

AP - 13

ANNUAL MONITORING REPORT

YEAR(S):

2011



2011
ANNUAL MONITORING REPORT

TNM 97-18
SW ¼ NE ¼ of SECTION 28, TOWNSHIP 20 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO
PLAINS SRS NUMBER: TNM 97-18-KNOWN
NMOCD Reference AP-0013

PREPARED FOR:

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HOUSTON, TEXAS 77002

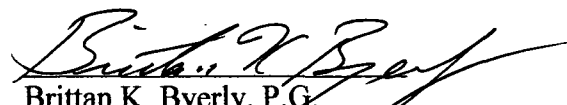


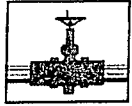
PREPARED BY:

NOVA Safety and Environmental
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Midland, Texas 79703

March 2012


Ronald K. Rounsaville
Senior Project Manager


Brittan K. Byerly, P.G.
President



PLAINS ALL AMERICAN

March 22, 2012

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

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Re: Plains All American – 2011 Annual Monitoring Reports
15 Sites in Lea County, New Mexico

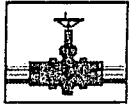
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

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:

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.



PLAINS
ALL AMERICAN

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

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

ENCLOSED ON DATA DISK

2011 Annual Monitoring Report

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

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

Electronic Copies of Laboratory Reports

Historic Table 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 TNM 97-18 Pipeline Release Site (the site), formerly 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, appendices, tables and text. The report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2011 only. Historic data is provided on the enclosed data disk. For reference, the Site Location Map is provided as Figure 1.

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

SITE DESCRIPTION AND BACKGROUND INFORMATION

The TNM 97-18 release occurred on September 10, 1997. The site is located south of Monument, New Mexico in the Southwest $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ of Section 28, Township 20 South, Range 37 East. According to Form C-141, an estimated 83 barrels of crude oil was released from the 16-inch pipeline of which none was recovered. The Release Notification and Corrective Action (Form C-141) is provided as Appendix A.

A *Soil Closure Work Plan* (Work Plan) was submitted to the NMOCD in August 2006. The Work Plan proposed soil remediation activities intended to progress the site toward an NMOCD approved closure.

In February 2008, Plains received approval from the NMOCD to commence the soil remediation activities outlined in the Work Plan. Following the completion of the soil remediation activities, a *Soil Closure Request* dated August 2010 was submitted to the NMOCD for approval. On January 26, 2011, Plains received an email from the NMOCD approving the *Soil Closure Request* at the TNM 97-18 release site.

Currently, there are 27 monitor wells (MW-1 through MW-30 excluding MW-13, MW-19, and MW-29 which have been plugged and abandoned) and two recovery wells (RW-1 and RW-2) onsite. A pneumatic product recovery system operated onsite incorporating three monitor wells (MW-4, MW-5 and MW-7) was discontinued at the end of 2006, due to declining PSH thicknesses on site.

FIELD ACTIVITIES

Product Recovery Efforts

A measurable thickness of PSH was detected in monitor well MW-7 during the 2011 annual reporting period. A maximum PSH thickness of 0.93 feet was recorded on June 23, 2011 and is shown on Table 1. The average thickness of PSH in monitor well MW-7 during 2011 was 0.39 feet. Approximately 22.0 gallons (0.52 barrels) of PSH was recovered from the site during the 2011 reporting period. A total of approximately 1,154 gallons (27.5 barrels) of PSH has been recovered since project inception.

Groundwater Monitoring

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

NMOCD APPROVED SAMPLING SCHEDULE					
Location	Schedule	Location	Schedule	Location	Schedule
MW-1	Annually	MW-12	Annually	MW-23	Quarterly
MW-2	Quarterly	MW-13	Plugged and Abandoned	MW-24	Quarterly
MW-3	Quarterly	MW-14	Annually	MW-25	Quarterly
MW-4	Quarterly	MW-15	Annually	MW-26	Quarterly
MW-5	Quarterly	MW-16	Annually	MW-27	Quarterly
MW-6	Quarterly	MW-17	Quarterly	MW-28	Semi-Annually
MW-7	Quarterly	MW-18	Quarterly	MW-29	Plugged and Abandoned
MW-8	Annually	MW-19	Plugged and Abandoned	MW-30	Semi-Annually
MW-9	Annually	MW-20	Annually		
MW-10	Quarterly	MW-21	Annually	RW-1	Quarterly
MW-11	Annually	MW-22	Annually	RW-2	Quarterly

The site monitor wells were gauged and sampled on February 22, May 17, August 11 and November 9, 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 Grundfos pump and dedicated tubing. Groundwater was allowed to recharge and samples were collected using disposable Teflon samplers. Water samples were placed in clean glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of at a licensed disposal facility.

Locations of the monitor wells and the inferred groundwater gradient, which were constructed from measurements collected during quarterly sampling events performed in 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 enclosed on the enclosed data disk.

The most recent Groundwater Gradient Map, Figure 2D, indicates a general gradient of approximately 0.007 feet/foot to the southeast as measured between MW-1 and MW-30. This is

consistent with data presented on Figures 2A through 2C from earlier in the year. The corrected groundwater elevations ranged between 3,467.11 to 3474.35 feet above mean sea level, in monitor well MW-30 on November 8, 2011 and in monitor well MW-5 on February 22, 2011, respectively.

LABORATORY RESULTS

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 conducted during the 2011 calendar year on monitor wells MW-2 through MW-6, MW-10, MW-17 and MW-18 and recovery wells RW-1 and RW-2. Based upon historic PAH analytical data, only those wells exhibiting elevated constituent concentrations above WQCC standards are sampled, with the exclusion of those wells containing measurable PSH thicknesses. A listing of BTEX constituent concentrations for 2011 are summarized in Table 2 and the historic PAH constituent concentrations are summarized in Table 3. Copies of the laboratory reports generated for 2011 are provided on the enclosed data disk. The quarterly groundwater sample results for BTEX constituent concentrations are depicted on Figures 3A through 3D.

Monitor well MW-1 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below laboratory method detection limits (MDL) and the NMOCD regulatory standard of 0.01 mg/L for benzene, 0.75 mg/L for toluene, 0.75 mg/L for ethylbenzene and 0.62 mg/L for xylene, for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-1 has exhibited 39 consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-1 during the 4th quarter sampling event.

Monitor well MW-2 is sampled on a quarterly schedule. Analytical results indicate the benzene concentration ranged from 0.283 mg/L during the 4th quarter to 0.777 mg/L during the 2nd quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentration ranged from <0.005 mg/L during the 2nd, 3rd and 4th quarters to 0.0834 mg/L during the 1st quarter of 2011. Toluene concentrations were below the NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.1260 mg/L during the 4th quarter to 0.2730 mg/L during the 2nd quarter of 2011. Ethylbenzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from 0.0866 mg/L during the 4th quarter to 0.2170 mg/L during the 2nd quarter of 2011. Xylene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00495 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.0154 mg/L), 1-methylnaphthalene (0.0292 mg/L), 2-methylnaphthalene (0.0174 mg/L) and dibenzofuran (0.00412 mg/L), which are below WQCC standards.

Monitor well MW-3 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.467 mg/L during the 3rd quarter to 1.980 mg/L during the 2nd quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentration ranged from <0.100 mg/L during the 2nd, 3rd and 4th quarters to 0.751 mg/L during the 1st quarter of 2011. Toluene concentrations were above the NMOCD regulatory standards during the 1st quarter of the reporting period. Ethylbenzene concentrations ranged from <0.100 mg/L during the 2nd, 3rd and 4th quarters to 0.821 mg/L during the 1st quarter of 2011. Ethylbenzene concentrations were above NMOCD regulatory standards during the 1st quarter of the reporting period. Xylene concentrations ranged from <0.100 mg/L during the 2nd, 3rd and 4th quarters to 3.710 mg/L during the 1st quarter of 2011. Xylene concentrations were above NMOCD regulatory standards during the 1st quarter of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00294 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.00586 mg/L), 1-methylnaphthalene (0.0197 mg/L), 2-methylnaphthalene (0.01399 mg/L) and dibenzofuran (0.00269 mg/L), which are below WQCC standards.

Monitor well MW-4 is sampled on a quarterly schedule. Analytical results indicate benzene concentrations ranged from 1.070 mg/L during the 4th quarter to 2.490 mg/L during the 1st quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene and ethylbenzene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.100 mg/L during the 2nd and 4th quarters to 2.150 mg/L during the 1st quarter of 2011. Xylene concentrations were above NMOCD regulatory standards during the 1st and 3rd quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.0124 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.0177 mg/L), 1-methylnaphthalene (0.0770 mg/L), 2-methylnaphthalene (0.0227 mg/L) and dibenzofuran (0.0103 mg/L), which are below WQCC standards.

Monitor well MW-5 is sampled on a quarterly schedule, but was not sampled during the 1st, 2nd and 3rd quarter sampling events due to damaged well casing. Analytical results from the 4th quarter sampling event indicated a benzene concentration of 1.290 mg/L. Benzene concentrations were above NMOCD regulatory standards during the 4th quarter of the reporting period. Toluene concentrations were below NMOCD regulatory standards during the 4th quarter of the reporting period. Analytical results indicated an ethylbenzene concentration of 0.5670 mg/L during the 4th quarter of 2011. Ethylbenzene concentrations were below NMOCD regulatory standards during the 4th quarter of the reporting period. Analytical results indicated a xylene concentration of 0.2580 mg/L during the 4th quarter of 2011. Xylene concentrations were below NMOCD regulatory standards during the 4th quarter of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for 1-methylnaphthalene (0.0380 mg/L) and 2-methylnaphthalene (0.0347 mg/L) and phenanthrene (0.00665 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.0281 mg/L) and dibenzofuran (0.00581 mg/L), which are below WQCC standards.

Monitor well MW-6 is sampled on a quarterly schedule. Analytical results indicate benzene concentrations ranged from 0.145 mg/L during the 3rd quarter to 0.295 mg/L during the 2nd quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 0.0116 mg/L during the 1st quarter to 0.0661 mg/L during the 2nd quarter of 2011. Ethylbenzene concentrations were below NMOCD regulatory standards during the all four quarters of the reporting period. Xylene concentrations ranged from <0.001 mg/L during the 1st quarter to 0.0348 mg/L during the 2nd quarter of 2011. Xylene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for 1-methylnaphthalene (0.0349 mg/L) and phenanthrene (0.0151 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.00838 mg/L), 2-methylnaphthalene (0.0078 mg/L) and dibenzofuran (0.010 mg/L), which are below WQCC standards.

Monitor well MW-7 is sampled on a quarterly schedule. Monitor well MW-7 was not sampled during the 1st, 2nd, 3rd and 4th quarters of the reporting period, due to the presence of PSH in the monitor well. PSH thicknesses of 0.14 feet, 0.10 feet, 0.44 feet and 0.88 feet were reported during the 1st, 2nd, 3rd and 4th quarters of 2011, respectively. PAH analysis was not conducted during the 4th quarter sampling event due to the presence of PSH.

Monitor well MW-8 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-8 has exhibited twenty-seven consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-8 during the 4th quarter sampling event.

Monitor well MW-9 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-9 has exhibited twenty-seven consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-9 during the 4th quarter sampling event.

Monitor well MW-10 is sampled on a quarterly schedule. Analytical results indicate the benzene concentration ranged from 0.251 mg/L during the 4th quarter to 1.040 mg/L during the 2nd quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene, ethyl-benzene and xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00496 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.0031 mg/L), 1-methylnaphthalene (0.0193 mg/L), 2-methylnaphthalene (0.0015 mg/L) and dibenzofuran (0.00373 mg/L), which are below WQCC standards.

Monitor well MW-11 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-11 has exhibited twenty-eight consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-11 during the 4th quarter sampling event.

Monitor well MW-12 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-12 has exhibited twenty-eight consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-12 during the 4th quarter sampling event.

Monitor well MW-14 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-14 has exhibited twenty-eight consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-14 during the 4th quarter sampling event.

Monitor well MW-15 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-15 has exhibited twenty-eight consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-15 during the 4th quarter sampling event.

Monitor well MW-16 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-16 has exhibited twenty-eight consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-16 during the 4th quarter sampling event.

Monitor well MW-17 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 2.110 mg/L during the 1st quarter to 2.870 mg/L during the 2nd quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentration ranged from <0.100 mg/L during the 2nd, 3rd and 4th quarters to 0.690 mg/L during the 1st quarter of 2011. Toluene concentrations were below the NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 1.480 mg/L during the 4th quarter to 1.920 mg/L during the 2nd quarter of 2011. Ethylbenzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.100 mg/L during the 4th quarter to 2.470 mg/L during the 1st quarter of 2011. Xylene concentrations were above NMOCD regulatory standards during the 1st, 2nd and 3rd quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for 1-methylnaphthalene (0.0384 mg/L), phenanthrene (0.00133 mg/L) and fluorine (0.00153 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.0281 mg/L), 2-methylnaphthalene (0.0143 mg/L), and dibenzofuran (0.00238 mg/L), which are below WQCC standards.

Monitor well MW-18 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 2.660 mg/L during the 4th quarter to 3.510 mg/L during the 1st quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentration ranged from <0.050 mg/L during the 2nd, 3rd and 4th quarters to 0.3630 mg/L during the 1st quarter of 2011. Toluene concentrations were below the NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from 1.490 mg/L during the 4th quarter to 2.500 mg/L during the 1st quarter of 2011. Ethylbenzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from 0.2410 mg/L during the 4th quarter to 1.420 mg/L during the 1st quarter of 2011. Xylene concentrations were below NMOCD regulatory standards during the 1st, 2nd and 3rd quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for phenanthrene (0.00131 mg/L) and fluorine (0.00147 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.0278 mg/L), 1-methylnaphthalene (0.0276 mg/L), 2-methylnaphthalene (0.0157 mg/L), and dibenzofuran (0.00242 mg/L), which are below WQCC standards.

Monitor well MW-20 is sampled on an annual schedule. Analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-20 has exhibited seven consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-20 during the 4th quarter sampling event.

Monitor well MW-21 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-21 has exhibited 28 consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-21 during the 4th quarter sampling event.

Monitor well MW-22 is sampled on an annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 4th quarter sampling event. Monitor well MW-22 has exhibited 28 consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-22 during the 4th quarter sampling event.

Monitor well MW-23 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.221 mg/L during the 4th quarter to 0.368 mg/L during the 2nd quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.020 mg/L during the 1st, 3rd and 4th quarters to 0.1160 mg/L during the 2nd quarter of 2011. Ethylbenzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis was not required on samples from MW-23 during the 4th quarter sampling event.

Monitor well MW-24 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 2.590 mg/L during the 1st quarter to 3.260 mg/L during the 4th quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentrations ranged from <0.050 mg/L during the 2nd, 3rd and 4th quarters to 0.338 mg/L during the 1st quarter of 2011. Toluene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.050 mg/L during the 1st and 2nd quarters to 0.374 mg/L during the 3rd quarter of 2011. Ethylbenzene concentrations were below NMOCD regulatory standards during all four quarters of the reporting period. Xylene concentrations ranged from <0.050 mg/L during the 4th quarter to 1.160 mg/L during the 1st quarter of 2011. Xylene concentrations were above NMOCD regulatory standards during the 1st and 2nd quarters of the reporting period. PAH analysis was not required on samples from MW-24 during the 4th quarter sampling event.

Monitor well MW-25 is sampled on a quarterly schedule and analytical results indicate benzene concentrations ranged from 0.490 mg/L during the 4th quarter to 0.982 mg/L during the 2nd quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene, ethylbenzene and xylene concentrations were below MDLs and NMOCD regulatory standards during all four quarters of the reporting period. PAH analysis was not required on samples from MW-25 during the 4th quarter sampling event.

Monitor well MW-26 is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during all four quarters of the reporting period. Monitor well MW-26 has exhibited nine consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-26 during the 4th quarter sampling event.

Monitor well MW-27 is sampled on a quarterly schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during all four quarters of the reporting period. Monitor well MW-27 has exhibited 31 consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-27 during the 4th quarter sampling event.

Monitor well MW-28 is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 2nd and 4th quarters of the reporting period. Monitor well MW-28 has exhibited 15 consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-28 during the 4th quarter sampling event.

Monitor well MW-30 is sampled on a semi-annual schedule and analytical results indicate BTEX constituent concentrations were below the MDL and NMOCD regulatory standards for each BTEX constituent during the 2nd and 4th quarters of the reporting period. Monitor well MW-30 has exhibited 31 consecutive monitoring events below NMOCD regulatory limits. PAH analysis was not required on samples from MW-30 during the 4th quarter sampling event.

Recovery well RW-1 is sampled on a quarterly schedule. Analytical results indicate benzene concentrations ranged from 0.503 mg/L during the 4th quarter to 2.120 mg/L during the 1st quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentrations ranged from <0.100 mg/L during the 4th quarter to 0.9240 mg/L during the 1st quarter of 2011. Toluene concentrations were above NMOCD regulatory standards during the 1st quarter of the reporting period. Ethylbenzene concentrations ranged from <0.100 mg/L during the 2nd, 3rd and 4th quarters to 0.8210 mg/L during the 1st quarter of 2011. Ethylbenzene concentrations were above NMOCD regulatory standards during the 1st quarter of the reporting period. Xylene concentrations ranged from <0.100 mg/L during the 4th quarter to 3.710 mg/L during the 1st quarter of 2011. Xylene concentrations were above NMOCD regulatory standards during the 1st, 2nd and 3rd quarters of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for naphthalene (0.0444 mg/L), 1-methylnaphthalene (0.0785 mg/L) and 2-methylnaphthalene (0.0613 mg/L) and phenanthrene (0.0135 mg/L). Additional PAH constituents detected above MDLs include dibenzofuran (0.01014 mg/L), which is below WQCC standards.

Recovery well RW-2 is sampled on a quarterly schedule. Analytical results indicate benzene concentrations ranged from 0.296 mg/L during the 4th quarter to 1.700 mg/L during the 2nd quarter of 2011. Benzene concentrations were above NMOCD regulatory standards during all four quarters of the reporting period. Toluene concentrations were below the MDL and NMOCD regulatory standards during all four quarters of the reporting period. Ethylbenzene concentrations ranged from <0.100 mg/L during the 2nd, 3rd and 4th quarters to 1.040 mg/L during the 1st quarter of 2011. Ethylbenzene concentrations were above NMOCD regulatory standards during the 1st quarter of the reporting period. Xylene concentrations ranged from <0.100 mg/L during the 2nd, 3rd and 4th quarters to 1.990 mg/L during the 1st quarter of 2011. Xylene concentrations were above NMOCD regulatory standards during the 1st quarter of the reporting period. PAH analysis during the 4th quarter sampling event indicated elevated concentrations above WQCC Drinking Water Standards for 1-methylnaphthalene (0.0308 mg/L) and phenanthrene (0.00418 mg/L). Additional PAH constituents detected above MDLs include naphthalene (0.0148 mg/L), 2-methylnaphthalene (0.0154 mg/L) and dibenzofuran (0.00361 mg/L), which are below WQCC standards.

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 27 groundwater monitor wells (MW-1 through MW-30, excluding MW-13, MW-19, and MW-29 which have been plugged and abandoned) and two PSH recovery wells (RW-1 and RW-2) on-site. Manual over pumping of wells exhibiting elevated hydrocarbon concentrations occurs on a weekly schedule. Groundwater elevation contours generated from water level measurements acquired indicated a general gradient of approximately 0.007 feet/foot to the southeast.

A measurable thickness of PSH was detected in monitor well MW-7 during the 2011 annual reporting period. A maximum PSH thickness of 0.93 feet was recorded on June 23, 2011 and is shown on Table 1. The average thickness of PSH in monitor well MW-7 during 2011 was 0.39 feet. Approximately 22 gallons (0.52 barrels) of PSH was recovered from the site during the 2011 reporting period. A total of approximately 1,154 gallons (27.5 barrels) of PSH has been recovered since project inception.

Review of the laboratory analytical results indicates, 15 monitor wells exhibited BTEX constituent concentrations below the NMOCD regulatory standard during the reporting period. Analytical results on groundwater samples collected indicate PAH concentrations are demonstrating an increasing trend in eight monitor and two recovery wells (MW-2 through MW-6, MW-10, MW-17 and MW-18, RW-1 and RW-2).

ANTICIPATED ACTIONS

Quarterly monitoring and groundwater sampling will continue in 2012. Plains respectfully requests NMOCD approval to modify the sampling schedule for the following monitor wells:

- Monitor well MW-26 is currently sampled on a quarterly schedule. Plains proposes to modify the schedule to a semi-annual schedule. This cross-gradient monitor well was installed during the 2nd quarter 2002 and the analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last nine consecutive quarters.
- Monitor well MW-27 is currently sampled on a quarterly schedule. Plains proposes to modify the schedule to a semi-annual schedule. This down-gradient monitor well was installed during the 2nd quarter 2002 and the analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last 31 consecutive quarters.
- Monitor well MW-28 is currently sampled on a semi-annual schedule. Plains proposes to modify the schedule to an annual schedule. This down-gradient monitor well was installed during the 2nd quarter 2002 and the analytical results indicate BTEX constituent concentrations have been below NMOCD regulatory standards for the last 15 consecutive quarters.

Quarterly gauging and sampling will continue in 2012. Manual over pumping will occur weekly and will be adjusted according to site conditions. An Annual Monitoring Report will be submitted to the NMOCD before April 1, 2013.

Based on the results of the PAH analysis over the past several years, further PAH analysis be conducted only on those monitor and recovery wells (MW-2 through MW-6, MW-10, MW-17, MW-18 and RW-1 and RW-2) which have historically exhibited elevated constituents near or above the WQCC standards.

LIMITATIONS

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

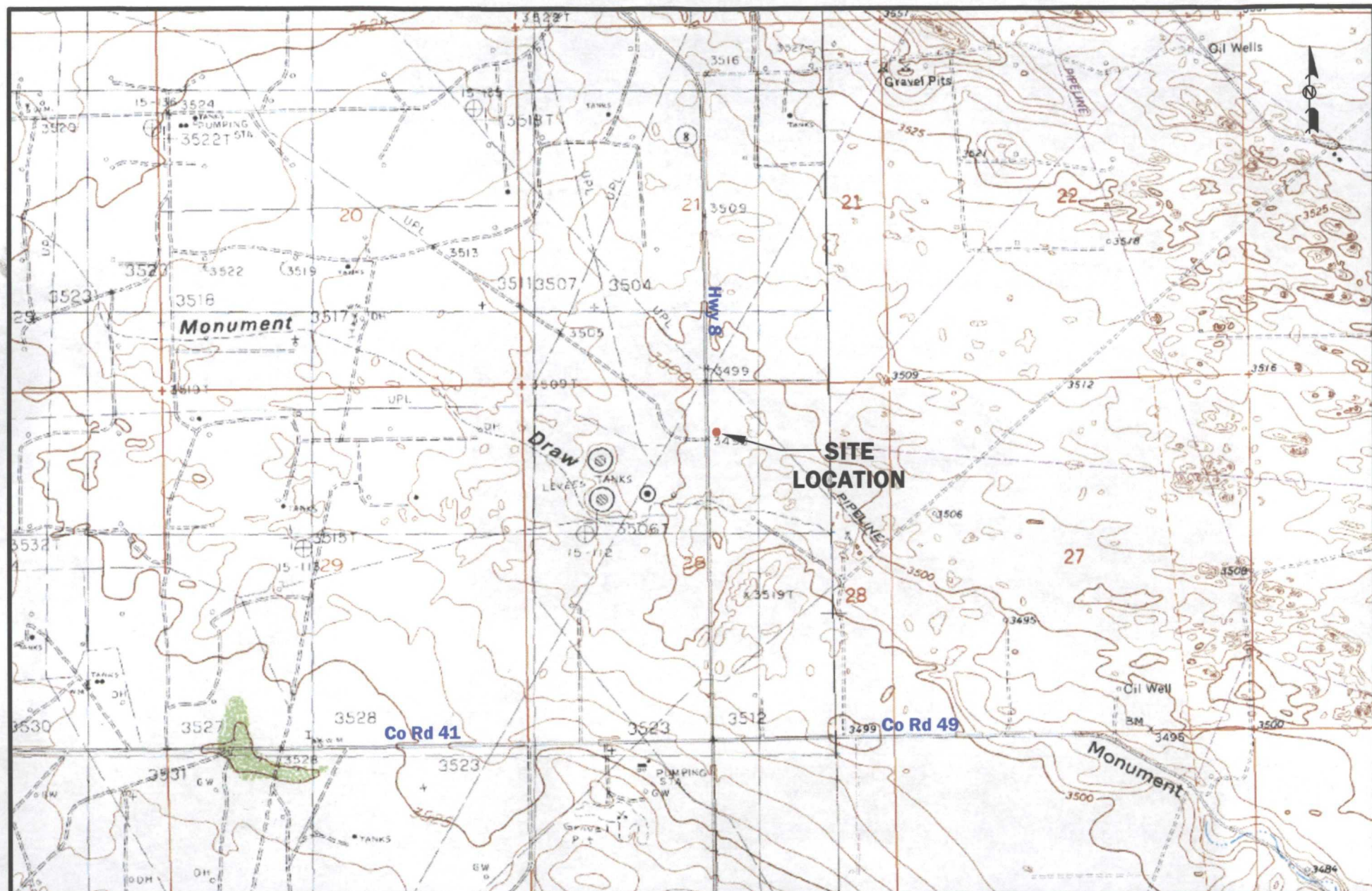
NOVA has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that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



LEGEND:



NMOCD Reference #AP-13

Figure 1
Site Location Map
TNM 97-18
Plains Marketing, L.P.
Lea County, NM

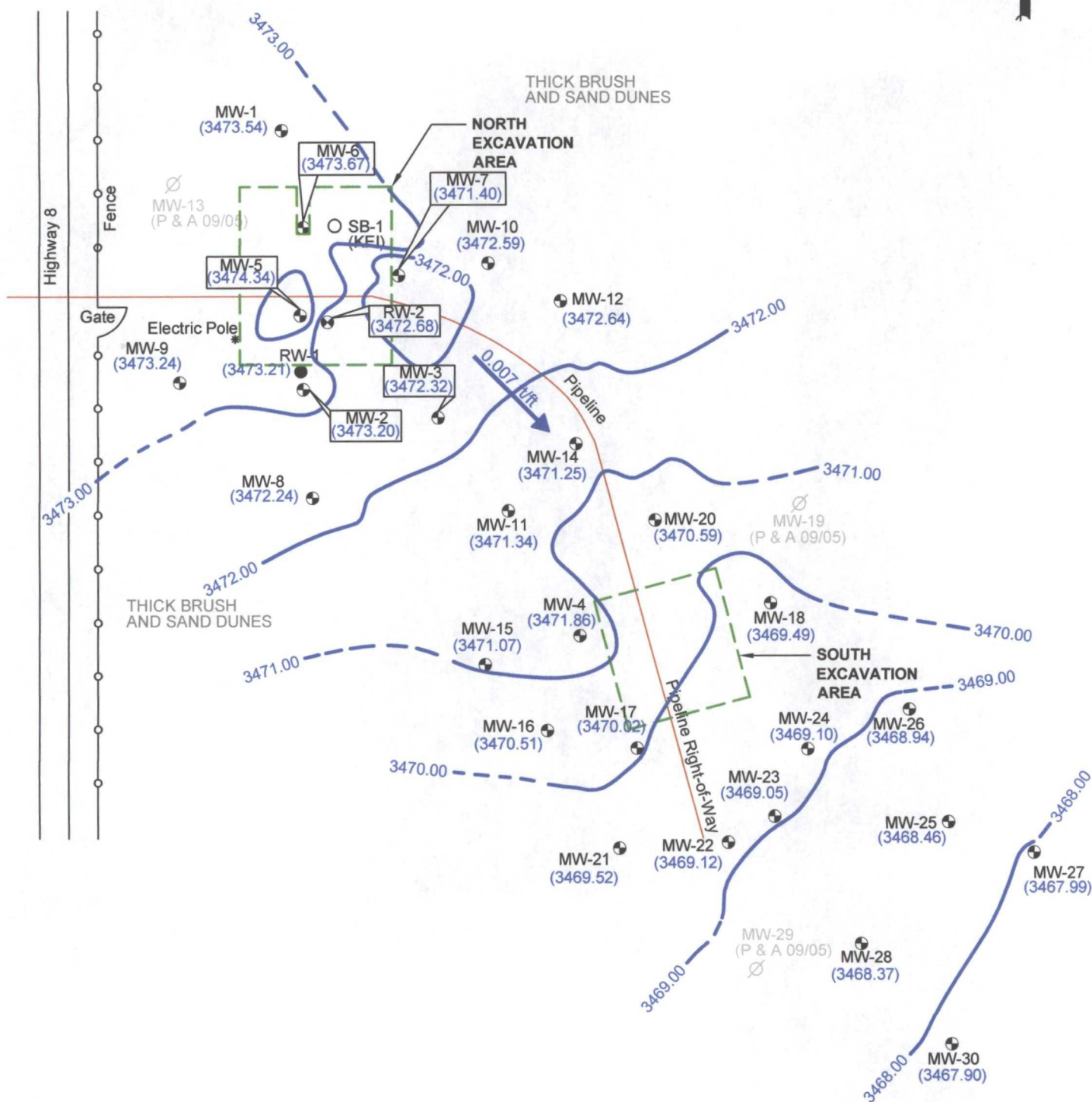
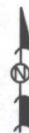


