

AP - 29

# ANNUAL MONITORING REPORT

YEAR(S):  
2017



## 2011 ANNUAL GROUNDWATER MONITORING REPORT

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KIMBROUGH SWEET 8"  
LEA COUNTY, NEW MEXICO  
SRS #2000 - 10757  
NMOCD REF. # AP-29

**RECEIVED**

APR - 5 2012

**Prepared for:**

Oil Conservation Division  
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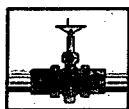
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March, 2012



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ALL AMERICAN

RECEIVED

March 29, 2012

APR - 5 2012

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

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

Re: Plains All American – 2011 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	AP-91 (1R-0380)	Section 16, T17S, R37E, Lea County
8-inch Moore to Jal #2	AP-92 (1R-0381)	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 06, T17S, R36E, 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: Geoff Leking, NMOCD, Hobbs, NM

Enclosures

# 2011 ANNUAL GROUNDWATER MONITORING REPORT

KIMBROUGH SWEET 8"  
LEA COUNTY, NEW MEXICO  
SRS #2000 - 10757  
NMOCD REF. # AP-0029

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TALON/LPE PROJECT NO. 700376.050.01

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March 2012

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

## **TABLE OF CONTENTS**

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<b>1.0</b>	<b>INTRODUCTION AND OBJECTIVES .....</b>	<b>1</b>
1.1	Objectives and Site Background .....	1
1.2	Site Geology.....	1
1.2	Previous Environmental Investigations.....	2
1.4	Regulatory Framework .....	2
<b>2.0</b>	<b>SITE ACTIVITIES.....</b>	<b>3</b>
2.1	Groundwater Monitoring Activities.....	3
2.2	Groundwater Gauging, Purgung, and Sample Collection Procedures .....	3
2.3	Phase Separated Hydrocarbon Recovery .....	4
<b>3.0</b>	<b>GROUNDWATER MONITORING RESULTS.....</b>	<b>6</b>
3.1	Groundwater Monitoring Results.....	6
3.1.1	<i>Physical Characteristics of the First Water-Bearing Zone.</i> .....	6
3.1.2	<i>Groundwater Gradient and Flow Direction .....</i>	7
3.1.3	<i>Phase Separated Hydrocarbon (PSH) .....</i>	7
3.1.4	<i>Groundwater Sampling Results .....</i>	7
<b>4.0</b>	<b>CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>10</b>
4.1	Summary of Findings.....	10
4.2	Recommendations .....	10

## **APPENDICES**

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### **Appendix A Figures**

- Figure 1 - Site Plan with Proposed Monitor Well Locations Map
- Figure 2a - Groundwater Gradient Map - 03/14/2011
- Figure 2b - Groundwater Gradient Map - 06/09/2011
- Figure 2c - Groundwater Gradient Map - 09/29/2011
- Figure 2d - Groundwater Gradient Map - 12/16/2011
- Figure 3a - PSH Thickness & Groundwater Concentration Map - 03/14/2011
- Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/09/2011
- Figure 3c - PSH Thickness & Groundwater Concentration Map - 09/29/2011
- Figure 3d - PSH Thickness & Groundwater Concentration Map - 12/16/2011

### **Appendix B Tables and Charts**

- Table 1 - Summary of Historical Fluid Level Measurements
- Table 2 - Summary of Groundwater Analytical Results - BTEX
- Table 3 - Summary of Groundwater Analytical Results – PAH
- Chart 1 – Product Recovery Chart

### **Appendix C Laboratory Analytical Data Reports and Chains of Custody Documentation**

### **Appendix D NMOCD C-141**

## **1.0 INTRODUCTION AND OBJECTIVES**

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### **1.1 Objectives and Site Background**

The Kimbrough Sweet 8" (site) is located approximately seven (7) miles northwest of Hobbs, Lea County, New Mexico, on property owned by the State of New Mexico. There are no residences, groundwater wells, or surface water bodies within a 1,000-foot radius of the site. The initial release occurred from the 8" steel pipeline on October 25, 2000. At the time of the release, the pipeline was owned by EOTT Energy Pipeline. 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 60 barrels (bbls) of crude oil were released and impacted approximately 15,613 feet of surface area. Approximately 22 bbls of crude oil was recovered during initial remediation activities.

The site is situated within a physiographic region that is on the extreme south-western portion of the Southern High Plains as it grades into the Edwards Plateau to the south and southeast and the Chihuahuan Desert of the Trans-Pecos Region to the southwest.

The topography proximal to the site is typical of the Southern High Plains, essentially flat with shallow depressions, or playa lakes, dotting the landscape. The prominent surface features on the Southern High Plains are the approximately 19,250 ephemeral playa lakes; however the density of the playa lakes diminishes toward the southern extent of the Southern High Plains. During periods of rainfall, the playas accumulate sheet runoff from watershed areas ranging in size from less than one square mile to several square miles. Only a small portion of drainage from rainfall occurs by streams. Playa lakes that collect storm water runoff can act as a recharge mechanism for groundwater.

The average elevation of the site area is approximately 3,720-feet above mean sea level with a slight slope to the southeast. The regional slope of the land surface in the Southern High Plains is approximately 100 feet per mile in a southeasterly direction.

On February 5, 2007, Talon/LPE (Talon) was retained by Plains to assume remediation activities at the site that 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 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.

## 1.2 Previous Environmental Investigations

Currently, a total of fifteen (15) 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 wells MW-1, MW-2, MW-3, and MW-4 were installed in January 2002. Groundwater monitor wells MW-5, MW-7, MW-8, and MW-9 were installed in July 2004, and monitor wells MW-6, MW-10, and MW-11 were installed in December 2004. Subsequently, monitor wells MW-12 and MW-13 were installed on March 11, 2009 and monitor wells MW-14 and MW-15 were installed in January of 2011.

PSH recovery operations have been performed at the site since January 2002, initially by hand bailing. Currently, there are seven (7) pneumatic skimmers with bladder pumps operating in monitor wells MW-2, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-11. Approximately 195 bbls of phase-separated hydrocarbon (PSH) has been recovered to date (see Chart 1 in Appendix B).

## 1.4 Regulatory Framework

Groundwater analytical data from this site was evaluated to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards.

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

The following sections provide summaries of the groundwater monitoring activities conducted at the site as well as analytical results from each groundwater sampling event of 2011. Analytical results for the four (4) sampling events are summarized in Table 2 and Table 3 in Appendix B, and Figures 3a through 3d in Appendix A. Laboratory analytical data reports and chains of custody documentation are included in Appendix C. In addition, cumulative historical tables are on the attached CD, which is an adjunct to this report.

## **2.0 SITE ACTIVITIES**

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The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during 2011. The primary function of groundwater monitoring is to measure the depths to fluids 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.

### **2.1 Groundwater Monitoring Activities**

A total of four (4) groundwater monitoring events were conducted by Talon during the year 2011 on March 14, June 9, September 29, and December 16-20. 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 four (4) sampling event, groundwater samples were collected from seven (7) monitor wells (MW-3, MW-4, MW-10, MW-12, MW-13, MW-14, and MW-15). Samples were not collected from monitor wells MW-2, MW-5 through MW-9 and MW-11, due to the presence of PSH during all four (4) sampling events. Samples were not collected from monitor well MW-1 during all four (4) sampling events because groundwater was not detected during gauging activities.

Details of the gauging, purging, and sample collection activities are presented in Section 2.2 below.

### **2.2 Groundwater Gauging, Purging, and Sample Collection 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.

Subsequent to gauging, all monitor wells not impacted with PSH were purged a minimum of three (3) casing volumes using a down-hole pump equipped with vinyl tubing. The purge 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. Approximately 85 gallons of purged groundwater and decontamination water during the monitoring events of 2011.

Groundwater samples were collected from all monitor wells using dedicated disposable polyethylene bailers. Each groundwater sample was contained in laboratory supplied sample containers with the appropriate preservative required for the analysis requested. The groundwater samples were maintained on ice, in the custody of Talon personnel, until they were delivered to TraceAnalysis, Inc. in either Midland or Lubbock, Texas for analyses.

The groundwater samples collected during all four events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B and during the fourth event, the groundwater samples collected from monitor well MW-3, MW-14, and MW-15 were quantified for poly-nuclear aromatic hydrocarbons (PAH) by EPA Method S 8270D.

### **2.3 Phase Separated Hydrocarbon Recovery**

PSH recovery has been conducted at the site since 2002, initially by hand bailing. In 2007, an automated skimmer recovery system was installed at the site. In March of 2011, solar panels were installed at the site and two 12V total fluid pumps were installed in monitor wells MW-5 and MW-6. In November of 2011, additional 12V powered total fluids pumps were installed in monitor wells MW-2 and MW-11.

Currently, the system utilizes three (3) skimmers in monitor wells MW-7, MW-8, and MW-9 and four (4) 12V total fluids pumps 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. Since there is no electricity at the site; the skimmer system is powered by six nitrogen filled cylinders. The total fluids pumps operate off 12V batteries, which are charged by solar panels.

Fluid, recovered by the pumps, is retained in two polyethylene tanks, a 3,000 gallon and a 2500 gallon that was added in 2011. The tanks are coupled together and are equipped with high level shut off switches to prevent overflow. In addition, the tanks are located within a secondary recovery compound that is equipped with a polyethylene liner. Periodically, recovered groundwater is removed from the tanks and transported to an NMOCD approved disposal facility. PSH is also periodically removed with a vacuum truck and is re-introduced to the Plains' pipeline system at the Scharb Station and/or 34 Junction South pipeline.

A Mobile Dual-Phase Extraction (MDPE) event was performed in July of 2011. Approximately one (1) barrel of oil was recovered in both the vapor and liquid phases during the event.

During 2011 the quarterly PSH recovery totals are as followed:

- 1<sup>st</sup> Quarter – 3.6 bbls PSH, 1.6 bbls water
- 2<sup>nd</sup> Quarter – 2.9 bbls PSH, 33 bbls water
- 3<sup>rd</sup> Quarter – 5.0 bbls PSH, 41 bbls water
- 4<sup>th</sup> Quarter – 1.9 bbls PSH, 85 bbls water

Approximately 195 bbls of PSH have been recovered to date from the site to date (see Chart 1 in Appendix B).

## **3.0 GROUNDWATER MONITORING RESULTS**

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The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Data in Appendix B. Laboratory analytical data reports and chains of custody documentation are provided in Appendix C. In addition, cumulative historical analytical results are included in the tables section on the attached CD that is an adjunct to this report.

### **3.1 Groundwater Monitoring Results**

The following sections present the results from the four groundwater monitoring events conducted on the first water-bearing zone underlying the site.

#### **3.1.1 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 ( $\text{mi}^2$ ) in western Texas and eastern New Mexico, encompassing all or part of 31 counties in Texas and six (6) counties in New Mexico.

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 Ogallala Aquifer is generally unconfined and the potentiometric surface generally mirrors the land surface elevation with the regional flow direction 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 with a specific yield averaging 16%. The depth to groundwater at the site ranged from 55 to 60 feet below ground surface (bgs) and the groundwater flow direction ranged from the east southeast to the east northeast. The saturated thickness of the Ogallala formation on the High Plains ranges from 25 feet to 175 feet. The variable thickness is due to the irregularly eroded Triassic surface that underlies it.

The composition of Ogallala groundwater is defined as mixed-cation-HCO<sub>3</sub>, 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.

### **3.1.2 Groundwater Gradient and Flow Direction**

The depth to fluid measurements was collected during each of the four (4) groundwater monitoring events during the year 2010. The results of the fluid level measurements are summarized in Table 1, Appendix B - Summary of Historical Fluid Level Measurements. In addition, cumulative historical gauging data is located in the tables section on the CD that is an adjunct to this report.

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 in 2011 indicates that the groundwater flow direction ranges from east southeast to east northeast with average gradient of 0.0047 feet per foot or approximately 25 feet per mile. Groundwater levels at the subject site have exhibited a steady decline of an average of 0.72 feet for the year 2011 that appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.

### **3.1.3 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 the year 2011 but have remained relatively stable throughout the year.

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 well delineated to the northeast and to the northwest.

- In March of 2011, PSH was observed in monitor wells MW-2, MW-5 through MW-9, and MW-11. PSH thickness ranged from 1.14 feet to 6.30 feet.
- In June of 2011, PSH was observed in monitor wells MW-2, MW-5 through MW-9, and MW-11. PSH thickness ranged from 0.08 feet to 6.02 feet.
- In September of 2011, PSH was observed in monitor wells MW-2, MW-5 through MW-9, and MW-11. PSH thickness ranged from 0.55 feet to 6.33 feet.
- In December of 2011, PSH was observed in monitor wells MW-2, MW-5 through MW-9, and MW-11. PSH thickness ranged from 1.35 feet to 5.67 feet.

PSH recovery operations have been performed at the site since 2002. A summary of the historical groundwater and PSH gauging is provided in Table 1 in Appendix B. Approximately 195 bbls of PSH have been recovered to date.

### **3.1.4 Groundwater Sampling Results**

During the first quarter, March 2011, laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 19.6 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater samples collected from monitor wells MW-3, MW-12, MW-14, and MW-15.
- Toluene concentrations ranged from <0.00100 mg/L to <0.100 mg/L. The toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.58 mg/L. The ethylbenzene concentration exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-3..
- Xylene concentrations ranged from <0.00100 mg/L to 0.0278 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any groundwater sample collected.

During the second quarter, June 2011, sampling event, laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 15.1 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater samples collected from monitor wells MW-3, MW-12, MW-13, MW-14, and MW-15..
- Toluene concentrations ranged from <0.00100 mg/L to 0.00630 mg/L. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.912 mg/L. The ethylbenzene concentration exceeded the NMWQCC groundwater standard of 0.750 mg/L in the sample collected from monitor well MW-3.
- Xylene concentrations ranged from <0.00100 mg/L to 0.824 mg/L. The xylene concentration exceeded the NMWQCC groundwater standard of 0.620 mg/L in the sample collected from monitor well MW-14..

During the third quarter, September 2011, laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 17.1 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor well MW-3, MW-12, MW-14 and MW-15.
- Toluene concentrations ranged from <0.00100 mg/L to <0.0500 mg/L. The toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.537 mg/L. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any groundwater sample collected.

- Xylene concentrations ranged from <0.00100 mg/L to 0.541 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any groundwater sample collected.

During the fourth quarter, December 2011, laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 7.31 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater samples collected from monitor wells MW-3, MW-12, MW-14, and MW-15.
- Toluene concentrations ranged from <0.00100 mg/L to <0.0500 mg/L. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.164 mg/L. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any groundwater sample collected.
- Xylene concentrations ranged from <0.00100 mg/L to 0.0500 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any groundwater sample collected.
- Poly-nuclear aromatic hydrocarbon analysis was performed on samples collected from monitor wells MW-3, MW-14, and MW-15. The total combined methylnaphthalene and naphthalene concentration did not exceed the NMWQCC groundwater standard of 0.030 mg/L in any sample collected.

The dissolved-phase plume is delineated to NMWQCC groundwater standards in all directions as depicted on the groundwater concentration maps 3a through 3d in Appendix A. The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Results in Appendix B. Laboratory analytical data reports and chains of custody documentation are provided in Appendix C. In addition, cumulative historical analytical results are located on the attached CD that is an adjunct to this report.

## **4.0 CONCLUSIONS AND RECOMMENDATIONS**

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The following section presents a summary of the four groundwater monitoring events conducted at the Kimbrough Sweet 8" site and Section 4.2 provides recommendations for future corrective action.

### **4.1 Summary of Findings**

- The groundwater flow direction ranged from east southeast to east northeast with an average gradient of 0.0047 ft/ft or approximately 25 feet per mile based on the water level measurement data collected in 2011.
- Groundwater levels at the subject site have exhibited a steady decline averaging 0.72 feet for the year 2011 that appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.
- PSH is impacting monitor wells MW-2, MW-5 through MW-9, and MW-11. Skimmers and bladder pumps and total fluids pumps are installed in those wells.
- PSH thicknesses have fluctuated over the year 2011 but have remained relatively stable throughout the year. Approximately 13 bbls of PSH was recovered during the year 2011 indicating that the PSH recovery system is performing its function.
- Dissolved-phase concentrations generally fluctuated over the year 2011 except for a significant decline in total BTEX concentrations of 7.19 mg/L in monitor well MW-12.
- Monitor wells MW-14 and MW-15 were installed during 2011.

### **4.2 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 PSH 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.
- Since up-gradient monitor well MW-10 and cross-gradient monitor well MW-4 have predominately not detected BTEX analytes, Talon LPE recommends that those wells be sampled and analyzed for BTEX annually.
- A dual-phase soil vapor and PSH extraction system (Internal Combustion Engine (ICE)) should be put into operation on monitor wells MW-5 and MW-6 in order to impede PSH and dissolved-phase plume migration and to enhance PSH recovery.

## **APPENDIX A**

### **Figures**

Figure 1 - Site Plan with Proposed Monitor Well Locations Map

Figure 2a - Groundwater Gradient Map - 03/14/2011

Figure 2b - Groundwater Gradient Map - 06/09/2011

Figure 2c - Groundwater Gradient Map - 09/29/2011

Figure 2d - Groundwater Gradient Map - 12/16/2011

Figure 3a - PSH Thickness & Groundwater Concentration Map - 03/14/2011

Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/09/2011

Figure 3c - PSH Thickness & Groundwater Concentration Map - 09/29/2011

Figure 3d - PSH Thickness & Groundwater Concentration Map - 12/16/2011



Project # 700376.050.01

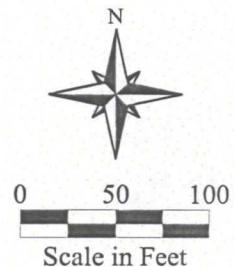


Date: 12/27/2010

Scale: 1" = 100'

Drawn By: TJS

Kimbrough Sweet 8"  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 1 - Site Map



Legend	
- Monitor Well	- Monitor Well with Skimmer
- Pipe Line	- Fence line
- Groundwater Gradient Contour Line	- Groundwater Gradient Contour Elevation
81.30	- Groundwater Flow Direction
- Monitor Well with Abyss TF Pump	

**TALON**  
**LPE**

Date: 04/04/2011
Scale: 1" = 100'
Drawn By: TJS

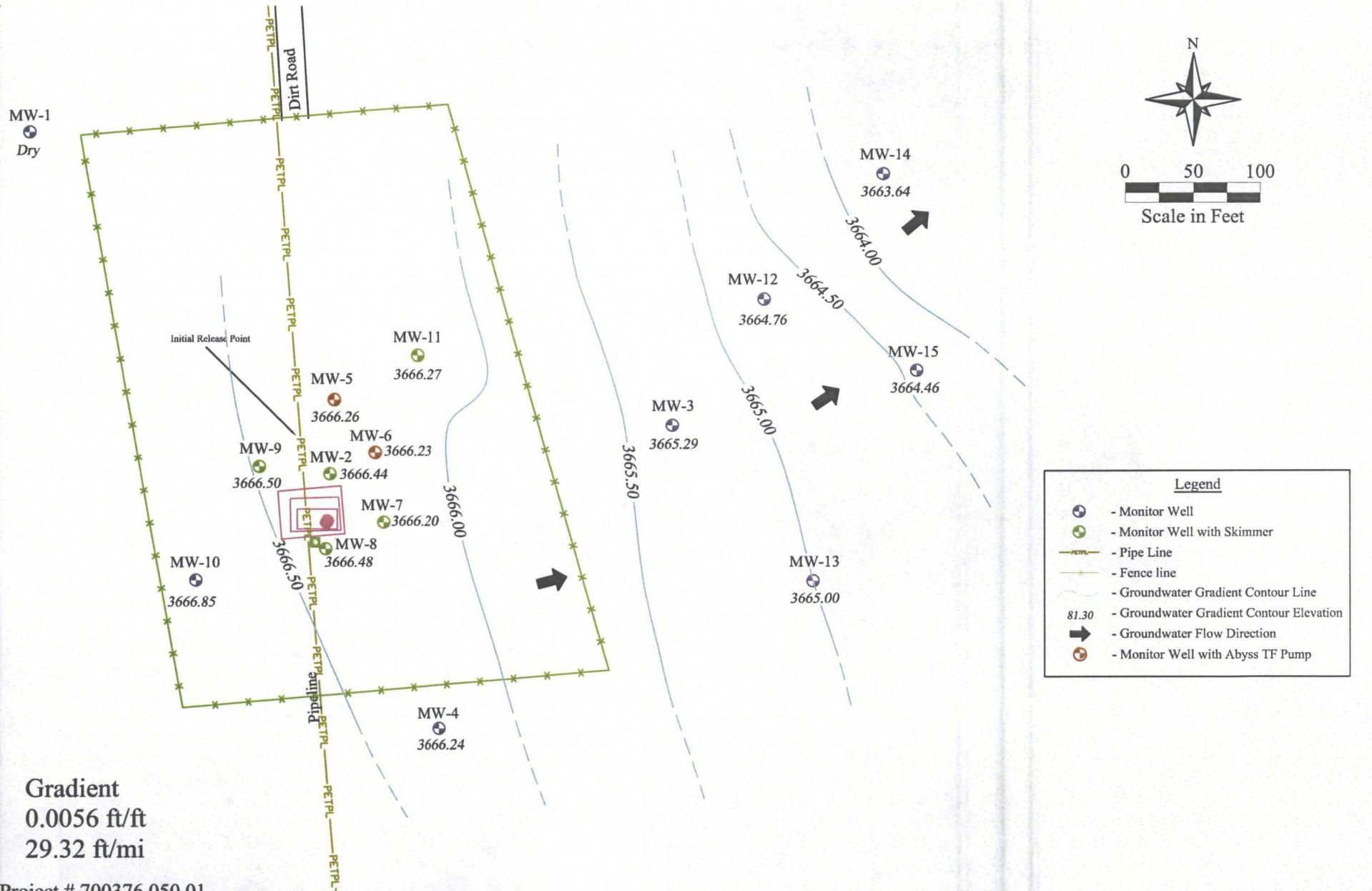
**Kimbrough Sweet 8"**  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 2a - Groundwater Gradient Map, (03/14/2011)



**TALON**  
**LPE**

Date: 06/17/2011  
Scale: 1" = 100'  
Drawn By: TJS

**Kimbrough Sweet 8"**  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 2b - Groundwater Gradient Map, (06/09/2011)



**TALON**  
**LPE**

Date: 10/18/2011

Scale: 1" = 100'

Drawn By: TJS

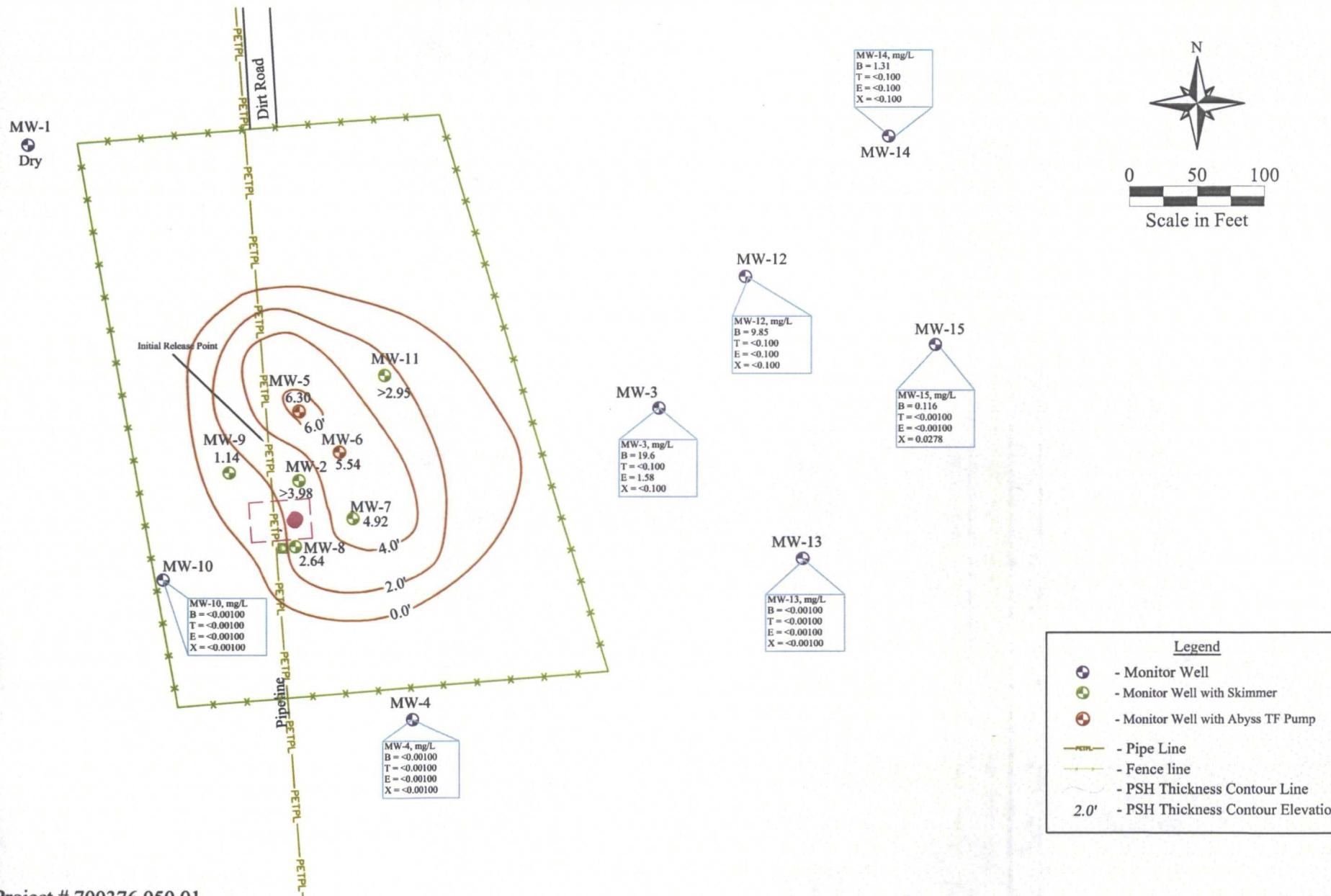
Kimbrough Sweet 8"  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 2c - Groundwater Gradient Map, (09/29/2011)



