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92

ANNUAL MONITORING REPORT

YEAR(S):

2009



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ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
EMERGENCY RESPONSE

**2009 ANNUAL GROUNDWATER MONITORING REPORT
8" MOORE TO JAL #2
SECTION 16, TOWNSHIP 17 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO
PLAINS SRS #2002-10273
NMOCD REF. # AP-92**

PREPARED FOR:

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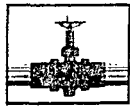
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Environmental Bureau
Oil Conservation Division

March 29, 2010

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

Re: Plains All American – 2009 Annual Monitoring Reports
6 Sites in Lea County, New Mexico

Dear Mr. Hansen:

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

8-inch Moore to Jal #1	1R-0380	AP-91	Section 16, T17S, R37E, Lea County
8-inch Moore to Jal #2	1R-0381	AP-92	Section 16, T17S, R37E, Lea County
C.S. Cayler	AP-052		Section 06, T17S, R37E, Lea County
Hobbs Junction Mainline	AP-054		Section 26, T18S, R37E, Lea County
Kimbrough Sweet 8-inch	AP-0029		Section 03, T18S, R37E, Lea County
Lovington Deep 6-inch	AP-037		Section 03, T18S, R37E, Lea County

Talon/LPE (Talon) 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 Talon personnel in order to verify the accuracy and completeness of these documents. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Reports for the above facilities.

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

Sincerely,

Jason Henry
Remediation Coordinator
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

Enclosures

2009 ANNUAL GROUNDWATER MONITORING REPORT

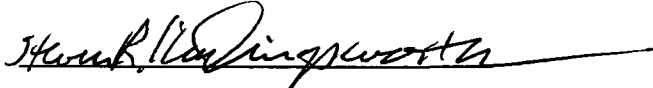
8" MOORE TO JAL #2
LEA COUNTY, NEW MEXICO
SRS #2002 - 10273
NMOCD REF. # AP-92

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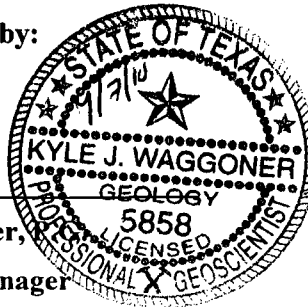
TALON/LPE PROJECT NO. 700376.045.01

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March 2010

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NMOCD - New Mexico Oil Conservation Division
NMSLO – New Mexico State Land Office

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Background

The 8" Moore to Jal #2 (site) is located approximately 9.2 miles southeast of Lovington, Lea County, New Mexico, on property owned by the State of New Mexico. The site is located within the West Lovington Oil Field at 32° 49' 56.61" N, 103° 15' 08.47" W. There are no residences, groundwater wells, or surface water bodies within a 1,000-foot radius of the site. The initial release occurred from an EOTT Energy Pipeline (EOTT) steel pipeline on October 22, 2002. Subsequently, EOTT changed its name to Link Energy in October 2003, and Plains Marketing, L.P. (Plains) purchased the assets of Link Energy on April 1, 2004. Initial reports estimated that 25 barrels (bbls) of crude oil were released. Approximately 5,794 square feet of surface area was impacted by the release.

On February 5, 2007, Talon/LPE (Talon) was retained by Plains to assume remediation activities at the site. Remediation activities at the site were previously conducted by Environmental Plus, Inc. (EPI).

1.2 Site Geology



The surface deposits in Lea County are composed of Blackwater Draw (Illinoian) sediments, Ogallala sediments and undivided Quaternary alluvium, which is also termed 'cover sands'. The soil in the upper two (2) feet at the site is composed of gravelly loam that consists of 43% sand, 18% clay and 40% silt and also contains abundant eroded gravel to cobble size caliche fragments. Below the top soil is predominately unconsolidated sand to weakly cemented sandstone which has undergone calichification of varying extent.

Below the Blackwater Draw Formation is the Ogallala Formation of Miocene to Pliocene age. The Ogallala Formation was deposited from sediments eroded from the Southern Rockies and consists mostly of eolian sediments, silty to very fine sand or loess. During the middle to late Miocene, the Ogallala was deposited by fluvial mechanism as paleovalley fill composed of gravelly to sandy braided stream deposits that trended west to east across the Southern High Plains. During the late Miocene the west to east drainage was diverted (captured) by the Pecos River. Subsequently, the Pecos River basin has experienced deflation, which facilitated eolian deposition on the Southern High Plains during the Pliocene.

1.3 Previous Environmental Investigations

A total of thirteen (13) groundwater monitor wells have been installed in the vicinity of the release (see Figure 1). With New Mexico Oil Conservation Division (NMOCD) approval and landowner concurrence, groundwater monitor well MW-1 was installed in July 2004. Subsequently, groundwater monitor wells MW-2, MW-3, and MW-4 were installed in October 2004 and monitor wells MW-6 through MW-13 were installed in November 2007.



Phase-separated hydrocarbon (PSH) recovery operations have been performed at the site since 2004. Currently, there are four (4) skimmer pumps and two (2) total fluid pumps in operation at the site to recovery phase-separated hydrocarbon (PSH). Table 1, which summarizes historical groundwater and PSH gauging, is provided in Appendix B. In addition, cumulative historical

tables are on the attached CD that is an adjunct to this report.

1.4 Regulatory Framework

Groundwater analytical data collected from this site is evaluated to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards outlined in the table below.

New Mexico Water Quality Control Commission (NMWQCC) groundwater standards	
Compound	mg/L
Benzene	0.010
Toluene	0.750
Ethylbenzene	0.750
Total Xylenes	0.620
PAH (Naphthalene)	0.030
PAH (Benzo[a]-pyrene)	0.007

2.0 SITE ACTIVITIES

The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during the year 2009. The primary function of groundwater monitoring activities is to collect depth to fluid measurements and to collect groundwater samples from monitor wells for laboratory analysis. The objective of groundwater monitoring is to evaluate the status of the dissolved-phase and PSH plumes in order to verify the effectiveness of the remediation system as to inhibiting plume migration, reducing the volume of PSH impacting the groundwater and determining if modifications to the remediation system would improve its performance and efficiency.

A synopsis of analytical results for the four (4) groundwater monitoring events is located in Table 2, Table 3, and Table 4 in Appendix B, and annotated in map form on Figures 3a through 3d in Appendix A. Laboratory analytical data reports and chain of custody documentation are included in Appendix C. In addition, cumulative historical analytical data is located in the tables section on the attached CD, which is an adjunct to this report.

2.1 Groundwater Monitoring Activities

A total of four (4) groundwater monitoring events were conducted by Talon during the year 2009. The events occurred on: February 3, June 23, September 3, and November 11. During all of the groundwater monitoring events, the depths to fluids were measured in all of the monitoring wells (MW-1 through MW-13) using an oil/water interface probe.

During the February, June and November groundwater monitoring events, seven (7) monitor wells, MW-2, MW-4, MW-8, and MW-10 through MW-13, were purged of at least three (3) casing volumes and groundwater samples were collected. Six (6) monitor wells, MW-1, MW-3, MW-5, MW-6, MW-7, and MW-9, were not sampled due to the presence of PSH. Details of the gauging, purging, and sampling activities are presented below in Section 2.2.

During the September groundwater monitoring event, seven (7) monitor wells, MW-2, MW-4, MW-8, and MW-10 through MW-13, were purged of at least three (3) casing volumes and groundwater samples were collected. Pursuant the NMOC Directive that samples will be collected from the groundwater below the PSH caps, groundwater samples were collected from the six (6) monitor wells impacted with PSH, (MW-1, MW-3, MW-5, MW-6, MW-7, and MW-9). Monitor wells impacted with PSH were not purged of three (3) casing volumes prior to sample collection; however a minimal purge was performed prior to sample collection to ensure that PSH was cleared from the pump effluent tubing.

2.2 Groundwater Gauging, Purging, and Sampling Procedures

During each groundwater monitoring event, all monitor wells were measured with an oil/water interface probe to determine static water levels and to determine the thickness of PSH accumulations if present. The data collected from measurements was used to construct groundwater gradient maps and PSH thickness maps. The results of the measured depths to fluids collected during the four (4) events, are incorporated in Table 1 – Summary of Historical Fluid Level Measurements. In addition, cumulative historical gauging data is located in the tables section on the CD, which is an adjunct to this report.

Subsequent to gauging, all monitor wells were purged using a down-hole pump equipped with vinyl tubing. The pump and tubing were decontaminated with Alconox® detergent and rinsed with distilled water after each use. Recovered purge water and water used in the decontamination process was contained in on-site 55-gallon drums. After the groundwater monitoring event, all retained water was removed with a vacuum truck and properly disposed. Approximately 738 gallons of purged groundwater and water used for pump decontamination was generated during the monitoring events of 2009.

Groundwater samples were collected from all monitor wells not impacted with PSH using dedicated disposable polyethylene bailers. Groundwater samples were collected from wells impacted with PSH using a pump and vinyl tubing. The tubing intake was set below the PSH cap and a brief purge was performed to clear the tubing of any PSH. The groundwater samples were contained in laboratory supplied sample vials infused with the appropriate preservative required for the requested analysis. The groundwater samples were maintained on ice, in the custody of Talon personnel, until they were delivered to TraceAnalysis, Inc. in Midland, Texas for testing.

The groundwater samples collected during the all four events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B. During the August event, samples collected from monitor wells both impacted and not impacted with PSH were also quantified for BTEX and poly-nuclear aromatic hydrocarbons (PAH) using EPA Method SW-846 8270C. Also during the August event, groundwater samples collected from wells impacted with PSH were quantified for total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) by EPA Method SW-846 8015B.

2.3 Phase Separated Hydrocarbon Recovery

Prior to October 2008, a mobile recovery trailer with total fluids pumps was mobilized to the site on a weekly basis to recover PSH from monitor wells MW-1, MW-2, MW-3, MW-5, MW-6, MW-7, and MW-9.

On October 7, 2008, a permanent system was installed utilizing two (2) AP-4 pneumatic total fluid pumps in monitor wells MW-1 and MW-7 and four (4) skimmers in monitor wells MW-3, MW-5, MW-6, and MW-9 to recover PSH and to inhibit migration of the PSH plume. The skimmer assembly consists of bladder pumps combined with 24-inch traveling float specific gravity skimmer attachments. The skimmer system and total fluids pumps are powered by a single-phase 230 volt, 7.5 HP two stage reciprocating air compressor. Fluid, recovered by the pumps, is retained in a 6,500-gallon poly tank. The poly tank is equipped with a high level shut off switch to prevent overflow and it is located within a secondary recovery compound that is outfitted with a poly-liner. Both recovered groundwater and PSH are periodically removed with a vacuum truck. Recovered groundwater is transported to an approved NMOCD disposal facility and removed PSH is re-introduced to the Plains' pipeline system at the Scharb Station and/or 34 Junction South pipeline.

Talon personnel performed a minimum of weekly maintenance to the remediation system to ensure efficient operation, to optimize PSH recovery and to minimize down time. The poly tank is gauged weekly to monitor PSH recovery volume. The system has been effective at recovering PSH from the groundwater.

During 2009 the quarterly PSH and groundwater recovery totals are as follows:

- 1st Quarter - 2.5 bbls crude oil and 3 bbls of groundwater
- 2nd Quarter – 7.0 bbls crude oil and 454 bbls of groundwater
- 3rd Quarter – 7.5 bbls crude oil and 895 bbls of groundwater
- 4th Quarter – 9.0 bbls of crude oil and 919 bbls of groundwater

During 2009 a total of 26 bbls of crude oil and a total of 2,271 bbls of groundwater were recovered by the PSH recovery system. Approximately 71 bbls of crude oil has been recovered at the subject site since PSH recovery activities were initiated.

2.4 Groundwater Monitoring Results

The sections that follow present the results from the four (4) groundwater monitoring events conducted at the subject site.

2.4.1 Physical Characteristics of the First Water-Bearing Zone

The primary groundwater resource under the Southern High Plains, including the site, is referred to as the Ogallala Aquifer or High Plains Aquifer. The Southern portion of the Ogallala aquifer underlies an area of about 29,000 square miles (mi²) in western Texas and eastern New Mexico, encompassing all or part of 31 counties in Texas and 6 counties in New Mexico.

The Ogallala Aquifer is generally unconfined and the potentiometric surface generally mirrors the land surface elevation with the regional flow direction is from the northwest to the southeast. The mean regional gradient is 15 feet per mile and the typical groundwater velocity averages seven inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot and specific yield averages 16%. The depth to groundwater at the site has historically ranged from 64 to 72 feet below ground surface (bgs) and the groundwater flow direction is to the southeast at an average of 20 feet per mile.

The Ogallala Aquifer has experienced acute depletion from extensive irrigation and urban demand, which have exceeded the average annual recharge rate. Recharge of the Ogallala Aquifer on the Southern High Plains occurs predominately from rainfall runoff that accumulates in ephemeral streams and playa lakes as well as direct recharge in areas that contain permeable soils such as sand hills. Recharge rates vary depending on mechanism, but averages from 0 to 1.6 inches per year.

The composition of Ogallala groundwater is defined as mixed-cation-HCO₃, therefore, Ogallala groundwater is considered hard. Problems with scale have occurred with residential and commercial water systems that use Ogallala groundwater and often treatment strategies are employed to reduce the effects of scale. The typical total dissolved solids of Ogallala groundwater in the Hobbs-Lovington area is generally less than 1,000 mg/L (ppm) in areas not impacted by oil-field brines. The pH of Ogallala water averages 7.3.

2.4.2 Groundwater Gradient and Flow Direction

The depth to fluid measurements was collected during each of the four (4) groundwater monitoring events during the year 2009. The results of the fluid level measurements are summarized in Table 1 - Summary of Historical Fluid Level Measurements in Appendix B.

The collected data was used to construct potentiometric surface maps in order to interpret the groundwater gradient and flow direction. The maps, designated Figures 2a through 2d are presented in Appendix A.

The potentiometric surface maps constructed for each of the four (4) groundwater monitoring events indicate consistently that the groundwater flow direction is to southeast at an approximate gradient of 0.0037-0.0038 feet/foot or 19-20 feet per mile. Groundwater levels at the subject site have exhibited a steady decline of an average of 0.85 feet for the year that appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.

2.4.3 Phase Separated Hydrocarbon (PSH)

An oil/water interface probe was used to determine the thicknesses of PSH during the four (4) groundwater monitoring events. Generally, PSH thicknesses have fluctuated from quarter to quarter during 2009 but have exhibited an overall decline of an average of 2.41 feet. The decline of PSH thicknesses have ranged from 0.02 to 6.82 feet during the year 2009.

In addition to potentiometric surface maps, isopleth maps were prepared depicting the measured PSH thicknesses and PSH plume geometry. PSH plume delineation and thickness maps are presented in Appendix A as Figures 3a through 3d. Currently, the PSH plume is not delineated cross-gradient to the east by the current monitor well array. A scope of work has been prepared to install additional delineation monitor wells at the subject site. The work is pending access to railroad and State of New Mexico right-of-way. PSH recovery operations have been performed at the site since 2004. Currently there are a total of two (2) total fluid pumps and four (4) skimmer pumps in operation at the site. A summary of the historical groundwater and PSH gauging results is provided in Table 1 in Appendix B.

2.4.4 Groundwater Analytical Results

During the first quarter, February 2009, sampling event, groundwater samples were collected from monitor wells MW-2, MW-4, MW-8, and MW-10 through MW-13. The following analytical results were observed from laboratory analyses:

- Benzene concentrations ranged from <0.00100 mg/L to 25.6 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-2, MW-4, MW-8, and MW-13.
- Toluene concentrations ranged from <0.00100 mg/L to 0.704 mg/L. Toluene concentrations did not exceed NMWQCC groundwater standard of 0.750 mg/L in any groundwater sample collected during the first quarter.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.28 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in monitor well MW-4.
- Xylene concentrations ranged from <0.00100 mg/L to 1.41 mg/L. Xylene concentrations

exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater sample collected from monitor well MW-4.

During the June 2009 sampling event, groundwater samples were collected from monitor wells MW-4, MW-8, and MW-10 through MW-13. Laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 23.1 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-2, MW-4, MW-8, and MW-13.
- Toluene concentrations ranged from <0.00100 mg/L to 2.56 mg/L. Toluene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-8.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.70 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater samples collected from monitor wells MW-4 and MW-8.
- Xylene concentrations ranged from <0.00100 mg/L to 2.32 mg/L. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater sample collected from monitor well MW-8.

During the September 2009 sampling event, groundwater samples were collected from twelve (12) monitor wells including those wells impacted with PSH. A groundwater sample was not collected from monitor well MW-3 because there was not enough water below the PSH cap to allow for sample collection. The samples collected from the monitor wells were quantified for poly-nuclear aromatic hydrocarbons as well as BTEX. Concentrations of BTEX constituents and naphthalene concentrations in all monitor wells impacted with PSH exceeded NMWQCC groundwater standards. Laboratory analytical results of the groundwater samples collected from monitor wells not impacted with PSH exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 24.6 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-4, MW-8 and MW-13.
- Toluene concentrations ranged from <0.001002 mg/L to 2.23 mg/L. Toluene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-8.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.24 mg/L. The ethylbenzene concentration exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater samples collected from monitor well MW-4.
- Xylene concentrations ranged from <0.00100 mg/L to 0.776 mg/L. The xylene concentration exceeded the NMWQCC groundwater standard of 0.620 mg/L in groundwater sample collected from monitor well MW-8.
- No PAH concentration exceeded NMWQCC groundwater standards in any collected sample from monitor wells not impacted with PSH. PAH analytical results for monitor wells not impacted with PSH are summarized in Table 3 in Appendix B.

Laboratory analytical results for the groundwater samples collected from monitor wells that were impacted with PSH exhibited the following findings:

- Benzene concentrations ranged from 15.5 mg/L to 22.1 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from all monitor wells impacted with PSH.
- Toluene concentrations ranged from 8.40 mg/L to 19.3 mg/L. Toluene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in groundwater samples collected from all monitor wells impacted with PSH.
- Ethylbenzene concentrations ranged from 1.38 mg/L to 3.84 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater samples collected from all of the monitor wells impacted with PSH.
- Xylene concentrations ranged from 2.89 mg/L to 9.31 mg/L. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in groundwater samples collected from all monitor wells impacted with PSH.
- Naphthalene concentrations ranged from <0.0932 mg/L to 1.47 mg/L. Naphthalene concentrations exceeded NMWQCC standards in all monitor wells impacted with PSH. PAH analytical results for monitor wells impacted with PSH are summarized in Table 4 in Appendix B.

During the November 2009 sampling event, groundwater samples were collected from monitor wells MW-2, MW-4, MW-8, and MW-10 through MW-13. Monitor wells MW-1, MW-3, MW-5, MW-6, MW-7, and MW-9 were not sampled due to the presence of PSH.

Laboratory analytical results of the groundwater samples collected exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 21.3 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-2, MW-4, MW-8, and MW-13.
- Toluene concentrations ranged from <0.00100 mg/L to 4.68 mg/L. Toluene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-8.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.883 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-4.
- Xylene concentrations ranged from <0.00100 mg/L to 1.21 mg/L. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater sample collected from monitor well MW-8.

The dissolved-phase groundwater plume is not currently delineated and concentrations exceeding NMWQCC groundwater standards are exhibited in perimeter wells located on the south and the east flanks of the dissolved-phase plume.

3 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the four groundwater monitoring events conducted at the 8" Moore to Jal #2 site and provides recommendations for future corrective actions.

3.1 Summary of Findings

- The groundwater flow direction is to the southeast at an approximate gradient of 0.0037 or 19 feet per mile.
- Groundwater levels at the subject site have exhibited a steady decline averaging 0.85 feet for the year 2009 that appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.
- PSH has been observed in monitor wells MW-1, MW-3, MW-5, MW-6, MW-7, and MW-9. The PSH plume underlying this site is not been delineated to the east of the source area.
- Generally, PSH thicknesses have fluctuated from quarter to quarter during the year 2009, but PSH thicknesses have exhibited an overall decline averaging 2.64 feet.
- Down-gradient monitor wells MW-8 and MW-13 have exhibited increasing concentrations of dissolved-phase contaminants indicating that the dissolved-phase plume is migrating down-gradient.
- For the year 2009, cross-gradient monitor wells MW-11, and MW-12 exhibited increasing BTEX concentrations indicating that the dissolved-phase plume is expanding horizontally.
- Approximately 26 bbls of crude oil was recovered during 2009 indicating that the PSH recovery system is performing its function.

3.2 Recommendations

Based upon the results of the quarterly groundwater monitoring and PSH recovery efforts, Talon proposes the following actions:

- Continue operation and maintenance of the skimmer/bladder pump and total fluids pumps recovery system. Monitor the system on a weekly basis to optimize PSH recovery efficiency.
- Add or reposition pumps as necessary to optimize PSH recovery and inhibit plume migration.
- Perform quarterly groundwater monitoring events in accordance with NMOCD directives.
- Based on the results of the PAH analyses over the past several years, Talon/LPE recommends that further PAH analyses be conducted only on those monitor wells which have historically exhibited previous concentrations of PAH constituents near or above the NMWQCC standards. PAH concentrations in groundwater samples collected from monitor wells not impacted did not exceed NMWQCC groundwater standards. Monitor well MW-4, which is not impacted with PSH, exhibited a naphthalene concentration that exceeded the NMWQCC standard of 0.030 mg/L in 2008.
- Install a total of eight (8) monitor wells cross-gradient to the east and down-gradient to the southeast in order to delineate the areal extent of the dissolved-phase and PSH plumes (see Figure1).
- Evaluate a method to transfer recovered groundwater directly to a water disposal facility versus removal with vacuum trucks, which could ultimately augment PSH recovery by allowing for increased system run times.

APPENDIX A

Drawings

Figure 1 - Site Plan with Proposed Monitor Well Locations Map

Figure 2a - Groundwater Gradient Map – 02/03/2009

Figure 2b - Groundwater Gradient Map – 06/23/2009

Figure 2c - Groundwater Gradient Map – 09/03/2009

Figure 2d - Groundwater Gradient Map - 11/11/2009

Figure 3a - PSH Thickness & Groundwater Concentration Map - 02/03/2009

Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/23/2009

Figure 3c - PSH Thickness & Groundwater Concentration Map – 09/03/2009

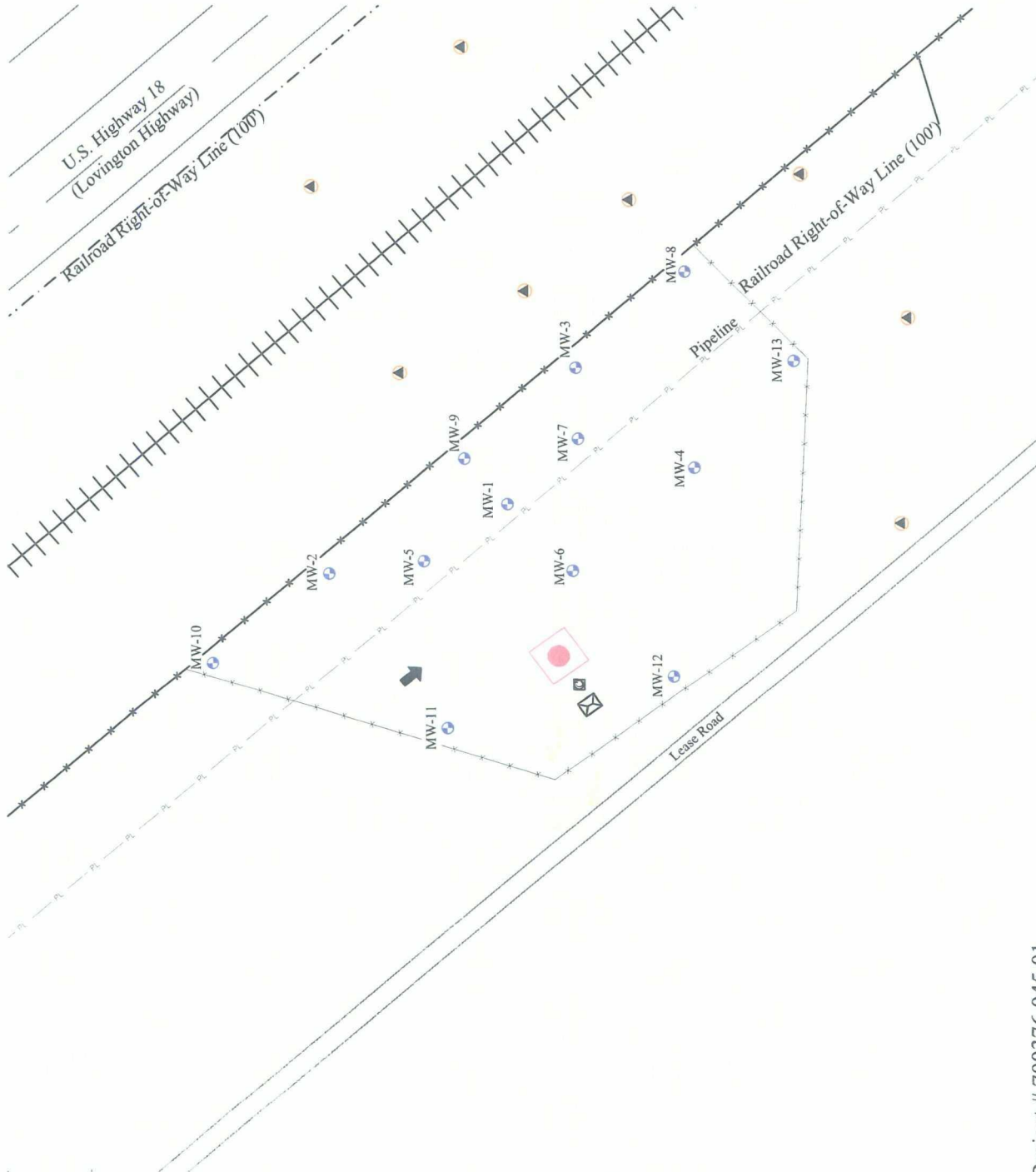
Figure 3d - PSH Thickness & Groundwater Concentration Map - 11/11/2009



Scale in Feet
0 40 80

Legend

- Monitor Well
- Proposed Monitor Well
- Fence Line
- Overhead Powerline
- Railroad Tracks
- Power Pole W/Transformer
- Compressor Shed
- Controls
- Recovery System Tank and Containment



Project # 700376.045.01



Date: 05/14/2009

Scale: 1" = 80'

Drawn By: SJA

8" Moore to Jal # 2

SRS # 2002-10273, NMOCD REF. # AP-92

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

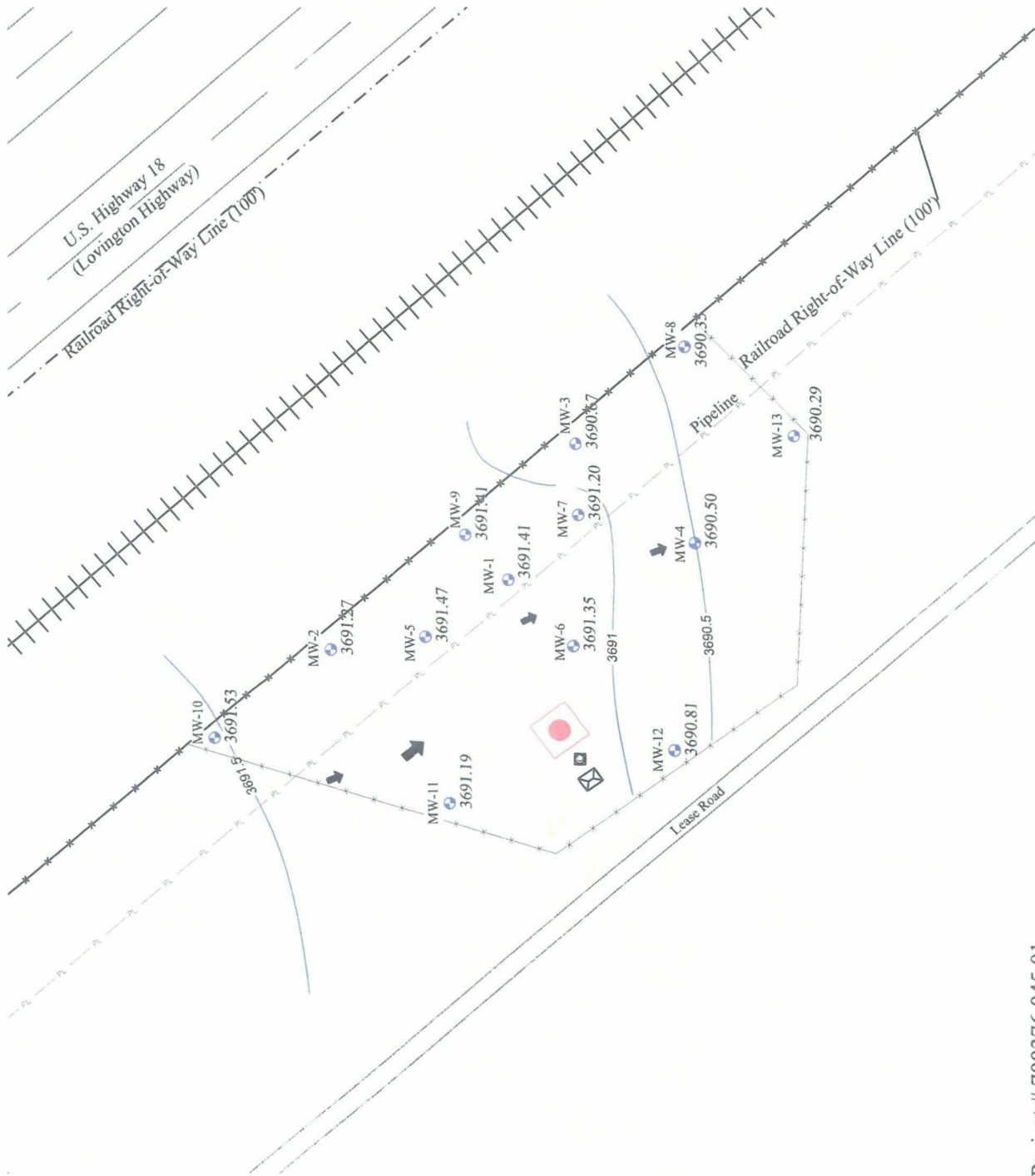
Figure 1 - Site Plan with Proposed Monitor Well Locations Map



0 40 80
Scale in Feet

Legend

- Monitor Well
- Fence Line
- Overhead Powerline
- Railroad Tracks
- Power Pole W/Transformer
- Compressor Shed
- Controls
- Recovery System Tank and Containment
- Groundwater Gradient Contour Line
- Groundwater Gradient Contour Elevation
- Groundwater Gradient Flow Direction



Project # 700376.045.01



Date: 12/22/2009

Scale: 1" = 80'