2057 Commerce Drive
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March 3, 2011 Scale: 1" = 2000' CAD By: TA Checked By: RKR

LATITUDE & LONGITUDE COORDINATES: N 32° 32' 57.00" W 103° 15' 22.00"



NOTE:

Contour Interval : 1.0'

Groundwater Gradient Measured
Between MW-5 and MW-30

MW-13, MW-19 and MW-29 Were Plugged and Abandoned
September 2005 Per NMOCD Approval

LEGEND:

- Monitor Well
- Recovery Well
- Soil Boring
- Geoprobe Location
- ⊘ Well Plugged and Abandoned
- ▨ Stockpile Soil
- ▨ Excavated Area
- 0.001 ft/ft Groundwater Gradient and Magnitude
- (3470.53) Groundwater Elevation in Feet
- Groundwater Contour Line

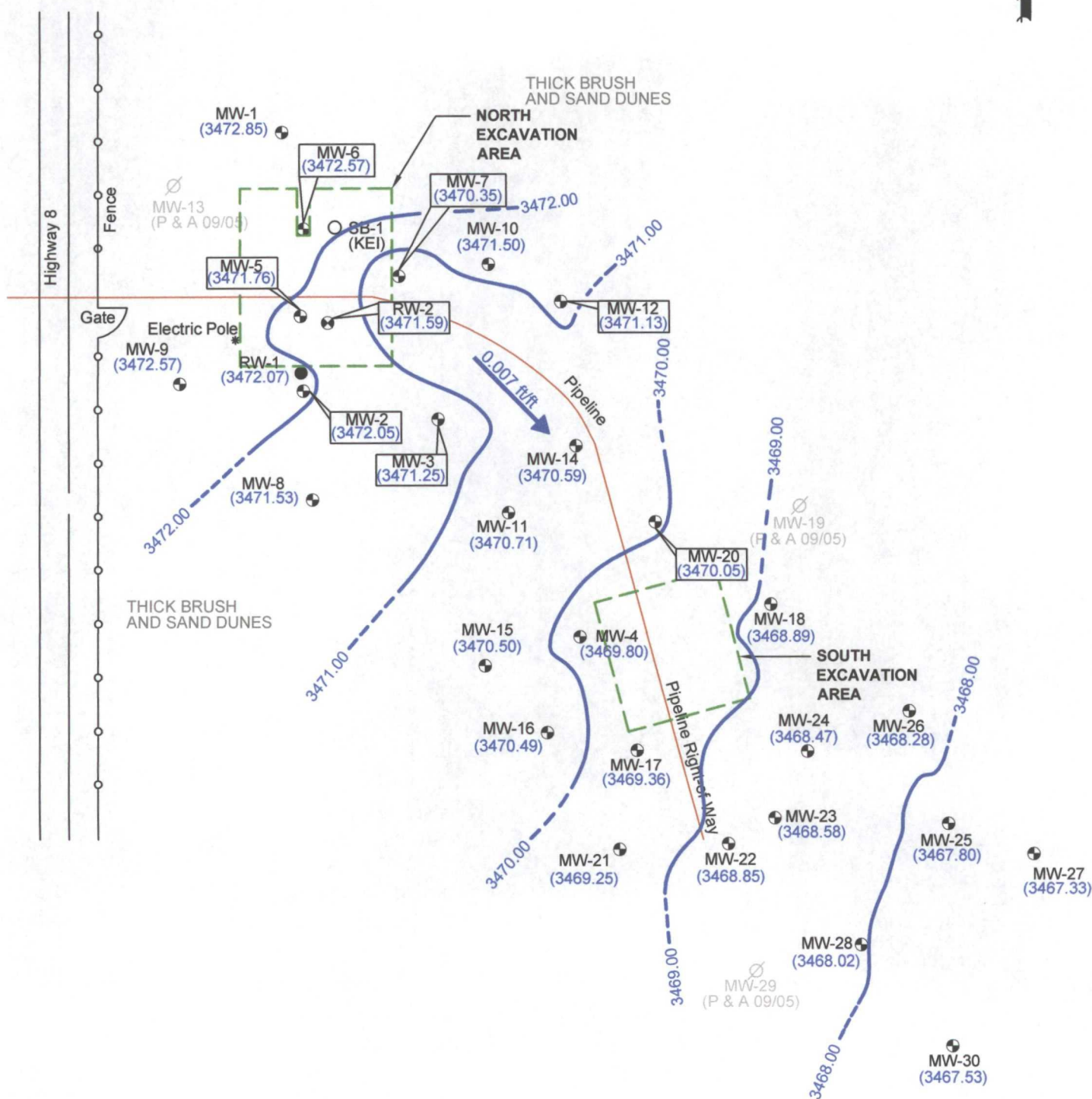
Figure 2B
Inferred Groundwater
Gradient Map
(5/17/2011)
NMOCD Reference # AP-0013
Plains Marketing, L.P.
TNM 97-18
Lea County, NM



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June 3, 2011	Scale: 1" = 100'	CAD By: TA	Checked By: RKR
Lat. N 32° 32' 56.97" Long. W 103° 15' 22.47" SW1/4 NE1/4 Sec 28 T20S R37E			



NOTE:

Contour Interval : 1.0'

Groundwater Gradient Measured
Between MW-5 and MW-30

MW-13, MW-19 and MW-29 Were Plugged and Abandoned
September 2005 Per NMOCD Approval

LEGEND:

- Monitor Well
- Recovery Well
- Soil Boring
- Geoprobe Location
- ⊗ Well Plugged and Abandoned
- ▨ Stockpile Soil
- ▭ Excavated Area
- Groundwater Gradient and Magnitude (0.001 ft/ft)
- Groundwater Elevation in Feet (3470.53)
- Groundwater Contour Line

**Figure 2C
Inferred Groundwater
Gradient Map
(8/11/2011)**

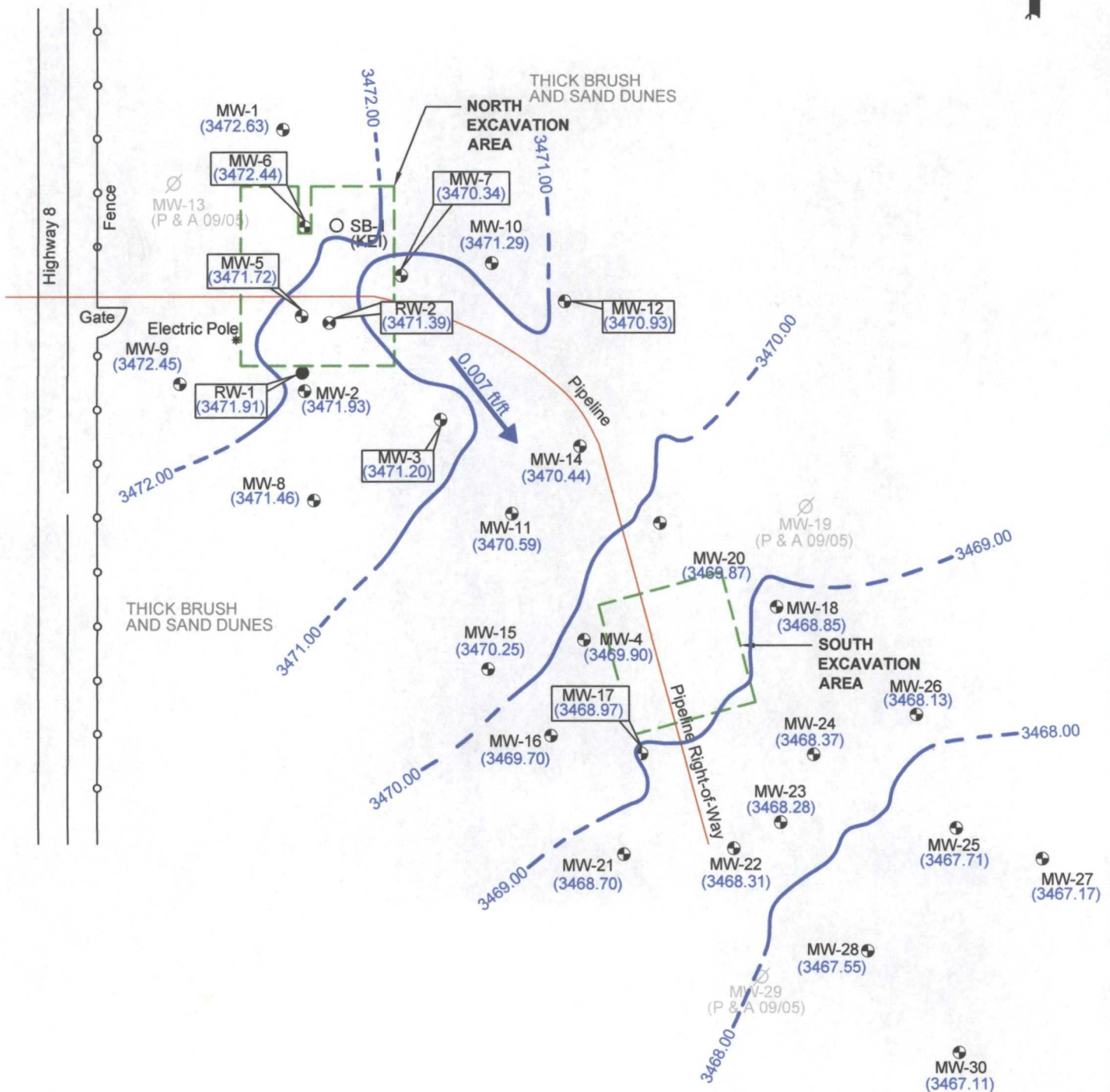
NMOCD Reference # AP-0013
Plains Marketing, L.P.
TNM 97-18
Lea County, NM



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August 30, 2011	Scale: 1" = 100'	CAD By: TA	Checked By: RKR
Lat. N 32° 32' 56.97" Long. W 103° 15' 22.47" SW1/4 NE1/4 Sec 28 T20S R37E			



NOTE:

Contour Interval : 1.0'

Groundwater Gradient Measured
Between MW-1 and MW-30

MW-13, MW-19 and MW-29 Were Plugged and Abandoned
September 2005 Per NMOCD Approval

LEGEND:

- Monitor Well
- Recovery Well
- Soil Boring
- Geoprobe Location
- ⊗ Well Plugged and Abandoned
- ▨ Stockpile Soil
- ▭ Excavated Area
- 0.007 ft/ft Groundwater Gradient and Magnitude
- (3470.53) Groundwater Elevation in Feet
- Groundwater Contour Line

**Figure 2D
Inferred Groundwater
Gradient Map
(11/8/2011)**

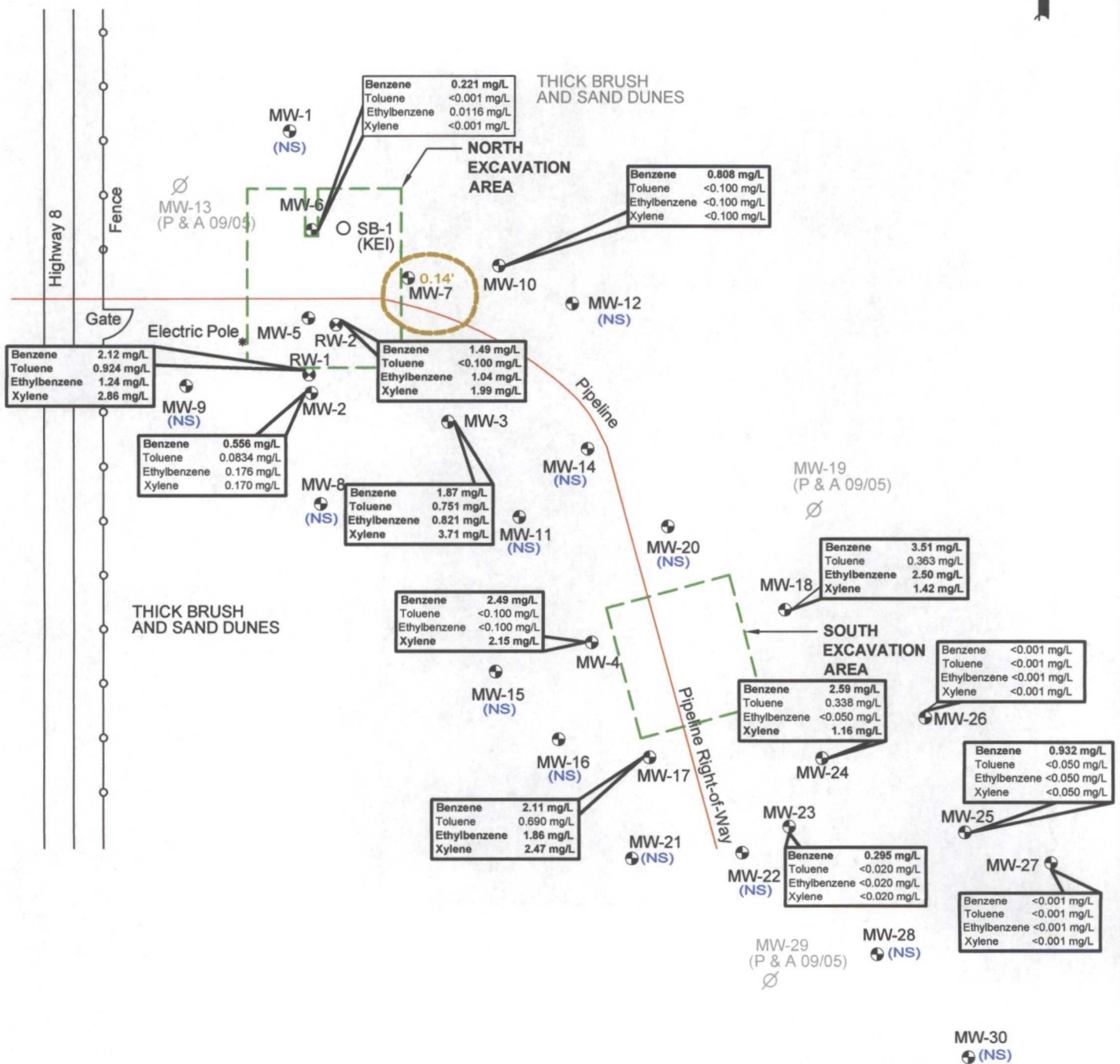
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Lea County, NM



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November 16, 2011	Scale: 1" = 100'	CAD By: TA	Checked By: RKR
Lat. N 32° 32' 56.97" Long. W 103° 15' 22.47" SW1/4 NE1/4 Sec 28 T20S R37E			



NOTE:

- **BOLD** Indicates Concentration Above NMOCD Regulatory Standard
- MW-13, MW-19 and MW-29 Were Plugged and Abandoned September 2005 Per NMOCD Approval

LEGEND:

- <0.001 Constituent Concentration (mg/L)
- Stockpile Soil
- Excavated Area
- (NS) Not Sampled
- Inferred PSH Extent
- 0.18' Thickness of PSH (feet)

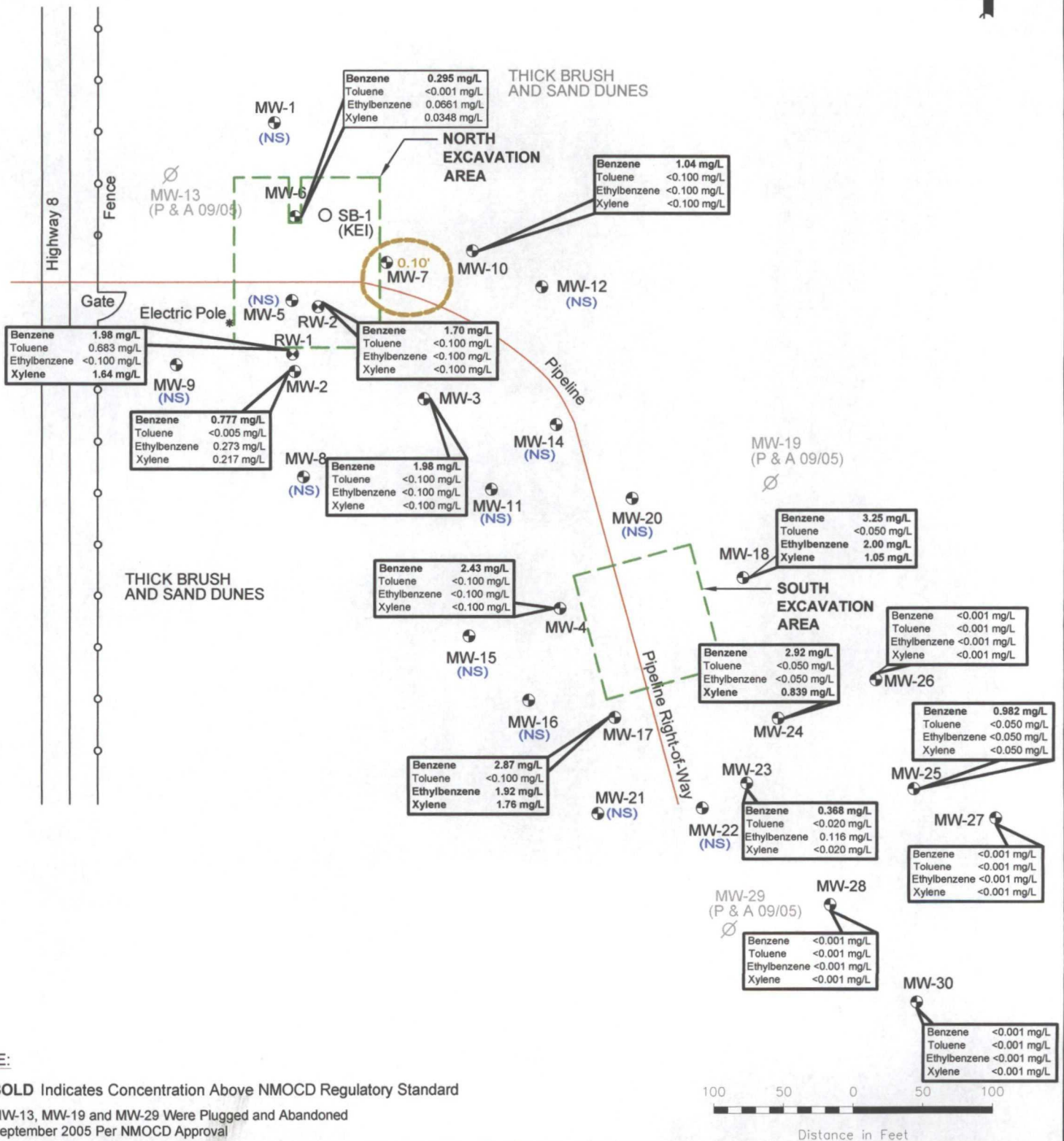
Figure 3A
Groundwater Concentration
and Inferred PSH Extent
Map (2/22/11)
NMOCD Reference # AP-0013
Plains Marketing, L.P.
TNM 97-18
Lea County, NM

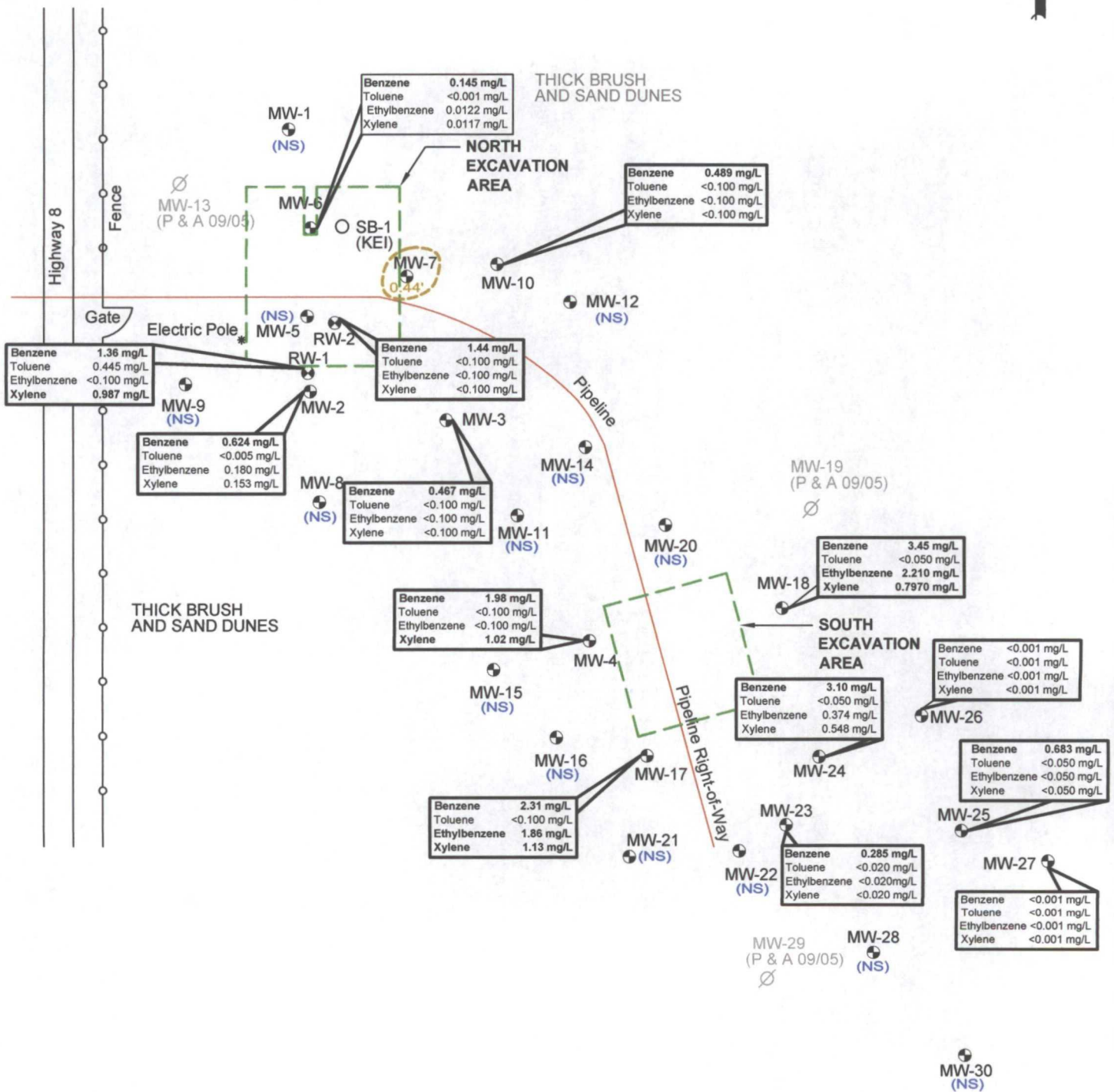


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April 5, 2011	Scale: 1" = 100'	CAD By: TA	Checked By: RKR
Lat. N 32° 32' 56.97" Long. W 103° 15' 22.47" SW1/4 NE1/4 Sec 28 T20S R37E			





NOTE:

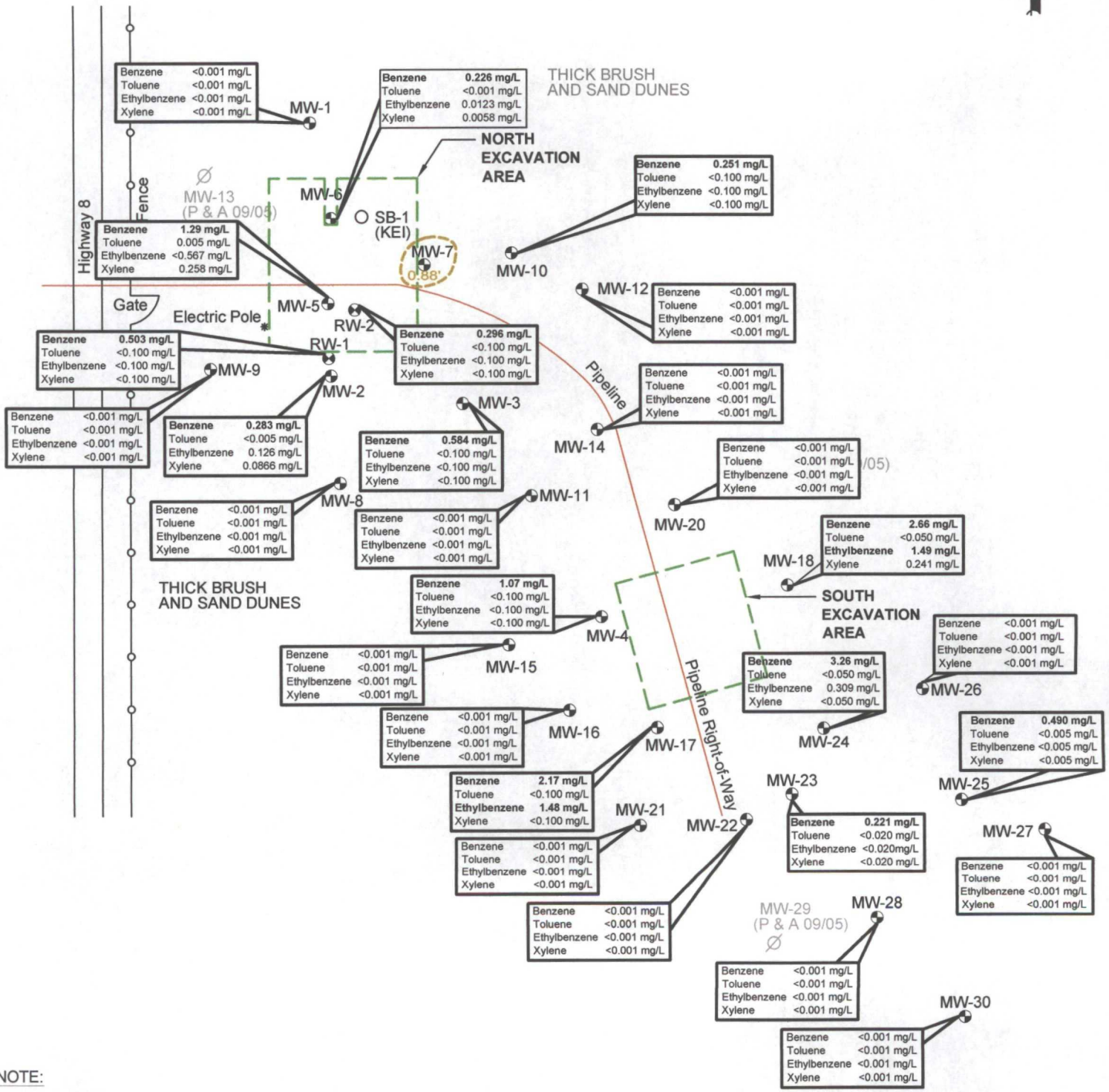
- **BOLD** Indicates Concentration Above NMOCD Regulatory Standard
- MW-13, MW-19 and MW-29 Were Plugged and Abandoned September 2005 Per NMOCD Approval

