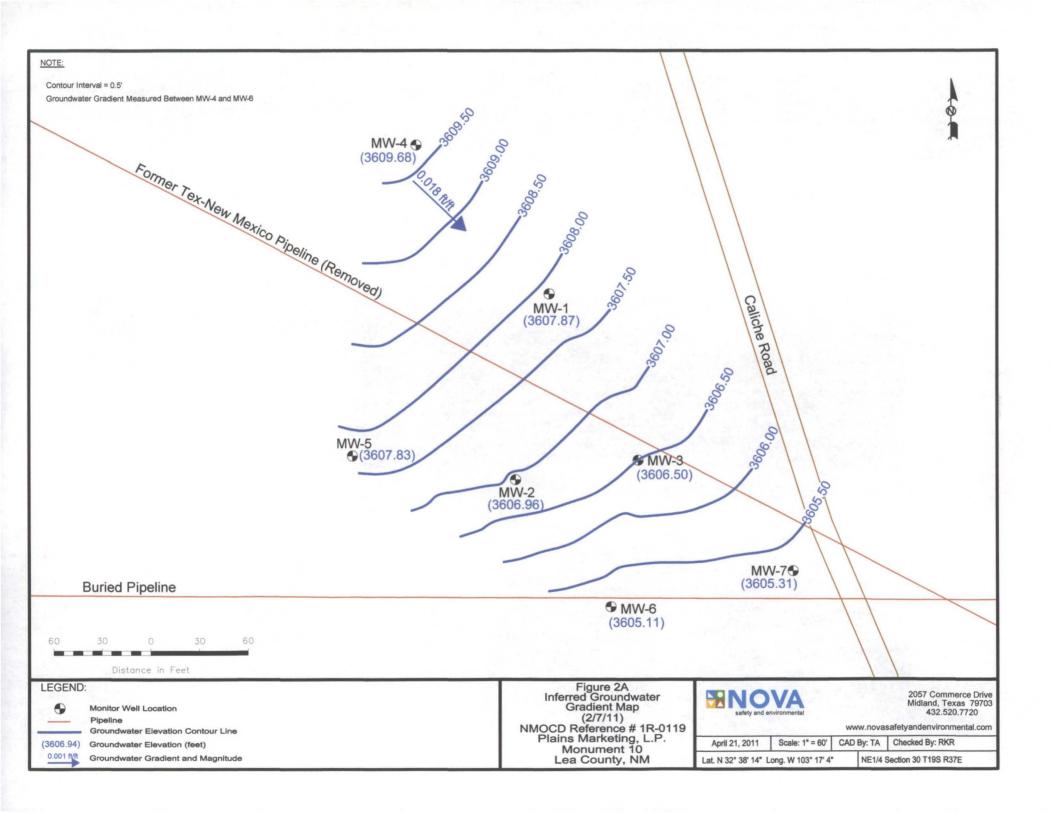
Copy 5: NOVA Safety and Environmental

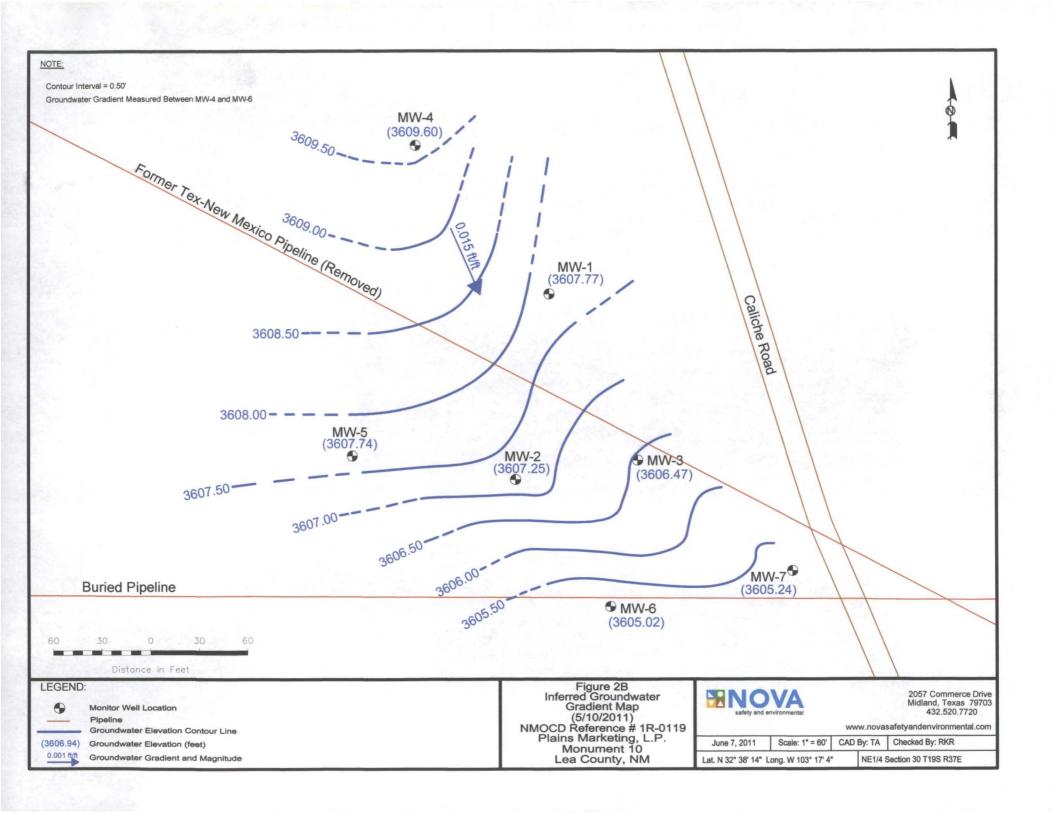
2057 Commerce Street Midland, TX 79703

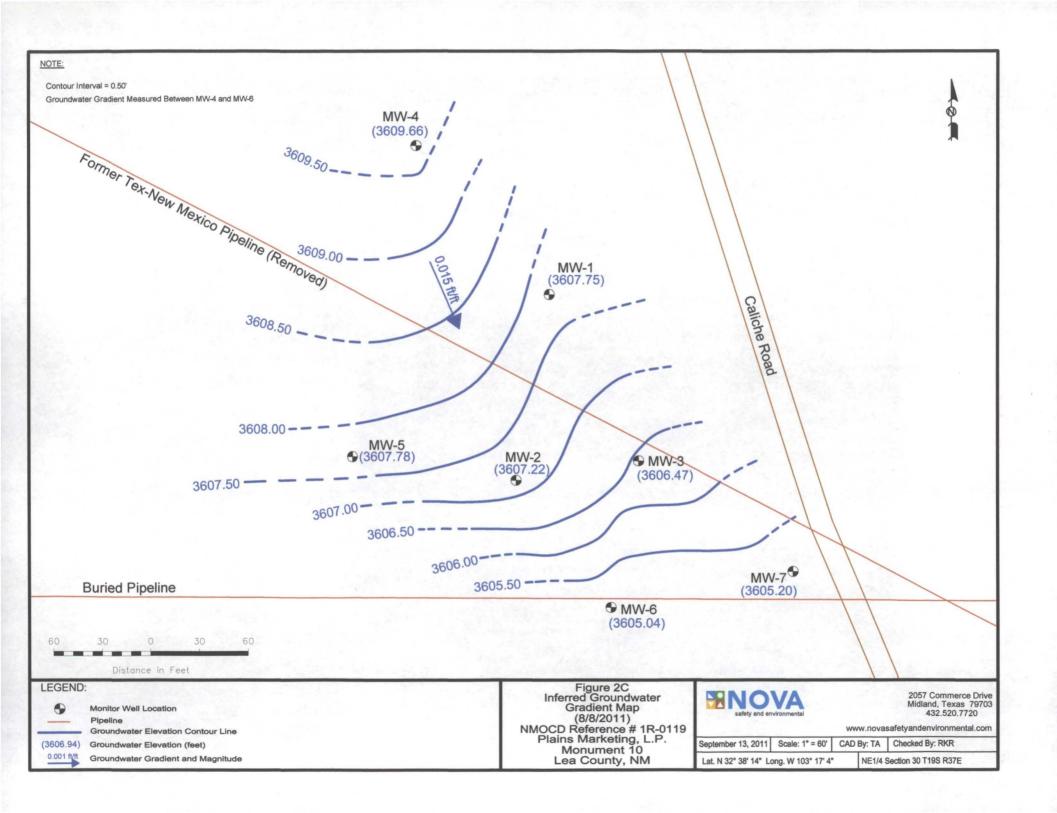
rrounsaville@novatraining.cc

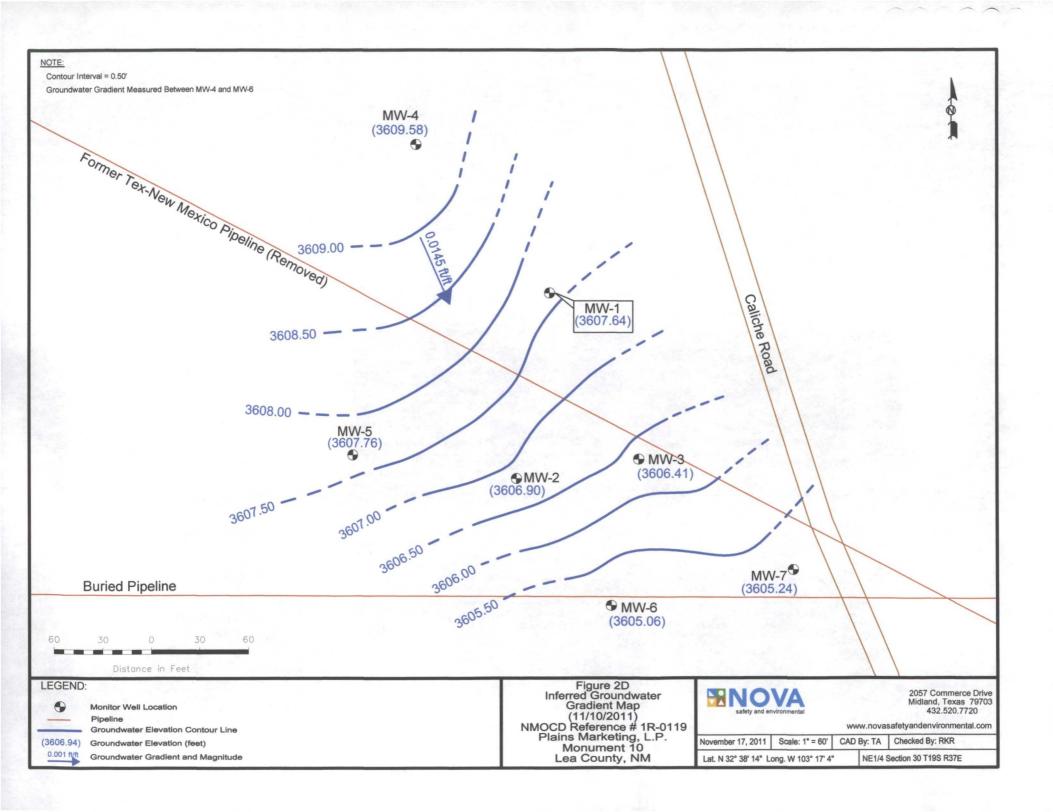
Figures

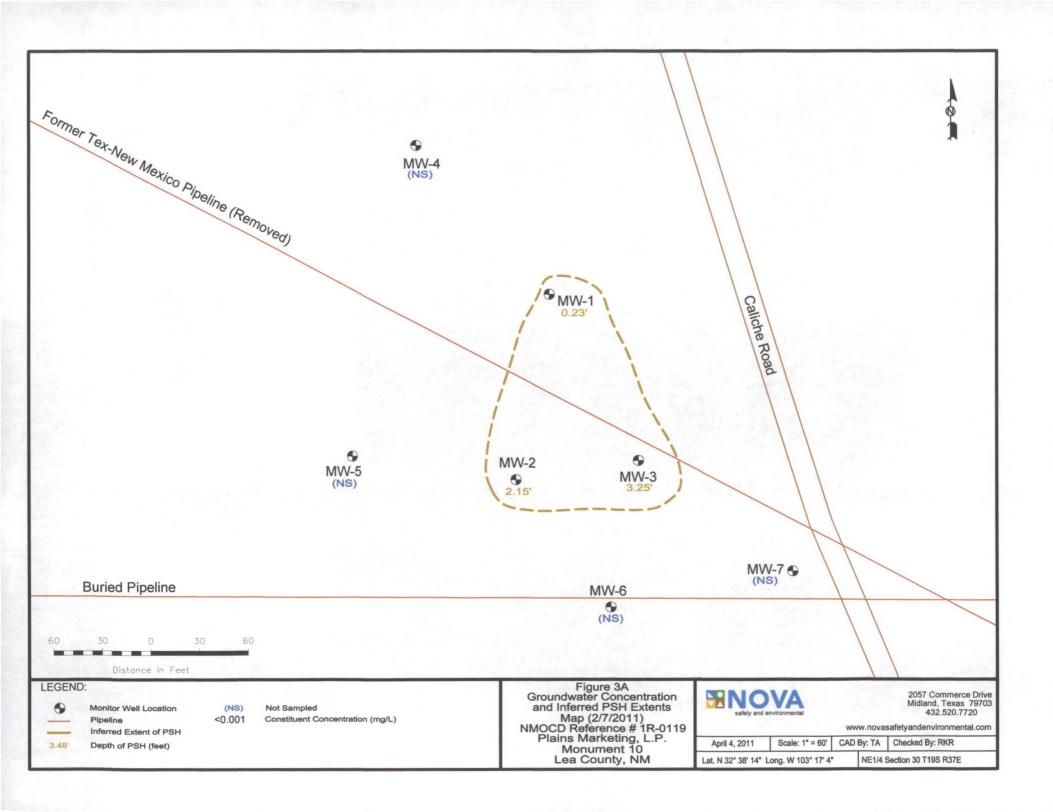


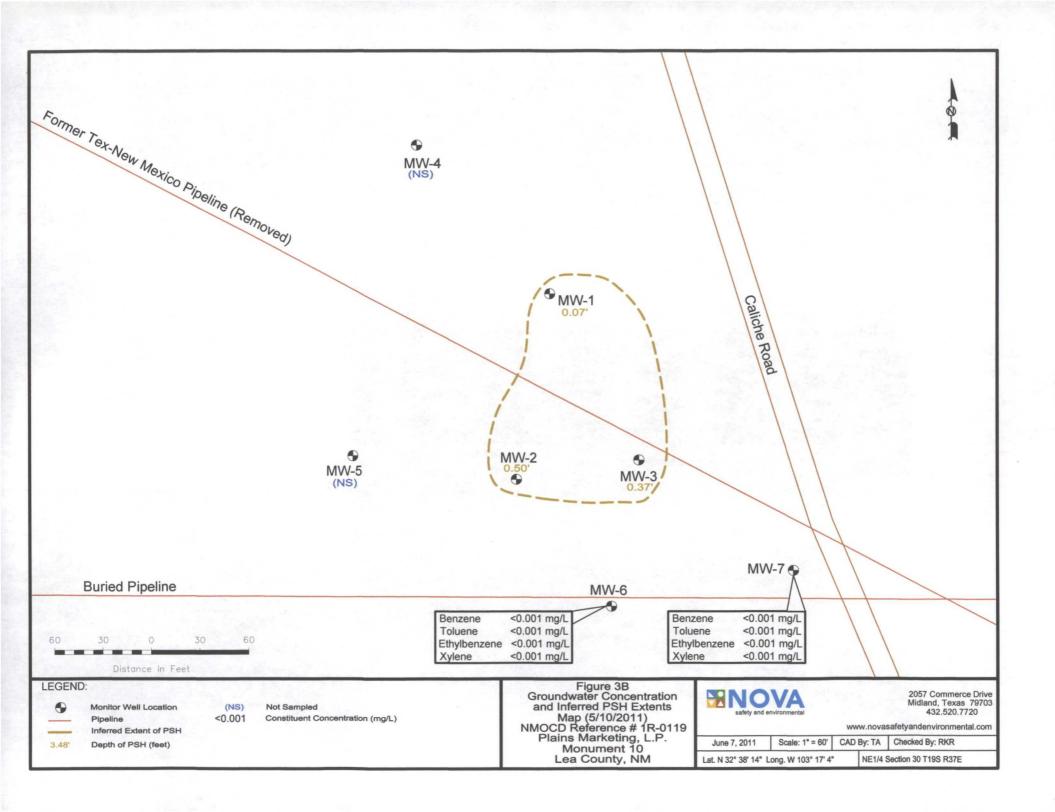


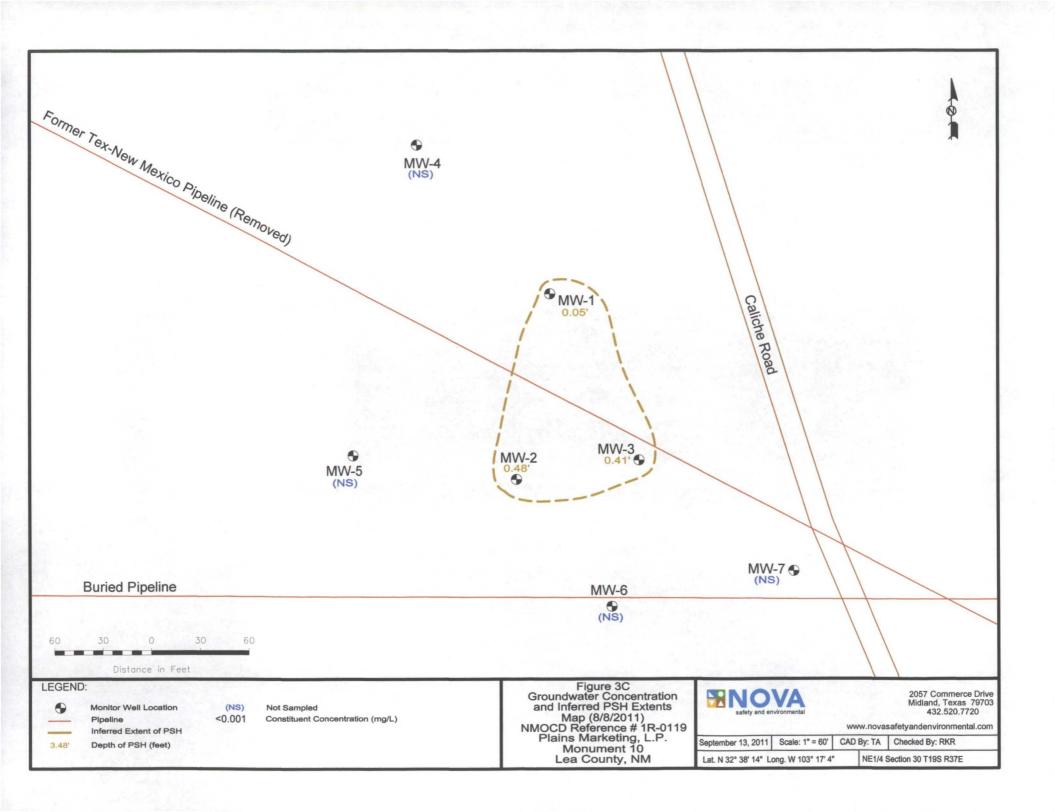


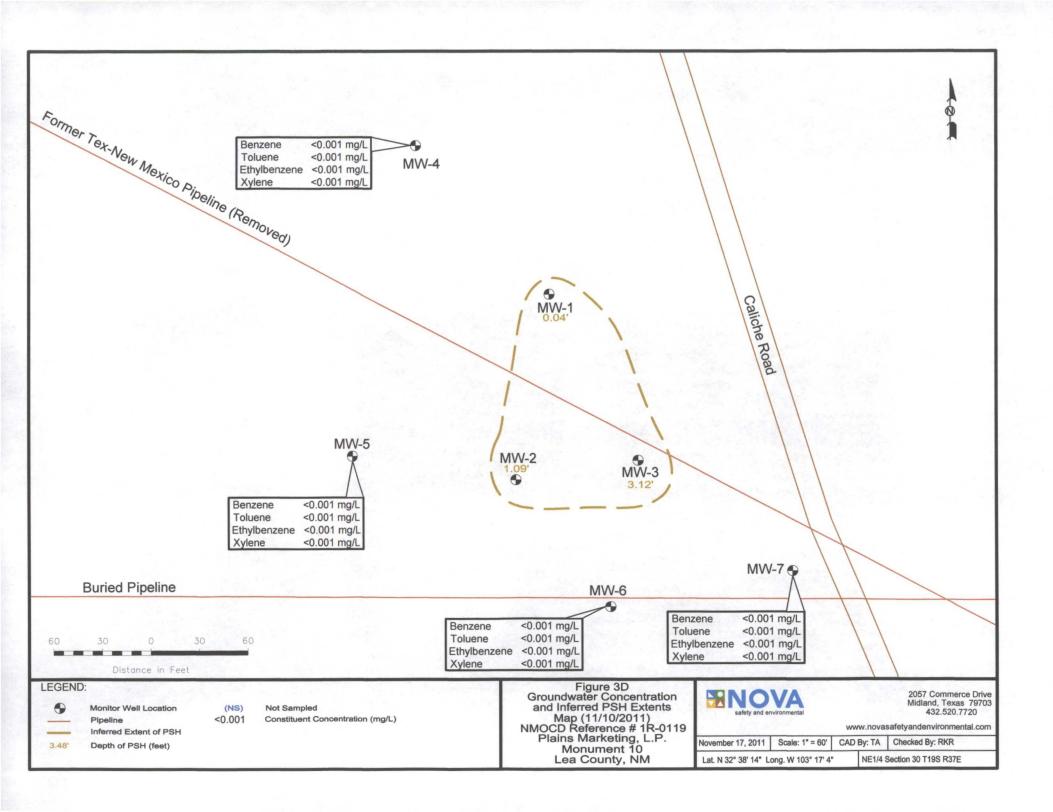












Tables

### **GROUNDWATER ELEVATION DATA - 2011**

### PLAIN MARKETING, L.P. MONUMENT 10 LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER 1R-0119

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	02/07/11	3,629.33	21.43	21.66	0.23	3,607.87
MW - 1	05/02/11	3,629.33	22.16	25.03	2.87	3,606.74
MW - 1	05/09/11	3,629.33	21.56	21.60	0.04	3,607.76
MW - 1	05/10/11	3,629.33	21.55	21.62	0.07	3,607.77
MW - 1	07/12/11	3,629.33	-	21.52	0.00	3,607.81