Drawn By: TJS

8" Moore to Jal # 2

SRS # 2002-10273, NMOCD REF. # AP-92

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

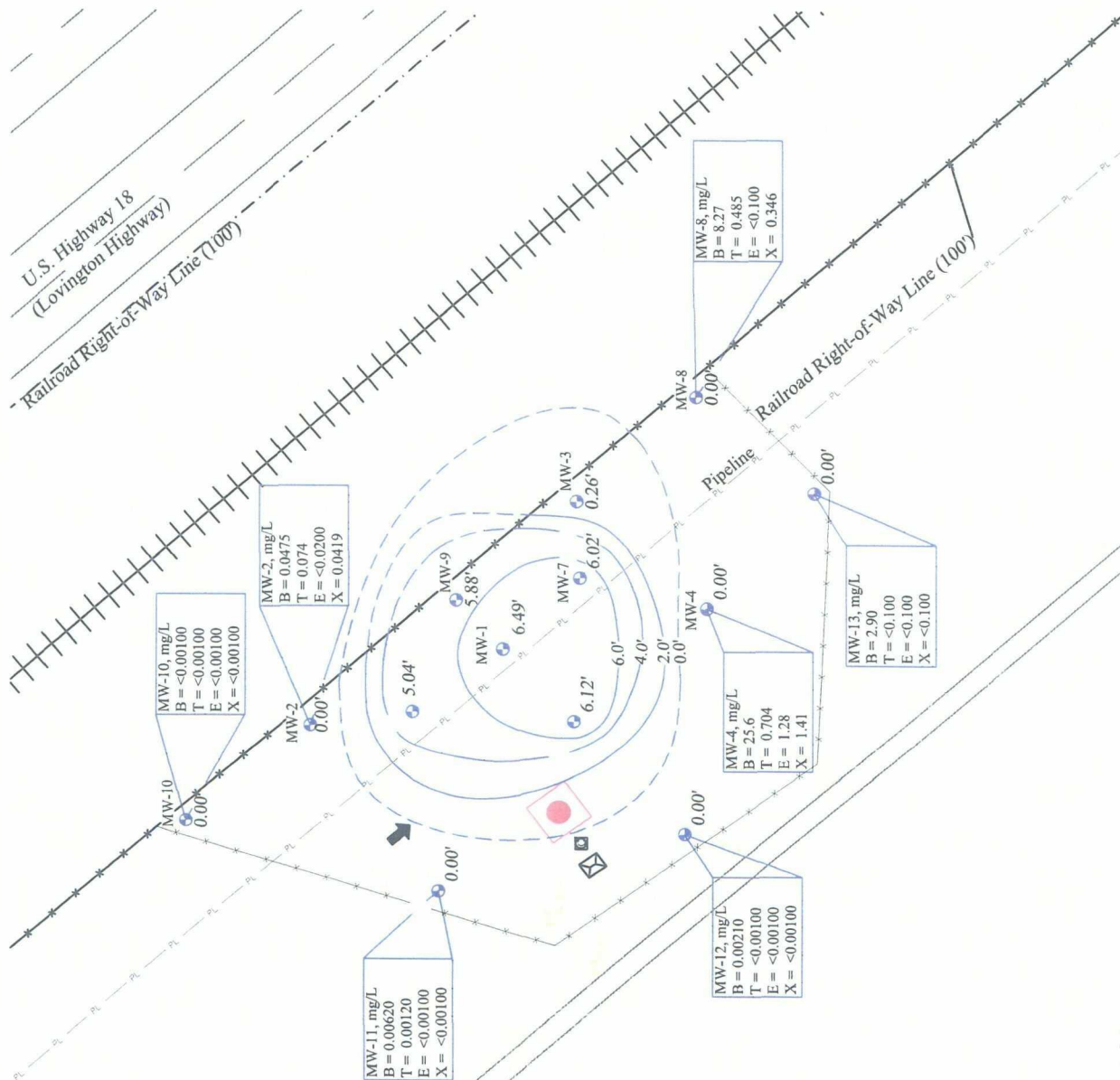
Figure 2a - Groundwater Gradient Map, - 02/03/2009



0 40 80
Scale in Feet

Legend

- Monitor Well
- Fence Line
- Overhead Powerline
- Railroad Tracks
- Power Pole W/Transformer
- Compressor Shed
- Controls
- Recovery System Tank and Containment
- PSH Thickness Contour Line
- PSH Plume Thickness



Project # 700376.045.01



Date: 12/22/2009

Scale: 1" = 80'

Drawn By: TJJS

8" Moore to Jal # 2

SRS # 2002-10273, NMOCD REF. # AP-92

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

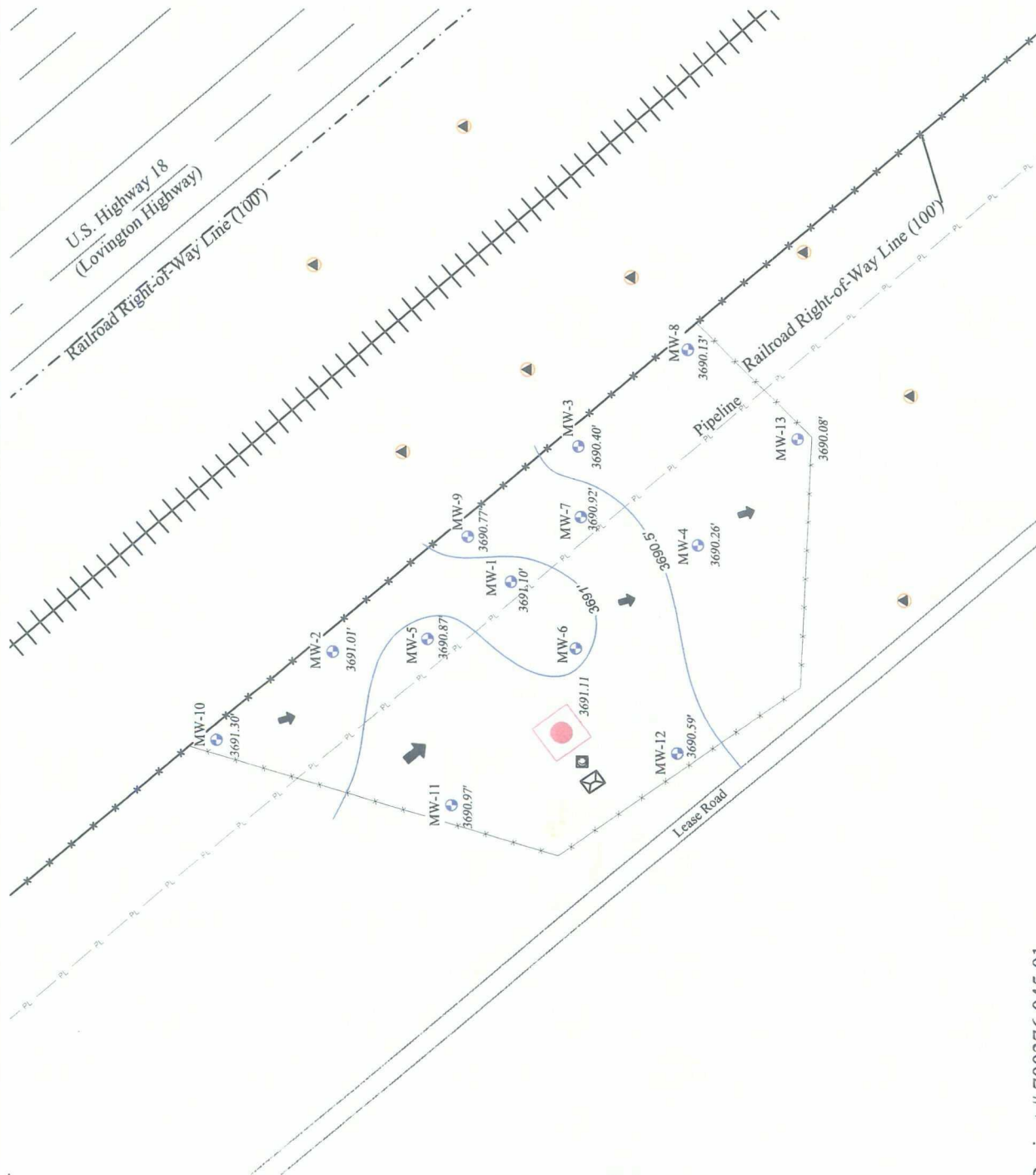
Figure 3a - PSH Thickness and Groundwater Concentration Map, - 02/03/2009



Scale in Feet
0 40 80

Legend

- Monitor Well
- Fence Line
- Overhead Powerline
- Railroad Tracks
- Power Pole W/Transformer
- Compressor Shed
- Controls
- Recovery System Tank and Containment
- Groundwater Gradient Contour Line
- Groundwater Gradient Contour Elevation
- Groundwater Gradient Flow Direction



Project # 700376.045.01



Date: 12/22/2009

Scale: 1" = 80'

Drawn By: TJIS

8" Moore to Jal # 2

SRS # 2002-10273, NMOCD REF. # AP-92
9.2 Miles SE of Lovington, NM, Lea County, New Mexico
Figure 2b - Groundwater Gradient Map - 6/23/2009

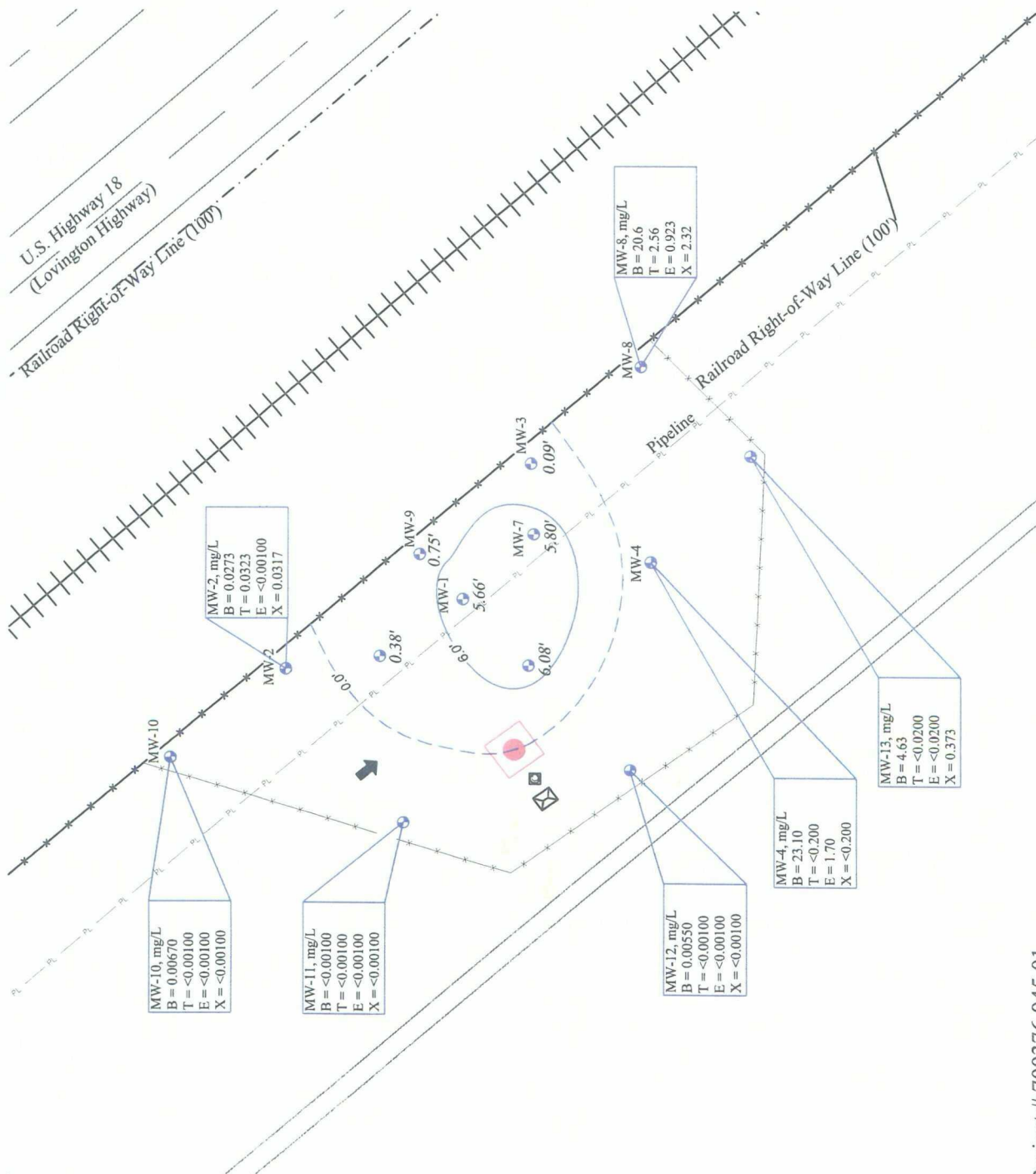


0 40 80
Scale in Feet

Legend

- Monitor Well
- Fence Line
- Overhead Powerline
- Railroad Tracks
- Power Pole W/Transformer
- Compressor Shed
- Controls
- Recovery System Tank and Containment
- PSH Thickness Contour Line
- PSH Plume Thickness

2.0'



Project # 700376.045.01



Date: 12/22/2009

Scale: 1" = 80'

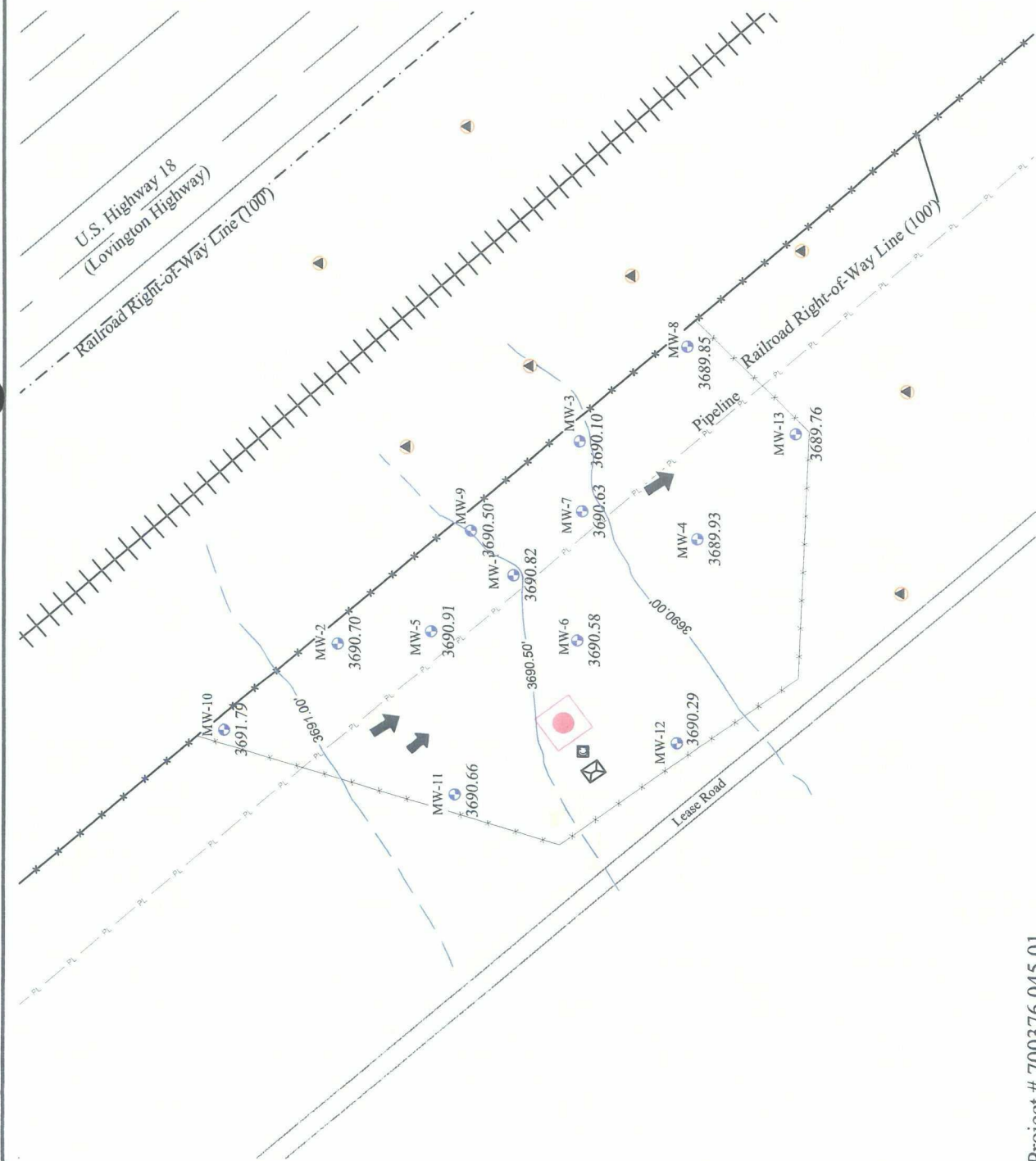
Drawn By: TJS

8" Moore to Jal # 2

SRS # 2002-10273, NMOCD REF. # AP-92

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

Figure 3b - PSH Thickness & Groundwater Concentration Map (6/23/2009)



Project # 700376.045.01



Date: 12/22/2009
 Scale: 1" = 80'
 Drawn By: TJS

8" Moore to Jal # 2
 SRS # 2002-10273, NMOCD REF. # AP-92
 9.2 Miles SE of Lovington, NM, Lea County, New Mexico
 Figure 2c - Groundwater Gradient Map - 9/2/09

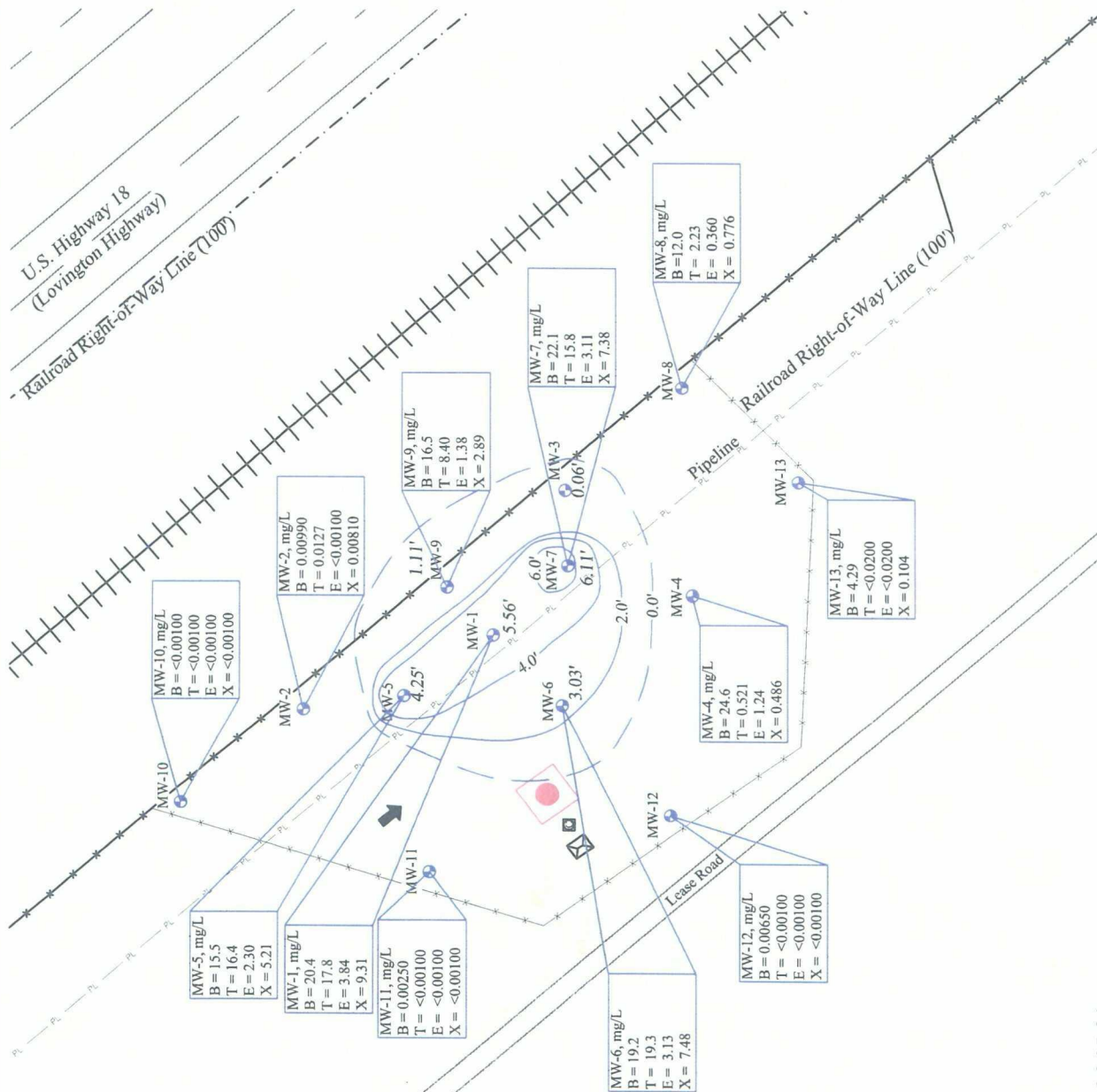


0 40 80
Scale in Feet

Legend

- Monitor Well
- Fence Line
- Overhead Powerline
- Railroad Tracks
- Power Pole W/Transformer
- Compressor Shed
- Controls
- Recovery System Tank and Containment
- PSH Thickness Contour Line
- PSH Plume Thickness

2.0'



Project # 700376.045.01



Date: 12/22/2009

Scale: 1" = 80'

Drawn By: TJJS

8" Moore to Jal # 2

SRS # 2002-10273, NMOCD REF. # AP-92

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

Figure 3c - PSH Thickness & Groundwater Concentration Map - (09/03/2009)



Scale in Feet
0 40 80

Legend

- Monitor Well
- Fence Line
- Overhead Powerline
- Railroad Tracks
- Power Pole W/Transformer
- Compressor Shed
- Controls
- Recovery System Tank and Containment
- Groundwater Gradient Contour Line
- Groundwater Gradient Contour Elevation
- Groundwater Gradient Flow Direction

Gradient
0.0037 ft/ft.
19.64 ft/mi.

U.S. Highway 18
(Lovington Highway)

Railroad Right-of-Way Line (100')

Pipeline

Railroad Right-of-Way Line (100')

Lease Road

8" Moore to Jal # 2

SRS # 2002-10273, NMOCD REF. # AP-92
9.2 Miles SE of Lovington, NM, Lea County, New Mexico
Figure 2d - Groundwater Gradient Map - 11/11/09

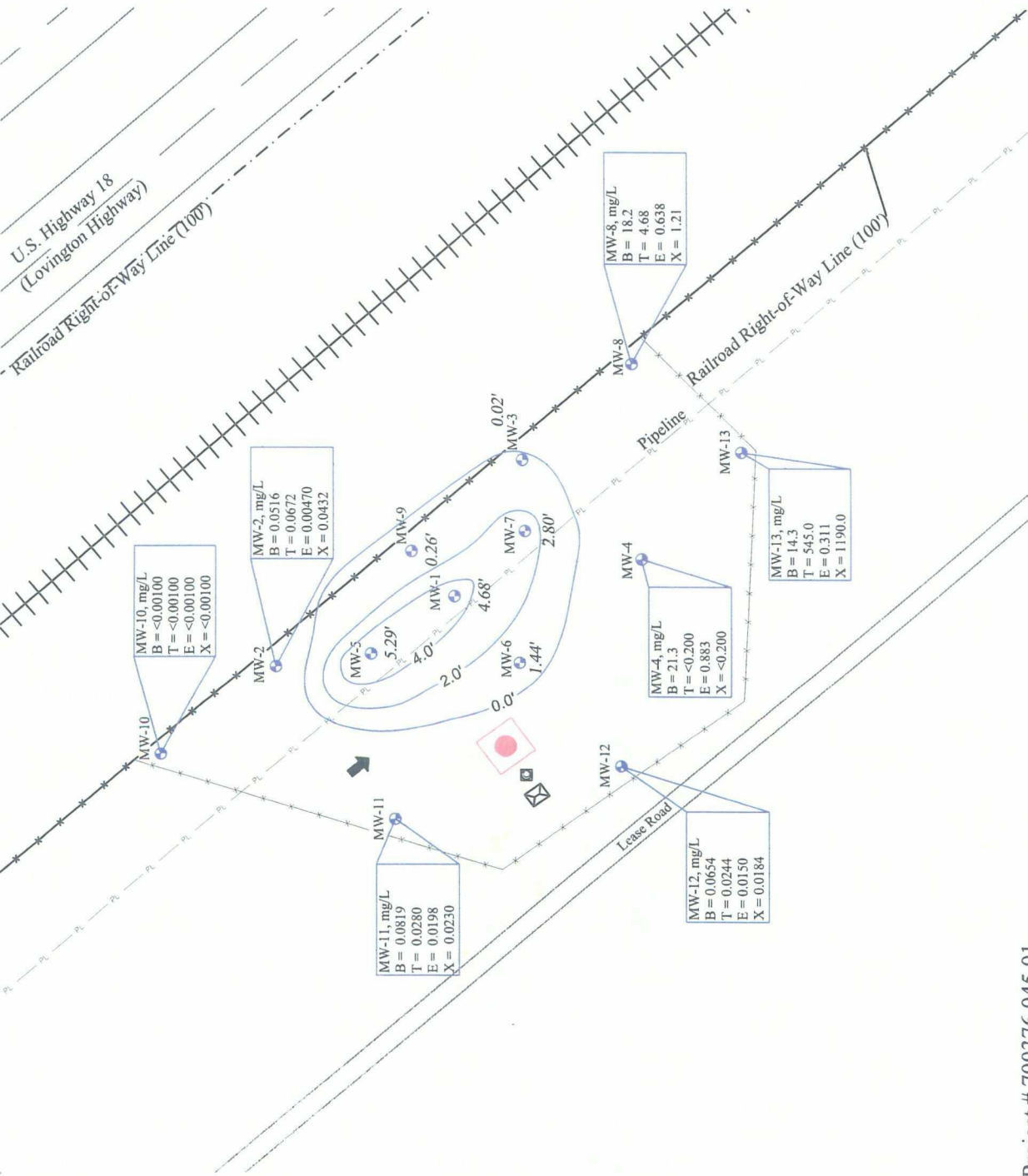
Date: 12/22/2009

Scale: 1" = 80'

Drawn By: TJIS



Project # 700376.045.01



Project # 700376.045.01



Date: 12/22/2009

Scale: 1" = 80'

Drawn By: TJS

8" Moore to Jal # 2

SRS # 2002-10273, NMOCD REF. # AP-92

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

Figure 3d - PSH Thickness & Groundwater Concentration Map - 11/1/09

APPENDIX B

Tables

Table 1 - Summary of Groundwater Elevations and Phase Separated Hydrocarbon (PSH) Thicknesses

Table 2 - Summary of Groundwater Analytical Results

Table 3 - Summary of Groundwater Polynuclear Aromatic Hydrocarbon (PAH) Analytical Results

Table 4 - Summary of Groundwater Analytical Results in Monitor Wells Impacted with PSH



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-1	07/28/04	3767.30	59.01	59.08	0.07	3708.28
MW-1	09/23/04		72.37	79.68	7.31	3693.86
MW-1	10/08/04		72.19	75.79	3.60	3694.58
MW-1	10/14/04		71.76	78.56	6.80	3694.54
MW-1	10/20/04		71.80	78.95	7.15	3694.45
MW-1	10/29/04		71.88	79.20	7.32	3694.34
MW-1	11/04/04		72.00	79.26	7.26	3694.23
MW-1	11/10/04		72.08	79.32	7.24	3694.16
MW-1	11/17/04		72.12	79.33	7.21	3694.12
MW-1	11/24/04		72.22	79.41	7.19	3694.02
MW-1	12/02/04		72.18	79.31	7.13	3694.07
MW-1	12/08/04		72.06	79.14	7.08	3694.20
MW-1	12/15/04		72.09	79.15	7.06	3694.17
MW-1	12/27/04		72.26	79.34	7.08	3694.00
MW-1	12/29/04		72.35	78.84	6.49	3694.00
MW-1	01/06/05		72.27	79.32	7.05	3693.99
MW-1	01/13/05		72.31	79.34	7.03	3693.96
MW-1	01/19/05		72.31	79.37	7.06	3693.95
MW-1	01/26/05		72.34	79.43	7.09	3693.92
MW-1	02/02/05		72.32	79.36	7.04	3693.95
MW-1	02/09/05		72.38	79.39	7.01	3693.89
MW-1	02/16/05		72.35	79.34	6.99	3693.92
MW-1	02/24/05		72.37	79.38	7.01	3693.90
MW-1	03/03/05		72.42	79.40	6.98	3693.85
MW-1	03/11/05		72.29	79.25	6.96	3693.99
MW-1	03/18/05		72.41	79.32	6.91	3693.87
MW-1	03/31/05		72.42	79.34	6.92	3693.86
MW-1	04/07/05		72.47	79.38	6.91	3693.81
MW-1	05/18/05		72.49	79.40	6.91	3693.79
MW-1	05/23/05		72.53	79.40	6.87	3693.76
MW-1	05/26/05		72.56	79.34	6.78	3693.74
MW-1	06/01/05		72.55	79.40	6.85	3693.74
MW-1	06/03/05		72.59	79.20	6.61	3693.74
MW-1	06/07/05		72.56	79.39	6.83	3693.74
MW-1	06/10/05		72.55	79.35	6.80	3693.75
MW-1	06/13/05		72.58	79.53	6.95	3693.70
MW-1	06/16/05		72.58	79.31	6.73	3693.73
MW-1	06/20/05		72.60	79.40	6.80	3693.70
MW-1	06/22/05		72.66	79.27	6.61	3693.67
MW-1	06/29/05		72.61	79.42	6.81	3693.69
MW-1	07/01/05		72.62	79.28	6.66	3693.70
MW-1	07/06/05		72.64	79.44	6.80	3693.66
MW-1	07/08/05		71.69	79.33	7.64	3694.49
MW-1	07/12/05		72.68	79.48	6.80	3693.62
MW-1	07/14/05		72.69	79.35	6.66	3693.63
MW-1	07/19/05		72.68	79.49	6.81	3693.62
MW-1	07/21/05		72.73	79.37	6.64	3693.59
MW-1	07/26/05		72.73	79.74	7.01	3693.54
MW-1	07/28/05		72.75	79.42	6.67	3693.57
MW-1	08/02/05		72.75	79.55	6.80	3693.55

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-1	08/04/05		72.79	79.45	6.66	3693.53
MW-1	08/09/05		72.77	79.56	6.79	3693.53
MW-1	08/11/05		72.81	79.46	6.65	3693.51
MW-1	08/16/05		72.79	79.60	6.81	3693.51
MW-1	08/18/05		72.81	79.47	6.66	3693.51
MW-1	08/24/05		72.82	79.64	6.82	3693.48
MW-1	08/26/05		72.85	79.52	6.67	3693.47
MW-1	08/30/05		72.83	79.63	6.80	3693.47
MW-1	09/01/05		72.83	79.43	6.60	3693.50
MW-1	09/06/05		72.78	79.58	6.80	3693.52
MW-1	09/08/05		72.82	79.45	6.63	3693.51
MW-1	09/13/05		72.81	79.62	6.81	3693.49
MW-1	09/16/05		72.84	79.58	6.74	3693.47
MW-1	09/20/05		72.85	79.62	6.77	3693.45
MW-1	09/23/05		72.88	79.62	6.74	3693.43
MW-1	09/27/05		72.88	79.65	6.77	3693.42
MW-1	09/29/05		72.91	79.57	6.66	3693.41
MW-1	10/04/05		72.91	79.70	6.79	3693.39
MW-1	10/06/05		72.94	79.01	6.07	3693.47
MW-1	10/11/05		72.93	79.71	6.78	3693.37
MW-1	10/13/05		72.95	79.65	6.70	3693.37
MW-1	10/18/05		72.94	79.74	6.80	3693.36
MW-1	10/21/05		72.99	79.76	6.77	3693.31
MW-1	10/26/05		72.96	79.77	6.81	3693.34
MW-1	10/28/05		72.99	79.69	6.70	3693.33
MW-1	11/01/05		73.02	79.80	6.78	3693.28
MW-1	11/04/05		73.03	79.81	6.78	3693.27
MW-1	11/09/05		73.06	79.86	6.80	3693.24
MW-1	11/11/05		73.08	79.87	6.79	3693.22
MW-1	11/16/05		73.09	79.87	6.78	3693.21
MW-1	11/18/05		73.01	79.76	6.75	3693.30
MW-1	11/22/05		73.09	79.88	6.79	3693.21
MW-1	11/30/05		73.11	79.11	6.00	3693.31
MW-1	12/02/05		73.14	79.82	6.68	3693.18
MW-1	12/06/05		73.10	79.88	6.78	3693.20
MW-1	12/14/05		73.14	79.91	6.77	3693.16
MW-1	12/16/05		73.19	79.79	6.60	3693.14
MW-1	12/21/05		73.15	79.94	6.79	3693.15
MW-1	12/23/05		73.23	79.77	6.54	3693.11
MW-1	12/27/05		73.30	79.94	6.64	3693.02
MW-1	12/30/05		73.23	79.93	6.70	3693.09
MW-1	01/03/06		73.23	79.97	6.74	3693.08
MW-1	01/05/06		73.22	79.81	6.59	3693.11
MW-1	01/11/06		73.23	79.97	6.74	3693.08
MW-1	01/13/06		73.32	79.87	6.55	3693.02
MW-1	01/18/06		73.23	79.96	6.73	3693.08
MW-1	01/20/06		73.31	79.91	6.60	3693.02
MW-1	01/24/06		73.25	79.99	6.74	3693.06
MW-1	01/26/06		73.21	79.97	6.76	3693.10
MW-1	02/02/06		73.23	79.97	6.74	3693.08