LEGEND:

<0.001 Constituent Concentration (mg/L)

- Monitor Well
- Recovery Well
- Soil Boring
- Geoprobe Location
- Well Plugged and Abandoned
- Stockpile Soil
- Excavated Area
- (NS) Not Sampled
- Inferred PSH Extent
- 0.18' Thickness of PSH (feet)





NOTE:

- **BOLD** Indicates Concentration Above NMOCD Regulatory Standard
- MW-13, MW-19 and MW-29 Were Plugged and Abandoned September 2005 Per NMOCD Approval

LEGEND:		<0.001 Constituent Concentration (mg/L)
●	Monitor Well	
⊕	Recovery Well	
○	Soil Boring	
●	Geoprobe Location	
⊗	Well Plugged and Abandoned	
		Stockpile Soil
		Excavated Area
		(NS) Not Sampled
		Inferred PSH Extent
		0.18' Thickness of PSH (feet)

Figure 3D
Groundwater Concentration
and Inferred PSH Extent
Map (11/9/2011)
NMOCD Reference # AP-0013
Plains Marketing, L.P.
TNM 97-18
Lea County, NM



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November 16, 2011	Scale: 1" = 100'	CAD By: TA	Checked By: RKR
Lat. N 32° 32' 56.97" Long. W 103° 15' 22.47" SW1/4 NE1/4 Sec 28 T20S R37E			

Tables

TABLE 1

GROUNDWATER ELEVATION DATA - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-0013

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 1	02/22/11	3500.17	-	26.63	0.00	3473.54
MW - 1	05/17/11	3500.17	-	26.63	0.00	3473.54
MW - 1	08/11/11	3500.17	-	27.32	0.00	3472.85
MW - 1	11/08/11	3500.17	-	27.54	0.00	3472.63
MW - 2	01/18/11	3499.19	-	25.64	0.00	3473.55
MW - 2	02/22/11	3499.19	-	25.64	0.00	3473.55
MW - 2	03/01/11	3499.19	-	25.82	0.00	3473.37
MW - 2	03/07/11	3499.19	-	25.70	0.00	3473.49
MW - 2	03/22/11	3499.19	-	25.65	0.00	3473.54
MW - 2	03/22/11	3499.19	-	26.02	0.00	3473.17
MW - 2	05/05/11	3499.19	-	26.05	0.00	3473.14
MW - 2	05/10/11	3499.19	-	25.91	0.00	3473.28
MW - 2	05/17/11	3499.19	-	25.99	0.00	3473.20
MW - 2	05/24/11	3499.19	-	25.17	0.00	3474.02
MW - 2	06/07/11	3499.19	-	26.21	0.00	3472.98
MW - 2	06/14/11	3499.19	-	26.32	0.00	3472.87
MW - 2	06/23/11	3499.19	-	26.25	0.00	3472.94
MW - 2	06/28/11	3499.19	-	26.79	0.00	3472.40
MW - 2	07/06/11	3499.19	-	26.80	0.00	3472.39
MW - 2	07/14/11	3499.19	-	26.79	0.00	3472.40
MW - 2	07/27/11	3499.19	-	26.75	0.00	3472.44
MW - 2	08/03/11	3499.19	-	27.04	0.00	3472.15
MW - 2	08/11/11	3499.19	-	27.14	0.00	3472.05
MW - 2	08/18/11	3499.19	-	27.10	0.00	3472.09
MW - 2	08/25/11	3499.19	-	27.15	0.00	3472.04
MW - 2	09/02/11	3499.19	-	27.22	0.00	3471.97
MW - 2	09/09/11	3499.19	-	27.32	0.00	3471.87
MW - 2	09/23/11	3499.19	-	27.25	0.00	3471.94
MW - 2	11/08/11	3499.19	-	27.26	0.00	3471.93
MW - 3	01/18/11	3500.05	-	26.31	0.00	3473.74
MW - 3	02/22/11	3500.05	-	26.29	0.00	3473.76
MW - 3	03/01/11	3500.05	-	27.69	0.00	3472.36
MW - 3	03/07/11	3500.05	-	27.43	0.00	3472.62
MW - 3	03/22/11	3500.05	-	26.28	0.00	3473.77
MW - 3	04/27/11	3500.05	-	27.70	0.00	3472.35
MW - 3	05/05/11	3500.05	-	27.75	0.00	3472.30
MW - 3	05/10/11	3500.05	-	27.73	0.00	3472.32
MW - 3	05/17/11	3500.05	-	27.73	0.00	3472.32
MW - 3	05/24/11	3500.05	-	27.68	0.00	3472.37
MW - 3	06/07/11	3500.05	-	27.81	0.00	3472.24
MW - 3	06/14/11	3500.05	-	27.85	0.00	3472.20
MW - 3	06/23/11	3500.05	-	27.81	0.00	3472.24
MW - 3	06/28/11	3500.05	-	27.87	0.00	3472.18
MW - 3	07/06/11	3500.05	-	28.45	0.00	3471.60
MW - 3	07/14/11	3500.05	-	28.43	0.00	3471.62
MW - 3	07/27/11	3500.05	-	28.20	0.00	3471.85
MW - 3	08/03/11	3500.05	-	28.65	0.00	3471.40
MW - 3	08/11/11	3500.05	-	28.80	0.00	3471.25
MW - 3	08/18/11	3500.05	-	28.70	0.00	3471.35
MW - 3	08/25/11	3500.05	-	28.76	0.00	3471.29
MW - 3	09/02/11	3500.05	-	28.80	0.00	3471.25
MW - 3	09/09/11	3500.05	-	28.92	0.00	3471.13
MW - 3	09/23/11	3500.05	-	28.92	0.00	3471.13
MW - 3	11/08/11	3500.05	-	28.85	0.00	3471.20
MW - 4	01/18/11	3498.38	-	27.05	0.00	3471.33
MW - 4	02/22/11	3498.38	-	27.02	0.00	3471.36
MW - 4	03/01/11	3498.38	-	27.71	0.00	3470.67
MW - 4	03/07/11	3498.38	-	27.00	0.00	3471.38
MW - 4	03/22/11	3498.38	-	27.05	0.00	3471.33
MW - 4	04/27/11	3498.38	-	27.65	0.00	3470.73

TABLE 1
GROUNDWATER ELEVATION DATA - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-0013

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 4	05/05/11	3498.38	-	27.39	0.00	3470.99
MW - 4	05/10/11	3498.38	-	27.30	0.00	3471.08
MW - 4	05/17/11	3498.38	-	27.02	0.00	3471.36
MW - 4	05/24/11	3498.38	-	27.03	0.00	3471.35
MW - 4	06/07/11	3498.38	-	27.49	0.00	3470.89
MW - 4	06/14/11	3498.38	-	27.38	0.00	3471.00
MW - 4	06/23/11	3498.38	-	27.39	0.00	3470.99
MW - 4	06/28/11	3498.38	-	27.51	0.00	3470.87
MW - 4	07/06/11	3498.38	-	28.07	0.00	3470.31
MW - 4	07/14/11	3498.38	-	27.96	0.00	3470.42
MW - 4	07/27/11	3498.38	-	28.03	0.00	3470.35
MW - 4	08/03/11	3498.38	-	28.25	0.00	3470.13
MW - 4	08/11/11	3498.38	-	28.58	0.00	3469.80
MW - 4	08/18/11	3498.38	-	28.38	0.00	3470.00
MW - 4	08/25/11	3498.38	-	28.45	0.00	3469.93
MW - 4	09/02/11	3498.38	-	28.47	0.00	3469.91
MW - 4	09/07/11	3498.38	-	28.47	0.00	3469.91
MW - 4	09/09/11	3498.38	-	28.59	0.00	3469.79
MW - 4	09/23/11	3498.38	-	28.56	0.00	3469.82
MW - 4	11/08/11	3498.38	-	28.48	0.00	3469.90
MW - 5	01/18/11	3500.12	-	25.77	0.00	3474.35
MW - 5	02/22/11	3500.12	-	25.77	0.00	3474.35
MW - 5	03/01/11	3500.12	-	26.90	0.00	3473.22
MW - 5	03/07/11	3500.12	-	26.76	0.00	3473.36
MW - 5	03/22/11	3500.12	-	25.77	0.00	3474.35
MW - 5	04/27/11	3500.12	-	27.15	0.00	3472.97
MW - 5	05/17/11	3500.12	-	25.78	0.00	3474.34
MW - 5	07/06/11	3500.12	-	28.18	0.00	3471.94
MW - 5	07/14/11	3500.12	-	28.22	0.00	3471.90
MW - 5	07/27/11	3500.12	-	28.02	0.00	3472.10
MW - 5	08/03/11	3500.12	-	28.20	0.00	3471.92
MW - 5	08/11/11	3500.12	-	28.36	0.00	3471.76
MW - 5	08/18/11	3500.12	-	28.28	0.00	3471.84
MW - 5	08/25/11	3500.12	-	28.34	0.00	3471.78
MW - 5	09/02/11	3500.12	-	28.40	0.00	3471.72
MW - 5	09/09/11	3500.12	-	28.39	0.00	3471.73
MW - 5	09/23/11	3500.12	-	28.50	0.00	3471.62
MW - 5	11/08/11	3500.12	-	28.40	0.00	3471.72
MW - 6	01/18/11	3499.82	-	26.56	0.00	3473.26
MW - 6	02/22/11	3499.82	-	26.57	0.00	3473.25
MW - 6	03/01/11	3499.82	-	25.95	0.00	3473.87
MW - 6	03/07/11	3499.82	-	25.85	0.00	3473.97
MW - 6	03/22/11	3499.82	-	26.57	0.00	3473.25
MW - 6	04/27/11	3499.82	-	26.13	0.00	3473.69
MW - 6	05/05/11	3499.82	-	26.16	0.00	3473.66
MW - 6	05/10/11	3499.82	-	26.10	0.00	3473.72
MW - 6	05/17/11	3499.82	-	26.15	0.00	3473.67
MW - 6	05/24/11	3499.82	-	26.21	0.00	3473.61
MW - 6	06/07/11	3499.82	-	26.29	0.00	3473.53
MW - 6	06/14/11	3499.82	-	26.32	0.00	3473.50
MW - 6	06/23/11	3499.82	-	26.24	0.00	3473.58
MW - 6	06/28/11	3499.82	-	26.39	0.00	3473.43
MW - 6	07/06/11	3499.82	-	26.86	0.00	3472.96
MW - 6	07/14/11	3499.82	-	26.88	0.00	3472.94
MW - 6	07/27/11	3499.82	-	26.88	0.00	3472.94
MW - 6	08/03/11	3499.82	-	27.14	0.00	3472.68
MW - 6	08/11/11	3499.82	-	27.25	0.00	3472.57
MW - 6	08/18/11	3499.82	-	27.15	0.00	3472.67
MW - 6	08/25/11	3499.82	-	27.20	0.00	3472.62
MW - 6	09/02/11	3499.82	-	27.27	0.00	3472.55
MW - 6	09/09/11	3499.82	-	27.41	0.00	3472.41
MW - 6	09/23/11	3499.82	-	27.40	0.00	3472.42
MW - 6	11/08/11	3499.82	-	27.38	0.00	3472.44

TABLE 1
GROUNDWATER ELEVATION DATA - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-0013

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 7	01/18/11	3498.33	26.55	26.64	0.09	3471.77
MW - 7	02/22/11	3498.33	26.53	26.67	0.14	3471.78
MW - 7	03/01/11	3498.33	26.76	26.88	0.12	3471.55
MW - 7	03/07/11	3498.33	26.54	26.66	0.12	3471.77
MW - 7	03/22/11	3498.33	26.54	26.64	0.10	3471.78
MW - 7	04/27/11	3498.33	26.93	27.43	0.50	3471.33
MW - 7	05/05/11	3498.33	26.98	27.15	0.17	3471.32
MW - 7	05/10/11	3498.33	27.66	28.37	0.71	3470.56
MW - 7	05/17/11	3498.33	26.92	27.02	0.10	3471.40
MW - 7	05/24/11	3498.33	27.01	27.15	0.14	3471.30
MW - 7	06/07/11	3498.33	27.23	27.40	0.17	3471.07
MW - 7	06/14/11	3498.33	27.15	27.60	0.45	3471.11
MW - 7	06/23/11	3498.33	27.43	28.36	0.93	3470.76
MW - 7	06/28/11	3498.33	27.48	27.81	0.33	3470.80
MW - 7	07/06/11	3498.33	27.58	28.06	0.48	3470.68
MW - 7	07/14/11	3498.33	27.63	28.18	0.55	3470.62
MW - 7	07/27/11	3498.33	27.72	28.26	0.54	3470.53
MW - 7	08/03/11	3498.33	27.80	28.31	0.51	3470.45
MW - 7	08/11/11	3498.33	27.91	28.35	0.44	3470.35
MW - 7	08/18/11	3498.33	27.94	28.40	0.46	3470.32
MW - 7	08/25/11	3498.33	28.02	28.38	0.36	3470.26
MW - 7	09/02/11	3498.33	28.04	28.29	0.25	3470.25
MW - 7	09/09/11	3498.33	28.09	28.62	0.53	3470.16
MW - 7	09/23/11	3498.33	28.05	28.72	0.67	3470.18
MW - 7	11/08/11	3498.33	27.86	28.74	0.88	3470.34
MW - 8	02/22/11	3502.23	-	29.96	0.00	3472.27
MW - 8	05/17/11	3502.23	-	29.99	0.00	3472.24
MW - 8	08/11/11	3502.23	-	30.70	0.00	3471.53
MW - 8	11/08/11	3502.23	-	30.77	0.00	3471.46
MW - 9	02/22/11	3502.24	-	28.97	0.00	3473.27
MW - 9	05/17/11	3502.24	-	29.00	0.00	3473.24
MW - 9	08/11/11	3502.24	-	29.67	0.00	3472.57
MW - 9	11/08/11	3502.24	-	29.79	0.00	3472.45
MW - 10	01/18/11	3499.42	-	26.50	0.00	3472.92
MW - 10	02/22/11	3499.42	-	26.55	0.00	3472.87
MW - 10	03/01/11	3499.42	-	26.96	0.00	3472.46
MW - 10	03/07/11	3499.42	-	26.56	0.00	3472.86
MW - 10	03/22/11	3499.42	-	26.54	0.00	3472.88
MW - 10	04/27/11	3499.42	-	27.85	0.00	3471.57
MW - 10	05/05/11	3499.42	-	26.92	0.00	3472.50
MW - 10	05/10/11	3499.42	-	26.88	0.00	3472.54
MW - 10	05/17/11	3499.42	-	26.83	0.00	3472.59
MW - 10	05/17/11	3499.42	-	26.83	0.00	3472.59
MW - 10	05/24/11	3499.42	-	29.96	0.00	3469.46
MW - 10	06/07/11	3499.42	-	27.05	0.00	3472.37
MW - 10	06/14/11	3499.42	-	26.94	0.00	3472.48
MW - 10	06/23/11	3499.42	-	26.90	0.00	3472.52
MW - 10	06/28/11	3499.42	-	27.01	0.00	3472.41
MW - 10	07/06/11	3499.42	-	27.56	0.00	3471.86
MW - 10	07/14/11	3499.42	-	27.51	0.00	3471.91
MW - 10	07/27/11	3499.42	-	27.55	0.00	3471.87
MW - 10	08/03/11	3499.42	-	27.82	0.00	3471.60
MW - 10	08/11/11	3499.42	-	27.92	0.00	3471.50
MW - 10	08/18/11	3499.42	-	27.90	0.00	3471.52
MW - 10	08/25/11	3499.42	-	27.95	0.00	3471.47
MW - 10	09/02/11	3499.42	-	27.99	0.00	3471.43
MW - 10	09/09/11	3499.42	-	28.04	0.00	3471.38
MW - 10	09/23/11	3499.42	-	28.08	0.00	3471.34
MW - 10	11/08/11	3499.42	-	28.13	0.00	3471.29

TABLE 1
GROUNDWATER ELEVATION DATA - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-0013

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 11	02/22/11	3498.18	-	26.81	0.00	3471.37
MW - 11	05/17/11	3498.18	-	26.84	0.00	3471.34
MW - 11	08/11/11	3498.18	-	27.47	0.00	3470.71
MW - 11	11/08/11	3498.18	-	27.59	0.00	3470.59
MW - 12	02/22/11	3499.66	-	27.00	0.00	3472.66
MW - 12	05/17/11	3499.66	-	27.02	0.00	3472.64
MW - 12	08/11/11	3499.66	-	28.53	0.00	3471.13
MW - 12	11/08/11	3499.66	-	28.73	0.00	3470.93
MW - 14	02/22/11	3498.54	-	27.26	0.00	3471.28
MW - 14	05/17/11	3498.54	-	27.29	0.00	3471.25
MW - 14	08/11/11	3498.54	-	27.95	0.00	3470.59
MW - 14	11/08/11	3498.54	-	28.10	0.00	3470.44
MW - 15	02/22/11	3500.65	-	29.58	0.00	3471.07
MW - 15	05/17/11	3500.65	-	29.58	0.00	3471.07
MW - 15	08/11/11	3500.65	-	30.15	0.00	3470.50
MW - 15	11/08/11	3500.65	-	30.40	0.00	3470.25
MW - 16	02/22/11	3501.45	-	30.91	0.00	3470.54
MW - 16	05/17/11	3501.45	-	30.94	0.00	3470.51
MW - 16	08/11/11	3501.45	-	30.96	0.00	3470.49
MW - 16	11/08/11	3501.45	-	31.75	0.00	3469.70
MW - 17	02/22/11	3498.32	-	28.50	0.00	3469.82
MW - 17	03/01/11	3498.32	-	28.11	0.00	3470.21
MW - 17	03/07/11	3498.32	-	27.99	0.00	3470.33
MW - 17	04/27/11	3498.32	-	28.30	0.00	3470.02
MW - 17	05/05/11	3498.32	-	28.29	0.00	3470.03
MW - 17	05/10/11	3498.32	-	28.32	0.00	3470.00
MW - 17	05/17/11	3498.32	-	28.30	0.00	3470.02
MW - 17	05/24/11	3498.32	-	28.25	0.00	3470.07
MW - 17	06/07/11	3498.32	-	28.42	0.00	3469.90
MW - 17	06/14/11	3498.32	-	28.43	0.00	3469.89
MW - 17	06/23/11	3498.32	-	28.38	0.00	3469.94
MW - 17	06/28/11	3498.32	-	28.49	0.00	3469.83
MW - 17	07/06/11	3498.32	-	28.90	0.00	3469.42
MW - 17	07/14/11	3498.32	-	28.88	0.00	3469.44
MW - 17	07/27/11	3498.32	-	28.91	0.00	3469.41
MW - 17	08/03/11	3498.32	-	29.09	0.00	3469.23
MW - 17	08/11/11	3498.32	-	28.96	0.00	3469.36
MW - 17	08/18/11	3498.32	-	29.15	0.00	3469.17
MW - 17	08/25/11	3498.32	-	29.23	0.00	3469.09
MW - 17	09/02/11	3498.32	-	29.28	0.00	3469.04
MW - 17	09/09/11	3498.32	-	29.32	0.00	3469.00
MW - 17	09/23/11	3498.32	-	29.35	0.00	3468.97
MW - 17	11/08/11	3498.32	-	29.35	0.00	3468.97
MW - 18	02/22/11	3597.25	-	27.74	0.00	3569.51
MW - 18	03/01/11	3597.25	-	27.17	0.00	3570.08
MW - 18	03/07/11	3597.25	-	26.98	0.00	3570.27
MW - 18	04/27/11	3597.25	-	27.57	0.00	3569.68
MW - 18	05/05/11	3597.25	-	27.52	0.00	3569.73
MW - 18	05/10/11	3597.25	-	27.60	0.00	3569.65
MW - 18	05/17/11	3597.25	-	27.76	0.00	3569.49
MW - 18	05/24/11	3597.25	-	27.67	0.00	3569.58
MW - 18	06/07/11	3597.25	-	27.61	0.00	3569.64
MW - 18	06/14/11	3597.25	-	27.63	0.00	3569.62
MW - 18	06/23/11	3597.25	-	29.59	0.00	3567.66
MW - 18	06/28/11	3597.25	-	27.68	0.00	3569.57
MW - 18	07/06/11	3597.25	-	28.03	0.00	3569.22
MW - 18	07/14/11	3597.25	-	27.97	0.00	3569.28

TABLE 1
GROUNDWATER ELEVATION DATA - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NEW MEXICO
NMOC D REFERENCE NUMBER AP-0013

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 18	07/27/11	3597.25	-	28.01	0.00	3569.24
MW - 18	08/03/11	3597.25	-	28.22	0.00	3569.03
MW - 18	08/11/11	3597.25	-	28.36	0.00	3568.89
MW - 18	08/18/11	3597.25	-	28.25	0.00	3569.00
MW - 18	08/25/11	3597.25	-	28.28	0.00	3568.97
MW - 18	09/02/11	3597.25	-	28.40	0.00	3568.85
MW - 18	09/09/11	3597.25	-	28.50	0.00	3568.75
MW - 18	09/23/11	3597.25	-	28.54	0.00	3568.71
MW - 18	11/08/11	3597.25	-	28.40	0.00	3568.85
MW - 20	02/22/11	3496.59	-	25.96	0.00	3470.63
MW - 20	05/17/11	3496.59	-	26.00	0.00	3470.59
MW - 20	08/11/11	3496.59	-	26.54	0.00	3470.05
MW - 20	11/08/11	3496.59	-	26.72	0.00	3469.87
MW - 21	02/22/11	3503.03	-	33.51	0.00	3469.52
MW - 21	05/17/11	3503.03	-	33.51	0.00	3469.52
MW - 21	08/11/11	3503.03	-	33.78	0.00	3469.25
MW - 21	11/08/11	3503.03	-	34.33	0.00	3468.70
MW - 22	02/22/11	3500.05	-	30.90	0.00	3469.15
MW - 22	05/17/11	3500.05	-	30.93	0.00	3469.12
MW - 22	08/11/11	3500.05	-	31.20	0.00	3468.85
MW - 22	11/08/11	3500.05	-	31.74	0.00	3468.31
MW - 23	02/22/11	3498.88	-	29.21	0.00	3469.67
MW - 23	03/01/11	3498.88	-	29.34	0.00	3469.54
MW - 23	03/07/11	3498.88	-	29.19	0.00	3469.69
MW - 23	04/27/11	3498.88	-	29.47	0.00	3469.41
MW - 23	05/05/11	3498.88	-	29.50	0.00	3469.38
MW - 23	05/10/11	3498.88	-	29.37	0.00	3469.51
MW - 23	05/17/11	3498.88	-	29.83	0.00	3469.05
MW - 23	05/24/11	3498.88	-	29.91	0.00	3468.97
MW - 23	06/07/11	3498.88	-	29.64	0.00	3469.24
MW - 23	06/14/11	3498.88	-	29.78	0.00	3469.10
MW - 23	06/23/11	3498.88	-	29.70	0.00	3469.18
MW - 23	06/28/11	3498.88	-	29.82	0.00	3469.06
MW - 23	07/06/11	3498.88	-	30.07	0.00	3468.81
MW - 23	07/14/11	3498.88	-	30.13	0.00	3468.75
MW - 23	07/27/11	3498.88	-	30.11	0.00	3468.77
MW - 23	08/03/11	3498.88	-	30.31	0.00	3468.57
MW - 23	08/11/11	3498.88	-	30.30	0.00	3468.58
MW - 23	08/18/11	3498.88	-	30.20	0.00	3468.68
MW - 23	08/25/11	3498.88	-	30.25	0.00	3468.63
MW - 23	09/02/11	3498.88	-	30.40	0.00	3468.48
MW - 23	09/09/11	3498.88	-	30.58	0.00	3468.30
MW - 23	09/23/11	3498.88	-	30.60	0.00	3468.28
MW - 23	11/08/11	3498.88	-	30.60	0.00	3468.28
MW - 24	02/22/11	3498.79	-	29.66	0.00	3469.13
MW - 24	03/01/11	3498.79	-	29.18	0.00	3469.61
MW - 24	03/07/11	3498.79	-	29.04	0.00	3469.75
MW - 24	04/27/11	3498.79	-	29.33	0.00	3469.46
MW - 24	05/05/11	3498.79	-	29.35	0.00	3469.44
MW - 24	05/10/11	3498.79	-	29.41	0.00	3469.38
MW - 24	05/17/11	3498.79	-	29.69	0.00	3469.10
MW - 24	05/24/11	3498.79	-	29.70	0.00	3469.09
MW - 24	06/07/11	3498.79	-	29.52	0.00	3469.27
MW - 24	06/14/11	3498.79	-	29.67	0.00	3469.12
MW - 24	06/23/11	3498.79	-	29.51	0.00	3469.28
MW - 24	06/28/11	3498.79	-	29.63	0.00	3469.16
MW - 24	07/06/11	3498.79	-	29.90	0.00	3468.89
MW - 24	07/14/11	3498.79	-	29.98	0.00	3468.81

TABLE 1
GROUNDWATER ELEVATION DATA - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NEW MEXICO
NMOC D REFERENCE NUMBER AP-0013

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW - 24	07/27/11	3498.79	-	29.88	0.00	3468.91
MW - 24	08/03/11	3498.79	-	30.05	0.00	3468.74
MW - 24	08/11/11	3498.79	-	30.32	0.00	3468.47
MW - 24	08/18/11	3498.79	-	30.30	0.00	3468.49
MW - 24	08/25/11	3498.79	-	30.42	0.00	3468.37
MW - 24	09/02/11	3498.79	-	30.47	0.00	3468.32
MW - 24	09/09/11	3498.79	-	30.38	0.00	3468.41
MW - 24	09/23/11	3498.79	-	30.42	0.00	3468.37
MW - 24	11/08/11	3498.79	-	30.42	0.00	3468.37
MW - 25	02/22/11	3498.08	-	29.59	0.00	3468.49
MW - 25	03/01/11	3498.08	-	29.15	0.00	3468.93
MW - 25	03/07/11	3498.08	-	29.05	0.00	3469.03
MW - 25	04/27/11	3498.08	-	29.27	0.00	3468.81
MW - 25	05/05/11	3498.08	-	29.32	0.00	3468.76
MW - 25	05/10/11	3498.08	-	29.30	0.00	3468.78
MW - 25	05/17/11	3498.08	-	29.62	0.00	3468.46
MW - 25	05/17/11	3498.08	-	29.62	0.00	3468.46
MW - 25	05/24/11	3498.08	-	29.61	0.00	3468.47
MW - 25	06/07/11	3498.08	-	29.47	0.00	3468.61
MW - 25	06/14/11	3498.08	-	29.58	0.00	3468.50
MW - 25	06/23/11	3498.08	-	29.56	0.00	3468.52
MW - 25	06/28/11	3498.08	-	29.64	0.00	3468.44
MW - 25	07/06/11	3498.08	-	29.94	0.00	3468.14
MW - 25	07/14/11	3498.08	-	29.95	0.00	3468.13
MW - 25	07/27/11	3498.08	-	29.92	0.00	3468.16
MW - 25	08/03/11	3498.08	-	30.12	0.00	3467.96
MW - 25	08/11/11	3498.08	-	30.28	0.00	3467.80
MW - 25	08/18/11	3498.08	-	30.27	0.00	3467.81
MW - 25	08/25/11	3498.08	-	30.32	0.00	3467.76
MW - 25	09/02/11	3498.08	-	30.43	0.00	3467.65
MW - 25	09/09/11	3498.08	-	30.40	0.00	3467.68
MW - 25	09/23/11	3498.08	-	30.40	0.00	3467.68
MW - 25	11/08/11	3498.08	-	30.37	0.00	3467.71
MW - 26	02/22/11	3499.18	-	30.26	0.00	3468.92
MW - 26	03/01/11	3499.18	-	29.83	0.00	3469.35
MW - 26	03/07/11	3499.18	-	29.68	0.00	3469.50
MW - 26	04/27/11	3499.18	-	29.92	0.00	3469.26
MW - 26	05/17/11	3499.18	-	30.24	0.00	3468.94
MW - 26	07/06/11	3499.18	-	30.58	0.00	3468.60
MW - 26	08/11/11	3499.18	-	30.90	0.00	3468.28
MW - 26	11/08/11	3499.18	-	31.05	0.00	3468.13
MW - 27	02/22/11	3498.03	-	30.02	0.00	3468.01
MW - 27	05/17/11	3498.03	-	30.04	0.00	3467.99
MW - 27	08/11/11	3498.03	-	30.70	0.00	3467.33
MW - 27	11/08/11	3498.03	-	30.86	0.00	3467.17
MW - 28	02/22/11	3498.69	-	30.32	0.00	3468.37
MW - 28	05/17/11	3498.69	-	30.32	0.00	3468.37
MW - 28	08/11/11	3498.69	-	30.67	0.00	3468.02
MW - 28	11/08/11	3498.69	-	31.14	0.00	3467.55
MW - 30	02/22/11	3498.65	-	30.73	0.00	3467.92
MW - 30	05/17/11	3498.65	-	30.75	0.00	3467.90
MW - 30	08/11/11	3498.65	-	31.12	0.00	3467.53
MW - 30	11/08/11	3498.65	-	31.54	0.00	3467.11
RW - 1	01/18/11	3498.89	-	25.26	0.00	3473.63
RW - 1	02/22/11	3498.89	-	25.24	0.00	3473.65
RW - 1	03/01/11	3498.89	-	25.45	0.00	3473.44
RW - 1	03/07/11	3498.89	-	25.40	0.00	3473.49