MW - 1	07/22/11	3,629.33	-	21.45	0.00	3,607.88
MW - 1	08/04/11	3,629.33	-	21.62	0.00	3,607.71
MW - 1	08/08/11	3,629.33	21.57	21.62	0.05	3,607.75
MW - 1	08/11/11	3,629.33	-	21.92	0.00	3,607.41
MW - 1	08/24/11	3,629.33	-	22.01	0.00	3,607.32
MW - 1	09/02/11	3,629.33	•	21.87	0.00	3,607.46
MW - 1	09/07/11	3,629.33	-	21.85	0.00	3,607.48
MW - 1	09/09/11	3,629.33	-	21.80	0.00	3,607.53
MW - 1	09/14/11	3,629.33	=	21.80	0.00	3,607.53
MW - 1	09/22/11	3,629.33	-	21.80	0.00	3,607.53
MW - 1	10/26/11	3,629.33	21.66	21.69	0.03	3,607.67
MW - 1	11/10/11	3,629.33	21.68	21.72	0.04	3,607.64
MW - 1	12/02/11	3,629.33	-	21.70	0.00	3,607.63
MW - 1	12/09/11	3,629.33	•	21.75	0.00	3,607.58
MW - 1	12/13/11	3,629.33	-	21.75	0.00	3,607.58
MW - 1	12/23/11	3,629.33	-	21.65	0.00	3,607.68
MW - 1	12/29/11	3,629.33	-	21.56	0.00	3,607.77
4/2	in the second		7 A T	17.	10201	
MW - 2	01/20/11	3,629.43	21.87	23.50	1.63	3,607.32