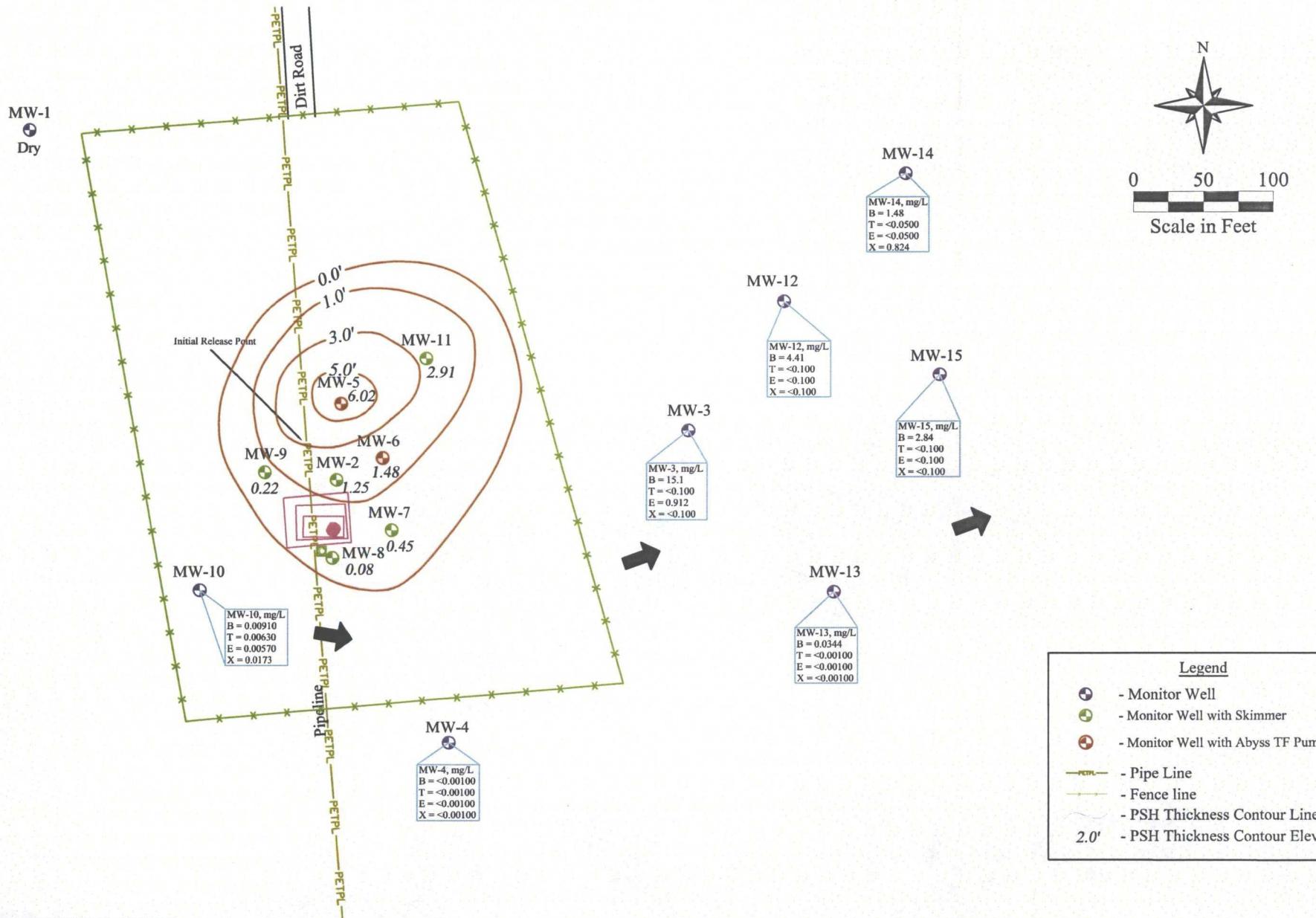
**TALON LPE**

Date: 01/10/2012  
Scale: 1" = 100'  
Drawn By: TJS

Kimbrough Sweet 8"  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 2d - Groundwater Gradient Map, (12/16/2011)



**Kimbrough Sweet 8"**  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 3a - PSH Thickness & Groundwater Concentration Map, (03/14/2011)



Project # 700376.050.01



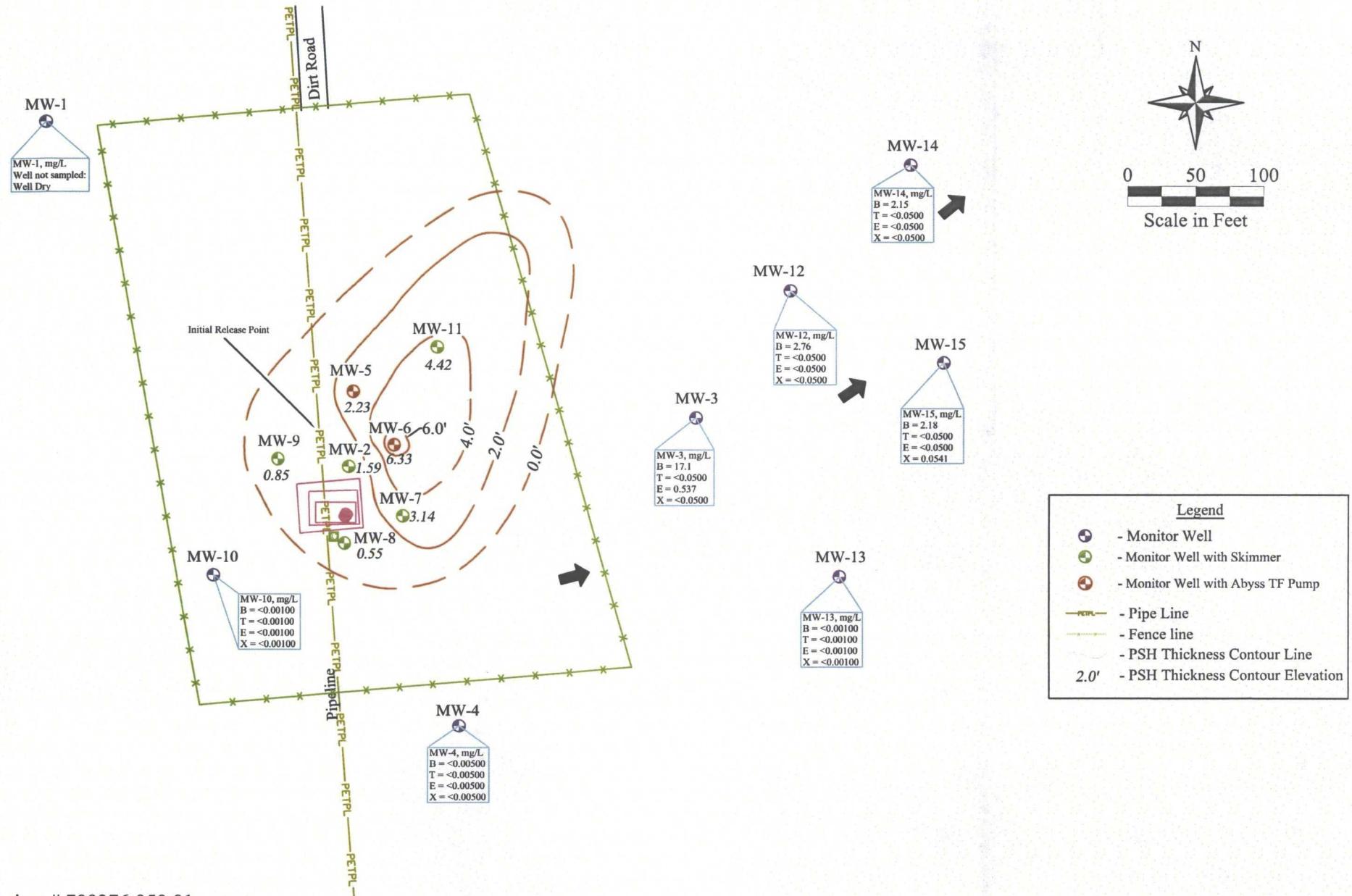
Date: 06/17/2011

Scale: 1" = 100'

Drawn By: TJS

Kimbrough Sweet 8"  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 3b - PSH Thickness & Groundwater Concentration Map, (06/09/2011)

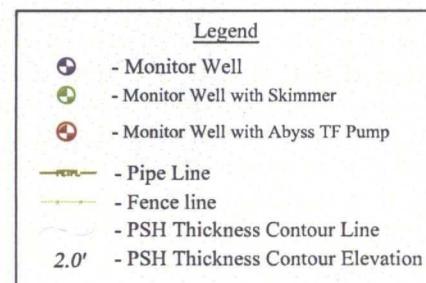
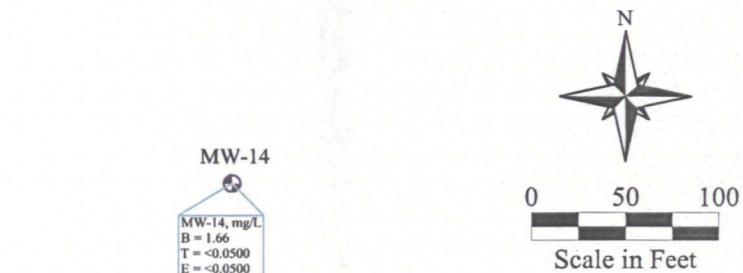
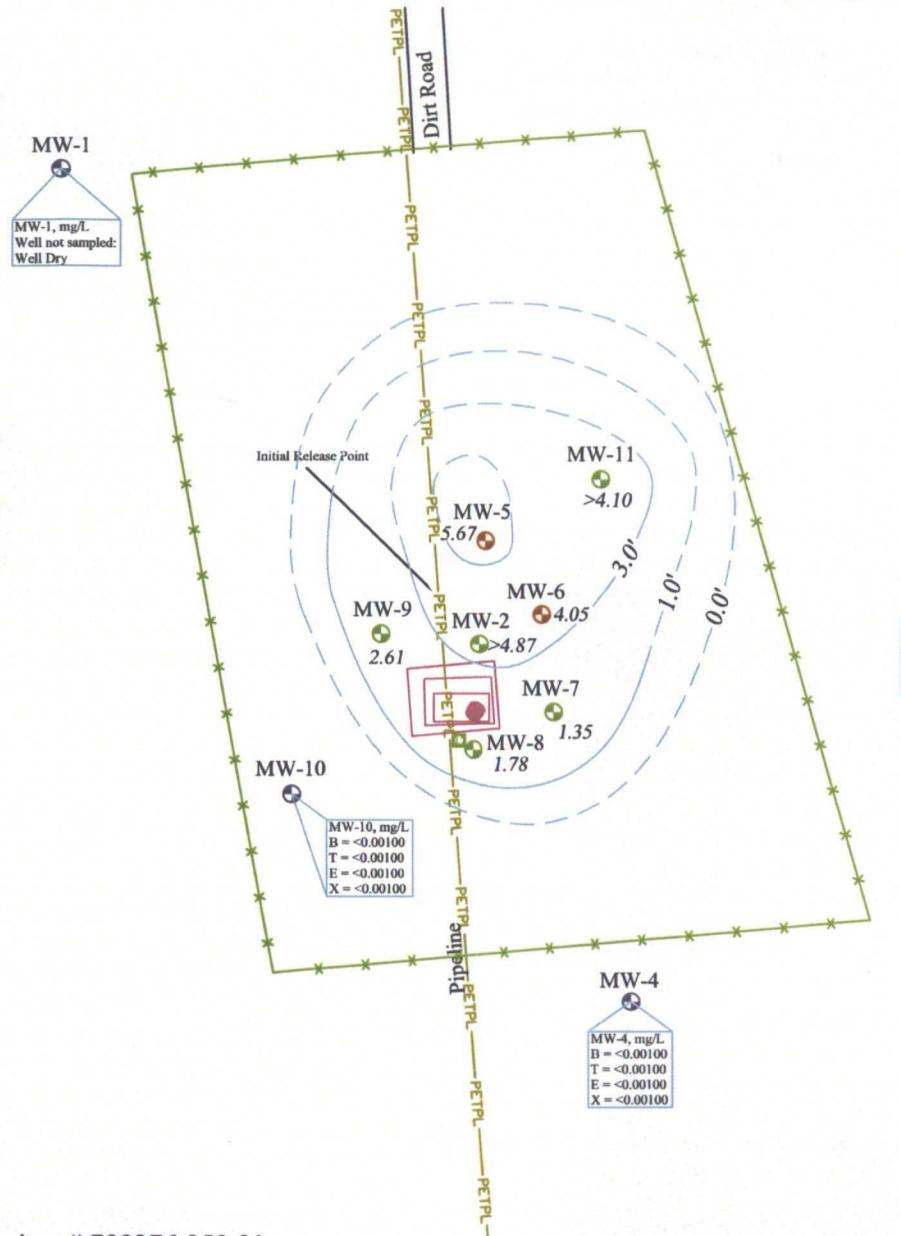
Legend	
	- Monitor Well
	- Monitor Well with Skimmer
	- Monitor Well with Abyss TF Pump
	- Pipe Line
	- Fence line
	- PSH Thickness Contour Line
2.0'	- PSH Thickness Contour Elevation



**TALON  
LPE**

Date: 10/18/2011  
Scale: 1" = 100'  
Drawn By: TJS

**Kimbrough Sweet 8"**  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 3c - PSH Thickness & Groundwater Concentration Map, (09/29/2011)



**TALON**  
**LPE**

Date: 01/10/2012
Scale: 1" = 100'
Drawn By: TJS

**Kimbrough Sweet 8"**  
SRS # 2000-10757, NMOCD REF. # AP-0029  
SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico  
Figure 3d - PSH Thickness & Groundwater Concentration Map, (12/16/2011)



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
<b>MW-1</b> 01/24/02      Well Installed 24 January 2002 TD=56.40						
MW-1	10/04/02	3,723.13		51.26		3,671.87
MW-1	12/11/02			51.43		3,671.70
MW-1	02/20/03			51.62		3,671.51
MW-1	02/11/04			52.45		3,670.68
MW-1	08/16/04			53.15		3,669.98
MW-1	03/22/05			52.70		3,670.43
MW-1	03/31/05			52.65		3,670.48
MW-1	04/22/05			52.69		3,670.44
MW-1	05/12/05			52.73		3,670.40
MW-1	05/25/05			52.73		3,670.40
MW-1	06/28/05			52.81		3,670.32
MW-1	07/25/05			52.91		3,670.22
MW-1	08/22/05			52.98		3,670.15
MW-1	11/14/05			53.18		3,669.95
MW-1	11/30/05			53.47		3,669.66
MW-1	02/06/06			53.67		3,669.46
MW-1	03/01/06			53.21		3,669.92
MW-1	05/02/06			52.34		3,670.79
MW-1	05/25/06			51.45		3,671.68
MW-1	08/10/06			53.45		3,669.68
MW-1	11/29/06			53.60		3,669.53
MW-1	12/06/06			53.63		3,669.50
MW-1	01/10/07			53.71		3,669.42
MW-1	02/08/07			53.58		3,669.55
MW-1	03/01/07			53.91		3,669.22
MW-1	03/06/07			53.62		3,669.51
MW-1	03/14/07			53.85		3,669.28
MW-1	04/02/07			53.67		3,669.46
MW-1	04/09/07			53.89		3,669.24
MW-1	04/16/07			53.92		3,669.21



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-1	05/01/07			53.93		3,669.20
MW-1	05/21/07			53.99		3,669.14
MW-1	06/13/07			53.90		3,669.23
MW-1	06/26/07			53.92		3,669.21
MW-1	07/18/07			54.02		3,669.11
MW-1	09/13/07			54.13		3,669.00
MW-1	10/24/07			54.19		3,668.94
MW-1	12/03/07			54.32		3,668.81
MW-1	01/29/08			54.51		3,668.62
MW-1	03/13/08			54.52		3,668.61
MW-1	05/14/08			54.64		3,668.49
MW-1	06/03/08			54.67		3,668.46
MW-1	06/18/08			54.79		3,668.34
MW-1	07/01/08			54.73		3,668.40
MW-1	07/02/08			54.82		3,668.31
MW-1	08/28/08			54.89		3,668.24
MW-1	09/26/08			54.98		3,668.15
MW-1	10/27/08			55.06		3,668.07
MW-1	12/02/08			55.14		3,667.99
MW-1	01/15/09			55.25		3,667.88
MW-1	02/05/09			55.28		3,667.85
MW-1	04/06/09			55.42		3,667.71
MW-1	05/19/09	3,724.09		55.54		3,668.55
MW-1	08/27/09			55.84		3,668.25
MW-1	12/14/09			56.03		3,668.06
MW-1	02/25/10			Dry		
MW-1	06/17/10			Dry		
MW-1	09/16/10			Dry		
MW-1	12/16/10			Dry		
MW-1	03/14/11			Dry		
MW-1	06/09/11			Dry		



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-1	07/20/11			Dry		
MW-1	07/21/11			Dry		
MW-1	09/29/11			Dry		
MW-1	12/16/11			Dry		
MW-2	01/08/02			Well Installed 8 January 2002 - TD=59.35		
MW-2	01/09/02	3,722.90	49.20	53.60	4.40	3,673.26
MW-2	10/04/02		49.21	56.33	7.12	3,672.98
MW-2	11/11/02		49.25	56.30	7.05	3,672.95
MW-2	12/11/02		49.25	56.34	7.09	3,672.94
MW-2	02/20/03		49.57	56.30	6.73	3,672.66
MW-2	03/26/03		49.66	58.09	8.43	3,672.40
MW-2	04/08/03		49.68	58.11	8.43	3,672.38
MW-2	04/23/03		50.00	56.90	6.90	3,672.21
MW-2	04/24/03		49.75	58.10	8.35	3,672.32
MW-2	04/25/03		49.78	57.95	8.17	3,672.30
MW-2	05/03/03		49.77	58.10	8.33	3,672.30
MW-2	05/06/03		49.75	58.08	8.33	3,672.32
MW-2	06/09/03		49.83	58.13	8.30	3,672.24
MW-2	06/30/03		49.95	58.04	8.09	3,672.14
MW-2	04/12/04		50.58	58.91	8.33	3,671.49
MW-2	06/04/04		50.85	57.62	6.77	3,671.37
MW-2	06/21/04		50.74	59.01	8.27	3,671.33
MW-2	10/21/04		50.59	58.20	7.61	3,671.55
MW-2	03/22/05		51.02	55.90	4.88	3,671.39
MW-2	03/31/05		51.02	55.90	4.88	3,671.39
MW-2	04/22/05		50.98	56.50	5.52	3,671.37
MW-2	05/25/05		51.23	55.61	4.38	3,671.23
MW-2	07/25/05		51.11	57.74	6.63	3,671.13
MW-2	11/30/05		51.50	58.85	7.35	3,670.67
MW-2	02/06/06		51.64	56.19	4.55	3,670.81



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-2	03/01/06		51.67	59.20	7.53	3,670.48
MW-2	05/02/06		51.91	58.86	6.95	3,670.30
MW-2	05/25/06		51.19	58.62	7.43	3,670.97
MW-2	08/10/06		51.45	59.00	7.55	3,670.70
MW-2	11/29/06		51.63	59.18	7.55	3,670.52
MW-2	12/06/06		51.67	59.11	7.44	3,670.49
MW-2	01/10/07		51.78	58.03	6.25	3,670.50
MW-2	03/01/07		52.41	60.05	7.64	3,669.73
MW-2	03/06/07		52.92	61.25	8.33	3,669.15
MW-2	03/14/07		52.14	60.43	8.29	3,669.93
MW-2	04/02/07		51.93	59.22	7.29	3,670.24
MW-2	04/09/07		52.95	58.44	5.49	3,669.40
MW-2	04/16/07		51.92	59.09	7.17	3,670.26
MW-2	05/01/07		50.58	60.17	9.59	3,671.36
MW-2	05/21/07		57.42	59.03	1.61	3,665.32
MW-2	06/26/07		52.68	57.24	4.56	3,669.76
MW-2	06/28/07		52.64	56.53	3.89	3,669.87
MW-2	07/18/07		52.55	57.79	5.24	3,669.83
MW-2	08/21/07		52.50	57.65	5.15	3,669.89
MW-2	08/30/07		52.51	57.50	4.99	3,669.89
MW-2	09/13/07		52.40	58.20	5.80	3,669.92
MW-2	10/09/07		53.11	57.17	4.06	3,669.38
MW-2	10/17/07		52.81	56.67	3.86	3,669.70
MW-2	10/24/07		52.76	57.88	5.12	3,669.63
MW-2	11/02/07		53.01	56.52	3.51	3,669.54
MW-2	11/12/07		53.02	56.51	3.49	3,669.53
MW-2	12/03/07		52.74	57.37	4.63	3,669.70
MW-2	01/03/08		52.80	59.21	6.41	3,669.46
MW-2	01/07/08		53.05	59.11	6.06	3,669.24
MW-2	01/22/08		52.69	59.19	6.50	3,669.56
MW-2	01/29/08		53.08	56.87	3.79	3,669.44



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-2	02/06/08		53.02	58.09	5.07	3,669.37
MW-2	02/12/08		53.00	58.07	5.07	3,669.39
MW-2	03/13/08		52.89	58.58	5.69	3,669.44
MW-2	03/19/08		52.95	59.12	6.17	3,669.33
MW-2	03/27/08		53.82	55.64	1.82	3,668.90
MW-2	04/01/08		53.31	58.17	4.86	3,669.10
MW-2	04/11/08		53.53	58.09	4.56	3,668.91
MW-2	04/16/08		54.84	55.59	0.75	3,667.99
MW-2	04/30/08		52.95	59.29	6.34	3,669.32
MW-2	05/14/08		53.51	57.82	4.31	3,668.96
MW-2	06/03/08		54.36	54.98	0.62	3,668.48
MW-2	06/10/08		54.49	55.20	0.71	3,668.34
MW-2	06/18/08		54.12	55.72	1.60	3,668.62
MW-2	07/01/08		54.31	56.91	2.60	3,668.33
MW-2	07/02/08		53.92	55.16	1.24	3,668.86
MW-2	07/24/08		54.87	55.18	0.31	3,668.00
MW-2	08/06/08		54.32	57.93	3.61	3,668.22
MW-2	08/28/08		53.57	57.82	4.25	3,668.91
MW-2	09/26/08		53.44	59.05	5.61	3,668.90
MW-2	10/27/08		53.56	59.04	5.48	3,668.79
MW-2	12/02/08		53.51	59.60	6.09	3,668.78
MW-2	01/15/09		53.57	59.99	6.42	3,668.69
MW-2	02/05/09		53.68	60.11	6.43	3,668.58
MW-2	04/06/09		53.87	60.48	6.61	3,668.37
MW-2	05/19/09	3,723.32	53.66	*61.5	7.84	
MW-2	07/13/09		53.90	59.27	5.37	3,668.88
MW-2	08/27/09		54.02	60.21	6.19	3,668.68
MW-2	12/14/09		55.12	58.58	3.46	3,667.63
MW-2	02/25/10		55.05	ND	?	?
MW-2	06/17/10		55.22	61.21	5.99	3,667.11
MW-2	09/16/10		54.43	ND	?	?



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-2	12/16/10		55.68	ND	?	?
MW-2	03/14/11		55.37	ND	?	?
MW-2	06/09/11		56.36	57.61	1.25	3,666.75
MW-2	07/20/11		56.92	57.11	0.19	3,666.37
MW-2	07/21/11		ND	58.23		3,665.09
MW-2	07/22/11		56.55	57.45	0.90	3,666.62
MW-2	07/25/11		56.21	59.01	2.80	3,666.65
MW-2	09/29/11		56.62	58.21	1.59	3,666.44
MW-2	12/16/11		56.31	ND	(+4.87')	
MW-3	01/24/02	Well Installed 24 January 2002 (TD-60.97)				
MW-3	10/04/02	3,720.60		49.77		3,670.83
MW-3	12/11/02			49.93		3,670.67
MW-3	02/20/03			50.13		3,670.47
MW-3	02/11/04			50.98		3,669.62
MW-3	08/16/04			51.64		3,668.96
MW-3	03/22/05			51.14		3,669.46
MW-3	03/31/05			51.16		3,669.44
MW-3	04/22/05			51.18		3,669.42
MW-3	05/12/05			51.26		3,669.34
MW-3	05/25/05			51.26		3,669.34
MW-3	06/28/05			51.38		3,669.22
MW-3	07/25/05			51.48		3,669.12
MW-3	08/22/05			51.52		3,669.08
MW-3	11/14/05			51.63		3,668.97
MW-3	11/30/05			51.92		3,668.68
MW-3	02/06/06			52.15		3,668.45
MW-3	03/01/06			51.77		3,668.83
MW-3	05/02/06			53.90		3,666.70
MW-3	05/25/06			53.48		3,667.12
MW-3	08/10/06			51.45		3,669.15



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-3	11/29/06			51.67		3,668.93
MW-3	12/06/06			51.70		3,668.90
MW-3	01/10/07			51.80		3,668.80
MW-3	02/08/07			52.14		3,668.46
MW-3	03/01/07			52.40		3,668.20
MW-3	03/06/07			51.96		3,668.64
MW-3	03/14/07			52.43		3,668.17
MW-3	04/02/07			52.22		3,668.38
MW-3	04/09/07			52.45		3,668.15
MW-3	04/16/07			52.48		3,668.12
MW-3	05/01/07			52.61		3,667.99
MW-3	05/21/07			52.55		3,668.05
MW-3	06/13/07			52.46		3,668.14
MW-3	06/26/07			52.50		3,668.10
MW-3	07/18/07			52.59		3,668.01
MW-3	09/13/07			52.69		3,667.91
MW-3	10/24/07			52.80		3,667.80
MW-3	12/03/07			52.89		3,667.71
MW-3	01/29/08			53.03		3,667.57
MW-3	03/13/08			53.10		3,667.50
MW-3	05/14/08			53.23		3,667.37
MW-3	06/03/08			53.27		3,667.33
MW-3	06/18/08			53.37		3,667.23
MW-3	07/01/08			53.33		3,667.27
MW-3	07/02/08			53.41		3,667.19
MW-3	08/28/08			53.47		3,667.13
MW-3	09/26/08			53.58		3,667.02
MW-3	10/27/08			53.62		3,666.98
MW-3	12/02/08			53.74		3,666.86
MW-3	01/15/09			53.85		3,666.75
MW-3	02/05/09			53.89		3,666.71



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-3	04/06/09			54.03		3,666.57
MW-3	05/19/09	3,721.52		54.15		3,667.37
MW-3	08/27/09			54.45		3,667.07
MW-3	12/14/09			54.66		3,666.86
MW-3	02/25/10			54.87		3,666.65
MW-3	06/17/10			55.13		3,666.39
MW-3	09/16/10			55.66		3,665.86
MW-3	12/16/10			55.47		3,666.05
MW-3	03/14/11			55.90		3,665.62
MW-3	06/09/11			56.05		3,665.47
MW-3	07/20/11			56.04		3,665.48
MW-3	07/21/11			56.05		3,665.47
MW-3	09/29/11			56.23		3,665.29
MW-3	12/16/11			56.62		3,664.90
MW-4	01/24/02	Well Installed 24 January 2002 (TD-58.54)				
MW-4	10/04/02	3,721.03		49.35		3,671.68
MW-4	12/11/02			49.50		3,671.53
MW-4	02/20/03			49.69		3,671.34
MW-4	02/11/04			50.51		3,670.52
MW-4	08/16/04			50.91		3,670.12
MW-4	03/22/05			50.67		3,670.36
MW-4	03/31/05			50.70		3,670.33
MW-4	04/22/05			50.71		3,670.32
MW-4	05/12/05			50.80		3,670.23
MW-4	05/25/05			50.80		3,670.23
MW-4	06/28/05			50.92		3,670.11
MW-4	07/25/05			51.02		3,670.01
MW-4	08/22/05			51.06		3,669.97
MW-4	11/14/05			51.15		3,669.88
MW-4	11/30/05			51.43		3,669.60