TABLE 1
GROUNDWATER ELEVATION DATA - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER AP-0013

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
RW - 1	03/22/11	3498.89	-	25.22	0.00	3473.67
RW - 1	04/27/11	3498.89	-	25.64	0.00	3473.25
RW - 1	05/05/11	3498.89	-	25.71	0.00	3473.18
RW - 1	05/10/11	3498.89	-	25.60	0.00	3473.29
RW - 1	05/17/11	3498.89	-	25.68	0.00	3473.21
RW - 1	05/24/11	3498.89	-	25.73	0.00	3473.16
RW - 1	06/07/11	3498.89	-	25.84	0.00	3473.05
RW - 1	06/14/11	3498.89	-	25.98	0.00	3472.91
RW - 1	06/23/11	3498.89	-	25.93	0.00	3472.96
RW - 1	06/28/11	3498.89	-	26.01	0.00	3472.88
RW - 1	07/06/11	3498.89	-	26.41	0.00	3472.48
RW - 1	07/14/11	3498.89	-	26.42	0.00	3472.47
RW - 1	07/27/11	3498.89	-	26.43	0.00	3472.46
RW - 1	08/11/11	3498.89	-	26.82	0.00	3472.07
RW - 1	08/18/11	3498.89	-	26.71	0.00	3472.18
RW - 1	08/25/11	3498.89	-	26.81	0.00	3472.08
RW - 1	09/02/11	3498.89	-	26.87	0.00	3472.02
RW - 1	09/09/11	3498.89	-	26.99	0.00	3471.90
RW - 1	09/23/11	3498.89	-	26.90	0.00	3471.99
RW - 1	11/08/11	3498.89	-	26.98	0.00	3471.91
RW - 2	01/18/11	3498.99	-	26.01	0.00	3472.98
RW - 2	02/22/11	3498.99	-	26.03	0.00	3472.96
RW - 2	03/01/11	3498.99	-	26.22	0.00	3472.77
RW - 2	03/07/11	3498.99	-	26.07	0.00	3472.92
RW - 2	03/22/11	3498.99	-	26.04	0.00	3472.95
RW - 2	04/27/11	3498.99	-	26.35	0.00	3472.64
RW - 2	05/05/11	3498.99	-	26.33	0.00	3472.66
RW - 2	05/10/11	3498.99	-	26.35	0.00	3472.64
RW - 2	05/17/11	3498.99	-	26.31	0.00	3472.68
RW - 2	05/17/11	3498.99	-	26.31	0.00	3472.68
RW - 2	05/24/11	3498.99	-	26.28	0.00	3472.71
RW - 2	06/07/11	3498.99	-	26.40	0.00	3472.59
RW - 2	06/14/11	3498.99	-	26.60	0.00	3472.39
RW - 2	06/23/11	3498.99	-	26.40	0.00	3472.59
RW - 2	06/28/11	3498.99	-	26.69	0.00	3472.30
RW - 2	07/06/11	3498.99	-	27.10	0.00	3471.89
RW - 2	07/14/11	3498.99	-	27.09	0.00	3471.90
RW - 2	07/27/11	3498.99	-	27.05	0.00	3471.94
RW - 2	08/11/11	3498.99	-	27.40	0.00	3471.59
RW - 2	08/18/11	3498.99	-	27.35	0.00	3471.64
RW - 2	08/25/11	3498.99	-	27.42	0.00	3471.57
RW - 2	09/02/11	3498.99	-	27.54	0.00	3471.45
RW - 2	09/09/11	3498.99	-	27.56	0.00	3471.43
RW - 2	09/23/11	3498.99	-	27.61	0.00	3471.38
RW - 2	11/08/11	3498.99	-	27.60	0.00	3471.39

* Complete Historical Tables are provided on the attached CD.

TABLE 2
CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-0013

All concentrations are reported in mg/L

		SW 846-8012B, 5030				
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULATORY LIMIT		0.010	0.750	0.750	0.620	
MW - 1	02/22/11	Not Sampled on Current Sample Schedule				
MW - 1	05/17/11	Not Sampled on Current Sample Schedule				
MW - 1	08/11/11	Not Sampled on Current Sample Schedule				
MW - 1	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 2	02/22/11	0.556	0.0834	0.1760	0.1700	
MW - 2	05/17/11	0.777	<0.005	0.2730	0.2170	
MW - 2	08/11/11	0.624	<0.005	0.1800	0.1530	
MW - 2	11/09/11	0.283	<0.005	0.1260	0.0866	
MW - 3	02/22/11	1.870	0.751	0.821	3.710	
MW - 3	05/17/11	1.980	<0.100	<0.100	<0.100	
MW - 3	08/11/11	0.467	<0.100	<0.100	<0.100	
MW - 3	11/09/11	0.584	<0.100	<0.100	<0.100	
MW - 4	02/22/11	2.490	<0.100	<0.100	2.150	
MW - 4	05/17/11	2.430	<0.100	<0.100	<0.100	
MW - 4	08/11/11	1.980	<0.100	<0.100	1.020	
MW - 4	11/09/11	1.070	<0.100	<0.100	<0.100	
MW - 5	02/22/11	Not Sampled, Well Casing Damaged				
MW - 5	05/17/11	Not Sampled, Well Casing Damaged				
MW - 5	08/11/11	Not Sampled, Well Casing Damaged				
MW - 5	11/09/11	1.290	<0.005	0.5670	0.2580	
MW - 6	02/22/11	0.221	<0.001	0.0116	<0.001	
MW - 6	05/17/11	0.295	<0.001	0.0661	0.0348	
MW - 6	08/11/11	0.145	<0.001	0.0122	0.0117	
MW - 6	11/09/11	0.226	<0.001	0.0123	0.0058	
MW - 7	02/22/11	Not Sampled Due to PSH in Well				
MW - 7	05/17/11	Not Sampled Due to PSH in Well				
MW - 7	08/11/11	Not Sampled Due to PSH in Well				
MW - 7	11/09/11	Not Sampled Due to PSH in Well				
MW - 8	02/22/11	Not Sampled on Current Sample Schedule				
MW - 8	05/17/11	Not Sampled on Current Sample Schedule				
MW - 8	08/11/11	Not Sampled on Current Sample Schedule				
MW - 8	11/09/11	<0.001	<0.001	<0.001	<0.001	

TABLE 2
CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-0013

All concentrations are reported in mg/L

		SW 846-8012B, 5030				
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULARY LIMIT		0.010	0.750	0.750	0.620	
MW - 9	02/22/11	Not Sampled on Current Sample Schedule				
MW - 9	05/17/11	Not Sampled on Current Sample Schedule				
MW - 9	08/11/11	Not Sampled on Current Sample Schedule				
MW - 9	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 10	02/22/11	0.808	<0.100	<0.100	<0.100	
MW - 10	05/17/11	1.040	<0.100	<0.100	<0.100	
MW - 10	08/11/11	0.489	<0.100	<0.100	<0.100	
MW - 10	11/09/11	0.251	<0.100	<0.100	<0.100	
MW - 11	02/22/11	Not Sampled on Current Sample Schedule				
MW - 11	05/17/11	Not Sampled on Current Sample Schedule				
MW - 11	08/11/11	Not Sampled on Current Sample Schedule				
MW - 11	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 12	02/22/11	Not Sampled on Current Sample Schedule				
MW - 12	05/17/11	Not Sampled on Current Sample Schedule				
MW - 12	08/11/11	Not Sampled on Current Sample Schedule				
MW - 12	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 14	02/22/11	Not Sampled on Current Sample Schedule				
MW - 14	05/17/11	Not Sampled on Current Sample Schedule				
MW - 14	08/11/11	Not Sampled on Current Sample Schedule				
MW - 14	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 15	02/22/11	Not Sampled on Current Sample Schedule				
MW - 15	05/17/11	Not Sampled on Current Sample Schedule				
MW - 15	08/11/11	Not Sampled on Current Sample Schedule				
MW - 15	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 16	02/22/11	Not Sampled on Current Sample Schedule				
MW - 16	05/17/11	Not Sampled on Current Sample Schedule				
MW - 16	08/11/11	Not Sampled on Current Sample Schedule				
MW - 16	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 17	02/22/11	2.110	0.6900	1.860	2.470	
MW - 17	05/17/11	2.870	<0.100	1.920	1.760	
MW - 17	08/11/11	2.310	<0.100	1.860	1.130	
MW - 17	11/09/11	2.170	<0.100	1.480	<0.100	

TABLE 2
CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-0013

All concentrations are reported in mg/L

		SW 846-8012B, 5030				
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULARY LIMIT		0.010	0.750	0.750	0.620	
MW - 18	02/22/11	3.510	0.3630	2.500	1.420	
MW - 18	05/17/11	3.250	<0.050	2.000	1.050	
MW - 18	08/11/11	3.450	<0.050	2.210	0.797	
MW - 18	11/09/11	2.660	<0.050	1.490	0.241	
MW - 20	02/22/11	Not Sampled on Current Sample Schedule				
MW - 20	05/17/11	Not Sampled on Current Sample Schedule				
MW - 20	08/11/11	Not Sampled on Current Sample Schedule				
MW - 20	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 21	02/22/11	Not Sampled on Current Sample Schedule				
MW - 21	05/17/11	Not Sampled on Current Sample Schedule				
MW - 21	08/11/11	Not Sampled on Current Sample Schedule				
MW - 21	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 22	02/22/11	Not Sampled on Current Sample Schedule				
MW - 22	05/17/11	Not Sampled on Current Sample Schedule				
MW - 22	08/11/11	Not Sampled on Current Sample Schedule				
MW - 22	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 23	02/22/11	0.295	<0.020	<0.020	<0.020	
MW - 23	05/17/11	0.368	<0.020	0.1160	<0.020	
MW - 23	08/11/11	0.285	<0.020	<0.020	<0.020	
MW - 23	11/09/11	0.221	<0.020	<0.020	<0.020	
MW - 24	02/22/11	2.590	0.3380	<0.050	1.160	
MW - 24	05/17/11	2.920	<0.050	<0.050	0.839	
MW - 24	08/11/11	3.100	<0.050	0.3740	0.5480	
MW - 24	11/09/11	3.260	<0.050	0.3090	<0.050	
MW - 25	02/22/11	0.932	<0.050	<0.050	<0.050	
MW - 25	05/17/11	0.982	<0.050	<0.050	<0.050	
MW - 25	08/11/11	0.683	<0.050	<0.050	<0.050	
MW - 25	11/09/11	0.490	<0.050	<0.050	<0.050	
MW - 26	02/22/11	<0.001	<0.001	<0.001	<0.001	
MW - 26	05/17/11	<0.001	<0.001	<0.001	<0.001	
MW - 26	08/11/11	<0.001	<0.001	<0.001	<0.001	
MW - 26	11/09/11	<0.001	<0.001	<0.001	<0.001	

TABLE 2
CONCENTRATIONS OF BTEX IN GROUNDWATER - 2011

PLAINS MARKETING, L.P.
TNM 97-18
LEA COUNTY, NM
NMOCD REFERENCE NUMBER AP-0013

All concentrations are reported in mg/L

		SW 846-8012B, 5030				
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE
NMOCD REGULATORY LIMIT		0.010	0.750	0.750	0.620	
MW - 27	02/22/11	<0.001	<0.001	<0.001	<0.001	
MW - 27	05/17/11	<0.001	<0.001	<0.001	<0.001	
MW - 27	08/11/11	<0.001	<0.001	<0.001	<0.001	
MW - 27	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 28	02/22/11	Not Sampled on Current Sample Schedule				
MW - 28	05/17/11	<0.001	<0.001	<0.001	<0.001	
MW - 28	08/11/11	Not Sampled on Current Sample Schedule				
MW - 28	11/09/11	<0.001	<0.001	<0.001	<0.001	
MW - 30	02/22/11	Not Sampled on Current Sample Schedule				
MW - 30	05/17/11	<0.001	<0.001	<0.001	<0.001	
MW - 30	08/11/11	Not Sampled on Current Sample Schedule				
MW - 30	11/09/11	<0.001	<0.001	<0.001	<0.001	
RW - 1	02/22/11	2.120	0.924	0.821	3.710	
RW - 1	05/17/11	1.980	0.683	<0.100	1.640	
RW - 1	08/11/11	1.360	0.445	<0.100	0.987	
RW - 1	11/09/11	0.503	<0.100	<0.100	<0.100	
RW - 2	02/22/11	1.490	<0.100	1.040	1.990	
RW - 2	05/17/11	1.700	<0.100	<0.100	<0.100	
RW - 2	08/11/11	1.440	<0.100	<0.100	<0.100	
RW - 2	11/09/11	0.296	<0.100	<0.100	<0.100	

* Complete Historical Tables are provided on the attached CD.

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.

TNM 97-18

MONUMENT, NEW MEXICO

NMOCD REFERENCE NUMBER AP-0013

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L		—	
MW-1	11/13/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	
	11/23/09	<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	
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-2	11/13/08	<0.00917	<0.00917	0.0389	<0.00917	<0.00917	<0.00917	<0.00917	<0.00917	<0.00917	<0.00917	<0.00917	0.0256	<0.00917	0.0385	<0.00917	0.0778	0.179	0.180	0.028
	11/23/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00451	<0.000922	0.00667	<0.000922	0.0133	0.0304	0.0217	0.00353
	11/18/10	<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	0.00419	<0.000184	0.00164	0.0065	0.00198	0.00219
	12/14/11	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	0.00495	<0.000188	0.0154	0.0292	0.0174	0.00412
MW-3	11/13/08	<0.000184	0.000464	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00202	<0.000184	0.00241	<0.000184	0.00606	0.0137	0.00483	0.00215
	11/23/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00996	<0.000922	0.0108	<0.000922	0.0294	0.0707	0.0332	0.00908
	11/18/10	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000552	<0.000183	0.00091	<0.000183	0.00239	0.00485	0.000925	0.000708
	12/14/11	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	0.00294	<0.000188	0.00586	0.0197	0.00399	0.00269
MW-4	11/13/08	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	<0.00463	0.00752	<0.00463	<0.00463	<0.00463	<0.00463	0.0307	<0.00463	0.0292	0.164	0.0532	0.024
	11/23/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00166	<0.000184	0.00161	<0.000184	0.0107	0.0229	0.00588	0.00198
	11/18/10	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00174	<0.000184	0.0017	<0.000184	0.0101	0.0162	0.00576	0.00232
	12/14/11	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	0.0124	<0.000187	0.0177	0.077	0.0227	0.0103
MW-5	11/13/08	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	0.00478	<0.00183	0.00528	<0.00183	0.0309	0.0417	0.0354	0.00485
	11/23/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00201	<0.000184	0.00176	<0.000184	0.0216	0.0285	0.023	0.00268
	11/18/10	Not Sampled due to well obstruction.																		
	12/16/11	<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	0.00665	<0.000183	0.0281	0.038	0.0347	0.00581
MW-6	11/13/08	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	<0.00185	0.00723	<0.00185	0.00814	<0.00185	0.0282	0.0434	0.0336	0.00709
	11/23/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.00759	<0.000922	0.0116	<0.000922	0.00817	0.0327	0.00836	0.00702
	11/18/10	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00264	<0.000183	0.00342	<0.000183	<0.000183	0.00393	<0.000183	0.00253
	12/14/11	<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	0.0151	<0.000184	0.00838	0.0349	0.0078	0.010
MW-7	11/13/08	<0.00922	<0.00922	0.0744	<0.00922	<0.00922	<0.00922	<0.00922	<0.00922	0.0189	<0.00922	<0.00922	0.0648	<0.00922	0.0735	<0.00922	0.058	0.267	0.236	<0.00922
	11/23/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	0.0136	<0.000917	0.0184	<0.000917	0.0245	0.102	0.0863	0.0100
	11/18/10	Not Sampled due to the presence of PSH.																		
	12/14/11	Not Sampled due to the presence of PSH.																		

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

All water concentrations are reported in mg/L.

Page 2 of 5

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.

TNM 97-18

MONUMENT, NEW MEXICO

NMOCD REFERENCE NUMBER AP-0013

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L		—	
MW-16	11/13/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	
	11/23/09	<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	
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-17	11/13/08	<0.000184	0.00022	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000306	<0.000184	<0.000184	0.00266	<0.000184	0.0023	<0.000184	0.0322	0.0261	0.0203	0.00292
	11/23/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00162	<0.000184	0.00138	<0.000184	0.0371	0.0300	0.0229	0.00205
	11/18/10	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	0.00107	<0.000186	0.000848	<0.000186	0.0155	0.0153	0.00854	0.00153
	12/14/11	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	0.00153	<0.000189	0.00133	<0.000189	0.0281	0.0384	0.0143	0.00238
MW-18	11/13/08	<0.000183	0.000247	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00205	<0.000183	0.00123	<0.000183	0.0422	0.0326	0.021	0.00262
	11/23/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00163	<0.000184	0.00166	<0.000184	0.0328	0.0282	0.0192	0.00186
	11/18/10	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	0.00112	<0.000186	0.000842	<0.000186	0.0247	0.0191	0.012	0.00162
	12/14/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00147	<0.000183	0.00131	<0.000183	0.0278	0.0276	0.0157	0.00242
MW-20	11/13/08	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	0.000303
	11/23/09	<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
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-21	11/13/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
	11/23/09	<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
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-22	11/13/08	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187
	11/23/09	<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
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-23	11/13/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000404	<0.000184	0.000367	0.00169	<0.000184	0.000831
	11/23/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.

TNM 97-18

MONUMENT, NEW MEXICO

NMOCD REFERENCE NUMBER AP-0013

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L			—
MW-24	11/13/08	<0.000184	<0.000184	0.000461	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000601	<0.000184	0.000453	<0.000184	0.00391	0.00634	0.00168	0.000818	
	11/23/09	<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	
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-25	11/13/08	<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	0.000236	
	11/23/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000488	<0.000184	<0.000184	0.00226	<0.000184	<0.000184	
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-26	11/13/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000315	<0.000184	0.000323	0.0015	<0.000184	0.00135	
	11/23/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000766	<0.000184	<0.000184	<0.000184	<0.000184	0.00135	
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-27	11/13/08	<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	
	11/23/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-28	11/13/08	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	
	11/23/09	<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	
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		
MW-30	11/13/08	<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	
	11/23/09	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185	
	11/18/10	Not Sampled as part of Quarterly Monitoring Event.																		
	12/14/11	Not Sampled as part of Quarterly Monitoring Event.																		

TABLE 3

POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.

TNM 97-18

MONUMENT, NEW MEXICO

NMOCD REFERENCE NUMBER AP-0013

All water concentrations are reported in mg/L.

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																		
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		—	—	0.001 mg/L	0.0001 mg/L	0.0007 mg/L	0.001 mg/L	—	0.001 mg/L	0.0002 mg/L	0.0003 mg/L	0.001 mg/L	0.001 mg/L	0.0004 mg/L	0.001 mg/L	0.001 mg/L	0.03 mg/L		—	
RW-1	11/13/08	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	0.0156	<0.00459	0.0224	<0.00459	0.058	0.100	0.0979	0.0141
	11/23/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00328	<0.000184	0.00392	<0.000184	0.0327	0.0366	0.0296	0.00341
	11/18/10	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00152	<0.000184	0.00281	<0.000184	0.00745	0.00615	0.00481	0.00187
	12/14/11	<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	0.0135	<0.000184	0.0444	0.0785	0.0613	0.0101
RW-2	11/13/08	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	0.0194	<0.00461	0.0243	<0.00461	0.0508	0.118	0.106	0.0182
	11/23/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.00385	<0.000183	0.00386	<0.000183	0.0206	0.0413	0.0227	0.00346
	11/18/10	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	<0.000188	0.00403	<0.000188	0.0059	<0.000188	0.0114	0.0181	0.00745	0.00428
	12/14/11	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	0.00418	<0.000187	0.0148	0.0308	0.0154	0.00361

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

Appendices

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 South First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-141
Originated 2/13/97

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 Texas-New Mexico Pipe Line Company	Contact Edwin H. Gripp
Address Box 60028, San Angelo, TX 76906	Telephone No. (915) 947-9000
Facility Name 16" main line	Facility Type pipe line

Surface Owner Millard Deck Estate	Mineral Owner	Lease No.
--------------------------------------	---------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 28	Township 20S	Range 37E	Feet from the	North/South Line	Feet from the	East/West Line	County Dea
-------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	---------------

NATURE OF RELEASE

Type of Release sour crude	Volume of Release 83 barrels	Volume Recovered none
Source of Release 16" main line	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 9-10-97 4:30pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Klisabeth	
By Whom? Mike Pearce	Date and Hour 9-11-97 1:30pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Internal Corrosion
Leak successfully clamped off.

Describe Area Affected and Cleanup Action Taken.*

3600 sq. ft. pasture land.
Contaminated soil will be excavated.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.).*

95° cloudy

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
Signature: *Edwin H. Gripp*

Printed Name: Edwin H. Gripp

Title: District Manager

Date: 9-11-97

Phone: 915-947-9001

OIL CONSERVATION DIVISION

Approved by
District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

State Corp. Commission
Pipe Line Division

Hazardous Waste Section
NM Environmental Improvement Div.

TNM-97-18

JWC JAS

Laboratory Analytical Reports



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•585•3443 915•585•3443 FAX 915•585•4944
 6002 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
 NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
 LELAP-02003
 Kansas E-10317

El Paso: T104704221-08-TX
 LELAP-02002

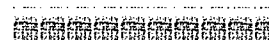
Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: March 16, 2011

Work Order: 11022302



Project Location: Eunice, NM
 Project Name: 9718
 Project Number: TNM 97-18

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
258421	MW-27	water	2011-02-22	09:00	2011-02-23
258422	MW-26	water	2011-02-22	09:30	2011-02-23
258423	MW-6	water	2011-02-22	10:00	2011-02-23
258424	MW-23	water	2011-02-22	10:30	2011-02-23
258425	MW-2	water	2011-02-22	11:00	2011-02-23
258426	MW-10	water	2011-02-22	11:30	2011-02-23
258427	MW-25	water	2011-02-22	12:00	2011-02-23
258428	RW-2	water	2011-02-22	13:00	2011-02-23
258429	MW-3	water	2011-02-22	13:30	2011-02-23
258430	RW-1	water	2011-02-22	14:30	2011-02-23
258431	MW-17	water	2011-02-22	15:00	2011-02-23

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
258432	MW-24	water	2011-02-22	15:30	2011-02-23
258433	MW-18	water	2011-02-22	16:00	2011-02-23
258434	MW-4	water	2011-02-22	16:30	2011-02-23

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 16 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 9718 were received by TraceAnalysis, Inc. on 2011-02-23 and assigned to work order 11022302. Samples for work order 11022302 were received intact without headspace and at a temperature of 2.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	66908	2011-02-28 at 09:25	78000	2011-02-28 at 11:19
BTEX	S 8021B	66912	2011-03-01 at 16:02	78007	2011-03-01 at 16:18
BTEX	S 8021B	67030	2011-03-02 at 08:26	79022	2011-03-02 at 09:23

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 11022302 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.