MW - 2	02/07/11	3,629.43	22.15	24.30	2.15	3,606.96
MW - 2	05/02/11	3,629.43	22.16	25.03	2.87	3,606.84
MW - 2	05/09/11	3,629.43	22.52	22.61	0.09	3,606.90
MW - 2	05/10/11	3,629.43	22.11	22.61	0.50	3,607.25
MW - 2	05/19/11	3,629.43	22.42	23.02	0.60	3,606.92
MW - 2	05/27/11	3,629.43	22.40	23.30	0.90	3,606.90
MW - 2	06/10/11	3,629.43	22.44	23.15	0.71	3,606.88
MW - 2	06/24/11	3,629.43	22.45	23.23	0.78	3,606.86
MW - 2	07/01/11	3,629.43	22.40	23.60	1.20	3,606.85
MW - 2	07/12/11	3,629.43	22.35	23.97	1.62	3,606.84
MW - 2	07/22/11	3,629.43	22.31	23.88	1.57	3,606.88
MW - 2	08/04/11	3,629.43	22.28	24.15	1.87	3,606.87
MW - 2	08/08/11	3,629.43	22.14	22.63	0.49	3,607.22
MW - 2	08/11/11	3,629.43	22.35	23.70	1.35	3,606.88
MW - 2	08/24/11	3,629.43	22.37	23.45	1.08	3,606.90
MW - 2	09/02/11	3,629.43	22.44	23.37	0.93	3,606.85
MW - 2	09/07/11	3,629.43	21.39	23.60	2.21	3,607.71
MW - 2	09/09/11	3,629.43	22.03	23.64	1.61	3,607.16