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-1	02/08/06		73.25	79.95	6.70	3693.07
MW-1	02/10/06		73.23	79.94	6.71	3693.08
MW-1	02/14/06		73.27	80.00	6.73	3693.04
MW-1	02/16/06		73.30	80.03	6.73	3693.01
MW-1	02/21/06		73.30	80.00	6.70	3693.02
MW-1	02/24/06		73.32	80.00	6.68	3693.00
MW-1	02/28/06		73.25	79.95	6.70	3693.07
MW-1	03/03/06		73.27	79.99	6.72	3693.04
MW-1	03/06/06		73.25	78.78	5.53	3693.24
MW-1	03/08/06		73.32	79.81	6.49	3693.03
MW-1	03/15/06		73.34	80.03	6.69	3692.98
MW-1	03/17/06		73.25	79.89	6.64	3693.07
MW-1	03/21/06		73.36	79.95	6.59	3692.97
MW-1	03/28/06		73.35	80.00	6.65	3692.97
MW-1	03/30/06		73.41	79.93	6.52	3692.93
MW-1	04/04/06		73.39	79.97	6.58	3692.94
MW-1	04/07/06		73.38	80.00	6.62	3692.95
MW-1	04/12/06		73.38	80.01	6.63	3692.95
MW-1	04/14/06		73.40	80.00	6.60	3692.93
MW-1	04/18/06		73.35	79.95	6.60	3692.98
MW-1	04/21/06		73.44	80.00	6.56	3692.90
MW-1	04/26/06		73.34	79.95	6.61	3692.99
MW-1	04/28/06		73.43	79.90	6.47	3692.92
MW-1	05/04/06		73.40	80.00	6.60	3692.93
MW-1	05/05/06		73.45	80.00	6.55	3692.89
MW-1	05/10/06		73.50	80.07	6.57	3692.83
MW-1	05/12/06		73.47	80.00	6.53	3692.87
MW-1	05/16/06		73.48	80.05	6.57	3692.85
MW-1	05/18/06		73.50	80.01	6.51	3692.84
MW-1	05/23/06		73.47	80.06	6.59	3692.86
MW-1	05/26/06		73.47	80.05	6.58	3692.86
MW-1	05/30/06		73.50	80.07	6.57	3692.83
MW-1	06/01/06		73.52	80.04	6.52	3692.82
MW-1	06/06/06		73.55	80.13	6.58	3692.78
MW-1	06/09/06		73.53	80.10	6.57	3692.80
MW-1	06/13/06		73.53	80.09	6.56	3692.81
MW-1	06/16/06		73.56	80.10	6.54	3692.78
MW-1	06/20/06		73.56	80.10	6.54	3692.78
MW-1	06/23/06		73.53	80.10	6.57	3692.80
MW-1	06/27/06		73.6	80.15	6.55	3692.74
MW-1	06/30/06		73.59	80.11	6.52	3692.75
MW-1	07/05/06		73.6	80.15	6.55	3692.74
MW-1	07/07/06		73.64	80.02	6.38	3692.72
MW-1	07/11/06		73.63	80.17	6.54	3692.71
MW-1	07/13/06		73.69	80.07	6.38	3692.67
MW-1	07/18/06		73.66	80.19	6.53	3692.68
MW-1	07/21/06		73.65	80.14	6.49	3692.70
MW-1	07/25/06		73.68	80.23	6.55	3692.66
MW-1	07/27/06		73.7	80.10	6.40	3692.66
MW-1	08/01/06		73.71	80.23	6.52	3692.63



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-1	08/03/06		73.75	80.14	6.39	3692.61
MW-1	08/09/06		73.73	80.26	6.53	3692.61
MW-1	08/11/06		73.77	80.17	6.40	3692.59
MW-1	08/15/06		73.77	80.29	6.52	3692.57
MW-1	08/18/06		73.48	80.28	6.80	3692.82
MW-1	08/25/06		73.81	80.32	6.51	3692.53
MW-1	08/30/06		NM	NM		#VALUE!
MW-1	09/12/06		NM	NM		#VALUE!
MW-1	09/15/06		NM	NM		#VALUE!
MW-1	09/20/06		NM	NM		#VALUE!
MW-1	09/26/06		NM	NM		#VALUE!
MW-1	09/29/06		NM	NM		#VALUE!
MW-1	10/04/06		NM	NM		#VALUE!
MW-1	10/06/06		79.04	85.64	6.60	3687.29
MW-1	10/12/06		79.07	85.64	6.57	3687.26
MW-1	10/17/06		79.1	85.65	6.55	3687.24
MW-1	10/20/06		79.6	85.60	6.00	3686.82
MW-1	10/24/06		79.05	85.60	6.55	3687.29
MW-1	10/26/06		79.6	85.64	6.04	3686.81
MW-1	11/22/06		79.18	85.78	6.60	3687.15
MW-1	11/28/06		79.21	85.83	6.62	3687.12
MW-1	12/06/06		79.3	85.87	6.57	3687.03
MW-1	12/08/06		79.6	85.6	6.00	3686.82
MW-1	12/12/06		80.33	88.8	8.47	3685.72
MW-1	12/15/06		79.28	85.79	6.51	3687.06
MW-1	12/20/06		78.78	78.88	0.10	3688.51
MW-1	12/22/06		79.34	85.87	6.53	3687.00
MW-1	12/27/06		79.35	85.92	6.57	3686.98
MW-1	01/03/07		79.38	85.97	6.59	3686.95
MW-1	01/05/07		79.38	85.91	6.53	3686.96
MW-1	01/12/07		79.46	86.04	6.58	3686.87
MW-1	01/15/07		79.46	85.92	6.46	3686.89
MW-1	01/18/07		79.43	85.96	6.53	3686.91
MW-1	01/31/07		79.4	86	6.60	3686.93
MW-1	02/07/07		79.3	85.85	6.55	3687.04
MW-1	02/09/07		79.5	85.85	6.35	3686.87
MW-1	02/13/07		79.48	85.96	6.48	3686.87
MW-1	02/16/07		79.44	85.91	6.47	3686.91
MW-1	02/19/07		79.41	85.86	6.45	3686.94
MW-1	02/21/07		79.5	85.67	6.17	3686.89
MW-1	02/26/07		79.5	85.97	6.47	3686.85
MW-1	03/01/07		79.47	85.87	6.40	3686.89
MW-1	03/06/07		79.41	85.89	6.48	3686.94
MW-1	03/09/07		79.47	85.94	6.47	3686.88
MW-1	03/13/07		79.46	85.97	6.51	3686.88
MW-1	03/23/07		79.49	85.96	6.47	3686.86
MW-1	03/27/07		79.48	85.98	6.50	3686.86
MW-1	03/29/07		79.38	85.87	6.49	3686.97
MW-1	04/06/07		79.52	86.03	6.51	3686.82
MW-1	04/11/07		79.5	86.01	6.51	3686.84

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCDF REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-1	04/17/07		79.51	86.03	6.52	3686.83
MW-1	04/19/07		79.55	85.79	6.24	3686.83
MW-1	04/24/07		79.49	85.95	6.46	3686.86
MW-1	05/01/07		79.51	86.02	6.51	3686.83
MW-1	05/21/07		79.51	86.02	6.51	3686.83
MW-1	05/24/07		79.61	86.11	6.50	3686.73
MW-1	06/19/07		79.65	86.18	6.53	3686.69
MW-1	06/28/07		79.68	86.22	6.54	3686.66
MW-1	08/07/07		79.61	86.16	6.55	3686.73
MW-1	08/17/07		79.67	86.21	6.54	3686.67
MW-1	08/23/07		79.67	86.18	6.51	3686.67
MW-1	08/31/07		79.71	86.22	6.51	3686.63
MW-1	09/20/07		79.76	86.31	6.55	3686.58
MW-1	09/21/07		79.79	86.36	6.57	3686.54
MW-1	10/11/07		79.82	86.39	6.57	3686.51
MW-1	10/18/07		79.86	86.38	6.52	3686.48
MW-1	11/27/07		79.99	86.64	6.65	3686.33
MW-1	12/17/07	3773.35	80.04	86.70	6.66	3692.21
MW-1	12/28/07		80.11	86.79	6.68	3692.14
MW-1	12/31/07		80.14	86.83	6.69	3692.11
MW-1	03/05/08		80.26	86.97	6.71	3691.98
MW-1	03/26/08		80.33	87.04	6.71	3691.91
MW-1	04/24/08		80.45	87.19	6.74	3691.79
MW-1	05/05/08		80.48	87.22	6.74	3691.76
MW-1	05/23/08		80.61	87.38	6.77	3691.62
MW-1	06/30/08		80.88	87.72	6.84	3691.34
MW-1	07/03/08		80.94	87.78	6.84	3691.28
MW-1	07/16/08		81.02	87.81	6.79	3691.21
MW-1	07/23/08		81.09	87.84	6.75	3691.15
MW-1	08/01/08		81.19	87.94	6.75	3691.05
MW-1	08/05/08		81.22	87.84	6.62	3691.04
MW-1	08/28/08		80.72	87.44	6.72	3691.52
MW-1	09/18/08		80.78	87.15	6.37	3691.52
MW-1	10/29/08		81.05	87.14	6.09	3691.30
MW-1	12/17/08		81.16	87.63	6.47	3691.12
MW-1	02/03/09		81.29	87.78	6.49	3690.99
MW-1	06/23/09		81.68	87.34	5.66	3690.74
MW-1	09/02/09		81.97	87.53	5.56	3690.46
MW-1	11/11/09		82.54	87.22	4.68	3690.04
MW-2	10/29/04	3771.04		76.67	76.67	3758.39
MW-2	11/04/04			76.79	76.79	3758.37
MW-2	11/10/04			76.84	76.84	3758.36
MW-2	11/17/04			76.89	76.89	3758.35
MW-2	11/24/04			76.97	76.97	3758.34
MW-2	12/02/04			76.91	76.91	3758.35
MW-2	12/08/04			76.79	76.79	3758.37
MW-2	12/15/04			76.81	76.81	3758.37
MW-2	12/27/04			77.00	77.00	3758.34
MW-2	12/29/04			77.01	77.01	3758.33

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-2	01/06/05			77.02	77.02	3758.33
MW-2	01/13/05			77.09	77.09	3758.32
MW-2	01/19/05			77.06	77.06	3758.33
MW-2	01/26/05			77.09	77.09	3758.32
MW-2	02/02/05			78.08	78.08	3758.16
MW-2	02/09/05			77.13	77.13	3758.31
MW-2	02/16/05			77.09	77.09	3758.32
MW-2	02/24/05			77.11	77.11	3758.32
MW-2	03/03/05			77.15	77.15	3758.31
MW-2	03/11/05			77.10	77.10	3758.32
MW-2	03/18/05			77.11	77.11	3758.32
MW-2	03/31/05			77.14	77.14	3758.31
MW-2	04/07/05			77.17	77.17	3758.31
MW-2	05/18/05			79.40	79.40	3757.94
MW-2	05/23/05			79.40	79.40	3757.94
MW-2	06/01/05			77.22	77.22	3758.30
MW-2	06/03/05			77.25	77.25	3758.29
MW-2	06/07/05			77.25	77.25	3758.29
MW-2	06/10/05			77.24	77.24	3758.30
MW-2	06/13/05			77.27	77.27	3758.29
MW-2	06/16/05			77.25	77.25	3758.29
MW-2	06/20/05			77.29	77.29	3758.29
MW-2	06/22/05			77.29	77.29	3758.29
MW-2	06/29/05			77.29	77.29	3758.29
MW-2	07/01/05			77.30	77.30	3758.29
MW-2	07/06/05			77.31	77.31	3758.28
MW-2	07/08/05			77.32	77.32	3758.28
MW-2	07/12/05			77.34	77.34	3758.28
MW-2	07/14/05			77.33	77.33	3758.28
MW-2	07/19/05			77.36	77.36	3758.28
MW-2	07/21/05			77.38	77.38	3758.27
MW-2	07/26/05			77.40	77.40	3758.27
MW-2	07/28/05			77.40	77.40	3758.27
MW-2	08/02/05			77.42	77.42	3758.27
MW-2	08/04/05			77.43	77.43	3758.26
MW-2	08/09/05			77.44	77.44	3758.26
MW-2	08/11/05			77.45	77.45	3758.26
MW-2	08/16/05			77.47	77.47	3758.26
MW-2	08/18/05			77.47	77.47	3758.26
MW-2	08/24/05			77.50	77.50	3758.25
MW-2	08/26/05			77.50	77.50	3758.25
MW-2	08/30/05			77.47	77.47	3758.26
MW-2	09/01/05			77.44	77.44	3758.26
MW-2	09/06/05			77.44	77.44	3758.26
MW-2	09/08/05			77.44	77.44	3758.26
MW-2	09/13/05			77.47	77.47	3758.26
MW-2	09/16/05			77.50	77.50	3758.25
MW-2	09/20/05			77.52	77.52	3758.25
MW-2	09/23/05			77.52	77.52	3758.25
MW-2	09/27/05			77.54	77.54	3758.25



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-2	09/29/05			77.56	77.56	3758.24
MW-2	10/04/05			77.57	77.57	3758.24
MW-2	10/06/05			77.60	77.60	3758.24
MW-2	10/11/05			77.60	77.60	3758.24
MW-2	10/13/05			77.61	77.61	3758.23
MW-2	10/18/05			77.61	77.61	3758.23
MW-2	10/21/05			77.65	77.65	3758.23
MW-2	10/26/05			77.63	77.63	3758.23
MW-2	10/28/05			77.64	77.64	3758.23
MW-2	11/01/05			77.69	77.69	3758.22
MW-2	11/04/05			77.69	77.69	3758.22
MW-2	11/09/05			77.73	77.73	3758.21
MW-2	11/11/05			77.73	77.73	3758.21
MW-2	11/16/05			77.28	77.28	3758.29
MW-2	11/18/05			77.78	77.78	3758.21
MW-2	11/22/05			77.77	77.77	3758.21
MW-2	11/30/05			77.80	77.80	3758.20
MW-2	12/02/05			77.79	77.79	3758.20
MW-2	12/06/05			77.88	77.88	3758.19
MW-2	12/14/05			77.83	77.83	3758.20
MW-2	12/16/05			77.81	77.81	3758.20
MW-2	12/21/05			77.81	77.81	3758.20
MW-2	12/23/05			77.85	77.85	3758.19
MW-2	12/27/05			77.85	77.85	3758.19
MW-2	12/30/05			77.71	77.71	3758.22
MW-2	01/03/06			77.90	77.90	3758.19
MW-2	01/05/06			77.87	77.87	3758.19
MW-2	01/11/06			77.91	77.91	3758.18
MW-2	01/13/06			77.86	77.86	3758.19
MW-2	01/18/06			77.90	77.90	3758.19
MW-2	01/20/06			77.91	77.91	3758.18
MW-2	01/24/06			78.92	78.92	3758.02
MW-2	01/26/06			78.90	78.90	3758.02
MW-2	02/02/06			77.87	77.87	3758.19
MW-2	02/08/06			77.91	77.91	3758.18
MW-2	02/10/06			77.90	77.90	3758.19
MW-2	02/14/06			77.93	77.93	3758.18
MW-2	02/16/06			77.94	77.94	3758.18
MW-2	02/21/06			77.95	77.95	3758.18
MW-2	02/24/06			77.95	77.95	3758.18
MW-2	02/28/06			77.93	77.93	3758.18
MW-2	03/03/06			77.92	77.92	3758.18
MW-2	03/06/06			77.90	77.90	3758.19
MW-2	03/08/06			77.95	77.95	3758.18
MW-2	03/15/06			77.98	77.98	3758.17
MW-2	03/17/06			78.08	78.08	3758.16
MW-2	03/21/06			77.95	77.95	3758.18
MW-2	03/23/06			77.86	77.86	3758.19
MW-2	03/28/06			77.89	77.89	3758.19
MW-2	03/30/06			77.86	77.86	3758.19



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-2	04/04/06			77.94	77.94	3758.18
MW-2	04/07/06			78.00	78.00	3758.17
MW-2	04/12/06			78.00	78.00	3758.17
MW-2	04/14/06			78.01	78.01	3758.17
MW-2	04/18/06			77.99	77.99	3758.17
MW-2	04/21/06			78.04	78.04	3758.16
MW-2	04/26/06			78.00	78.00	3758.17
MW-2	04/28/06			78.04	78.04	3758.16
MW-2	05/04/06			78.04	78.04	3758.16
MW-2	05/05/06			78.05	78.05	3758.16
MW-2	05/10/06			78.10	78.10	3758.15
MW-2	05/12/06			78.08	78.08	3758.16
MW-2	05/16/06			78.08	78.08	3758.16
MW-2	05/18/06			78.09	78.09	3758.16
MW-2	05/23/06			78.10	78.10	3758.15
MW-2	05/26/06			78.10	78.10	3758.15
MW-2	05/30/06			78.13	78.13	3758.15
MW-2	06/01/06			78.13	78.13	3758.15
MW-2	06/06/06			78.15	78.15	3758.15
MW-2	06/09/06			78.13	78.13	3758.15
MW-2	06/13/06			78.15	78.15	3758.15
MW-2	06/16/06			78.17	78.17	3758.14
MW-2	06/20/06			78.17	78.17	3758.14
MW-2	06/23/06			78.15	78.15	3758.15
MW-2	06/27/06			78.20	78.20	3758.14
MW-2	06/30/06			78.19	78.19	3758.14
MW-2	07/05/06			78.21	78.21	3758.14
MW-2	07/07/06			78.22	78.22	3758.13
MW-2	07/11/06			78.24	78.24	3758.13
MW-2	07/13/06			78.25	78.25	3758.13
MW-2	07/18/06			78.26	78.26	3758.13
MW-2	07/21/06			78.25	78.25	3758.13
MW-2	07/25/06			78.29	78.29	3758.12
MW-2	07/27/06			78.30	78.30	3758.12
MW-2	08/01/06			78.34	78.34	3758.11
MW-2	08/03/06			78.36	78.36	3758.11
MW-2	08/09/06			78.35	78.35	3758.11
MW-2	08/11/06			78.36	78.36	3758.11
MW-2	08/15/06			78.38	78.38	3758.11
MW-2	08/18/06			78.40	78.40	3758.10
MW-2	08/25/06			78.43	78.43	3758.10
MW-2	08/30/06			78.45	78.45	3758.10
MW-2	09/12/06		78.47	78.52	0.05	3692.56
MW-2	09/15/06		78.48	78.55	0.07	3692.55
MW-2	09/20/06		78.46	78.58	0.12	3692.56
MW-2	09/26/06		78.49	78.65	0.16	3692.52
MW-2	09/29/06		78.52	78.68	0.16	3692.49
MW-2	10/04/06		N.D.	78.53		3692.51
MW-2	10/06/06		78.54	79.74	1.20	3692.30
MW-2	10/12/06		78.56	78.77	0.21	3692.45

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-2	10/17/06		78.59	78.79	0.20	3692.42
MW-2	10/20/06		78.57	78.78	0.21	3692.44
MW-2	10/24/06		78.50	78.75	0.25	3692.50
MW-2	10/26/06		78.56	78.78	0.22	3692.44
MW-2	11/22/06		78.71	78.85	0.14	3692.31
MW-2	11/28/06		78.73	78.87	0.14	3692.29
MW-2	12/06/06		78.81	78.91	0.10	3692.21
MW-2	12/08/06		78.57	78.78	0.21	3692.44
MW-2	12/12/06		0.00	78.73	78.73	3758.05
MW-2	12/15/06		78.78	78.98	0.20	3692.23
MW-2	12/20/06		79.28	85.81	6.53	3690.68
MW-2	12/22/06		78.82	79.91	1.09	3692.04
MW-2	12/27/06		78.84	78.96	0.12	3692.18
MW-2	01/03/07		78.88	78.98	0.10	3692.14
MW-2	01/05/07		78.89	78.96	0.07	3692.14
MW-2	01/12/07		78.92	79.02	0.10	3692.10
MW-2	01/15/07		78.92	79.04	0.12	3692.10
MW-2	01/18/07		78.90	79.02	0.12	3692.12
MW-2	01/31/07		78.90	78.98	0.08	3692.13
MW-2	02/07/07		78.81	78.92	0.11	3692.21
MW-2	02/09/07		78.97	79.09	0.12	3692.05
MW-2	02/13/07		78.97	79.08	0.11	3692.05
MW-2	02/16/07		78.91	79.05	0.14	3692.11
MW-2	02/19/07		78.96	79.05	0.09	3692.07
MW-2	02/21/07		78.97	79.09	0.12	3692.05
MW-2	02/26/07		78.98	79.15	0.17	3692.03
MW-2	03/01/07		78.97	79.09	0.12	3692.05
MW-2	03/06/07		78.94	79.04	0.10	3692.08
MW-2	03/09/07		78.97	79.11	0.14	3692.05
MW-2	03/13/07		78.96	85.97	7.01	3690.92
MW-2	03/23/07		78.98	79.15	0.17	3692.03
MW-2	03/27/07		78.97	79.15	0.18	3692.04
MW-2	04/06/07		79.03	79.15	0.12	3691.99
MW-2	04/11/07		79.03	79.17	0.14	3691.99
MW-2	04/17/07		79.03	79.18	0.15	3691.99
MW-2	04/19/07		79.02	79.18	0.16	3691.99
MW-2	04/24/07		79.01	79.12	0.11	3692.01
MW-2	05/01/07		79.07	79.27	0.20	3691.94
MW-2	05/21/07		79.10	79.25	0.15	3691.92
MW-2	05/24/07		79.11	79.13	0.02	3691.93
MW-2	06/19/07		79.18	79.45	0.27	3691.82
MW-2	06/28/07		79.22	79.40	0.18	3691.79
MW-2	08/07/07		79.12	79.36	0.24	3691.88
MW-2	08/17/07		79.24	79.45	0.21	3691.77
MW-2	08/23/07		79.22	79.48	0.26	3691.78
MW-2	08/31/07		79.25	79.52	0.27	3691.75
MW-2	09/20/07		79.32	79.61	0.29	3691.67
MW-2	09/21/07		79.36	79.66	0.30	3691.63
MW-2	10/11/07		79.34	79.60	0.26	3691.66
MW-2	10/18/07		79.40	79.68	0.28	3691.59

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-2	11/27/07		79.52	79.79	0.27	3691.48
MW-2	12/17/07	3772.07	79.56	79.85	0.29	3692.46
MW-2	12/28/07		79.66	79.96	0.30	3692.36
MW-2	12/31/07		79.69	79.98	0.29	3692.33
MW-2	03/05/08		79.83	79.99	0.16	3692.21
MW-2	03/24/08		79.87	79.98	0.11	3692.18
MW-2	03/26/08		79.91	80.01	0.10	3692.14
MW-2	04/24/08		80.04	80.16	0.12	3692.01
MW-2	05/05/08		80.05	80.16	0.11	3692.00
MW-2	05/23/08		80.18	80.29	0.11	3691.87
MW-2	06/30/08		80.47	80.57	0.10	3691.58
MW-2	07/03/08		80.51	80.86	0.35	3691.50
MW-2	07/16/08		80.61	80.65	0.04	3691.45
MW-2	07/23/08			80.66	0.00	3691.41
MW-2	08/01/08			80.78	0.00	3691.29
MW-2	08/05/08			80.79	0.00	3691.28
MW-2	08/28/08		80.30	80.31	0.01	3691.77
MW-2	09/18/08		80.35	80.36	0.01	3691.72
MW-2	10/29/08			80.48	0.00	3691.59
MW-2	12/17/08			80.69	0.00	3691.38
MW-2	02/03/09			80.80	0.00	3691.27
MW-2	06/23/09			81.06	0.00	3691.01
MW-2	09/02/09			81.37	0.00	3690.70
MW-2	11/11/09			81.59	0.00	3690.48
MW-3	10/29/04	3771.94		78.18	0.00	3693.76
MW-3	11/04/04			78.26	0.00	3693.68
MW-3	11/10/04			78.30	0.00	3693.64
MW-3	11/17/04			78.33	0.00	3693.61
MW-3	11/24/04			78.41	0.00	3693.53
MW-3	12/02/04			78.37	0.00	3693.57
MW-3	12/08/04			78.30	0.00	3693.64
MW-3	12/15/04			78.26	0.00	3693.68
MW-3	12/27/04			78.42	0.00	3693.52
MW-3	12/29/04			78.42	0.00	3693.52
MW-3	01/06/05			78.44	0.00	3693.50
MW-3	01/13/05			78.48	0.00	3693.46
MW-3	01/19/05			78.45	0.00	3693.49
MW-3	01/26/05			78.50	0.00	3693.44
MW-3	02/02/05			78.55	0.00	3693.39
MW-3	02/09/05			78.52	0.00	3693.42
MW-3	02/16/05			78.48	0.00	3693.46
MW-3	02/24/05			78.48	0.00	3693.46
MW-3	03/03/05			78.54	0.00	3693.40
MW-3	03/11/05			78.53	0.00	3693.41
MW-3	03/18/05			78.51	0.00	3693.43
MW-3	03/31/05			78.56	0.00	3693.38
MW-3	04/07/05			78.54	0.00	3693.40
MW-3	05/18/05			79.40	0.00	3692.54
MW-3	05/23/05			79.40	0.00	3692.54



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-3	06/01/05			78.66	0.00	3693.28
MW-3	06/03/05			78.65	0.00	3693.29
MW-3	06/07/05			78.67	0.00	3693.27
MW-3	06/10/05			78.60	0.00	3693.34
MW-3	06/13/05			78.61	0.00	3693.33
MW-3	06/16/05			78.61	0.00	3693.33
MW-3	06/20/05			78.66	0.00	3693.28
MW-3	06/22/05			78.66	0.00	3693.28
MW-3	06/29/05			78.64	0.00	3693.30
MW-3	07/01/05			78.67	0.00	3693.27
MW-3	07/06/05			78.68	0.00	3693.26
MW-3	07/08/05			78.70	0.00	3693.24
MW-3	07/12/05			78.72	0.00	3693.22
MW-3	07/14/05			78.71	0.00	3693.23
MW-3	07/19/05			78.73	0.00	3693.21
MW-3	07/21/05			78.75	0.00	3693.19
MW-3	07/26/05			78.78	0.00	3693.16
MW-3	07/28/05			78.78	0.00	3693.16
MW-3	08/02/05			78.78	0.00	3693.16
MW-3	08/04/05			78.80	0.00	3693.14
MW-3	08/09/05			78.80	0.00	3693.14
MW-3	08/11/05			78.81	0.00	3693.13
MW-3	08/16/05			78.84	0.00	3693.10
MW-3	08/18/05			78.83	0.00	3693.11
MW-3	08/24/05			78.86	0.00	3693.08
MW-3	08/26/05			78.86	0.00	3693.08
MW-3	08/30/05			78.87	0.00	3693.07
MW-3	09/01/05			78.87	0.00	3693.07
MW-3	09/06/05			78.85	0.00	3693.09
MW-3	09/08/05			78.86	0.00	3693.08
MW-3	09/13/05			78.87	0.00	3693.07
MW-3	09/16/05		78.89	78.91	0.02	3693.05
MW-3	09/20/05		78.90	78.94	0.04	3693.03
MW-3	09/23/05		78.91	78.96	0.05	3693.02
MW-3	09/27/05		78.90	79.00	0.10	3693.02
MW-3	09/29/05		78.92	79.02	0.10	3693.00
MW-3	10/04/05		78.94	79.04	0.10	3692.98
MW-3	10/06/05		78.95	79.09	0.14	3692.97
MW-3	10/11/05		78.96	79.10	0.14	3692.96
MW-3	10/13/05		78.97	79.12	0.15	3692.95
MW-3	10/18/05		78.97	79.13	0.16	3692.94
MW-3	10/21/05		79.01	79.19	0.18	3692.90
MW-3	10/26/05		78.99	79.17	0.18	3692.92
MW-3	10/28/05		79.00	79.19	0.19	3692.91
MW-3	11/01/05		79.03	79.27	0.24	3692.87
MW-3	11/04/05		79.03	79.28	0.25	3692.87
MW-3	11/09/05		79.07	79.35	0.28	3692.82
MW-3	11/11/05		79.07	79.35	0.28	3692.82
MW-3	11/16/05		79.08	79.41	0.33	3692.81
MW-3	11/18/05		79.09	79.42	0.33	3692.80



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-3	11/22/05		79.08	79.43	0.35	3692.80
MW-3	11/30/05		79.10	79.51	0.41	3692.77
MW-3	12/02/05		79.10	79.50	0.40	3692.77
MW-3	12/06/05		79.08	79.51	0.43	3692.79
MW-3	12/14/05		79.11	79.62	0.51	3692.75
MW-3	12/16/05		79.11	79.62	0.51	3692.75
MW-3	12/21/05		79.11	79.62	0.51	3692.75
MW-3	12/23/05		79.12	79.75	0.63	3692.72
MW-3	12/27/05		79.12	79.75	0.63	3692.72
MW-3	12/30/05		79.15	79.86	0.71	3692.67
MW-3	01/03/06		79.13	79.93	0.80	3692.68
MW-3	01/05/06		79.11	79.91	0.80	3692.70
MW-3	01/11/06		79.10	80.08	0.98	3692.68
MW-3	01/13/06		79.11	79.91	0.80	3692.70
MW-3	01/18/06		79.06	80.27	1.21	3692.68
MW-3	01/20/06		79.08	80.35	1.27	3692.65
MW-3	01/24/06		79.05	80.47	1.42	3692.66
MW-3	01/26/06		79.03	80.46	1.43	3692.67
MW-3	02/02/06		79.00	80.69	1.69	3692.66
MW-3	02/08/06		78.99	80.50	1.51	3692.70
MW-3	02/10/06		78.97	80.48	1.51	3692.72
MW-3	02/14/06		79.26	79.36	0.10	3692.66
MW-3	02/16/06		79.22	79.37	0.15	3692.70
MW-3	02/21/06		79.24	79.71	0.47	3692.62
MW-3	02/24/06		79.25	79.55	0.30	3692.64
MW-3	02/28/06		79.27	79.55	0.28	3692.62
MW-3	03/03/06		79.21	79.55	0.34	3692.67
MW-3	03/06/06		79.25	79.55	0.30	3692.64
MW-3	03/08/06		79.25	79.49	0.24	3692.65
MW-3	03/15/06		79.23	79.92	0.69	3692.60
MW-3	03/17/06		79.21	80.02	0.81	3692.60
MW-3	03/21/06		79.14	81.00	1.86	3692.49
MW-3	03/23/06		79.08	79.88	0.80	3692.73
MW-3	03/28/06		79.15	80.20	1.05	3692.62
MW-3	03/30/06		79.20	80.22	1.02	3692.57
MW-3	04/04/06		79.17	80.24	1.07	3692.59
MW-3	04/07/06		79.13	80.48	1.35	3692.59
MW-3	04/12/06		79.07	80.82	1.75	3692.58
MW-3	04/14/06		79.07	80.90	1.83	3692.57
MW-3	04/18/06		79.00	81.13	2.13	3692.59
MW-3	04/21/06		79.02	81.32	2.30	3692.54
MW-3	04/26/06		78.91	81.53	2.62	3692.60
MW-3	04/28/06		78.92	81.65	2.73	3692.57
MW-3	05/04/06		78.88	81.82	2.94	3692.57
MW-3	05/05/06		78.89	82.00	3.11	3692.54
MW-3	05/10/06		78.60	82.31	3.71	3692.73
MW-3	05/12/06		78.60	82.31	3.71	3692.73
MW-3	05/16/06		79.15	80.90	1.75	3692.50
MW-3	05/18/06		79.12	81.07	1.95	3692.50
MW-3	05/23/06		79.07	81.46	2.39	3692.48