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Analytical Report

Sample: 258421 - MW-27

Laboratory: Midland
Analysis: BTEX
QC Batch: 78000
Prep Batch: 66908

Analytical Method: S 8021B
Date Analyzed: 2011-02-28
Sample Preparation: 2011-02-28

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.104	mg/L	1	0.100	104	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.117	mg/L	1	0.100	117	51.1 - 128

Sample: 258422 - MW-26

Laboratory: Midland
Analysis: BTEX
QC Batch: 78000
Prep Batch: 66908

Analytical Method: S 8021B
Date Analyzed: 2011-02-28
Sample Preparation: 2011-02-28

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.122	mg/L	1	0.100	122	51.1 - 128

Sample: 258423 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 78000
Prep Batch: 66908

Analytical Method: S 8021B
Date Analyzed: 2011-02-28
Sample Preparation: 2011-02-28

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

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.221	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		0.0116	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0997	mg/L	1	0.100	100	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.125	mg/L	1	0.100	125	51.1 - 128

Sample: 258424 - MW-23

Laboratory: Midland
Analysis: BTEX
QC Batch: 78000
Prep Batch: 66908

Analytical Method: S 8021B
Date Analyzed: 2011-02-28
Sample Preparation: 2011-02-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.295	mg/L	20	0.00100
Toluene		<0.0200	mg/L	20	0.00100
Ethylbenzene		<0.0200	mg/L	20	0.00100
Xylene		<0.0200	mg/L	20	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.77	mg/L	20	2.00	88	67.8 - 126
4-Bromofluorobenzene (4-BFB)		2.10	mg/L	20	2.00	105	51.1 - 128

Sample: 258425 - MW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 79022
Prep Batch: 67030

Analytical Method: S 8021B
Date Analyzed: 2011-03-02
Sample Preparation: 2011-03-02

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.556	mg/L	5	0.00100
Toluene		0.0834	mg/L	5	0.00100
Ethylbenzene		0.176	mg/L	5	0.00100
Xylene		0.170	mg/L	5	0.00100

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.439	mg/L	5	0.500	88	67.8 - 126
4-Bromofluorobenzene (4-BFB)		0.530	mg/L	5	0.500	106	51.1 - 128

Sample: 258426 - MW-10

Laboratory: Midland

Analysis: BTEX

QC Batch: 78000

Prep Batch: 66908

Analytical Method: S 8021B

Date Analyzed: 2011-02-28

Sample Preparation: 2011-02-28

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.808	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		<0.100	mg/L	100	0.00100
Xylene		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.52	mg/L	100	10.0	95	67.8 - 126
4-Bromofluorobenzene (4-BFB)		11.0	mg/L	100	10.0	110	51.1 - 128

Sample: 258427 - MW-25

Laboratory: Midland

Analysis: BTEX

QC Batch: 78000

Prep Batch: 66908

Analytical Method: S 8021B

Date Analyzed: 2011-02-28

Sample Preparation: 2011-02-28

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.932	mg/L	50	0.00100
Toluene		<0.0500	mg/L	50	0.00100
Ethylbenzene		<0.0500	mg/L	50	0.00100
Xylene		<0.0500	mg/L	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.85	mg/L	50	5.00	97	67.8 - 126
4-Bromofluorobenzene (4-BFB)		5.75	mg/L	50	5.00	115	51.1 - 128

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Sample: 258428 - RW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 78000
Prep Batch: 66908

Analytical Method: S 8021B
Date Analyzed: 2011-02-28
Sample Preparation: 2011-02-28

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

Parameter	Flag	RL		Dilution	RL
		Result	Units		
Benzene		1.49	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		1.04	mg/L	100	0.00100
Xylene		1.99	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.09	mg/L	100	10.0	91	67.8 - 126
4-Bromofluorobenzene (4-BFB)		10.5	mg/L	100	10.0	105	51.1 - 128

Sample: 258429 - MW-3

Laboratory: Midland
Analysis: BTEX
QC Batch: 78007
Prep Batch: 66912

Analytical Method: S 8021B
Date Analyzed: 2011-03-01
Sample Preparation: 2011-03-01

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

Parameter	Flag	RL		Dilution	RL
		Result	Units		
Benzene		1.87	mg/L	100	0.00100
Toluene		0.751	mg/L	100	0.00100
Ethylbenzene		0.821	mg/L	100	0.00100
Xylene		3.71	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.02	mg/L	100	10.0	90	73 - 123
4-Bromofluorobenzene (4-BFB)		10.1	mg/L	100	10.0	101	75.9 - 129

Sample: 258430 - RW-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 78007
Prep Batch: 66912

Analytical Method: S 8021B
Date Analyzed: 2011-03-01
Sample Preparation: 2011-03-01

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

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		2.12	mg/L	100	0.00100
Toluene		0.924	mg/L	100	0.00100
Ethylbenzene		1.24	mg/L	100	0.00100
Xylene		2.86	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.17	mg/L	100	10.0	92	73 - 123
4-Bromofluorobenzene (4-BFB)		10.1	mg/L	100	10.0	101	75.9 - 129

Sample: 258431 - MW-17

Laboratory: Midland

Analysis: BTEX

QC Batch: 78007

Prep Batch: 66912

Analytical Method: S 8021B

Date Analyzed: 2011-03-01

Sample Preparation: 2011-03-01

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		2.11	mg/L	100	0.00100
Toluene		0.690	mg/L	100	0.00100
Ethylbenzene		1.86	mg/L	100	0.00100
Xylene		2.47	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		8.76	mg/L	100	10.0	88	73 - 123
4-Bromofluorobenzene (4-BFB)		9.85	mg/L	100	10.0	98	75.9 - 129

Sample: 258432 - MW-24

Laboratory: Midland

Analysis: BTEX

QC Batch: 78007

Prep Batch: 66912

Analytical Method: S 8021B

Date Analyzed: 2011-03-01

Sample Preparation: 2011-03-01

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		2.59	mg/L	50	0.00100
Toluene		0.338	mg/L	50	0.00100
Ethylbenzene		<0.0500	mg/L	50	0.00100
Xylene		1.16	mg/L	50	0.00100

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.62	mg/L	50	5.00	92	73 - 123
4-Bromofluorobenzene (4-BFB)		5.10	mg/L	50	5.00	102	75.9 - 129

Sample: 258433 - MW-18

Laboratory: Midland

Analysis: BTEX

QC Batch: 78007

Prep Batch: 66912

Analytical Method: S 8021B

Date Analyzed: 2011-03-01

Sample Preparation: 2011-03-01

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		3.51	mg/L	50	0.00100
Toluene		0.363	mg/L	50	0.00100
Ethylbenzene		2.50	mg/L	50	0.00100
Xylene		1.42	mg/L	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.41	mg/L	50	5.00	88	73 - 123
4-Bromofluorobenzene (4-BFB)		5.03	mg/L	50	5.00	101	75.9 - 129

Sample: 258434 - MW-4

Laboratory: Midland

Analysis: BTEX

QC Batch: 78007

Prep Batch: 66912

Analytical Method: S 8021B

Date Analyzed: 2011-03-01

Sample Preparation: 2011-03-01

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		2.49	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		<0.100	mg/L	100	0.00100
Xylene		2.15	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		8.73	mg/L	100	10.0	87	73 - 123
4-Bromofluorobenzene (4-BFB)		9.60	mg/L	100	10.0	96	75.9 - 129

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Method Blank (1) QC Batch: 78000

QC Batch: 78000
Prep Batch: 66908

Date Analyzed: 2011-02-28
QC Preparation: 2011-02-28

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0955	mg/L	1	0.100	96	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.108	mg/L	1	0.100	108	47.3 - 116

Method Blank (1) QC Batch: 78007

QC Batch: 78007
Prep Batch: 66912

Date Analyzed: 2011-03-01
QC Preparation: 2011-03-01

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0974	mg/L	1	0.100	97	73 - 123
4-Bromofluorobenzene (4-BFB)		0.110	mg/L	1	0.100	110	75.9 - 129

Method Blank (1) QC Batch: 79022

QC Batch: 79022
Prep Batch: 67030

Date Analyzed: 2011-03-02
QC Preparation: 2011-03-02

Analyzed By: ME
Prepared By: ME

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0895	mg/L	1	0.100	90	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.0990	mg/L	1	0.100	99	47.3 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 78000
Prep Batch: 66908

Date Analyzed: 2011-02-28
QC Preparation: 2011-02-28

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0985	mg/L	1	0.100	<0.000400	98	82.9 - 108
Toluene	0.100	mg/L	1	0.100	<0.000300	100	82.7 - 107
Ethylbenzene	0.101	mg/L	1	0.100	<0.000300	101	78.8 - 106
Xylene	0.307	mg/L	1	0.300	<0.000333	102	79.3 - 106

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0956	mg/L	1	0.100	<0.000400	96	82.9 - 108	3	20
Toluene	0.0969	mg/L	1	0.100	<0.000300	97	82.7 - 107	3	20
Ethylbenzene	0.0994	mg/L	1	0.100	<0.000300	99	78.8 - 106	2	20
Xylene	0.301	mg/L	1	0.300	<0.000333	100	79.3 - 106	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.0963	mg/L	1	0.100	101	96	67.3 - 113
4-Bromofluorobenzene (4-BFB)	0.114	0.113	mg/L	1	0.100	114	113	68.2 - 124

Laboratory Control Spike (LCS-1)

QC Batch: 78007
Prep Batch: 66912

Date Analyzed: 2011-03-01
QC Preparation: 2011-03-01

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0969	mg/L	1	0.100	<0.000765	97	80.5 - 112
Toluene	0.0972	mg/L	1	0.100	<0.000719	97	79.6 - 114
Ethylbenzene	0.0959	mg/L	1	0.100	<0.000860	96	78.4 - 115
Xylene	0.292	mg/L	1	0.300	<0.000942	97	77 - 114

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

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0921	mg/L	1	0.100	<0.000765	92	80.5 - 112	5	20
Toluene	0.0934	mg/L	1	0.100	<0.000719	93	79.6 - 114	4	20
Ethylbenzene	0.0934	mg/L	1	0.100	<0.000860	93	78.4 - 115	3	20
Xylene	0.284	mg/L	1	0.300	<0.000942	95	77 - 114	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0964	0.0931	mg/L	1	0.100	96	93	68.9 - 116
4-Bromofluorobenzene (4-BFB)	0.114	0.112	mg/L	1	0.100	114	112	68.5 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 79022
Prep Batch: 67030

Date Analyzed: 2011-03-02
QC Preparation: 2011-03-02

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0933	mg/L	1	0.100	<0.000400	93	82.9 - 108
Toluene	0.0954	mg/L	1	0.100	<0.000300	95	82.7 - 107
Ethylbenzene	0.0942	mg/L	1	0.100	<0.000300	94	78.8 - 106
Xylene	0.284	mg/L	1	0.300	<0.000333	95	79.3 - 106

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0948	mg/L	1	0.100	<0.000400	95	82.9 - 108	2	20
Toluene	0.0964	mg/L	1	0.100	<0.000300	96	82.7 - 107	1	20
Ethylbenzene	0.0946	mg/L	1	0.100	<0.000300	95	78.8 - 106	0	20
Xylene	0.287	mg/L	1	0.300	<0.000333	96	79.3 - 106	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)	0.0949	0.0909	mg/L	1	0.100	95	91	67.3 - 113
4-Bromofluorobenzene (4-BFB)	0.105	0.103	mg/L	1	0.100	105	103	68.2 - 124

Matrix Spike (MS-1) Spiked Sample: 258428

QC Batch: 78000
Prep Batch: 66908

Date Analyzed: 2011-02-28
QC Preparation: 2011-02-28

Analyzed By: ME
Prepared By: ME

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	10.4	mg/L	100	10.0	1.4918	89	77.9 - 114
Toluene	9.21	mg/L	100	10.0	<0.0300	92	78.3 - 111
Ethylbenzene	9.50	mg/L	100	10.0	1.0446	84	75.3 - 110
Xylene	27.6	mg/L	100	30.0	1.9942	85	75.7 - 109

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	10.3	mg/L	100	10.0	1.4918	88	77.9 - 114	1	20
Toluene	9.32	mg/L	100	10.0	<0.0300	93	78.3 - 111	1	20
Ethylbenzene	9.72	mg/L	100	10.0	1.0446	87	75.3 - 110	2	20
Xylene	28.4	mg/L	100	30.0	1.9942	88	75.7 - 109	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	9.17	9.34	mg/L	100	10	92	93	68.3 - 107
4-Bromofluorobenzene (4-BFB)	11.0	11.3	mg/L	100	10	110	113	60.1 - 135

Matrix Spike (MS-1) Spiked Sample: 258434

QC Batch: 78007
Prep Batch: 66912

Date Analyzed: 2011-03-01
QC Preparation: 2011-03-01

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	11.3	mg/L	100	10.0	2.4873	88	39.9 - 132
Toluene	9.15	mg/L	100	10.0	<0.0719	92	36.3 - 136
Ethylbenzene	8.99	mg/L	100	10.0	<0.0860	90	38.4 - 135
Xylene	27.5	mg/L	100	30.0	2.1509	84	35.2 - 134

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	11.2	mg/L	100	10.0	2.4873	87	39.9 - 132	1	20
Toluene	9.14	mg/L	100	10.0	<0.0719	91	36.3 - 136	0	20
Ethylbenzene	9.10	mg/L	100	10.0	<0.0860	91	38.4 - 135	1	20
Xylene	27.8	mg/L	100	30.0	2.1509	85	35.2 - 134	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)	9.17	9.26	mg/L	100	10	92	93	64.2 - 125

continued ...

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matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	10.4	10.6	mg/L	100	10	104	106	67.8 - 122

Matrix Spike (MS-1) Spiked Sample: 258425

QC Batch: 79022
Prep Batch: 67030

Date Analyzed: 2011-03-02
QC Preparation: 2011-03-02

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.01	mg/L	5	0.500	0.5558	91	77.9 - 114
Toluene	0.462	mg/L	5	0.500	0.0384	85	78.3 - 111
Ethylbenzene	0.610	mg/L	5	0.500	0.1765	87	75.3 - 110
Xylene	1.44	mg/L	5	1.50	0.1702	85	75.7 - 109

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.996	mg/L	5	0.500	0.5558	88	77.9 - 114	1	20
Toluene	0.460	mg/L	5	0.500	0.0384	84	78.3 - 111	0	20
Ethylbenzene	0.613	mg/L	5	0.500	0.1765	87	75.3 - 110	0	20
Xylene	1.47	mg/L	5	1.50	0.1702	87	75.7 - 109	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)	0.470	0.458	mg/L	5	0.5	94	92	68.3 - 107
4-Bromofluorobenzene (4-BFB)	0.572	0.555	mg/L	5	0.5	114	111	60.1 - 135

Standard (CCV-1)

QC Batch: 78000

Date Analyzed: 2011-02-28

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0933	93	80 - 120	2011-02-28
Toluene		mg/L	0.100	0.0958	96	80 - 120	2011-02-28
Ethylbenzene		mg/L	0.100	0.0963	96	80 - 120	2011-02-28
Xylene		mg/L	0.300	0.294	98	80 - 120	2011-02-28

Standard (CCV-2)

QC Batch: 78000

Date Analyzed: 2011-02-28

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0994	99	80 - 120	2011-02-28
Toluene		mg/L	0.100	0.0989	99	80 - 120	2011-02-28
Ethylbenzene		mg/L	0.100	0.0994	99	80 - 120	2011-02-28
Xylene		mg/L	0.300	0.298	99	80 - 120	2011-02-28

Standard (CCV-3)

QC Batch: 78000

Date Analyzed: 2011-02-28

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0955	96	80 - 120	2011-02-28
Toluene		mg/L	0.100	0.0965	96	80 - 120	2011-02-28
Ethylbenzene		mg/L	0.100	0.0969	97	80 - 120	2011-02-28
Xylene		mg/L	0.300	0.292	97	80 - 120	2011-02-28

Standard (CCV-2)

QC Batch: 78007

Date Analyzed: 2011-03-01

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0954	95	80 - 120	2011-03-01
Toluene		mg/L	0.100	0.0944	94	80 - 120	2011-03-01
Ethylbenzene		mg/L	0.100	0.0924	92	80 - 120	2011-03-01
Xylene		mg/L	0.300	0.281	94	80 - 120	2011-03-01

Standard (CCV-3)

QC Batch: 78007

Date Analyzed: 2011-03-01

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0945	94	80 - 120	2011-03-01
Toluene		mg/L	0.100	0.0947	95	80 - 120	2011-03-01
Ethylbenzene		mg/L	0.100	0.0932	93	80 - 120	2011-03-01

continued ...

Report Date: March 16, 2011
TNM 97-18

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9718

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Eunice, NM

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.282	94	80 - 120	2011-03-01

Standard (CCV-4)

QC Batch: 78007

Date Analyzed: 2011-03-01

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0912	91	80 - 120	2011-03-01
Toluene		mg/L	0.100	0.0948	95	80 - 120	2011-03-01
Ethylbenzene		mg/L	0.100	0.0942	94	80 - 120	2011-03-01
Xylene		mg/L	0.300	0.284	95	80 - 120	2011-03-01

Standard (CCV-1)

QC Batch: 79022

Date Analyzed: 2011-03-02

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0909	91	80 - 120	2011-03-02
Toluene		mg/L	0.100	0.0932	93	80 - 120	2011-03-02
Ethylbenzene		mg/L	0.100	0.0919	92	80 - 120	2011-03-02
Xylene		mg/L	0.300	0.279	93	80 - 120	2011-03-02

Standard (CCV-2)

QC Batch: 79022

Date Analyzed: 2011-03-02

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0927	93	80 - 120	2011-03-02
Toluene		mg/L	0.100	0.0937	94	80 - 120	2011-03-02
Ethylbenzene		mg/L	0.100	0.0919	92	80 - 120	2011-03-02
Xylene		mg/L	0.300	0.276	92	80 - 120	2011-03-02

TraceAnalysis, Inc.

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2057 Commerce Midland TX 79703
Contact Person: Ron P. E-mail: _____
Invoice to: _____
(If different from above)
Project #: TA-497-18 Project Name: 97-18
Project Location (including state): New Mexico Sampler Signature: [Signature]

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		MTBE 8021 / 602 / 8260 / 625	TEX 8027 / 602 / 8260 / 625	TPH 418.1 / TX1005	TPH 8015/GRO / DRO / TVHC	PAH 8270 / 625	Total Metals/Ag As Ba Cd Cr Pb Se Hg 8010/200.7	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, SO4, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO3	H2SO4	NaOH	ICE	NONE	DATE																						TIME
422	MW-27	3	100	X				X				X			2-22	9:00	X																			
422	MW-26															9:30																				
423	MW-6															10:00																				
424	MW-23															10:30																				
425	MW-2															11:00																				
426	MW-10															11:30																				
427	MW-25															12:00																				
428	RW-2															13:00																				
429	MW-3															13:30																				
430	RW-1															14:30																				
431	MW-17															15:00																				

Relinquished by: <u>[Signature]</u>	Company: <u>NOVA</u>	Date: <u>2-23-11</u>	Time: <u>8:00</u>	Received by: <u>[Signature]</u>	Company: <u>TA</u>	Date: <u>2-23-11</u>	Time: <u>8:00</u>	INST <u>2.0</u>	OBS <u>2.0</u>	COR <u>2.0</u>
Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____	INST _____	OBS _____	COR _____
Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____	INST _____	OBS _____	COR _____

LAB USE ONLYIntact ☒ N
Headspace ☒ N/NALog-In Review ☐**REMARKS:**all tests - Midland

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

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

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Carrier # any

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

ORIGINAL COPY

Hold

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

Carrier #



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: May 20, 2011

Work Order: 11051826



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
266767	MW-28	water	2011-05-17	09:00	2011-05-18
266768	MW-30	water	2011-05-17	09:30	2011-05-18
266769	MW-27	water	2011-05-17	10:00	2011-05-18
266770	MW-26	water	2011-05-17	10:30	2011-05-18
266771	MW-6	water	2011-05-17	11:00	2011-05-18
266772	MW-23	water	2011-05-17	11:30	2011-05-18
266773	MW-2	water	2011-05-17	12:00	2011-05-18
266774	MW-10	water	2011-05-17	12:30	2011-05-18
266775	MW-25	water	2011-05-17	13:00	2011-05-18
266776	RW-2	water	2011-05-17	13:45	2011-05-18
266777	MW-3	water	2011-05-17	14:00	2011-05-18
266778	MW-17	water	2011-05-17	14:30	2011-05-18
266779	RW-1	water	2011-05-17	15:15	2011-05-18
266780	MW-4	water	2011-05-17	16:00	2011-05-18
266781	MW-24	water	2011-05-17	16:30	2011-05-18
266782	MW-18	water	2011-05-17	17:00	2011-05-18

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 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive, flowing style.

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

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Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2011-05-18 and assigned to work order 11051826. Samples for work order 11051826 were received intact without headspace and at a temperature of 0.3 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	69145	2011-05-19 at 08:30	81432	2011-05-19 at 10:31

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 11051826 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 266767 - MW-28

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0897	mg/L	1	0.100	90	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0850	mg/L	1	0.100	85	51.1 - 128

Sample: 266768 - MW-30

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0879	mg/L	1	0.100	88	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0849	mg/L	1	0.100	85	51.1 - 128

Report Date: May 20, 2011
TNM 97-18

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Sample: 266769 - MW-27

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0835	mg/L	1	0.100	84	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0812	mg/L	1	0.100	81	51.1 - 128

Sample: 266770 - MW-26

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0832	mg/L	1	0.100	83	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0832	mg/L	1	0.100	83	51.1 - 128

Report Date: May 20, 2011
TNM 97-18

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9718

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Eunice, NM

Sample: 266771 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.295	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.0661	mg/L	1	0.00100
Xylene		1	0.0348	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0721	mg/L	1	0.100	72	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.117	mg/L	1	0.100	117	51.1 - 128

Sample: 266772 - MW-23

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.368	mg/L	20	0.00100
Toluene		1	<0.0200	mg/L	20	0.00100
Ethylbenzene		1	0.116	mg/L	20	0.00100
Xylene		1	<0.0200	mg/L	20	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/L	20	2.00	92	67.8 - 129
4-Bromofluorobenzene (4-BFB)			1.76	mg/L	20	2.00	88	51.1 - 128

Report Date: May 20, 2011
TNM 97-18

Work Order: 11051826
9718

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Eunice, NM

Sample: 266773 - MW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.777	mg/L	5	0.00100
Toluene		1	<0.00500	mg/L	5	0.00100
Ethylbenzene		1	0.273	mg/L	5	0.00100
Xylene		1	0.217	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.425	mg/L	5	0.500	85	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.540	mg/L	5	0.500	108	51.1 - 128

Sample: 266774 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.04	mg/L	100	0.00100
Toluene		1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	<0.100	mg/L	100	0.00100
Xylene		1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.25	mg/L	100	10.0	92	67.8 - 129
4-Bromofluorobenzene (4-BFB)			8.88	mg/L	100	10.0	89	51.1 - 128

Report Date: May 20, 2011
TNM 97-18

Work Order: 11051826
9718

Page Number: 9 of 17
Eunice, NM

Sample: 266775 - MW-25

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.982	mg/L	50	0.00100
Toluene		1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	<0.0500	mg/L	50	0.00100
Xylene		1	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.47	mg/L	50	5.00	89	67.8 - 129
4-Bromofluorobenzene (4-BFB)			4.21	mg/L	50	5.00	84	51.1 - 128

Sample: 266776 - RW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.70	mg/L	100	0.00100
Toluene		1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	<0.100	mg/L	100	0.00100
Xylene		1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.34	mg/L	100	10.0	93	67.8 - 129
4-Bromofluorobenzene (4-BFB)			8.71	mg/L	100	10.0	87	51.1 - 128

Report Date: May 20, 2011
TNM 97-18

Work Order: 11051826
9718

Page Number: 10 of 17
Eunice, NM

Sample: 266777 - MW-3

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.98	mg/L	100	0.00100
Toluene		1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	<0.100	mg/L	100	0.00100
Xylene		1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.89	mg/L	100	10.0	89	67.8 - 129
4-Bromofluorobenzene (4-BFB)			8.25	mg/L	100	10.0	82	51.1 - 128

Sample: 266778 - MW-17

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	2.87	mg/L	100	0.00100
Toluene		1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	1.92	mg/L	100	0.00100
Xylene		1	1.76	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.11	mg/L	100	10.0	91	67.8 - 129
4-Bromofluorobenzene (4-BFB)			8.51	mg/L	100	10.0	85	51.1 - 128

Report Date: May 20, 2011
TNM 97-18

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9718

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Eunice, NM

Sample: 266779 - RW-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.98	mg/L	100	0.00100
Toluene		1	0.683	mg/L	100	0.00100
Ethylbenzene		1	<0.100	mg/L	100	0.00100
Xylene		1	1.64	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.91	mg/L	100	10.0	89	67.8 - 129
4-Bromofluorobenzene (4-BFB)			8.41	mg/L	100	10.0	84	51.1 - 128

Sample: 266780 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 81432
Prep Batch: 69145

Analytical Method: S 8021B
Date Analyzed: 2011-05-19
Sample Preparation: 2011-05-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	2.43	mg/L	100	0.00100
Toluene		1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	<0.100	mg/L	100	0.00100
Xylene		1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.71	mg/L	100	10.0	87	67.8 - 129
4-Bromofluorobenzene (4-BFB)			8.06	mg/L	100	10.0	81	51.1 - 128

Report Date: May 20, 2011
TNM 97-18

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9718

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Eunice, NM

Sample: 266781 - MW-24

Laboratory: Midland

Analysis: BTEX

QC Batch: 81432

Prep Batch: 69145

Analytical Method: S 8021B

Date Analyzed: 2011-05-19

Sample Preparation: 2011-05-19

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	2.92	mg/L	50	0.00100
Toluene		1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	<0.0500	mg/L	50	0.00100
Xylene		1	0.839	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.41	mg/L	50	5.00	88	67.8 - 129
4-Bromofluorobenzene (4-BFB)			4.11	mg/L	50	5.00	82	51.1 - 128

Sample: 266782 - MW-18

Laboratory: Midland

Analysis: BTEX

QC Batch: 81432

Prep Batch: 69145

Analytical Method: S 8021B

Date Analyzed: 2011-05-19

Sample Preparation: 2011-05-19

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	3.25	mg/L	50	0.00100
Toluene		1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	2.00	mg/L	50	0.00100
Xylene		1	1.05	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.51	mg/L	50	5.00	90	67.8 - 129
4-Bromofluorobenzene (4-BFB)			4.24	mg/L	50	5.00	85	51.1 - 128

Method Blanks

Method Blank (1) QC Batch: 81432

QC Batch: 81432
Prep Batch: 69145

Date Analyzed: 2011-05-19
QC Preparation: 2011-05-19

Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0948	mg/L	1	0.100	95	70.2 - 118
4-Bromofluorobenzene (4-BFB)			0.0898	mg/L	1	0.100	90	47.3 - 116

Report Date: May 20, 2011
TNM 97-18

Work Order: 11051826
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Eunice, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 81432
Prep Batch: 69145

Date Analyzed: 2011-05-19
QC Preparation: 2011-05-19

Analyzed By: AG
Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0988	mg/L	1	0.100	<0.000400	99	76.8 - 110
Toluene		1	0.111	mg/L	1	0.100	<0.000300	111	81 - 118
Ethylbenzene		1	0.0978	mg/L	1	0.100	<0.000300	98	78.8 - 118
Xylene		1	0.292	mg/L	1	0.300	<0.000333	97	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	0.0939	mg/L	1	0.100	<0.000400	94	76.8 - 110	5	20
Toluene		1	0.106	mg/L	1	0.100	<0.000300	106	81 - 118	5	20
Ethylbenzene		1	0.0946	mg/L	1	0.100	<0.000300	95	78.8 - 118	3	20
Xylene		1	0.282	mg/L	1	0.300	<0.000333	94	80.3 - 119	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0856	0.0928	mg/L	1	0.100	86	93	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.0855	0.0932	mg/L	1	0.100	86	93	68.2 - 124

Matrix Spike (MS-1) Spiked Sample: 266783

QC Batch: 81432
Prep Batch: 69145

Date Analyzed: 2011-05-19
QC Preparation: 2011-05-19

Analyzed By: AG
Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	8.78	mg/L	50	5.00	4.3628	88	77.9 - 114
Toluene		1	5.59	mg/L	50	5.00	0.5317	101	78.3 - 111
Ethylbenzene		1	4.94	mg/L	50	5.00	0.5617	88	75.3 - 110
Xylene		1	14.3	mg/L	50	15.0	1.2824	87	75.7 - 109

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	8.55	mg/L	50	5.00	4.3628	84	77.9 - 114	3	20
Toluene		1	5.39	mg/L	50	5.00	0.5317	97	78.3 - 111	4	20
Ethylbenzene		1	4.77	mg/L	50	5.00	0.5617	84	75.3 - 110	4	20
Xylene		1	13.9	mg/L	50	15.0	1.2824	84	75.7 - 109	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.52	4.42	mg/L	50	5	90	88	68.3 - 107
4-Bromofluorobenzene (4-BFB)	4.49	4.48	mg/L	50	5	90	90	60.1 - 135

Calibration Standards

Standard (CCV-1)

QC Batch: 81432

Date Analyzed: 2011-05-19

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	0.102	102	80 - 120	2011-05-19
Toluene		1	mg/L	0.100	0.116	116	80 - 120	2011-05-19
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2011-05-19
Xylene		1	mg/L	0.300	0.300	100	80 - 120	2011-05-19

Standard (CCV-2)

QC Batch: 81432

Date Analyzed: 2011-05-19

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2011-05-19
Toluene		1	mg/L	0.100	0.114	114	80 - 120	2011-05-19
Ethylbenzene		1	mg/L	0.100	0.0983	98	80 - 120	2011-05-19
Xylene		1	mg/L	0.300	0.295	98	80 - 120	2011-05-19

Standard (CCV-3)

QC Batch: 81432

Date Analyzed: 2011-05-19

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	0.0972	97	80 - 120	2011-05-19
Toluene		1	mg/L	0.100	0.109	109	80 - 120	2011-05-19
Ethylbenzene		1	mg/L	0.100	0.0945	94	80 - 120	2011-05-19
Xylene		1	mg/L	0.300	0.282	94	80 - 120	2011-05-19

Appendix

Laboratory Certifications

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

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less 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 #

11051826

Page 1 of 2

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
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Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 586-3443
Fax (915) 586-4944
1 (888) 586-3443BioAqueous Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7150

Company Name:

ALM

Phone #:

432-520-7700

Address: (Street, City, Zip)

2057 Commerce Midland TX 79703

Fax #:

432-520-7701

Contact Person:

Ron D.

E-mail:

Invoice to:

(If different from above)

Project #:

444-97-18

Project Name:

9718

Project Location (including state):

New Mexico

Sampler Signature:

[Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount		MATRIX	PRESERVATIVE METHOD						SAMPLING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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MTBE 8021 / 602 / 8260 / 624
 BTEX 8021 / 602 / 8260 / 624
 TPH 418.1 / TX1005 / TX1005 Ext(C35)
 TPH 8015 GRO / DRO / TVHC
 PAH 8270 / 625
 Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7
 TCLP Metals Ag As Ba Cd Cr Pb Se Hg
 TCLP Volatiles
 TCLP Semi Volatiles
 TCLP Pesticides
 RCI
 GC/MS Vol. 8260 / 624
 GC/MS Semi. Vol. 8270 / 625
 PCB's 8082 / 608
 Pesticides 8081 / 608
 BOD, TSS, pH
 Moisture Content
 Cl, FI, 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.)