### **GROUNDWATER ELEVATION DATA - 2011**

### PLAIN MARKETING, L.P. MONUMENT 10 LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER 1R-0119

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 2	09/14/11	3,629.43	22.66	22.74	0.08	3,606.76
MW - 2	09/22/11	3,629.43	22.50	22.78	0.28	3,606.89
MW - 2	10/26/11	3,629.43	22.40	23.38	0.98	3,606.88
MW - 2	11/10/11	3,629.43	22.37	23.46	1.09	3,606.90
MW - 2	11/14/11	3,629.43	22.37	23.46	1.09	3,606.90
MW - 2	12/02/11	3,629.43	22.33	23.80	1.47	3,606.88
MW - 2	12/09/11	3,629.43	22.37	23.52	1.15	3,606.89
MW - 2	12/13/11	3,629.43	22.36	23.50	1.14	3,606.90
MW - 2	12/23/11	3,629.43	22.40	23.46	1.06	3,606.87
MW - 2	12/29/11	3,629.43	22.41	23.31	0.90	3,606.89
ur and				7.7		
MW - 3	01/20/11	3,628.90	21.71	24.02	2.31	3,606.84
MW - 3	02/07/11	3,628.90	21.91	25.16	3.25	3,606.50
MW - 3	05/02/11	3,628.90	21.88	26.02	4.14	3,606.40
MW - 3	05/09/11	3,628.90	22.35	22.75	0.40	3,606.49
MW - 3	05/10/11	3,628.90	22.37	22.74	0.37	3,606.47
MW - 3	05/19/11	3,628.90	22.22	24.18	1.96	3,606.39
MW - 3	05/27/11	3,628.90	22.09	24.46	2.37	3,606.45
MW - 3	06/10/11	3,628.90	22.13	24.38	2.25	3,606.43
MW - 3	06/24/11	3,628.90	22.20	24.46	2.26	3,606.36
MW - 3	07/01/11	3,628.90	22.18	24.75	2.57	3,606.33
MW - 3	07/12/11	3,628.90	22.03	25.15	3.12	3,606.40
MW - 3	07/22/11	3,628.90	22.05	25.05	3.00	3,606.40
MW - 3	08/04/11	3,628.90	22.01	25.41	3.40	3,606.38
MW - 3	08/08/11	3,628.90	22.37	22.78	0.41	3,606.47
MW - 3	08/11/11	3,628.90	22.08	24.91	2.83	3,606.40
MW - 3	08/24/11	3,628.90	22.10	24.79	2.69	3,606.40
MW - 3	09/02/11	3,628.90	22.07	25.16	3.09	3,606.37
MW - 3	09/07/11	3,628.90	22.11	24.56	2.45	3,606.42
MW - 3	09/09/11	3,628.90	22.08	24.73	2.65	3,606.42
MW - 3	09/14/11	3,628.90	22.52	22.71	0.19	3,606.35
MW - 3	09/22/11	3,628.90	22.27	23.54	1.27	3,606.44
MW - 3	10/26/11	3,628.90	22.04	25.10	3.06	3,606.40
MW - 3	11/10/11	3,628.90	22.02	25.14	3.12	3,606.41
MW - 3	11/14/11	3,628.90	22.02	25.14	3.12	3,606.41
MW - 3	12/02/11	3,628.90	21.96	25.40	3.44	3,606.42
MW - 3	12/09/11	3,628.90	22.01	24.86	2.85	3,606.46
MW - 3	12/13/11	3,628.90	22.02	24.89	2.87	3,606.45
MW - 3	12/23/11	3,628.90	22.04	24.87	2.83	3,606.44
MW - 3	12/29/11	3,628.90	22.11	24.41	2.30	3,606.45
- 100×2 €	- 72% - 72%		i Sar Vi de i			

### **GROUNDWATER ELEVATION DATA - 2011**

### PLAIN MARKETING, L.P. MONUMENT 10 LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER 1R-0119

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 4	02/07/11	3,629.97	-	20.29	0.00	3,609.68
MW - 4	05/02/11	3,629.97	-	20.38	0.00	3,609.59
MW - 4	05/09/11	3,629.97	-	20.37	0.00	3,609.60
MW - 4	05/10/11	3,629.97	-	20.37	0.00	3,609.60
MW - 4	08/08/11	3,629.97	<u>-</u>	20.31	0.00	3,609.66
MW - 4	09/14/11	3,629.97	-	20.43	0.00	3,609.54
MW - 4	11/10/11	3,629.97	-	20.39	0.00	3,609.58
MW - 5	02/07/11	3,629.36		21.53	0.00	3,607.83
MW - 5	05/02/11	3,629.36	-	21.58	0.00	3,607.78
MW - 5	05/09/11	3,629.36	-	21.62	0.00	3,607.74
MW - 5	05/10/11	3,629.36	-	21.62	0.00	3,607.74
MW - 5	08/08/11	3,629.36	-	21.58	0.00	3,607.78
MW - 5	09/14/11	3,629.36	-	· 21.71	0.00	3,607.65
MW - 5	11/10/11	3,629.36	-	21.60	0.00	3,607.76
	ing.	i i i i i i i i i i i i i i i i i i i	· · · · · · · · · · · · · · · · · · ·		*** **********************************	
MW - 6	02/07/11	3,629.17	-	24.06	0.00	3,605.11
MW - 6	05/02/11	3,629.17	-	24.12	0.00	3,605.05
MW - 6	05/09/11	3,629.17	-	24.15	0.00	3,605.02
MW - 6	05/10/11	3,629.17	-	24.15	0.00	3,605.02
MW - 6	08/08/11	3,629.17	-	24.13	0.00	3,605.04
MW - 6	09/14/11	3,629.17		24.24	0.00	3,604.93
MW - 6	11/10/11	3,629.17	-	24.11	0.00	3,605.06
18 E			×			
MW - 7	02/07/11	3,628.07	-	22.76	0.00	3,605.31
MW - 7	05/02/11	3,628.07	_	22.81	0.00	3,605.26
MW - 7	05/09/11	3,628.07	-	22.83	0.00	3,605.24
MW - 7	05/10/11	3,628.07	-	22.83	0.00	3,605.24
MW - 7	08/08/11	3,628.07	-	22.87	0.00	3,605.20
MW - 7	09/14/11	3,628.07	-	22.90	0.00	3,605.17
MW - 7	11/10/11	3,628.07	-	22.83	0.00	3,605.24

<sup>\*</sup> Complete Historical Tables are provided on the attached CD.

### **CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011**

### PLAINS MARKETING, L.P. MONUMENT 10 LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER 1R-0119

Results are reported in mg/L.