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-4	02/06/06			51.68		3,669.35
MW-4	03/01/06			51.21		3,669.82
MW-4	05/02/06			51.88		3,669.15
MW-4	05/25/06			50.17		3,670.86
MW-4	08/10/06			51.96		3,669.07
MW-4	11/29/06			52.16		3,668.87
MW-4	12/06/06			52.19		3,668.84
MW-4	01/10/07			52.27		3,668.76
MW-4	02/08/07			51.65		3,669.38
MW-4	03/01/07			51.97		3,669.06
MW-4	03/06/07			52.45		3,668.58
MW-4	03/14/07			51.93		3,669.10
MW-4	04/02/07			51.73		3,669.30
MW-4	04/09/07			51.95		3,669.08
MW-4	04/16/07			51.46		3,669.57
MW-4	05/01/07			52.04		3,668.99
MW-4	05/21/07			52.05		3,668.98
MW-4	06/13/07			51.96		3,669.07
MW-4	06/26/07			51.96		3,669.07
MW-4	07/18/07			52.09		3,668.94
MW-4	09/13/07			52.20		3,668.83
MW-4	10/24/07			52.25		3,668.78
MW-4	12/03/07			52.36		3,668.67
MW-4	01/29/08			52.44		3,668.59
MW-4	03/13/08			52.54		3,668.49
MW-4	05/14/08			52.70		3,668.33
MW-4	06/03/08			52.75		3,668.28
MW-4	06/18/08			52.84		3,668.19
MW-4	07/01/08			52.81		3,668.22
MW-4	07/02/08			52.89		3,668.14
MW-4	08/28/08			52.93		3,668.10



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-4	09/26/08			53.04		3,667.99
MW-4	10/27/08			53.14		3,667.89
MW-4	12/02/08			53.20		3,667.83
MW-4	01/15/09			53.30		3,667.73
MW-4	02/05/09			53.33		3,667.70
MW-4	04/06/09			53.47		3,667.56
MW-4	05/19/09	3,721.94		53.58		3,668.36
MW-4	8/27/209			53.89		3,668.05
MW-4	12/14/09			54.09		3,667.85
MW-4	02/25/10			54.29		3,667.65
MW-4	06/17/10			54.54		3,667.40
MW-4	09/16/10			ND		?
MW-4	12/16/10			55.09		3,666.85
MW-4	03/14/11			55.26		3,666.68
MW-4	06/09/11			55.45		3,666.49
MW-4	07/20/11			55.54		3,666.40
MW-4	07/21/11			55.44		3,666.50
MW-4	09/29/11			55.70		3,666.24
MW-4	12/16/11			55.96		3,665.98
MW-5	07/28/04	Well Installed 28 July 2004				
MW-5	08/16/04	3,723.58	51.65	59.86	8.21	3,671.11
MW-5	10/21/04		51.26	58.76	7.50	3,671.57
MW-5	03/22/05		51.46	59.00	7.54	3,671.37
MW-5	03/31/05		51.46	59.00	7.54	3,671.37
MW-5	04/22/05		52.62	55.95	3.33	3,670.63
MW-5	05/25/05		52.18	56.23	4.05	3,671.00
MW-5	07/25/05		52.06	57.97	5.91	3,670.93
MW-5	11/30/05		52.17	60.20	8.03	3,670.61
MW-5	02/06/06		52.44	60.51	8.07	3,670.33
MW-5	03/01/06		52.45	60.53	8.08	3,670.32



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-5	05/02/06		52.68	59.94	7.26	3,670.17
MW-5	05/25/06		52.30	59.89	7.59	3,670.52
MW-5	08/10/06		52.33	60.28	7.95	3,670.46
MW-5	11/29/06		52.45	60.24	7.79	3,670.35
MW-5	12/06/06		52.44	60.19	7.75	3,670.37
MW-5	01/10/07		52.48	58.87	6.39	3,670.46
MW-5	03/01/07		52.75	60.48	7.73	3,670.06
MW-5	03/06/07		52.70	60.48	7.78	3,670.10
MW-5	03/14/07		51.85	61.25	9.40	3,670.79
MW-5	04/02/07		52.70	60.55	7.85	3,670.10
MW-5	04/09/07		52.74	60.50	7.76	3,670.06
MW-5	04/16/07		52.74	60.55	7.81	3,670.06
MW-5	05/01/07		52.81	60.49	7.68	3,670.00
MW-5	05/21/07		52.85	60.57	7.72	3,669.96
MW-5	06/26/07		53.90	55.68	1.78	3,669.50
MW-5	06/28/07		54.07	54.71	0.64	3,669.45
MW-5	07/18/07		53.80	56.97	3.17	3,669.46
MW-5	08/21/07		54.19	54.47	0.28	3,669.36
MW-5	08/30/07		52.90	60.12	7.22	3,669.96
MW-5	09/13/07		53.11	58.74	5.63	3,669.91
MW-5	10/09/07		54.39	54.79	0.40	3,669.15
MW-5	10/17/07		53.10	60.32	7.22	3,669.76
MW-5	10/24/07		54.10	55.55	1.45	3,669.34
MW-5	11/02/07		54.38	54.71	0.33	3,669.17
MW-5	11/12/07		53.16	60.33	7.17	3,669.70
MW-5	12/03/07		53.65	58.43	4.78	3,669.45
MW-5	01/03/08		54.64	55.57	0.93	3,668.85
MW-5	01/07/08		54.43	55.56	1.13	3,669.04
MW-5	01/22/08		54.87	58.53	3.66	3,668.34
MW-5	01/29/08		53.89	58.47	4.58	3,669.23
MW-5	02/06/08		53.87	58.69	4.82	3,669.23



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-5	02/12/08		53.89	58.70	4.81	3,669.21
MW-5	03/13/08		53.94	58.77	4.83	3,669.16
MW-5	03/19/08		53.78	59.98	6.20	3,669.18
MW-5	03/27/08		54.44	57.16	2.72	3,668.87
MW-5	04/01/08		54.11	59.06	4.95	3,668.98
MW-5	04/11/08		54.37	58.07	3.70	3,668.84
MW-5	04/16/08		54.85	55.80	0.95	3,668.64
MW-5	04/30/08		54.37	58.16	3.79	3,668.83
MW-5	05/12/08		54.47	57.89	3.42	3,668.77
MW-5	06/03/08		53.92	61.08	7.16	3,668.94
MW-5	06/10/08		55.92	57.66	1.74	3,667.49
MW-5	06/18/08		54.64	58.12	3.48	3,668.59
MW-5	07/01/08		54.80	59.00	4.20	3,668.36
MW-5	07/02/08		54.35	58.15	3.80	3,668.85
MW-5	07/07/08		54.22	60.41	6.19	3,668.74
MW-5	07/24/08		55.40	57.16	1.76	3,668.00
MW-5	08/06/08		54.93	59.62	4.69	3,668.18
MW-5	08/28/08		54.55	57.54	2.99	3,668.73
MW-5	09/26/08		54.18	60.03	5.85	3,668.82
MW-5	10/27/08		54.41	59.34	4.93	3,668.68
MW-5	12/02/08		54.26	60.42	6.16	3,668.70
MW-5	01/15/09		54.35	60.91	6.56	3,668.57
MW-5	02/05/09		54.38	60.96	6.58	3,668.54
MW-5	04/06/09		54.63	61.41	6.78	3,668.27
MW-5	05/19/09	3,724.08	54.44	61.60	7.16	3,668.92
MW-5	07/13/09		55.55	61.58	6.03	3,667.93
MW-5	08/27/09		54.97	60.78	5.81	3,668.15
MW-5	12/14/09		56.24	57.64	1.40	3,667.61
MW-5	02/25/10		55.96	61.63	5.67	3,667.18
MW-5	06/17/10		56.48	60.27	3.79	3,666.97
MW-5	09/16/10		56.55	61.65	5.10	3,666.69



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-5	12/16/10		56.59	62.74	6.15	3,666.48
MW-5	03/14/11		56.38	62.68	6.30	3,666.66
MW-5	06/09/11		56.48	62.50	6.02	3,666.61
MW-5	07/20/11		57.51	57.95	0.44	3,666.50
MW-5	07/21/11		ND	57.69		3,666.39
MW-5	07/22/11		57.47	58.46	0.99	3,666.45
MW-5	07/25/11		57.11	60.16	3.05	3,666.47
MW-5	09/29/11		57.45	59.68	2.23	3,666.26
MW-5	12/16/11		57.13	62.80	5.67	3,666.01
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MW-6	12/08/04	Well installed 8 December 2004				
MW-6	12/15/04	3,721.68	49.49	56.62	7.13	3,671.48
MW-6	03/22/05		49.55	56.86	7.31	3,671.40
MW-6	03/31/05		49.55	56.86	7.31	3,671.40
MW-6	04/22/05		50.82	51.66	0.84	3,670.78
MW-6	05/25/05		50.61	53.11	2.50	3,670.82
MW-6	06/28/05		49.83	57.69	7.86	3,671.06
MW-6	07/25/05		50.30	55.50	5.20	3,670.86
MW-6	11/30/05		50.33	58.35	8.02	3,670.55
MW-6	02/06/06		50.65	58.80	8.15	3,670.22
MW-6	03/01/06		50.63	58.64	8.01	3,670.25
MW-6	05/02/06		50.82	58.10	7.28	3,670.13
MW-6	05/25/06		50.21	58.12	7.91	3,670.68
MW-6	08/10/06		50.47	59.55	9.08	3,670.30
MW-6	11/29/06		50.63	58.33	7.70	3,670.28
MW-6	12/06/06		50.60	58.33	7.73	3,670.31
MW-6	01/10/07		50.71	57.36	6.65	3,670.31
MW-6	02/08/07		50.71	58.38	7.67	3,670.20
MW-6	02/19/07		58.36	58.87	0.51	3,663.27
MW-6	03/01/07		50.89	58.45	7.56	3,670.03
MW-6	03/06/07		50.86	58.58	7.72	3,670.05



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-6	03/14/07		52.80	58.51	5.71	3,668.31
MW-6	04/02/07		50.86	58.54	7.68	3,670.05
MW-6	04/09/07		50.87	58.56	7.69	3,670.04
MW-6	04/16/07		50.92	58.54	7.62	3,670.00
MW-6	05/01/07		50.91	58.57	7.66	3,670.00
MW-6	05/21/07		50.96	58.62	7.66	3,669.95
MW-6	06/26/07		52.20	53.25	1.05	3,669.38
MW-6	06/28/07		52.10	53.10	1.00	3,669.48
MW-6	07/18/07		51.89	54.61	2.72	3,669.52
MW-6	08/21/07		52.32	52.56	0.24	3,669.34
MW-6	08/30/07		51.23	57.72	6.49	3,669.80
MW-6	09/13/07		51.88	54.85	2.97	3,669.50
MW-6	10/09/07		52.45	52.65	0.20	3,669.21
MW-6	10/17/07		51.61	58.61	7.00	3,669.37
MW-6	10/24/07		51.24	58.30	7.06	3,669.73
MW-6	11/02/07		52.04	54.86	2.82	3,669.36
MW-6	11/12/07		52.10	54.91	2.81	3,669.30
MW-6	12/03/07		51.78	56.60	4.82	3,669.42
MW-6	01/03/08		51.94	56.64	4.70	3,669.27
MW-6	01/07/08		52.19	56.62	4.43	3,669.05
MW-6	01/22/08		51.89	57.06	5.17	3,669.27
MW-6	01/29/08		51.92	56.70	4.78	3,669.28
MW-6	02/06/08		51.97	57.79	5.82	3,669.13
MW-6	02/12/08		51.99	57.81	5.82	3,669.11
MW-6	03/13/08		52.09	56.82	4.73	3,669.12
MW-6	03/19/08		51.99	57.37	5.38	3,669.15
MW-6	03/27/08		52.40	55.83	3.43	3,668.94
MW-6	04/01/08		52.39	55.93	3.54	3,668.94
MW-6	04/11/08		52.58	55.63	3.05	3,668.80
MW-6	04/16/08		53.04	53.26	0.22	3,668.62
MW-6	04/30/08		52.79	54.57	1.78	3,668.71



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-6	05/14/08		52.51	56.20	3.69	3,668.80
MW-6	05/23/08		53.49	53.89	0.40	3,668.15
MW-6	06/03/08		52.52	57.19	4.67	3,668.69
MW-6	06/10/08		52.51	57.59	5.08	3,668.66
MW-6	06/18/08		52.47	57.93	5.46	3,668.66
MW-6	07/01/08		53.01	56.07	3.06	3,668.36
MW-6	07/02/08		52.90	54.18	1.28	3,668.65
MW-6	07/24/08		53.43	55.22	1.79	3,668.07
MW-6	08/06/08		53.20	56.80	3.60	3,668.12
MW-6	08/28/08		52.50	56.46	3.96	3,668.78
MW-6	09/26/08		52.37	57.67	5.30	3,668.78
MW-6	10/27/08		52.52	57.24	4.72	3,668.69
MW-6	12/02/08		52.45	58.17	5.72	3,668.66
MW-6	01/15/09		52.51	58.50	5.99	3,668.57
MW-6	02/05/09		52.58	58.50	5.92	3,668.51
MW-6	04/06/09		52.73	58.96	6.23	3,668.33
MW-6	05/19/09	3,722.16	52.63	59.50	6.87	3,668.84
MW-6	07/13/09		52.89	59.34	6.45	3,668.63
MW-6	08/27/09		53.09	59.10	6.01	3,668.08
MW-6	12/14/09		54.12	56.84	2.72	3,667.59
MW-6	02/25/10		53.89	59.08	5.19	3,667.41
MW-6	06/17/10		54.08	60.42	6.34	3,667.03
MW-6	09/16/10		54.37	60.76	6.39	3,666.74
MW-6	12/16/10		54.74	60.08	5.34	3,666.54*
MW-6	03/14/11		54.56	60.10	5.54	3,666.69
MW-6	06/09/11		55.48	56.96	1.48	3,666.44
MW-6	07/20/11		55.32	57.53	2.21	3,666.48
MW-6	07/21/11		ND	59.08		3,663.08
MW-6	07/22/11		55.45	57.47	2.02	3,666.38
MW-6	07/25/11		55.06	59.31	4.25	3,666.40
MW-6	09/29/11		54.89	61.22	6.33	3,666.23



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-6	12/16/11		55.56	59.61	4.05	3,665.93
MW-7	07/28/04	Well Installed 28 July 2004				
MW-7	08/16/04	3,722.74	52.14	52.70	0.56	3,670.54
MW-7	10/21/04		51.00	55.23	4.23	3,671.32
MW-7	03/22/05		50.78	57.48	6.70	3,671.29
MW-7	03/31/05		50.78	57.48	6.70	3,671.29
MW-7	04/22/05		51.92	57.31	5.39	3,670.28
MW-7	05/25/05		51.78	53.44	1.66	3,670.79
MW-7	06/28/05		51.53	55.39	3.86	3,670.82
MW-7	07/25/05		52.07	53.35	1.28	3,670.54
MW-7	11/30/05		51.50	58.48	6.98	3,670.54
MW-7	02/06/06		51.75	58.71	6.96	3,670.29
MW-7	03/01/06		52.10	57.31	5.21	3,670.12
MW-7	05/02/06		52.35	56.91	4.56	3,669.93
MW-7	05/25/06		52.79	58.60	5.81	3,669.37
MW-7	08/10/06		51.56	58.61	7.05	3,670.48
MW-7	11/29/06		51.76	58.86	7.10	3,670.27
MW-7	12/06/06		51.78	58.91	7.13	3,670.25
MW-7	01/10/07		51.86	56.96	5.10	3,670.37
MW-7	02/08/07		51.92	58.85	6.93	3,670.13
MW-7	02/19/07		52.35	56.42	4.07	3,669.98
MW-7	03/01/07		52.21	58.13	5.92	3,669.94
MW-7	03/06/07		52.14	58.56	6.42	3,669.96
MW-7	03/14/07		52.07	58.86	6.79	3,669.99
MW-7	04/02/07		52.03	59.06	7.03	3,670.01
MW-7	04/09/07		52.09	59.11	7.02	3,669.95
MW-7	04/16/07		52.08	59.16	7.08	3,669.95
MW-7	05/01/07		52.16	58.82	6.66	3,669.91
MW-7	05/21/07		52.14	59.11	6.97	3,669.90
MW-7	06/26/07		52.20	58.98	6.78	3,669.86



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-7	06/28/07		52.20	58.73	6.53	3,669.89
MW-7	07/18/07		52.24	58.77	6.53	3,669.85
MW-7	08/21/07		52.30	58.79	6.49	3,669.79
MW-7	08/30/07		52.30	58.83	6.53	3,669.79
MW-7	09/13/07		52.35	58.89	6.54	3,669.74
MW-7	10/09/07		52.37	58.96	6.59	3,669.71
MW-7	10/17/07		52.40	59.02	6.62	3,669.68
MW-7	10/24/07		52.39	58.98	6.59	3,669.69
MW-7	11/02/07		52.47	59.05	6.58	3,669.61
MW-7	11/12/07		52.49	57.99	5.50	3,669.70
MW-7	12/03/07		52.57	59.12	6.55	3,669.52
MW-7	01/03/08		52.39	59.12	6.73	3,669.68
MW-7	01/07/08		52.57	59.08	6.51	3,669.52
MW-7	01/22/08		52.71	59.09	6.38	3,669.39
MW-7	01/29/08		52.74	59.21	6.47	3,669.35
MW-7	02/06/08		52.77	59.13	6.36	3,669.33
MW-7	02/12/08		52.75	59.10	6.35	3,669.36
MW-7	03/13/08		52.86	59.79	6.93	3,669.19
MW-7	03/19/08		52.88	59.26	6.38	3,669.22
MW-7	03/27/08		52.96	59.29	6.33	3,669.15
MW-7	04/01/08		52.93	59.53	6.40	3,668.97
MW-7	04/11/08		53.01	59.39	6.38	3,669.09
MW-7	04/16/08		53.02	59.41	6.39	3,669.08
MW-7	04/30/08		53.05	59.46	6.41	3,669.05
MW-7	05/14/08		53.12	59.43	6.31	3,668.99
MW-7	05/23/08		53.31	59.61	6.30	3,668.80
MW-7	06/03/08		53.29	59.53	6.24	3,668.83
MW-7	06/10/08		53.33	59.58	6.25	3,668.79
MW-7	06/18/08		54.16	55.95	1.79	3,668.40
MW-7	07/01/08		54.28	55.76	1.48	3,668.31
MW-7	07/02/08		53.90	55.50	1.60	3,668.68



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-7	07/24/08		54.59	55.36	0.77	3,668.07
MW-7	08/06/08		54.71	55.54	0.83	3,667.95
MW-7	08/28/08		54.01	55.30	1.29	3,668.60
MW-7	09/26/08		53.51	58.01	4.50	3,668.78
MW-7	10/27/08		54.05	56.02	1.97	3,668.49
MW-7	12/02/08		53.96	57.00	3.04	3,668.48
MW-7	01/15/09		53.72	58.71	4.99	3,668.52
MW-7	02/05/09		53.82	58.51	4.69	3,668.45
MW-7	04/06/09		53.82	59.41	5.59	3,668.36
MW-7	05/19/09	3,723.23	54.02	59.04	5.02	3,668.71
MW-7	07/13/09		54.20	59.21	5.01	3,668.53
MW-7	08/27/09		54.70	57.46	2.76	3,668.07
MW-7	12/14/09		55.61	55.85	0.24	3,667.58
MW-7	02/25/10		55.70	57.60	1.90	3,667.22
MW-7	06/17/10		56.21	56.41	0.20	3,666.99
MW-7	09/16/10		56.41	56.60	0.19	3,666.79
MW-7	12/16/10		56.12	57.90	1.78	3,666.82
MW-7	03/14/11		55.74	60.66	4.92	3,666.68
MW-7	06/09/11		56.67	57.12	0.45	3,666.49
MW-7	07/20/11		56.72	56.91	0.19	3,666.48
MW-7	07/21/11		ND	57.19		3,666.04
MW-7	07/22/11		56.75	57.29	0.54	3,666.39
MW-7	07/25/11		56.67	57.71	1.04	3,666.39
MW-7	09/29/11		56.51	59.65	3.14	3,666.20
MW-7	12/16/11		57.05	58.40	1.35	3,665.96
MW-8	07/30/04	Well Installed 30 July 2004 (TD=57.82)				
MW-8	08/16/04	3,722.85	53.96	54.41	0.45	3,668.85
MW-8	10/21/04		51.15	54.38	3.23	3,671.38
MW-8	03/22/05		50.78	57.15	6.37	3,671.43
MW-8	03/31/05		50.78	57.15	6.37	3,671.43



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-8	04/22/05		51.90	57.08	5.18	3,670.43
MW-8	05/25/05		51.99	52.15	0.16	3,670.84
MW-8	06/28/05		50.04	57.31	7.27	3,672.08
MW-8	07/25/05		51.82	54.14	2.32	3,670.80
MW-8	11/30/05		51.47	58.47	7.00	3,670.68
MW-8	02/06/06		51.75	57.80	6.05	3,670.50
MW-8	03/01/06		51.91	57.90	5.99	3,670.34
MW-8	05/02/06		52.26	56.95	4.69	3,670.12
MW-8	05/25/06		51.47	57.61	6.14	3,670.77
MW-8	08/10/06		52.28	54.69	2.41	3,670.33
MW-8	11/29/06		51.98	57.22	5.24	3,670.35
MW-8	12/06/06		52.48	55.71	3.23	3,670.05
MW-8	01/10/07		51.84	57.01	5.17	3,670.49
MW-8	02/08/07		52.10	58.61	6.51	3,670.10
MW-8	02/19/07		52.48	56.67	4.19	3,669.95
MW-8	03/01/07		52.25	57.13	4.88	3,670.11
MW-8	03/06/07		52.17	57.92	5.75	3,670.11
MW-8	03/14/07		52.06	58.21	6.15	3,670.18
MW-8	04/02/07		52.07	58.42	6.35	3,670.15
MW-8	04/09/07		52.08	58.49	6.41	3,670.13
MW-8	04/16/07		52.11	58.54	6.43	3,670.10
MW-8	05/01/07		52.17	58.40	6.23	3,670.06
MW-8	05/21/07		52.19	58.51	6.32	3,670.03
MW-8	06/26/07		53.10	54.80	1.70	3,669.58
MW-8	06/28/07		53.09	54.52	1.43	3,669.62
MW-8	07/18/07		52.52	57.55	5.03	3,669.83
MW-8	08/21/07		52.96	55.52	2.56	3,669.63
MW-8	08/30/07		53.20	55.17	1.97	3,669.45
MW-8	09/13/07		52.90	55.67	2.77	3,669.67
MW-8	10/09/07		52.41	57.00	4.59	3,669.98
MW-8	10/17/07		52.80	56.87	4.07	3,669.64



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-8	10/24/07		52.78	57.10	4.32	3,669.64
MW-8	11/02/07		53.52	53.71	0.19	3,669.31
MW-8	12/03/07		52.61	58.39	5.78	3,669.66
MW-8	01/03/08		53.70	53.89	0.19	3,669.13
MW-8	01/07/08		53.61	53.91	0.30	3,669.21
MW-8	01/22/08		53.70	54.19	0.49	3,669.10
MW-8	01/29/08		53.21	56.43	3.22	3,669.32
MW-8	02/06/08		53.06	56.79	3.73	3,669.42
MW-8	02/12/08		53.03	56.82	3.79	3,669.44
MW-8	03/13/08		52.69	54.80	2.11	3,669.95
MW-8	03/19/08		53.54	55.73	2.19	3,669.09
MW-8	03/27/08		53.92	54.45	0.53	3,668.88
MW-8	04/01/08		53.57	56.94	3.37	3,668.94
MW-8	04/11/08		54.23	55.48	1.25	3,668.50
MW-8	04/16/08		54.01	54.20	0.19	3,668.82
MW-8	04/30/08		54.04	54.28	0.24	3,668.79
MW-8	05/14/08		53.52	57.24	3.72	3,668.96
MW-8	05/23/08		54.37	54.59	0.22	3,668.46
MW-8	06/03/08		54.28	54.49	0.21	3,668.55
MW-8	06/10/08		54.37	54.54	0.17	3,668.46
MW-8	06/18/08		54.31	54.68	0.37	3,668.50
MW-8	07/01/08		54.53	54.68	0.15	3,668.31
MW-8	07/02/08		53.98	54.56	0.58	3,668.81
MW-8	07/24/08		54.50	55.85	1.35	3,668.22
MW-8	08/06/08		54.71	55.05	0.34	3,668.11
MW-8	08/28/08		54.13	54.39	0.26	3,668.69
MW-8	09/26/08		53.77	58.45	4.68	3,668.61
MW-8	10/27/08		54.14	55.22	1.08	3,668.60
MW-8	12/02/08		53.61	58.24	4.63	3,668.78
MW-8	01/15/09		53.63	58.75	5.12	3,668.71
MW-8	02/05/09		53.69	58.87	5.18	3,668.64



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-8	04/06/09		53.91	59.18	5.27	3,668.41
MW-8	05/19/09	3,723.41	53.82	59.54	5.72	3,669.02
MW-8	07/13/09		54.29	58.90	4.61	3,668.66
MW-8	08/27/09		54.75	56.79	2.04	3,668.32
MW-8	12/14/09		55.52	55.74	0.22	3,667.85
MW-8	02/25/10		55.74	56.85	1.11	3,667.49
MW-8	06/17/10		56.11	56.28	0.17	3,667.27
MW-8	09/16/10		56.51	56.74	0.23	3,666.86
MW-8	12/16/10		56.21	57.12	0.91	3,667.05
MW-8	03/14/11		56.01	58.65	2.64	3,666.96
MW-8	06/09/11		56.61	56.69	0.08	3,666.79
MW-8	07/20/11		ND	56.63		3,666.78
MW-8	07/21/11		ND	56.67		3,666.74
MW-8	07/22/11		56.71	56.78	0.07	3,666.69
MW-8	07/25/11		56.70	56.87	0.17	3,666.68
MW-8	09/29/11		56.84	57.39	0.55	3,666.48
MW-8	12/16/11		56.87	58.65	1.78	3,666.25
MW-9	07/30/04	Well Installed 30 July 2004 (ID=65.14)				
MW-9	08/16/04	3,722.80	53.92	54.65	0.73	3,668.81
MW-9	10/21/04		50.95	53.99	3.04	3,671.55
MW-9	03/22/05		51.04	54.53	3.49	3,671.41
MW-9	03/31/05		51.04	54.53	3.49	3,671.41
MW-9	04/22/05		51.71	51.77	0.06	3,671.08
MW-9	05/25/05		51.70	52.22	0.52	3,671.05
MW-9	06/28/05		50.95	55.84	4.89	3,671.36
MW-9	07/25/05		51.74	52.89	1.15	3,670.95
MW-9	11/30/05		51.24	57.92	6.68	3,670.89
MW-9	02/06/06		51.47	58.25	6.78	3,670.65
MW-9	03/01/06		51.99	56.32	4.33	3,670.38
MW-9	05/02/06		52.12	56.23	4.11	3,670.27