LAB USE ONLY

REMARKS:

XLL tests Midland

Relinquished by:

Company:

Date:

Time:

Received by:

Company:

Date:

Time:

INST

OBS

COR

Log-In/Review

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.

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Carrier #

[Signature]

11051826

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

at

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EC

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guy

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(Circle or Specify Method No.)

ANALYSIS REQUEST

Turn Around Time if different from standard

Hold



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

Certifications

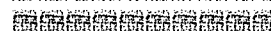
WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: August 19, 2011

Work Order: 11081225



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
274526	MW-27	water	2011-08-11	10:00	2011-08-12
274527	MW-26	water	2011-08-11	10:30	2011-08-12
274528	MW-6	water	2011-08-11	11:00	2011-08-12
274529	MW-23	water	2011-08-11	11:30	2011-08-12
274530	MW-2	water	2011-08-11	12:00	2011-08-12
274531	MW-25	water	2011-08-11	12:30	2011-08-12
274532	MW-10	water	2011-08-11	13:00	2011-08-12
274533	RW-2	water	2011-08-11	14:00	2011-08-12
274534	MW-3	water	2011-08-11	14:30	2011-08-12
274535	RW-1	water	2011-08-11	15:30	2011-08-12
274536	MW-4	water	2011-08-11	16:00	2011-08-12
274537	MW-17	water	2011-08-11	16:30	2011-08-12
274538	MW-24	water	2011-08-11	17:00	2011-08-12
274539	MW-18	water	2011-08-11	17:30	2011-08-12

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 18 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

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Sample 274528 (MW-6)	5
Sample 274529 (MW-23)	6
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Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2011-08-12 and assigned to work order 11081225. Samples for work order 11081225 were received intact without headspace and at a temperature of 2.3 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	71329	2011-08-17 at 15:25	84003	2011-08-17 at 16:38
BTEX	S 8021B	71373	2011-08-18 at 11:38	84063	2011-08-18 at 11:38

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 11081225 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.

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Sample: 274526 - MW-27

Laboratory: Midland

Analysis: BTEX

QC Batch: 84003

Prep Batch: 71329

Analytical Method: S 8021B

Date Analyzed: 2011-08-17

Sample Preparation: 2011-08-17

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0987	mg/L	1	0.100	99	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	67.5 - 140.8

Sample: 274527 - MW-26

Laboratory: Midland

Analysis: BTEX

QC Batch: 84003

Prep Batch: 71329

Analytical Method: S 8021B

Date Analyzed: 2011-08-17

Sample Preparation: 2011-08-17

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0963	mg/L	1	0.100	96	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0985	mg/L	1	0.100	98	67.5 - 140.8

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Sample: 274528 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.145	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.0122	mg/L	1	0.00100
Xylene		1	0.0117	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0877	mg/L	1	0.100	88	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	67.5 - 140.8

Sample: 274529 - MW-23

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.285	mg/L	20	0.00100
Toluene	u	1	<0.0200	mg/L	20	0.00100
Ethylbenzene	u	1	<0.0200	mg/L	20	0.00100
Xylene	u	1	<0.0200	mg/L	20	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.71	mg/L	20	2.00	86	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			1.64	mg/L	20	2.00	82	67.5 - 140.8

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Sample: 274530 - MW-2

Laboratory: Midland

Analysis: BTEX

QC Batch: 84003

Prep Batch: 71329

Analytical Method: S 8021B

Date Analyzed: 2011-08-17

Sample Preparation: 2011-08-17

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.624	mg/L	5	0.00100
Toluene	u	1	<0.00500	mg/L	5	0.00100
Ethylbenzene		1	0.180	mg/L	5	0.00100
Xylene		1	0.153	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.418	mg/L	5	0.500	84	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.492	mg/L	5	0.500	98	67.5 - 140.8

Sample: 274531 - MW-25

Laboratory: Midland

Analysis: BTEX

QC Batch: 84003

Prep Batch: 71329

Analytical Method: S 8021B

Date Analyzed: 2011-08-17

Sample Preparation: 2011-08-17

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.683	mg/L	50	0.00100
Toluene	u	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	u	1	<0.0500	mg/L	50	0.00100
Xylene	u	1	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.39	mg/L	50	5.00	88	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			4.23	mg/L	50	5.00	85	67.5 - 140.8

Sample: 274532 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.489	mg/L	100	0.00100
Toluene	u	1	<0.100	mg/L	100	0.00100
Ethylbenzene	u	1	<0.100	mg/L	100	0.00100
Xylene	u	1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.73	mg/L	100	10.0	87	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.36	mg/L	100	10.0	84	67.5 - 140.8

Sample: 274533 - RW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.44	mg/L	100	0.00100
Toluene	u	1	<0.100	mg/L	100	0.00100
Ethylbenzene	u	1	<0.100	mg/L	100	0.00100
Xylene	u	1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.45	mg/L	100	10.0	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			9.14	mg/L	100	10.0	91	67.5 - 140.8

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Sample: 274534 - MW-3

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.467	mg/L	100	0.00100
Toluene	u	1	<0.100	mg/L	100	0.00100
Ethylbenzene	u	1	<0.100	mg/L	100	0.00100
Xylene	u	1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.12	mg/L	100	10.0	91	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.73	mg/L	100	10.0	87	67.5 - 140.8

Sample: 274535 - RW-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.36	mg/L	100	0.00100
Toluene		1	0.445	mg/L	100	0.00100
Ethylbenzene	u	1	<0.100	mg/L	100	0.00100
Xylene		1	0.987	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.12	mg/L	100	10.0	91	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.70	mg/L	100	10.0	87	67.5 - 140.8

Sample: 274536 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 84003
Prep Batch: 71329

Analytical Method: S 8021B
Date Analyzed: 2011-08-17
Sample Preparation: 2011-08-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.98	mg/L	100	0.00100
Toluene	u	1	<0.100	mg/L	100	0.00100
Ethylbenzene	u	1	<0.100	mg/L	100	0.00100
Xylene		1	1.02	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.65	mg/L	100	10.0	86	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.27	mg/L	100	10.0	83	67.5 - 140.8

Sample: 274537 - MW-17

Laboratory: Midland
Analysis: BTEX
QC Batch: 84063
Prep Batch: 71373

Analytical Method: S 8021B
Date Analyzed: 2011-08-18
Sample Preparation: 2011-08-18

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	2.31	mg/L	100	0.00100
Toluene	u	1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	1.86	mg/L	100	0.00100
Xylene		1	1.13	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.18	mg/L	100	10.0	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.95	mg/L	100	10.0	90	67.5 - 140.8

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Sample: 274538 - MW-24

Laboratory: Midland
Analysis: BTEX
QC Batch: 84063
Prep Batch: 71373

Analytical Method: S 8021B
Date Analyzed: 2011-08-18
Sample Preparation: 2011-08-18

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	3.10	mg/L	50	0.00100
Toluene	u	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	0.374	mg/L	50	0.00100
Xylene		1	0.548	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.45	mg/L	50	5.00	89	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			4.39	mg/L	50	5.00	88	67.5 - 140.8

Sample: 274539 - MW-18

Laboratory: Midland
Analysis: BTEX
QC Batch: 84063
Prep Batch: 71373

Analytical Method: S 8021B
Date Analyzed: 2011-08-18
Sample Preparation: 2011-08-18

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	3.45	mg/L	50	0.00100
Toluene	u	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	2.21	mg/L	50	0.00100
Xylene		1	0.797	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.25	mg/L	50	5.00	85	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			4.19	mg/L	50	5.00	84	67.5 - 140.8

Method Blanks

Method Blank (1) QC Batch: 84003

QC Batch: 84003
Prep Batch: 71329

Date Analyzed: 2011-08-17
QC Preparation: 2011-08-17

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0803	mg/L	1	0.100	80	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0769	mg/L	1	0.100	77	45.9 - 126.4

Method Blank (1) QC Batch: 84063

QC Batch: 84063
Prep Batch: 71373

Date Analyzed: 2011-08-18
QC Preparation: 2011-08-18

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0899	mg/L	1	0.100	90	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0899	mg/L	1	0.100	90	45.9 - 126.4

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 84003
Prep Batch: 71329

Date Analyzed: 2011-08-17
QC Preparation: 2011-08-17

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0841	mg/L	1	0.100	<0.000400	84	76.8 - 110.3
Toluene		1	0.0966	mg/L	1	0.100	<0.000300	97	90.9 - 122.2
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000300	101	72.7 - 120.2
Xylene		1	0.307	mg/L	1	0.300	<0.000333	102	72.1 - 121.5

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0854	mg/L	1	0.100	<0.000400	85	76.8 - 110.3	2	20
Toluene		1	0.0981	mg/L	1	0.100	<0.000300	98	90.9 - 122.2	2	20
Ethylbenzene		1	0.103	mg/L	1	0.100	<0.000300	103	72.7 - 120.2	2	20
Xylene		1	0.312	mg/L	1	0.300	<0.000333	104	72.1 - 121.5	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)	0.0943	0.0923	mg/L	1	0.100	94	92	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0957	0.0955	mg/L	1	0.100	96	96	56.4 - 127.9

Laboratory Control Spike (LCS-1)

QC Batch: 84063
Prep Batch: 71373

Date Analyzed: 2011-08-18
QC Preparation: 2011-08-18

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0901	mg/L	1	0.100	<0.000400	90	76.8 - 110.3
Toluene		1	0.108	mg/L	1	0.100	<0.000300	108	90.9 - 122.2
Ethylbenzene		1	0.117	mg/L	1	0.100	<0.000300	117	72.7 - 120.2
Xylene		1	0.355	mg/L	1	0.300	<0.000333	118	72.1 - 121.5

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0885	mg/L	1	0.100	<0.000400	88	76.8 - 110.3	2	20
Toluene		1	0.106	mg/L	1	0.100	<0.000300	106	90.9 - 122.2	2	20
Ethylbenzene		1	0.115	mg/L	1	0.100	<0.000300	115	72.7 - 120.2	2	20
Xylene		1	0.348	mg/L	1	0.300	<0.000333	116	72.1 - 121.5	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)	0.0998	0.102	mg/L	1	0.100	100	102	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.109	0.113	mg/L	1	0.100	109	113	56.4 - 127.9

Matrix Spike (MS-1) Spiked Sample: 274532

QC Batch: 84003
Prep Batch: 71329

Date Analyzed: 2011-08-17
QC Preparation: 2011-08-17

Analyzed By: ME
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	9.15	mg/L	100	10.0	0.4887	87	66.9 - 128.2
Toluene		1	9.30	mg/L	100	10.0	<0.0300	93	81.6 - 122.9
Ethylbenzene		1	9.49	mg/L	100	10.0	<0.0300	95	62.7 - 117.9
Xylene		1	28.5	mg/L	100	30.0	<0.0333	95	62.9 - 118.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	9.46	mg/L	100	10.0	0.4887	90	66.9 - 128.2	3	20
Toluene		1	9.65	mg/L	100	10.0	<0.0300	96	81.6 - 122.9	4	20
Ethylbenzene		1	9.90	mg/L	100	10.0	<0.0300	99	62.7 - 117.9	4	20
Xylene		1	29.8	mg/L	100	30.0	<0.0333	99	62.9 - 118.2	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
Trifluorotoluene (TFT)	9.39	9.29	mg/L	100	10	94	93	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	9.83	9.82	mg/L	100	10	98	98	52.2 - 135.8

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Matrix Spike (MS-1) Spiked Sample: 274759

QC Batch: 84063
Prep Batch: 71373

Date Analyzed: 2011-08-18
QC Preparation: 2011-08-18

Analyzed By: ME
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	9.66	mg/L	50	5.00	5.9444	74	66.9 - 128.2
Toluene		1	4.54	mg/L	50	5.00	<0.0150	91	81.6 - 122.9
Ethylbenzene		1	4.92	mg/L	50	5.00	<0.0150	98	62.7 - 117.9
Xylene		1	14.7	mg/L	50	15.0	<0.0166	98	62.9 - 118.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	10.1	mg/L	50	5.00	5.9444	83	66.9 - 128.2	4	20
Toluene		1	4.81	mg/L	50	5.00	<0.0150	96	81.6 - 122.9	6	20
Ethylbenzene		1	5.21	mg/L	50	5.00	<0.0150	104	62.7 - 117.9	6	20
Xylene		1	15.7	mg/L	50	15.0	<0.0166	105	62.9 - 118.2	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.52	4.58	mg/L	50	5	90	92	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	4.97	5.19	mg/L	50	5	99	104	52.2 - 135.8

Calibration Standards

Standard (CCV-1)

QC Batch: 84003

Date Analyzed: 2011-08-17

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0855	86	80 - 120	2011-08-17
Toluene		1	mg/L	0.100	0.0985	98	80 - 120	2011-08-17
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2011-08-17
Xylene		1	mg/L	0.300	0.316	105	80 - 120	2011-08-17

Standard (CCV-2)

QC Batch: 84003

Date Analyzed: 2011-08-17

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0863	86	80 - 120	2011-08-17
Toluene		1	mg/L	0.100	0.0988	99	80 - 120	2011-08-17
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2011-08-17
Xylene		1	mg/L	0.300	0.315	105	80 - 120	2011-08-17

Standard (CCV-3)

QC Batch: 84003

Date Analyzed: 2011-08-17

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0846	85	80 - 120	2011-08-17
Toluene		1	mg/L	0.100	0.0976	98	80 - 120	2011-08-17
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2011-08-17
Xylene		1	mg/L	0.300	0.313	104	80 - 120	2011-08-17

Report Date: August 19, 2011
TNM 97-18

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9718

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Eunice, NM

Standard (CCV-2)

QC Batch: 84063

Date Analyzed: 2011-08-18

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0921	92	80 - 120	2011-08-18
Toluene		1	mg/L	0.100	0.110	110	80 - 120	2011-08-18
Ethylbenzene		1	mg/L	0.100	0.119	119	80 - 120	2011-08-18
Xylene		1	mg/L	0.300	0.357	119	80 - 120	2011-08-18

Standard (CCV-3)

QC Batch: 84063

Date Analyzed: 2011-08-18

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0845	84	80 - 120	2011-08-18
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2011-08-18
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2011-08-18
Xylene		1	mg/L	0.300	0.326	109	80 - 120	2011-08-18

Appendix

Laboratory Certifications

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

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less 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

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Lubbock, Texas 79424
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Tel (915) 585-3443
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1 (888) 588-3443BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: <u>NOVA</u>		Phone #: <u>432-520-7780</u>
Address: (Street, City, Zip) <u>2057 Commerce Midland TX 79703</u>		Fax #: <u>432-520-7701</u>
Contact Person: <u>Ron R.</u>		E-mail:
Invoice to: (If different from above)		
Project #: <u>T1149718</u>		Project Name: <u>9718</u>
Project Location (including state): <u>New Mexico</u>		Sampler Signature: <u>[Signature]</u>

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		MTBE 8021 / 602 / 8260 / 625	STEX 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, S04, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO3	H2SO4	NaOH	ICE	NONE	DATE																						TIME	
274524	mw-27	3	var	X				X				X			8-11	10:00	X																				
527	mw-26															10:30																					
528	mw-6															11:00																					
529	mw-23															11:30																					
530	mw-2															12:00																					
531	mw-25															12:30																					
532	mw-10															13:00																					
533	mw-2															14:00																					
534	mw-3															14:30																					
535	mw-1															15:30																					
536	mw-4															16:00																					

Relinquished by: <u>[Signature]</u>	Company: <u>NOVA</u>	Date: <u>8-13</u>	Time: <u>12:00</u>	Received by: <u>[Signature]</u>	Company: <u>T/A</u>	Date: <u>8/12/11</u>	Time: <u>12:00</u>	INST <u>2.3</u>	OBS <u>2.3</u>	COR <u>2.3</u>	LAB USE ONLY	REMARKS: <u>X All tests Midland</u>
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR	Intact <u>Y</u>	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR	Headspace <u>Y</u>	

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

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Carrier # Cargill



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

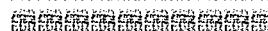
WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: November 14, 2011

Work Order: 11111013



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
282040	MW 1	water	2011-11-09	11:15	2011-11-10
282041	MW 8	water	2011-11-09	11:20	2011-11-10
282042	MW 9	water	2011-11-09	11:30	2011-11-10
282043	MW 11	water	2011-11-09	11:30	2011-11-10
282044	MW 12	water	2011-11-09	11:40	2011-11-10
282045	MW 14	water	2011-11-09	11:40	2011-11-10
282046	MW 15	water	2011-11-09	11:50	2011-11-10
282047	MW 16	water	2011-11-09	11:55	2011-11-10
282048	MW 20	water	2011-11-09	12:00	2011-11-10
282049	MW 22	water	2011-11-09	12:15	2011-11-10
282050	MW 21	water	2011-11-09	12:05	2011-11-10
282051	MW 28	water	2011-11-09	12:20	2011-11-10
282052	MW 30	water	2011-11-09	12:25	2011-11-10
282053	MW 27	water	2011-11-09	12:35	2011-11-10
282054	MW 26	water	2011-11-09	12:35	2011-11-10
282055	MW 5	water	2011-11-09	12:50	2011-11-10
282056	MW 6	water	2011-11-09	13:00	2011-11-10
282057	MW 23	water	2011-11-09	13:15	2011-11-10

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
282058	MW 3	water	2011-11-09	13:20	2011-11-10
282059	MW 10	water	2011-11-09	13:30	2011-11-10
282060	MW 2	water	2011-11-09	13:30	2011-11-10
282061	MW 25	water	2011-11-09	13:40	2011-11-10
282062	MW 4	water	2011-11-09	13:45	2011-11-10
282063	MW 17	water	2011-11-09	13:50	2011-11-10
282064	MW 24	water	2011-11-09	14:00	2011-11-10
282065	MW 18	water	2011-11-09	14:05	2011-11-10
282066	RW 1	water	2011-11-09	14:25	2011-11-10
282067	RW 2	water	2011-11-09	14:25	2011-11-10

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

This report consists of a total of 30 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

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Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2011-11-10 and assigned to work order 11111013. Samples for work order 11111013 were received intact without headspace and at a temperature of 3.6 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	73338	2011-11-11 at 14:00	86365	2011-11-12 at 13:07
BTEX	S 8021B	73339	2011-11-12 at 14:00	86364	2011-11-13 at 03:14
BTEX	S 8021B	73340	2011-11-13 at 16:30	86372	2011-11-13 at 17:29

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 11111013 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 282040 - MW 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 86365
Prep Batch: 73338

Analytical Method: S 8021B
Date Analyzed: 2011-11-12
Sample Preparation: 2011-11-11

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0918	mg/L	1	0.100	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0782	mg/L	1	0.100	78	67.5 - 140.8

Sample: 282041 - MW 8

Laboratory: Midland
Analysis: BTEX
QC Batch: 86365
Prep Batch: 73338

Analytical Method: S 8021B
Date Analyzed: 2011-11-12
Sample Preparation: 2011-11-11

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0935	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0807	mg/L	1	0.100	81	67.5 - 140.8

Report Date: November 14, 2011
TNM 97-18

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Eunice, NM

Sample: 282042 - MW 9

Laboratory: Midland
Analysis: BTEX
QC Batch: 86365
Prep Batch: 73338

Analytical Method: S 8021B
Date Analyzed: 2011-11-12
Sample Preparation: 2011-11-11

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

		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	mg/L	1	0.00100
Ethylbenzene	u	U	1	<0.00100	mg/L	1	0.00100
Xylene	u	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0945	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0789	mg/L	1	0.100	79	67.5 - 140.8

Sample: 282043 - MW 11

Laboratory: Midland
Analysis: BTEX
QC Batch: 86365
Prep Batch: 73338

Analytical Method: S 8021B
Date Analyzed: 2011-11-12
Sample Preparation: 2011-11-11

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

		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	mg/L	1	0.00100
Ethylbenzene	u	U	1	<0.00100	mg/L	1	0.00100
Xylene	u	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0940	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0825	mg/L	1	0.100	82	67.5 - 140.8

Report Date: November 14, 2011
TNM 97-18

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Eunice, NM

Sample: 282044 - MW 12

Laboratory: Midland
Analysis: BTEX
QC Batch: 86365
Prep Batch: 73338

Analytical Method: S 8021B
Date Analyzed: 2011-11-12
Sample Preparation: 2011-11-11

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

		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	mg/L	1	0.00100
Ethylbenzene	u	U	1	<0.00100	mg/L	1	0.00100
Xylene	u	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0955	mg/L	1	0.100	96	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0849	mg/L	1	0.100	85	67.5 - 140.8

Sample: 282045 - MW 14

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

		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	mg/L	1	0.00100
Ethylbenzene	u	U	1	<0.00100	mg/L	1	0.00100
Xylene	u	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0941	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0825	mg/L	1	0.100	82	67.5 - 140.8

Report Date: November 14, 2011
TNM 97-18

Work Order: 11111013
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Eunice, NM

Sample: 282046 - MW 15

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

		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	mg/L	1	0.00100
Ethylbenzene	u	U	1	<0.00100	mg/L	1	0.00100
Xylene	u	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0916	mg/L	1	0.100	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0802	mg/L	1	0.100	80	67.5 - 140.8

Sample: 282047 - MW 16

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

		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	mg/L	1	0.00100
Ethylbenzene	u	U	1	<0.00100	mg/L	1	0.00100
Xylene	u	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0920	mg/L	1	0.100	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0748	mg/L	1	0.100	75	67.5 - 140.8

Report Date: November 14, 2011
TNM 97-18

Work Order: 11111013
9718

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Eunice, NM

Sample: 282048 - MW 20

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0941	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0810	mg/L	1	0.100	81	67.5 - 140.8

Sample: 282049 - MW 22

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0944	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0798	mg/L	1	0.100	80	67.5 - 140.8

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Eunice, NM

Sample: 282050 - MW 21

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0925	mg/L	1	0.100	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0767	mg/L	1	0.100	77	67.5 - 140.8

Sample: 282051 - MW 28

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0931	mg/L	1	0.100	93	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0781	mg/L	1	0.100	78	67.5 - 140.8

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Eunice, NM

Sample: 282052 - MW 30

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0936	mg/L	1	0.100	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0780	mg/L	1	0.100	78	67.5 - 140.8

Sample: 282053 - MW 27

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0927	mg/L	1	0.100	93	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0825	mg/L	1	0.100	82	67.5 - 140.8

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Eunice, NM

Sample: 282054 - MW 26

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0953	mg/L	1	0.100	95	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.0837	mg/L	1	0.100	84	67.5 - 140.8

Sample: 282055 - MW 5

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.29	mg/L	5	0.00100
Toluene	u	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	U	1	0.567	mg/L	5	0.00100
Xylene		1	0.258	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.500	mg/L	5	0.500	100	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.545	mg/L	5	0.500	109	67.5 - 140.8

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Eunice, NM

Sample: 282056 - MW 6

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.226	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.0123	mg/L	1	0.00100
Xylene		1	0.00580	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0965	mg/L	1	0.100	96	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.126	mg/L	1	0.100	126	67.5 - 140.8

Sample: 282057 - MW 23

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.221	mg/L	20	0.00100
Toluene	U	1	<0.0200	mg/L	20	0.00100
Ethylbenzene	U	1	<0.0200	mg/L	20	0.00100
Xylene	U	1	<0.0200	mg/L	20	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/L	20	2.00	95	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			1.77	mg/L	20	2.00	88	67.5 - 140.8

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Eunice, NM

Sample: 282058 - MW 3

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.584	mg/L	100	0.00100
Toluene	u	U	<0.100	mg/L	100	0.00100
Ethylbenzene	u	U	<0.100	mg/L	100	0.00100
Xylene	u	U	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.45	mg/L	100	10.0	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.43	mg/L	100	10.0	84	67.5 - 140.8

Sample: 282059 - MW 10

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.251	mg/L	100	0.00100
Toluene	u	U	<0.100	mg/L	100	0.00100
Ethylbenzene	u	U	<0.100	mg/L	100	0.00100
Xylene	u	U	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.52	mg/L	100	10.0	95	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.63	mg/L	100	10.0	86	67.5 - 140.8

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Eunice, NM

Sample: 282060 - MW 2

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.283	mg/L	5	0.00100
Toluene	U	1	<0.00500	mg/L	5	0.00100
Ethylbenzene		1	0.126	mg/L	5	0.00100
Xylene		1	0.0866	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.470	mg/L	5	0.500	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.522	mg/L	5	0.500	104	67.5 - 140.8

Sample: 282061 - MW 25

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.490	mg/L	5	0.00100
Toluene	U	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	U	1	<0.00500	mg/L	5	0.00100
Xylene	U	1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.478	mg/L	5	0.500	96	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			0.443	mg/L	5	0.500	89	67.5 - 140.8

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Sample: 282062 - MW 4

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.07	mg/L	100	0.00100
Toluene	u	U	<0.100	mg/L	100	0.00100
Ethylbenzene	u	U	<0.100	mg/L	100	0.00100
Xylene	u	U	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.39	mg/L	100	10.0	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.52	mg/L	100	10.0	85	67.5 - 140.8

Sample: 282063 - MW 17

Laboratory: Midland
Analysis: BTEX
QC Batch: 86364
Prep Batch: 73339

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-12

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	2.17	mg/L	100	0.00100
Toluene	u	U	<0.100	mg/L	100	0.00100
Ethylbenzene		1	1.48	mg/L	100	0.00100
Xylene	u	U	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.42	mg/L	100	10.0	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.57	mg/L	100	10.0	86	67.5 - 140.8

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Sample: 282064 - MW 24

Laboratory: Midland

Analysis: BTEX

QC Batch: 86364

Prep Batch: 73339

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-12

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	3.26	mg/L	50	0.00100
Toluene	U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	0.309	mg/L	50	0.00100
Xylene	U	1	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.62	mg/L	50	5.00	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			4.23	mg/L	50	5.00	85	67.5 - 140.8

Sample: 282065 - MW 18

Laboratory: Midland

Analysis: BTEX

QC Batch: 86372

Prep Batch: 73340

Analytical Method: S 8021B

Date Analyzed: 2011-11-13

Sample Preparation: 2011-11-13

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	2.66	mg/L	50	0.00100
Toluene	U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	1.49	mg/L	50	0.00100
Xylene		1	0.241	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.59	mg/L	50	5.00	92	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			4.00	mg/L	50	5.00	80	67.5 - 140.8

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Sample: 282066 - RW 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 86372
Prep Batch: 73340

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-13

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

Parameter		Flag	Cert	RL	Units	Dilution	RL
				Result			
Benzene			1	0.503	mg/L	100	0.00100
Toluene	u	U	1	<0.100	mg/L	100	0.00100
Ethylbenzene	u	U	1	<0.100	mg/L	100	0.00100
Xylene	u	U	1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.48	mg/L	100	10.0	95	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.17	mg/L	100	10.0	82	67.5 - 140.8

Sample: 282067 - RW 2

Laboratory: Midland
Analysis: BTEX
QC Batch: 86372
Prep Batch: 73340

Analytical Method: S 8021B
Date Analyzed: 2011-11-13
Sample Preparation: 2011-11-13

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

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene			1	0.296	mg/L	100	0.00100
Toluene	u	U	1	<0.100	mg/L	100	0.00100
Ethylbenzene	u	U	1	<0.100	mg/L	100	0.00100
Xylene	u	U	1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.45	mg/L	100	10.0	94	79.1 - 127.2
4-Bromofluorobenzene (4-BFB)			8.09	mg/L	100	10.0	81	67.5 - 140.8

Method Blanks

Method Blank (1) QC Batch: 86364

QC Batch: 86364
Prep Batch: 73339

Date Analyzed: 2011-11-13
QC Preparation: 2011-11-12

Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0924	mg/L	1	0.100	92	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0815	mg/L	1	0.100	82	45.9 - 126.4