	-	Resuits	are reported in mg/	EPA SW 846-802	1, 5030	,	
SAMPLE	SAMPLE			ETHYL-	m, p -	0 -	
LOCATION	DATE	BENZENE	TOLUENE	BENZENE	XYLENES	XYLENÉ	
NMOCD RE	GULATORY ⁄IIT	0.01	0.75	0.75	0.62		
MW - 1	02/07/11	Not sampled D	ue to PSH in W	ell			
MW - 1	05/10/11	Not sampled D	ue to PSH in W	ell			
MW - 1	08/08/11	Not sampled D	ue to PSH in W	ell			
MW - 1	11/10/11		ue to PSH in W			•	
MW - 2	02/07/11	Not sampled D	ue to PSH in W	ell			
MW - 2	05/10/11	Not sampled D	ue to PSH in W	ell	-		
MW - 2	08/08/11	Not sampled D	ue to PSH in W	ell			
MW - 2	11/10/11	Not sampled D	ue to PSH in W	ell			
	Pro Santa	•			1	4.4	
MW - 3	02/07/11	Not sampled D	ue to PSH in W	ell			
MW - 3	05/10/11		ue to PSH in W				
MW - 3	08/08/11	Not sampled D	ue to PSH in W	ell			
MW - 3	11/10/11	Not sampled D	ue to PSH in W	ell			
and the second			6 S 30		2 stars	***	
MW - 4	02/07/11	Not Sampled or	n Current Samp	le Schedule			
MW - 4	05/10/11	Not Sampled or	n Current Samp	le Schedule			
MW - 4	08/08/11	Not Sampled or	n Current Samp	le Schedule			
MW - 4	11/10/11	< 0.001	< 0.001	< 0.001	<0.0	001	
	The second second		The Salassan				
MW - 5	02/07/11	Not Sampled or	n Current Samp	le Schedule			
MW - 5	05/10/11	Not Sampled or	n Current Samp	le Schedule			
MW - 5	08/08/11	Not Sampled or	n Current Samp	le Schedule			
MW - 5	11/10/11	< 0.001	< 0.001	< 0.001	<0.0	001	
					2.3	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
MW - 6	02/07/11	Not Sampled o	n Current Samp	le Schedule			
MW - 6	05/10/11	< 0.001	< 0.001	< 0.001	<0.0	001	
MW - 6	08/08/11	Not Sampled o	n Current Samp	le Schedule			
MW - 6	11/10/11	< 0.001	< 0.001	< 0.001	<0.0	001	
			ing the same	***		12	
_ MW - 7	02/07/11		n Current Samp	le Schedule			
MW - 7	05/10/11	< 0.001	< 0.001	< 0.001	<0.0	001	
MW - 7	08/08/11		n Current Samp				
MW - 7	11/10/11	< 0.001	< 0.001	< 0.001	<0.0	001	

<sup>\*</sup> Complete Historical Tables are provided on the attached CD.

### POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

### PLAINS MARKETING, L.P. MONUMENT 10 LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER RI-0119

All water concentrations are reported in mg/L

										EPA SV	W846-82700	C, 3510								
SAMPLE LOCATION	SAMPLE DATE	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzolg,h,i]perylene	Benzo[kjfluoranthene	Chrysene	Dibenz[a,b]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd)pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Co Levels from N WQCC Drink standards Sec 101.UU and 3	iM sing water stions 1-	. 1	ı	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	I	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L		0.03 mg/L		-
MW-1	11/19/08				<0.000185													0.00226	0.000251	0.00143
	11/06/09	<0.000922	<0.000922	<0.000922	<0.000922					< 0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	< 0.000922	<0.000922	< 0.000922	<0.000922
	11/01/10 Not Sampled as part of Quarterly Monitoring Event.																			
. 64.25	11/10/11										7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	70 0.00	CBBPL VO	*0007 7018 2010/s, C*				ound un		
, s (7)			<b>不顺 ∀</b>		英	1,74				3.7%	7,3	M	1 11150			3672		1,100-9	M	<b>門原心</b>
MW-2	11/19/08	<0.0229	<0.0229	0.115	<0.0229	<0.0229	<0.0229	<0.0229 <0.00184	<0.0229 <0.00184	0.0281	<0.0229	<0.0229	0.0786	<0.0229	0.114	<0.0229	0.0899	0.429	0.337	0.0612
<u> </u>	11/06/09	<0.00184	<0.00184	<0.00184		<0.00184		<0.00184 Monitoring		< 0.00184	<0.00184	<0.00184	0.0152	<0.00184	0.0198	<0.00184	0.0190	0.112	0.0699	0.0119
<b> </b>	11/10/11					<u> </u>		nce of PSH.												
129	11/10/11	8.0	* 21.4	1975	- **3	oi Sampleu	due to prese	ince of r Sit.	· Pages	,	<b>減</b> 為1 · ·	A. 44 17 17	1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1		pged in the		TT. TENED		p. 7. 7. 1. 14	e poste i i
MW-3	11/19/08	<0.0917	< 0.0917	< 0.0917	< 0.0917	< 0.0917	< 0.0917	< 0.0917	< 0.0917	< 0.0917	<0.0917	<0.0917	0.373	< 0.0917	0.473	< 0.0917	0.468	1.85	1.79	0.269
	11/06/09					****								< 0.000926	0.0216	< 0.000926	0.0178	0.105	0.0896	0.0113
	11/01/10			•	Not Sam	pled as part	of Quarterly	/ Monitoring	Event.											
	11/10/11				N	ot Sampled	due to prese	nce of PSH.												
	200	S. Santa	. E. 74.	[ P. C.	4 19 1 19 1	,1	25.12	., "神河" .**		v. 198		7.3		43	12	THE CA	1000	745	~	
MW-4	11/19/08	< 0.000183			<0.000183											< 0.000183		<0.000183		<0.000183
	11/06/09	< 0.000184	<0.000184	<0.000184	<0.000184					<0.000184	<0.000184	< 0.000184	< 0.000184	<0.000184	< 0.000184	< 0.000184	<0.000184	<0.000184	<0.000184	< 0.000184
	11/01/10							/ Monitoring												
	11/10/11									Wing glation	A	limer								
l Save	11/10/00	<0.000103	-0.000103	40,000103	r0.000122	-0.000100	-0.000100	<0.000183	-0.000100	-0.000100	-0.000100	<0.000183	-0.000102	-0.000100	· .	-0.000102	-0.000100	41999	.0.000100	0.000100
MW-5	11/19/08		<0.000183		<0.000183	********								<0.000183	<0.000183	<0.000183 <0.000185	<0.000183			<0.000183 <0.000185
<b> </b>	11/01/10	~0.000185	_~0.000183	~0.000183				/ Monitoring		~0.000183	~v.uuu183	~0.000183	~0.000185	~0.000185	~0.000183	~0.000183	~0.000185	~0.000185	<0.000185	~0.000185
	11/10/11							/ Monitoring					_							$\vdash \!\!\!\!-\!\!\!\!\!-\!\!\!\!\!\!\!\!\!+$
		121	Y , 14:		1,0, 5411	: piou as part	in Quarterry	/ IVIOIIItOTIIIg	, LVCIR.	* 1	AND THE	1 (M)		1 1	¥ .	hard to		7-28-23	, ja .	50
L	لحنحصيث	P. 8	l								<u> </u>	1997	* * * *	1 1 1 1 1 1 1 1 1 1 1 1 1	· ·	145.1	***************************************	. ~4.1.4		**C 17.

#### POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

### PLAINS MARKETING, L.P. MONUMENT 10 LEA COUNTY, NEW MEXICO NMOCD REFERENCE NUMBER R1-0119

All water concentrations are reported in mg/L

	<del></del>	<del></del>				<del></del>			maior concerns		VIDAC 92704	2510								<del></del>
	l	<u> </u>								EPA SV	V846-8270	, <u>3</u> 510								
SAMPLE LOCATION	8	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzolalpyrene	Benzo[b]Auoranthene	Benzo[g,h,i]perylene	Benzo[k]Auoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd)pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Co Levels from I WQCC Drinl standards Sec 101.UU and 3	NM king water ctions 1-		ı	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	_	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L		0.03 mg/L		l
MW-6	11/19/08	< 0.000183	< 0.000183	<0.000183	< 0.000183	< 0.000183	<0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	<0.000183	<0.000183	< 0.000183	<0.000183	< 0.000183	<0.000183	<0.000183	< 0.000183
	11/06/09	< 0.000184	< 0.000184	<0.000184	< 0.000184	<0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	< 0.000184	<0.000184	<0.000184	< 0.000184
	11/01/10					<u></u>	of Quarterly													
	11/10/11				Not Sam	pled as part	of Quarterly	Monitoring	Event.											
. ,	11-20	. c \$ 4	ing. Value	1.5				1.3		E' v		* .			115	,		287 -		
MW-7	11/19/08	<0.000186																	<0.000186	
	11/06/09	<0.000184	<0.000184	<0.000184						<0.000184	<0.000184	<0.000184	<0.000184	< 0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
	11/01/10						of Quarterly													
<u> </u>	11/10/11	<u></u>			Not Sam	pled as part	of Quarterly	Monitoring	Event.				<u> </u>	<u> </u>				L		<u></u>

Appendices

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

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

### State of New Mexico **Energy Minerals and Natural Resources**

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

Submit 2 Copies to appropriate District Office in accordance

with Rule 116 on back side of form

Form C-141

Revised October 10, 2003

#### **Release Notification and Corrective Action OPERATOR** x Initial Report ☐ Final Report Plains Pipeline, LP Camille Reynolds Name of Company Contact: Address: 3705 E. Hwy 158, Midland, TX 79706 Telephone No. 505-441-0965 **Facility Name** Monument #10 Facility Type: Steel Pipeline Mineral Owner Lease No. Surface Owner: New Mexico State Land LOCATION OF RELEASE Unit Letter Section Township Feet from the North/South Line Feet from the East/West Line Range County Н 30 19S 37E Lea Latitude 32 degrees 38' 9.2" Longitude 103 degrees 17' 2.4" **NATURE OF RELEASE** Type of Release: Volume of Release: Volume Recovered Date and Hour of Occurrence Source of Release: Date and Hour of Discovery Unknown Was Immediate Notice Given? If YES, To Whom? Yes No Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. ☐ Yes 🖾 No If a Watercourse was Impacted, Describe Fully.\* Describe Cause of Problem and Remedial Action Taken.\* Describe Area Affected and Cleanup Action Taken.\* NOTE: Texas-New Mexico Pipeline was the owner/operator of the pipeline system at the time of the release, initial response information is unavailable. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Signature: Approved by District Supervisor: Printed Name: Camille Reynolds Title: Remediation Coordinator Approval Date: **Expiration Date:** E-mail Address: cjreynolds@paalp.com Conditions of Approval: Attached

Phone:

(505)441-0965

Date: 3/21/2005

<sup>\*</sup> Attach Additional Sheets If Necessary

**Laboratory Analytical Reports** 



6701 Aberdean Avenue: Suite 9 200 East Sunset Road, Suite E. 5002 Basin Street, Suite A1

Lubbock, Texas: 79424 El Paso, Texas 79922 Midland, Texas 79703

806 • 794 • 1296 .800 • 378 • 1296 888 • 588 • 3443 .915 • 585 • 3443 432 • 689 • 6301

FÁX 806 • 794 • 1298 FAX 915 • 585 • 4944 FAX 432 • 689 • 6813

5015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132

817 \* 201 \* 5260

### E-Mail: lab@traceanalysis.com

#### Certifications WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

### Analytical and Quality Control Report

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

Report Date: May 13, 2011

Work Order:

11051106

Project Location: North of Monument Monument #10 Project Name: Project Number: TNM-Monument-10

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

			Date	$\operatorname{Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
266112	MW-6	water	2011-05-10	15:30	2011-05-11
266113	MW-7	water	2011-05-10	16:00	2011-05-11

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

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

Michael al

### Report Contents

Case Narrative	3
Analytical Report           Sample 266112 (MW-6)	4
Method Blanks QC Batch 81212 - Method Blank (1)	5
Laboratory Control Spikes         QC Batch 81212 - LCS (1)         QC Batch 81212 - MS (1)	6
Calibration Standards           QC Batch 81212 - CCV (2)	8
Appendix Laboratory Certifications Standard Flags Attachments	9

### Case Narrative

Samples for project Monument #10 were received by TraceAnalysis, Inc. on 2011-05-11 and assigned to work order 11051106. Samples for work order 11051106 were received intact without headspace and at a temperature of 8.8 C.

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

		Prep	Prep	$_{ m QC}$	Analysis
Test	Method	Batch	Date	Batch	Date
$\overline{\mathrm{BTEX}}$	S 8021B	68937	2011-05-12 at 08:30	81212	2011-05-12 at 08:30

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 11051106 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: May 13, 2011

Work Order: 11051106 Monument #10

Page Number: 4 of 9 North of Monument

### **Analytical Report**

Sample: 266112 - MW-6

Laboratory: Midland

TNM-Monument-10

Analysis: BTEX QC Batch: 81212 Prep Batch: 68937

Analytical Method:

restration is to be a way on the fifther

S 8021BDate Analyzed: 2011 - 05 - 12Sample Preparation: 2011-05-12 Prep Method: S 5030B Analyzed By: MEPrepared By: ME

RLParameter Flag Cert Result Units Dilution RLBenzene < 0.00100 mg/L 0.00100 Toluene < 0.00100 mg/L 1 0.00100 Ethylbenzene < 0.00100 mg/L 1 0.00100Xylene < 0.00100 0.00100mg/L 1

						Spike	Percent	Recovery
Surrogate	$\operatorname{Flag}$	$\operatorname{Cert}$	Result	Units	Dilution	$\mathbf{A}\mathbf{mount}$	Recovery	Limits
Trifluorotoluene (TFT)	-		0.0902	mg/L	1	0.100	90	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0790	$\mathrm{mg/L}$	1	0.100	79	51.1 - 128

Sample: 266113 - MW-7

Laboratory: Midland

Analysis: **BTEX** QC Batch: 81212 Prep Batch: 68937

Analytical Method: Date Analyzed: Sample Preparation:

S 8021B 2011-05-12 2011-05-12 Prep Method: S 5030B Analyzed By: MEPrepared By: ME

RLParameter Flag Cert Result Dilution Units RLBenzene < 0.00100 mg/L 0.00100 Toluene < 0.00100 mg/L1 0.00100Ethylbenzene < 0.00100 mg/L 1 0.00100Xylene < 0.00100 mg/L0.00100

						Spike	Percent	Recovery
Surrogate	$\operatorname{Flag}$	$\operatorname{Cert}$	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0893	mg/L	1	0.100	89	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0816	mg/L	1	0.100	82	51.1 - 128

Report Date: May 13, 2011 TNM-Monument-10

Work Order: 11051106 Monument #10

Page Number: 5 of 9 North of Monument

# Method Blanks

Method Blank (1)

QC Batch: 81212

QC Batch:

81212

Date Analyzed:

2011-05-12

Analyzed By: ME

Prep Batch: 68937

QC Preparation: 2011-05-12

Prepared By: ME

			MDL		
Parameter	Flag	$\operatorname{Cert}$	Result	Units	RL
Benzene		1	< 0.000400	m mg/L	0.001
Toluene		1	< 0.000300	${ m mg/L}$	0.001
Ethylbenzene		1	< 0.000300	${ m mg/L}$	0.001
Xylene		1	< 0.000333	${ m mg/L}$	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
9	Tiag	Oer c			Ditation			
Trifluorotoluene (TFT)			0.0824	${ m mg/L}$	1	0.100	82	70.2 - 118
4-Bromofluorobenzene (4-BFB)			0.0747	${ m mg/L}$	1	0.100	75	47.3 - 116

Report Date: May 13, 2011 TNM-Monument-10

Work Order: 11051106 Monument #10

Page Number: 6 of 9 North of Monument

# Laboratory Control Spikes

#### Laboratory Control Spike (LCS-1)

QC Batch:

81212

Date Analyzed:

2011-05-12

Analyzed By: ME

Prep Batch: 68937

QC Preparation: 2011-05-12

Prepared By: ME

			LCS			Spike	Matrix		Rec.
Param	$\mathbf{F}$	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	0.0976	mg/L	1	0.100	< 0.000400	98	76.8 - 110
Toluene		1	0.105	mg/L	1	0.100	< 0.000300	105	81 - 108
Ethylbenzene		1	0.0928	mg/L	1	0.100	< 0.000300	93	78.8 - 118
Xylene		1	0.276	mg/L	1	0.300	< 0.000333	92	80.3 - 119

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.104	mg/L	1	0.100	< 0.000400	104	76.8 - 110	6	20
Toluene		1	0.108	mg/L	1	0.100	< 0.000300	108	81 - 108	3	20
Ethylbenzene		1	0.0987	mg/L	1	0.100	< 0.000300	99	78.8 - 118	6	20
Xylene		1	0.295	mg/L	1	0.300	< 0.000333	98	80.3 - 119	7	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$\mathbf{Limit}$
Trifluorotoluene (TFT)	0.0823	0.0868	mg/L	1	0.100	82	87	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.0815	0.0862	${ m mg/L}$	1	0.100	82	86	68.2 - 124

Matrix Spike (MS-1)

Spiked Sample: 266004

QC Batch: Prep Batch: 68937

81212

Date Analyzed: QC Preparation: 2011-05-12

2011-05-12

Analyzed By: ME Prepared By: ME

Param	$\mathbf{F}$	С	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	14.4	mg/L	50	5.00	9.7315	93	77.9 - 114
Toluene		1	5.25	$_{ m mg/L}$	50	5.00	< 0.0150	105	78.3 - 111
Ethylbenzene		1	5.95	m mg/L	50	5.00	1.59	87	75.3 - 110
Xylene		1	13.8	mg/L	50	15.0	0.9838	85	75.7 - 109

Report Date: May 13, 2011 TNM-Monument-10 Work Order: 11051106 Monument #10 Page Number: 7 of 9 North of Monument

			MSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{F}$	$^{\mathrm{C}}$	Result	Units	$\operatorname{Dil}$ .	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Benzene		1	14.3	mg/L	50	5.00	9.7315	91	77.9 - 114	1	20
Toluene		1	5.53	mg/L	50	5.00	< 0.0150	111	78.3 - 111	5	20
Ethylbenzene		1	6.13	${ m mg/L}$	50	5.00	1.59	91	75.3 - 110	3	20
Xylene		1	14.5	mg/L	50	15.0	0.9838	90	75.7 - 109	5	20

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	4.41	4.32	mg/L	50	5	88	86	68.3 - 107
4-Bromofluorobenzene (4-BFB)	4.35	4.32	${ m mg/L}$	50	5	87	86	60.1 - 135

Report Date: May 13, 2011 Work Order: 11051106 Page Number: 8 of 9 TNM-Monument-10 Monument #10 North of Monument

# Calibration Standards

#### Standard (CCV-2)

QC Batch: 81212

Date Analyzed: 2011-05-12

Analyzed By: ME

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	$\operatorname{Flag}$	$\operatorname{Cert}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/L	0.100	0.0999	100	80 - 120	2011-05-12
Toluene		1	$_{ m mg/L}$	0.100	0.105	105	80 - 120	2011-05-12
Ethylbenzene		1	$\mathrm{mg/L}$	0.100	0.0919	92	80 - 120	2011-05-12
Xylene		1	${ m mg/L}$	0.300	0.274	91	80 - 120	2011-05-12

#### Standard (CCV-3)

QC Batch: 81212

 $Date\ Analyzed:\ \ 2011-05-12$ 

Analyzed By: ME

•				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	$\operatorname{Cert}$	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2011-05-12
Toluene		1	${ m mg/L}$	0.100	0.111	111	80 - 120	2011-05-12
Ethylbenzene		1	${ m mg/L}$	0.100	0.0939	94	80 - 120	2011-05-12
Xylene		1	$\mathrm{mg/L}$	0.300	0.283	94	80 - 120	2011-05-12

Report Date: May 13, 2011 Work Order: 11051106 Page Number: 9 of 9 TNM-Monument-10 Monument #10 North of Monument

### **Appendix**

### **Laboratory Certifications**

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

### Standard Flags

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

#### Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

LAB Order ID # 11051106

Page<sub>.</sub>

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(LAB USE) Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C. Relinquished by: Project Location (including state): 2057 Commence. Rélinquished by: Relinquished by: Company Name: Project #: (If different from above) invoice to: LAB# MW-10 MW (Street, City, Zip) Row R. TraceAnalysis, Company: Company: Company: FIELD CODE ana email: lab@traceanalysis.com 'leas Mexi Date: Date: Date: 5-11 # CONTAINERS ORIGINAL COPY Time: Valume / Amount Received by: Received by: WATER Received by: SOIL MATRIX AIR SLUDGE Phone #: Sampler Signature: Project Name: HCI Company: Company: 6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (805) 794-1296 Fax (805) 794-1298 1 (800) 378-1296 ompany: 432-520-7701 HNO, PRESERVATIVE Truce 432-520-7720 H<sub>2</sub>SO<sub>4</sub> METHOD NaOH ICE Date: Date: アイン NONE 01-5 Time: Time: DATE SAMPLING 5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 15.31 COR XX INST INST TIME COR COR 280 NS. MTBE 8021 / 602 / 8260 / 624 Carrier # BLEX 8020 / 602 / 8260 / 624 TPH 418.1 / TX1005 / TX1005 Ext(C35) TPH 8015 GRO / DRO / TVHC LAB USE ONLY PAH 8270 / 625 Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7 (Circle or Specify Method 200 East Sunset Rd., Suite E IP Pase, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443 TCLP Metals Ag As Ba Cd Cr Pb Se Hg **TCLP Volatiles** TCLP Semi Volatiles **ANALYSIS REQUEST** TRRP Report Required
Check If Special Reporting
Limits Are Needed Dry Weight Basis Required **TCLP Pesticides** XAIL tests-Midland RCI GC/MS Vol. 8260 / 624 GC/MS Semi. Vol. 8270 / 625 PCB's 8082 / 608 Pesticides 8081 / 608 BOD, TSS, pH Moisture Content BioAquatic Testing 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Tel (972) 242-7750 CI, FI, S04, NO3, NO2, Alkalinity Na, Ca, Mg, K, TDS, EC **Z** Turn Around Time If different from standard Hold



200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 -

El Paso, Texas 79922 Midland, Texas 79703 5015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132

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817 \* 201 \* 5260

E-Mail: lab@traceanalysis.com

### Certifications

#### NELAP DoD LELAP Kansas Oklahoma ISO 17025 WBE HUB NCTRCA DBE

### Analytical and Quality Control Report

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

Report Date: November 15, 2011

Work Order: 11111406

Project Location: New Mexico Project Name: Monument #10

Project Number: TNM Monument #10

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
282301	MW 4	water	2011-11-10	15:40	2011-11-11
282302	MW 5	water	2011-11-10	15:40	2011-11-11
282303	MW 6	water	2011-11-10	15:35	2011 <del>-</del> 11-11
282304	MW 7	water	2011-11-10	15:50	2011-11-11

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

This report consists of a total of 10 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

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### Case Narrative

Samples for project Monument #10 were received by TraceAnalysis, Inc. on 2011-11-11 and assigned to work order 11111406. Samples for work order 11111406 were received intact without headspace and at a temperature of 6.0 C.