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-9	05/25/06		51.42	55.99	4.57	3,670.92
MW-9	08/10/06		51.41	58.20	6.79	3,670.71
MW-9	11/29/06		51.56	58.24	6.68	3,670.57
MW-9	12/06/06		51.61	58.30	6.69	3,670.52
MW-9	01/10/07		51.63	57.17	5.54	3,670.62
MW-9	02/08/07		51.72	58.31	6.59	3,670.42
MW-9	02/19/07		52.31	56.42	4.11	3,670.08
MW-9	03/01/07		51.95	57.59	5.64	3,670.29
MW-9	03/06/07		51.89	58.01	6.12	3,670.30
MW-9	03/14/07		51.82	58.24	6.42	3,670.34
MW-9	04/02/07		51.81	58.33	6.52	3,670.34
MW-9	04/09/07		51.88	58.40	6.52	3,670.27
MW-9	04/16/07		51.88	58.45	6.57	3,670.26
MW-9	05/01/07		51.93	58.09	6.16	3,670.25
MW-9	05/21/07		51.98	58.45	6.47	3,670.17
MW-9	06/26/07		52.04	58.52	6.48	3,670.11
MW-9	06/28/07		52.04	58.50	6.46	3,670.11
MW-9	07/18/07		51.93	58.41	6.48	3,670.22
MW-9	08/21/07		52.03	58.50	6.47	3,670.12
MW-9	08/30/07		53.15	53.45	0.30	3,669.62
MW-9	09/13/07		52.24	57.67	5.43	3,670.02
MW-9	10/09/07		52.15	58.48	6.33	3,670.02
MW-9	10/17/07		53.31	58.52	5.21	3,668.97
MW-9	11/02/07		52.38	57.82	5.44	3,669.88
MW-9	11/12/07		53.39	53.55	0.16	3,669.39
MW-9	12/03/07		52.42	58.14	5.72	3,669.81
MW-9	01/03/08		52.38	58.59	6.21	3,669.80
MW-9	01/07/08		52.47	58.56	6.09	3,669.72
MW-9	01/22/08		52.86	56.67	3.81	3,669.56
MW-9	01/29/08		52.71	57.84	5.13	3,669.58
MW-9	02/06/08		52.54	58.38	5.84	3,669.68



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-9	02/12/08		52.56	58.41	5.85	3,669.66
MW-9	03/13/08		52.66	58.83	6.17	3,669.52
MW-9	03/19/08		52.57	58.78	6.21	3,669.61
MW-9	03/27/08		52.64	58.87	6.23	3,669.54
MW-9	04/01/08		52.66	58.83	6.17	3,669.52
MW-9	04/11/08		52.74	58.39	5.65	3,669.50
MW-9	04/16/08		53.73	58.96	5.23	3,668.55
MW-9	05/14/08		52.82	59.04	6.22	3,669.36
MW-9	06/03/08		54.09	54.99	0.90	3,668.62
MW-9	06/10/08		53.50	59.81	6.31	3,668.67
MW-9	06/18/08		53.29	58.17	4.88	3,669.02
MW-9	07/01/08		53.20	59.06	5.86	3,669.01
MW-9	07/02/08		53.75	58.94	5.19	3,668.53
MW-9	07/07/08		53.26	59.25	5.99	3,668.94
MW-9	07/24/08		53.36	59.48	6.12	3,668.83
MW-9	08/06/08		54.43	55.08	0.65	3,668.31
MW-9	08/28/08		53.43	56.83	3.40	3,669.03
MW-9	09/26/08		54.01	54.76	0.75	3,668.72
MW-9	10/27/08		54.03	55.01	0.98	3,668.67
MW-9	12/02/08		53.89	55.93	2.04	3,668.71
MW-9	01/15/09		53.96	56.27	2.31	3,668.61
MW-9	02/05/09		54.03	56.42	2.39	3,668.53
MW-9	04/06/09		53.87	58.72	4.85	3,668.45
MW-9	05/19/09	3,723.25	54.24	56.28	2.04	3,668.81
MW-9	07/13/09		54.35	56.80	2.45	3,668.66
MW-9	08/27/09		54.74	55.65	0.91	3,668.36
MW-9	12/14/09		55.32	55.50	0.18	3,667.90
MW-9	02/25/10		55.70	56.39	0.69	3,667.44
MW-9	06/17/10		55.75	57.48	1.73	3,667.21
MW-9	09/16/10		56.26	56.44	0.18	3,666.96
MW-9	12/16/10		56.25	56.85	0.60	3,666.90



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-9	03/14/11		56.10	57.24	1.14	3,666.96
MW-9	06/09/11		56.46	56.68	0.22	3,666.75
MW-9	07/20/11		56.59	56.92	0.33	3,666.61
MW-9	07/21/11		ND	57.28		3,665.97
MW-9	07/22/11		56.55	56.76	0.21	3,666.67
MW-9	07/25/11		56.54	56.84	0.30	3,666.66
MW-9	09/29/11		56.61	57.46	0.85	3,666.50
MW-9	12/16/11		56.60	59.21	2.61	3,666.22
MW-10	12/07/04		Well installed 7 December 2004 (TD-59.22)			
MW-10	12/15/04	3,723.62		52.17		3,671.45
MW-10	03/22/05			52.28		3,671.34
MW-10	03/31/05			52.31		3,671.31
MW-10	04/22/05			52.36		3,671.26
MW-10	05/12/05			52.41		3,671.21
MW-10	05/25/05			52.42		3,671.20
MW-10	06/28/05			52.52		3,671.10
MW-10	07/25/05			52.61		3,671.01
MW-10	08/22/05			52.67		3,670.95
MW-10	11/14/05			52.76		3,670.86
MW-10	11/30/05			53.05		3,670.57
MW-10	02/06/06			53.29		3,670.33
MW-10	03/01/06			53.85		3,669.77
MW-10	05/02/06			53.47		3,670.15
MW-10	05/25/06			53.08		3,670.54
MW-10	08/10/06			53.07		3,670.55
MW-10	11/29/06			53.29		3,670.33
MW-10	12/06/06			53.32		3,670.30
MW-10	01/10/07			53.38		3,670.24
MW-10	02/08/07			53.24		3,670.38
MW-10	03/01/07			53.73		3,669.89



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-10	03/06/07			53.51		3,670.11
MW-10	03/14/07			53.52		3,670.10
MW-10	04/02/07			53.35		3,670.27
MW-10	04/09/07			53.57		3,670.05
MW-10	04/16/07			53.58		3,670.04
MW-10	05/01/07			53.63		3,669.99
MW-10	05/21/07			53.65		3,669.97
MW-10	06/13/07			53.57		3,670.05
MW-10	06/26/07			53.60		3,670.02
MW-10	07/18/07			53.69		3,669.93
MW-10	09/13/07			53.79		3,669.83
MW-10	10/24/07			53.86		3,669.76
MW-10	12/03/07			53.98		3,669.64
MW-10	01/29/08			54.06		3,669.56
MW-10	03/13/08			54.18		3,669.44
MW-10	05/14/08			54.28		3,669.34
MW-10	06/03/08			54.31		3,669.31
MW-10	06/18/08			54.43		3,669.19
MW-10	07/01/08			54.38		3,669.24
MW-10	07/02/08			54.47		3,669.15
MW-10	08/28/08			54.54		3,669.08
MW-10	09/26/08			54.63		3,668.99
MW-10	10/27/08			54.70		3,668.92
MW-10	12/02/08			54.77		3,668.85
MW-10	01/15/09			54.88		3,668.74
MW-10	02/05/09			54.92		3,668.70
MW-10	04/06/09			55.06		3,668.56
MW-10	05/19/09	3,724.14		55.16		3,668.98
MW-10	08/27/09			55.47		3,668.67
MW-10	12/14/09			55.65		3,668.49
MW-10	02/25/10			55.84		3,668.30



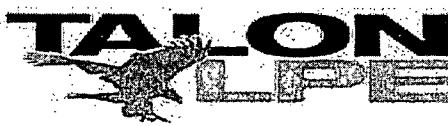
**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-10	06/17/10			56.11		3,668.03
MW-10	09/16/10			56.64		3,667.50
MW-10	12/16/10			56.68		3,667.46
MW-10	03/14/11			56.86		3,667.28
MW-10	06/09/11			57.00		3,667.14
MW-10	07/20/11			57.01		3,667.13
MW-10	07/21/11			57.02		3,667.12
MW-10	09/29/11			57.29		3,666.85
MW-10	12/16/11			57.57		3,666.57
MW-11	12/07/04	Well installed 7 December 2004 - TD=58.76				
MW-11	12/15/04	3,722.03	50.49	55.54	5.05	3,671.04
MW-11	03/22/05		50.33	56.71	6.38	3,671.06
MW-11	03/31/05		50.33	56.71	6.38	3,671.06
MW-11	04/22/05		50.34	56.95	6.61	3,671.03
MW-11	05/25/05		51.34	53.06	1.72	3,670.52
MW-11	06/28/05		50.67	57.07	6.40	3,670.72
MW-11	07/25/05		51.06	55.54	4.48	3,670.52
MW-11	11/30/05		51.11	57.79	6.68	3,670.25
MW-11	02/03/06		51.35	58.06	6.71	3,670.01
MW-11	03/01/06		51.39	58.16	6.77	3,669.96
MW-11	05/02/06		51.54	58.25	6.71	3,669.82
MW-11	05/25/06		51.12	57.97	6.85	3,670.23
MW-11	08/10/06		51.10	57.97	6.87	3,670.24
MW-11	11/29/06		51.32	58.24	6.92	3,670.02
MW-11	12/06/06		52.33	53.48	1.15	3,669.59
MW-11	01/10/07		51.37	57.98	6.61	3,670.00
MW-11	02/08/07		51.47	58.49	7.02	3,669.86
MW-11	02/19/07		51.57	58.38	6.81	3,669.78
MW-11	03/01/07		51.61	58.38	6.77	3,669.74
MW-11	03/06/07		51.57	58.39	6.82	3,669.78



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-11	03/14/07		51.57	58.34	6.77	3,669.78
MW-11	04/02/07		51.62	58.41	6.79	3,669.73
MW-11	04/09/07		52.63	58.38	5.75	3,668.83
MW-11	04/16/07		51.64	58.38	6.74	3,669.72
MW-11	05/01/07		51.68	58.39	6.71	3,669.68
MW-11	05/21/07		51.90	58.62	6.72	3,669.46
MW-11	06/26/07		51.80	58.44	6.64	3,669.57
MW-11	06/28/07		51.80	58.38	6.58	3,669.57
MW-11	07/18/07		51.76	58.31	6.55	3,669.62
MW-11	10/24/07		51.94	58.26	6.32	3,669.46
MW-11	11/02/07		52.00	58.32	6.32	3,669.40
MW-11	11/12/07		52.01	58.30	6.29	3,669.39
MW-11	12/03/07		52.58	56.55	3.97	3,669.05
MW-11	01/03/08		53.19	54.23	1.04	3,668.74
MW-11	01/07/08		52.96	54.22	1.26	3,668.94
MW-11	01/22/08		52.77	56.36	3.59	3,668.90
MW-11	01/29/08		54.02	55.34	1.32	3,667.88
MW-11	02/06/08		52.51	57.88	5.37	3,668.98
MW-11	02/12/08		52.53	57.90	5.37	3,668.96
MW-11	03/13/08		52.93	56.50	3.57	3,668.74
MW-11	03/19/08		52.71	57.58	4.87	3,668.83
MW-11	04/01/08		53.35	54.89	1.54	3,668.53
MW-11	04/11/08		53.16	56.08	2.92	3,668.58
MW-11	04/16/08		53.65	53.83	0.18	3,668.36
MW-11	05/14/08		53.18	56.64	3.46	3,668.50
MW-11	05/23/08		53.85	54.01	0.16	3,668.16
MW-11	06/03/08		53.87	54.16	0.29	3,668.13
MW-11	06/10/08		53.92	54.11	0.19	3,668.09
MW-11	06/18/08		53.94	54.43	0.49	3,668.04
MW-11	07/01/08		54.06	54.25	0.19	3,667.95
MW-11	07/02/08		53.69	53.92	0.23	3,668.32



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-11	07/24/08		53.76	56.96	3.20	3,667.95
MW-11	08/06/08		54.37	54.59	0.22	3,667.64
MW-11	08/28/08		53.75	54.13	0.38	3,668.24
MW-11	09/26/08		53.32	56.89	3.57	3,668.35
MW-11	10/27/08		53.17	57.75	4.58	3,668.40
MW-11	12/02/08		53.19	58.12	4.93	3,668.35
MW-11	01/15/09		53.35	58.14	4.79	3,668.20
MW-11	02/05/09		53.36	58.13	4.77	3,668.19
MW-11	04/06/09		53.48	58.14	4.66	3,668.08
MW-11	05/19/09	3,722.55	53.38	58.13	4.75	3,668.70
MW-11	07/13/09		53.78	58.21	4.43	3,668.33
MW-11	08/27/09		53.75	58.21	4.46	3,668.06
MW-11	12/14/09		55.71	57.74	2.03	3,666.51
MW-11	02/25/10		54.85	58.56	3.71	3,667.09
MW-11	06/17/10		54.94	58.54	3.60	3,667.02
MW-11	09/16/10		55.06	58.57	3.51	3,666.91
MW-11	12/16/10		55.20	58.27	3.07	3,666.84
MW-11	03/14/11		55.81	ND		
MW-11	06/09/11		55.30	58.21	2.91	3,666.77
MW-11	07/20/11		55.51	59.08	3.57	3,666.45
MW-11	07/21/11			57.44		3,665.11
MW-11	07/22/11		55.72	59.85	4.13	3,666.15
MW-11	07/25/11		55.39	59.93	4.54	3,666.41
MW-11	09/29/11		55.55	59.97	4.42	3,666.27
MW-11	12/16/11		NM	NM		
MW-12		Well installed March 11, 2009 (TD-71.81)				
MW-12	04/06/09			57.01		
MW-12	05/19/09	3,724.11		57.02		3,667.09
MW-12	08/27/09			57.44		3,666.67
MW-12	12/14/09			57.65		3,666.46



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-12	02/25/10			58.83		3,665.28
MW-12	06/17/10			58.12		3,665.99
MW-12	09/16/10			58.66		3,665.45
MW-12	12/16/10			58.71		3,665.40
MW-12	03/14/11			58.89		3,665.22
MW-12	06/09/11			59.02		3,665.09
MW-12	07/20/11			59.05		3,665.06
MW-12	07/21/11			59.06		3,665.05
MW-12	09/29/11			59.35		3,664.76
MW-12	12/16/11			59.61		3,664.50
MW-13		Well installed March 11, 2009 (TD-70.85)				
MW-13	04/06/09			55.92		
MW-13	05/19/09	3,723.19		56.04		3,667.15
MW-13	08/27/09			56.32		3,666.87
MW-13	12/14/09			56.65		3,666.54
MW-13	02/25/10			56.76		3,666.43
MW-13	06/17/10			57.02		3,666.17
MW-13	09/16/10			57.55		3,665.64
MW-13	12/16/10			57.60		3,665.59
MW-13	03/14/11			57.76		3,665.43
MW-13	06/09/11			57.93		3,665.26
MW-13	07/20/11			57.94		3,665.25
MW-13	07/21/11			57.93		3,665.26
MW-13	09/29/11			58.19		3,665.00
MW-13	12/16/11			58.50		3,664.69
		Well installed 1/27/11 (TD-82.34)				
MW-14	03/14/11			60.41		
MW-14	04/04/11	3,725.10				
MW-14	06/09/11			60.56		3,664.54



**TABLE 1**  
**SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALONLPE PROJECT NUMBER 700376.050.01**

Monitor Well#	Date Gauged	Top of Casing Elevation	Depth to PSH	Depth to Water	PSH Thickness	Corrected Groundwater Elevation
		feet amsl*	feet btoc*	feet btoc	feet	feet amsl
MW-14	07/20/11			60.59		3,664.54
MW-14	07/21/11			60.56		3,664.54
MW-14	09/29/11			61.46		3,663.64
MW-14	12/16/11			61.16		3,663.94
MW-15		Well installed 1/27/11 (TD-79.21)				
MW-15	03/14/11			61.18		
MW-15	04/04/11	3,726.06				
MW-15	06/09/11			61.33		3,664.73
MW-15	07/20/11			69.33		3,656.73
MW-15	07/21/11			69.33		3,656.73
MW-15	09/29/11			61.60		3,664.46
MW-15	12/16/11			61.90		3,664.16

*Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - (SG)(PSH Thickness))).*

*SG = 0.835*

*amsl - above mean sea level*

*btoc - below top of casing*



**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. #AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-1	01/24/02					
MW-1	01/24/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	03/01/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	10/04/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	12/11/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	02/20/03	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	02/11/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	08/16/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	12/15/04					
MW-1	03/31/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	05/12/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	08/22/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	11/14/05					
MW-1	03/01/06	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	08/10/06	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	04/02/07	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	06/13/07					
MW-1	09/13/07	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-1	12/03/07					
MW-1	03/13/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-1	06/18/08					
MW-1	09/26/08					
MW-1	12/02/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-1	02/05/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-1	05/19/09					
MW-1	08/27/09					
MW-1	12/14/09					
MW-1	02/25/10				Dry	
MW-1	06/17/10				Dry	
MW-1	09/17/10				Dry	
MW-1	12/16/10				Dry	
MW-1	03/14/11				Dry	
MW-1	06/09/11				Dry	
MW-1	09/29/11				Dry	
MW-1	12/16/11				Dry	
MW-2	01/09/02					
MW-2	01/09/02				Well installed 01/09/2002	



**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. #AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-2	01/24/02					
MW-2	03/01/02					
MW-2	10/04/02					
MW-2	12/11/02					
MW-2	02/20/03					
MW-2	02/11/04					
MW-2	08/16/04					
MW-2	12/15/04					
MW-2	03/31/05					
MW-2	05/12/05					
MW-2	08/22/05					
MW-2	11/14/05					
MW-2	03/01/06					
MW-2	08/10/06					
MW-2	04/02/07					
MW-2	06/13/07					
MW-2	09/13/07					
MW-2	12/03/07					
MW-2	03/13/08					
MW-2	06/18/08					
MW-2	09/26/08	17.8	13.6	2.54	6.00	39.9
MW-2	12/02/08					
MW-2	02/05/09					
MW-2	05/19/09					
MW-2	08/27/09					
MW-2	12/14/09					
MW-2	02/25/10					
MW-2	06/17/10					
MW-2	09/17/10					
MW-2	12/16/10					
MW-2	03/14/11					
MW-2	06/09/11					
MW-2	09/29/11					
MW-2	12/16/11					
MW-3	01/24/02					
MW-3	01/24/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200



**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. #AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-3	03/01/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	10/04/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	12/11/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	02/20/03	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	02/11/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	08/16/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	12/15/04	Not Scheduled for sampling				
MW-3	03/31/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	05/12/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	08/22/05	Not Scheduled for sampling				
MW-3	11/14/05	Not Scheduled for sampling				
MW-3	03/01/06	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-3	08/10/06	<0.010	<0.010	<0.010	<0.020	<0.020
MW-3	04/02/07	<b>0.369</b>	0.0131	0.0012	0.0616	0.4449
MW-3	06/13/07	Not Scheduled for sampling				
MW-3	09/13/07	<b>18.43</b>	<b>0.9471</b>	0.2083	<b>2.939</b>	22.524
MW-3	12/03/07	<b>3.898</b>	<0.0200	<0.0100	0.2633	4.161
MW-3	03/13/08	<b>10.3</b>	<0.100	0.157	<b>0.895</b>	11.352
MW-3	06/18/08	<b>11.6</b>	<0.0500	0.196	0.177	11.973
MW-3	09/26/08	<b>9.13</b>	0.152	<0.100	0.234	11.973
MW-3	12/02/08	<b>12.1</b>	0.189	0.207	0.456	12.952
MW-3	02/05/09	<b>16.7</b>	<0.100	0.196	<0.100	16.896
MW-3	05/19/09	<b>20.7</b>	<0.100	<0.100	<0.100	20.700
MW-3	08/27/09	<b>16.0</b>	<0.100	<0.100	<b>1.97</b>	17.970
MW-3	12/14/09	<b>19.1</b>	<0.100	0.156	<0.100	19.256
MW-3	02/25/10	<b>18.8</b>	<0.100	0.411	0.472	19.683
MW-3	06/17/10	<b>23.5</b>	<0.100	0.449	0.451	24.400
MW-3	09/17/10	<b>21.0</b>	<0.100	0.574	0.166	21.7
MW-3	12/16/10	<b>21.1</b>	<0.100	<b>0.874</b>	<b>0.822</b>	22.796
MW-3	03/14/11	<b>19.6</b>	<0.100	<b>1.58</b>	<0.100	21.18
MW-3	06/09/11	<b>15.1</b>	<0.100	<b>0.912</b>	<0.100	16.01
MW-3	09/29/11	<b>17.1</b>	<0.0500	0.537	<0.0500	17.637
MW-3	12/20/11	<b>7.31</b>	<0.0500	0.164	<0.0500	7.474
MW-4	01/24/02	Well installed 01/24/2002				
MW-4	01/24/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	03/01/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200



**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. #AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

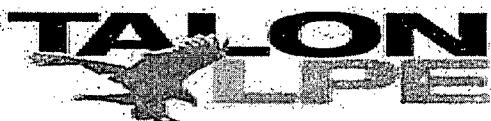
Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-4	10/04/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	12/11/02	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	02/20/03	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	02/11/04	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	08/16/04		0.00125			
MW-4	12/15/04			Not Scheduled for sampling		
MW-4	03/31/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	05/12/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	08/22/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	11/14/05			Not Scheduled for sampling		
MW-4	03/01/06	0.00102	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	08/10/06	0.0371	0.005	0.001	0.0141	
MW-4	04/02/07	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-4	06/13/07			Not Scheduled for sampling		
MW-4	09/13/07	0.0018	<0.00100	<0.00100	<0.00200	0.0018
MW-4	12/03/07	0.0082	<0.00100	<0.00100	<0.00200	0.0082
MW-4	03/13/08	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-4	06/18/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	09/26/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	12/02/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	02/05/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	05/19/09			Not sampled in 2nd Quarter		
MW-4	08/27/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	02/25/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	06/17/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	09/17/10			Not Enough Water for Sample Collection		
MW-4	12/16/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	03/14/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	06/09/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-4	09/29/11	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
MW-4	12/20/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-5	07/28/04			Well installed 07/28/2004		
MW-5	08/16/04			Not Sampled Due to Presence of Phase Separated Hydrocarbons		
MW-5	12/15/04			Not Sampled Due to Presence of Phase Separated Hydrocarbons		
MW-5	03/31/05			Not Sampled Due to Presence of Phase Separated Hydrocarbons		



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**KIMBROUGH SWEET 8"**  
**NMOCD REF. #AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-5	05/12/05					
MW-5	08/22/05					
MW-5	11/14/05					
MW-5	03/01/06					
MW-5	05/25/06					
MW-5	08/10/06					
MW-5	11/29/06					
MW-5	04/02/07					
MW-5	06/13/07					
MW-5	09/13/07					
MW-5	12/03/07					
MW-5	03/13/08					
MW-5	06/18/08					
MW-5	09/29/08	27.8	21.6	4.94	11.7	66.0
MW-5	12/02/08					
MW-5	02/05/09					
MW-5	05/19/09					
MW-5	08/27/09					
MW-5	12/14/10					
MW-5	02/25/10					
MW-5	06/17/10					
MW-5	09/17/10					
MW-5	12/16/10					
MW-5	03/14/11					
MW-5	06/09/11					
MW-5	09/29/11					
MW-5	12/16/11					
MW-6	12/08/04					
MW-6	12/15/04					
MW-6	03/31/05					
MW-6	05/12/05					
MW-6	08/22/05					
MW-6	11/14/05					
MW-6	03/01/06					
MW-6	05/25/06					
MW-6	08/10/06					



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**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
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**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-6	11/29/06					
MW-6	04/02/07					
MW-6	06/13/07					
MW-6	09/13/07					
MW-6	12/03/07					
MW-6	03/13/08					
MW-6	06/18/08					
MW-6	09/29/08	16.9	7.88	1.39	3.36	29.5
MW-6	12/02/08					
MW-6	02/05/09					
MW-6	05/19/09					
MW-6	08/27/09	17.8	10.9	1.79	4.32	34.810
MW-6	12/14/09					
MW-6	02/25/10					
MW-6	06/17/10					
MW-6	09/17/10					
MW-6	12/16/10					
MW-6	03/14/11					
MW-6	06/09/11					
MW-6	09/29/11					
MW-6	12/16/11					
MW-7	07/28/04					
MW-7	08/16/04					
MW-7	12/15/04					
MW-7	03/31/05					
MW-7	05/12/05					
MW-7	08/22/05					
MW-7	11/14/05					
MW-7	03/01/06					
MW-7	05/25/06					
MW-7	08/10/06					
MW-7	11/29/06					
MW-7	04/02/07					
MW-7	06/13/07					
MW-7	09/13/07					
MW-7	12/03/07					



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**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-7	03/13/08					
MW-7	06/18/08					
MW-7	09/29/08	15.9	10.3	1.56	3.65	31.4
MW-7	12/02/08					
MW-7	02/05/09					
MW-7	05/19/09					
MW-7	08/27/09	15.3	11.6	2.19	5.29	34.38
MW-7	12/14/09					
MW-7	02/25/10					
MW-7	06/17/10					
MW-7	09/17/10					
MW-7	12/16/10					
MW-7	03/14/11					
MW-7	06/09/11					
MW-7	09/29/11					
MW-7	12/16/11					
MW-8	07/30/04					
MW-8	08/16/04					
MW-8	12/15/04					
MW-8	03/31/05					
MW-8	05/12/05					
MW-8	08/22/05					
MW-8	11/14/05					
MW-8	03/01/06					
MW-8	05/25/06					
MW-8	08/10/06					
MW-8	11/29/06					
MW-8	04/02/07					
MW-8	06/13/07					
MW-8	09/13/07					
MW-8	12/03/07					
MW-8	03/13/08					
MW-8	06/18/08					
MW-8	09/26/08	17.8	13.6	2.54	6.00	39.9
MW-8	12/02/08					
MW-8	02/05/09					