Method Blank (1) QC Batch: 86365

QC Batch: 86365
Prep Batch: 73338

Date Analyzed: 2011-11-12
QC Preparation: 2011-11-11

Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0950	mg/L	1	0.100	95	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0873	mg/L	1	0.100	87	45.9 - 126.4

Method Blank (1) QC Batch: 86372

QC Batch: 86372
Prep Batch: 73340

Date Analyzed: 2011-11-13
QC Preparation: 2011-11-13

Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0947	mg/L	1	0.100	95	61.1 - 118.4
4-Bromofluorobenzene (4-BFB)			0.0820	mg/L	1	0.100	82	45.9 - 126.4

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 86364
Prep Batch: 73339

Date Analyzed: 2011-11-13
QC Preparation: 2011-11-12

Analyzed By: AG
Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0977	mg/L	1	0.100	<0.000400	98	76.8 - 120.3
Toluene		1	0.0927	mg/L	1	0.100	<0.000300	93	80.9 - 122.2
Ethylbenzene		1	0.0899	mg/L	1	0.100	<0.000300	90	72.7 - 120.2
Xylene		1	0.272	mg/L	1	0.300	<0.000333	91	72.1 - 121.5

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0947	mg/L	1	0.100	<0.000400	95	76.8 - 120.3	3	20
Toluene		1	0.0901	mg/L	1	0.100	<0.000300	90	80.9 - 122.2	3	20
Ethylbenzene		1	0.0869	mg/L	1	0.100	<0.000300	87	72.7 - 120.2	3	20
Xylene		1	0.261	mg/L	1	0.300	<0.000333	87	72.1 - 121.5	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0939	0.0945	mg/L	1	0.100	94	94	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0922	0.0905	mg/L	1	0.100	92	90	56.4 - 127.9

Laboratory Control Spike (LCS-1)

QC Batch: 86365
Prep Batch: 73338

Date Analyzed: 2011-11-12
QC Preparation: 2011-11-11

Analyzed By: AG
Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000400	103	76.8 - 120.3
Toluene		1	0.0991	mg/L	1	0.100	<0.000300	99	80.9 - 122.2
Ethylbenzene		1	0.0965	mg/L	1	0.100	<0.000300	96	72.7 - 120.2
Xylene		1	0.291	mg/L	1	0.300	<0.000333	97	72.1 - 121.5

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

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0988	mg/L	1	0.100	<0.000400	99	76.8 - 120.3	4	20
Toluene		1	0.0942	mg/L	1	0.100	<0.000300	94	80.9 - 122.2	5	20
Ethylbenzene		1	0.0909	mg/L	1	0.100	<0.000300	91	72.7 - 120.2	6	20
Xylene		1	0.274	mg/L	1	0.300	<0.000333	91	72.1 - 121.5	6	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)	0.0954	0.0973	mg/L	1	0.100	95	97	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0980	0.0969	mg/L	1	0.100	98	97	56.4 - 127.9

Laboratory Control Spike (LCS-1)

QC Batch: 86372
Prep Batch: 73340

Date Analyzed: 2011-11-13
QC Preparation: 2011-11-13

Analyzed By: AG
Prepared By: AG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0984	mg/L	1	0.100	<0.000400	98	76.8 - 120.3
Toluene		1	0.0929	mg/L	1	0.100	<0.000300	93	80.9 - 122.2
Ethylbenzene		1	0.0896	mg/L	1	0.100	<0.000300	90	72.7 - 120.2
Xylene		1	0.270	mg/L	1	0.300	<0.000333	90	72.1 - 121.5

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0996	mg/L	1	0.100	<0.000400	100	76.8 - 120.3	1	20
Toluene		1	0.0947	mg/L	1	0.100	<0.000300	95	80.9 - 122.2	2	20
Ethylbenzene		1	0.0916	mg/L	1	0.100	<0.000300	92	72.7 - 120.2	2	20
Xylene		1	0.275	mg/L	1	0.300	<0.000333	92	72.1 - 121.5	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)	0.0949	0.0955	mg/L	1	0.100	95	96	61.9 - 119.2
4-Bromofluorobenzene (4-BFB)	0.0934	0.0948	mg/L	1	0.100	93	95	56.4 - 127.9

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Matrix Spike (MS-1) Spiked Sample: 282064

QC Batch: 86364
Prep Batch: 73339

Date Analyzed: 2011-11-13
QC Preparation: 2011-11-12

Analyzed By: AG
Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	8.90	mg/L	50	5.00	3.2583	113	66.9 - 128.2
Toluene		1	4.80	mg/L	50	5.00	<0.0150	96	81.6 - 122.9
Ethylbenzene		1	5.02	mg/L	50	5.00	0.3089	94	62.7 - 117.9
Xylene		1	14.0	mg/L	50	15.0	<0.0166	93	62.9 - 118.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	8.78	mg/L	50	5.00	3.2583	110	66.9 - 128.2	1	20
Toluene		1	4.77	mg/L	50	5.00	<0.0150	95	81.6 - 122.9	1	20
Ethylbenzene		1	5.05	mg/L	50	5.00	0.3089	95	62.7 - 117.9	1	20
Xylene		1	14.1	mg/L	50	15.0	<0.0166	94	62.9 - 118.2	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.81	4.80	mg/L	50	5	96	96	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	4.81	4.93	mg/L	50	5	96	99	52.2 - 135.8

Matrix Spike (MS-1) Spiked Sample: 282044

QC Batch: 86365
Prep Batch: 73338

Date Analyzed: 2011-11-12
QC Preparation: 2011-11-11

Analyzed By: AG
Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000400	104	66.9 - 128.2
Toluene		1	0.0950	mg/L	1	0.100	<0.000300	95	81.6 - 122.9
Ethylbenzene		1	0.0898	mg/L	1	0.100	<0.000300	90	62.7 - 117.9
Xylene		1	0.269	mg/L	1	0.300	<0.000333	90	62.9 - 118.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.105	mg/L	1	0.100	<0.000400	105	66.9 - 128.2	1	20
Toluene		1	0.100	mg/L	1	0.100	<0.000300	100	81.6 - 122.9	5	20

continued ...

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matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	0.0961	mg/L	1	0.100	<0.000300	96	62.7 - 117.9	7	20
Xylene		1	0.289	mg/L	1	0.300	<0.000333	96	62.9 - 118.2	7	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)	0.0946	0.0924	mg/L	1	0.1	95	92	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	0.0934	0.0935	mg/L	1	0.1	93	94	52.2 - 135.8

Matrix Spike (MS-1) Spiked Sample: 282092

QC Batch: 86372
Prep Batch: 73340

Date Analyzed: 2011-11-13
QC Preparation: 2011-11-13

Analyzed By: AG
Prepared By: AG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	5.07	mg/L	50	5.00	0.0586	100	66.9 - 128.2
Toluene		1	4.79	mg/L	50	5.00	<0.0150	96	81.6 - 122.9
Ethylbenzene		1	4.59	mg/L	50	5.00	<0.0150	92	62.7 - 117.9
Xylene		1	13.7	mg/L	50	15.0	<0.0166	91	62.9 - 118.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	5.08	mg/L	50	5.00	0.0586	100	66.9 - 128.2	0	20
Toluene		1	4.79	mg/L	50	5.00	<0.0150	96	81.6 - 122.9	0	20
Ethylbenzene		1	4.59	mg/L	50	5.00	<0.0150	92	62.7 - 117.9	0	20
Xylene		1	13.7	mg/L	50	15.0	<0.0166	91	62.9 - 118.2	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.79	4.77	mg/L	50	5	96	95	58.6 - 119.7
4-Bromofluorobenzene (4-BFB)	4.54	4.66	mg/L	50	5	91	93	52.2 - 135.8

Calibration Standards

Standard (CCV-1)

QC Batch: 86364

Date Analyzed: 2011-11-13

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	0.102	102	80 - 120	2011-11-13
Toluene		1	mg/L	0.100	0.0967	97	80 - 120	2011-11-13
Ethylbenzene		1	mg/L	0.100	0.0921	92	80 - 120	2011-11-13
Xylene		1	mg/L	0.300	0.279	93	80 - 120	2011-11-13

Standard (CCV-2)

QC Batch: 86364

Date Analyzed: 2011-11-13

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	0.107	107	80 - 120	2011-11-13
Toluene		1	mg/L	0.100	0.0990	99	80 - 120	2011-11-13
Ethylbenzene		1	mg/L	0.100	0.0913	91	80 - 120	2011-11-13
Xylene		1	mg/L	0.300	0.275	92	80 - 120	2011-11-13

Standard (CCV-3)

QC Batch: 86364

Date Analyzed: 2011-11-13

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	0.102	102	80 - 120	2011-11-13
Toluene		1	mg/L	0.100	0.0973	97	80 - 120	2011-11-13
Ethylbenzene		1	mg/L	0.100	0.0943	94	80 - 120	2011-11-13
Xylene		1	mg/L	0.300	0.284	95	80 - 120	2011-11-13

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Standard (CCV-2)

QC Batch: 86365

Date Analyzed: 2011-11-12

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	0.104	104	80 - 120	2011-11-12
Toluene		1	mg/L	0.100	0.0969	97	80 - 120	2011-11-12
Ethylbenzene		1	mg/L	0.100	0.0927	93	80 - 120	2011-11-12
Xylene		1	mg/L	0.300	0.280	93	80 - 120	2011-11-12

Standard (CCV-3)

QC Batch: 86365

Date Analyzed: 2011-11-12

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	0.103	103	80 - 120	2011-11-12
Toluene		1	mg/L	0.100	0.0970	97	80 - 120	2011-11-12
Ethylbenzene		1	mg/L	0.100	0.0922	92	80 - 120	2011-11-12
Xylene		1	mg/L	0.300	0.277	92	80 - 120	2011-11-12

Standard (CCV-2)

QC Batch: 86372

Date Analyzed: 2011-11-13

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2011-11-13
Toluene		1	mg/L	0.100	0.0947	95	80 - 120	2011-11-13
Ethylbenzene		1	mg/L	0.100	0.0903	90	80 - 120	2011-11-13
Xylene		1	mg/L	0.300	0.270	90	80 - 120	2011-11-13

Standard (CCV-3)

QC Batch: 86372

Date Analyzed: 2011-11-13

Analyzed By: AG

Report Date: November 14, 2011
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Eunice, NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0955	96	80 - 120	2011-11-13
Toluene		1	mg/L	0.100	0.0907	91	80 - 120	2011-11-13
Ethylbenzene		1	mg/L	0.100	0.0876	88	80 - 120	2011-11-13
Xylene		1	mg/L	0.300	0.264	88	80 - 120	2011-11-13

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Limits of Detection (LOD)

Appendix

Report Definitions

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

Laboratory Certifications

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

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less 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: NOVA Safety & Environmental Phone #: 432-520-7720
Address: (Street, City, Zip) 2057 Commerce, Midland, TX, 79703 Fax #:
Contact Person: E-mail:

Invoice to:
(If different from above)
Project #:

Project Location (including state): Monument, NM Project Name: TNM-9718
Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
020040	MW1	3	var											11/9/11	1115
041	MW8	1													1120
042	MW9	1													1130
043	MW11	1													1130
044	MW12	1													1140
045	MW14	1													1140
046	MW15	2													1150
047	MW16	3													1155
048	MW20	1													1200
049	MW22	1													1215
050	MW21	1													1205

Relinquished by: Brynn Lee Company: NOVA Date: 11/10 Time: 0800 Received by: [Signature] Company: TA Date: 11/10/11 Time: 8:20 INST 3.6 OBS 3.6 COR 3.6

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

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

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	BTX 8021 / 602 / 8260 / 624	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	RCL	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, S, NO ₃ , NO ₂ , Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold
------------------------------	-----------------------------	---------------------------	----------------	---	-------------------------------------	----------------	---------------------	-----------------	-----	-----------------------	-----------------------------	------------------	-----------------------	--------------	------------------	--	------------------------	---	------

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

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

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

LAB USE ONLY

Intact ☒ N
Headspace ☒ N

Log-In Review

REMARKS:

All tests - Midland

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

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
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1 (888) 588-3443BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: <i>NOVA Safety & Environmental</i>	Phone #: <i>432-520-7720</i>
Address: (Street, City, Zip) <i>2057 Commerce, Midland, TX, 79703</i>	Fax #:
Contact Person: <i>Brythe Lee</i>	E-mail:
Invoice to: (If different from above)	
Project #:	Project Name: <i>TNM: 9718</i>
Project Location (including state): <i>Monument, NM</i>	Sampler Signature: <i>[Signature]</i>

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		MTBE 8021 / 602	BTX 8021 / 602 / 8260 / 625	TPH 418.1 / TX1005	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		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO3	H2SO4	NaOH	ICE	NONE	DATE																						TIME	
051	MW28	3	Voc											11/9/11	1220	X																					
052	MW30	1													1225	1																					
053	MW27														1235																						
054	MW26														1235																						
055	MW5														1240																						
056	MW6														1300																						
057	MW23														1315																						
058	MW3														1320																						
059	MW10	2													1330																						
060	MW2	2													1330																						
061	MW25	3													1340																						

Relinquished by: <i>[Signature]</i>	Company: NOVA	Date: 11/10	Time: 0800	Received by: <i>[Signature]</i>	Company: TK	Date: 11/10/11	Time: 9:00	INST OBS 3.6 COR 3.6
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS COR

LAB USE ONLY
Intact ☒ Y ☐ N
Headspace ☒ Y ☐ N
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.

ORIGINAL COPY

Carrier # *[Signature]*



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
6002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: January 4, 2012

Work Order: 11121918

Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
284799	MW-2	water	2011-12-14	11:15	2011-12-16
284800	MW-3	water	2011-12-14	11:00	2011-12-16
284801	MW-4	water	2011-12-14	10:30	2011-12-16
284802	MW-6	water	2011-12-14	09:45	2011-12-16
284803	MW-10	water	2011-12-14	10:00	2011-12-16
284804	MW-17	water	2011-12-14	10:45	2011-12-16
284805	MW-18	water	2011-12-14	10:15	2011-12-16
284806	RW-1	water	2011-12-14	11:30	2011-12-16
284807	RW-2	water	2011-12-14	11:45	2011-12-16

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 19 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

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Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2011-12-16 and assigned to work order 11121918. Samples for work order 11121918 were received intact at a temperature of 11.3 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
PAH	S 8270D	74334	2012-12-21 at 15:00	87535	2012-01-02 at 11:40

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 11121918 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 284799 - MW-2

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87535

Prep Batch: 74334

Analytical Method: S 8270D

Date Analyzed: 2012-01-02

Sample Preparation: 2012-12-21

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.0154	mg/L	0.939	0.000200
2-Methylnaphthalene		1	0.0174	mg/L	0.939	0.000200
1-Methylnaphthalene			0.0292	mg/L	0.939	0.000200
Acenaphthylene	u	1	<0.000188	mg/L	0.939	0.000200
Acenaphthene	u	1	<0.000188	mg/L	0.939	0.000200
Dibenzofuran		1	0.00412	mg/L	0.939	0.000200
Fluorene	u	1	<0.000188	mg/L	0.939	0.000200
Anthracene	u	1	<0.000188	mg/L	0.939	0.000200
Phenanthrene			0.00495	mg/L	0.939	0.000200
Fluoranthene	u		<0.000188	mg/L	0.939	0.000200
Pyrene	u	1	<0.000188	mg/L	0.939	0.000200
Benzo(a)anthracene	u		<0.000188	mg/L	0.939	0.000200
Chrysene	u	1	<0.000188	mg/L	0.939	0.000200
Benzo(b)fluoranthene	u		<0.000188	mg/L	0.939	0.000200
Benzo(k)fluoranthene	u	1	<0.000188	mg/L	0.939	0.000200
Benzo(a)pyrene	u	1	<0.000188	mg/L	0.939	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000188	mg/L	0.939	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000188	mg/L	0.939	0.000200
Benzo(g,h,i)perylene	u		<0.000188	mg/L	0.939	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0544	mg/L	0.939	0.0800	68	10 - 117
2-Fluorobiphenyl			0.0523	mg/L	0.939	0.0800	65	10 - 99
Terphenyl-d14			0.0705	mg/L	0.939	0.0800	88	22.6 - 115

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Sample: 284800 - MW-3

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87535

Prep Batch: 74334

Analytical Method: S 8270D

Date Analyzed: 2012-01-02

Sample Preparation: 2012-12-21

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.00586	mg/L	0.939	0.000200
2-Methylnaphthalene		1	0.00399	mg/L	0.939	0.000200
1-Methylnaphthalene			0.0197	mg/L	0.939	0.000200
Acenaphthylene	u	1	<0.000188	mg/L	0.939	0.000200
Acenaphthene	u	1	<0.000188	mg/L	0.939	0.000200
Dibenzofuran		1	0.00269	mg/L	0.939	0.000200
Fluorene	u	1	<0.000188	mg/L	0.939	0.000200
Anthracene	u	1	<0.000188	mg/L	0.939	0.000200
Phenanthrene			0.00294	mg/L	0.939	0.000200
Fluoranthene	u		<0.000188	mg/L	0.939	0.000200
Pyrene	u	1	<0.000188	mg/L	0.939	0.000200
Benzo(a)anthracene	u		<0.000188	mg/L	0.939	0.000200
Chrysene	u	1	<0.000188	mg/L	0.939	0.000200
Benzo(b)fluoranthene	u		<0.000188	mg/L	0.939	0.000200
Benzo(k)fluoranthene	u	1	<0.000188	mg/L	0.939	0.000200
Benzo(a)pyrene	u	1	<0.000188	mg/L	0.939	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000188	mg/L	0.939	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000188	mg/L	0.939	0.000200
Benzo(g,h,i)perylene	u		<0.000188	mg/L	0.939	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0481	mg/L	0.939	0.0800	60	10 - 117
2-Fluorobiphenyl			0.0529	mg/L	0.939	0.0800	66	10 - 99
Terphenyl-d14			0.0732	mg/L	0.939	0.0800	92	22.6 - 115

Sample: 284801 - MW-4

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87535

Prep Batch: 74334

Analytical Method: S 8270D

Date Analyzed: 2012-01-02

Sample Preparation: 2012-12-21

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.0177	mg/L	0.935	0.000200

continued ...

sample 284801 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
2-Methylnaphthalene		1	0.0227	mg/L	0.935	0.000200
1-Methylnaphthalene			0.0770	mg/L	0.935	0.000200
Acenaphthylene	u	1	<0.000187	mg/L	0.935	0.000200
Acenaphthene	u	1	<0.000187	mg/L	0.935	0.000200
Dibenzofuran		1	0.0103	mg/L	0.935	0.000200
Fluorene	u	1	<0.000187	mg/L	0.935	0.000200
Anthracene	u	1	<0.000187	mg/L	0.935	0.000200
Phenanthrene			0.0124	mg/L	0.935	0.000200
Fluoranthene	u		<0.000187	mg/L	0.935	0.000200
Pyrene	u	1	<0.000187	mg/L	0.935	0.000200
Benzo(a)anthracene	u		<0.000187	mg/L	0.935	0.000200
Chrysene	u	1	<0.000187	mg/L	0.935	0.000200
Benzo(b)fluoranthene	u		<0.000187	mg/L	0.935	0.000200
Benzo(k)fluoranthene	u	1	<0.000187	mg/L	0.935	0.000200
Benzo(a)pyrene	u	1	<0.000187	mg/L	0.935	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000187	mg/L	0.935	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000187	mg/L	0.935	0.000200
Benzo(g,h,i)perylene	u		<0.000187	mg/L	0.935	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0442	mg/L	0.935	0.0800	55	10 - 117
2-Fluorobiphenyl			0.0323	mg/L	0.935	0.0800	40	10 - 99
Terphenyl-d14			0.0434	mg/L	0.935	0.0800	54	22.6 - 115

Sample: 284802 - MW-6

Laboratory: Lubbock
Analysis: PAH
QC Batch: 87535
Prep Batch: 74334

Analytical Method: S 8270D
Date Analyzed: 2012-01-02
Sample Preparation: 2012-12-21

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.00838	mg/L	0.922	0.000200
2-Methylnaphthalene		1	0.00780	mg/L	0.922	0.000200
1-Methylnaphthalene			0.0349	mg/L	0.922	0.000200
Acenaphthylene	u	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran		1	0.0100	mg/L	0.922	0.000200

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sample 284802 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Fluorene	u	1	<0.000184	mg/L	0.922	0.000200
Anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene			0.0151	mg/L	0.922	0.000200
Fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene	u		<0.000184	mg/L	0.922	0.000200
Chrysene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	u		<0.000184	mg/L	0.922	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0773	mg/L	0.922	0.0800	97	10 - 117
2-Fluorobiphenyl			0.0615	mg/L	0.922	0.0800	77	10 - 99
Terphenyl-d14			0.0843	mg/L	0.922	0.0800	105	22.6 - 115

Sample: 284803 - MW-10

Laboratory: Lubbock
Analysis: PAH
QC Batch: 87535
Prep Batch: 74334

Analytical Method: S 8270D
Date Analyzed: 2012-01-02
Sample Preparation: 2012-12-21

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.00310	mg/L	0.922	0.000200
2-Methylnaphthalene		1	0.00150	mg/L	0.922	0.000200
1-Methylnaphthalene			0.0193	mg/L	0.922	0.000200
Acenaphthylene	u	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran		1	0.00373	mg/L	0.922	0.000200
Fluorene		1	0.00374	mg/L	0.922	0.000200
Anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene			0.00496	mg/L	0.922	0.000200
Fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Pyrene	u	1	<0.000184	mg/L	0.922	0.000200

continued ...

sample 284803 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzo(a)anthracene	u		<0.000184	mg/L	0.922	0.000200
Chrysene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	u		<0.000184	mg/L	0.922	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0517	mg/L	0.922	0.0800	65	10 - 117
2-Fluorobiphenyl			0.0451	mg/L	0.922	0.0800	56	10 - 99
Terphenyl-d14			0.0624	mg/L	0.922	0.0800	78	22.6 - 115

Sample: 284804 - MW-17

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87535

Prep Batch: 74334

Analytical Method: S 8270D

Date Analyzed: 2012-01-02

Sample Preparation: 2012-12-21

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.0281	mg/L	0.943	0.000200
2-Methylnaphthalene		1	0.0143	mg/L	0.943	0.000200
1-Methylnaphthalene			0.0384	mg/L	0.943	0.000200
Acenaphthylene	u	1	<0.000189	mg/L	0.943	0.000200
Acenaphthene	u	1	<0.000189	mg/L	0.943	0.000200
Dibenzofuran		1	0.00238	mg/L	0.943	0.000200
Fluorene		1	0.00153	mg/L	0.943	0.000200
Anthracene	u	1	<0.000189	mg/L	0.943	0.000200
Phenanthrene			0.00133	mg/L	0.943	0.000200
Fluoranthene	u		<0.000189	mg/L	0.943	0.000200
Pyrene	u	1	<0.000189	mg/L	0.943	0.000200
Benzo(a)anthracene	u		<0.000189	mg/L	0.943	0.000200
Chrysene	u	1	<0.000189	mg/L	0.943	0.000200
Benzo(b)fluoranthene	u		<0.000189	mg/L	0.943	0.000200
Benzo(k)fluoranthene	u	1	<0.000189	mg/L	0.943	0.000200
Benzo(a)pyrene	u	1	<0.000189	mg/L	0.943	0.000200

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sample 284804 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene	u	1	<0.000189	mg/L	0.943	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000189	mg/L	0.943	0.000200
Benzo(g,h,i)perylene	u		<0.000189	mg/L	0.943	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0473	mg/L	0.943	0.0800	59	10 - 117
2-Fluorobiphenyl			0.0459	mg/L	0.943	0.0800	57	10 - 99
Terphenyl-d14			0.0720	mg/L	0.943	0.0800	90	22.6 - 115

Sample: 284805 - MW-18

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87535

Prep Batch: 74334

Analytical Method: S 8270D

Date Analyzed: 2012-01-02

Sample Preparation: 2012-12-21

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.0278	mg/L	0.917	0.000200
2-Methylnaphthalene		1	0.0157	mg/L	0.917	0.000200
1-Methylnaphthalene			0.0276	mg/L	0.917	0.000200
Acenaphthylene	u	1	<0.000183	mg/L	0.917	0.000200
Acenaphthene	u	1	<0.000183	mg/L	0.917	0.000200
Dibenzofuran		1	0.00242	mg/L	0.917	0.000200
Fluorene		1	0.00147	mg/L	0.917	0.000200
Anthracene	u	1	<0.000183	mg/L	0.917	0.000200
Phenanthrene			0.00131	mg/L	0.917	0.000200
Fluoranthene	u		<0.000183	mg/L	0.917	0.000200
Pyrene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)anthracene	u		<0.000183	mg/L	0.917	0.000200
Chrysene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene	u		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene	u	1	<0.000183	mg/L	0.917	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(g,h,i)perylene	u		<0.000183	mg/L	0.917	0.000200

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0348	mg/L	0.917	0.0800	44	10 - 117
2-Fluorobiphenyl			0.0380	mg/L	0.917	0.0800	48	10 - 99
Terphenyl-d14			0.0626	mg/L	0.917	0.0800	78	22.6 - 115

Sample: 284806 - RW-1

Laboratory: Lubbock
Analysis: PAH
QC Batch: 87535
Prep Batch: 74334

Analytical Method: S 8270D
Date Analyzed: 2012-01-02
Sample Preparation: 2012-12-21

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.0444	mg/L	0.922	0.000200
2-Methylnaphthalene		1	0.0613	mg/L	0.922	0.000200
1-Methylnaphthalene			0.0785	mg/L	0.922	0.000200
Acenaphthylene	u	1	<0.000184	mg/L	0.922	0.000200
Acenaphthene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzofuran		1	0.0101	mg/L	0.922	0.000200
Fluorene	u	1	<0.000184	mg/L	0.922	0.000200
Anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Phenanthrene			0.0135	mg/L	0.922	0.000200
Fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene	u		<0.000184	mg/L	0.922	0.000200
Chrysene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene	u		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene	u		<0.000184	mg/L	0.922	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0751	mg/L	0.922	0.0800	94	10 - 117
2-Fluorobiphenyl			0.0535	mg/L	0.922	0.0800	67	10 - 99
Terphenyl-d14			0.0702	mg/L	0.922	0.0800	88	22.6 - 115

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Sample: 284807 - RW-2

Laboratory: Lubbock

Analysis: PAH

QC Batch: 87535

Prep Batch: 74334

Analytical Method: S 8270D

Date Analyzed: 2012-01-02

Sample Preparation: 2012-12-21

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.0148	mg/L	0.935	0.000200
2-Methylnaphthalene		1	0.0154	mg/L	0.935	0.000200
1-Methylnaphthalene			0.0308	mg/L	0.935	0.000200
Acenaphthylene	u	1	<0.000187	mg/L	0.935	0.000200
Acenaphthene	u	1	<0.000187	mg/L	0.935	0.000200
Dibenzofuran		1	0.00361	mg/L	0.935	0.000200
Fluorene	u	1	<0.000187	mg/L	0.935	0.000200
Anthracene	u	1	<0.000187	mg/L	0.935	0.000200
Phenanthrene			0.00418	mg/L	0.935	0.000200
Fluoranthene	u		<0.000187	mg/L	0.935	0.000200
Pyrene	u	1	<0.000187	mg/L	0.935	0.000200
Benzo(a)anthracene	u		<0.000187	mg/L	0.935	0.000200
Chrysene	u	1	<0.000187	mg/L	0.935	0.000200
Benzo(b)fluoranthene	u		<0.000187	mg/L	0.935	0.000200
Benzo(k)fluoranthene	u	1	<0.000187	mg/L	0.935	0.000200
Benzo(a)pyrene	u	1	<0.000187	mg/L	0.935	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000187	mg/L	0.935	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000187	mg/L	0.935	0.000200
Benzo(g,h,i)perylene	u		<0.000187	mg/L	0.935	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0452	mg/L	0.935	0.0800	56	10 - 117
2-Fluorobiphenyl			0.0433	mg/L	0.935	0.0800	54	10 - 99
Terphenyl-d14			0.0593	mg/L	0.935	0.0800	74	22.6 - 115