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

		Prep	Prep	$_{ m QC}$	Analysis
Test	Method	$\operatorname{Batch}$	Date	Batch	Date
BTEX	S 8021B	73378	2011-11-14 at 13:50	86423	2011-11-14 at 14:26

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11111406 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: November 15, 2011 Work Order: 11111406 Page Number: 4 of 10 TNM Monument #10 Monument #10 New Mexico

# **Analytical Report**

Sample: 282301 - MW 4

Laboratory: Midland

Analysis: BTEX QC Batch: 86423 Prep Batch: 73378

Analytical Method: S 8021B Date Analyzed: 2011-11-14 Sample Preparation: 2011-11-14 Prep Method: S 5030B Analyzed By: AG Prepared By: AG

				$\mathrm{RL}$			
Parameter		Flag	Cert	Result	Units	Dilution	RL
Benzene	U	U	1	< 0.00100	mg/L	1	0.00100
Toluene	U	U	1	< 0.00100	m mg/L	1	0.00100
Ethylbenzene	U	U	1	< 0.00100	${ m mg/L}$	1	0.00100
Xylene	U	U	1	< 0.00100	$\mathrm{mg/L}$	1	0.00100

						Spike	Percent	Recovery
Surrogate	$\operatorname{Flag}$	$\operatorname{Cert}$	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0934	mg/L	1	0.100	93	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0802	mg/L	1	0.100	80	67.5 - 140.8

Sample: 282302 - MW 5

Laboratory: Midland Analysis: BTEX

Analysis: BTEX QC Batch: 86423 Prep Batch: 73378 Analytical Method: S 8021B
Date Analyzed: 2011-11-14
Sample Preparation: 2011-11-14

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

				$\operatorname{RL}$			
Parameter		$\operatorname{Flag}$	$\operatorname{Cert}$	Result	Units	Dilution	RL
Benzene	υ	U	1	< 0.00100	m mg/L	1	0.00100
Toluene	υ	U	1	< 0.00100	${ m mg/L}$	1	0.00100
Ethylbenzene	U	U	1	< 0.00100	${ m mg/L}$	1	0.00100
Xylene	υ	U	1	< 0.00100	${ m mg/L}$	1	0.00100

						$_{ m Spike}$	Percent	Recovery
Surrogate	$\operatorname{Flag}$	$\operatorname{Cert}$	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0937	mg/L	.1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0797	mg/L	1	0.100	80	67.5 - 140.8

Report Date: November 15, 2011

TNM Monument #10

Work Order: 11111406 Monument #10

Page Number: 5 of 10 New Mexico

### Sample: 282303 - MW 6

Laboratory:

Midland

Analysis: QC Batch:

BTEX86423 Prep Batch: 73378

Analytical Method: Date Analyzed:

S 8021B 2011-11-14 Sample Preparation: 2011-11-14 Prep Method: S 5030B Analyzed By: AG

Prepared By: AG

				m RL			
Parameter		Flag	Cert	Result	Units	Dilution	RL
Benzene	υ	U	1	< 0.00100	mg/L	1	0.00100
Toluene	υ	U	1	< 0.00100	${ m mg/L}$	1	0.00100
Ethylbenzene	υ	U	1	< 0.00100	m mg/L	1	0.00100
Xvlene	υ	U	1	< 0.00100	mg/L	1	0.00100

						$\operatorname{Spike}$	Percent	Recovery
Surrogate	Flag	$\operatorname{Cert}$	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0939	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0788	${ m mg/L}$	1	0.100	79	67.5 - 140.8

#### Sample: 282304 - MW 7

Midland

Laboratory:

Analysis: BTEX

QC Batch: 86423 Prep Batch: 73378

Analytical Method: Date Analyzed:

Sample Preparation:

S 8021B 2011-11-14 2011-11-14 Prep Method: S 5030B Analyzed By: AG

AG

Prepared By:

				RL			
Parameter		$\operatorname{Flag}$	Cert	Result	Units	Dilution	RL
Benzene	U	U	1	< 0.00100	mg/L	1	0.00100
Toluene	U	U	1	< 0.00100	${ m mg/L}$	1	0.00100
Ethylbenzene	U	U	1	< 0.00100	${ m mg/L}$	1	0.00100
Xylene	Ū	U	1	< 0.00100	mg/L	1	0.00100

						Spike	Percent	Recovery
Surrogate	$\operatorname{Flag}$	$\operatorname{Cert}$	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.0928	m mg/L	1	0.100	93	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0794	${ m mg/L}$	1	0.100	79	67.5 - 140.8

Report Date: November 15, 2011 TNM Monument #10

Work Order: 11111406 Monument #10

Page Number: 6 of 10 New Mexico

# Method Blanks

Method Blank (1)

QC Batch: 86423

QC Batch:

86423

Date Analyzed:

2011-11-14

Analyzed By: AG

Prep Batch: 73378

QC Preparation: 2011-11-14

Prepared By: AG

	$\mathrm{MDL}$								
Parameter	$\operatorname{Flag}$	$\operatorname{Cert}$	Result	Units	$\mathrm{RL}$				
Benzene		1	< 0.000400	mg/L	0.001				
Toluene		1	< 0.000300	${ m mg/L}$	0.001				
Ethylbenzene		1	< 0.000300	${ m mg/L}$	0.001				
Xylene		1	< 0.000333	${ m mg/L}$	0.001				

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

Report Date: November 15, 2011 TNM Monument #10

Work Order: 11111406 Monument #10

Page Number: 7 of 10 New Mexico

# **Laboratory Control Spikes**

#### Laboratory Control Spike (LCS-1)

QC Batch:

Date Analyzed:

2011-11-14

Analyzed By: AG

Prep Batch: 73378

QC Preparation: 2011-11-14

Prepared By: AG

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

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

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

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

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

Matrix Spike (MS-1) Spiked Sample: 282285

QC Batch: Prep Batch: 73378 Date Analyzed: 2011-11-14 QC Preparation: 2011-11-14

Analyzed By: AG Prepared By: AG

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

Report Date: November 15, 2011

TNM Monument #10

Work Order: 11111406 Monument #10 Page Number: 8 of 10

New Mexico

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

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

Report Date: November 15, 2011 Work Order: 11111406 Page Number: 9 of 10 TNM Monument #10 Monument #10 New Mexico

# Calibration Standards

### Standard (CCV-1)

QC Batch: 86423

Date Analyzed: 2011-11-14

Analyzed By: AG

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

#### Standard (CCV-2)

QC Batch: 86423

Date Analyzed: 2011-11-14

Analyzed By: AG

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

Report Date: November 15, 2011 Work Order: 11111406 Page Number: 10 of 10 Monument #10 TNM Monument #10

New Mexico

### **Appendix**

### Report Definitions

Name	Definition
$\overline{\mathrm{MDL}}$	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

### **Laboratory Certifications**

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

### Standard Flags

- F Description
- Analyte detected in the corresponding method blank above the method detection
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
  - 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.

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Company Name:  Phor  Address: (Street, City, Zip)  Phor  Fax										( H3Z) 520-7720							ANALYSIS REQUEST (Circle or Specify Method No.)																			
Contact Person:  Brythe Lee Ron  nvoice to:													1900	Ext(C35)		Ba Cd Cr Pb Se Hg 6010/200.7 As Ba Cd Cr Pb Se Hg	9												standard							
(If different from abo Project #:	different from above) oject #: Project Name:														624	7 2	전 도		Se Hg 6 Cr Pb S	<u>:   </u>				2				lulty				from				
Project Location (in	roject Location (including state):  Sampler Signature:														/ 8260 / 624	260 / 6	שואן ס		Ba Cd C	3			4	8270 / 625				2, Alkalinity	ا ا			ifferent				
MONUMEN-	+, NM.	· .	တ္သ	Ę	T	MAT	RIX	$\top$	P	SERV	VATIVE HOD			SAMPLING		/ 602 /	602 / 8; x1005	O / DR	5			latiles	Se	260 / 624	Vol. 82	308 1 / 608	<u>-                                     </u>	둫	NO3, NO2,	- 1			me if d			
LAB USE ONLY	FIELD CODE		# CONTAINERS	Volume / Amount	WATER	SOIL	SLUDGE		HCI HNO3				NONE		DATE	TIME	MTBE 8021 /	BTEX 8021 )602 / 8260 / 624	PH 4 16.17 17	'AH 8270 / 62	Total Metals Ag As TCLP Metals Ag	TCLP Volatiles	TCLP Semi Volatiles	ICLP Pesticides RCI	C/MS Vol. 82	GC/MS Semi. Vol. 8	PCB's 8082 / 60	BOD, TSS, pH	Moisture Content		ca, wg,			Turn Around Time if different from standard	PioH	
28230 MW	4		3	V04	+	0, 4	5	H	#	+	12	$\frac{1}{X}$	2	+	1-10-11		2		-		-		+	-   &	10			-   @	2	0 2	+	H	+	-		
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Submittal of samples	constitutes agreer	nent to Ter	ms an	d Con	dition	s liste	d on r	rever	se sic	de of	f C. C	). C.					Cau	rier #		$\tau$	<u> </u>												-			