**TABLE 2**  
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**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
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**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-8	05/19/09					
MW-8	08/27/09	17.2	11.3	2.17	4.98	35.65
MW-8	12/14/09					
MW-8	02/25/10					
MW-8	06/17/10					
MW-8	09/17/10					
MW-8	12/16/10					
MW-8	03/14/11					
MW-8	06/09/11					
MW-8	09/29/11					
MW-8	12/16/11					
MW-9	07/30/04					
MW-9	Well installed 07/30/2004					
MW-9	08/16/04					
MW-9	12/15/04					
MW-9	03/31/05					
MW-9	05/12/05					
MW-9	08/22/05					
MW-9	11/14/05					
MW-9	03/01/06					
MW-9	05/25/06					
MW-9	08/10/06					
MW-9	11/29/06					
MW-9	04/02/07					
MW-9	06/13/07					
MW-9	09/13/07					
MW-9	12/03/07					
MW-9	03/13/08					
MW-9	06/18/08					
MW-9	09/29/08	11.1	5.56	0.928	2.29	19.9
MW-9	12/02/08					
MW-9	02/05/09					
MW-9	05/19/09					
MW-9	08/27/09	17.1	9.38	1.78	4.35	32.61
MW-9	12/14/09					
MW-9	02/25/10					
MW-9	06/17/10					



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**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-9	09/17/10					
MW-9	12/16/10					
MW-9	03/14/11					
MW-9	06/09/11					
MW-9	09/29/11					
MW-9	12/16/11					
MW-10	12/07/04					
MW-10	12/15/04	0.00436	0.00901	0.00193	0.00525	0.02055
MW-10	03/31/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	05/12/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	08/22/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	11/14/05	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	03/01/06	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	05/25/06	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	08/10/06	<0.00100	0.00387	0.0018	0.00635	0.01202
MW-10	11/29/06	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	04/02/07	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	06/13/07	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	09/13/07	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200
MW-10	12/03/07	0.0032	<0.00100	<0.00100	<0.00100	0.0032
MW-10	03/13/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	06/18/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	09/26/08	0.00390	<0.00100	<0.00100	<0.00100	0.0049
MW-10	12/02/08	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	02/05/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	05/19/09	0.00690	<0.00100	<0.00100	<0.00100	0.0069
MW-10	08/27/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	02/25/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	06/17/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	09/17/10	0.0155	<0.00100	<0.00100	<0.00100	0.0155
MW-10	12/16/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	03/14/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	06/09/11	0.00910	0.00630	0.00570	0.0173	0.03840
MW-10	09/29/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-10	12/20/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100



**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. #AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-11	12/07/04	Well installed 12/07/2004				
MW-11	12/15/04	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	03/31/05	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	05/12/05	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	08/22/05	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	11/14/05	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	03/01/06	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	05/25/06	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	08/10/06	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	11/29/06	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	04/02/07	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	06/13/07	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	09/13/07	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	12/03/07	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	03/13/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	06/18/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	09/26/08	Not Enough Water to Collect a Sample				
MW-11	12/02/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	02/05/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	05/19/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	08/27/09	Not Enough Water to Collect a Sample				
MW-11	12/14/09	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	02/25/10	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	06/17/10	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	09/17/10	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	12/16/10	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	03/14/11	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	06/09/11	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	09/29/11	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-11	12/16/11	Not Sampled Due to Presence of Phase Separated Hydrocarbons				
MW-12		Well Installed 3/11/09				
MW-12	05/19/09	4.56	<0.0200	<0.0200	0.271	4.831
MW-12	08/27/09	5.28	<0.0200	<0.0200	0.457	5.737
MW-12	12/14/10	5.82	<0.0200	<0.0200	<0.0200	5.820
MW-12	02/25/10	7.52	<0.0200	<0.0200	0.141	7.661



**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. #AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**TALON/LPE PROJECT NUMBER 700376.050.01**

*All concentrations are in mg/L*

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	Total BTEX
MW-12	06/17/10	<b>13.3</b>	<0.100	<0.100	<0.100	13.300
MW-12	09/17/10	<b>9.83</b>	<0.100	<0.100	<0.100	9.830
MW-12	12/16/10	<b>11.4</b>	<0.100	<0.100	<b>0.7820</b>	12.180
MW-12	03/14/11	<b>9.85</b>	<0.100	<0.100	<0.100	9.85
MW-12	06/09/11	<b>4.41</b>	<0.100	<0.100	<0.100	4.41
MW-12	09/29/11	<b>2.76</b>	<0.0500	<0.0500	<0.0500	2.76
MW-12	12/20/11	<b>2.66</b>	<0.0500	<0.0500	<0.0500	2.66
MW-13						
MW-13						Well Installed 3/11/09
MW-13	05/19/09	<b>0.0198</b>	<0.00100	<0.00100	<0.00100	0.0198
MW-13	08/27/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-13	12/14/09	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-13	02/25/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-13	06/17/10	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-13	09/17/10	<b>0.0104</b>	<0.00100	<0.00100	<0.00100	0.0104
MW-13	12/16/10	0.0038	<0.00100	<0.00100	<0.00100	0.0038
MW-13	03/14/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-13	06/09/11	<b>0.0344</b>	<0.00100	<0.00100	<0.00100	0.0344
MW-13	09/29/11	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-13	12/20/11	0.0015	<0.00100	<0.00100	<0.00100	0.0015
MW-14						Well Installed 1/27/11
MW-14	03/14/11	<b>1.31</b>	<0.100	<0.100	<0.100	1.3100
MW-14	06/09/11	<b>1.48</b>	<0.0500	<0.0500	<b>0.8240</b>	2.3040
MW-14	09/29/11	<b>2.15</b>	<0.0500	<0.0500	<0.0500	2.15
MW-14	12/16/11	<b>1.66</b>	<0.0500	<0.0500	<0.0500	1.66
MW-15						Well Installed 1/27/11
MW-15	03/14/11	<b>0.1160</b>	<0.00100	<0.00100	0.0278	0.1438
MW-15	06/09/11	<b>2.84</b>	<0.100	<0.100	<0.100	2.84
MW-15	09/29/11	<b>2.18</b>	<0.0500	<0.0500	0.0541	2.23
MW-15	12/16/11	<b>1.45</b>	<0.0500	<0.0500	<0.0500	1.45
NMWQCC Remedial Limits		0.010	0.750	0.750	0.620	NA

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

Analyzed by EPA Method 8021B

**TABLE 3**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**POLYNUCLEAR AROMATIC HYDROCARBON (PAH)**  
**PLAINS PIPELINE, L.P. - KIMBROUGH SWEET 8" - SRS# 2000-10757**  
**NMOCD REF. # AP-0029**  
**LEA COUNTY, NEW MEXICO**  
**Talon/LPE Project Number 700376.050.01**

*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	Total Naphthalenes	Phenanthrene	Pyrene
MW-1	08/22/05	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	<0.00005	<0.00005	<0.00005	NA	NA	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	03/01/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	<0.00005	<0.00005	<0.00005	NA	NA	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	04/02/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005
MW-3	08/22/05	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	<0.00005	<0.00005	<0.00005	NA	NA	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	03/01/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	<0.00005	<0.00005	<0.00005	NA	NA	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	04/02/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005
	09/26/08	<0.00200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<b>0.00151</b>	<0.000200	<b>0.00119</b>	<0.000200	<b>0.0283</b>	<b>0.0127</b>	<b>0.0498</b>	<b>0.0908</b>	<b>0.000940</b>	<0.000200	
	08/27/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<b>0.00153</b>	<0.000183	<b>0.00172</b>	<0.000183	<b>0.0308</b>	<b>0.00505</b>	<b>0.0440</b>	<b>0.0799</b>	<b>0.00135</b>	<0.000183	
	01/03/11	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<b>0.00132</b>	<0.000195	<b>0.00142</b>	<0.000195	<b>0.0203</b>	<0.000195	<b>0.0225</b>	<b>0.0428</b>	<b>0.00124</b>	<0.000195	
	12/20/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<b>0.00126</b>	<b>0.000355</b>	<b>0.00143</b>	<0.000183	<b>0.00390</b>	<0.000183	<b>0.00437</b>	<b>0.0083</b>	<b>0.00118</b>	<0.000183	
MW-4	08/22/05	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	<0.00005	<0.00005	<0.00005	NA	NA	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	03/01/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	<0.00005	<0.00005	<0.00005	NA	NA	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	04/02/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005
	09/26/08	<0.00200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<b>0.000236</b>	<b>0.000247</b>	<b>0.000483</b>	<0.000200	<0.000200		
	08/27/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<b>0.000315</b>	<b>0.000322</b>	<b>0.000282</b>	<b>0.000919</b>	<0.000184	<0.000184	
MW-10	08/22/05	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	<0.00005	<0.00005	<0.00005	NA	NA	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	03/01/06	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	NA	<0.00005	<0.00005	<0.00005	NA	NA	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
	04/02/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005
	09/26/08	<0.00200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200		
	08/27/09	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187
MW-14	12/16/11	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<b>0.00354</b>	<b>0.00269</b>	<b>0.00446</b>	<b>0.010690</b>	<0.000183	<0.000183



TABLE 3  
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
POLYNUCLEAR AROMATIC HYDROCARBON (PAH)  
PLAINS PIPELINE, L.P. - KIMBROUGH SWEET 8" - SRS# 2000-10757  
NMOCD REF. # AP-0029  
LEA COUNTY, NEW MEXICO  
Talon/LPE Project Number 700376.050.01

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-ed]-pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Total Naphthalenes	Phenanthrene	Pyrene
MW-15	12/16/11	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	0.000447	<0.000184	0.000365	<0.000184	0.00910	<0.000184	0.00620	0.015300	0.000281	<0.000184	
NMWQCC Remedial Limits						0.007														0.030	

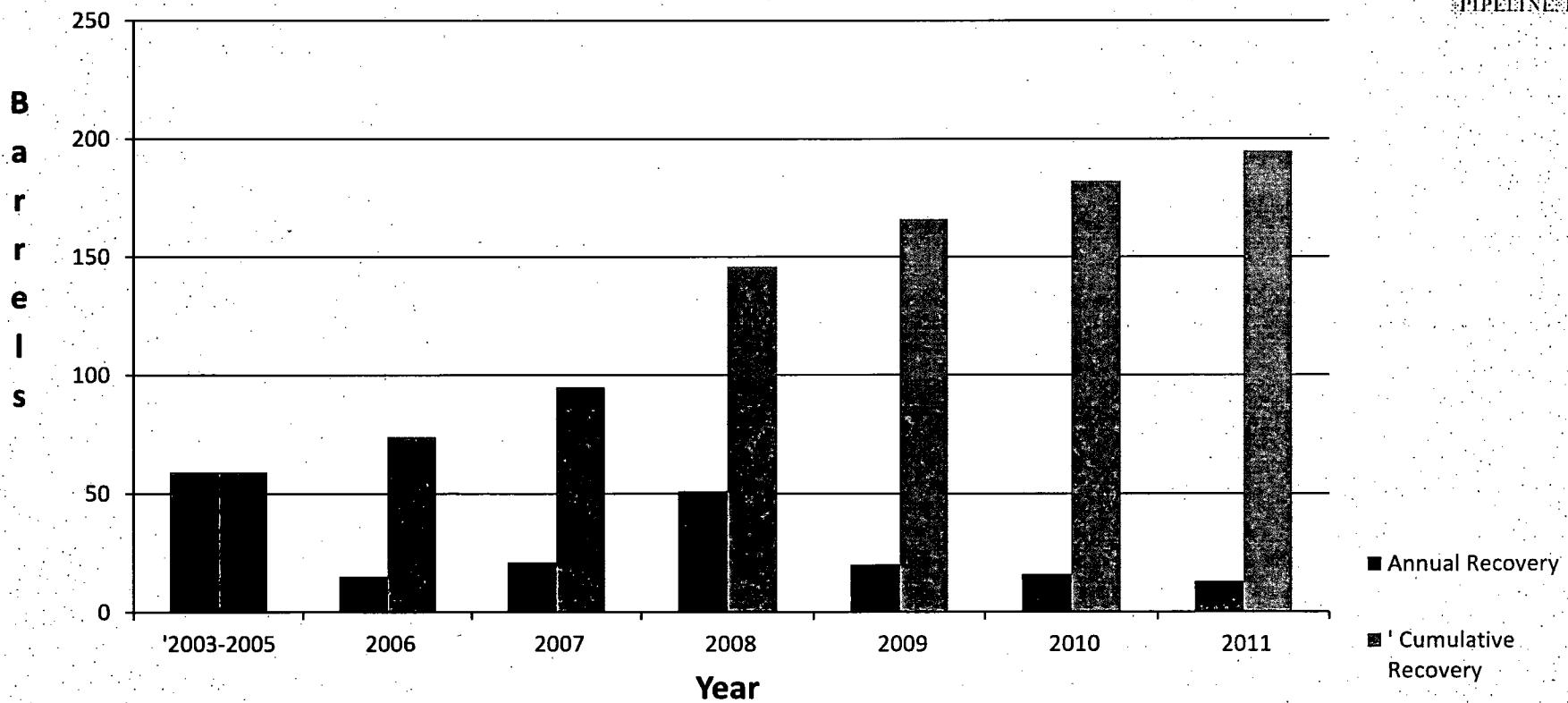
<sup>1</sup>Bolded values in red are in excess of the NMWQCC Remediation Thresholds

<sup>2</sup>Bolded values in black exceed laboratory reporting limits

Analyzed by EPA Method 8270C



**CHART 1 - PRODUCT RECOVERY**  
**PLAINS PIPELINE, L.P. - SRS# 2000-10757**  
**KIMBROUGH SWEET 8"**  
**NMOCD REF. #AP-0029**  
**LEA COUNTY, NEW MEXICO**



## **APPENDIX C**

### **Laboratory Analytical Data Reports and Chain of Custody Documentation**

## Summary Report

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

Report Date: March 28, 2011

Work Order: 11031501



Project Location: Hobbs, NM  
 Project Name: Kimbrough  
 Project Number: 700376.050.01  
 SRS #: 2000-10757

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
260484	MW-3	water	2011-03-14	11:50	2011-03-15
260485	MW-4	water	2011-03-14	12:20	2011-03-15
260486	MW-10	water	2011-03-14	10:35	2011-03-15
260487	MW-12	water	2011-03-14	12:05	2011-03-15
260488	MW-13	water	2011-03-14	11:40	2011-03-15
260489	MW-14	water	2011-03-14	10:45	2011-03-15
260490	MW-15	water	2011-03-14	11:50	2011-03-15

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
260484 - MW-3	19.6	<0.100	1.58	<0.100
260485 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
260486 - MW-10	<0.00100	<0.00100	<0.00100	<0.00100
260487 - MW-12	9.85	<0.100	<0.100	<0.100
260488 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100
260489 - MW-14	1.31	<0.100	<0.100	<0.100
260490 - MW-15	0.116	<0.00100	<0.00100	0.0278

# TRACEANALYSIS, INC.

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

## Certifications

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: March 28, 2011

Work Order: 11031501



Project Location: Hobbs, NM  
Project Name: Kimbrough  
Project Number: 700376.050.01  
SRS #: 2000-10757

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
260484	MW-3	water	2011-03-14	11:50	2011-03-15
260485	MW-4	water	2011-03-14	12:20	2011-03-15
260486	MW-10	water	2011-03-14	10:35	2011-03-15
260487	MW-12	water	2011-03-14	12:05	2011-03-15
260488	MW-13	water	2011-03-14	11:40	2011-03-15
260489	MW-14	water	2011-03-14	10:45	2011-03-15
260490	MW-15	water	2011-03-14	11:50	2011-03-15

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.



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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 Kimbrough were received by TraceAnalysis, Inc. on 2011-03-15 and assigned to work order 11031501. Samples for work order 11031501 were received intact without headspace and at a temperature of 4.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	67614	2011-03-23 at 07:43	79701	2011-03-23 at 08:21
BTEX	S 8021B	67632	2011-03-23 at 07:43	79723	2011-03-24 at 07:40
BTEX	S 8021B	67696	2011-03-25 at 10:27	79787	2011-03-25 at 10:27

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11031501 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: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 4 of 13  
Hobbs, NM

## Analytical Report

Sample: 260484 - MW-3

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX	Date Analyzed:	2011-03-23	Analyzed By:	ME
QC Batch:	79701	Sample Preparation:	2011-03-23	Prepared By:	ME
Prep Batch:	67614				

Parameter	Flag	Result	Units	Dilution	RL
Benzene		19.6	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		1.58	mg/L	100	0.00100
Xylene		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.60	mg/L	100	10.0	96	67.8 - 129
4-Bromofluorobenzene (4-BFB)		10.7	mg/L	100	10.0	107	51.1 - 128

Sample: 260485 - MW-4

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX	Date Analyzed:	2011-03-23	Analyzed By:	ME
QC Batch:	79701	Sample Preparation:	2011-03-23	Prepared By:	ME
Prep Batch:	67614				

Parameter	Flag	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)		0.0922	mg/L	1	0.100	92	67.8 - 129
4-Bromofluorobenzene (4-BFB)		0.0990	mg/L	1	0.100	99	51.1 - 128

Sample: 260486 - MW-10

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX	Date Analyzed:	2011-03-23	Analyzed By:	ME
QC Batch:	79701	Sample Preparation:	2011-03-23	Prepared By:	ME
Prep Batch:	67614				

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 5 of 13  
Hobbs, NM

Parameter	Flag	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)		0.106	mg/L	1	0.100	106	67.8 - 129
4-Bromofluorobenzene (4-BFB)		0.116	mg/L	1	0.100	116	51.1 - 128

**Sample: 260487 - MW-12**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 79701  
Prep Batch: 67614

Analytical Method: S 8021B  
Date Analyzed: 2011-03-23  
Sample Preparation: 2011-03-23

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

Parameter	Flag	Result	Units	Dilution	RL
Benzene		9.85	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		<0.100	mg/L	100	0.00100
Xylene		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.66	mg/L	100	10.0	97	67.8 - 129
4-Bromofluorobenzene (4-BFB)		10.5	mg/L	100	10.0	105	51.1 - 128

**Sample: 260488 - MW-13**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 79701  
Prep Batch: 67614

Analytical Method: S 8021B  
Date Analyzed: 2011-03-23  
Sample Preparation: 2011-03-23

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

Parameter	Flag	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

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 6 of 13  
Hobbs, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.104	mg/L	1	0.100	104	67.8 - 129
4-Bromofluorobenzene (4-BFB)		0.114	mg/L	1	0.100	114	51.1 - 128

**Sample: 260489 - MW-14**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 79787  
Prep Batch: 67696

Analytical Method: S 8021B  
Date Analyzed: 2011-03-25  
Sample Preparation: 2011-03-25

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

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<b>1.31</b>	mg/L	100	0.00100
Toluene		<0.100	mg/L	100	0.00100
Ethylbenzene		<0.100	mg/L	100	0.00100
Xylene		<0.100	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		9.87	mg/L	100	10.0	99	67.8 - 129
4-Bromofluorobenzene (4-BFB)		8.29	mg/L	100	10.0	83	51.1 - 128

**Sample: 260490 - MW-15**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 79723  
Prep Batch: 67632

Analytical Method: S 8021B  
Date Analyzed: 2011-03-24  
Sample Preparation: 2011-03-23

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

Parameter	Flag	Result	Units	Dilution	RL
Benzene		<b>0.116</b>	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<b>0.0278</b>	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.113	mg/L	1	0.100	113	67.8 - 129
4-Bromofluorobenzene (4-BFB)	1	0.137	mg/L	1	0.100	137	51.1 - 128

<sup>1</sup>High surrogate recovery due to peak interference.

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 7 of 13  
Hobbs, NM

**Method Blank (1)      QC Batch: 79701**

QC Batch: 79701                          Date Analyzed: 2011-03-23                          Analyzed By: ME  
Prep Batch: 67614                          QC Preparation: 2011-03-23                          Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0888	mg/L	1	0.100	89	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.0936	mg/L	1	0.100	94	47.3 - 116

**Method Blank (1)      QC Batch: 79723**

QC Batch: 79723                          Date Analyzed: 2011-03-24                          Analyzed By: ME  
Prep Batch: 67632                          QC Preparation: 2011-03-23                          Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0896	mg/L	1	0.100	90	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.103	mg/L	1	0.100	103	47.3 - 116

**Method Blank (1)      QC Batch: 79787**

QC Batch: 79787                          Date Analyzed: 2011-03-25                          Analyzed By: ME  
Prep Batch: 67696                          QC Preparation: 2011-03-25                          Prepared By: ME

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

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 8 of 13  
Hobbs, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0939	mg/L	1	0.100	94	70.2 - 118
4-Bromofluorobenzene (4-BFB)		0.0939	mg/L	1	0.100	94	47.3 - 116

### Laboratory Control Spike (LCS-1)

QC Batch: 79701  
Prep Batch: 67614

Date Analyzed: 2011-03-23  
QC Preparation: 2011-03-23

Analyzed By: ME  
Prepared By: ME

Param	LCS	Units	Dil.	Spike	Matrix	Rec.	Limit
	Result			Amount			
Benzene	0.104	mg/L	1	0.100	<0.000400	104	76.8 - 110
Toluene	0.107	mg/L	1	0.100	<0.000300	107	81 - 108
Ethylbenzene	0.116	mg/L	1	0.100	<0.000300	116	78.8 - 118
Xylene	0.352	mg/L	1	0.300	<0.000333	117	80.3 - 119

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

Param	LCSD		Spike		Matrix		Rec.		RPD	
	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Benzene	0.0999	mg/L	1	0.100	<0.000400	100	76.8 - 110	4	20	
Toluene	0.102	mg/L	1	0.100	<0.000300	102	81 - 108	5	20	
Ethylbenzene	0.112	mg/L	1	0.100	<0.000300	112	78.8 - 118	4	20	
Xylene	0.341	mg/L	1	0.300	<0.000333	114	80.3 - 119	3	20	

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0954	0.102	mg/L	1	0.100	95	102	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.107	0.115	mg/L	1	0.100	107	115	68.2 - 124

### Laboratory Control Spike (LCS-1)

QC Batch: 79723  
Prep Batch: 67632

Date Analyzed: 2011-03-24  
QC Preparation: 2011-03-23

Analyzed By: ME  
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene	0.100	mg/L	1	0.100	<0.000400	100	76.8 - 110
Toluene	0.106	mg/L	1	0.100	<0.000300	106	81 - 108
Ethylbenzene	0.112	mg/L	1	0.100	<0.000300	112	78.8 - 118
Xylene	0.355	mg/L	1	0.300	<0.000333	118	80.3 - 119

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

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 9 of 13  
Hobbs, NM

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.105	mg/L	1	0.100	<0.000400	105	76.8 - 110	5	20
Toluene	0.108	mg/L	1	0.100	<0.000300	108	81 - 108	2	20
Ethylbenzene	0.117	mg/L	1	0.100	<0.000300	117	78.8 - 118	4	20
Xylene	0.351	mg/L	1	0.300	<0.000333	117	80.3 - 119	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)	0.0986	0.100	mg/L	1	0.100	99	100	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.121	0.121	mg/L	1	0.100	121	121	68.2 - 124

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

QC Batch: 79787  
Prep Batch: 67696

Date Analyzed: 2011-03-25  
QC Preparation: 2011-03-25

Analyzed By: ME  
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene	0.0895	mg/L	1	0.100	<0.000400	90	76.8 - 110
Toluene	0.0934	mg/L	1	0.100	<0.000300	93	81 - 108
Ethylbenzene	0.100	mg/L	1	0.100	<0.000300	100	78.8 - 118
Xylene	0.306	mg/L	1	0.300	<0.000333	102	80.3 - 119

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0926	mg/L	1	0.100	<0.000400	93	76.8 - 110	3	20
Toluene	0.0965	mg/L	1	0.100	<0.000300	96	81 - 108	3	20
Ethylbenzene	0.106	mg/L	1	0.100	<0.000300	106	78.8 - 118	6	20
Xylene	0.320	mg/L	1	0.300	<0.000333	107	80.3 - 119	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0980	0.100	mg/L	1	0.100	98	100	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.104	0.109	mg/L	1	0.100	104	109	68.2 - 124

#### Matrix Spike (MS-1) Spiked Sample: 260487

QC Batch: 79701  
Prep Batch: 67614

Date Analyzed: 2011-03-23  
QC Preparation: 2011-03-23

Analyzed By: ME  
Prepared By: ME

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 10 of 13  
Hobbs, NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	20.3	mg/L	100	10.0	9.8547	104	77.9 - 114
Toluene	10.7	mg/L	100	10.0	<0.0300	107	78.3 - 111
Ethylbenzene	<sup>2</sup> 11.7	mg/L	100	10.0	<0.0300	117	75.3 - 110
Xylene	<sup>3</sup> 35.2	mg/L	100	30.0	<0.0333	117	75.7 - 109

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	19.8	mg/L	100	10.0	9.8547	99	77.9 - 114	2	20
Toluene	10.4	mg/L	100	10.0	<0.0300	104	78.3 - 111	3	20
Ethylbenzene	<sup>4</sup> 11.4	mg/L	100	10.0	<0.0300	114	75.3 - 110	3	20
Xylene	<sup>5</sup> 34.3	mg/L	100	30.0	<0.0333	114	75.7 - 109	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec.	Rec. Limit
Trifluorotoluene (TFT)	9.86	9.62	mg/L	100	10	99	96	68.3 - 107	
4-Bromofluorobenzene (4-BFB)	11.5	11.2	mg/L	100	10	115	112	60.1 - 135	

#### Matrix Spike (MS-1) Spiked Sample: 260758

QC Batch: 79723      Date Analyzed: 2011-03-24      Analyzed By: ME  
Prep Batch: 67632      QC Preparation: 2011-03-23      Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.46	mg/L	10	1.00	0.4662	99	77.9 - 114
Toluene	1.09	mg/L	10	1.00	0.1145	98	78.3 - 111
Ethylbenzene	<sup>6</sup> 1.12	mg/L	10	1.00	<0.00300	112	75.3 - 110
Xylene	3.46	mg/L	10	3.00	0.2387	107	75.7 - 109