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-3	05/26/06		79.09	81.20	2.11	3692.50
MW-3	05/30/06		79.04	81.59	2.55	3692.48
MW-3	06/01/06		79.03	80.53	1.50	3692.66
MW-3	06/06/06		79.23	80.98	1.75	3692.42
MW-3	06/09/06		79.18	81.10	1.92	3692.44
MW-3	06/13/06		79.12	81.20	2.08	3692.48
MW-3	06/16/06		78.11	81.58	3.47	3693.26
MW-3	06/20/06		79.07	81.78	2.71	3692.42
MW-3	06/23/06		79.03	81.89	2.86	3692.44
MW-3	06/27/06		79.02	82.18	3.16	3692.40
MW-3	06/30/06		79.00	82.23	3.23	3692.41
MW-3	07/05/06		79.98	82.46	2.48	3691.55
MW-3	07/07/06		78.97	82.57	3.60	3692.38
MW-3	07/11/06		78.97	82.72	3.75	3692.35
MW-3	07/13/06		78.86	82.80	3.94	3692.43
MW-3	07/18/06		78.94	82.95	4.01	3692.34
MW-3	07/21/06		78.73	82.99	4.26	3692.51
MW-3	07/25/06		78.93	83.11	4.18	3692.32
MW-3	07/27/06		78.92	83.14	4.22	3692.32
MW-3	08/01/06		78.94	83.27	4.33	3692.29
MW-3	08/03/06		78.95	83.30	4.35	3692.27
MW-3	08/09/06		78.95	83.37	4.42	3692.26
MW-3	08/11/06		78.96	83.37	4.41	3692.25
MW-3	08/15/06		78.98	83.45	4.47	3692.22
MW-3	08/18/06		78.98	83.47	4.49	3692.22
MW-3	08/25/06		79.00	83.55	4.55	3692.19
MW-3	08/30/06		79.02	83.61	4.59	3692.16
MW-3	09/12/06		79.16	83.71	4.55	3692.03
MW-3	09/15/06		79.04	83.72	4.68	3692.13
MW-3	09/20/06		79.05	83.75	4.70	3692.11
MW-3	09/26/06		79.09	83.80	4.71	3692.07
MW-3	09/29/06		79.10	83.81	4.71	3692.06
MW-3	10/04/06		79.13	83.94	4.81	3692.02
MW-3	10/06/06		79.47	82.28	2.81	3692.01
MW-3	10/12/06		79.55	82.04	2.49	3691.98
MW-3	10/17/06		79.54	82.11	2.57	3691.98
MW-3	10/20/06		79.52	82.29	2.77	3691.96
MW-3	10/24/06		79.54	82.10	2.56	3691.98
MW-3	10/26/06		79.58	82.29	2.71	3691.91
MW-3	11/22/06		79.72	82.07	2.35	3691.83
MW-3	11/28/06		79.92	81.27	1.35	3691.80
MW-3	12/06/06		80.08	81.03	0.95	3691.70
MW-3	12/08/06		79.52	82.29	2.77	3691.96
MW-3	12/12/06		80.06	82.45	2.39	3691.49
MW-3	12/15/06		80.04	81.03	0.99	3691.74
MW-3	12/20/06		79.98	81.29	1.31	3691.74
MW-3	12/22/06		79.98	81.46	1.48	3691.72
MW-3	12/27/06		79.94	81.82	1.88	3691.69
MW-3	01/03/07		80.15	80.94	0.79	3691.66
MW-3	01/05/07		80.12	81.02	0.90	3691.67



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-3	01/12/07		80.08	81.38	1.30	3691.65
MW-3	01/15/07		80.26	80.70	0.44	3691.61
MW-3	01/18/07		80.22	80.80	0.58	3691.62
MW-3	01/31/07		80.24	81.18	0.94	3691.54
MW-3	02/07/07		79.97	81.45	1.48	3691.73
MW-3	02/09/07		80.33	80.60	0.27	3691.57
MW-3	02/13/07		80.29	80.81	0.52	3691.56
MW-3	02/16/07		80.23	80.91	0.68	3691.60
MW-3	02/19/07		80.19	81.09	0.90	3691.60
MW-3	02/21/07		80.19	81.12	0.93	3691.60
MW-3	02/26/07		80.20	81.43	1.23	3691.54
MW-3	03/01/07		80.15	81.56	1.41	3691.56
MW-3	03/06/07		80.02	81.71	1.69	3691.64
MW-3	03/09/07		80.07	81.62	1.55	3691.61
MW-3	03/13/07		80.03	82.07	2.04	3691.57
MW-3	03/23/07		80.04	82.17	2.13	3691.55
MW-3	03/27/07	3772.86	80.01	82.42	2.41	3692.45
MW-3	04/06/07		79.96	82.83	2.87	3692.43
MW-3	04/11/07		79.90	83.01	3.11	3692.45
MW-3	04/17/07		79.90	83.11	3.21	3692.43
MW-3	04/19/07		79.89	83.17	3.28	3692.43
MW-3	04/24/07		79.87	82.25	2.38	3692.60
MW-3	05/01/07		79.81	83.87	4.06	3692.38
MW-3	05/21/07		79.85	83.75	3.90	3692.37
MW-3	05/24/07		79.86	81.57	1.71	3692.72
MW-3	06/19/07		79.80	84.12	4.32	3692.35
MW-3	06/28/07		79.92	84.16	4.24	3692.24
MW-3	08/07/07		79.84	84.04	4.20	3692.33
MW-3	08/17/07		80.13	82.71	2.58	3692.30
MW-3	08/23/07		80.35	82.83	2.48	3692.10
MW-3	08/31/07		80.56	81.57	1.01	3692.13
MW-3	09/20/07		80.37	82.33	1.96	3692.17
MW-3	09/21/07		80.38	82.37	1.99	3692.15
MW-3	10/11/07		80.51	82.10	1.59	3692.09
MW-3	10/18/07		80.71	81.29	0.58	3692.05
MW-3	11/27/07		80.51	82.96	2.45	3691.95
MW-3	12/17/07		80.56	83.40	2.84	3691.83
MW-3	12/28/07		80.61	83.87	3.26	3691.71
MW-3	12/31/07		80.67	83.09	2.42	3691.79
MW-3	03/05/08		80.65	84.00	3.35	3691.66
MW-3	03/24/08		80.81	83.28	2.47	3691.64
MW-3	03/26/08		80.89	83.33	2.44	3691.57
MW-3	04/24/08		80.92	83.97	3.05	3691.44
MW-3	05/05/08		80.91	84.04	3.13	3691.43
MW-3	05/23/08		81.01	84.38	3.37	3691.29
MW-3	06/30/08		81.25	NM		
MW-3	07/03/08		80.31	NM		
MW-3	07/16/08		81.67	83.62	1.95	3690.87
MW-3	07/23/08		81.88	83.10	1.22	3690.78
MW-3	08/01/08		82.09	82.45	0.36	3690.71



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-3	08/28/08		81.56	82.17	0.61	3691.20
MW-3	09/18/08		81.75	82.30	0.55	3691.02
MW-3	10/29/08		81.75	82.52	0.77	3690.98
MW-3	12/17/08		82.07	82.18	0.11	3690.77
MW-3	02/03/09		82.16	82.42	0.26	3690.66
MW-3	06/23/09		82.45	82.54	0.09	3690.40
MW-3	09/02/09		82.75	82.81	0.06	3690.10
MW-3	11/11/09		83.13	83.15	0.02	3689.73
MW-4	10/29/04	3772.86		79.22	0.00	3693.64
MW-4	11/04/04			79.35	0.00	3693.51
MW-4	11/10/04			79.34	0.00	3693.52
MW-4	11/17/04			79.41	0.00	3693.45
MW-4	11/24/04			79.49	0.00	3693.37
MW-4	12/02/04			79.46	0.00	3693.40
MW-4	12/08/04			79.35	0.00	3693.51
MW-4	12/15/04			79.33	0.00	3693.53
MW-4	12/27/04			79.48	0.00	3693.38
MW-4	12/29/04			79.47	0.00	3693.39
MW-4	01/06/05			79.51	0.00	3693.35
MW-4	01/13/05			79.54	0.00	3693.32
MW-4	01/19/05			79.51	0.00	3693.35
MW-4	01/26/05			79.54	0.00	3693.32
MW-4	02/02/05			79.51	0.00	3693.35
MW-4	02/09/05			79.58	0.00	3693.28
MW-4	02/16/05			79.52	0.00	3693.34
MW-4	02/24/05			79.55	0.00	3693.31
MW-4	03/03/05			79.57	0.00	3693.29
MW-4	03/11/05			79.46	0.00	3693.40
MW-4	03/18/05			79.57	0.00	3693.29
MW-4	03/31/05			79.61	0.00	3693.25
MW-4	04/07/05			79.59	0.00	3693.27
MW-4	05/18/05			79.40	0.00	3693.46
MW-4	05/23/05			79.40	0.00	3693.46
MW-4	06/01/05			79.66	0.00	3693.20
MW-4	06/03/05			79.65	0.00	3693.21
MW-4	06/07/05			79.67	0.00	3693.19
MW-4	06/10/05			79.64	0.00	3693.22
MW-4	06/13/05			79.61	0.00	3693.25
MW-4	06/16/05			79.65	0.00	3693.21
MW-4	06/20/05			79.90	0.00	3692.96
MW-4	06/22/05			79.70	0.00	3693.16
MW-4	06/29/05			79.68	0.00	3693.18
MW-4	07/01/05			79.71	0.00	3693.15
MW-4	07/06/05			79.71	0.00	3693.15
MW-4	07/08/05			79.75	0.00	3693.11
MW-4	07/12/05			79.75	0.00	3693.11
MW-4	07/14/05			79.75	0.00	3693.11
MW-4	07/19/05			79.77	0.00	3693.09
MW-4	07/21/05			79.79	0.00	3693.07



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-4	07/26/05			79.81	0.00	3693.05
MW-4	07/28/05			79.81	0.00	3693.05
MW-4	08/02/05			79.82	0.00	3693.04
MW-4	08/04/05			79.84	0.00	3693.02
MW-4	08/09/05			79.85	0.00	3693.01
MW-4	08/11/05			79.86	0.00	3693.00
MW-4	08/16/05			79.88	0.00	3692.98
MW-4	08/18/05			79.88	0.00	3692.98
MW-4	08/24/05			79.90	0.00	3692.96
MW-4	08/26/05			79.91	0.00	3692.95
MW-4	08/30/05			79.93	0.00	3692.93
MW-4	09/01/05			79.92	0.00	3692.94
MW-4	09/06/05			79.91	0.00	3692.95
MW-4	09/08/05			79.94	0.00	3692.92
MW-4	09/13/05			79.94	0.00	3692.92
MW-4	09/16/05			79.96	0.00	3692.90
MW-4	09/20/05			79.88	0.00	3692.98
MW-4	09/23/05			79.79	0.00	3693.07
MW-4	09/27/05			80.00	0.00	3692.86
MW-4	09/29/05			80.01	0.00	3692.85
MW-4	10/04/05			80.03	0.00	3692.83
MW-4	10/06/05			80.04	0.00	3692.82
MW-4	10/11/05			80.04	0.00	3692.82
MW-4	10/13/05			80.05	0.00	3692.81
MW-4	10/18/05			80.85	0.00	3692.01
MW-4	10/21/05			80.09	0.00	3692.77
MW-4	10/26/05			80.08	0.00	3692.78
MW-4	10/28/05			80.09	0.00	3692.77
MW-4	11/01/05			80.13	0.00	3692.73
MW-4	11/04/05			80.14	0.00	3692.72
MW-4	11/09/05			80.18	0.00	3692.68
MW-4	11/11/05			80.16	0.00	3692.70
MW-4	11/16/05			80.21	0.00	3692.65
MW-4	11/18/05			80.20	0.00	3692.66
MW-4	11/22/05			80.20	0.00	3692.66
MW-4	11/30/05			80.22	0.00	3692.64
MW-4	12/02/05			80.22	0.00	3692.64
MW-4	12/06/05			80.20	0.00	3692.66
MW-4	12/14/05			80.25	0.00	3692.61
MW-4	12/16/05			80.20	0.00	3692.66
MW-4	12/21/05			80.20	0.00	3692.66
MW-4	12/23/05			80.27	0.00	3692.59
MW-4	12/27/05			80.26	0.00	3692.60
MW-4	12/30/05			80.15	0.00	3692.71
MW-4	01/03/06			80.31	0.00	3692.55
MW-4	01/05/06			80.28	0.00	3692.58
MW-4	01/11/06			80.31	0.00	3692.55
MW-4	01/13/06			80.26	0.00	3692.60
MW-4	01/18/06			80.32	0.00	3692.54
MW-4	01/20/06			79.36	0.00	3693.50

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-4	01/24/06			80.37	0.00	3692.49
MW-4	01/26/06			80.35	0.00	3692.51
MW-4	02/02/06			80.36	0.00	3692.50
MW-4	02/08/06			80.32	0.00	3692.54
MW-4	02/10/06			80.33	0.00	3692.53
MW-4	02/14/06			80.35	0.00	3692.51
MW-4	02/16/06			80.35	0.00	3692.51
MW-4	02/21/06			80.36	0.00	3692.50
MW-4	02/24/06			80.36	0.00	3692.50
MW-4	02/28/06			90.34	0.00	3682.52
MW-4	03/03/06			80.30	0.00	3692.56
MW-4	03/06/06			80.31	0.00	3692.55
MW-4	03/08/06			80.35	0.00	3692.51
MW-4	03/15/06			80.38	0.00	3692.48
MW-4	03/17/06			80.30	0.00	3692.56
MW-4	03/21/06			80.35	0.00	3692.51
MW-4	03/23/06			80.25	0.00	3692.61
MW-4	03/28/06			80.38	0.00	3692.48
MW-4	03/30/06			80.29	0.00	3692.57
MW-4	04/04/06			80.38	0.00	3692.48
MW-4	04/07/06			80.45	0.00	3692.41
MW-4	04/12/06			80.40	0.00	3692.46
MW-4	04/14/06			80.40	0.00	3692.46
MW-4	04/18/06			80.40	0.00	3692.46
MW-4	04/21/06			80.44	0.00	3692.42
MW-4	04/26/06			80.40	0.00	3692.46
MW-4	04/28/06			80.43	0.00	3692.43
MW-4	05/04/06			80.44	0.00	3692.42
MW-4	05/05/06			80.45	0.00	3692.41
MW-4	05/10/06			80.41	0.00	3692.45
MW-4	05/12/06			80.48	0.00	3692.38
MW-4	05/16/06			80.49	0.00	3692.37
MW-4	05/18/06			80.50	0.00	3692.36
MW-4	05/23/06			80.56	0.00	3692.30
MW-4	05/26/06			80.51	0.00	3692.35
MW-4	05/30/06			80.53	0.00	3692.33
MW-4	06/01/06			80.53	0.00	3692.33
MW-4	06/06/06			80.57	0.00	3692.29
MW-4	06/09/06			80.54	0.00	3692.32
MW-4	06/13/06			80.56	0.00	3692.30
MW-4	06/16/06			80.56	0.00	3692.30
MW-4	06/20/06			80.53	0.00	3692.33
MW-4	06/23/06			80.56	0.00	3692.30
MW-4	06/27/06			80.61	0.00	3692.25
MW-4	06/30/06			80.6	0.00	3692.26
MW-4	07/05/06			80.62	0.00	3692.24
MW-4	07/07/06			80.62	0.00	3692.24
MW-4	07/11/06			80.95	0.00	3691.91
MW-4	07/13/06			80.68	0.00	3692.18
MW-4	07/18/06			80.68	0.00	3692.18



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-4	07/21/06			80.67	0.00	3692.19
MW-4	07/25/06			80.71	0.00	3692.15
MW-4	07/27/06			80.7	0.00	3692.16
MW-4	08/01/06			80.75	0.00	3692.11
MW-4	08/03/06			80.75	0.00	3692.11
MW-4	08/09/06			80.78	0.00	3692.08
MW-4	08/11/06			80.78	0.00	3692.08
MW-4	08/15/06			80.74	0.00	3692.12
MW-4	08/18/06			80.81	0.00	3692.05
MW-4	08/25/06			80.84	0.00	3692.02
MW-4	08/30/06			80.86	0.00	3692.00
MW-4	09/12/06			NM	0.00	#VALUE!
MW-4	09/15/06			80.93	0.00	3691.93
MW-4	09/20/06			80.93	0.00	3691.93
MW-4	09/26/06			80.98	0.00	3691.88
MW-4	09/29/06			79.98	0.00	3692.88
MW-4	10/04/06			81.04	0.00	3691.82
MW-4	10/06/06			81.03	0.00	3691.83
MW-4	10/12/06			81.05	0.00	3691.81
MW-4	10/17/06			81.08	0.00	3691.78
MW-4	10/20/06			81.40	0.00	3691.46
MW-4	10/24/06			81.05	0.00	3691.81
MW-4	10/26/06			81.05	0.00	3691.81
MW-4	11/22/06			81.17	0.00	3691.69
MW-4	11/28/06			81.20	0.00	3691.66
MW-4	12/06/06			81.27	0.00	3691.59
MW-4	12/08/06			81.07	0.00	3691.79
MW-4	12/12/06			82.36	0.00	3690.50
MW-4	12/15/06			81.07	0.00	3691.79
MW-4	12/20/06			81.16	0.00	3691.70
MW-4	12/22/06			81.29	0.00	3691.57
MW-4	12/27/06			81.33	0.00	3691.53
MW-4	01/03/07			81.34	0.00	3691.52
MW-4	01/05/07			81.32	0.00	3691.54
MW-4	01/12/07			81.36	0.00	3691.50
MW-4	01/15/07			81.42	0.00	3691.44
MW-4	01/18/07			81.39	0.00	3691.47
MW-4	01/31/07			81.35	0.00	3691.51
MW-4	02/07/07			81.27	0.00	3691.59
MW-4	02/09/07			81.45	0.00	3691.41
MW-4	02/13/07			81.41	0.00	3691.45
MW-4	02/16/07		80.26	80.39	0.13	3692.58
MW-4	02/19/07		81.36	81.37	0.01	3691.50
MW-4	02/21/07			81.41	0.00	3691.45
MW-4	02/26/07			81.44	0.00	3691.42
MW-4	03/01/07			81.42	0.00	3691.44
MW-4	03/06/07			81.11	0.00	3691.75
MW-4	03/09/07			81.43	0.00	3691.43
MW-4	03/13/07			81.42	0.00	3691.44
MW-4	03/23/07			81.44	0.00	3691.42

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-4	03/27/07	3773.76		81.43	0.00	3692.33
MW-4	03/29/07			81.12	0.00	3692.64
MW-4	04/06/07			81.47	0.00	3692.29
MW-4	04/11/07			81.46	0.00	3692.30
MW-4	04/17/07			81.47	0.00	3692.29
MW-4	04/19/07			81.47	0.00	3692.29
MW-4	04/24/07			81.43	0.00	3692.33
MW-4	05/01/07			81.51	0.00	3692.25
MW-4	05/21/07			81.51	0.00	3692.25
MW-4	05/24/07			81.57	0.00	3692.19
MW-4	06/19/07			81.51	0.00	3692.25
MW-4	06/28/07			81.49	0.00	3692.27
MW-4	08/07/07			81.54	0.00	3692.22
MW-4	08/17/07			81.62	0.00	3692.14
MW-4	08/23/07			81.64	0.00	3692.12
MW-4	09/20/07			81.72	0.00	3692.04
MW-4	10/11/07			81.77	0.00	3691.99
MW-4	11/27/07			81.97	0.00	3691.79
MW-4	12/17/07			82.04	0.00	3691.72
MW-4	12/28/07			82.06	0.00	3691.70
MW-4	03/05/08			82.28	0.00	3691.48
MW-4	03/26/08			82.34	0.00	3691.42
MW-4	04/24/08			82.31	0.00	3691.45
MW-4	05/23/08			82.39	0.00	3691.37
MW-4	06/30/08			82.57	0.00	3691.19
MW-4	08/05/08			82.62	0.00	3691.14
MW-4	09/18/08			82.81	0.00	3690.95
MW-4	10/29/08			82.61	0.00	3691.15
MW-4	12/17/08			83.13	0.00	3690.63
MW-4	02/03/09			83.26	0.00	3690.50
MW-4	06/23/09			83.50	0.00	3690.26
MW-4	09/02/09			83.83	0.00	3689.93
MW-4	11/11/09			84.08	0.00	3689.68
MW-5	11/16/07	Installed Well				
MW-5	11/27/07	3772.08	79.69	79.98	0.29	3692.34
MW-5	12/17/07		79.55	80.91	1.36	3692.31
MW-5	12/28/07		79.49	81.68	2.19	3692.23
MW-5	12/31/08		79.43	81.88	2.45	3692.25
MW-5	03/05/08		78.96	84.96	6.00	3692.13
MW-5	03/24/08		78.98	81.04	2.06	3692.76
MW-5	03/26/08		79.74	81.68	1.94	3692.02
MW-5	04/24/08		79.21	84.94	5.73	3691.92
MW-5	05/05/08		79.16	85.14	5.98	3691.93
MW-5	05/23/08		79.22	85.37	6.15	3691.85
MW-5	06/30/08		79.57	85.68	6.11	3691.50
MW-5	07/03/08		79.61	85.73	6.12	3691.46
MW-5	07/16/08		79.94	84.68	4.74	3691.36
MW-5	07/23/08		80.32	83.33	3.01	3691.26
MW-5	08/01/08		80.42	83.34	2.92	3691.18

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-5	08/05/08		80.59	82.66	2.07	3691.15
MW-5	08/28/08		79.63	84.41	4.78	3691.66
MW-5	09/18/08		79.52	85.30	5.78	3691.61
MW-5	10/29/08		79.88	84.27	4.39	3691.48
MW-5	12/17/08		80.79	81.19	0.40	3691.22
MW-5	02/03/09		80.11	85.15	5.04	3691.14
MW-5	06/23/09		81.17	81.55	0.38	3690.85
MW-5	09/02/09		80.75	85.00	4.25	3690.63
MW-5	11/11/09		81.01	86.30	5.29	3690.20
MW-6	11/15/07	Installed Well				
MW-6	11/27/07	3772.99	80.66	81.54	0.88	3692.18
MW-6	12/17/07		80.42	83.14	2.72	3692.12
MW-6	12/28/07		80.24	84.27	4.03	3692.09
MW-6	12/31/08		80.21	84.66	4.45	3692.05
MW-6	03/05/08		79.96	86.41	6.45	3691.97
MW-6	03/24/08		79.96	86.21	6.25	3692.00
MW-6	03/26/08		80.02	86.46	6.44	3691.91
MW-6	04/24/08		80.16	86.64	6.48	3691.76
MW-6	05/05/08		80.18	86.66	6.48	3691.74
MW-6	05/23/08		80.31	86.84	6.53	3691.60
MW-6	06/30/08		80.59	87.17	6.58	3691.31
MW-6	07/03/08		80.63	87.23	6.60	3691.27
MW-6	07/16/08		80.73	87.20	6.47	3691.19
MW-6	07/23/08		80.80	87.36	6.56	3691.11
MW-6	08/01/08		80.95	87.18	6.23	3691.01
MW-6	08/05/08		81.29	85.64	4.35	3690.98
MW-6	08/28/08		80.43	86.91	6.48	3691.49
MW-6	09/18/08		80.49	87.01	6.52	3691.42
MW-6	10/29/08		80.70	86.83	6.13	3691.28
MW-6	12/17/08		81.86	82.53	0.67	3691.02
MW-6	02/03/09		81.03	87.15	6.12	3690.95
MW-6	06/23/09		81.27	87.35	6.08	3690.72
MW-6	09/02/09		82.11	85.14	3.03	3690.38
MW-6	11/11/09		82.78	84.22	1.44	3689.97
MW-7	11/15/07	Installed Well				
MW-7	11/27/07	3772.92	80.72	81.56	0.84	3692.06
MW-7	12/17/07		80.51	82.94	2.43	3692.01
MW-7	12/28/07		80.44	83.86	3.42	3691.92
MW-7	12/31/08		80.91	84.19	3.28	3691.47
MW-7	03/05/08		80.04	86.55	6.51	3691.81
MW-7	03/24/08		80.09	86.48	6.39	3691.78
MW-7	03/26/08		80.16	86.55	6.39	3691.71
MW-7	04/24/08		80.24	86.77	6.53	3691.60
MW-7	05/05/08		80.24	86.77	6.53	3691.60
MW-7	05/23/08		80.38	86.94	6.56	3691.46
MW-7	06/30/08		80.67	87.25	6.58	3691.16
MW-7	07/03/08		80.71	87.31	6.60	3691.12
MW-7	07/16/08		81.12	85.84	4.72	3691.02

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-7	07/23/08		80.90	86.86	5.96	3691.04
MW-7	08/01/08		81.24	86.26	5.02	3690.85
MW-7	08/05/08		81.53	84.94	3.41	3690.83
MW-7	08/28/08		80.57	86.73	6.16	3691.33
MW-7	09/18/08		80.58	87.02	6.44	3691.28
MW-7	10/29/08		80.83	86.70	5.87	3691.12
MW-7	12/17/08		80.98	87.09	6.11	3690.93
MW-7	02/03/09		81.12	87.14	6.02	3690.81
MW-7	06/23/09		81.42	87.22	5.80	3690.54
MW-7	09/02/09		81.68	87.79	6.11	3690.23
MW-7	11/11/09		82.36	85.16	2.80	3690.10
MW-8	11/15/07	Installed Well				
MW-8	11/27/07	3773.80		82.11	0.00	3691.69
MW-8	12/17/07			82.21	0.00	3691.59
MW-8	12/28/07			82.24	0.00	3691.56
MW-8	03/05/08			82.44	0.00	3691.36
MW-8	03/26/08			82.41	0.00	3691.39
MW-8	04/24/08			82.49	0.00	3691.31
MW-8	05/23/08			82.56	0.00	3691.24
MW-8	06/30/08			82.75	0.00	3691.05
MW-8	08/05/08			82.78	0.00	3691.02
MW-8	09/18/08			82.97	0.00	3690.83
MW-8	10/29/08			83.11	0.00	3690.69
MW-8	12/17/08			83.30	0.00	3690.50
MW-8	02/03/09			83.45	0.00	3690.35
MW-8	06/23/09			83.67	0.00	3690.13
MW-8	09/02/09			83.95	0.00	3689.85
MW-8	11/11/09			84.21	0.00	3689.59
MW-9	11/15/07	Installed Well				
MW-9	11/27/07	3771.79	79.47	79.93	0.46	3692.24
MW-9	12/17/07		79.35	80.82	1.47	3692.20
MW-9	12/28/07		79.30	81.48	2.18	3692.13
MW-9	12/31/08		79.27	81.76	2.49	3692.11
MW-9	03/05/08		78.73	85.07	6.34	3692.01
MW-9	03/24/08		78.84	84.93	6.09	3691.95
MW-9	03/26/08		79.54	81.64	2.10	3691.90
MW-9	04/24/08		79.21	80.16	0.95	3692.42
MW-9	05/05/08		78.92	80.24	1.32	3692.65
MW-9	05/23/08		79.06	85.48	6.42	3691.67
MW-9	06/30/08		79.34	85.61	6.27	3691.42
MW-9	07/03/08		79.39	85.87	6.48	3691.33
MW-9	07/16/08		79.57	85.49	5.92	3691.24
MW-9	07/23/08		79.93	84.16	4.23	3691.16
MW-9	08/01/08		79.97	84.75	4.78	3691.03
MW-9	08/05/08		80.24	83.32	3.08	3691.04
MW-9	08/28/08		79.22	85.31	6.09	3691.57
MW-9	09/18/08		79.25	85.57	6.32	3691.50
MW-9	10/29/08		79.47	85.25	5.78	3691.37



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-9	12/17/08		80.60	81.19	0.59	3691.09
MW-9	02/03/09		79.79	85.67	5.88	3691.03
MW-9	06/23/09		80.95	81.70	0.75	3690.72
MW-9	09/02/09		81.18	82.29	1.11	3690.43
MW-9	11/11/09		81.72	81.98	0.26	3690.03
MW-10	11/15/07	Installed Well				
MW-10	11/27/07	3771.90		79.13	0.00	3692.77
MW-10	12/17/07			79.18	0.00	3692.72
MW-10	12/28/07			79.18	0.00	3692.72
MW-10	03/05/08			79.39	0.00	3692.51
MW-10	03/26/08			79.36	0.00	3692.54
MW-10	04/24/08			79.45	0.00	3692.45
MW-10	05/23/08			79.51	0.00	3692.39
MW-10	06/30/08			79.70	0.00	3692.20
MW-10	08/05/08			79.73	0.00	3692.17
MW-10	09/18/08			79.92	0.00	3691.98
MW-10	10/29/08			80.03	0.00	3691.87
MW-10	12/17/08			80.25	0.00	3691.65
MW-10	02/03/09			80.37	0.00	3691.53
MW-10	06/23/09			80.6	0.00	3691.30
MW-10	09/02/09			80.11	0.00	3691.79
MW-10	11/11/09			81.12	0.00	3690.78
MW-11	11/14/07	Installed Well				
MW-11	11/27/07	3772.97		80.50	0.00	3692.47
MW-11	12/17/07			80.52	0.00	3692.45
MW-11	12/28/07			80.58	0.00	3692.39
MW-11	03/05/08			80.77	0.00	3692.20
MW-11	03/26/08			80.73	0.00	3692.24
MW-11	04/24/08			80.81	0.00	3692.16
MW-11	05/23/08			79.89	0.00	3693.08
MW-11	06/30/08			81.09	0.00	3691.88
MW-11	08/05/08			81.12	0.00	3691.85
MW-11	09/18/08			81.32	0.00	3691.65
MW-11	10/29/08			81.45	0.00	3691.52
MW-11	12/11/08			81.64	0.00	3691.33
MW-11	02/03/09			81.78	0.00	3691.19
MW-11	06/23/09			82.00	0.00	3690.97
MW-11	09/02/09			82.31	0.00	3690.66
MW-11	11/11/09			82.54	0.00	3690.43
MW-12	11/14/07	Installed Well				
MW-12	11/27/07	3773.80		82.74	0.00	3691.06
MW-12	12/17/07			81.77	0.00	3692.03
MW-12	12/28/07			81.76	0.00	3692.04
MW-12	03/05/08			81.98	0.00	3691.82
MW-12	03/26/08			81.92	0.00	3691.88
MW-12	04/24/08			82.02	0.00	3691.78
MW-12	05/23/08			82.10	0.00	3691.70

TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P. - SRS# 2002-10273
8" MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER 700376.045.01