Method Blanks

Method Blank (1) QC Batch: 87535

QC Batch: 87535
Prep Batch: 74334

Date Analyzed: 2012-01-02
QC Preparation: 2012-12-21

Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.0000904	mg/L	0.0002
2-Methylnaphthalene		1	<0.000184	mg/L	0.0002
1-Methylnaphthalene			<0.000120	mg/L	0.0002
Acenaphthylene		1	<0.000101	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000119	mg/L	0.0002
Fluorene		1	<0.000198	mg/L	0.0002
Anthracene		1	<0.000190	mg/L	0.0002
Phenanthrene			<0.000190	mg/L	0.0002
Fluoranthene			<0.000122	mg/L	0.0002
Pyrene		1	<0.000142	mg/L	0.0002
Benzo(a)anthracene			<0.000138	mg/L	0.0002
Chrysene		1	<0.000155	mg/L	0.0002
Benzo(b)fluoranthene			<0.000179	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.000185	mg/L	0.0002
Benzo(a)pyrene		1	<0.000169	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	<0.000139	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.000107	mg/L	0.0002
Benzo(g,h,i)perylene			<0.000143	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0450	mg/L	1	0.0800	56	10 - 117
2-Fluorobiphenyl			0.0360	mg/L	1	0.0800	45	10 - 99
Terphenyl-d14			0.0563	mg/L	1	0.0800	70	22.6 - 115

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 87535
Prep Batch: 74334

Date Analyzed: 2012-01-02
QC Preparation: 2012-12-21

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	0.0315	mg/L	1	0.0800	<0.0000904	39	10 - 89.9
2-Methylnaphthalene		1	0.0351	mg/L	1	0.0800	<0.000184	44	13.8 - 98.4
1-Methylnaphthalene			0.0407	mg/L	1	0.0800	<0.000120	51	13.1 - 103
Acenaphthylene		1	0.0410	mg/L	1	0.0800	<0.000101	51	20 - 104
Acenaphthene		1	0.0403	mg/L	1	0.0800	<0.000122	50	21.6 - 94.6
Dibenzofuran		1	0.0479	mg/L	1	0.0800	<0.000119	60	22.9 - 74.9
Fluorene		1	0.0515	mg/L	1	0.0800	<0.000198	64	30.8 - 109
Anthracene		1	0.0594	mg/L	1	0.0800	<0.000190	74	37.6 - 96.4
Phenanthrene			0.0571	mg/L	1	0.0800	<0.000190	71	42.4 - 99.8
Fluoranthene			0.0558	mg/L	1	0.0800	<0.000122	70	48 - 118
Pyrene		1	0.0734	mg/L	1	0.0800	<0.000142	92	45.3 - 109
Benzo(a)anthracene			0.0642	mg/L	1	0.0800	<0.000138	80	48 - 113
Chrysene		1	0.0598	mg/L	1	0.0800	<0.000155	75	35.2 - 175
Benzo(b)fluoranthene			0.0495	mg/L	1	0.0800	<0.000179	62	16.6 - 106
Benzo(k)fluoranthene		1	0.0456	mg/L	1	0.0800	<0.000185	57	36.8 - 99.4
Benzo(a)pyrene		1	0.0458	mg/L	1	0.0800	<0.000169	57	32.3 - 99.7
Indeno(1,2,3-cd)pyrene		1	0.0512	mg/L	1	0.0800	<0.000139	64	34.1 - 106
Dibenzo(a,h)anthracene		1	0.0551	mg/L	1	0.0800	<0.000107	69	47.1 - 103
Benzo(g,h,i)perylene			0.0506	mg/L	1	0.0800	<0.000143	63	21.9 - 112

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
Naphthalene		1	0.0352	mg/L	1	0.0800	<0.0000904	44	10 - 89.9	11	20
2-Methylnaphthalene		1	0.0400	mg/L	1	0.0800	<0.000184	50	13.8 - 98.4	13	20
1-Methylnaphthalene			0.0465	mg/L	1	0.0800	<0.000120	58	13.1 - 103	13	20
Acenaphthylene		1	0.0467	mg/L	1	0.0800	<0.000101	58	20 - 104	13	20
Acenaphthene		1	0.0455	mg/L	1	0.0800	<0.000122	57	21.6 - 94.6	12	20
Dibenzofuran		1	0.0551	mg/L	1	0.0800	<0.000119	69	22.9 - 74.9	14	20
Fluorene		1	0.0595	mg/L	1	0.0800	<0.000198	74	30.8 - 109	14	20
Anthracene		1	0.0668	mg/L	1	0.0800	<0.000190	84	37.6 - 96.4	12	20
Phenanthrene			0.0642	mg/L	1	0.0800	<0.000190	80	42.4 - 99.8	12	20
Fluoranthene			0.0619	mg/L	1	0.0800	<0.000122	77	48 - 118	10	20
Pyrene		1	0.0826	mg/L	1	0.0800	<0.000142	103	45.3 - 109	12	20

continued ...

control spikes continued ...

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzo(a)anthracene			0.0714	mg/L	1	0.0800	<0.000138	89	48 - 113	11	20
Chrysene		1	0.0670	mg/L	1	0.0800	<0.000155	84	35.2 - 175	11	20
Benzo(b)fluoranthene			0.0477	mg/L	1	0.0800	<0.000179	60	16.6 - 106	4	20
Benzo(k)fluoranthene		1	0.0510	mg/L	1	0.0800	<0.000185	64	36.8 - 99.4	11	20
Benzo(a)pyrene		1	0.0516	mg/L	1	0.0800	<0.000169	64	32.3 - 99.7	12	20
Indeno(1,2,3-cd)pyrene		1	0.0580	mg/L	1	0.0800	<0.000139	72	34.1 - 106	12	20
Dibenzo(a,h)anthracene		1	0.0632	mg/L	1	0.0800	<0.000107	79	47.1 - 103	14	20
Benzo(g,h,i)perylene			0.0581	mg/L	1	0.0800	<0.000143	73	21.9 - 112	14	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
Nitrobenzene-d5	0.0437	0.0490	mg/L	1	0.0800	55	61	10 - 117
2-Fluorobiphenyl	0.0381	0.0436	mg/L	1	0.0800	48	54	10 - 99
Terphenyl-d14	0.0791	0.0874	mg/L	1	0.0800	99	109	22.6 - 115

Calibration Standards

Standard (CCV-1)

QC Batch: 87535

Date Analyzed: 2012-01-02

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	53.7	90	80 - 120	2012-01-02
2-Methylnaphthalene		1	mg/L	60.0	49.9	83	80 - 120	2012-01-02
1-Methylnaphthalene			mg/L	60.0	61.0	102	80 - 120	2012-01-02
Acenaphthylene		1	mg/L	60.0	52.5	88	80 - 120	2012-01-02
Acenaphthene		1	mg/L	60.0	53.8	90	80 - 120	2012-01-02
Dibenzofuran		1	mg/L	60.0	52.7	88	80 - 120	2012-01-02
Fluorene		1	mg/L	60.0	56.0	93	80 - 120	2012-01-02
Anthracene		1	mg/L	60.0	62.2	104	80 - 120	2012-01-02
Phenanthrene			mg/L	60.0	60.6	101	80 - 120	2012-01-02
Fluoranthene			mg/L	60.0	57.3	96	80 - 120	2012-01-02
Pyrene		1	mg/L	60.0	68.3	114	80 - 120	2012-01-02
Benzo(a)anthracene			mg/L	60.0	59.2	99	80 - 120	2012-01-02
Chrysene		1	mg/L	60.0	52.2	87	80 - 120	2012-01-02
Benzo(b)fluoranthene			mg/L	60.0	49.5	82	80 - 120	2012-01-02
Benzo(k)fluoranthene		1	mg/L	60.0	48.1	80	80 - 120	2012-01-02
Benzo(a)pyrene		1	mg/L	60.0	51.2	85	80 - 120	2012-01-02
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	54.4	91	80 - 120	2012-01-02
Dibenzo(a,h)anthracene		1	mg/L	60.0	55.8	93	80 - 120	2012-01-02
Benzo(g,h,i)perylene			mg/L	60.0	54.2	90	80 - 120	2012-01-02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			58.2	mg/L	1	60.0	97	-
2-Fluorobiphenyl			50.8	mg/L	1	60.0	85	-
Terphenyl-d14			67.5	mg/L	1	60.0	112	-

Standard (CCV-2)

QC Batch: 87535

Date Analyzed: 2012-01-02

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	52.7	88	80 - 120	2012-01-02

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
2-Methylnaphthalene		1	mg/L	60.0	49.0	82	80 - 120	2012-01-02
1-Methylnaphthalene			mg/L	60.0	57.6	96	80 - 120	2012-01-02
Acenaphthylene		1	mg/L	60.0	52.9	88	80 - 120	2012-01-02
Acenaphthene		1	mg/L	60.0	53.7	90	80 - 120	2012-01-02
Dibenzofuran		1	mg/L	60.0	53.0	88	80 - 120	2012-01-02
Fluorene		1	mg/L	60.0	55.6	93	80 - 120	2012-01-02
Anthracene		1	mg/L	60.0	60.8	101	80 - 120	2012-01-02
Phenanthrene			mg/L	60.0	59.4	99	80 - 120	2012-01-02
Fluoranthene			mg/L	60.0	58.9	98	80 - 120	2012-01-02
Pyrene		1	mg/L	60.0	64.4	107	80 - 120	2012-01-02
Benzo(a)anthracene			mg/L	60.0	57.4	96	80 - 120	2012-01-02
Chrysene		1	mg/L	60.0	51.4	86	80 - 120	2012-01-02
Benzo(b)fluoranthene			mg/L	60.0	52.1	87	80 - 120	2012-01-02
Benzo(k)fluoranthene		1	mg/L	60.0	55.1	92	80 - 120	2012-01-02
Benzo(a)pyrene		1	mg/L	60.0	51.5	86	80 - 120	2012-01-02
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	53.1	88	80 - 120	2012-01-02
Dibenzo(a,h)anthracene		1	mg/L	60.0	55.6	93	80 - 120	2012-01-02
Benzo(g,h,i)perylene			mg/L	60.0	51.8	86	80 - 120	2012-01-02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			60.3	mg/L	1	60.0	100	-
2-Fluorobiphenyl			51.9	mg/L	1	60.0	86	-
Terphenyl-d14			64.5	mg/L	1	60.0	108	-

Standard (CCV-3)

QC Batch: 87535

Date Analyzed: 2012-01-02

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	53.0	88	80 - 120	2012-01-02
2-Methylnaphthalene		1	mg/L	60.0	50.0	83	80 - 120	2012-01-02
1-Methylnaphthalene			mg/L	60.0	59.2	99	80 - 120	2012-01-02
Acenaphthylene		1	mg/L	60.0	52.7	88	80 - 120	2012-01-02
Acenaphthene		1	mg/L	60.0	53.6	89	80 - 120	2012-01-02
Dibenzofuran		1	mg/L	60.0	52.7	88	80 - 120	2012-01-02
Fluorene		1	mg/L	60.0	55.4	92	80 - 120	2012-01-02
Anthracene		1	mg/L	60.0	59.8	100	80 - 120	2012-01-02
Phenanthrene			mg/L	60.0	58.7	98	80 - 120	2012-01-02

continued ...

Report Date: January 4, 2012
TNM 97-18

Work Order: 11121918
9718

Page Number: 18 of 19
Eunice, NM

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoranthene			mg/L	60.0	57.8	96	80 - 120	2012-01-02
Pyrene		1	mg/L	60.0	64.6	108	80 - 120	2012-01-02
Benzo(a)anthracene			mg/L	60.0	58.6	98	80 - 120	2012-01-02
Chrysene		1	mg/L	60.0	51.7	86	80 - 120	2012-01-02
Benzo(b)fluoranthene			mg/L	60.0	56.1	94	80 - 120	2012-01-02
Benzo(k)fluoranthene		1	mg/L	60.0	52.2	87	80 - 120	2012-01-02
Benzo(a)pyrene		1	mg/L	60.0	50.4	84	80 - 120	2012-01-02
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	53.0	88	80 - 120	2012-01-02
Dibenzo(a,h)anthracene		1	mg/L	60.0	55.4	92	80 - 120	2012-01-02
Benzo(g,h,i)perylene			mg/L	60.0	51.8	86	80 - 120	2012-01-02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			60.0	mg/L	1	60.0	100	-
2-Fluorobiphenyl			51.5	mg/L	1	60.0	86	-
Terphenyl-d14			64.8	mg/L	1	60.0	108	-

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.

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Company Name: <i>Nova</i>	Phone #:
Address: (Street, City, Zip)	Fax #:
Contact Person: <i>Ron Rounsaville</i>	E-mail:
Invoice to: (If different from above)	
Project #: <i>TNM 97-18</i>	Project Name: <i>97-18</i>
Project Location (including state):	Sampler Signature: <i>David Fletcher</i>

ANALYSIS REQUEST
(Circle or Specify Method No.)

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	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 825	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	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME																						
284799	mw2	1	1/2 Amber	X									X	12/14/11	1115			X																			
800	mw3	↓	↓	↓									↓	↓	1100			↓																			
801	mw4	↓	↓	↓									↓	↓	1030			↓																			
802	mw6	↓	↓	↓									↓	↓	945			↓																			
803	mw10	↓	↓	↓									↓	↓	1000			↓																			
804	mw17	↓	↓	↓									↓	↓	1045			↓																			
805	mw18	↓	↓	↓									↓	↓	1015			↓																			
806	Rw1	↓	↓	↓									↓	↓	1130			↓																			
807	Rw2	↓	↓	↓									↓	↓	1145			↓																			

Relinquished by: <i>David Fletcher</i>	Company: <i>Nova</i>	Date: <i>12/16/11</i>	Time: <i>842</i>	Received by: <i>TA</i>	Company: <i>TA</i>	Date: <i>12/16/11</i>	Time: <i>842</i>	INST OBS <i>3</i> COR	LAB USE ONLY Infect Y/N Headspace Y/N/NA Log-in-Review	REMARKS: <i>Lubbock</i> <i>Sat delivery</i>
Relinquished by: <i>TA</i>	Company: <i>TA</i>	Date: <i>12/16/11</i>	Time: <i>10:05</i>	Received by:	Company:	Date:	Time:	INST OBS COR		
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS <i>3.3</i> COR <i>3.4</i>		

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

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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: January 5, 2012

Work Order: 11122009

Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
284925	MW-5	water	2011-12-16	18:25	2011-12-19

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

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Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2011-12-19 and assigned to work order 11122009. Samples for work order 11122009 were received intact at a temperature of 10.8 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
PAH	S 8270D	74399	2012-12-22 at 15:00	87624	2012-01-05 at 11:26

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 11122009 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 284925 - MW-5

Laboratory: Lubbock
Analysis: PAH
QC Batch: 87624
Prep Batch: 74399

Analytical Method: S 8270D
Date Analyzed: 2012-01-05
Sample Preparation: 2012-12-22

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.0281	mg/L	0.917	0.000200
2-Methylnaphthalene		1	0.0347	mg/L	0.917	0.000200
1-Methylnaphthalene			0.0380	mg/L	0.917	0.000200
Acenaphthylene	u	1	<0.000183	mg/L	0.917	0.000200
Acenaphthene	u	1	<0.000183	mg/L	0.917	0.000200
Dibenzofuran		1	0.00581	mg/L	0.917	0.000200
Fluorene	u	1	<0.000183	mg/L	0.917	0.000200
Anthracene	u	1	<0.000183	mg/L	0.917	0.000200
Phenanthrene			0.00665	mg/L	0.917	0.000200
Fluoranthene	u		<0.000183	mg/L	0.917	0.000200
Pyrene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)anthracene	u		<0.000183	mg/L	0.917	0.000200
Chrysene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene	u		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene	Qr,U	1	<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene	u	1	<0.000183	mg/L	0.917	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000183	mg/L	0.917	0.000200
Benzo(g,h,i)perylene	u		<0.000183	mg/L	0.917	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0564	mg/L	0.917	0.0800	70	10 - 117
2-Fluorobiphenyl			0.0475	mg/L	0.917	0.0800	59	10 - 99
Terphenyl-d14			0.0543	mg/L	0.917	0.0800	68	22.6 - 115

Method Blanks

Method Blank (1) QC Batch: 87624

QC Batch: 87624
Prep Batch: 74399

Date Analyzed: 2012-01-05
QC Preparation: 2012-12-22

Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.0000904	mg/L	0.0002
2-Methylnaphthalene		1	<0.000184	mg/L	0.0002
1-Methylnaphthalene			<0.000120	mg/L	0.0002
Acenaphthylene		1	<0.000101	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000119	mg/L	0.0002
Fluorene		1	<0.000198	mg/L	0.0002
Anthracene		1	<0.000190	mg/L	0.0002
Phenanthrene			<0.000190	mg/L	0.0002
Fluoranthene			<0.000122	mg/L	0.0002
Pyrene		1	<0.000142	mg/L	0.0002
Benzo(a)anthracene			<0.000138	mg/L	0.0002
Chrysene		1	<0.000155	mg/L	0.0002
Benzo(b)fluoranthene			<0.000179	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.000185	mg/L	0.0002
Benzo(a)pyrene		1	<0.000169	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	<0.000139	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.000107	mg/L	0.0002
Benzo(g,h,i)perylene			<0.000143	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0369	mg/L	1	0.0800	46	10 - 117
2-Fluorobiphenyl			0.0323	mg/L	1	0.0800	40	10 - 99
Terphenyl-d14			0.0357	mg/L	1	0.0800	45	22.6 - 115

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 87624
Prep Batch: 74399

Date Analyzed: 2012-01-05
QC Preparation: 2012-12-22

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	0.0281	mg/L	1	0.0800	<0.0000904	35	10 - 89.9
2-Methylnaphthalene		1	0.0325	mg/L	1	0.0800	<0.000184	41	13.8 - 98.4
1-Methylnaphthalene			0.0312	mg/L	1	0.0800	<0.000120	39	13.1 - 103
Acenaphthylene		1	0.0370	mg/L	1	0.0800	<0.000101	46	20 - 104
Acenaphthene		1	0.0357	mg/L	1	0.0800	<0.000122	45	21.6 - 94.6
Dibenzofuran		1	0.0392	mg/L	1	0.0800	<0.000119	49	22.9 - 74.9
Fluorene		1	0.0396	mg/L	1	0.0800	<0.000198	50	30.8 - 109
Anthracene		1	0.0426	mg/L	1	0.0800	<0.000190	53	37.6 - 96.4
Phenanthrene			0.0430	mg/L	1	0.0800	<0.000190	54	42.4 - 99.8
Fluoranthene			0.0469	mg/L	1	0.0800	<0.000122	59	48 - 118
Pyrene		1	0.0457	mg/L	1	0.0800	<0.000142	57	45.3 - 109
Benzo(a)anthracene			0.0548	mg/L	1	0.0800	<0.000138	68	48 - 113
Chrysene		1	0.0619	mg/L	1	0.0800	<0.000155	77	35.2 - 175
Benzo(b)fluoranthene			0.0384	mg/L	1	0.0800	<0.000179	48	16.6 - 106
Benzo(k)fluoranthene		1	0.0367	mg/L	1	0.0800	<0.000185	46	36.8 - 99.4
Benzo(a)pyrene		1	0.0384	mg/L	1	0.0800	<0.000169	48	32.3 - 99.7
Indeno(1,2,3-cd)pyrene		1	0.0420	mg/L	1	0.0800	<0.000139	52	34.1 - 106
Dibenzo(a,h)anthracene		1	0.0559	mg/L	1	0.0800	<0.000107	70	47.1 - 103
Benzo(g,h,i)perylene			0.0407	mg/L	1	0.0800	<0.000143	51	21.9 - 112

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
Naphthalene		1	0.0317	mg/L	1	0.0800	<0.0000904	40	10 - 89.9	12	20
2-Methylnaphthalene		1	0.0374	mg/L	1	0.0800	<0.000184	47	13.8 - 98.4	14	20
1-Methylnaphthalene			0.0358	mg/L	1	0.0800	<0.000120	45	13.1 - 103	14	20
Acenaphthylene		1	0.0410	mg/L	1	0.0800	<0.000101	51	20 - 104	10	20
Acenaphthene		1	0.0398	mg/L	1	0.0800	<0.000122	50	21.6 - 94.6	11	20
Dibenzofuran		1	0.0434	mg/L	1	0.0800	<0.000119	54	22.9 - 74.9	10	20
Fluorene		1	0.0426	mg/L	1	0.0800	<0.000198	53	30.8 - 109	7	20
Anthracene		1	0.0475	mg/L	1	0.0800	<0.000190	59	37.6 - 96.4	11	20
Phenanthrene			0.0484	mg/L	1	0.0800	<0.000190	60	42.4 - 99.8	12	20
Fluoranthene			0.0516	mg/L	1	0.0800	<0.000122	64	48 - 118	10	20
Pyrene		1	0.0488	mg/L	1	0.0800	<0.000142	61	45.3 - 109	7	20

continued ...

control spikes continued ...

Param	F	C	LCSD			Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
			Result	Units	Dil.							
Benzo(a)anthracene			0.0608	mg/L	1	0.0800	<0.000138	76	48 - 113	10	20	
Chrysene		1	0.0687	mg/L	1	0.0800	<0.000155	86	35.2 - 175	10	20	
Benzo(b)fluoranthene			0.0390	mg/L	1	0.0800	<0.000179	49	16.6 - 106	2	20	
Benzo(k)fluoranthene	Qr	Qr	1	0.0458	mg/L	1	0.0800	<0.000185	57	36.8 - 99.4	22	20
Benzo(a)pyrene		1	0.0434	mg/L	1	0.0800	<0.000169	54	32.3 - 99.7	12	20	
Indeno(1,2,3-cd)pyrene		1	0.0470	mg/L	1	0.0800	<0.000139	59	34.1 - 106	11	20	
Dibenzo(a,h)anthracene		1	0.0627	mg/L	1	0.0800	<0.000107	78	47.1 - 103	12	20	
Benzo(g,h,i)perylene			0.0454	mg/L	1	0.0800	<0.000143	57	21.9 - 112	11	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
Nitrobenzene-d5	0.0368	0.0403	mg/L	1	0.0800	46	50	10 - 117
2-Fluorobiphenyl	0.0358	0.0402	mg/L	1	0.0800	45	50	10 - 99
Terphenyl-d14	0.0525	0.0562	mg/L	1	0.0800	66	70	22.6 - 115

Calibration Standards

Standard (CCV-2)

QC Batch: 87624

Date Analyzed: 2012-01-05

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	55.0	92	80 - 120	2012-01-05
2-Methylnaphthalene		1	mg/L	60.0	55.2	92	80 - 120	2012-01-05
1-Methylnaphthalene			mg/L	60.0	56.0	93	80 - 120	2012-01-05
Acenaphthylene		1	mg/L	60.0	55.0	92	80 - 120	2012-01-05
Acenaphthene		1	mg/L	60.0	55.4	92	80 - 120	2012-01-05
Dibenzofuran		1	mg/L	60.0	53.6	89	80 - 120	2012-01-05
Fluorene		1	mg/L	60.0	51.1	85	80 - 120	2012-01-05
Anthracene		1	mg/L	60.0	53.2	89	80 - 120	2012-01-05
Phenanthrene			mg/L	60.0	53.7	90	80 - 120	2012-01-05
Fluoranthene			mg/L	60.0	60.8	101	80 - 120	2012-01-05
Pyrene		1	mg/L	60.0	51.8	86	80 - 120	2012-01-05
Benzo(a)anthracene			mg/L	60.0	58.8	98	80 - 120	2012-01-05
Chrysene		1	mg/L	60.0	55.0	92	80 - 120	2012-01-05
Benzo(b)fluoranthene			mg/L	60.0	49.6	83	80 - 120	2012-01-05
Benzo(k)fluoranthene		1	mg/L	60.0	51.8	86	80 - 120	2012-01-05
Benzo(a)pyrene		1	mg/L	60.0	52.8	88	80 - 120	2012-01-05
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	52.9	88	80 - 120	2012-01-05
Dibenzo(a,h)anthracene		1	mg/L	60.0	53.1	88	80 - 120	2012-01-05
Benzo(g,h,i)perylene			mg/L	60.0	53.0	88	80 - 120	2012-01-05

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			55.7	mg/L	1	60.0	93	-
2-Fluorobiphenyl			57.9	mg/L	1	60.0	96	-
Terphenyl-d14			52.4	mg/L	1	60.0	87	-

Standard (CCV-3)

QC Batch: 87624

Date Analyzed: 2012-01-05

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	55.9	93	80 - 120	2012-01-05

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
2-Methylnaphthalene		1	mg/L	60.0	55.4	92	80 - 120	2012-01-05
1-Methylnaphthalene			mg/L	60.0	55.7	93	80 - 120	2012-01-05
Acenaphthylene		1	mg/L	60.0	55.5	92	80 - 120	2012-01-05
Acenaphthene		1	mg/L	60.0	56.2	94	80 - 120	2012-01-05
Dibenzofuran		1	mg/L	60.0	54.2	90	80 - 120	2012-01-05
Fluorene		1	mg/L	60.0	52.7	88	80 - 120	2012-01-05
Anthracene		1	mg/L	60.0	53.3	89	80 - 120	2012-01-05
Phenanthrene			mg/L	60.0	54.0	90	80 - 120	2012-01-05
Fluoranthene			mg/L	60.0	59.4	99	80 - 120	2012-01-05
Pyrene		1	mg/L	60.0	55.2	92	80 - 120	2012-01-05
Benzo(a)anthracene			mg/L	60.0	58.8	98	80 - 120	2012-01-05
Chrysene		1	mg/L	60.0	56.0	93	80 - 120	2012-01-05
Benzo(b)fluoranthene			mg/L	60.0	48.6	81	80 - 120	2012-01-05
Benzo(k)fluoranthene		1	mg/L	60.0	52.6	88	80 - 120	2012-01-05
Benzo(a)pyrene		1	mg/L	60.0	50.7	84	80 - 120	2012-01-05
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	53.3	89	80 - 120	2012-01-05
Dibenzo(a,h)anthracene		1	mg/L	60.0	53.8	90	80 - 120	2012-01-05
Benzo(g,h,i)perylene			mg/L	60.0	52.7	88	80 - 120	2012-01-05

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			55.8	mg/L	1	60.0	93	-
2-Fluorobiphenyl			57.5	mg/L	1	60.0	96	-
Terphenyl-d14			55.7	mg/L	1	60.0	93	-

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.

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2501 Mayes Rd., Ste 100
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Tel (972) 242-7750

Company Name:	Nova	Phone #:	(432) 520-7770
Address:	(Street, City, Zip)	Fax #:	
2057 Commerce Midland TX 79703			
Contact Person:	Don Rounsaville	E-mail:	

Invoice to:	
(If different from above)	
Project #:	Project Name:

Project Location (including state): <i>New Mexico</i>	97-18 Sampler Signature: <i>[Signature]</i>
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[illegible][illegible]

Relinquished by: Ryan Harrison [Signature]	Company: None	Date: 12-11	Time: 8:32 pm	Received by: [Signature]	Company: 1A	Date: 12/19/11	Time: 8:33	INST 108 OBS COR
Relinquished by: [Signature]	Company: TA	Date: 12/19/11	Time: 9:09	Received by:	Company:	Date:	Time:	INST OBS COR
Relinquished by:	Company:	Date:	Time:	Received by: [Signature]	Company: Thae	Date: 12/19/11	Time: 9:20	INST 31 OBS 32 COR

LAB USE ONLY Intact ☒ Y ☐ N Headspace ☒ Y ☐ N ☐ NA Log-in-Review ☒	REMARKS: All tests Lubricated
	☐ Dry Weight Basis Required ☐ TRRP Report Required ☐ Check If Special Reporting Limits Are Needed

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

Carrier # Carry in LS 2N174141

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