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.43	mg/L	10	1.00	0.4662	96	77.9 - 114	2	20
Toluene	1.09	mg/L	10	1.00	0.1145	98	78.3 - 111	0	20
Ethylbenzene	<sup>7</sup> 1.12	mg/L	10	1.00	<0.00300	112	75.3 - 110	0	20
Xylene	3.46	mg/L	10	3.00	0.2387	107	75.7 - 109	0	20

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

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

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

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

<sup>5</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>6</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>7</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 11 of 13  
Hobbs, NM

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.978	1.00	mg/L	10	1	98	100	68.3 - 107
4-Bromofluorobenzene (4-BFB)	1.09	1.11	mg/L	10	1	109	111	60.1 - 135

**Matrix Spike (MS-1) Spiked Sample: 260489**

QC Batch: 79787  
Prep Batch: 67696

Date Analyzed: 2011-03-25  
QC Preparation: 2011-03-25

Analyzed By: ME  
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	10.0	mg/L	100	10.0	1.3125	87	77.9 - 114
Toluene	9.40	mg/L	100	10.0	<0.0300	94	78.3 - 111
Ethylbenzene	10.1	mg/L	100	10.0	<0.0300	101	75.3 - 110
Xylene	30.0	mg/L	100	30.0	<0.0333	100	75.7 - 109

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	9.71	mg/L	100	10.0	1.3125	84	77.9 - 114	3	20
Toluene	9.17	mg/L	100	10.0	<0.0300	92	78.3 - 111	2	20
Ethylbenzene	9.72	mg/L	100	10.0	<0.0300	97	75.3 - 110	4	20
Xylene	29.3	mg/L	100	30.0	<0.0333	98	75.7 - 109	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	10.3	9.91	mg/L	100	10	103	99	68.3 - 107
4-Bromofluorobenzene (4-BFB)	9.40	8.98	mg/L	100	10	94	90	60.1 - 135

**Standard (CCV-2)**

QC Batch: 79701

Date Analyzed: 2011-03-23

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	0.100	100	80 - 120	2011-03-23
Toluene		mg/L	0.100	0.103	103	80 - 120	2011-03-23
Ethylbenzene		mg/L	0.100	0.112	112	80 - 120	2011-03-23
Xylene		mg/L	0.300	0.342	114	80 - 120	2011-03-23

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 12 of 13  
Hobbs, NM

### Standard (CCV-3)

QC Batch: 79701

Date Analyzed: 2011-03-23

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	0.104	104	80 - 120	2011-03-23
Toluene		mg/L	0.100	0.106	106	80 - 120	2011-03-23
Ethylbenzene		mg/L	0.100	0.114	114	80 - 120	2011-03-23
Xylene		mg/L	0.300	0.346	115	80 - 120	2011-03-23

### Standard (CCV-1)

QC Batch: 79723

Date Analyzed: 2011-03-24

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	0.0907	91	80 - 120	2011-03-24
Toluene		mg/L	0.100	0.0933	93	80 - 120	2011-03-24
Ethylbenzene		mg/L	0.100	0.102	102	80 - 120	2011-03-24
Xylene		mg/L	0.300	0.312	104	80 - 120	2011-03-24

### Standard (CCV-2)

QC Batch: 79723

Date Analyzed: 2011-03-24

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	0.0979	98	80 - 120	2011-03-24
Toluene		mg/L	0.100	0.101	101	80 - 120	2011-03-24
Ethylbenzene		mg/L	0.100	0.109	109	80 - 120	2011-03-24
Xylene		mg/L	0.300	0.334	111	80 - 120	2011-03-24

### Standard (CCV-2)

QC Batch: 79787

Date Analyzed: 2011-03-25

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	2011-03-25
Toluene		mg/L	0.100	0.0920	92	80 - 120	2011-03-25
Ethylbenzene		mg/L	0.100	0.0991	99	80 - 120	2011-03-25

*continued ...*

Report Date: March 28, 2011  
700376.050.01

Work Order: 11031501  
Kimbrough

Page Number: 13 of 13  
Hobbs, NM

*standard continued . . .*

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.297	99	80 - 120	2011-03-25

### **Standard (CCV-3)**

QC Batch: 79787

Date Analyzed: 2011-03-25

Analyzed By: ME

Param	Flag	Units	CCVs	CCVs	CCVs	Percent	Date
			True	Found	Percent	Recovery	
Benzene		mg/L	0.100	0.0945	94	80 - 120	2011-03-25
Toluene		mg/L	0.100	0.0968	97	80 - 120	2011-03-25
Ethylbenzene		mg/L	0.100	0.103	103	80 - 120	2011-03-25
Xylene		mg/L	0.300	0.310	103	80 - 120	2011-03-25



## Summary Report

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

Report Date: June 16, 2011

Work Order: 11061003



Project Location: Hobbs, NM  
 Project Name: Kimbrough  
 Project Number: 700376.050.01  
 SRS #: 2000-10757

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
268795	MW-3	water	2011-06-09	12:40	2011-06-09
268796	MW-4	water	2011-06-09	11:40	2011-06-09
268797	MW-10	water	2011-06-09	13:55	2011-06-09
268798	MW-12	water	2011-06-09	12:36	2011-06-09
268799	MW-13	water	2011-06-09	12:44	2011-06-09
268800	MW-14	water	2011-06-09	12:07	2011-06-09
268801	MW-15	water	2011-06-09	13:22	2011-06-09

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
268795 - MW-3	15.1	<0.100	0.912	<0.100
268796 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
268797 - MW-10	0.00910	0.00630	0.00570	0.0173
268798 - MW-12	4.41	<0.100	<0.100	<0.100
268799 - MW-13	0.0344	<0.00100	<0.00100	<0.00100
268800 - MW-14	1.48	<0.0500	<0.0500	0.824
268801 - MW-15	2.84	<0.100	<0.100	<0.100

# TRACEANALYSIS, INC.

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200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944  
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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260

E-Mail: lab@traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

## Analytical and Quality Control Report

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

Report Date: June 16, 2011

Work Order: 11061003



Project Location: Hobbs, NM  
Project Name: Kimbrough  
Project Number: 700376.050.01  
SRS #: 2000-10757

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
268795	MW-3	water	2011-06-09	12:40	2011-06-09
268796	MW-4	water	2011-06-09	11:40	2011-06-09
268797	MW-10	water	2011-06-09	13:55	2011-06-09
268798	MW-12	water	2011-06-09	12:36	2011-06-09
268799	MW-13	water	2011-06-09	12:44	2011-06-09
268800	MW-14	water	2011-06-09	12:07	2011-06-09
268801	MW-15	water	2011-06-09	13:22	2011-06-09

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

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



---

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

# Report Contents

<b>Case Narrative</b>	<b>4</b>
<b>Analytical Report</b>	<b>5</b>
Sample 268795 (MW-3) . . . . .	5
Sample 268796 (MW-4) . . . . .	5
Sample 268797 (MW-10) . . . . .	5
Sample 268798 (MW-12) . . . . .	6
Sample 268799 (MW-13) . . . . .	6
Sample 268800 (MW-14) . . . . .	7
Sample 268801 (MW-15) . . . . .	7
<b>Method Blanks</b>	<b>9</b>
QC Batch 82118 - Method Blank (1) . . . . .	9
QC Batch 82248 - Method Blank (1) . . . . .	9
<b>Laboratory Control Spikes</b>	<b>10</b>
QC Batch 82118 - LCS (1) . . . . .	10
QC Batch 82248 - LCS (1) . . . . .	10
QC Batch 82118 - MS (1) . . . . .	11
QC Batch 82248 - MS (1) . . . . .	11
<b>Calibration Standards</b>	<b>13</b>
QC Batch 82118 - CCV (1) . . . . .	13
QC Batch 82118 - CCV (2) . . . . .	13
QC Batch 82248 - CCV (1) . . . . .	13
QC Batch 82248 - CCV (2) . . . . .	13
<b>Appendix</b>	<b>15</b>
Laboratory Certifications . . . . .	15
Standard Flags . . . . .	15
Attachments . . . . .	15

## Case Narrative

Samples for project Kimbrough were received by TraceAnalysis, Inc. on 2011-06-09 and assigned to work order 11061003. Samples for work order 11061003 were received intact without headspace and at a temperature of 3.8 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	69724	2011-06-10 at 11:17	82118	2011-06-11 at 02:10
BTEX	S 8021B	69846	2011-06-14 at 13:19	82248	2011-06-14 at 13:19

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 11061003 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: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 5 of 15  
Hobbs, NM

## Analytical Report

Sample: 268795 - MW-3

Laboratory:	Midland	Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82118	Date Analyzed:	2011-06-11	Sample Preparation:	2011-06-10	Analyzed By:	ME
Prep Batch:	69724					Prepared By:	ME

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	1		15.1	mg/L	100	0.00100
Toluene	1		<0.100	mg/L	100	0.00100
Ethylbenzene	1		0.912	mg/L	100	0.00100
Xylene	1		<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Spike	Percent	Recovery	
					Dilution	Amount	Limits	
Trifluorotoluene (TFT)			7.45	mg/L	100	10.0	74	67.8 - 129
4-Bromofluorobenzene (4-BFB)			7.13	mg/L	100	10.0	71	51.1 - 128

Sample: 268796 - MW-4

Laboratory:	Midland	Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	82118	Date Analyzed:	2011-06-11	Sample Preparation:	2011-06-10	Analyzed By:	ME
Prep Batch:	69724					Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Spike	Percent	Recovery	
					Dilution	Amount	Limits	
Trifluorotoluene (TFT)			0.0807	mg/L	1	0.100	81	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0741	mg/L	1	0.100	74	51.1 - 128

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 6 of 15  
Hobbs, NM

**Sample: 268797 - MW-10**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 82118  
Prep Batch: 69724

Analytical Method: S 8021B  
Date Analyzed: 2011-06-11  
Sample Preparation: 2011-06-10

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

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	1		0.00910	mg/L	1	0.00100
Toluene	1		0.00630	mg/L	1	0.00100
Ethylbenzene	1		0.00570	mg/L	1	0.00100
Xylene	1		0.0173	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent Recovery	Recovery Limits
						Amount		
Trifluorotoluene (TFT)			0.0841	mg/L	1	0.100	84	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0775	mg/L	1	0.100	78	51.1 - 128

**Sample: 268798 - MW-12**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 82118  
Prep Batch: 69724

Analytical Method: S 8021B  
Date Analyzed: 2011-06-11  
Sample Preparation: 2011-06-10

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

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	1		4.41	mg/L	100	0.00100
Toluene	1		<0.100	mg/L	100	0.00100
Ethylbenzene	1		<0.100	mg/L	100	0.00100
Xylene	1		<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent Recovery	Recovery Limits
						Amount		
Trifluorotoluene (TFT)			7.17	mg/L	100	10.0	72	67.8 - 129
4-Bromofluorobenzene (4-BFB)			6.62	mg/L	100	10.0	66	51.1 - 128

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 7 of 15  
Hobbs, NM

**Sample: 268799 - MW-13**

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX	Date Analyzed:	2011-06-11	Analyzed By:	ME
QC Batch:	82118	Sample Preparation:	2011-06-10	Prepared By:	ME
Prep Batch:	69724				

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	1	0.0344	mg/L	1	0.00100	
Toluene	1	<0.00100	mg/L	1	0.00100	
Ethylbenzene	1	<0.00100	mg/L	1	0.00100	
Xylene	1	<0.00100	mg/L	1	0.00100	

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent Recovery	Recovery Limits
						Amount		
Trifluorotoluene (TFT)			0.0801	mg/L	1	0.100	80	67.8 - 129
4-Bromofluorobenzene (4-BFB)			0.0741	mg/L	1	0.100	74	51.1 - 128

**Sample: 268800 - MW-14**

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX	Date Analyzed:	2011-06-11	Analyzed By:	ME
QC Batch:	82118	Sample Preparation:	2011-06-10	Prepared By:	ME
Prep Batch:	69724				

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	1	1.48	mg/L	50	0.00100	
Toluene	1	<0.0500	mg/L	50	0.00100	
Ethylbenzene	1	<0.0500	mg/L	50	0.00100	
Xylene	1	0.824	mg/L	50	0.00100	

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent Recovery	Recovery Limits
						Amount		
Trifluorotoluene (TFT)			3.66	mg/L	50	5.00	73	67.8 - 129
4-Bromofluorobenzene (4-BFB)			3.40	mg/L	50	5.00	68	51.1 - 128

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 8 of 15  
Hobbs, NM

**Sample: 268801 - MW-15**

Laboratory: Midland

Analysis: BTEX

Analytical Method: S 8021B

Prep Method: S 5030B

QC Batch: 82248

Date Analyzed: 2011-06-14

Analyzed By: ME

Prep Batch: 69846

Sample Preparation: 2011-06-14

Prepared By: ME

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>2.84</b>	mg/L	100	0.00100
Toluene		1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	<0.100	mg/L	100	0.00100
Xylene		1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			<b>8.68</b>	mg/L	100	10.0	87	67.8 - 129
4-Bromofluorobenzene (4-BFB)			<b>8.56</b>	mg/L	100	10.0	86	51.1 - 128

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 9 of 15  
Hobbs, NM

## Method Blanks

Method Blank (1) QC Batch: 82118

QC Batch: 82118 Date Analyzed: 2011-06-11 Analyzed By: ME  
Prep Batch: 69724 QC Preparation: 2011-06-10 Prepared By: ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0776	mg/L	1	0.100	78	70.2 - 118
4-Bromofluorobenzene (4-BFB)			0.0705	mg/L	1	0.100	70	47.3 - 116

Method Blank (1) QC Batch: 82248

QC Batch: 82248 Date Analyzed: 2011-06-14 Analyzed By: ME  
Prep Batch: 69846 QC Preparation: 2011-06-14 Prepared By: ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0920	mg/L	1	0.100	92	70.2 - 118
4-Bromofluorobenzene (4-BFB)			0.0918	mg/L	1	0.100	92	47.3 - 116

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 10 of 15  
Hobbs, NM

## Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: 82118  
Prep Batch: 69724

Date Analyzed: 2011-06-11  
QC Preparation: 2011-06-10

Analyzed By: ME  
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0995	mg/L	1	0.100	<0.000400	100	76.8 - 110
Toluene		1	0.110	mg/L	1	0.100	<0.000300	110	81 - 118
Ethylbenzene		1	0.0944	mg/L	1	0.100	<0.000300	94	78.8 - 118
Xylene		1	0.281	mg/L	1	0.300	<0.000333	94	80.3 - 119

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0970	mg/L	1	0.100	<0.000400	97	76.8 - 110	2	20
Toluene		1	0.108	mg/L	1	0.100	<0.000300	108	81 - 118	2	20
Ethylbenzene		1	0.0929	mg/L	1	0.100	<0.000300	93	78.8 - 118	2	20
Xylene		1	0.277	mg/L	1	0.300	<0.000333	92	80.3 - 119	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)		0.0797	0.0727	mg/L	1	0.100	80	73	66.6 - 114
4-Bromofluorobenzene (4-BFB)		0.0783	0.0713	mg/L	1	0.100	78	71	68.2 - 124

### Laboratory Control Spike (LCS-1)

QC Batch: 82248  
Prep Batch: 69846

Date Analyzed: 2011-06-14  
QC Preparation: 2011-06-14

Analyzed By: ME  
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.110	mg/L	1	0.100	<0.000400	110	76.8 - 110
Toluene		1	0.114	mg/L	1	0.100	<0.000300	114	81 - 118
Ethylbenzene		1	0.0945	mg/L	1	0.100	<0.000300	94	78.8 - 118
Xylene		1	0.284	mg/L	1	0.300	<0.000333	95	80.3 - 119

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

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 11 of 15  
Hobbs, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	RPD Limit	RPD Limit	
Benzene		1	0.105	mg/L	1	0.100	<0.000400	105	76.8 - 110	5	20
Toluene		1	0.111	mg/L	1	0.100	<0.000300	111	81 - 118	3	20
Ethylbenzene		1	0.0926	mg/L	1	0.100	<0.000300	93	78.8 - 118	2	20
Xylene		1	0.276	mg/L	1	0.300	<0.000333	92	80.3 - 119	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0873	0.0848	mg/L	1	0.100	87	85	66.6 - 114
4-Bromofluorobenzene (4-BFB)	0.0906	0.0875	mg/L	1	0.100	91	88	68.2 - 124

#### Matrix Spike (MS-1) Spiked Sample: 268798

QC Batch: 82118  
Prep Batch: 69724

Date Analyzed: 2011-06-11  
QC Preparation: 2011-06-10

Analyzed By: ME  
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene		1	13.1	mg/L	100	10.0	4.4134	87	77.9 - 114
Toluene		1	10.2	mg/L	100	10.0	<0.0300	102	78.3 - 111
Ethylbenzene		1	8.76	mg/L	100	10.0	<0.0300	88	75.3 - 110
Xylene		1	26.1	mg/L	100	30.0	<0.0333	87	75.7 - 109

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	RPD Limit
Benzene		1	13.6	mg/L	100	10.0	4.4134	92	77.9 - 114
Toluene		1	10.6	mg/L	100	10.0	<0.0300	106	78.3 - 111
Ethylbenzene		1	9.13	mg/L	100	10.0	<0.0300	91	75.3 - 110
Xylene		1	27.2	mg/L	100	30.0	<0.0333	91	75.7 - 109

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)	7.18	7.41	mg/L	100	10	72	74	68.3 - 107
4-Bromofluorobenzene (4-BFB)	7.03	7.40	mg/L	100	10	70	74	60.1 - 135

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 12 of 15  
Hobbs, NM

**Matrix Spike (MS-1) Spiked Sample: 268801**

QC Batch: 82248  
Prep Batch: 69846

Date Analyzed: 2011-06-14  
QC Preparation: 2011-06-14

Analyzed By: ME  
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	12.3	mg/L	100	10.0	2.8433	94	77.9 - 114
Toluene		1	10.6	mg/L	100	10.0	<0.0300	106	78.3 - 111
Ethylbenzene		1	8.76	mg/L	100	10.0	<0.0300	88	75.3 - 110
Xylene		1	26.2	mg/L	100	30.0	<0.0333	87	75.7 - 109

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	12.7	mg/L	100	10.0	2.8433	98	77.9 - 114	3	20
Toluene		1	10.9	mg/L	100	10.0	<0.0300	109	78.3 - 111	3	20
Ethylbenzene		1	9.20	mg/L	100	10.0	<0.0300	92	75.3 - 110	5	20
Xylene		1	27.6	mg/L	100	30.0	<0.0333	92	75.7 - 109	5	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	8.59	8.54	mg/L	100	10	86	85	68.3 - 107
4-Bromofluorobenzene (4-BFB)	8.81	8.79	mg/L	100	10	88	88	60.1 - 135

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 13 of 15  
Hobbs, NM

## Calibration Standards

### Standard (CCV-1)

QC Batch: 82118                          Date Analyzed: 2011-06-11                          Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.0961	96	80 - 120	2011-06-11
Toluene	1		mg/L	0.100	0.107	107	80 - 120	2011-06-11
Ethylbenzene	1		mg/L	0.100	0.0922	92	80 - 120	2011-06-11
Xylene	1		mg/L	0.300	0.276	92	80 - 120	2011-06-11

### Standard (CCV-2)

QC Batch: 82118                          Date Analyzed: 2011-06-11                          Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.0948	95	80 - 120	2011-06-11
Toluene	1		mg/L	0.100	0.105	105	80 - 120	2011-06-11
Ethylbenzene	1		mg/L	0.100	0.0903	90	80 - 120	2011-06-11
Xylene	1		mg/L	0.300	0.270	90	80 - 120	2011-06-11

### Standard (CCV-1)

QC Batch: 82248                          Date Analyzed: 2011-06-14                          Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.113	113	80 - 120	2011-06-14
Toluene	1		mg/L	0.100	0.118	118	80 - 120	2011-06-14
Ethylbenzene	1		mg/L	0.100	0.0960	96	80 - 120	2011-06-14
Xylene	1		mg/L	0.300	0.290	97	80 - 120	2011-06-14

Report Date: June 16, 2011  
700376.050.01

Work Order: 11061003  
Kimbrough

Page Number: 14 of 15  
Hobbs, NM

**Standard (CCV-2)**

QC Batch: 82248

Date Analyzed: 2011-06-14

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0990	99	80 - 120	2011-06-14
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2011-06-14
Ethylbenzene		1	mg/L	0.100	0.0855	86	80 - 120	2011-06-14
Xylene		1	mg/L	0.300	0.256	85	80 - 120	2011-06-14

## Appendix

### Laboratory Certifications

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

### Standard Flags

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

### Attachments

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

# TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

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

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

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

Company Name: <b>Talon LPE</b>		Phone #: _____		ANALYSIS REQUEST (Circle or Specify Method No.)																										
Address: (Street, City, Zip) <b>2901 State Hwy 349 Midland</b>		Fax #: _____																												
Contact Person: <b>Steve Killingsworth</b>		E-mail: <b>killingsworth@talonlp.com</b>																												
Invoice to: (If different from above) <b>Plains 2000-10757</b>		Project Name: <b>Kimbrough</b>																												
Project #: <b>700376,050,01</b>		Sampler Signature: <b>Bob Long</b>																												
Project Location (including state): <b>Hobbs NM</b>																														
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX		PRESERVATIVE METHOD		SAMPLING		MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, Fl, SD4, NO3, NO2, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>																				H <sub>2</sub> SO <sub>4</sub>	NaOH
268795	MW 3	3	4oz	X	X			X		6/9/11	1240	X																		
796	MW 4	1	1								1140																			
797	MW 10										1355																			
798	MW 12										1236																			
799	MW 13										1244																			
800	MW 14										1207																			
801	MW 15			↓	↓	↓		↓	↓	↓	1322	↓																		
Relinquished by: Company: Date: Time: Received by: Company: Date: Time: INST OBS COR												LAB USE ONLY REMARKS: <b>x all tests Midland</b>																		
Relinquished by: Company: Date: Time: Received by: Company: Date: Time: INST OBS COR												Inact @ N Headspec: Y/N NA Log-in Review																		
Relinquished by: Company: Date: Time: Received by: Company: Date: Time: INST OBS COR												<input type="checkbox"/> Dry Weight Basis Required <input type="checkbox"/> TRRP Report Required <input type="checkbox"/> Check If Special Reporting Limits Are Needed																		

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

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

ORIGINAL COPY

## Summary Report

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

Report Date: October 4, 2011

Work Order: 11093004



Project Location: Hobbs, NM  
 Project Name: Kimbrough Sweet 8"  
 Project Number: 700376.050.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
278651	MW-3	water	2011-09-29	14:10	2011-09-30
278652	MW-4	water	2011-09-29	14:45	2011-09-30
278653	MW-10	water	2011-09-29	15:20	2011-09-30
278654	MW-12	water	2011-09-29	13:45	2011-09-30
278655	MW-13	water	2011-09-29	14:30	2011-09-30
278656	MW-14	water	2011-09-29	13:15	2011-09-30
278657	MW-15	water	2011-09-29	15:15	2011-09-30

Sample - Field Code	BTEX				Total BTEX (mg/L)
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
278651 - MW-3	<b>17.1</b>	<0.0500	<b>0.537</b>	<0.0500	<b>17.6</b>
278652 - MW-4	<0.00500 <sup>1</sup>	<0.00500	<0.00500	<0.00500	<0.00600
278653 - MW-10	<0.00100 Q <sub>r</sub> , Q <sub>s</sub>	<0.00100 Q <sub>r</sub> , Q <sub>s</sub>	<0.00100 Q <sub>r</sub> , Q <sub>s</sub>	<0.00100 Q <sub>r</sub> , Q <sub>s</sub>	<0.00600
278654 - MW-12	<b>2.76</b> Q <sub>r</sub> , Q <sub>s</sub>	<0.0500 Q <sub>r</sub> , Q <sub>s</sub>	<0.0500 Q <sub>r</sub> , Q <sub>s</sub>	<0.0500 Q <sub>r</sub> , Q <sub>s</sub>	<b>2.76</b>
278655 - MW-13	<0.00100 Q <sub>r</sub> , Q <sub>s</sub>	<0.00100 Q <sub>r</sub> , Q <sub>s</sub>	<0.00100 Q <sub>r</sub> , Q <sub>s</sub>	<0.00100 Q <sub>r</sub> , Q <sub>s</sub>	<0.00600
278656 - MW-14	<b>2.15</b>	<0.0500	<0.0500	<0.0500	<b>2.15</b>
278657 - MW-15	<b>2.18</b>	<0.0500	<0.0500	<b>0.0541</b>	<b>2.23</b>

<sup>1</sup> Sample dilution due to soil in the voa.