WELL ID	DATE GAUGED	Relative Top of Casing Elevation (Ft amsl)	Depth to PSH Below Top of Casing (Feet)	Depth to Water Below Top of Casing (Feet)	PSH THICKNESS (Feet)	Adjusted Potentiometric Surface (Ft amsl)
MW-12	06/30/08			82.29	0.00	3691.51
MW-12	08/05/08			82.32	0.00	3691.48
MW-12	09/18/08			82.52	0.00	3691.28
MW-12	10/29/08			82.67	0.00	3691.13
MW-12	12/17/08			82.86	0.00	3690.94
MW-12	02/03/09			82.99	0.00	3690.81
MW-12	06/23/09			83.21	0.00	3690.59
MW-12	09/02/09			83.51	0.00	3690.29
MW-12	11/11/09			83.76	0.00	3690.04
MW-13	11/14/07	Installed Well				
MW-13	11/27/07	3774.36		82.71	0.00	3691.65
MW-13	12/17/07			82.84	0.00	3691.52
MW-13	12/28/07			82.86	0.00	3691.50
MW-13	03/05/08			83.06	0.00	3691.30
MW-13	03/26/08			83.01	0.00	3691.35
MW-13	04/24/08			83.10	0.00	3691.26
MW-13	05/23/08			83.18	0.00	3691.18
MW-13	06/30/08			83.36	0.00	3691.00
MW-13	08/05/08			83.40	0.00	3690.96
MW-13	09/18/08			83.61	0.00	3690.75
MW-13	10/29/08			83.75	0.00	3690.61
MW-13	12/17/08			83.92	0.00	3690.44
MW-13	02/03/09			84.07	0.00	3690.29
MW-13	06/23/09			84.28	0.00	3690.08
MW-13	09/02/09			84.60	0.00	3689.76
MW-13	11/11/09			84.83	0.00	3689.53

NM=Not Measured

Potentiometric surface adjusted by the following equation: = Top of casing elevation - depth to water + (PSH thickness * 0.835)
amsl - above mean sea level

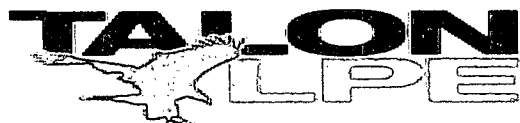


TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO - SRS# 2002-10273
Talon/LPE Project Number 700376.045.01

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene
MW-1	02/03/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/23/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/03/09	20.4	17.8	3.84	9.31
	11/11/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-2	02/03/09	0.0475	0.074	<0.0200	0.0419
	06/23/09	0.0273	0.0323	<0.00100	0.0317
	09/02/09	0.00990	0.0127	<0.00100	0.00810
	11/11/09	0.05160	0.0672	0.0047	0.04320
MW-3	02/03/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/23/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/03/09	Not Enough Water to Sample			
	11/11/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-4	02/03/09	25.6	0.704	1.28	1.41
	06/23/09	23.1	<0.200	1.70	<0.200
	09/03/09	24.6	0.521	1.24	0.486
	11/11/09	21.3	<0.200	0.883	<0.200
MW-5	02/03/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/23/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/03/09	15.5	16.4	2.30	5.21
	11/11/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-6	02/03/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/23/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/03/09	19.2	19.3	3.13	7.48
	11/11/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-7	02/03/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/23/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/03/09	22.1	15.8	3.11	7.38
	11/11/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			



TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO - SRS# 2002-10273
Talon/LPE Project Number 700376.045.01

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene
MW-8	02/03/09	8.27	0.485	<0.100	0.346
	06/23/09	20.6	2.56	0.923	2.32
	09/02/09	12.0	2.23	0.360	0.776
	11/11/09	18.2	4.68	0.638	1.21
MW-9	02/03/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/23/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/03/09	16.5	8.40	1.38	2.89
	11/11/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-10	02/03/09	<0.00100	<0.00100	<0.00100	<0.00100
	06/23/09	0.00670	<0.00100	<0.00100	<0.00100
	09/02/09	<0.00100	<0.00100	<0.00100	<0.00100
	11/11/09	<0.00100	<0.00100	<0.00100	<0.00100
MW-11	02/03/09	0.00620	0.00120	<0.00100	<0.00100
	06/23/09	<0.00100	<0.00100	<0.00100	<0.00100
	09/02/09	0.00250	<0.00100	<0.00100	<0.00100
	11/11/09	0.0819	0.0280	0.0198	0.0230
MW-12	02/03/09	0.00210	<0.00100	<0.00100	<0.00100
	06/23/09	0.00550	<0.00100	<0.00100	<0.00100
	09/02/09	0.00650	<0.00100	<0.00100	<0.00100
	11/11/09	0.06540	0.0244	0.015	0.0184
MW-13	02/03/09	2.90	<0.100	<0.100	<0.100
	06/23/09	4.63	<0.0200	<0.0200	0.373
	09/02/09	4.29	<0.0200	<0.0200	0.104
	11/11/09	14.3	<0.100	0.311	<0.100
NMWQCC Remedial Limits		0.010	0.750	0.750	0.620

¹ **Bolded** values are in excess of the NMWQCC Remediation Thresholds

BTEX analyzed by EPA Method 8021B



TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
POLY-NUCLEAR AROMATIC HYDROCARBON (PAH)
PLAINS PIPELINE, L.P.
MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO - SRS# 2002-10723
Talon/LPE Project Number 700376.045.01

All concentrations are in mg/L

Sample Location	Sample Date	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	Dibenzofuran	Fluoranthene	Fluorene	Indeno[1,2,3-cd]-pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
MW-2	09/02/09	<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
MW-4	09/03/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000984	<0.000184	0.00240	<0.000184	0.0160	0.00812	0.0232	0.000904	<0.000184
MW-8	09/02/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000203	<0.000183	0.000420	<0.000183	0.00735	0.00685	0.0108	<0.000183	<0.000183
MW-10	09/02/09	<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
MW-11	09/02/09	<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
MW-12	09/02/09	<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
MW-13	09/02/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000441	<0.000183	0.000418	<0.000183	0.00396	0.00126	0.00616	<0.000183	<0.000183
NMWQCC Remedial Limits						0.007												0.030		

Bolded values are in excess of the NMWQCC Remediation Thresholds



TABLE 4
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (Monitor Wells Impacted with PSH)
POLY-AROMATIC HYDROCARBON (PAH)
TOTAL PETROLEUM HYDROCARBONS (TPH)
PLAINS PIPELINE, L.P.
MOORE TO JAL #2
NMOCD REF. # AP-92
LEA COUNTY, NEW MEXICO - SRS# 2002-10723
Talon/LPE Project Number 700376.045.01

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	TPH DRO	TPH GRO	Total TPH	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[g,h,i]-perylene	Benzo[k]-fluoranthene	Chrysene	Dibenzo[a,h]-anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno[1,2,3-cd]-pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	
MW-1	09/03/09	20.4	17.8	3.84	9.31	443	183	626	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000394	<0.000200	<0.000200	<0.000200	0.00384	<0.000200	0.0157	0.000891	0.0220	<0.000200	0.161	0.184	0.0932	0.0271	0.00158
MW-3	09/03/09	Not enough water to collect a sample																										
MW-5	09/03/09	15.5	16.4	2.30	5.21	920	111	1031	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.208	<0.00184	0.302	<0.00184	3.05	3.61	1.47	0.390	<0.00184	
MW-6	09/03/09	19.2	19.3	3.13	7.48	1400	150	1550	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	<0.00184	0.0496	<0.00184	0.0696	<0.00184	0.832	0.992	0.431	0.0934	<0.00184	
MW-7	09/03/09	22.1	15.8	3.11	7.38	518	121	639	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	0.0689	<0.000922	0.0893	<0.000922	0.892	1.05	0.435	0.00239	<0.000922	
MW-9	09/03/09	16.5	8.40	1.38	2.80	154.0	66.3	220.3	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.00495	<0.000184	0.0218	0.000219	0.0282	<0.000184	0.283	0.338	0.142	<0.000184	<0.000184	
NMWQCC Remedial Limits		0.01	0.75	0.75	0.62								0.0007													0.030		

¹ **Bolded** values are in excess of the NMWQCC Remediation Thresholds
BTEX, TPH and PAH analysis per the NMOCDD in monitor wells that contain PSH

APPENDIX C

Laboratory Analytical Data Reports and Chains of Custody Documentation



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200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
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

Shanna Smith
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: February 9, 2009

Work Order: 9020404



Project Location: Lea County, NM
Project Name: Moore to Jal #2
Project Number: Plains008SPL
SRS #: 2002-10273

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
186366	MW-2	water	2009-02-03	13:40	2009-02-04
186367	MW-4	water	2009-02-03	13:55	2009-02-04
186368	MW-8	water	2009-02-03	14:46	2009-02-04
186369	MW-10	water	2009-02-03	13:35	2009-02-04
186370	MW-11	water	2009-02-03	13:45	2009-02-04
186371	MW-12	water	2009-02-03	13:50	2009-02-04
186372	MW-13	water	2009-02-03	14:07	2009-02-04

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



Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project Moore to Jal #2 were received by TraceAnalysis, Inc. on 2009-02-04 and assigned to work order 9020404. Samples for work order 9020404 were received intact without headspace and at a temperature of 10.5 deg. 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	48396	2009-02-05 at 11:37	56639	2009-02-05 at 11:37
BTEX	S 8021B	48398	2009-02-05 at 14:34	56641	2009-02-05 at 14:34
BTEX	S 8021B	48425	2009-02-06 at 15:13	56677	2009-02-06 at 15:13

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 9020404 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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



Report Date: February 9, 2009
Plains008SPL

Work Order: 9020404
Moore to Jal #2

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Lea County, NM

Analytical Report

Sample: 186366 - MW-2

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 56639
Prep Batch: 48396

Analytical Method: S 8021B
Date Analyzed: 2009-02-05
Sample Preparation: 2009-02-05

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0475	mg/L	20	0.00100
Toluene		0.0740	mg/L	20	0.00100
Ethylbenzene		<0.0200	mg/L	20	0.00100
Xylene		0.0419	mg/L	20	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.63	mg/L	20	2.00	82	76.8 - 104
4-Bromofluorobenzene (4-BFB)		1.64	mg/L	20	2.00	82	80.6 - 103



Sample: 186367 - MW-4

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 56677
Prep Batch: 48425

Analytical Method: S 8021B
Date Analyzed: 2009-02-06
Sample Preparation: 2009-02-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		25.6	mg/L	200	0.00100
Toluene		0.704	mg/L	200	0.00100
Ethylbenzene		1.28	mg/L	200	0.00100
Xylene		1.41	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		18.4	mg/L	200	20.0	92	76.8 - 104
4-Bromofluorobenzene (4-BFB)		17.4	mg/L	200	20.0	87	80.6 - 103

Sample: 186368 - MW-8

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 56677
Prep Batch: 48425

Analytical Method: S 8021B
Date Analyzed: 2009-02-06
Sample Preparation: 2009-02-06

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





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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		8.27	mg/L	100	0.00100
Toluene		0.485	mg/L	100	0.00100
Ethylbenzene		<0.100	mg/L	100	0.00100
Xylene		0.346	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		8.99	mg/L	100	10.0	90	76.8 - 104
4-Bromofluorobenzene (4-BFB)		8.47	mg/L	100	10.0	85	80.6 - 103

Sample: 186369 - MW-10

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 56641
Prep Batch: 48398

Analytical Method: S 8021B
Date Analyzed: 2009-02-05
Sample Preparation: 2009-02-05

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

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)		0.103	mg/L	1	0.100	103	77 - 118
4-Bromofluorobenzene (4-BFB)		0.0978	mg/L	1	0.100	98	77 - 121

Sample: 186370 - MW-11

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 56641
Prep Batch: 48398

Analytical Method: S 8021B
Date Analyzed: 2009-02-05
Sample Preparation: 2009-02-05

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00620	mg/L	1	0.00100
Toluene		0.00120	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100





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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.106	mg/L	1	0.100	106	77 - 118
4-Bromofluorobenzene (4-BFB)		0.0985	mg/L	1	0.100	98	77 - 121

Sample: 186371 - MW-12

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 56641
Prep Batch: 48398

Analytical Method: S 8021B
Date Analyzed: 2009-02-05
Sample Preparation: 2009-02-05

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00210	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)		0.105	mg/L	1	0.100	105	77 - 118
4-Bromofluorobenzene (4-BFB)		0.0983	mg/L	1	0.100	98	77 - 121

Sample: 186372 - MW-13

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 56677
Prep Batch: 48425

Analytical Method: S 8021B
Date Analyzed: 2009-02-06
Sample Preparation: 2009-02-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		2.90	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)		8.46	mg/L	100	10.0	85	76.8 - 104
4-Bromofluorobenzene (4-BFB)		8.53	mg/L	100	10.0	85	80.6 - 103





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Method Blank (1) QC Batch: 56639

QC Batch: 56639
Prep Batch: 48396

Date Analyzed: 2009-02-05
QC Preparation: 2009-02-05

Analyzed By: MT
Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000133	mg/L	0.001
Toluene		<0.000281	mg/L	0.001
Ethylbenzene		<0.000535	mg/L	0.001
Xylene		<0.000960	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0863	mg/L	1	0.100	86	76.8 - 104
4-Bromofluorobenzene (4-BFB)		0.0860	mg/L	1	0.100	86	80.6 - 103

Method Blank (1) QC Batch: 56641

QC Batch: 56641
Prep Batch: 48398

Date Analyzed: 2009-02-05
QC Preparation: 2009-02-05

Analyzed By: MT
Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000149	mg/L	0.001
Toluene		<0.000188	mg/L	0.001
Ethylbenzene		<0.000178	mg/L	0.001
Xylene		<0.000163	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.104	mg/L	1	0.100	104	77 - 118
4-Bromofluorobenzene (4-BFB)		0.0980	mg/L	1	0.100	98	77 - 121

Method Blank (1) QC Batch: 56677

QC Batch: 56677
Prep Batch: 48425

Date Analyzed: 2009-02-06
QC Preparation: 2009-02-06

Analyzed By: ER
Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000133	mg/L	0.001
Toluene		<0.000281	mg/L	0.001
Ethylbenzene		<0.000535	mg/L	0.001
Xylene		<0.000960	mg/L	0.001





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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0869	mg/L	1	0.100	87	76.8 - 104
4-Bromofluorobenzene (4-BFB)		0.0874	mg/L	1	0.100	87	80.6 - 103

Laboratory Control Spike (LCS-1)

QC Batch: 56639
Prep Batch: 48396

Date Analyzed: 2009-02-05
QC Preparation: 2009-02-05

Analyzed By: MT
Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.103	mg/L	1	0.100	<0.000133	103	87.1 - 109
Toluene	0.103	mg/L	1	0.100	<0.000281	103	86.6 - 110
Ethylbenzene	0.102	mg/L	1	0.100	<0.000535	102	84.1 - 111
Xylene	0.308	mg/L	1	0.300	<0.000960	103	84.8 - 111

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	0.0976	mg/L	1	0.100	<0.000133	98	87.1 - 109	6	20
Toluene	0.0964	mg/L	1	0.100	<0.000281	96	86.6 - 110	6	20
Ethylbenzene	0.0951	mg/L	1	0.100	<0.000535	95	84.1 - 111	7	20
Xylene	0.288	mg/L	1	0.300	<0.000960	96	84.8 - 111	7	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)	0.0908	0.0897	mg/L	1	0.100	91	90	78.1 - 111
4-Bromofluorobenzene (4-BFB)	0.0930	0.0881	mg/L	1	0.100	93	88	80.8 - 110

Laboratory Control Spike (LCS-1)

QC Batch: 56641
Prep Batch: 48398

Date Analyzed: 2009-02-05
QC Preparation: 2009-02-05

Analyzed By: MT
Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0919	mg/L	1	0.100	<0.000149	92	80.9 - 110
Toluene	0.0930	mg/L	1	0.100	<0.000188	93	82.8 - 112
Ethylbenzene	0.0889	mg/L	1	0.100	<0.000178	89	83.3 - 113
Xylene	0.256	mg/L	1	0.300	<0.000163	85	82 - 111

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





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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0910	mg/L	1	0.100	<0.000149	91	80.9 - 110	1	20
Toluene	0.0926	mg/L	1	0.100	<0.000188	93	82.8 - 112	0	20
Ethylbenzene	0.0883	mg/L	1	0.100	<0.000178	88	83.3 - 113	1	20
Xylene	0.255	mg/L	1	0.300	<0.000163	85	82 - 111	0	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)	0.0976	0.0980	mg/L	1	0.100	98	98	73 - 110
4-Bromofluorobenzene (4-BFB)	0.0887	0.0892	mg/L	1	0.100	89	89	74.4 - 113

Laboratory Control Spike (LCS-1)

QC Batch: 56677
Prep Batch: 48425

Date Analyzed: 2009-02-06
QC Preparation: 2009-02-06

Analyzed By: ER
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0957	mg/L	1	0.100	<0.000133	96	87.1 - 109
Toluene	0.0952	mg/L	1	0.100	<0.000281	95	86.6 - 110
Ethylbenzene	0.0942	mg/L	1	0.100	<0.000535	94	84.1 - 111
Xylene	0.282	mg/L	1	0.300	<0.000960	94	84.8 - 111

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	0.0973	mg/L	1	0.100	<0.000133	97	87.1 - 109	2	20
Toluene	0.0963	mg/L	1	0.100	<0.000281	96	86.6 - 110	1	20
Ethylbenzene	0.0960	mg/L	1	0.100	<0.000535	96	84.1 - 111	2	20
Xylene	0.290	mg/L	1	0.300	<0.000960	97	84.8 - 111	3	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)	0.0842	0.0827	mg/L	1	0.100	84	83	78.1 - 111
4-Bromofluorobenzene (4-BFB)	0.0821	0.0853	mg/L	1	0.100	82	85	80.8 - 110

Matrix Spike (MS-1) Spiked Sample: 186357

QC Batch: 56639
Prep Batch: 48396

Date Analyzed: 2009-02-05
QC Preparation: 2009-02-05

Analyzed By: MT
Prepared By: MT





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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0744	mg/L	1	0.100	<0.000133	74	38.3 - 136
Toluene	0.0737	mg/L	1	0.100	<0.000281	74	38.8 - 134
Ethylbenzene	0.0724	mg/L	1	0.100	<0.000535	72	35.9 - 133
Xylene	0.218	mg/L	1	0.300	<0.000960	73	35.1 - 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	¹	0.0929	mg/L	1	0.100	<0.000133	93	38.3 - 136	22	20
Toluene	²	0.0911	mg/L	1	0.100	<0.000281	91	38.8 - 134	21	20
Ethylbenzene	³	0.0893	mg/L	1	0.100	<0.000535	89	35.9 - 133	21	20
Xylene	⁴	0.267	mg/L	1	0.300	<0.000960	89	35.1 - 134	20	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)	0.0918	0.0896	mg/L	1	0.1	92	90	75.2 - 117
4-Bromofluorobenzene (4-BFB)	0.0895	0.0864	mg/L	1	0.1	90	86	78.6 - 113



Matrix Spike (MS-1) Spiked Sample: 186484

QC Batch: 56641
Prep Batch: 48398

Date Analyzed: 2009-02-05
QC Preparation: 2009-02-05

Analyzed By: MT
Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.451	mg/L	1	0.100	0.3554	96	60.2 - 125
Toluene	0.0971	mg/L	1	0.100	<0.000188	97	61.9 - 127
Ethylbenzene	0.0946	mg/L	1	0.100	<0.000178	95	69 - 121
Xylene	0.273	mg/L	1	0.300	0.0002	91	65.4 - 120

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	0.443	mg/L	1	0.100	0.3554	88	60.2 - 125	2	20
Toluene	0.0899	mg/L	1	0.100	<0.000188	90	61.9 - 127	8	20
Ethylbenzene	0.0879	mg/L	1	0.100	<0.000178	88	69 - 121	7	20
Xylene	0.254	mg/L	1	0.300	0.0002	85	65.4 - 120	7	20

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

¹Matrix spike RPD out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

²Matrix spike RPD out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

³Matrix spike RPD out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

⁴Matrix spike RPD out of control limits. Use LCS/LCSD to demonstrate analysis is under control.



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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0924	0.0902	mg/L	1	0.1	92	90	72.4 - 112
4-Bromofluorobenzene (4-BFB)	0.0895	0.0897	mg/L	1	0.1	90	90	74.1 - 115

Matrix Spike (MS-1) Spiked Sample: 186687

QC Batch: 56677
Prep Batch: 48425

Date Analyzed: 2009-02-06
QC Preparation: 2009-02-06

Analyzed By: ER
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.102	mg/L	1	0.100	0.0003	102	38.3 - 136
Toluene	0.101	mg/L	1	0.100	0.0007	100	38.8 - 134
Ethylbenzene	0.0995	mg/L	1	0.100	0.001	98	35.9 - 133
Xylene	0.296	mg/L	1	0.300	0.0027	98	35.1 - 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	0.0996	mg/L	1	0.100	0.0003	99	38.3 - 136	2	20
Toluene	0.0985	mg/L	1	0.100	0.0007	98	38.8 - 134	2	20
Ethylbenzene	0.0982	mg/L	1	0.100	0.001	97	35.9 - 133	1	20
Xylene	0.296	mg/L	1	0.300	0.0027	98	35.1 - 134	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)	0.0894	0.0843	mg/L	1	0.1	89	84	75.2 - 117
4-Bromofluorobenzene (4-BFB)	0.0878	0.0868	mg/L	1	0.1	88	87	78.6 - 113

Standard (CCV-2)

QC Batch: 56639

Date Analyzed: 2009-02-05

Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.100	100	80 - 120	2009-02-05
Toluene		mg/L	0.100	0.0992	99	80 - 120	2009-02-05
Ethylbenzene		mg/L	0.100	0.0964	96	80 - 120	2009-02-05
Xylene		mg/L	0.300	0.292	97	80 - 120	2009-02-05

Standard (CCV-3)

QC Batch: 56639

Date Analyzed: 2009-02-05

Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0966	97	80 - 120	2009-02-05
Toluene		mg/L	0.100	0.0923	92	80 - 120	2009-02-05
Ethylbenzene		mg/L	0.100	0.0907	91	80 - 120	2009-02-05
Xylene		mg/L	0.300	0.276	92	80 - 120	2009-02-05

Standard (CCV-1)

QC Batch: 56641

Date Analyzed: 2009-02-05

Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0908	91	80 - 120	2009-02-05
Toluene		mg/L	0.100	0.0918	92	80 - 120	2009-02-05
Ethylbenzene		mg/L	0.100	0.0876	88	80 - 120	2009-02-05
Xylene		mg/L	0.300	0.252	84	80 - 120	2009-02-05

Standard (CCV-2)

QC Batch: 56641

Date Analyzed: 2009-02-05

Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0895	90	80 - 120	2009-02-05
Toluene		mg/L	0.100	0.0904	90	80 - 120	2009-02-05
Ethylbenzene		mg/L	0.100	0.0859	86	80 - 120	2009-02-05
Xylene		mg/L	0.300	0.248	83	80 - 120	2009-02-05

Standard (CCV-1)

QC Batch: 56677

Date Analyzed: 2009-02-06

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0989	99	80 - 120	2009-02-06
Toluene		mg/L	0.100	0.0987	99	80 - 120	2009-02-06
Ethylbenzene		mg/L	0.100	0.0992	99	80 - 120	2009-02-06

continued ...



Report Date: February 9, 2009
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Moore to Jal #2

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standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.301	100	80 - 120	2009-02-06

Standard (CCV-2)

QC Batch: 56677

Date Analyzed: 2009-02-06

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.102	102	80 - 120	2009-02-06
Toluene		mg/L	0.100	0.100	100	80 - 120	2009-02-06
Ethylbenzene		mg/L	0.100	0.0971	97	80 - 120	2009-02-06
Xylene		mg/L	0.300	0.290	97	80 - 120	2009-02-06





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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

Shanna Smith
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: July 2, 2009

Work Order: 9062401



Project Location: Lea County, NM
Project Name: Moore to Jal #2
Project Number: Plains008SPL
SRS #: 2002-10273

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

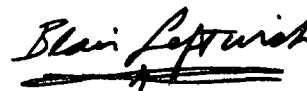
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
200047	MW-2	water	2009-06-23	14:18	2009-06-24
200048	MW-4	water	2009-06-23	14:33	2009-06-24
200049	MW-8	water	2009-06-23	14:28	2009-06-24
200050	MW-10	water	2009-06-23	14:05	2009-06-24
200051	MW-11	water	2009-06-23	14:12	2009-06-24
200052	MW-12	water	2009-06-23	13:59	2009-06-24
200053	MW-13	water	2009-06-23	14:23	2009-06-24

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 11 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 Moore to Jal #2 were received by TraceAnalysis, Inc. on 2009-06-24 and assigned to work order 9062401. Samples for work order 9062401 were received intact without headspace and at a temperature of 3.6 deg. 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	52037	2009-06-30 at 09:14	61004	2009-06-30 at 09:14
BTEX	S 8021B	52077	2009-07-01 at 09:29	61064	2009-07-01 at 14:23

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 9062401 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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



Report Date: July 2, 2009
Plains008SPL

Work Order: 9062401
Moore to Jal #2

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Analytical Report

Sample: 200047 - MW-2

Laboratory: Midland

Analysis: BTEX

QC Batch: 61064

Prep Batch: 52077

Analytical Method: S 8021B

Date Analyzed: 2009-07-01

Sample Preparation: 2009-07-01

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Benzene		0.0273	mg/L	1	0.00100
Toluene		0.0323	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0317	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0962	mg/L	1	0.100	96	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0805	mg/L	1	0.100	80	40.1 - 136



Sample: 200048 - MW-4

Laboratory: Midland

Analysis: BTEX

QC Batch: 61004

Prep Batch: 52037

Analytical Method: S 8021B

Date Analyzed: 2009-06-30

Sample Preparation: 2009-06-30

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Benzene		23.1	mg/L	200	0.00100
Toluene		<0.200	mg/L	200	0.00100
Ethylbenzene		1.70	mg/L	200	0.00100
Xylene		<0.200	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		19.1	mg/L	200	20.0	96	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		15.2	mg/L	200	20.0	76	40.1 - 136

Sample: 200049 - MW-8

Laboratory: Midland

Analysis: BTEX

QC Batch: 61004

Prep Batch: 52037

Analytical Method: S 8021B

Date Analyzed: 2009-06-30

Sample Preparation: 2009-06-30

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME





Report Date: July 2, 2009
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Work Order: 9062401
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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		20.6	mg/L	100	0.00100
Toluene		2.56	mg/L	100	0.00100
Ethylbenzene		0.923	mg/L	100	0.00100
Xylene		2.32	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.56	mg/L	100	10.0	96	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		7.96	mg/L	100	10.0	80	40.1 - 136

Sample: 200050 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 61004
Prep Batch: 52037

Analytical Method: S 8021B
Date Analyzed: 2009-06-30
Sample Preparation: 2009-06-30

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00670	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)		0.0960	mg/L	1	0.100	96	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0781	mg/L	1	0.100	78	40.1 - 136

Sample: 200051 - MW-11

Laboratory: Midland
Analysis: BTEX
QC Batch: 61004
Prep Batch: 52037

Analytical Method: S 8021B
Date Analyzed: 2009-06-30
Sample Preparation: 2009-06-30

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





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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0956	mg/L	1	0.100	96	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0894	mg/L	1	0.100	89	40.1 - 136

Sample: 200052 - MW-12

Laboratory: Midland

Analysis: BTEX

QC Batch: 61004

Prep Batch: 52037

Analytical Method: S 8021B

Date Analyzed: 2009-06-30

Sample Preparation: 2009-06-30

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00550	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)		0.0948	mg/L	1	0.100	95	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0776	mg/L	1	0.100	78	40.1 - 136

Sample: 200053 - MW-13

Laboratory: Midland

Analysis: BTEX

QC Batch: 61004

Prep Batch: 52037

Analytical Method: S 8021B

Date Analyzed: 2009-06-30

Sample Preparation: 2009-06-30

Prep Method: S 5030B

Analyzed By: ME

Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		4.63	mg/L	20	0.00100
Toluene		<0.0200	mg/L	20	0.00100
Ethylbenzene		<0.0200	mg/L	20	0.00100
Xylene		0.373	mg/L	20	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/L	20	2.00	95	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		1.62	mg/L	20	2.00	81	40.1 - 136



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Method Blank (1) QC Batch: 61004

QC Batch: 61004
Prep Batch: 52037

Date Analyzed: 2009-06-30
QC Preparation: 2009-06-30

Analyzed By: ME
Prepared By: ME

Parameter	Flag	MDL		Units	RL
		Result			
Benzene		<0.000300		mg/L	0.001
Toluene		<0.000200		mg/L	0.001
Ethylbenzene		<0.000500		mg/L	0.001
Xylene		<0.000400		mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0940	mg/L	1	0.100	94	77.2 - 129.1
4-Bromofluorobenzene (4-BFB)		0.0827	mg/L	1	0.100	83	69.1 - 132.3

Method Blank (1) QC Batch: 61064

QC Batch: 61064
Prep Batch: 52077

Date Analyzed: 2009-07-01
QC Preparation: 2009-07-01

Analyzed By: ME
Prepared By: ME

Parameter	Flag	MDL		Units	RL
		Result			
Benzene		<0.000300		mg/L	0.001
Toluene		<0.000200		mg/L	0.001
Ethylbenzene		<0.000500		mg/L	0.001
Xylene		<0.000400		mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0901	mg/L	1	0.100	90	77.2 - 129.1
4-Bromofluorobenzene (4-BFB)		0.0767	mg/L	1	0.100	77	69.1 - 132.3

Laboratory Control Spike (LCS-1)

QC Batch: 61004
Prep Batch: 52037

Date Analyzed: 2009-06-30
QC Preparation: 2009-06-30

Analyzed By: ME
Prepared By: ME

Param	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	Result	Units					
Benzene	0.0944	mg/L	1	0.100	<0.00110	94	84 - 126.7
Toluene	0.0925	mg/L	1	0.100	<0.00100	92	84.9 - 128.2
Ethylbenzene	0.0912	mg/L	1	0.100	<0.00100	91	84.4 - 128.6

continued ...