# TRACEANALYSIS, INC.

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

E-Mail: lab@traceanalysis.com

## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

## Analytical and Quality Control Report

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

Report Date: October 4, 2011

Work Order: 11093004



Project Location: Hobbs, NM  
Project Name: Kimbrough Sweet 8"  
Project Number: 700376.050.01

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
278651	MW-3	water	2011-09-29	14:10	2011-09-30
278652	MW-4	water	2011-09-29	14:45	2011-09-30
278653	MW-10	water	2011-09-29	15:20	2011-09-30
278654	MW-12	water	2011-09-29	13:45	2011-09-30
278655	MW-13	water	2011-09-29	14:30	2011-09-30
278656	MW-14	water	2011-09-29	13:15	2011-09-30
278657	MW-15	water	2011-09-29	15:15	2011-09-30

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

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



---

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

# Report Contents

<b>Case Narrative</b>	<b>4</b>
<b>Analytical Report</b>	<b>5</b>
Sample 278651 (MW-3) . . . . .	5
Sample 278652 (MW-4) . . . . .	5
Sample 278653 (MW-10) . . . . .	6
Sample 278654 (MW-12) . . . . .	6
Sample 278655 (MW-13) . . . . .	6
Sample 278656 (MW-14) . . . . .	7
Sample 278657 (MW-15) . . . . .	7
<b>Method Blanks</b>	<b>9</b>
QC Batch 85186 - Method Blank (1) . . . . .	9
QC Batch 85222 - Method Blank (1) . . . . .	9
<b>Laboratory Control Spikes</b>	<b>10</b>
QC Batch 85186 - LCS (1) . . . . .	10
QC Batch 85222 - LCS (1) . . . . .	10
QC Batch 85186 - MS (1) . . . . .	11
QC Batch 85222 - MS (1) . . . . .	11
<b>Calibration Standards</b>	<b>13</b>
QC Batch 85186 - CCV (1) . . . . .	13
QC Batch 85186 - CCV (2) . . . . .	13
QC Batch 85222 - CCV (1) . . . . .	13
QC Batch 85222 - CCV (2) . . . . .	13
<b>Appendix</b>	<b>15</b>
Laboratory Certifications . . . . .	15
Standard Flags . . . . .	15
Result Comments . . . . .	15
Attachments . . . . .	15

## Case Narrative

Samples for project Kimbrough Sweet 8" were received by TraceAnalysis, Inc. on 2011-09-30 and assigned to work order 11093004. Samples for work order 11093004 were received intact without headspace and at a temperature of 3.7 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	72321	2011-09-30 at 16:30	85186	2011-09-30 at 16:30
BTEX	S 8021B	72355	2011-10-03 at 12:06	85222	2011-10-03 at 12:06
Total BTEX	S 8021B	72321	2011-09-30 at 16:30	85186	2011-09-30 at 16:30
Total BTEX	S 8021B	72355	2011-10-03 at 12:06	85222	2011-10-03 at 12:06

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11093004 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 5 of 15  
Hobbs, NM

## Analytical Report

### Sample: 278651 - MW-3

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

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

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

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	17.1	mg/L	50	0.00100
Toluene	v	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	0.537	mg/L	50	0.00100
Xylene	v	1	<0.0500	mg/L	50	0.00100
Total BTEX			17.6	mg/L	50	0.00600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.73	mg/L	50	5.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			5.23	mg/L	50	5.00	105	70 - 130

### Sample: 278652 - MW-4

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

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

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

Parameter	Flag	Cert	Result	Units	Dilution	RL	
Benzene	1	v	1	<0.00500	mg/L	5	0.00100
Toluene	v	1	<0.00500	mg/L	5	0.00100	
Ethylbenzene	v	1	<0.00500	mg/L	5	0.00100	
Xylene	v	1	<0.00500	mg/L	5	0.00100	
Total BTEX			<0.00600	mg/L	1	0.00600	

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.496	mg/L	5	0.500	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.509	mg/L	5	0.500	102	70 - 130

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 6 of 15  
Hobbs, NM

**Sample: 278653 - MW-10**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX, Total BTEX	Date Analyzed:	2011-09-30	Analyzed By:	ZLM
QC Batch:	85186	Sample Preparation:	2011-09-30	Prepared By:	ZLM
Prep Batch:	72321				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Toluene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Xylene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Total BTEX			<0.00600	mg/L	1	0.00600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0844	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0891	mg/L	1	0.100	89	70 - 130

**Sample: 278654 - MW-12**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX, Total BTEX	Date Analyzed:	2011-09-30	Analyzed By:	ZLM
QC Batch:	85186	Sample Preparation:	2011-09-30	Prepared By:	ZLM
Prep Batch:	72321				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	Q <sub>r</sub> , Q <sub>s</sub>	1	2.76	mg/L	50	0.00100
Toluene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.0500	mg/L	50	0.00100
Xylene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.0500	mg/L	50	0.00100
Total BTEX			2.76	mg/L	50	0.00600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.74	mg/L	50	5.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			4.90	mg/L	50	5.00	98	70 - 130

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 7 of 15  
Hobbs, NM

**Sample: 278655 - MW-13**

Laboratory: Lubbock  
Analysis: BTEX, Total BTEX  
QC Batch: 85186  
Prep Batch: 72321

Analytical Method: S 8021B  
Date Analyzed: 2011-09-30  
Sample Preparation: 2011-09-30

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

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Toluene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Xylene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Total BTEX			<0.00600	mg/L	1	0.00600

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

**Sample: 278656 - MW-14**

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

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

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

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	2.15	mg/L	50	0.00100
Toluene	U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	U	1	<0.0500	mg/L	50	0.00100
Xylene	U	1	<0.0500	mg/L	50	0.00100
Total BTEX			2.15	mg/L	50	0.00600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			5.45	mg/L	50	5.00	109	70 - 130
4-Bromofluorobenzene (4-BFB)			5.33	mg/L	50	5.00	107	70 - 130

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 8 of 15  
Hobbs, NM

**Sample: 278657 - MW-15**

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX, Total BTEX	Date Analyzed:	2011-10-03	Analyzed By:	ZLM
QC Batch:	85222	Sample Preparation:	2011-10-03	Prepared By:	ZLM
Prep Batch:	72355				

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	<b>2.18</b>	mg/L	50	0.00100
Toluene	v	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	v	1	<0.0500	mg/L	50	0.00100
Xylene		1	<b>0.0541</b>	mg/L	50	0.00100
Total BTEX			<b>2.23</b>	mg/L	50	0.00600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery	Recovery
						Amount	Recovery	Recovery	Limits
Trifluorotoluene (TFT)			5.27	mg/L	50	5.00	105	105	70 - 130
4-Bromofluorobenzene (4-BFB)			5.40	mg/L	50	5.00	108	108	70 - 130

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 9 of 15  
Hobbs, NM

## Method Blanks

Method Blank (1) QC Batch: 85186

QC Batch: 85186  
Prep Batch: 72321

Date Analyzed: 2011-09-30  
QC Preparation: 2011-09-30

Analyzed By: ZLM  
Prepared By: ZLM

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

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

Method Blank (1) QC Batch: 85222

QC Batch: 85222  
Prep Batch: 72355

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

Analyzed By: ZLM  
Prepared By: ZLM

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

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

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 10 of 15  
Hobbs, NM

## Laboratory Control Spikes

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

QC Batch: 85186  
Prep Batch: 72321

Date Analyzed: 2011-09-30  
QC Preparation: 2011-09-30

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Benzene		1	0.118	mg/L	1	0.100	<0.000765	118	70 - 130
Toluene		1	0.0980	mg/L	1	0.100	<0.000719	98	70 - 130
Ethylbenzene		1	0.0920	mg/L	1	0.100	<0.000860	92	70 - 130
Xylene		1	0.282	mg/L	1	0.300	<0.000942	94	70 - 130

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

Param	LCSD			Spike		Matrix		Rec.	Rec. Limit	RPD	RPD Limit
	F	C	Result	Units	Dil.	Amount	Result				
Benzene		1	0.119	mg/L	1	0.100	<0.000765	119	70 - 130	1	20
Toluene		1	0.0989	mg/L	1	0.100	<0.000719	99	70 - 130	1	20
Ethylbenzene		1	0.0931	mg/L	1	0.100	<0.000860	93	70 - 130	1	20
Xylene		1	0.284	mg/L	1	0.300	<0.000942	95	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)	0.108	0.108	mg/L	1	0.100	108	108	70 - 130
4-Bromofluorobenzene (4-BFB)	0.104	0.104	mg/L	1	0.100	104	104	70 - 130

## Laboratory Control Spike (LCS-1)

QC Batch: 85222  
Prep Batch: 72355

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

Analyzed By: ZLM  
Prepared By: ZLM

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

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

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 11 of 15  
Hobbs, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.116	mg/L	1	0.100	<0.000765	116	70 - 130	2	20
Toluene		1	0.0983	mg/L	1	0.100	<0.000719	98	70 - 130	1	20
Ethylbenzene		1	0.0957	mg/L	1	0.100	<0.000860	96	70 - 130	0	20
Xylene		1	0.288	mg/L	1	0.300	<0.000942	96	70 - 130	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.110	0.0997	mg/L	1	0.100	110	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.105	0.0956	mg/L	1	0.100	105	96	70 - 130

#### Matrix Spike (MS-1) Spiked Sample: 278648

QC Batch: 85186 Date Analyzed: 2011-09-30 Analyzed By: ZLM  
Prep Batch: 72321 QC Preparation: 2011-09-30 Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene		1	0.0961	mg/L	1	0.100	<0.000765	96	70 - 130
Toluene		1	0.0799	mg/L	1	0.100	<0.000719	80	70 - 130
Ethylbenzene		1	0.0768	mg/L	1	0.100	<0.000860	77	70 - 130
Xylene		1	0.236	mg/L	1	0.300	<0.000942	79	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Q <sub>r</sub> , Q <sub>s</sub>	1	0.0610	mg/L	1	0.100	<0.000765	61	70 - 130	45	20
Toluene	Q <sub>r</sub> , Q <sub>s</sub>	1	0.0488	mg/L	1	0.100	<0.000719	49	70 - 130	48	20
Ethylbenzene	Q <sub>r</sub> , Q <sub>s</sub>	1	0.0480	mg/L	1	0.100	<0.000860	48	70 - 130	46	20
Xylene	Q <sub>r</sub> , Q <sub>s</sub>	1	0.147	mg/L	1	0.300	<0.000942	49	70 - 130	46	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)	0.108	0.103	mg/L	1	0.1	108	103	70 - 130
4-Bromofluorobenzene (4-BFB)	0.104	0.101	mg/L	1	0.1	104	101	70 - 130

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 12 of 15  
Hobbs, NM

Matrix Spike (MS-1) Spiked Sample: 278650

QC Batch: 85222  
Prep Batch: 72355

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

Analyzed By: ZLM  
Prepared By: ZLM

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

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	25.2	mg/L	100	10.0	13.9	113	70 - 130	1	20
Toluene		1	9.69	mg/L	100	10.0	0.144	95	70 - 130	2	20
Ethylbenzene		1	9.46	mg/L	100	10.0	0.264	92	70 - 130	3	20
Xylene		1	27.9	mg/L	100	30.0	0.251	92	70 - 130	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	9.70	9.53	mg/L	100	10	97	95	70 - 130
4-Bromofluorobenzene (4-BFB)	9.07	9.09	mg/L	100	10	91	91	70 - 130

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 13 of 15  
Hobbs, NM

## Calibration Standards

### Standard (CCV-1)

QC Batch: 85186

Date Analyzed: 2011-09-30

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.117	117	80 - 120	2011-09-30
Toluene	1		mg/L	0.100	0.0962	96	80 - 120	2011-09-30
Ethylbenzene	1		mg/L	0.100	0.0902	90	80 - 120	2011-09-30
Xylene	1		mg/L	0.300	0.277	92	80 - 120	2011-09-30

### Standard (CCV-2)

QC Batch: 85186

Date Analyzed: 2011-09-30

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.111	111	80 - 120	2011-09-30
Toluene	1		mg/L	0.100	0.0961	96	80 - 120	2011-09-30
Ethylbenzene	1		mg/L	0.100	0.0913	91	80 - 120	2011-09-30
Xylene	1		mg/L	0.300	0.278	93	80 - 120	2011-09-30

### Standard (CCV-1)

QC Batch: 85222

Date Analyzed: 2011-10-03

Analyzed By: ZLM

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

Report Date: October 4, 2011  
700376.050.01

Work Order: 11093004  
Kimbrough Sweet 8"

Page Number: 14 of 15  
Hobbs, NM

**Standard (CCV-2)**

QC Batch: 85222

Date Analyzed: 2011-10-03

Analyzed By: ZLM

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

## Appendix

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-4	Lubbock

### Standard Flags

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

### Result Comments

- 1 Sample dilution due to soil in the voa.

### Attachments

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



## Summary Report

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

Report Date: December 23, 2011

Work Order: 11121906



Project Location: Hobbs, NM  
 Project Name: Kimbrough Sweet 8"  
 Project Number: 700376.050.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
284742	MW 14	water	2011-12-16	12:30	2011-12-16
284743	MW 15	water	2011-12-16	12:45	2011-12-16

Sample - Field Code	Benzene	Toluene	BTEX	Xylene	MTBE
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	MTBE (mg/L)
284742 - MW 14	1.66	<0.0500	<0.0500	<0.0500	
284743 - MW 15	1.45	<0.0500	<0.0500	<0.0500	

### Sample: 284742 - MW 14

Param	Flag	Result	Units	RL
Naphthalene		0.00446	mg/L	0.0002
2-Methylnaphthalene		0.00269	mg/L	0.0002
1-Methylnaphthalene		0.00354	mg/L	0.0002
Acenaphthylene		<0.000183	mg/L	0.0002
Acenaphthene		<0.000183	mg/L	0.0002
Dibenzofuran		<0.000183	mg/L	0.0002
Fluorene	Qc	<0.000183	mg/L	0.0002
Anthracene		<0.000183	mg/L	0.0002
Phenanthrene		<0.000183	mg/L	0.0002
Fluoranthene		<0.000183	mg/L	0.0002
Pyrene		<0.000183	mg/L	0.0002
Benzo(a)anthracene		<0.000183	mg/L	0.0002
Chrysene		<0.000183	mg/L	0.0002
Benzo(b)fluoranthene		<0.000183	mg/L	0.0002
Benzo(k)fluoranthene		<0.000183	mg/L	0.0002
Benzo(a)pyrene		<0.000183	mg/L	0.0002

*continued ...*

*sample 284742 continued ...*

Param	Flag	Result	Units	RL
Indeno(1,2,3-cd)pyrene		<0.000183	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000183	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000183	mg/L	0.0002

**Sample: 284743 - MW 15**

Param	Flag	Result	Units	RL
Naphthalene		<b>0.00620</b>	mg/L	0.0002
2-Methylnaphthalene		<0.000184	mg/L	0.0002
1-Methylnaphthalene		<b>0.00910</b>	mg/L	0.0002
Acenaphthylene		<0.000184	mg/L	0.0002
Acenaphthene		<0.000184	mg/L	0.0002
Dibenzofuran		<b>0.000447</b>	mg/L	0.0002
Fluorene	qc	<b>0.000365</b>	mg/L	0.0002
Anthracene		<0.000184	mg/L	0.0002
Phenanthrene		<b>0.000281</b>	mg/L	0.0002
Fluoranthene		<0.000184	mg/L	0.0002
Pyrene		<0.000184	mg/L	0.0002
Benzo(a)anthracene		<0.000184	mg/L	0.0002
Chrysene		<0.000184	mg/L	0.0002
Benzo(b)fluoranthene		<0.000184	mg/L	0.0002
Benzo(k)fluoranthene		<0.000184	mg/L	0.0002
Benzo(a)pyrene		<0.000184	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000184	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000184	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000184	mg/L	0.0002

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## Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

## Analytical and Quality Control Report

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

Report Date: December 23, 2011

Work Order: 11121906



Project Location: Hobbs, NM  
Project Name: Kimbrough Sweet 8"  
Project Number: 700376.050.01

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
284742	MW 14	water	2011-12-16	12:30	2011-12-16
284743	MW 15	water	2011-12-16	12:45	2011-12-16

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

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

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

# Report Contents

<b>Case Narrative</b>	<b>3</b>
<b>Analytical Report</b>	<b>4</b>
Sample 284742 (MW 14) . . . . .	4
Sample 284743 (MW 15) . . . . .	5
<b>Method Blanks</b>	<b>7</b>
QC Batch 87361 - Method Blank (1) . . . . .	7
QC Batch 87378 - Method Blank (1) . . . . .	7
<b>Laboratory Control Spikes</b>	<b>9</b>
QC Batch 87361 - LCS (1) . . . . .	9
QC Batch 87378 - LCS (1) . . . . .	9
QC Batch 87361 - MS (1) . . . . .	11
<b>Calibration Standards</b>	<b>12</b>
QC Batch 87361 - CCV (1) . . . . .	12
QC Batch 87361 - CCV (2) . . . . .	12
QC Batch 87378 - CCV (1) . . . . .	12
QC Batch 87378 - CCV (2) . . . . .	13
<b>Appendix</b>	<b>15</b>
Report Definitions . . . . .	15
Laboratory Certifications . . . . .	15
Standard Flags . . . . .	15
Attachments . . . . .	15

## Case Narrative

Samples for project Kimbrough Sweet 8" were received by TraceAnalysis, Inc. on 2011-12-16 and assigned to work order 11121906. Samples for work order 11121906 were received intact without headspace and at a temperature of 3.3 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	74181	2011-12-21 at 11:06	87361	2011-12-21 at 11:06
PAH	S 8270D	74197	2011-12-20 at 15:00	87378	2011-12-22 at 11:26

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11121906 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: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 4 of 15  
Hobbs, NM

## Analytical Report

Sample: 284742 - MW 14

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX	Date Analyzed:	2011-12-21	Analyzed By:	ZLM
QC Batch:	87361	Sample Preparation:	2011-12-21	Prepared By:	ZLM
Prep Batch:	74181				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	1.66	mg/L	50	0.00100
Toluene	u	u	<0.0500	mg/L	50	0.00100
Ethylbenzene	u	u	<0.0500	mg/L	50	0.00100
Xylene	u	u	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.34	mg/L	50	5.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)			4.25	mg/L	50	5.00	85	70 - 130

Sample: 284742 - MW 14

Laboratory:	Lubbock	Analytical Method:	S 8270D	Prep Method:	S 3510C
Analysis:	PAH	Date Analyzed:	2011-12-22	Analyzed By:	MN
QC Batch:	87378	Sample Preparation:	2011-12-20	Prepared By:	MN
Prep Batch:	74197				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Naphthalene		1	0.00446	mg/L	0.913	0.000200
2-Methylnaphthalene		1	0.00269	mg/L	0.913	0.000200
1-Methylnaphthalene			0.00354	mg/L	0.913	0.000200
Acenaphthylene	u	u	<0.000183	mg/L	0.913	0.000200
Acenaphthene	u	u	<0.000183	mg/L	0.913	0.000200
Dibenzofuran	u	u	<0.000183	mg/L	0.913	0.000200
Fluorene	qc,u	qc,u	<0.000183	mg/L	0.913	0.000200
Anthracene	u	u	<0.000183	mg/L	0.913	0.000200
Phenanthrene	u	u	<0.000183	mg/L	0.913	0.000200
Fluoranthene	u	u	<0.000183	mg/L	0.913	0.000200
Pyrene	u	u	<0.000183	mg/L	0.913	0.000200
Benzo(a)anthracene	u	u	<0.000183	mg/L	0.913	0.000200
Chrysene	u	u	<0.000183	mg/L	0.913	0.000200

continued ...

Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 5 of 15  
Hobbs, NM

sample 284742 continued ...

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzo(b)fluoranthene	u	u	<0.000183	mg/L	0.913	0.000200
Benzo(k)fluoranthene	u	u	<0.000183	mg/L	0.913	0.000200
Benzo(a)pyrene	u	u	<0.000183	mg/L	0.913	0.000200
Indeno(1,2,3-cd)pyrene	u	u	<0.000183	mg/L	0.913	0.000200
Dibenzo(a,h)anthracene	u	u	<0.000183	mg/L	0.913	0.000200
Benzo(g,h,i)perylene	u	u	<0.000183	mg/L	0.913	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0492	mg/L	0.913	0.0800	62	10 - 117
2-Fluorobiphenyl			0.0434	mg/L	0.913	0.0800	54	10 - 99
Terphenyl-d14			0.0513	mg/L	0.913	0.0800	64	22.6 - 115

Sample: 284743 - MW 15

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 87361  
Prep Batch: 74181

Analytical Method: S 8021B  
Date Analyzed: 2011-12-21  
Sample Preparation: 2011-12-21

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

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene		1	1.45	mg/L	50	0.00100
Toluene	u	u	<0.0500	mg/L	50	0.00100
Ethylbenzene	u	u	<0.0500	mg/L	50	0.00100
Xylene	u	u	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			5.27	mg/L	50	5.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)			5.19	mg/L	50	5.00	104	70 - 130

Sample: 284743 - MW 15

Laboratory: Lubbock  
Analysis: PAH  
QC Batch: 87378  
Prep Batch: 74197

Analytical Method: S 8270D  
Date Analyzed: 2011-12-22  
Sample Preparation: 2011-12-20

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

Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 6 of 15  
Hobbs, NM

Parameter	Flag	Cert	Result	Units	Dilution	RL		
Naphthalene		1	<b>0.00620</b>	mg/L	0.922	0.000200		
2-Methylnaphthalene	u	u	<0.000184	mg/L	0.922	0.000200		
1-Methylnaphthalene			<b>0.00910</b>	mg/L	0.922	0.000200		
Acenaphthylene	u	u	<0.000184	mg/L	0.922	0.000200		
Acenaphthene	u	u	<0.000184	mg/L	0.922	0.000200		
Dibenzofuran		1	<b>0.000447</b>	mg/L	0.922	0.000200		
Fluorene	Qc	Qc	<b>0.000365</b>	mg/L	0.922	0.000200		
Anthracene	u	u	<0.000184	mg/L	0.922	0.000200		
Phenanthrrene			<b>0.000281</b>	mg/L	0.922	0.000200		
Fluoranthene	u	u	<0.000184	mg/L	0.922	0.000200		
Pyrene	u	u	<0.000184	mg/L	0.922	0.000200		
Benzo(a)anthracene	u	u	<0.000184	mg/L	0.922	0.000200		
Chrysene	u	u	<0.000184	mg/L	0.922	0.000200		
Benzo(b)fluoranthene	u	u	<0.000184	mg/L	0.922	0.000200		
Benzo(k)fluoranthene	u	u	<0.000184	mg/L	0.922	0.000200		
Benzo(a)pyrene	u	u	<0.000184	mg/L	0.922	0.000200		
Indeno(1,2,3-cd)pyrene	u	u	<0.000184	mg/L	0.922	0.000200		
Dibenzo(a,h)anthracene	u	u	<0.000184	mg/L	0.922	0.000200		
Benzo(g,h,i)perylene	u	u	<0.000184	mg/L	0.922	0.000200		
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0429	mg/L	0.922	0.0800	54	10 - 117
2-Fluorobiphenyl			0.0398	mg/L	0.922	0.0800	50	10 - 99
Terphenyl-d14			0.0477	mg/L	0.922	0.0800	60	22.6 - 115

Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 7 of 15  
Hobbs, NM

## Method Blanks

Method Blank (1) QC Batch: 87361

QC Batch: 87361 Date Analyzed: 2011-12-21 Analyzed By: ZLM  
Prep Batch: 74181 QC Preparation: 2011-12-21 Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene	1	<0.000765	mg/L	0.001	
Toluene	1	<0.000719	mg/L	0.001	
Ethylbenzene	1	<0.000860	mg/L	0.001	
Xylene	1	<0.000942	mg/L	0.001	
Surrogate	Flag	Cert	Result	Spike Amount	Percent Recovery
Trifluorotoluene (TFT)		0.106	mg/L	1	106
4-Bromofluorobenzene (4-BFB)		0.102	mg/L	1	102
			Dilution		Recovery Limits

Method Blank (1) QC Batch: 87378

QC Batch: 87378 Date Analyzed: 2011-12-22 Analyzed By: MN  
Prep Batch: 74197 QC Preparation: 2011-12-20 Prepared By: MN

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

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Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 8 of 15  
Hobbs, NM

*method blank continued . . .*

Parameter	Flag	Cert	MDL Result	Units	RL			
Indeno(1,2,3-cd)pyrene		1	<0.000139	mg/L	0.0002			
Dibenzo(a,h)anthracene		1	<0.000107	mg/L	0.0002			
Benzo(g,h,i)perylene			<0.000143	mg/L	0.0002			
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0351	mg/L	1	0.0800	44	10 - 117
2-Fluorobiphenyl			0.0252	mg/L	1	0.0800	32	10 - 99
Terphenyl-d14			0.0493	mg/L	1	0.0800	62	22.6 - 115

Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 9 of 15  
Hobbs, NM

## Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: 87361      Date Analyzed: 2011-12-21      Analyzed By: ZLM  
Prep Batch: 74181      QC Preparation: 2011-12-21      Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0981	mg/L	1	0.100	<0.000765	98	70 - 130
Toluene		1	0.0962	mg/L	1	0.100	<0.000719	96	70 - 130
Ethylbenzene		1	0.0964	mg/L	1	0.100	<0.000860	96	70 - 130
Xylene		1	0.286	mg/L	1	0.300	<0.000942	95	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0983	mg/L	1	0.100	<0.000765	98	70 - 130	0	20
Toluene		1	0.0982	mg/L	1	0.100	<0.000719	98	70 - 130	2	20
Ethylbenzene		1	0.0988	mg/L	1	0.100	<0.000860	99	70 - 130	2	20
Xylene		1	0.291	mg/L	1	0.300	<0.000942	97	70 - 130	2	20

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

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		0.0882	0.0896	mg/L	1	0.100	88	90	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0840	0.0842	mg/L	1	0.100	84	84	70 - 130

### Laboratory Control Spike (LCS-1)

QC Batch: 87378      Date Analyzed: 2011-12-22      Analyzed By: MN  
Prep Batch: 74197      QC Preparation: 2011-12-20      Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	0.0369	mg/L	1	0.0800	<0.0000904	46	10 - 89.9
2-Methylnaphthalene		1	0.0427	mg/L	1	0.0800	<0.000184	53	13.8 - 98.4
1-Methylnaphthalene			0.0486	mg/L	1	0.0800	<0.000120	61	13.1 - 103
Acenaphthylene		1	0.0485	mg/L	1	0.0800	<0.000101	61	20 - 104
Acenaphthene		1	0.0461	mg/L	1	0.0800	<0.000122	58	21.6 - 94.6

*continued ...*

Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 10 of 15  
Hobbs, NM

*control spikes continued ...*

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dibenzofuran		1	0.0413	mg/L	1	0.0800	<0.000119	52	22.9 - 74.9
Fluorene		1	0.0492	mg/L	1	0.0800	<0.000198	62	30.8 - 109
Anthracene		1	0.0623	mg/L	1	0.0800	<0.000190	78	37.6 - 96.4
Phenanthrene			0.0628	mg/L	1	0.0800	<0.000190	78	42.4 - 99.8
Fluoranthene			0.0579	mg/L	1	0.0800	<0.000122	72	48 - 118
Pyrene		1	0.0566	mg/L	1	0.0800	<0.000142	71	45.3 - 109
Benzo(a)anthracene			0.0702	mg/L	1	0.0800	<0.000138	88	48 - 113
Chrysene		1	0.0770	mg/L	1	0.0800	<0.000155	96	35.2 - 175
Benzo(b)fluoranthene			0.0497	mg/L	1	0.0800	<0.000179	62	16.6 - 106
Benzo(k)fluoranthene		1	0.0523	mg/L	1	0.0800	<0.000185	65	36.8 - 99.4
Benzo(a)pyrene		1	0.0500	mg/L	1	0.0800	<0.000169	62	32.3 - 99.7
Indeno(1,2,3-cd)pyrene		1	0.0502	mg/L	1	0.0800	<0.000139	63	34.1 - 106
Dibenzo(a,h)anthracene		1	0.0430	mg/L	1	0.0800	<0.000107	54	47.1 - 103
Benzo(g,h,i)perylene			0.0522	mg/L	1	0.0800	<0.000143	65	21.9 - 112