Report Date: July 2, 2009
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Work Order: 9062401
Moore to Jal #2

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control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	0.271	mg/L	1	0.300	<0.00290	90	84.8 - 129.8

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	0.0954	mg/L	1	0.100	<0.00110	95	84 - 126.7	1	20
Toluene	0.0945	mg/L	1	0.100	<0.00100	94	84.9 - 128.2	2	20
Ethylbenzene	0.0960	mg/L	1	0.100	<0.00100	96	84.4 - 128.6	5	20
Xylene	0.288	mg/L	1	0.300	<0.00290	96	84.8 - 129.8	6	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)	0.0955	0.0979	mg/L	1	0.100	96	98	80 - 128.3
4-Bromofluorobenzene (4-BFB)	0.0868	0.0910	mg/L	1	0.100	87	91	59.7 - 136.3

Laboratory Control Spike (LCS-1)



QC Batch: 61064
Prep Batch: 52077

Date Analyzed: 2009-07-01
QC Preparation: 2009-07-01

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0901	mg/L	1	0.100	<0.00110	90	84 - 126.7
Toluene	0.0885	mg/L	1	0.100	<0.00100	88	84.9 - 128.2
Ethylbenzene	0.0876	mg/L	1	0.100	<0.00100	88	84.4 - 128.6
Xylene	0.259	mg/L	1	0.300	<0.00290	86	84.8 - 129.8

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	0.0898	mg/L	1	0.100	<0.00110	90	84 - 126.7	0	20
Toluene	0.0898	mg/L	1	0.100	<0.00100	90	84.9 - 128.2	1	20
Ethylbenzene	0.0909	mg/L	1	0.100	<0.00100	91	84.4 - 128.6	4	20
Xylene	0.270	mg/L	1	0.300	<0.00290	90	84.8 - 129.8	4	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)	0.0966	0.0964	mg/L	1	0.100	97	96	80 - 128.3
4-Bromofluorobenzene (4-BFB)	0.0830	0.0815	mg/L	1	0.100	83	82	59.7 - 136.3





Report Date: July 2, 2009
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Matrix Spike (MS-1) Spiked Sample: 200121

QC Batch: 61004
Prep Batch: 52037

Date Analyzed: 2009-06-30
QC Preparation: 2009-06-30

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.54	mg/L	20	2.00	0.8343	85	77.5 - 121.1
Toluene	1.68	mg/L	20	2.00	<0.0200	84	78.8 - 119.6
Ethylbenzene	2.16	mg/L	20	2.00	0.4855	84	77.9 - 120.5
Xylene	4.99	mg/L	20	6.00	<0.0580	83	78 - 119.4

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.63	mg/L	20	2.00	0.8343	90	77.5 - 121.1	4	20
Toluene	1.75	mg/L	20	2.00	<0.0200	88	78.8 - 119.6	4	20
Ethylbenzene	2.28	mg/L	20	2.00	0.4855	90	77.9 - 120.5	5	20
Xylene	5.28	mg/L	20	6.00	<0.0580	88	78 - 119.4	6	20

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



Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.89	1.90	mg/L	20	2	94	95	86.6 - 118.9
4-Bromofluorobenzene (4-BFB)	1.64	1.60	mg/L	20	2	82	80	59.4 - 127.3

Matrix Spike (MS-1) Spiked Sample: 200595

QC Batch: 61064
Prep Batch: 52077

Date Analyzed: 2009-07-01
QC Preparation: 2009-07-01

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	4.49	mg/L	20	2.00	2.6996	90	77.5 - 121.1
Toluene	1.75	mg/L	20	2.00	<0.0200	88	78.8 - 119.6
Ethylbenzene	2.08	mg/L	20	2.00	0.4005	84	77.9 - 120.5
Xylene	5.15	mg/L	20	6.00	<0.0580	86	78 - 119.4

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	4.60	mg/L	20	2.00	2.6996	95	77.5 - 121.1	2	20
Toluene	1.83	mg/L	20	2.00	<0.0200	92	78.8 - 119.6	4	20
Ethylbenzene	2.23	mg/L	20	2.00	0.4005	91	77.9 - 120.5	7	20
Xylene	5.59	mg/L	20	6.00	<0.0580	93	78 - 119.4	8	20





Report Date: July 2, 2009
Plains008SPL

Work Order: 9062401
Moore to Jal #2

Page Number: 10 of 11
Lea County, NM

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	1.94	mg/L	20	2	96	97	86.6 - 118.9
4-Bromofluorobenzene (4-BFB)	1.75	1.79	mg/L	20	2	88	90	59.4 - 127.3

Standard (CCV-1)

QC Batch: 61004

Date Analyzed: 2009-06-30

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	0.0928	93	80 - 120	2009-06-30
Toluene		mg/L	0.100	0.0932	93	80 - 120	2009-06-30
Ethylbenzene		mg/L	0.100	0.0919	92	80 - 120	2009-06-30
Xylene		mg/L	0.300	0.276	92	80 - 120	2009-06-30

Standard (CCV-2)

QC Batch: 61004

Date Analyzed: 2009-06-30

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	0.0883	88	80 - 120	2009-06-30
Toluene		mg/L	0.100	0.0865	86	80 - 120	2009-06-30
Ethylbenzene		mg/L	0.100	0.0853	85	80 - 120	2009-06-30
Xylene		mg/L	0.300	0.251	84	80 - 120	2009-06-30

Standard (CCV-3)

QC Batch: 61004

Date Analyzed: 2009-06-30

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	0.0903	90	80 - 120	2009-06-30
Toluene		mg/L	0.100	0.0884	88	80 - 120	2009-06-30
Ethylbenzene		mg/L	0.100	0.0926	93	80 - 120	2009-06-30
Xylene		mg/L	0.300	0.270	90	80 - 120	2009-06-30

Standard (CCV-1)

QC Batch: 61064

Date Analyzed: 2009-07-01

Analyzed By: ME





Report Date: July 2, 2009
Plains008SPL

Work Order: 9062401
Moore to Jal #2

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Lea County, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0903	90	80 - 120	2009-07-01
Toluene		mg/L	0.100	0.0896	90	80 - 120	2009-07-01
Ethylbenzene		mg/L	0.100	0.0912	91	80 - 120	2009-07-01
Xylene		mg/L	0.300	0.271	90	80 - 120	2009-07-01

Standard (CCV-2)

QC Batch: 61064

Date Analyzed: 2009-07-01

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	0.0955	96	80 - 120	2009-07-01
Toluene		mg/L	0.100	0.0932	93	80 - 120	2009-07-01
Ethylbenzene		mg/L	0.100	0.0960	96	80 - 120	2009-07-01
Xylene		mg/L	0.300	0.283	94	80 - 120	2009-07-01



LAB Order # 9062401

Page 1

TraceAnalysis, Inc.

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email: lab@traceanalysis.com

Company Name: Galou LPE Phone #: (432) 522-2133

Address: 2901 Rankin Hwy, Midland, TX 79706 Fax #:

Contact Person: Shanna Smith E-mail: Ssmith@TalouLPE.com

Invoice to: Plains - Jason Henry

Project #: ALAIN50854L Project Name: SAS 2002-10273, Moore to Jal #2

Project Location (including state): Hobbs, N.M. Sample Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING	
				WATER	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	DATE	TIME
200047	MW-2	2	40 Vol	✓			✓				✓	6-23-07	1418
048	MW-4	2	40 Vol	✓			✓				✓	6-23-07	1433
049	MW-8	2	40 Vol	✓			✓				✓	6-23-07	1428
050	MW-10	2	40 Vol	✓			✓				✓	6-23-07	1405
051	MW-11	2	40 Vol	✓			✓				✓	6-23-07	1412
052	MW-12	2	40 Vol	✓			✓				✓	6-23-07	1359
053	MW-13	2	40 Vol	✓			✓				✓	6-23-07	1423

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:
Bill D. Smith	Talou LPE	6-24-07	8:17	Shanna Smith	Talou LPE	6-24-07	8:17	3.6
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE	8021B / 602 / 8260B / 624	✓
BTEX	8021B / 602 / 8260B / 624	✓
TPH 418.1 / TX1005 / TX1005 Ext(C35)		✓
TPH 8015 GRO / DRO / TVHC		✓
PAH 8270C / 625		✓
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7		✓
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		✓
TCLP Volatiles		✓
TCLP Semi Volatiles		✓
TCLP Pesticides		✓
RCI		✓
GC/MS Vol. 8260B / 624		✓
GC/MS Semi. Vol. 8270C / 625		✓
PCBs 8082 / 608		✓
Pesticides 8081A / 608		✓
BOD, TSS, pH		✓
Moisture Content		✓
Turn Around Time if different from standard		✓

REMARKS: email Jason + Shanna
All tests Midland

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



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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

Shanna Smith
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: September 9, 2009

Work Order: 9090301



Project Location: Hobbs, NM
Project Name: Moore to Jal #2
Project Number: 700376.006.01
SRS #: 2002-10273

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
209034	MW-2	water	2009-09-02	11:25	2009-09-03
209035	MW-8	water	2009-09-02	14:00	2009-09-03
209036	MW-10	water	2009-09-02	11:10	2009-09-03
209037	MW-11	water	2009-09-02	12:20	2009-09-03
209038	MW-12	water	2009-09-02	13:15	2009-09-03
209039	MW-13	water	2009-09-02	13:45	2009-09-03

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.



Michael Abel

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

Standard Flags

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

Case Narrative

Samples for project Moore to Jal #2 were received by TraceAnalysis, Inc. on 2009-09-03 and assigned to work order 9090301. Samples for work order 9090301 were received intact without headspace and at a temperature of 2.1 deg. 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	54077	2009-09-04 at 11:00	63362	2009-09-05 at 03:19
PAH	S 8270C	54047	2009-09-03 at 15:00	63320	2009-09-08 at 09:48

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 9090301 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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



Report Date: September 9, 2009
700376.006.01

Work Order: 9090301
Moore to Jal #2

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Hobbs, NM

Analytical Report

Sample: 209034 - MW-2

Laboratory: Midland

Analysis: BTEX

QC Batch: 63362

Prep Batch: 54077

Analytical Method: S 8021B

Date Analyzed: 2009-09-05

Sample Preparation: 2009-09-04

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00990	mg/L	1	0.00100
Toluene		0.0127	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00810	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0957	mg/L	1	0.100	96	87 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0923	mg/L	1	0.100	92	49.8 - 130.8



Sample: 209034 - MW-2

Laboratory: Lubbock

Analysis: PAH

QC Batch: 63320

Prep Batch: 54047

Analytical Method: S 8270C

Date Analyzed: 2009-09-08

Sample Preparation: 2009-09-03

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000183	mg/L	0.917	0.000200
2-Methylnaphthalene		<0.000183	mg/L	0.917	0.000200
1-Methylnaphthalene		<0.000183	mg/L	0.917	0.000200
Acenaphthylene		<0.000183	mg/L	0.917	0.000200
Acenaphthene		<0.000183	mg/L	0.917	0.000200
Dibenzofuran		<0.000183	mg/L	0.917	0.000200
Fluorene		<0.000183	mg/L	0.917	0.000200
Anthracene		<0.000183	mg/L	0.917	0.000200
Phenanthrene		<0.000183	mg/L	0.917	0.000200
Fluoranthene		<0.000183	mg/L	0.917	0.000200
Pyrene		<0.000183	mg/L	0.917	0.000200
Benzo(a)anthracene		<0.000183	mg/L	0.917	0.000200
Chrysene		<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene		<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene		<0.000183	mg/L	0.917	0.000200

continued ...





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Work Order: 9090301
Moore to Jal #2

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sample 209034 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Indeno(1,2,3-cd)pyrene		<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene		<0.000183	mg/L	0.917	0.000200
Benzo(g,h,i)perylene		<0.000183	mg/L	0.917	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0395	mg/L	0.917	0.0800	49	25.9 - 97.5
2-Fluorobiphenyl		0.0369	mg/L	0.917	0.0800	46	13.9 - 100
Terphenyl-d14		0.0565	mg/L	0.917	0.0800	71	37.7 - 114

Sample: 209035 - MW-8

Laboratory: Midland
Analysis: BTEX
QC Batch: 63362
Prep Batch: 54077

Analytical Method: S 8021B
Date Analyzed: 2009-09-05
Sample Preparation: 2009-09-04

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



Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		12.0	mg/L	100	0.00100
Toluene		2.23	mg/L	100	0.00100
Ethylbenzene		0.360	mg/L	100	0.00100
Xylene		0.776	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.82	mg/L	100	10.0	98	87 - 105.2
4-Bromofluorobenzene (4-BFB)		9.19	mg/L	100	10.0	92	49.8 - 130.8

Sample: 209035 - MW-8

Laboratory: Lubbock
Analysis: PAH
QC Batch: 63320
Prep Batch: 54047

Analytical Method: S 8270C
Date Analyzed: 2009-09-08
Sample Preparation: 2009-09-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.0108	mg/L	0.917	0.000200
2-Methylnaphthalene		0.00685	mg/L	0.917	0.000200
1-Methylnaphthalene		0.00735	mg/L	0.917	0.000200

continued ...





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Moore to Jal #2

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sample 209035 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Acenaphthylene		<0.000183	mg/L	0.917	0.000200
Acenaphthene		<0.000183	mg/L	0.917	0.000200
Dibenzofuran		0.000376	mg/L	0.917	0.000200
Fluorene		0.000420	mg/L	0.917	0.000200
Anthracene		<0.000183	mg/L	0.917	0.000200
Phenanthrene		<0.000183	mg/L	0.917	0.000200
Fluoranthene		<0.000183	mg/L	0.917	0.000200
Pyrene		<0.000183	mg/L	0.917	0.000200
Benzo(a)anthracene		<0.000183	mg/L	0.917	0.000200
Chrysene		<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene		<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene		<0.000183	mg/L	0.917	0.000200
Indeno(1,2,3-cd)pyrene		<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene		<0.000183	mg/L	0.917	0.000200
Benzo(g,h,i)perylene		<0.000183	mg/L	0.917	0.000200



Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0372	mg/L	0.917	0.0800	46	25.9 - 97.5
2-Fluorobiphenyl		0.0369	mg/L	0.917	0.0800	46	13.9 - 100
Terphenyl-d14		0.0622	mg/L	0.917	0.0800	78	37.7 - 114

Sample: 209036 - MW-10

Laboratory: Midland

Analysis: BTEX

QC Batch: 63362

Prep Batch: 54077

Analytical Method: S 8021B

Date Analyzed: 2009-09-05

Sample Preparation: 2009-09-04

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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)		0.0956	mg/L	1	0.100	96	87 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0917	mg/L	1	0.100	92	49.8 - 130.8



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Sample: 209036 - MW-10

Laboratory: Lubbock

Analysis: PAH

QC Batch: 63320

Prep Batch: 54047

Analytical Method: S 8270C

Date Analyzed: 2009-09-08

Sample Preparation: 2009-09-03

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0571	mg/L	0.917	0.0800	71	25.9 - 97.5
2-Fluorobiphenyl		0.0522	mg/L	0.917	0.0800	65	13.9 - 100
Terphenyl-d14		0.0610	mg/L	0.917	0.0800	76	37.7 - 114

Sample: 209037 - MW-11

Laboratory: Midland

Analysis: BTEX

QC Batch: 63362

Prep Batch: 54077

Analytical Method: S 8021B

Date Analyzed: 2009-09-05

Sample Preparation: 2009-09-04

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00250	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100

continued ...



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Work Order: 9090301
Moore to Jal #2

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Hobbs, NM

sample 209037 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.0970	mg/L	1	0.100	97	87 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0917	mg/L	1	0.100	92	49.8 - 130.8

Sample: 209037 - MW-11

Laboratory: Lubbock
Analysis: PAH
QC Batch: 63320
Prep Batch: 54047

Analytical Method: S 8270C
Date Analyzed: 2009-09-08
Sample Preparation: 2009-09-03

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0485	mg/L	0.917	0.0800	61	25.9 - 97.5
2-Fluorobiphenyl		0.0448	mg/L	0.917	0.0800	56	13.9 - 100
Terphenyl-d14		0.0628	mg/L	0.917	0.0800	78	37.7 - 114





Report Date: September 9, 2009
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Work Order: 9090301
Moore to Jal #2

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Hobbs, NM

Sample: 209038 - MW-12

Laboratory: Midland

Analysis: BTEX

QC Batch: 63362

Prep Batch: 54077

Analytical Method: S 8021B

Date Analyzed: 2009-09-05

Sample Preparation: 2009-09-04

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00650	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)		0.0989	mg/L	1	0.100	99	87 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0930	mg/L	1	0.100	93	49.8 - 130.8

Sample: 209038 - MW-12

Laboratory: Lubbock

Analysis: PAH

QC Batch: 63320

Prep Batch: 54047

Analytical Method: S 8270C

Date Analyzed: 2009-09-08

Sample Preparation: 2009-09-03

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000183	mg/L	0.917	0.000200
2-Methylnaphthalene		<0.000183	mg/L	0.917	0.000200
1-Methylnaphthalene		<0.000183	mg/L	0.917	0.000200
Acenaphthylene		<0.000183	mg/L	0.917	0.000200
Acenaphthene		<0.000183	mg/L	0.917	0.000200
Dibenzofuran		<0.000183	mg/L	0.917	0.000200
Fluorene		<0.000183	mg/L	0.917	0.000200
Anthracene		<0.000183	mg/L	0.917	0.000200
Phenanthrene		<0.000183	mg/L	0.917	0.000200
Fluoranthene		<0.000183	mg/L	0.917	0.000200
Pyrene		<0.000183	mg/L	0.917	0.000200
Benzo(a)anthracene		<0.000183	mg/L	0.917	0.000200
Chrysene		<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene		<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene		<0.000183	mg/L	0.917	0.000200
Indeno(1,2,3-cd)pyrene		<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene		<0.000183	mg/L	0.917	0.000200

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sample 209038 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(g,h,i)perylene		<0.000183	mg/L	0.917	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0522	mg/L	0.917	0.0800	65	25.9 - 97.5
2-Fluorobiphenyl		0.0493	mg/L	0.917	0.0800	62	13.9 - 100
Terphenyl-d14		0.0608	mg/L	0.917	0.0800	76	37.7 - 114

Sample: 209039 - MW-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 63362
Prep Batch: 54077

Analytical Method: S 8021B
Date Analyzed: 2009-09-05
Sample Preparation: 2009-09-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		4.29	mg/L	20	0.00100
Toluene		<0.0200	mg/L	20	0.00100
Ethylbenzene		<0.0200	mg/L	20	0.00100
Xylene		0.104	mg/L	20	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.99	mg/L	20	2.00	100	87 - 105.2
4-Bromofluorobenzene (4-BFB)		1.83	mg/L	20	2.00	92	49.8 - 130.8

Sample: 209039 - MW-13

Laboratory: Lubbock
Analysis: PAH
QC Batch: 63320
Prep Batch: 54047

Analytical Method: S 8270C
Date Analyzed: 2009-09-08
Sample Preparation: 2009-09-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.00616	mg/L	0.917	0.000200
2-Methylnaphthalene	<i>B</i>	0.00126	mg/L	0.917	0.000200
1-Methylnaphthalene		0.00396	mg/L	0.917	0.000200
Acenaphthylene		<0.000183	mg/L	0.917	0.000200
Acenaphthene		<0.000183	mg/L	0.917	0.000200

continued ...





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sample 209039 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Dibenzofuran		0.000441	mg/L	0.917	0.000200
Fluorene		0.000418	mg/L	0.917	0.000200
Anthracene		<0.000183	mg/L	0.917	0.000200
Phenanthrene		<0.000183	mg/L	0.917	0.000200
Fluoranthene		<0.000183	mg/L	0.917	0.000200
Pyrene		<0.000183	mg/L	0.917	0.000200
Benzo(a)anthracene		<0.000183	mg/L	0.917	0.000200
Chrysene		<0.000183	mg/L	0.917	0.000200
Benzo(b)fluoranthene		<0.000183	mg/L	0.917	0.000200
Benzo(k)fluoranthene		<0.000183	mg/L	0.917	0.000200
Benzo(a)pyrene		<0.000183	mg/L	0.917	0.000200
Indeno(1,2,3-cd)pyrene		<0.000183	mg/L	0.917	0.000200
Dibenzo(a,h)anthracene		<0.000183	mg/L	0.917	0.000200
Benzo(g,h,i)perylene		<0.000183	mg/L	0.917	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0534	mg/L	0.917	0.0800	67	25.9 - 97.5
2-Fluorobiphenyl		0.0499	mg/L	0.917	0.0800	62	13.9 - 100
Terphenyl-d14		0.0571	mg/L	0.917	0.0800	71	37.7 - 114

Method Blank (1) QC Batch: 63320

QC Batch: 63320
Prep Batch: 54047

Date Analyzed: 2009-09-08
QC Preparation: 2009-09-03

Analyzed By: MN
Prepared By: MN

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000784	mg/L	0.0002
2-Methylnaphthalene		0.000415	mg/L	0.0002
1-Methylnaphthalene		<0.0000575	mg/L	0.0002
Acenaphthylene		<0.0000963	mg/L	0.0002
Acenaphthene		<0.0000617	mg/L	0.0002
Dibenzofuran		<0.0000952	mg/L	0.0002
Fluorene		<0.000134	mg/L	0.0002
Anthracene		<0.000441	mg/L	0.0002
Phenanthrene		<0.000435	mg/L	0.0002
Fluoranthene		<0.000476	mg/L	0.0002
Pyrene		<0.000590	mg/L	0.0002
Benzo(a)anthracene		<0.000118	mg/L	0.0002
Chrysene		<0.0000766	mg/L	0.0002
Benzo(b)fluoranthene		<0.000146	mg/L	0.0002

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method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Benzo(k)fluoranthene		<0.000141	mg/L	0.0002
Benzo(a)pyrene		<0.000132	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.0000702	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.0000534	mg/L	0.0002
Benzo(g,h,i)perylene		<0.0000473	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0426	mg/L	1	0.0800	53	25.9 - 97.5
2-Fluorobiphenyl		0.0369	mg/L	1	0.0800	46	13.9 - 100
Terphenyl-d14		0.0567	mg/L	1	0.0800	71	37.7 - 114

Method Blank (1) QC Batch: 63362

QC Batch: 63362
Prep Batch: 54077

Date Analyzed: 2009-09-05
QC Preparation: 2009-09-04

Analyzed By: AG
Prepared By: AG



Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000300	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000500	mg/L	0.001
Xylene		<0.000400	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0961	mg/L	1	0.100	96	85.4 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0921	mg/L	1	0.100	92	52.8 - 124.2

Laboratory Control Spike (LCS-1)

QC Batch: 63320
Prep Batch: 54047

Date Analyzed: 2009-09-08
QC Preparation: 2009-09-03

Analyzed By: MN
Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0357	mg/L	1	0.0800	<0.0000784	45	22.2 - 87.9
2-Methylnaphthalene	0.0393	mg/L	1	0.0800	0.000415	49	23.3 - 86.1
1-Methylnaphthalene	0.0395	mg/L	1	0.0800	<0.0000575	49	24.6 - 87.8
Acenaphthylene	0.0445	mg/L	1	0.0800	<0.0000963	56	27.4 - 114
Acenaphthene	0.0447	mg/L	1	0.0800	<0.0000617	56	27.2 - 111

continued ...





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control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dibenzofuran	0.0412	mg/L	1	0.0800	<0.0000952	52	27.3 - 100
Fluorene	0.0521	mg/L	1	0.0800	<0.000134	65	31.5 - 122
Anthracene	0.0580	mg/L	1	0.0800	<0.000441	72	32.4 - 115
Phenanthrene	0.0552	mg/L	1	0.0800	<0.000435	69	34.2 - 111
Fluoranthene	0.0640	mg/L	1	0.0800	<0.000476	80	40.1 - 114
Pyrene	0.0553	mg/L	1	0.0800	<0.000590	69	39.2 - 124
Benzo(a)anthracene	0.0533	mg/L	1	0.0800	<0.000118	67	39.4 - 114
Chrysene	0.0579	mg/L	1	0.0800	<0.0000766	72	38.2 - 116
Benzo(b)fluoranthene	0.0622	mg/L	1	0.0800	<0.000146	78	34.5 - 118
Benzo(k)fluoranthene	0.0724	mg/L	1	0.0800	<0.000141	90	38.7 - 133
Benzo(a)pyrene	0.0759	mg/L	1	0.0800	<0.000132	95	38 - 134
Indeno(1,2,3-cd)pyrene	0.0635	mg/L	1	0.0800	<0.0000702	79	34.6 - 124
Dibenzo(a,h)anthracene	0.0629	mg/L	1	0.0800	<0.0000534	79	33.9 - 120
Benzo(g,h,i)perylene	0.0616	mg/L	1	0.0800	<0.0000473	77	33.8 - 138

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
Naphthalene	0.0365	mg/L	1	0.0800	<0.0000784	46	22.2 - 87.9	2	20
2-Methylnaphthalene	0.0399	mg/L	1	0.0800	0.000415	49	23.3 - 86.1	2	20
1-Methylnaphthalene	0.0409	mg/L	1	0.0800	<0.0000575	51	24.6 - 87.8	4	20
Acenaphthylene	0.0462	mg/L	1	0.0800	<0.0000963	58	27.4 - 114	4	20
Acenaphthene	0.0463	mg/L	1	0.0800	<0.0000617	58	27.2 - 111	4	20
Dibenzofuran	0.0430	mg/L	1	0.0800	<0.0000952	54	27.3 - 100	4	20
Fluorene	0.0548	mg/L	1	0.0800	<0.000134	68	31.5 - 122	5	20
Anthracene	0.0611	mg/L	1	0.0800	<0.000441	76	32.4 - 115	5	20
Phenanthrene	0.0563	mg/L	1	0.0800	<0.000435	70	34.2 - 111	2	20
Fluoranthene	0.0653	mg/L	1	0.0800	<0.000476	82	40.1 - 114	2	20
Pyrene	0.0569	mg/L	1	0.0800	<0.000590	71	39.2 - 124	3	20
Benzo(a)anthracene	0.0552	mg/L	1	0.0800	<0.000118	69	39.4 - 114	4	20
Chrysene	0.0590	mg/L	1	0.0800	<0.0000766	74	38.2 - 116	2	20
Benzo(b)fluoranthene	0.0654	mg/L	1	0.0800	<0.000146	82	34.5 - 118	5	20
Benzo(k)fluoranthene	0.0796	mg/L	1	0.0800	<0.000141	100	38.7 - 133	10	20
Benzo(a)pyrene	0.0796	mg/L	1	0.0800	<0.000132	100	38 - 134	5	20
Indeno(1,2,3-cd)pyrene	0.0650	mg/L	1	0.0800	<0.0000702	81	34.6 - 124	2	20
Dibenzo(a,h)anthracene	0.0653	mg/L	1	0.0800	<0.0000534	82	33.9 - 120	4	20
Benzo(g,h,i)perylene	0.0640	mg/L	1	0.0800	<0.0000473	80	33.8 - 138	4	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	0.0410	0.0383	mg/L	1	0.0800	51	48	25.9 - 97.5
2-Fluorobiphenyl	0.0384	0.0399	mg/L	1	0.0800	48	50	13.9 - 100
Terphenyl-d14	0.0570	0.0586	mg/L	1	0.0800	71	73	37.7 - 114





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Laboratory Control Spike (LCS-1)

QC Batch: 63362
Prep Batch: 54077

Date Analyzed: 2009-09-05
QC Preparation: 2009-09-04

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0987	mg/L	1	0.100	<0.00110	99	74.3 - 123.4
Toluene	0.0985	mg/L	1	0.100	<0.00100	98	70.1 - 126.2
Ethylbenzene	0.0982	mg/L	1	0.100	<0.00100	98	68.6 - 124.7
Xylene	0.294	mg/L	1	0.300	<0.00290	98	64.8 - 127.2

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	0.0979	mg/L	1	0.100	<0.00110	98	74.3 - 123.4	1	20
Toluene	0.0980	mg/L	1	0.100	<0.00100	98	70.1 - 126.2	0	20
Ethylbenzene	0.0983	mg/L	1	0.100	<0.00100	98	68.6 - 124.7	0	20
Xylene	0.295	mg/L	1	0.300	<0.00290	98	64.8 - 127.2	0	20

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



Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0960	0.0963	mg/L	1	0.100	96	96	84.8 - 110.8
4-Bromofluorobenzene (4-BFB)	0.0927	0.0927	mg/L	1	0.100	93	93	51.7 - 134.7

Matrix Spike (MS-1) Spiked Sample: 209035

QC Batch: 63362
Prep Batch: 54077

Date Analyzed: 2009-09-05
QC Preparation: 2009-09-04

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	21.5	mg/L	100	10.0	12.0094	95	61 - 130
Toluene	11.8	mg/L	100	10.0	2.2349	96	69.2 - 121.4
Ethylbenzene	9.83	mg/L	100	10.0	0.3598	95	56.3 - 124.9
Xylene	29.0	mg/L	100	30.0	0.7764	94	60.2 - 122.9

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	21.6	mg/L	100	10.0	12.0094	96	61 - 130	0	20
Toluene	11.9	mg/L	100	10.0	2.2349	97	69.2 - 121.4	1	20
Ethylbenzene	10.1	mg/L	100	10.0	0.3598	97	56.3 - 124.9	3	20
Xylene	29.8	mg/L	100	30.0	0.7764	97	60.2 - 122.9	3	20





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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)	9.54	9.38	mg/L	100	10	95	94	85.6 - 108.1
4-Bromofluorobenzene (4-BFB)	9.19	9.17	mg/L	100	10	92	92	53.7 - 127.3

Standard (CCV-1)

QC Batch: 63320

Date Analyzed: 2009-09-08

Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	58.2	97	80 - 120	2009-09-08
2-Methylnaphthalene		mg/L	60.0	64.8	108	80 - 120	2009-09-08
1-Methylnaphthalene		mg/L	60.0	64.9	108	80 - 120	2009-09-08
Acenaphthylene		mg/L	60.0	59.6	99	80 - 120	2009-09-08
Acenaphthene		mg/L	60.0	58.8	98	80 - 120	2009-09-08
Dibenzofuran		mg/L	60.0	61.8	103	80 - 120	2009-09-08
Fluorene		mg/L	60.0	64.9	108	80 - 120	2009-09-08
Anthracene		mg/L	60.0	59.7	100	80 - 120	2009-09-08
Phenanthrene		mg/L	60.0	57.4	96	80 - 120	2009-09-08
Fluoranthene		mg/L	60.0	57.6	96	80 - 120	2009-09-08
Pyrene		mg/L	60.0	56.9	95	80 - 120	2009-09-08
Benzo(a)anthracene		mg/L	60.0	55.9	93	80 - 120	2009-09-08
Chrysene		mg/L	60.0	56.8	95	80 - 120	2009-09-08
Benzo(b)fluoranthene		mg/L	60.0	50.8	85	80 - 120	2009-09-08
Benzo(k)fluoranthene		mg/L	60.0	65.0	108	80 - 120	2009-09-08
Benzo(a)pyrene		mg/L	60.0	67.7	113	80 - 120	2009-09-08
Indeno(1,2,3-cd)pyrene		mg/L	60.0	57.5	96	80 - 120	2009-09-08
Dibenzo(a,h)anthracene		mg/L	60.0	58.2	97	80 - 120	2009-09-08
Benzo(g,h,i)perylene		mg/L	60.0	56.7	94	80 - 120	2009-09-08

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		63.0	mg/L	1	60.0	105	80 - 120
2-Fluorobiphenyl		54.5	mg/L	1	60.0	91	80 - 120
Terphenyl-d14		54.5	mg/L	1	60.0	91	80 - 120

Standard (CCV-1)

QC Batch: 63362

Date Analyzed: 2009-09-05

Analyzed By: AG





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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	2009-09-05
Toluene		mg/L	0.100	0.0956	96	80 - 120	2009-09-05
Ethylbenzene		mg/L	0.100	0.0958	96	80 - 120	2009-09-05
Xylene		mg/L	0.300	0.287	96	80 - 120	2009-09-05

Standard (CCV-2)

QC Batch: 63362

Date Analyzed: 2009-09-05

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0961	96	80 - 120	2009-09-05
Toluene		mg/L	0.100	0.0954	95	80 - 120	2009-09-05
Ethylbenzene		mg/L	0.100	0.0945	94	80 - 120	2009-09-05
Xylene		mg/L	0.300	0.283	94	80 - 120	2009-09-05

Standard (CCV-3)

QC Batch: 63362

Date Analyzed: 2009-09-05

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.100	100	80 - 120	2009-09-05
Toluene		mg/L	0.100	0.0949	95	80 - 120	2009-09-05
Ethylbenzene		mg/L	0.100	0.0946	95	80 - 120	2009-09-05
Xylene		mg/L	0.300	0.282	94	80 - 120	2009-09-05





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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

Kyle Waggoner
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: September 14, 2009

Work Order: 9090402



Project Location: Hobbs, NM
Project Name: Moore to Jal #2
Project Number: 700376.006.01
SRS #: 2002-10273

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
209162	MW-1	water	2009-09-03	11:24	2009-09-04
209163	MW-4	water	2009-09-03	15:00	2009-09-04
209164	MW-5	water	2009-09-03	13:56	2009-09-04
209165	MW-7	water	2009-09-03	13:05	2009-09-04
209166	MW-9	water	2009-09-03	13:36	2009-09-04
209167	MW-6	water	2009-09-03	12:00	2009-09-04

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 22 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

Standard Flags

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

Case Narrative

Samples for project Moore to Jal #2 were received by TraceAnalysis, Inc. on 2009-09-04 and assigned to work order 9090402. Samples for work order 9090402 were received intact without headspace and at a temperature of 3.8 deg. 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	54207	2009-09-11 at 10:00	63506	2009-09-11 at 10:22
PAH	S 8270C	54113	2009-08-31 at 15:00	63394	2009-09-10 at 08:00
TPH DRO	Mod. 8015B	54049	2009-09-04 at 09:59	63323	2009-09-04 at 09:59
TPH GRO	S 8015B	54207	2009-09-11 at 10:00	63396	2009-09-11 at 10:46

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 9090402 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: 209162 - MW-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 63506
Prep Batch: 54207

Analytical Method: S 8021B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		20.4	mg/L	100	0.00100
Toluene		17.8	mg/L	100	0.00100
Ethylbenzene		3.84	mg/L	100	0.00100
Xylene		9.31	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.80	mg/L	100	10.0	98	68 - 105.2
4-Bromofluorobenzene (4-BFB)		8.76	mg/L	100	10.0	88	49.8 - 130.8



Sample: 209162 - MW-1

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 63323
Prep Batch: 54049

Analytical Method: Mod. 8015B
Date Analyzed: 2009-09-04
Sample Preparation: 2009-09-04

Prep Method: N/A
Analyzed By: kg
Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		443	mg/L	5	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹	20.2	mg/L	5	10.0	202	70 - 130

Sample: 209162 - MW-1

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63396
Prep Batch: 54207

Analytical Method: S 8015B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

continued ...

¹ High surrogate recovery due to peak interference.



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sample 209162 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		183	mg/L	100	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.83	mg/L	100	10.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		8.90	mg/L	100	10.0	89	70 - 130

Sample: 209163 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 63506
Prep Batch: 54207

Analytical Method: S 8021B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		24.6	mg/L	200	0.00100
Toluene		0.521	mg/L	200	0.00100
Ethylbenzene		1.24	mg/L	200	0.00100
Xylene		0.486	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.3	mg/L	200	20.0	102	68 - 105.2
4-Bromofluorobenzene (4-BFB)		16.5	mg/L	200	20.0	82	49.8 - 130.8

Sample: 209163 - MW-4

Laboratory: Lubbock
Analysis: PAH
QC Batch: 63394
Prep Batch: 54113

Analytical Method: S 8270C
Date Analyzed: 2009-09-10
Sample Preparation: 2009-08-31

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.0232	mg/L	0.922	0.000200
2-Methylnaphthalene		0.00812	mg/L	0.922	0.000200
1-Methylnaphthalene		0.0160	mg/L	0.922	0.000200

continued ...



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sample 209163 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Acenaphthylene		<0.000184	mg/L	0.922	0.000200
Acenaphthene		<0.000184	mg/L	0.922	0.000200
Dibenzofuran		0.000984	mg/L	0.922	0.000200
Fluorene		0.00240	mg/L	0.922	0.000200
Anthracene		<0.000184	mg/L	0.922	0.000200
Phenanthrene		0.000904	mg/L	0.922	0.000200
Fluoranthene		<0.000184	mg/L	0.922	0.000200
Pyrene		<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene		<0.000184	mg/L	0.922	0.000200
Chrysene		<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene		<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene		<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene		<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene		<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene		<0.000184	mg/L	0.922	0.000200



Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	²	0.0203	mg/L	0.922	0.0800	25	25.9 - 97.5
2-Fluorobiphenyl		0.0221	mg/L	0.922	0.0800	28	13.9 - 100
Terphenyl-d14	³	0.0263	mg/L	0.922	0.0800	33	37.7 - 114

Sample: 209164 - MW-5

Laboratory: Midland
Analysis: BTEX
QC Batch: 63506
Prep Batch: 54207

Analytical Method: S 8021B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		15.5	mg/L	100	0.00100
Toluene		16.4	mg/L	100	0.00100
Ethylbenzene		2.30	mg/L	100	0.00100
Xylene		5.21	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.76	mg/L	100	10.0	98	68 - 105.2

continued ...

²8270 Only - Two basic surrogates are out of control limits. The other basic surrogate shows extraction was performed properly.

³8270 Only - Two basic surrogates are out of control limits. The other basic surrogate shows extraction was performed properly.





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sample continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		8.40	mg/L	100	10.0	84	49.8 - 130.8

Sample: 209164 - MW-5

Laboratory: Lubbock

Analysis: PAH

QC Batch: 63394

Prep Batch: 54113

Analytical Method: S 8270C

Date Analyzed: 2009-09-10

Sample Preparation: 2009-08-31

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene	4	1.47	mg/L	9.217	0.000200
2-Methylnaphthalene	5	3.61	mg/L	9.217	0.000200
1-Methylnaphthalene	6	3.05	mg/L	9.217	0.000200
Acenaphthylene		<0.00184	mg/L	9.217	0.000200
Acenaphthene		<0.00184	mg/L	9.217	0.000200
Dibenzofuran		0.208	mg/L	9.217	0.000200
Fluorene		0.302	mg/L	9.217	0.000200
Anthracene		<0.00184	mg/L	9.217	0.000200
Phenanthrene		0.390	mg/L	9.217	0.000200
Fluoranthene		<0.00184	mg/L	9.217	0.000200
Pyrene		<0.00184	mg/L	9.217	0.000200
Benzo(a)anthracene		<0.00184	mg/L	9.217	0.000200
Chrysene		<0.00184	mg/L	9.217	0.000200
Benzo(b)fluoranthene		<0.00184	mg/L	9.217	0.000200
Benzo(k)fluoranthene		<0.00184	mg/L	9.217	0.000200
Benzo(a)pyrene		<0.00184	mg/L	9.217	0.000200
Indeno(1,2,3-cd)pyrene		<0.00184	mg/L	9.217	0.000200
Dibenzo(a,h)anthracene		<0.00184	mg/L	9.217	0.000200
Benzo(g,h,i)perylene		<0.00184	mg/L	9.217	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	7	0.0841	mg/L	9.217	0.0800	105	25.9 - 97.5
2-Fluorobiphenyl		0.0418	mg/L	9.217	0.0800	52	13.9 - 100
Terphenyl-d14		0.0406	mg/L	9.217	0.0800	51	37.7 - 114

Sample: 209164 - MW-5

Laboratory: Midland

Analysis: TPH DRO

QC Batch: 63323

Prep Batch: 54049

Analytical Method: Mod. 8015B

Date Analyzed: 2009-09-04

Sample Preparation: 2009-09-04

Prep Method: N/A

Analyzed By: kg

Prepared By: kg



⁴Estimated concentration value greater than standard range.

⁵Estimated concentration value greater than standard range.

⁶Estimated concentration value greater than standard range.

⁷8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.



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Parameter	Flag	RL Result	Units	Dilution	RL
DRO		920	mg/L	5	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	⁸	31.4	mg/L	5	10.0	314	70 - 130

Sample: 209164 - MW-5

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63396
Prep Batch: 54207

Analytical Method: S 8015B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		111	mg/L	100	0.100



Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.55	mg/L	100	10.0	96	70 - 130
4-Bromofluorobenzene (4-BFB)		8.03	mg/L	100	10.0	80	70 - 130

Sample: 209165 - MW-7

Laboratory: Midland
Analysis: BTEX
QC Batch: 63506
Prep Batch: 54207

Analytical Method: S 8021B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		22.1	mg/L	200	0.00100
Toluene		15.8	mg/L	200	0.00100
Ethylbenzene		3.11	mg/L	200	0.00100
Xylene		7.38	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		19.8	mg/L	200	20.0	99	68 - 105.2
4-Bromofluorobenzene (4-BFB)		16.7	mg/L	200	20.0	84	49.8 - 130.8

⁸High surrogate recovery due to peak interference.





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Sample: 209165 - MW-7

Laboratory: Lubbock
Analysis: PAH
QC Batch: 63394
Prep Batch: 54113

Analytical Method: S 8270C
Date Analyzed: 2009-09-10
Sample Preparation: 2009-08-31

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.435	mg/L	4.608	0.000200
2-Methylnaphthalene	⁹	1.05	mg/L	4.608	0.000200
1-Methylnaphthalene	¹⁰	0.892	mg/L	4.608	0.000200
Acenaphthylene		<0.000922	mg/L	4.608	0.000200
Acenaphthene		<0.000922	mg/L	4.608	0.000200
Dibenzofuran		0.0689	mg/L	4.608	0.000200
Fluorene		0.0893	mg/L	4.608	0.000200
Anthracene		<0.000922	mg/L	4.608	0.000200
Phenanthrene		0.125	mg/L	4.608	0.000200
Fluoranthene		<0.000922	mg/L	4.608	0.000200
Pyrene		<0.000922	mg/L	4.608	0.000200
Benzo(a)anthracene		<0.000922	mg/L	4.608	0.000200
Chrysene		<0.000922	mg/L	4.608	0.000200
Benzo(b)fluoranthene		<0.000922	mg/L	4.608	0.000200
Benzo(k)fluoranthene		<0.000922	mg/L	4.608	0.000200
Benzo(a)pyrene		<0.000922	mg/L	4.608	0.000200
Indeno(1,2,3-cd)pyrene		<0.000922	mg/L	4.608	0.000200
Dibenzo(a,h)anthracene		<0.000922	mg/L	4.608	0.000200
Benzo(g,h,i)perylene		<0.000922	mg/L	4.608	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0557	mg/L	4.608	0.0800	70	25.9 - 97.5
2-Fluorobiphenyl		0.0591	mg/L	4.608	0.0800	74	13.9 - 100
Terphenyl-d14		0.0554	mg/L	4.608	0.0800	69	37.7 - 114

Sample: 209165 - MW-7

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 63323
Prep Batch: 54049

Analytical Method: Mod. 8015B
Date Analyzed: 2009-09-04
Sample Preparation: 2009-09-04

Prep Method: N/A
Analyzed By: kg
Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		518	mg/L	5	5.00

⁹Estimated concentration value greater than standard range.

¹⁰Estimated concentration value greater than standard range.





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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	11	21.0	mg/L	5	10.0	210	70 - 130

Sample: 209165 - MW-7

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63396
Prep Batch: 54207

Analytical Method: S 8015B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		121	mg/L	200	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		19.2	mg/L	200	20.0	96	70 - 130
4-Bromofluorobenzene (4-BFB)		16.2	mg/L	200	20.0	81	70 - 130



Sample: 209166 - MW-9

Laboratory: Midland
Analysis: BTEX
QC Batch: 63506
Prep Batch: 54207

Analytical Method: S 8021B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		16.5	mg/L	100	0.00100
Toluene		8.40	mg/L	100	0.00100
Ethylbenzene		1.38	mg/L	100	0.00100
Xylene		2.89	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.65	mg/L	100	10.0	96	68 - 105.2
4-Bromofluorobenzene (4-BFB)		8.10	mg/L	100	10.0	81	49.8 - 130.8

Sample: 209166 - MW-9

Laboratory: Lubbock
Analysis: PAH
QC Batch: 63394
Prep Batch: 54113

Analytical Method: S 8270C
Date Analyzed: 2009-09-10
Sample Preparation: 2009-08-31

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



¹¹High surrogate recovery due to peak interference.



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Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene	¹²	0.142	mg/L	0.922	0.000200
2-Methylnaphthalene	¹³	0.338	mg/L	0.922	0.000200
1-Methylnaphthalene	¹⁴	0.283	mg/L	0.922	0.000200
Acenaphthylene		<0.000184	mg/L	0.922	0.000200
Acenaphthene		<0.000184	mg/L	0.922	0.000200
Dibenzofuran		0.0218	mg/L	0.922	0.000200
Fluorene		0.0282	mg/L	0.922	0.000200
Anthracene		<0.000184	mg/L	0.922	0.000200
Phenanthrene		0.0406	mg/L	0.922	0.000200
Fluoranthene		<0.000184	mg/L	0.922	0.000200
Pyrene		<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene		<0.000184	mg/L	0.922	0.000200
Chrysene		0.00495	mg/L	0.922	0.000200
Benzo(b)fluoranthene		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene		<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene		<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene		<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene		<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene		<0.000184	mg/L	0.922	0.000200



Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	¹⁵	0.0143	mg/L	0.922	0.0800	18	25.9 - 97.5
2-Fluorobiphenyl		0.0128	mg/L	0.922	0.0800	16	13.9 - 100
Terphenyl-d14	¹⁶	0.0121	mg/L	0.922	0.0800	15	37.7 - 114

Sample: 209166 - MW-9

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 63323
Prep Batch: 54049

Analytical Method: Mod. 8015B
Date Analyzed: 2009-09-04
Sample Preparation: 2009-09-04

Prep Method: N/A
Analyzed By: kg
Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		154	mg/L	1	5.00

¹² Estimated concentration value greater than standard range.

¹³ Estimated concentration value greater than standard range.

¹⁴ Estimated concentration value greater than standard range.

¹⁵ 8270 Only - Two basic surrogates are out of control limits. The other basic surrogate shows extraction was performed properly.

¹⁶ 8270 Only - Two basic surrogates are out of control limits. The other basic surrogate shows extraction was performed properly.





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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		12.0	mg/L	1	10.0	120	70 - 130

Sample: 209166 - MW-9

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63396
Prep Batch: 54207

Analytical Method: S 8015B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		66.3	mg/L	100	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.73	mg/L	100	10.0	97	70 - 130
4-Bromofluorobenzene (4-BFB)		7.76	mg/L	100	10.0	78	70 - 130



Sample: 209167 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 63506
Prep Batch: 54207

Analytical Method: S 8021B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		19.2	mg/L	100	0.00100
Toluene		19.3	mg/L	100	0.00100
Ethylbenzene		3.13	mg/L	100	0.00100
Xylene		7.48	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.58	mg/L	100	10.0	96	68 - 105.2
4-Bromofluorobenzene (4-BFB)		8.11	mg/L	100	10.0	81	49.8 - 130.8



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Sample: 209167 - MW-6

Laboratory: Lubbock

Analysis: PAH

QC Batch: 63394

Prep Batch: 54113

Analytical Method: S 8270C

Date Analyzed: 2009-09-10

Sample Preparation: 2009-08-31

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene	¹⁷	0.431	mg/L	0.922	0.000200
2-Methylnaphthalene	¹⁸	0.992	mg/L	0.922	0.000200
1-Methylnaphthalene	¹⁹	0.832	mg/L	0.922	0.000200
Acenaphthylene		<0.000184	mg/L	0.922	0.000200
Acenaphthene		<0.000184	mg/L	0.922	0.000200
Dibenzofuran		0.0496	mg/L	0.922	0.000200
Fluorene		0.0696	mg/L	0.922	0.000200
Anthracene		<0.000184	mg/L	0.922	0.000200
Phenanthrene		0.0934	mg/L	0.922	0.000200
Fluoranthene		<0.000184	mg/L	0.922	0.000200
Pyrene		<0.000184	mg/L	0.922	0.000200
Benzo(a)anthracene		<0.000184	mg/L	0.922	0.000200
Chrysene		<0.000184	mg/L	0.922	0.000200
Benzo(b)fluoranthene		<0.000184	mg/L	0.922	0.000200
Benzo(k)fluoranthene		<0.000184	mg/L	0.922	0.000200
Benzo(a)pyrene		<0.000184	mg/L	0.922	0.000200
Indeno(1,2,3-cd)pyrene		<0.000184	mg/L	0.922	0.000200
Dibenzo(a,h)anthracene		<0.000184	mg/L	0.922	0.000200
Benzo(g,h,i)perylene		<0.000184	mg/L	0.922	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0554	mg/L	0.922	0.0800	69	25.9 - 97.5
2-Fluorobiphenyl	²⁰	0.00720	mg/L	0.922	0.0800	9	13.9 - 100
Terphenyl-d14	²¹	0.00840	mg/L	0.922	0.0800	10	37.7 - 114

Sample: 209167 - MW-6

Laboratory: Midland

Analysis: TPH DRO

QC Batch: 63323

Prep Batch: 54049

Analytical Method: Mod. 8015B

Date Analyzed: 2009-09-04

Sample Preparation: 2009-09-04

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1400	mg/L	5	5.00

¹⁷ Estimated concentration value greater than standard range.

¹⁸ Estimated concentration value greater than standard range.

¹⁹ Estimated concentration value greater than standard range.

²⁰ 8270 Only - Two basic surrogates are out of control limits. The other basic surrogate shows extraction was performed properly.

²¹ 8270 Only - Two basic surrogates are out of control limits. The other basic surrogate shows extraction was performed properly.





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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	²²	72.1	mg/L	5	10.0	721	70 - 130

Sample: 209167 - MW-6

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63396
Prep Batch: 54207

Analytical Method: S 8015B
Date Analyzed: 2009-09-11
Sample Preparation: 2009-09-11

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		150	mg/L	100	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.63	mg/L	100	10.0	96	70 - 130
4-Bromofluorobenzene (4-BFB)		8.33	mg/L	100	10.0	83	70 - 130



Method Blank (1) QC Batch: 63323

QC Batch: 63323
Prep Batch: 54049

Date Analyzed: 2009-09-04
QC Preparation: 2009-09-04

Analyzed By: kg
Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<0.801	mg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		11.4	mg/L	1	10.0	114	70 - 160

Method Blank (1) QC Batch: 63394

QC Batch: 63394
Prep Batch: 54113

Date Analyzed: 2009-09-10
QC Preparation: 2009-08-31

Analyzed By: MN
Prepared By: MN

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000784	mg/L	0.0002
2-Methylnaphthalene		<0.0000747	mg/L	0.0002

continued ...

²²High surrogate recovery due to peak interference.





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method blank continued ...

Parameter	Flag	MDL Result	Units	RL
1-Methylnaphthalene		<0.0000575	mg/L	0.0002
Acenaphthylene		<0.0000963	mg/L	0.0002
Acenaphthene		<0.0000617	mg/L	0.0002
Dibenzofuran		<0.0000952	mg/L	0.0002
Fluorene		<0.000134	mg/L	0.0002
Anthracene		<0.000441	mg/L	0.0002
Phenanthrene		<0.000435	mg/L	0.0002
Fluoranthene		<0.000476	mg/L	0.0002
Pyrene		<0.000590	mg/L	0.0002
Benzo(a)anthracene		<0.000118	mg/L	0.0002
Chrysene		<0.0000766	mg/L	0.0002
Benzo(b)fluoranthene		<0.000146	mg/L	0.0002
Benzo(k)fluoranthene		<0.000141	mg/L	0.0002
Benzo(a)pyrene		<0.000132	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.0000702	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.0000534	mg/L	0.0002
Benzo(g,h,i)perylene		<0.0000473	mg/L	0.0002



Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0292	mg/L	1	0.0800	36	25.9 - 97.5
2-Fluorobiphenyl		0.0255	mg/L	1	0.0800	32	13.9 - 100
Terphenyl-d14		0.0446	mg/L	1	0.0800	56	37.7 - 114

Method Blank (1) QC Batch: 63396

QC Batch: 63396
Prep Batch: 54207

Date Analyzed: 2009-09-11
QC Preparation: 2009-09-11

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.0351	mg/L	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0975	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0782	mg/L	1	0.100	78	70 - 130

Method Blank (1) QC Batch: 63506

QC Batch: 63506
Prep Batch: 54207

Date Analyzed: 2009-09-11
QC Preparation: 2009-09-11

Analyzed By: AG
Prepared By: AG





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Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000300	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000500	mg/L	0.001
Xylene		<0.000400	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0997	mg/L	1	0.100	100	65.4 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0836	mg/L	1	0.100	84	52.8 - 124.2

Laboratory Control Spike (LCS-1)

QC Batch: 63323
Prep Batch: 54049

Date Analyzed: 2009-09-04
QC Preparation: 2009-09-04

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	25.2	mg/L	1	25.0	<0.801	101	70 - 130



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
DRO	24.4	mg/L	1	25.0	<0.801	98	70 - 130	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
n-Triacontane	10.1	11.0	mg/L	1	10.0	101	110	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 63394
Prep Batch: 54113

Date Analyzed: 2009-09-10
QC Preparation: 2009-08-31

Analyzed By: MN
Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0259	mg/L	1	0.0800	<0.0000784	32	22.2 - 87.9
2-Methylnaphthalene	0.0292	mg/L	1	0.0800	<0.0000747	36	23.3 - 86.1
1-Methylnaphthalene	0.0300	mg/L	1	0.0800	<0.0000575	38	24.6 - 87.8
Acenaphthylene	0.0334	mg/L	1	0.0800	<0.0000963	42	27.4 - 114
Acenaphthene	0.0339	mg/L	1	0.0800	<0.0000617	42	27.2 - 111

continued ...





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control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dibenzofuran	0.0323	mg/L	1	0.0800	<0.0000952	40	27.3 - 100
Fluorene	0.0398	mg/L	1	0.0800	<0.000134	50	31.5 - 122
Anthracene	0.0415	mg/L	1	0.0800	<0.000441	52	32.4 - 115
Phenanthrene	0.0414	mg/L	1	0.0800	<0.000435	52	34.2 - 111
Fluoranthene	0.0483	mg/L	1	0.0800	<0.000476	60	40.1 - 114
Pyrene	0.0397	mg/L	1	0.0800	<0.000590	50	39.2 - 124
Benzo(a)anthracene	0.0383	mg/L	1	0.0800	<0.000118	48	39.4 - 114
Chrysene	0.0401	mg/L	1	0.0800	<0.0000766	50	38.2 - 116
Benzo(b)fluoranthene	0.0418	mg/L	1	0.0800	<0.000146	52	34.5 - 118
Benzo(k)fluoranthene	0.0586	mg/L	1	0.0800	<0.000141	73	38.7 - 133
Benzo(a)pyrene	0.0572	mg/L	1	0.0800	<0.000132	72	38 - 134
Indeno(1,2,3-cd)pyrene	0.0458	mg/L	1	0.0800	<0.0000702	57	34.6 - 124
Dibenzo(a,h)anthracene	0.0455	mg/L	1	0.0800	<0.0000534	57	33.9 - 120
Benzo(g,h,i)perylene	0.0445	mg/L	1	0.0800	<0.0000473	56	33.8 - 138

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
Naphthalene	0.0261	mg/L	1	0.0800	<0.0000784	33	22.2 - 87.9	1	20
2-Methylnaphthalene	0.0291	mg/L	1	0.0800	<0.0000747	36	23.3 - 86.1	0	20
1-Methylnaphthalene	0.0295	mg/L	1	0.0800	<0.0000575	37	24.6 - 87.8	2	20
Acenaphthylene	0.0338	mg/L	1	0.0800	<0.0000963	42	27.4 - 114	1	20
Acenaphthene	0.0343	mg/L	1	0.0800	<0.0000617	43	27.2 - 111	1	20
Dibenzofuran	0.0325	mg/L	1	0.0800	<0.0000952	41	27.3 - 100	1	20
Fluorene	0.0400	mg/L	1	0.0800	<0.000134	50	31.5 - 122	0	20
Anthracene	0.0415	mg/L	1	0.0800	<0.000441	52	32.4 - 115	0	20
Phenanthrene	0.0409	mg/L	1	0.0800	<0.000435	51	34.2 - 111	1	20
Fluoranthene	0.0472	mg/L	1	0.0800	<0.000476	59	40.1 - 114	2	20
Pyrene	0.0405	mg/L	1	0.0800	<0.000590	51	39.2 - 124	2	20
Benzo(a)anthracene	0.0392	mg/L	1	0.0800	<0.000118	49	39.4 - 114	2	20
Chrysene	0.0409	mg/L	1	0.0800	<0.0000766	51	38.2 - 116	2	20
Benzo(b)fluoranthene	0.0394	mg/L	1	0.0800	<0.000146	49	34.5 - 118	6	20
Benzo(k)fluoranthene	0.0607	mg/L	1	0.0800	<0.000141	76	38.7 - 133	4	20
Benzo(a)pyrene	0.0571	mg/L	1	0.0800	<0.000132	71	38 - 134	0	20
Indeno(1,2,3-cd)pyrene	0.0459	mg/L	1	0.0800	<0.0000702	57	34.6 - 124	0	20
Dibenzo(a,h)anthracene	0.0462	mg/L	1	0.0800	<0.0000534	58	33.9 - 120	2	20
Benzo(g,h,i)perylene	0.0444	mg/L	1	0.0800	<0.0000473	56	33.8 - 138	0	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	0.0306	0.0304	mg/L	1	0.0800	38	38	25.9 - 97.5
2-Fluorobiphenyl	0.0310	0.0313	mg/L	1	0.0800	39	39	13.9 - 100
Terphenyl-d14	0.0439	0.0449	mg/L	1	0.0800	55	56	37.7 - 114





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Laboratory Control Spike (LCS-1)

QC Batch: 63396
Prep Batch: 54207

Date Analyzed: 2009-09-11
QC Preparation: 2009-09-11

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.784	mg/L	1	1.00	<0.0351	78	70 - 130

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
GRO	0.792	mg/L	1	1.00	<0.0351	79	70 - 130	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.101	mg/L	1	0.100	101	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0855	0.0826	mg/L	1	0.100	86	83	70 - 130



Laboratory Control Spike (LCS-1)

QC Batch: 63506
Prep Batch: 54207

Date Analyzed: 2009-09-11
QC Preparation: 2009-09-11

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.102	mg/L	1	0.100	<0.00110	102	74.3 - 123.4
Toluene	0.102	mg/L	1	0.100	<0.00100	102	70.1 - 126.2
Ethylbenzene	0.100	mg/L	1	0.100	<0.00100	100	68.6 - 124.7
Xylene	0.298	mg/L	1	0.300	<0.00290	99	64.8 - 127.2

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	0.100	mg/L	1	0.100	<0.00110	100	74.3 - 123.4	2	20
Toluene	0.100	mg/L	1	0.100	<0.00100	100	70.1 - 126.2	2	20
Ethylbenzene	0.101	mg/L	1	0.100	<0.00100	101	68.6 - 124.7	1	20
Xylene	0.300	mg/L	1	0.300	<0.00290	100	64.8 - 127.2	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)	0.101	0.0999	mg/L	1	0.100	101	100	61.8 - 110.8
4-Bromofluorobenzene (4-BFB)	0.0852	0.0862	mg/L	1	0.100	85	86	51.7 - 134.7





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Matrix Spike (MS-1) Spiked Sample: 209166

QC Batch: 63323
Prep Batch: 54049

Date Analyzed: 2009-09-04
QC Preparation: 2009-09-04

Analyzed By: kg
Prepared By: kg

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	²³	195	mg/L	1	25.0	154	164	70 - 130

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
DRO	²⁴	158	mg/L	1	25.0	154	16	70 - 130	21	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	12.1	11.4	mg/L	1	10	121	114	70 - 130

Matrix Spike (MS-1) Spiked Sample: 209167



QC Batch: 63396
Prep Batch: 54207

Date Analyzed: 2009-09-11
QC Preparation: 2009-09-11

Analyzed By: AG
Prepared By: AG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	²⁵	309	mg/L	1	100	150	159	70 - 130

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
GRO	²⁶	250	mg/L	1	100	150	100	70 - 130	21	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	9.60	9.60	mg/L	1	10	96	96	70 - 130
4-Bromofluorobenzene (4-BFB)	8.79	8.54	mg/L	1	10	88	85	70 - 130

²³ Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

²⁴ Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

²⁵ Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

²⁶ MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.





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Matrix Spike (MS-1) Spiked Sample: 209508

QC Batch: 63506
Prep Batch: 54207

Date Analyzed: 2009-09-11
QC Preparation: 2009-09-11

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.105	mg/L	1	0.100	<0.00110	105	61 - 130
Toluene	0.0967	mg/L	1	0.100	<0.00100	97	69.2 - 121.4
Ethylbenzene	0.0568	mg/L	1	0.100	<0.00100	57	56.3 - 124.9
Xylene	0.253	mg/L	1	0.300	<0.00290	84	60.2 - 122.9

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	0.105	mg/L	1	0.100	<0.00110	105	61 - 130	0	20
Toluene	0.0903	mg/L	1	0.100	<0.00100	90	69.2 - 121.4	7	20
Ethylbenzene	0.0477	mg/L	1	0.100	<0.00100	48	56.3 - 124.9	17	20
Xylene	0.256	mg/L	1	0.300	<0.00290	85	60.2 - 122.9	1	20

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



Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0954	0.0967	mg/L	1	0.1	95	97	61.6 - 108.1
4-Bromofluorobenzene (4-BFB)	0.0698	0.0710	mg/L	1	0.1	70	71	53.7 - 127.3

Standard (CCV-2)

QC Batch: 63323

Date Analyzed: 2009-09-04

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	248	99	80 - 120	2009-09-04

Standard (CCV-3)

QC Batch: 63323

Date Analyzed: 2009-09-04

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	239	96	80 - 120	2009-09-04

²⁷MSD analyte out of range. MS/MSD has a RPD within limits. Therefore, MS shows extraction occurred properly.





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Standard (CCV-4)

QC Batch: 63323

Date Analyzed: 2009-09-04

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	232	93	80 - 120	2009-09-04

Standard (CCV-1)

QC Batch: 63394

Date Analyzed: 2009-09-10

Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	58.3	97	80 - 120	2009-09-10
2-Methylnaphthalene		mg/L	60.0	65.1	108	80 - 120	2009-09-10
1-Methylnaphthalene		mg/L	60.0	64.9	108	80 - 120	2009-09-10
Acenaphthylene		mg/L	60.0	59.2	99	80 - 120	2009-09-10
Acenaphthene		mg/L	60.0	59.3	99	80 - 120	2009-09-10
Dibenzofuran		mg/L	60.0	61.1	102	80 - 120	2009-09-10
Fluorene		mg/L	60.0	64.3	107	80 - 120	2009-09-10
Anthracene		mg/L	60.0	59.2	99	80 - 120	2009-09-10
Phenanthrene		mg/L	60.0	57.3	96	80 - 120	2009-09-10
Fluoranthene		mg/L	60.0	57.0	95	80 - 120	2009-09-10
Pyrene		mg/L	60.0	56.9	95	80 - 120	2009-09-10
Benzo(a)anthracene		mg/L	60.0	55.4	92	80 - 120	2009-09-10
Chrysene		mg/L	60.0	56.5	94	80 - 120	2009-09-10
Benzo(b)fluoranthene		mg/L	60.0	54.6	91	80 - 120	2009-09-10
Benzo(k)fluoranthene		mg/L	60.0	64.5	108	80 - 120	2009-09-10
Benzo(a)pyrene		mg/L	60.0	71.1	118	80 - 120	2009-09-10
Indeno(1,2,3-cd)pyrene		mg/L	60.0	56.9	95	80 - 120	2009-09-10
Dibenzo(a,h)anthracene		mg/L	60.0	58.6	98	80 - 120	2009-09-10
Benzo(g,h,i)perylene		mg/L	60.0	54.8	91	80 - 120	2009-09-10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		62.4	mg/L	1	60.0	104	80 - 120
2-Fluorobiphenyl		56.9	mg/L	1	60.0	95	80 - 120
Terphenyl-d14		54.1	mg/L	1	60.0	90	80 - 120

Standard (CCV-1)

QC Batch: 63396

Date Analyzed: 2009-09-11

Analyzed By: AG





Report Date: September 14, 2009
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Work Order: 9090402
Moore to Jal #2

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.02	102	80 - 120	2009-09-11

Standard (CCV-2)

QC Batch: 63396 Date Analyzed: 2009-09-11 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.944	94	80 - 120	2009-09-11

Standard (CCV-1)

QC Batch: 63506 Date Analyzed: 2009-09-11 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0971	97	80 - 120	2009-09-11
Toluene		mg/L	0.100	0.0964	96	80 - 120	2009-09-11
Ethylbenzene		mg/L	0.100	0.0977	98	80 - 120	2009-09-11
Xylene		mg/L	0.300	0.289	96	80 - 120	2009-09-11

Standard (CCV-2)

QC Batch: 63506 Date Analyzed: 2009-09-11 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0983	98	80 - 120	2009-09-11
Toluene		mg/L	0.100	0.0989	99	80 - 120	2009-09-11
Ethylbenzene		mg/L	0.100	0.0983	98	80 - 120	2009-09-11
Xylene		mg/L	0.300	0.292	97	80 - 120	2009-09-11

LAB Ord # 9090402

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Company Name: <u>TALON LPE</u>		Phone #: <u>922-522-2123</u>		Fax #: <u>922-522-2123</u>			
Address: <u>Plains Hwy</u>		City: <u>Plains</u>		State: <u>TX</u>			
Contact Person: <u>Shanna Smith</u>		E-mail: <u>SSmith@TalonLpe.com</u>					
Invoice to: <u>Plains Mason Hwy</u>		Project Name: <u>MODE to 3A1 #2</u>					
Project #: <u>200306.000.01</u>		Project Location (including state): <u>HOBBS, NM</u>					
Project Location (including state): <u>HOBBS, NM</u>		Sampler Signature: <u>[Signature]</u>					
LAB # (LAB USE ONLY)	FIELD CODE	VOLUME / AMOUNT	# CONTAINERS	MATRIX	PRESERVATIVE METHOD	SAMPLING	
						DATE	TIME
209162	ML-1	7	7	WATER	X	9/30/09	1124
163	ML-4	4	4	AIR			1500
164	ML-5	7	7	SLUDGE			1356
165	ML-7	7	7	SOIL			1305
166	ML-9	7	7	AIR			1336
167	ML-6	7	7	WATER			1200
ANALYSIS REQUEST (Circle or Specify Method No.)							
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7							
TPH 8015 GRO / DRO / TVHC							
PAH 8270 / 625							
MTBE 8021 / 602 / 8260 / 624							
BTX 8021 / 602 / 8260 / 624							
TPH 418.1 / TX1005 / TX1005 EX(C35)							
GC/MS Vol. 8260 / 624							
GC/MS Semi. Vol. 8270 / 625							
PCBs 8082 / 608							
Pesticides 8081 / 608							
BOD, TSS, pH							
Moisture Content							
Turn Around Time if different from standard							
Hold							

Relinquished by: <u>[Signature]</u>	Company: <u>Trace</u>	Date: <u>9/30/09</u>	Time: <u>8:00</u>	Received by: <u>[Signature]</u>	Company: <u>Trace</u>	Date: <u>9/30/09</u>	Time: <u>8:00</u>
Relinquished by: <u>[Signature]</u>	Company: <u>Trace</u>	Date: <u>9/30/09</u>	Time: <u>9:00</u>	Received by: <u>[Signature]</u>	Company: <u>Trace</u>	Date: <u>9/30/09</u>	Time: <u>9:00</u>
Relinquished by: <u>[Signature]</u>	Company: <u>Trace</u>	Date: <u>9/30/09</u>	Time: <u>9:00</u>	Received by: <u>[Signature]</u>	Company: <u>Trace</u>	Date: <u>9/30/09</u>	Time: <u>9:00</u>
Carrier # <u>Carry-in (Carry-in - Brian)</u>				Original Copy			

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



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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

Kyle Waggoner
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: September 18, 2009

Work Order: 9091415



Project Location: Hobbs, NM
Project Name: Moore to Jal #2
Project Number: 700376.006.01
SRS #: 2002-10273

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
209773	MW-1	water	2009-09-09	14:30	2009-09-11

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

This report consists of a total of 7 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

Standard Flags

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

Case Narrative

Samples for project Moore to Jal #2 were received by TraceAnalysis, Inc. on 2009-09-11 and assigned to work order 9091415. Samples for work order 9091415 were received intact at a temperature of 3.1 deg. C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
PAH	S 8270C	54397	2009-09-17 at 15:00	63710	2009-09-18 at 11:49

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 9091415 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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



Report Date: September 18, 2009
700376.006.01

Work Order: 9091415
Moore to Jal #2

Page Number: 4 of 7
Hobbs, NM

Analytical Report

Sample: 209773 - MW-1

Laboratory: Lubbock
Analysis: PAH
QC Batch: 63710
Prep Batch: 54397

Analytical Method: S 8270C
Date Analyzed: 2009-09-18
Sample Preparation: 2009-09-17

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.339	mg/L	4.608	0.000200
2-Methylnaphthalene	1	0.852	mg/L	4.608	0.000200
1-Methylnaphthalene	2	0.712	mg/L	4.608	0.000200
Acenaphthylene		<0.000922	mg/L	4.608	0.000200
Acenaphthene		<0.000922	mg/L	4.608	0.000200
Dibenzofuran		0.0559	mg/L	4.608	0.000200
Fluorene		0.0758	mg/L	4.608	0.000200
Anthracene		<0.000922	mg/L	4.608	0.000200
Phenanthrene		0.104	mg/L	4.608	0.000200
Fluoranthene		<0.000922	mg/L	4.608	0.000200
Pyrene		<0.000922	mg/L	4.608	0.000200
Benzo(a)anthracene		<0.000922	mg/L	4.608	0.000200
Chrysene		0.0144	mg/L	4.608	0.000200
Benzo(b)fluoranthene		<0.000922	mg/L	4.608	0.000200
Benzo(k)fluoranthene		<0.000922	mg/L	4.608	0.000200
Benzo(a)pyrene		<0.000922	mg/L	4.608	0.000200
Indeno(1,2,3-cd)pyrene		<0.000922	mg/L	4.608	0.000200
Dibenzo(a,h)anthracene		<0.000922	mg/L	4.608	0.000200
Benzo(g,h,i)perylene		<0.000922	mg/L	4.608	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0598	mg/L	4.608	0.0800	75	25.9 - 97.5
2-Fluorobiphenyl		0.0614	mg/L	4.608	0.0800	77	13.9 - 100
Terphenyl-d14		0.0617	mg/L	4.608	0.0800	77	37.7 - 114

Method Blank (1) QC Batch: 63710

QC Batch: 63710
Prep Batch: 54397

Date Analyzed: 2009-09-18
QC Preparation: 2009-09-17

Analyzed By: MN
Prepared By: MN

¹ Estimated concentration value greater than standard range.

² Estimated concentration value greater than standard range.





Report Date: September 18, 2009
700376.006.01

Work Order: 9091415
Moore to Jal #2

Page Number: 5 of 7
Hobbs, NM

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000784	mg/L	0.0002
2-Methylnaphthalene		<0.0000747	mg/L	0.0002
1-Methylnaphthalene		<0.0000575	mg/L	0.0002
Acenaphthylene		<0.0000963	mg/L	0.0002
Acenaphthene		<0.0000617	mg/L	0.0002
Dibenzofuran		<0.0000952	mg/L	0.0002
Fluorene		<0.000134	mg/L	0.0002
Anthracene		<0.000441	mg/L	0.0002
Phenanthrene		<0.000435	mg/L	0.0002
Fluoranthene		<0.000476	mg/L	0.0002
Pyrene		<0.000590	mg/L	0.0002
Benzo(a)anthracene		<0.000118	mg/L	0.0002
Chrysene		<0.0000766	mg/L	0.0002
Benzo(b)fluoranthene		<0.000146	mg/L	0.0002
Benzo(k)fluoranthene		<0.000141	mg/L	0.0002
Benzo(a)pyrene		<0.000132	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.0000702	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.0000534	mg/L	0.0002
Benzo(g,h,i)perylene		<0.0000473	mg/L	0.0002



Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	³	0.00790	mg/L	1	0.0800	10	25.9 - 97.5
2-Fluorobiphenyl		0.0235	mg/L	1	0.0800	29	13.9 - 100
Terphenyl-d14		0.0511	mg/L	1	0.0800	64	37.7 - 114

Laboratory Control Spike (LCS-1)

QC Batch: 63710
Prep Batch: 54397

Date Analyzed: 2009-09-18
QC Preparation: 2009-09-17

Analyzed By: MN
Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0387	mg/L	1	0.0800	<0.0000784	48	22.2 - 87.9
2-Methylnaphthalene	0.0434	mg/L	1	0.0800	<0.0000747	54	23.3 - 86.1
1-Methylnaphthalene	0.0448	mg/L	1	0.0800	<0.0000575	56	24.6 - 87.8
Acenaphthylene	0.0521	mg/L	1	0.0800	<0.0000963	65	27.4 - 114
Acenaphthene	0.0520	mg/L	1	0.0800	<0.0000617	65	27.2 - 111
Dibenzofuran	0.0486	mg/L	1	0.0800	<0.0000952	61	27.3 - 100
Fluorene	0.0578	mg/L	1	0.0800	<0.000134	72	31.5 - 122
Anthracene	0.0573	mg/L	1	0.0800	<0.000441	72	32.4 - 115

continued ...

³8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.



control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenanthrene	0.0558	mg/L	1	0.0800	<0.000435	70	34.2 - 111
Fluoranthene	0.0642	mg/L	1	0.0800	<0.000476	80	40.1 - 114
Pyrene	0.0523	mg/L	1	0.0800	<0.000590	65	39.2 - 124
Benzo(a)anthracene	0.0518	mg/L	1	0.0800	<0.000118	65	39.4 - 114
Chrysene	0.0558	mg/L	1	0.0800	<0.0000766	70	38.2 - 116
Benzo(b)fluoranthene	0.0670	mg/L	1	0.0800	<0.000146	84	34.5 - 118
Benzo(k)fluoranthene	0.0664	mg/L	1	0.0800	<0.000141	83	38.7 - 133
Benzo(a)pyrene	0.0700	mg/L	1	0.0800	<0.000132	88	38 - 134
Indeno(1,2,3-cd)pyrene	0.0628	mg/L	1	0.0800	<0.0000702	78	34.6 - 124
Dibenzo(a,h)anthracene	0.0625	mg/L	1	0.0800	<0.0000534	78	33.9 - 120
Benzo(g,h,i)perylene	0.0613	mg/L	1	0.0800	<0.0000473	77	33.8 - 138

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
Naphthalene	0.0371	mg/L	1	0.0800	<0.0000784	46	22.2 - 87.9	4	20
2-Methylnaphthalene	0.0413	mg/L	1	0.0800	<0.0000747	52	23.3 - 86.1	5	20
1-Methylnaphthalene	0.0421	mg/L	1	0.0800	<0.0000575	53	24.6 - 87.8	6	20
Acenaphthylene	0.0498	mg/L	1	0.0800	<0.0000963	62	27.4 - 114	4	20
Acenaphthene	0.0496	mg/L	1	0.0800	<0.0000617	62	27.2 - 111	5	20
Dibenzofuran	0.0460	mg/L	1	0.0800	<0.0000952	58	27.3 - 100	6	20
Fluorene	0.0548	mg/L	1	0.0800	<0.000134	68	31.5 - 122	5	20
Anthracene	0.0553	mg/L	1	0.0800	<0.000441	69	32.4 - 115	4	20
Phenanthrene	0.0544	mg/L	1	0.0800	<0.000435	68	34.2 - 111	2	20
Fluoranthene	0.0625	mg/L	1	0.0800	<0.000476	78	40.1 - 114	3	20
Pyrene	0.0506	mg/L	1	0.0800	<0.000590	63	39.2 - 124	3	20
Benzo(a)anthracene	0.0506	mg/L	1	0.0800	<0.000118	63	39.4 - 114	2	20
Chrysene	0.0546	mg/L	1	0.0800	<0.0000766	68	38.2 - 116	2	20
Benzo(b)fluoranthene	0.0577	mg/L	1	0.0800	<0.000146	72	34.5 - 118	15	20
Benzo(k)fluoranthene	0.0683	mg/L	1	0.0800	<0.000141	85	38.7 - 133	3	20
Benzo(a)pyrene	0.0702	mg/L	1	0.0800	<0.000132	88	38 - 134	0	20
Indeno(1,2,3-cd)pyrene	0.0588	mg/L	1	0.0800	<0.0000702	74	34.6 - 124	7	20
Dibenzo(a,h)anthracene	0.0598	mg/L	1	0.0800	<0.0000534	75	33.9 - 120	4	20
Benzo(g,h,i)perylene	0.0584	mg/L	1	0.0800	<0.0000473	73	33.8 - 138	5	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	0.0405	0.0390	mg/L	1	0.0800	51	49	25.9 - 97.5
2-Fluorobiphenyl	0.0453	0.0434	mg/L	1	0.0800	57	54	13.9 - 100
Terphenyl-d14	0.0514	0.0502	mg/L	1	0.0800	64	63	37.7 - 114

Standard (CCV-1)

QC Batch: 63710

Date Analyzed: 2009-09-18

Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	59.4	99	80 - 120	2009-09-18
2-Methylnaphthalene		mg/L	60.0	64.2	107	80 - 120	2009-09-18
1-Methylnaphthalene		mg/L	60.0	64.0	107	80 - 120	2009-09-18
Acenaphthylene		mg/L	60.0	60.6	101	80 - 120	2009-09-18
Acenaphthene		mg/L	60.0	61.0	102	80 - 120	2009-09-18
Dibenzofuran		mg/L	60.0	63.1	105	80 - 120	2009-09-18
Fluorene		mg/L	60.0	67.4	112	80 - 120	2009-09-18
Anthracene		mg/L	60.0	61.1	102	80 - 120	2009-09-18
Phenanthrene		mg/L	60.0	58.5	98	80 - 120	2009-09-18
Fluoranthene		mg/L	60.0	60.3	100	80 - 120	2009-09-18
Pyrene		mg/L	60.0	56.5	94	80 - 120	2009-09-18
Benzo(a)anthracene		mg/L	60.0	56.6	94	80 - 120	2009-09-18
Chrysene		mg/L	60.0	58.2	97	80 - 120	2009-09-18
Benzo(b)fluoranthene		mg/L	60.0	60.0	100	80 - 120	2009-09-18
Benzo(k)fluoranthene		mg/L	60.0	59.2	99	80 - 120	2009-09-18
Benzo(a)pyrene		mg/L	60.0	64.6	108	80 - 120	2009-09-18
Indeno(1,2,3-cd)pyrene		mg/L	60.0	58.0	97	80 - 120	2009-09-18
Dibenzo(a,h)anthracene		mg/L	60.0	59.4	99	80 - 120	2009-09-18
Benzo(g,h,i)perylene		mg/L	60.0	56.3	94	80 - 120	2009-09-18

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		61.9	mg/L	1	60.0	103	80 - 120
2-Fluorobiphenyl		57.3	mg/L	1	60.0	96	80 - 120
Terphenyl-d14		54.0	mg/L	1	60.0	90	80 - 120

909/415

909/415

Page

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t. Worth, Texas 76116
Tel (817) 201-5260
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Company Name: TALON LP	Phone #: 931-522-2133
Address: Ravinin Hwy	Fax #:
Contact Person: Kyle Waggoner	E-mail: Kwaggoner@TalonLP.com
Invoice to: Plains Jason Henry	Project Name: Move to JAI #2
(If different from above)	SRS # 700326-10223
Project #: 700326-00601	Sampler Signature: <i>[Signature]</i>
Project Location (including state): HOOS, NM	

ANALYSIS REQUEST

(Circle or Specify Method No.)

[illegible]

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS COR:
<i>[Signature]</i>	THORNTON	9/10/09	0800	<i>[Signature]</i>	THORNTON	9/11/09	0800	INST OBS COR:
<i>[Signature]</i>	THORNTON	9/11/09	17:00	<i>[Signature]</i>	THORNTON	9/11/09	11:00	INST OBS COR:

REMARKS:

APR 11 1961

ONLY

411 tests-Lubbock

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 # Wing's Forests Z5598619



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
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5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
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

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: November 25, 2009

Work Order: 9111202



Project Location: Hobbs, NM
Project Name: Moore to Jal #2
Project Number: 700376.006.01
SRS #: 2002-10273

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
214565	MW-2	water	2009-11-11	16:40	2009-11-12
214566	MW-4	water	2009-11-11	13:39	2009-11-12
214567	MW-8	water	2009-11-11	14:15	2009-11-12
214568	MW-10	water	2009-11-11	16:20	2009-11-12
214569	MW-11	water	2009-11-11	16:00	2009-11-12
214570	MW-12	water	2009-11-11	16:30	2009-11-12
214571	MW-13	water	2009-11-11	14:55	2009-11-12

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 11 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 Moore to Jal #2 were received by TraceAnalysis, Inc. on 2009-11-12 and assigned to work order 9111202. Samples for work order 9111202 were received intact without headspace and at a temperature of 3.5 deg. 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	55802	2009-11-13 at 10:00	65320	2009-11-13 at 11:04
BTEX	S 8021B	55898	2009-11-18 at 15:00	65421	2009-11-18 at 13:32

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 9111202 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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



Report Date: November 25, 2009
700376.006.01

Work Order: 9111202
Moore to Jal #2

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Hobbs, NM

Analytical Report

Sample: 214565 - MW-2

Laboratory: Midland

Analysis: BTEX

QC Batch: 65320

Prep Batch: 55802

Analytical Method: S 8021B

Date Analyzed: 2009-11-13

Sample Preparation: 2009-11-13

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0516	mg/L	1	0.00100
Toluene		0.0672	mg/L	1	0.00100
Ethylbenzene		0.00470	mg/L	1	0.00100
Xylene		0.0432	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0949	mg/L	1	0.100	95	68 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0780	mg/L	1	0.100	78	49.8 - 130.8



Sample: 214566 - MW-4

Laboratory: Midland

Analysis: BTEX

QC Batch: 65320

Prep Batch: 55802

Analytical Method: S 8021B

Date Analyzed: 2009-11-13

Sample Preparation: 2009-11-13

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		21.3	mg/L	200	0.00100
Toluene		<0.200	mg/L	200	0.00100
Ethylbenzene		0.883	mg/L	200	0.00100
Xylene		<0.200	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		19.1	mg/L	200	20.0	96	68 - 105.2
4-Bromofluorobenzene (4-BFB)		16.0	mg/L	200	20.0	80	49.8 - 130.8

Sample: 214567 - MW-8

Laboratory: Midland

Analysis: BTEX

QC Batch: 65320

Prep Batch: 55802

Analytical Method: S 8021B

Date Analyzed: 2009-11-13

Sample Preparation: 2009-11-13

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG



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Work Order: 9111202
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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		18.2	mg/L	100	0.00100
Toluene		4.68	mg/L	100	0.00100
Ethylbenzene		0.638	mg/L	100	0.00100
Xylene		1.21	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.26	mg/L	100	10.0	93	68 - 105.2
4-Bromofluorobenzene (4-BFB)		7.90	mg/L	100	10.0	79	49.8 - 130.8

Sample: 214568 - MW-10

Laboratory: Midland

Analysis: BTEX

QC Batch: 65320

Prep Batch: 55802

Analytical Method: S 8021B

Date Analyzed: 2009-11-13

Sample Preparation: 2009-11-13

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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)		0.0967	mg/L	1	0.100	97	68 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0821	mg/L	1	0.100	82	49.8 - 130.8

Sample: 214569 - MW-11

Laboratory: Midland

Analysis: BTEX

QC Batch: 65320

Prep Batch: 55802

Analytical Method: S 8021B

Date Analyzed: 2009-11-13

Sample Preparation: 2009-11-13

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0819	mg/L	1	0.00100
Toluene		0.0280	mg/L	1	0.00100
Ethylbenzene		0.0198	mg/L	1	0.00100
Xylene		0.0230	mg/L	1	0.00100



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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0948	mg/L	1	0.100	95	68 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0782	mg/L	1	0.100	78	49.8 - 130.8

Sample: 214570 - MW-12

Laboratory: Midland
Analysis: BTEX
QC Batch: 65320
Prep Batch: 55802

Analytical Method: S 8021B
Date Analyzed: 2009-11-13
Sample Preparation: 2009-11-13

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0654	mg/L	1	0.00100
Toluene		0.0244	mg/L	1	0.00100
Ethylbenzene		0.0150	mg/L	1	0.00100
Xylene		0.0184	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0988	mg/L	1	0.100	99	68 - 105.2
4-Bromofluorobenzene (4-BFB)		0.0786	mg/L	1	0.100	79	49.8 - 130.8

Sample: 214571 - MW-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 65421
Prep Batch: 55898

Analytical Method: S 8021B
Date Analyzed: 2009-11-18
Sample Preparation: 2009-11-18

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		14.3	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		0.311	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)		10.7	mg/L	100	10.0	107	70.9 - 114.8
4-Bromofluorobenzene (4-BFB)		9.30	mg/L	100	10.0	93	68.1 - 118.8



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Method Blank (1) QC Batch: 65320

QC Batch: 65320
Prep Batch: 55802

Date Analyzed: 2009-11-13
QC Preparation: 2009-11-13

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000300	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000500	mg/L	0.001
Xylene		<0.000400	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0977	mg/L	1	0.100	98	65.4 - 115.2
4-Bromofluorobenzene (4-BFB)		0.0780	mg/L	1	0.100	78	52.8 - 124.2

Method Blank (1) QC Batch: 65421

QC Batch: 65421
Prep Batch: 55898

Date Analyzed: 2009-11-18
QC Preparation: 2009-11-18

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000300	mg/L	0.001
Toluene		<0.000200	mg/L	0.001
Ethylbenzene		<0.000200	mg/L	0.001
Xylene		<0.000900	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.105	mg/L	1	0.100	105	73.6 - 110.6
4-Bromofluorobenzene (4-BFB)		0.0892	mg/L	1	0.100	89	70.6 - 107.5

Laboratory Control Spike (LCS-1)

QC Batch: 65320
Prep Batch: 55802

Date Analyzed: 2009-11-13
QC Preparation: 2009-11-13

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0956	mg/L	1	0.100	<0.00110	96	74.3 - 123.4
Toluene	0.0968	mg/L	1	0.100	<0.00100	97	70.1 - 126.2
Ethylbenzene	0.0979	mg/L	1	0.100	<0.00100	98	68.6 - 124.7

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	0.286	mg/L	1	0.300	<0.00290	95	64.8 - 127.2

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	0.0939	mg/L	1	0.100	<0.00110	94	74.3 - 123.4	2	20
Toluene	0.0955	mg/L	1	0.100	<0.00100	96	70.1 - 126.2	1	20
Ethylbenzene	0.0975	mg/L	1	0.100	<0.00100	98	68.6 - 124.7	0	20
Xylene	0.286	mg/L	1	0.300	<0.00290	95	64.8 - 127.2	0	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)	0.0970	0.0973	mg/L	1	0.100	97	97	61.8 - 110.8
4-Bromofluorobenzene (4-BFB)	0.0819	0.0825	mg/L	1	0.100	82	82	51.7 - 134.7

Laboratory Control Spike (LCS-1)

QC Batch: 65421
Prep Batch: 55898

Date Analyzed: 2009-11-18
QC Preparation: 2009-11-18

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0975	mg/L	1	0.100	<0.000300	98	79.4 - 111.8
Toluene	0.0965	mg/L	1	0.100	<0.000200	96	79.3 - 110
Ethylbenzene	0.0944	mg/L	1	0.100	<0.000200	94	73.8 - 113.1
Xylene	0.282	mg/L	1	0.300	<0.000900	94	73.9 - 113.6

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	0.0969	mg/L	1	0.100	<0.000300	97	79.4 - 111.8	1	20
Toluene	0.0962	mg/L	1	0.100	<0.000200	96	79.3 - 110	0	20
Ethylbenzene	0.0945	mg/L	1	0.100	<0.000200	94	73.8 - 113.1	0	20
Xylene	0.283	mg/L	1	0.300	<0.000900	94	73.9 - 113.6	0	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)	0.107	0.106	mg/L	1	0.100	107	106	76.2 - 112.6
4-Bromofluorobenzene (4-BFB)	0.0944	0.0944	mg/L	1	0.100	94	94	77.9 - 109.8

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Matrix Spike (MS-1) Spiked Sample: 214610

QC Batch: 65320
Prep Batch: 55802

Date Analyzed: 2009-11-13
QC Preparation: 2009-11-13

Analyzed By: AG
Prepared By: AG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	¹	10.7	mg/L	100	10.0	6.5642	41	61 - 130
Toluene	²	4.87	mg/L	100	10.0	<0.100	49	69.2 - 121.4
Ethylbenzene	³	7.14	mg/L	100	10.0	1.746	54	56.3 - 124.9
Xylene	⁴	15.5	mg/L	100	30.0	0.7476	49	60.2 - 122.9

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	⁵	5.60	mg/L	100	10.0	6.5642	-8	61 - 130	63	20
Toluene	⁶	<0.100	mg/L	100	10.0	<0.100	0	69.2 - 121.4	200	20
Ethylbenzene	⁷	1.76	mg/L	100	10.0	1.746	0	56.3 - 124.9	121	20
Xylene	⁸	1.00	mg/L	100	30.0	0.7476	1	60.2 - 122.9	176	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)		8.27	8.32	mg/L	100	10	83	83	61.6 - 108.1
4-Bromofluorobenzene (4-BFB)	⁹ ¹⁰	4.11	3.44	mg/L	100	10	41	34	53.7 - 127.3

Matrix Spike (MS-1) Spiked Sample: 215015

QC Batch: 65421
Prep Batch: 55898

Date Analyzed: 2009-11-18
QC Preparation: 2009-11-18

Analyzed By: AG
Prepared By: AG

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		0.0979	mg/L	1	0.100	<0.000300	98	77.3 - 117.4
Toluene		0.0961	mg/L	1	0.100	<0.000200	96	75 - 111.8
Ethylbenzene		0.0931	mg/L	1	0.100	<0.000200	93	78.8 - 106.6

continued ...

¹Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

²Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

³Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

⁴Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

⁵SPECIAL - Prep error. MSD was not spiked. •

⁶SPECIAL - Prep error. MSD was not spiked. •

⁷SPECIAL - Prep error. MSD was not spiked. •

⁸SPECIAL - Prep error. MSD was not spiked. •

⁹Surrogate out due to peak interference.

¹⁰Surrogate out due to peak interference.



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matrix spikes continued . . .

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	0.278	mg/L	1	0.300	<0.000900	93	68.9 - 114

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	0.0978	mg/L	1	0.100	<0.000300	98	77.3 - 117.4	0	20
Toluene	0.0968	mg/L	1	0.100	<0.000200	97	75 - 111.8	1	20
Ethylbenzene	0.0948	mg/L	1	0.100	<0.000200	95	78.8 - 106.6	2	20
Xylene	0.283	mg/L	1	0.300	<0.000900	94	68.9 - 114	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)	0.105	0.106	mg/L	1	0.1	105	106	76.3 - 109.8
4-Bromofluorobenzene (4-BFB)	0.0921	0.0944	mg/L	1	0.1	92	94	75.2 - 112.8

Standard (CCV-1)



QC Batch: 65320

Date Analyzed: 2009-11-13

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0988	99	80 - 120	2009-11-13
Toluene		mg/L	0.100	0.100	100	80 - 120	2009-11-13
Ethylbenzene		mg/L	0.100	0.103	103	80 - 120	2009-11-13
Xylene		mg/L	0.300	0.300	100	80 - 120	2009-11-13

Standard (CCV-2)

QC Batch: 65320

Date Analyzed: 2009-11-13

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0946	95	80 - 120	2009-11-13
Toluene		mg/L	0.100	0.0952	95	80 - 120	2009-11-13
Ethylbenzene		mg/L	0.100	0.0960	96	80 - 120	2009-11-13
Xylene		mg/L	0.300	0.280	93	80 - 120	2009-11-13

Standard (CCV-3)

QC Batch: 65320

Date Analyzed: 2009-11-13

Analyzed By: AG





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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.110	110	80 - 120	2009-11-13
Toluene		mg/L	0.100	0.116	116	80 - 120	2009-11-13
Ethylbenzene		mg/L	0.100	0.119	119	80 - 120	2009-11-13
Xylene		mg/L	0.300	0.351	117	80 - 120	2009-11-13

Standard (CCV-2)

QC Batch: 65421

Date Analyzed: 2009-11-18

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0958	96	80 - 120	2009-11-18
Toluene		mg/L	0.100	0.0952	95	80 - 120	2009-11-18
Ethylbenzene		mg/L	0.100	0.0936	94	80 - 120	2009-11-18
Xylene		mg/L	0.300	0.280	93	80 - 120	2009-11-18



Standard (CCV-3)

QC Batch: 65421

Date Analyzed: 2009-11-18

Analyzed By: AG

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	2009-11-18
Toluene		mg/L	0.100	0.0937	94	80 - 120	2009-11-18
Ethylbenzene		mg/L	0.100	0.0926	93	80 - 120	2009-11-18
Xylene		mg/L	0.300	0.278	93	80 - 120	2009-11-18



ORIGINAL COPY

Case #

APPENDIX D

NMOCD C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company EOTT	Contact Frank Hernandez
Address PO Box 1660 5805 East Highway 80 Midland, Texas 79702	Telephone No. 915.638.3799
Facility Name 8" Moore to Jal #2	Facility Type 8" Steel Pipeline

Surface Owner State of New Mexico	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter 16	Section 16	Township T17S	Range R37E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea Lat. 32 49' 56.61"N Lon. 103 15' 08.47"W
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NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 25 bbls barrels	Volume Recovered 0 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence EOTT	Date and Hour of Discovery 10-22-02 @ 7:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Larry Johnson	
By Whom? Pat McCasland, EPI	Date and Hour 10-23-02 @ 7:00 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	
If a Watercourse was Impacted, Describe Fully.* NA		
Describe Cause of Problem and Remedial Action Taken.* 8" Steel Pipeline Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of.		
Describe Area Affected and Cleanup Action Taken.* 5,794 sqft ~160' x 40' Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of. Remedial Goals: TPH 8015m = 100 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature:	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Frank Hernandez	Approved by District Supervisor:	
Title: District Environmental Supervisor	Approval Date:	Expiration Date:
Date: October 23, 2003 Phone: 915.638.3799	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary

EOTT Site Information and Metrics		Incident Date: 10-22-02 @ 5:00 Pm	NMOCD Notified: 10-23-02 @ 7:00 AM
SITE: 8" Moore to Jal #2		Assigned Site Reference #: 2002-10273	
Company: EOTT			
Street Address: PO Box 1660			
Mailing Address: 5805 East Highway 80			
City, State, Zip: Midland, Texas 79702			
Representative: Frank Hernandez			
Representative Telephone: 915.638.3799			
Telephone:			
Fluid volume released (bbls): 25 bbls		Recovered (bbls): 0 bbls	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: 8" Moore to Jal #2			
Source of contamination: 8" Steel Pipeline			
Land Owner, i.e., BLM, ST, Fee, Other: State of New Mexico			
LSP Dimensions ~160' x 40'			
LSP Area: 5,794 sqft ft ²			
Location of Reference Point (RP)			
Location distance and direction from RP			
Latitude: 32 49' 56.61"N			
Longitude: 103 15' 08.47"W			
Elevation above mean sea level:			
Feet from South Section Line			
Feet from West Section Line			
Location- Unit or ¼¼: NW¼ of the SE¼		Unit Letter: J	
Location- Section: 16			
Location- Township: T17S			
Location- Range: R37E			
Surface water body within 1000' radius of site: none			
Surface water body within 1000' radius of site:			
Domestic water wells within 1000' radius of site: none			
Domestic water wells within 1000' radius of site:			
Agricultural water wells within 1000' radius of site: none			
Agricultural water wells within 1000' radius of site:			
Public water supply wells within 1000' radius of site: none			
Public water supply wells within 1000' radius of site:			
Depth from land surface to ground water (DG) ~66'bgs			
Depth of contamination (DC) - ?			
Depth to ground water (DG - DC = DtGW) - 0			
1. Ground Water		2. Wellhead Protection Area	
If Depth to GW <50 feet: 20 points		If <1000' from water source, or; <200' from	
If Depth to GW 50 to 99 feet: 10 points		private domestic water source: 20 points	
If Depth to GW >100 feet: 0 points		If >1000' from water source, or; >200' from	
		private domestic water source: 0 points	
Ground water Score = 20		Wellhead Protection Area Score = 0	
Site Rank (1+2+3) = 20		Surface Water Score = 0	
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19	10-19	0-9
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis			