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene		1	0.0368	mg/L	1	0.0800	<0.0000904	46	10 - 89.9	0	20
2-Methylnaphthalene		1	0.0428	mg/L	1	0.0800	<0.000184	54	13.8 - 98.4	0	20
1-Methylnaphthalene			0.0484	mg/L	1	0.0800	<0.000120	60	13.1 - 103	0	20
Acenaphthylene		1	0.0491	mg/L	1	0.0800	<0.000101	61	20 - 104	1	20
Acenaphthene		1	0.0463	mg/L	1	0.0800	<0.000122	58	21.6 - 94.6	0	20
Dibenzofuran		1	0.0412	mg/L	1	0.0800	<0.000119	52	22.9 - 74.9	0	20
Fluorene		1	0.0494	mg/L	1	0.0800	<0.000198	62	30.8 - 109	0	20
Anthracene		1	0.0638	mg/L	1	0.0800	<0.000190	80	37.6 - 96.4	2	20
Phenanthrene			0.0635	mg/L	1	0.0800	<0.000190	79	42.4 - 99.8	1	20
Fluoranthene			0.0600	mg/L	1	0.0800	<0.000122	75	48 - 118	4	20
Pyrene		1	0.0576	mg/L	1	0.0800	<0.000142	72	45.3 - 109	2	20
Benzo(a)anthracene			0.0708	mg/L	1	0.0800	<0.000138	88	48 - 113	1	20
Chrysene		1	0.0770	mg/L	1	0.0800	<0.000155	96	35.2 - 175	0	20
Benzo(b)fluoranthene			0.0505	mg/L	1	0.0800	<0.000179	63	16.6 - 106	2	20
Benzo(k)fluoranthene		1	0.0498	mg/L	1	0.0800	<0.000185	62	36.8 - 99.4	5	20
Benzo(a)pyrene		1	0.0511	mg/L	1	0.0800	<0.000169	64	32.3 - 99.7	2	20
Indeno(1,2,3-cd)pyrene		1	0.0516	mg/L	1	0.0800	<0.000139	64	34.1 - 106	3	20
Dibenzo(a,h)anthracene		1	0.0443	mg/L	1	0.0800	<0.000107	55	47.1 - 103	3	20
Benzo(g,h,i)perylene			0.0529	mg/L	1	0.0800	<0.000143	66	21.9 - 112	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
Nitrobenzene-d5	0.0420	0.0418	mg/L	1	0.0800	52	52	10 - 117
2-Fluorobiphenyl	0.0364	0.0367	mg/L	1	0.0800	46	46	10 - 99
Terphenyl-d14	0.0543	0.0558	mg/L	1	0.0800	68	70	22.6 - 115

Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 11 of 15  
Hobbs, NM

**Matrix Spike (MS-1) Spiked Sample: 284742**

QC Batch: 87361  
Prep Batch: 74181

Date Analyzed: 2011-12-21  
QC Preparation: 2011-12-21

Analyzed By: ZLM  
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	6.59	mg/L	50	5.00	1.66	99	70 - 130
Toluene		1	4.83	mg/L	50	5.00	<0.0360	97	70 - 130
Ethylbenzene		1	4.89	mg/L	50	5.00	<0.0430	98	70 - 130
Xylene		1	14.4	mg/L	50	15.0	<0.0471	96	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	6.42	mg/L	50	5.00	1.66	95	70 - 130	3	20
Toluene		1	4.72	mg/L	50	5.00	<0.0360	94	70 - 130	2	20
Ethylbenzene		1	4.80	mg/L	50	5.00	<0.0430	96	70 - 130	2	20
Xylene		1	14.2	mg/L	50	15.0	<0.0471	95	70 - 130	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.34	4.52	mg/L	50	5	87	90	70 - 130
4-Bromofluorobenzene (4-BFB)	4.08	4.35	mg/L	50	5	82	87	70 - 130

## Calibration Standards

### Standard (CCV-1)

QC Batch: 87361      Date Analyzed: 2011-12-21      Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1	mg/L	0.100	0.0955	96	80 - 120	2011-12-21	
Toluene	1	mg/L	0.100	0.0939	94	80 - 120	2011-12-21	
Ethylbenzene	1	mg/L	0.100	0.0956	96	80 - 120	2011-12-21	
Xylene	1	mg/L	0.300	0.280	93	80 - 120	2011-12-21	

### Standard (CCV-2)

QC Batch: 87361      Date Analyzed: 2011-12-21      Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1	mg/L	0.100	0.0978	98	80 - 120	2011-12-21	
Toluene	1	mg/L	0.100	0.0958	96	80 - 120	2011-12-21	
Ethylbenzene	1	mg/L	0.100	0.0974	97	80 - 120	2011-12-21	
Xylene	1	mg/L	0.300	0.286	95	80 - 120	2011-12-21	

### Standard (CCV-1)

QC Batch: 87378      Date Analyzed: 2011-12-22      Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene	1	mg/L	60.0	50.7	84	80 - 120	2011-12-22	
2-Methylnaphthalene	1	mg/L	60.0	50.0	83	80 - 120	2011-12-22	
1-Methylnaphthalene		mg/L	60.0	58.9	98	80 - 120	2011-12-22	
Acenaphthylene	1	mg/L	60.0	51.1	85	80 - 120	2011-12-22	
Acenaphthene	1	mg/L	60.0	50.6	84	80 - 120	2011-12-22	
Dibenzofuran	1	mg/L	60.0	49.1	82	80 - 120	2011-12-22	
Fluorene	Qc	Qc	1	mg/L	60.0	47.9	80	80 - 120

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Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 13 of 15  
Hobbs, NM

*standard continued ...*

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Anthracene		1	mg/L	60.0	59.0	98	80 - 120	2011-12-22
Phenanthrene			mg/L	60.0	58.6	98	80 - 120	2011-12-22
Fluoranthene			mg/L	60.0	59.2	99	80 - 120	2011-12-22
Pyrene		1	mg/L	60.0	54.2	90	80 - 120	2011-12-22
Benzo(a)anthracene			mg/L	60.0	60.3	100	80 - 120	2011-12-22
Chrysene		1	mg/L	60.0	52.5	88	80 - 120	2011-12-22
Benzo(b)fluoranthene			mg/L	60.0	50.6	84	80 - 120	2011-12-22
Benzo(k)fluoranthene		1	mg/L	60.0	49.7	83	80 - 120	2011-12-22
Benzo(a)pyrene		1	mg/L	60.0	53.3	89	80 - 120	2011-12-22
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	53.6	89	80 - 120	2011-12-22
Dibenzo(a,h)anthracene		1	mg/L	60.0	54.8	91	80 - 120	2011-12-22
Benzo(g,h,i)perylene			mg/L	60.0	52.3	87	80 - 120	2011-12-22

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			58.4	mg/L	1	60.0	97	-
2-Fluorobiphenyl			53.8	mg/L	1	60.0	90	-
Terphenyl-d14			58.2	mg/L	1	60.0	97	-

### Standard (CCV-2)

QC Batch: 87378

Date Analyzed: 2011-12-22

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	50.8	85	80 - 120	2011-12-22
2-Methylnaphthalene		1	mg/L	60.0	49.0	82	80 - 120	2011-12-22
1-Methylnaphthalene			mg/L	60.0	56.9	95	80 - 120	2011-12-22
Acenaphthylene		1	mg/L	60.0	52.0	87	80 - 120	2011-12-22
Acenaphthene		1	mg/L	60.0	50.8	85	80 - 120	2011-12-22
Dibenzofuran		1	mg/L	60.0	49.5	82	80 - 120	2011-12-22
Fluorene		1	mg/L	60.0	48.1	80	80 - 120	2011-12-22
Anthracene		1	mg/L	60.0	59.3	99	80 - 120	2011-12-22
Phenanthrene			mg/L	60.0	58.8	98	80 - 120	2011-12-22
Fluoranthene			mg/L	60.0	61.4	102	80 - 120	2011-12-22
Pyrene		1	mg/L	60.0	57.8	96	80 - 120	2011-12-22
Benzo(a)anthracene			mg/L	60.0	59.9	100	80 - 120	2011-12-22
Chrysene		1	mg/L	60.0	52.4	87	80 - 120	2011-12-22
Benzo(b)fluoranthene			mg/L	60.0	50.8	85	80 - 120	2011-12-22
Benzo(k)fluoranthene		1	mg/L	60.0	50.3	84	80 - 120	2011-12-22

*continued ...*

Report Date: December 23, 2011  
700376.050.01

Work Order: 11121906  
Kimbrough Sweet 8"

Page Number: 14 of 15  
Hobbs, NM

*standard continued ...*

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzo(a)pyrene	1		mg/L	60.0	51.4	86	80 - 120	2011-12-22
Indeno(1,2,3-cd)pyrene	1		mg/L	60.0	52.7	88	80 - 120	2011-12-22
Dibenzo(a,h)anthracene	1		mg/L	60.0	55.0	92	80 - 120	2011-12-22
Benzo(g,h,i)perylene			mg/L	60.0	51.7	86	80 - 120	2011-12-22

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			60.2	mg/L	1	60.0	100	-
2-Fluorobiphenyl			56.9	mg/L	1	60.0	95	-
Terphenyl-d14			61.6	mg/L	1	60.0	103	-

## Appendix

### Report Definitions

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

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-5	Lubbock

### Standard Flags

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

### Attachments

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

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250 BioAquatice Testing  
Mayes Rd., Ste 100  
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Tel (972) 242-7750

Company Name:

Talon LPE

Phone #:

Address:

2901 State Hwy 349

Fax #:

Contact Person:

Steve Killingsworth

E-mail:

skillingsworth@talonper.com

Invoice to:

(If different from above) 2000-10757

Project #: 700376.050.01

Project Location (including state): Hobbs, NM

Project Name:

Kimbrough

Sampler Signature:

K. Kimbrough

## (Circle or Specify Method No.)

LAB# (LAB USE ONLY)	FIELD CODE	# CONTAINERS	MATRIX	PRESERVATIVE METHOD	SAMPLING	ANALYSIS REQUEST	
						WATER	SOIL
2841942	MW14	4	HCl	X	12/16	X	MTBE 8021 / 602 / 8260 / 624
743	MW15	4	HNO <sub>3</sub>	X	12/16	X	BTEX 8021 / 602 / 8260 / 624
			H <sub>2</sub> SO <sub>4</sub>	X	12/16	X	TPH 418.1 / TX1005 / TX1005 Ext(C35)
			NaOH	X	12/16	X	TPH 8015 GRO / DRO / TVHC
			ICE	X	12/16	X	PAH 8270 / 625
			NONE	X	12/16	X	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/2007
				X	12/16	X	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
				X	12/16	X	TCLP Volatiles
				X	12/16	X	TCLP Semi Volatiles
				X	12/16	X	TCLP Pesticides
				X	12/16	X	RCI
				X	12/16	X	GC/MS Vol. 8260 / 624
				X	12/16	X	GC/MS Semi. Vol. 8270 / 625
				X	12/16	X	PCB's 8082 / 608
				X	12/16	X	Pesticides 8081 / 608
				X	12/16	X	BOD, TSS, pH
				X	12/16	X	Moisture Content
				X	12/16	X	Cl, F, S04, NO3, NO2, Alkalinity
				X	12/16	X	Na, Ca, Mg, K, TDS, EC

Turn Around Time if different from standard

Hold

Relinquished by: <i>R. Talon LPE</i>	Company: <i>Talon LPE</i>	Date: <i>12/16/11</i>	Time: <i></i>	Received by: <i></i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	INST: <i></i>	OBS: <i></i>	COR: <i></i>	LAB USE: <i>ONLY</i>	REMARKS: <i></i>
Relinquished by: <i>R. Talon LPE</i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	Received by: <i></i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	INST: <i></i>	OBS: <i></i>	COR: <i></i>	LAB USE: <i>ONLY</i>	REMARKS: <i></i>
Received by: <i></i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	Received by: <i></i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	INST: <i></i>	OBS: <i></i>	COR: <i></i>	LAB USE: <i>ONLY</i>	REMARKS: <i></i>
Received by: <i></i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	Received by: <i></i>	Company: <i></i>	Date: <i></i>	Time: <i></i>	INST: <i></i>	OBS: <i></i>	COR: <i></i>	LAB USE: <i>ONLY</i>	REMARKS: <i></i>

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.

## Summary Report

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

Report Date: January 5, 2012

Work Order: 11122203



Project Location: Hobbs, NM  
 Project Name: Kimbrough Sweet 8"  
 Project Number: 700376.050.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
285023	MW-3	water	2011-12-20	09:45	2011-12-21
285024	MW-4	water	2011-12-20	12:20	2011-12-21
285025	MW-10	water	2011-12-20	10:10	2011-12-21
285026	MW-12	water	2011-12-20	09:30	2011-12-21
285027	MW-13	water	2011-12-20	09:15	2011-12-21

Sample - Field Code	BTEX				MTBE (mg/L)
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
285023 - MW-3	7.31 Q <sub>r,Q<sub>s</sub></sub>	<0.0500 Q <sub>r,Q<sub>s</sub></sub>	0.164 Q <sub>r,Q<sub>s</sub></sub>	<0.0500 Q <sub>r,Q<sub>s</sub></sub>	
285024 - MW-4	<0.00100 Q <sub>r,Q<sub>s</sub></sub>	<0.00100 Q <sub>r,Q<sub>s</sub></sub>	<0.00100 Q <sub>r,Q<sub>s</sub></sub>	<0.00100 Q <sub>r,Q<sub>s</sub></sub>	
285025 - MW-10	<0.00100	<0.00100	<0.00100	<0.00100	
285026 - MW-12	2.66	<0.0500	<0.0500	<0.0500	
285027 - MW-13	0.00150	<0.00100	<0.00100	<0.00100	

Sample: 285023 - MW-3

Param	Flag	Result	Units	RL
Naphthalene		0.00437	mg/L	0.0002
2-Methylnaphthalene		<0.000183	mg/L	0.0002
1-Methylnaphthalene		0.00390	mg/L	0.0002
Acenaphthylene		<0.000183	mg/L	0.0002
Acenaphthene		<0.000183	mg/L	0.0002
Dibenzofuran		0.00126	mg/L	0.0002
Fluorene		0.00143	mg/L	0.0002
Anthracene		<0.000183	mg/L	0.0002
Phenanthrene		0.00118	mg/L	0.0002
Fluoranthene		0.000355	mg/L	0.0002

continued ...

*sample 285023 continued ...*

Param	Flag	Result	Units	RL
Pyrene		<b>0.000262</b>	mg/L	0.0002
Benzo(a)anthracene		<0.000183	mg/L	0.0002
Chrysene		<0.000183	mg/L	0.0002
Benzo(b)fluoranthene		<0.000183	mg/L	0.0002
Benzo(k)fluoranthene	Q:	<0.000183	mg/L	0.0002
Benzo(a)pyrene		<0.000183	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000183	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000183	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000183	mg/L	0.0002



# TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298  
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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

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

## Analytical and Quality Control Report

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

Report Date: January 5, 2012

Work Order: 11122203



Project Location: Hobbs, NM  
Project Name: Kimbrough Sweet 8"  
Project Number: 700376.050.01

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
285023	MW-3	water	2011-12-20	09:45	2011-12-21
285024	MW-4	water	2011-12-20	12:20	2011-12-21
285025	MW-10	water	2011-12-20	10:10	2011-12-21
285026	MW-12	water	2011-12-20	09:30	2011-12-21
285027	MW-13	water	2011-12-20	09:15	2011-12-21

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

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

*Michael Abel*

---

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

# Report Contents

<b>Case Narrative</b>	<b>4</b>
<b>Analytical Report</b>	<b>5</b>
Sample 285023 (MW-3) . . . . .	5
Sample 285024 (MW-4) . . . . .	6
Sample 285025 (MW-10) . . . . .	6
Sample 285026 (MW-12) . . . . .	7
Sample 285027 (MW-13) . . . . .	7
<b>Method Blanks</b>	<b>9</b>
QC Batch 87391 - Method Blank (1) . . . . .	9
QC Batch 87403 - Method Blank (1) . . . . .	9
QC Batch 87624 - Method Blank (1) . . . . .	9
<b>Laboratory Control Spikes</b>	<b>11</b>
QC Batch 87391 - LCS (1) . . . . .	11
QC Batch 87403 - LCS (1) . . . . .	11
QC Batch 87624 - LCS (1) . . . . .	12
QC Batch 87391 - MS (1) . . . . .	13
QC Batch 87403 - MS (1) . . . . .	14
<b>Calibration Standards</b>	<b>15</b>
QC Batch 87391 - CCV (2) . . . . .	15
QC Batch 87391 - CCV (3) . . . . .	15
QC Batch 87403 - CCV (1) . . . . .	15
QC Batch 87403 - CCV (2) . . . . .	15
QC Batch 87624 - CCV (3) . . . . .	16
<b>Appendix</b>	<b>17</b>
Report Definitions . . . . .	17
Laboratory Certifications . . . . .	17
Standard Flags . . . . .	17
Attachments . . . . .	17

## Case Narrative

Samples for project Kimbrough Sweet 8" were received by TraceAnalysis, Inc. on 2011-12-21 and assigned to work order 11122203. Samples for work order 11122203 were received intact without headspace and at a temperature of 3.3 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	74208	2011-12-22 at 09:54	87391	2011-12-22 at 09:54
BTEX	S 8021B	74218	2011-12-23 at 14:04	87403	2011-12-23 at 14:04
PAH	S 8270D	74399	2012-12-22 at 15:00	87624	2012-01-05 at 11:26

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11122203 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 5 of 17  
Hobbs, NM

## Analytical Report

### Sample: 285023 - MW-3

Laboratory:	Lubbock	Analytical Method:	S 8021B	Prep Method:	S 5030B
Analysis:	BTEX	Date Analyzed:	2011-12-23	Analyzed By:	ZLM
QC Batch:	87403	Sample Preparation:	2011-12-23	Prepared By:	ZLM
Prep Batch:	74218				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	Qr, Qs	1	7.31	mg/L	50	0.00100
Toluene	Qr, Qs, U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	Qr, Qs	1	0.164	mg/L	50	0.00100
Xylene	Qr, Qs, U	1	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.33	mg/L	50	5.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)			4.55	mg/L	50	5.00	91	70 - 130

### Sample: 285023 - MW-3

Laboratory:	Lubbock	Analytical Method:	S 8270D	Prep Method:	S 3510C
Analysis:	PAH	Date Analyzed:	2012-01-05	Analyzed By:	MN
QC Batch:	87624	Sample Preparation:	2012-12-22	Prepared By:	MN
Prep Batch:	74399				

Parameter	Flag	Cert	Result	Units	Dilution	RL
Naphthalene		1	0.00437	mg/L	0.913	0.000200
2-Methylnaphthalene	u	1	<0.000183	mg/L	0.913	0.000200
1-Methylnaphthalene			0.00390	mg/L	0.913	0.000200
Acenaphthylene	u	1	<0.000183	mg/L	0.913	0.000200
Acenaphthene	u	1	<0.000183	mg/L	0.913	0.000200
Dibenzofuran		1	0.00126	mg/L	0.913	0.000200
Fluorene		1	0.00143	mg/L	0.913	0.000200
Anthracene	u	1	<0.000183	mg/L	0.913	0.000200
Phenanthrene			0.00118	mg/L	0.913	0.000200
Fluoranthene			0.000355	mg/L	0.913	0.000200
Pyrene		1	0.000262	mg/L	0.913	0.000200
Benzo(a)anthracene	u		<0.000183	mg/L	0.913	0.000200
Chrysene	u	1	<0.000183	mg/L	0.913	0.000200

continued ...

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 6 of 17  
Hobbs, NM

sample 285023 continued ...

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzo(b)fluoranthene	u		<0.000183	mg/L	0.913	0.000200
Benzo(k)fluoranthene	qr,u	1	<0.000183	mg/L	0.913	0.000200
Benzo(a)pyrene	u	1	<0.000183	mg/L	0.913	0.000200
Indeno(1,2,3-cd)pyrene	u	1	<0.000183	mg/L	0.913	0.000200
Dibenzo(a,h)anthracene	u	1	<0.000183	mg/L	0.913	0.000200
Benzo(g,h,i)perylene	u		<0.000183	mg/L	0.913	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0531	mg/L	0.913	0.0800	66	10 - 117
2-Fluorobiphenyl			0.0583	mg/L	0.913	0.0800	73	10 - 99
Terphenyl-d14			0.0628	mg/L	0.913	0.0800	78	22.6 - 115

Sample: 285024 - MW-4

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 87403  
Prep Batch: 74218

Analytical Method: S 8021B  
Date Analyzed: 2011-12-23  
Sample Preparation: 2011-12-23

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

Parameter	Flag	Cert	Result	Units	Dilution	RL
						RL
Benzene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Toluene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100
Xylene	Q <sub>r</sub> , Q <sub>s</sub> , U	1	<0.00100	mg/L	1	0.00100

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

Sample: 285025 - MW-10

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 87391  
Prep Batch: 74208

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 7 of 17  
Hobbs, NM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.105	mg/L	1	0.100	105	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

**Sample: 285026 - MW-12**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 87391  
Prep Batch: 74208

Analytical Method: S 8021B  
Date Analyzed: 2011-12-22  
Sample Preparation: 2011-12-22

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike	Percent	Recovery
						Amount	Recovery	Limits
Trifluorotoluene (TFT)			4.78	mg/L	50	5.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			4.95	mg/L	50	5.00	99	70 - 130

**Sample: 285027 - MW-13**

Laboratory: Lubbock  
Analysis: BTEX  
QC Batch: 87391  
Prep Batch: 74208

Analytical Method: S 8021B  
Date Analyzed: 2011-12-22  
Sample Preparation: 2011-12-22

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

Parameter	Flag	Cert	RL		Dilution	RL
			Result	Units		
Benzene		1	0.00150	mg/L	1	0.00100

*continued ...*

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 8 of 17  
Hobbs, NM

*sample 285027 continued ...*

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.105	mg/L	1	0.100	105	70 - 130
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	70 - 130

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 9 of 17  
Hobbs, NM

## Method Blanks

Method Blank (1) QC Batch: 87391

QC Batch: 87391 Date Analyzed: 2011-12-22 Analyzed By: MT  
Prep Batch: 74208 QC Preparation: 2011-12-22 Prepared By: MT

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

Method Blank (1) QC Batch: 87403

QC Batch: 87403 Date Analyzed: 2011-12-23 Analyzed By: ZLM  
Prep Batch: 74218 QC Preparation: 2011-12-23 Prepared By: ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0992	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0987	mg/L	1	0.100	99	70 - 130

Method Blank (1) QC Batch: 87624

QC Batch: 87624 Date Analyzed: 2012-01-05 Analyzed By: MN  
Prep Batch: 74399 QC Preparation: 2012-12-22 Prepared By: MN

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 10 of 17  
Hobbs, NM

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

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

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 11 of 17  
Hobbs, NM

## Laboratory Control Spikes

### Laboratory Control Spike (LCS-1)

QC Batch: 87391      Date Analyzed: 2011-12-22      Analyzed By: MT  
Prep Batch: 74208      QC Preparation: 2011-12-22      Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Limit
Benzene	1	0.0987	mg/L	1	0.100	<0.000765	99	70 - 130	
Toluene	1	0.0945	mg/L	1	0.100	<0.000719	94	70 - 130	
Ethylbenzene	1	0.0975	mg/L	1	0.100	<0.000860	98	70 - 130	
Xylene	1	0.287	mg/L	1	0.300	<0.000942	96	70 - 130	

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Limit	RPD Rec. Limit
Benzene	1	0.0993	mg/L	1	0.100	<0.000765	99	70 - 130	1 20
Toluene	1	0.0971	mg/L	1	0.100	<0.000719	97	70 - 130	3 20
Ethylbenzene	1	0.0980	mg/L	1	0.100	<0.000860	98	70 - 130	0 20
Xylene	1	0.289	mg/L	1	0.300	<0.000942	96	70 - 130	1 20

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

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		0.100	0.101	mg/L	1	0.100	100	101	70 - 130
4-Bromofluorobenzene (4-BFB)		0.0975	0.0966	mg/L	1	0.100	98	97	70 - 130

### Laboratory Control Spike (LCS-1)

QC Batch: 87403      Date Analyzed: 2011-12-23      Analyzed By: ZLM  
Prep Batch: 74218      QC Preparation: 2011-12-23      Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Limit
Benzene	1	0.0962	mg/L	1	0.100	<0.000765	96	70 - 130	
Toluene	1	0.0945	mg/L	1	0.100	<0.000719	94	70 - 130	
Ethylbenzene	1	0.0948	mg/L	1	0.100	<0.000860	95	70 - 130	
Xylene	1	0.281	mg/L	1	0.300	<0.000942	94	70 - 130	

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

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 12 of 17  
Hobbs, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0962	mg/L	1	0.100	<0.000765	96	70 - 130	0	20
Toluene		1	0.0943	mg/L	1	0.100	<0.000719	94	70 - 130	0	20
Ethylbenzene		1	0.0948	mg/L	1	0.100	<0.000860	95	70 - 130	0	20
Xylene		1	0.279	mg/L	1	0.300	<0.000942	93	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)	0.0969	0.0922	mg/L	1	0.100	97	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0925	0.0883	mg/L	1	0.100	92	88	70 - 130

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

QC Batch: 87624  
Prep Batch: 74399

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

Analyzed By: MN  
Prepared By: MN

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

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene		1	0.0317	mg/L	1	0.0800	<0.0000904	40	10 - 89.9	12	20

*continued ...*

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 13 of 17  
Hobbs, NM

*control spikes continued ...*

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
2-Methylnaphthalene		1	0.0374	mg/L	1	0.0800	<0.000184	47	13.8 - 98.4	14	20
1-Methylnaphthalene			0.0358	mg/L	1	0.0800	<0.000120	45	13.1 - 103	14	20
Acenaphthylene		1	0.0410	mg/L	1	0.0800	<0.000101	51	20 - 104	10	20
Acenaphthene		1	0.0398	mg/L	1	0.0800	<0.000122	50	21.6 - 94.6	11	20
Dibenzofuran		1	0.0434	mg/L	1	0.0800	<0.000119	54	22.9 - 74.9	10	20
Fluorene		1	0.0426	mg/L	1	0.0800	<0.000198	53	30.8 - 109	7	20
Anthracene		1	0.0475	mg/L	1	0.0800	<0.000190	59	37.6 - 96.4	11	20
Phenanthrene			0.0484	mg/L	1	0.0800	<0.000190	60	42.4 - 99.8	12	20
Fluoranthene			0.0516	mg/L	1	0.0800	<0.000122	64	48 - 118	10	20
Pyrene		1	0.0488	mg/L	1	0.0800	<0.000142	61	45.3 - 109	7	20
Benzo(a)anthracene			0.0608	mg/L	1	0.0800	<0.000138	76	48 - 113	10	20
Chrysene		1	0.0687	mg/L	1	0.0800	<0.000155	86	35.2 - 175	10	20
Benzo(b)fluoranthene			0.0390	mg/L	1	0.0800	<0.000179	49	16.6 - 106	2	20
Benzo(k)fluoranthene	Q <sub>r</sub>	Q <sub>r</sub> 1	0.0458	mg/L	1	0.0800	<0.000185	57	36.8 - 99.4	22	20
Benzo(a)pyrene		1	0.0434	mg/L	1	0.0800	<0.000169	54	32.3 - 99.7	12	20
Indeno(1,2,3-cd)pyrene		1	0.0470	mg/L	1	0.0800	<0.000139	59	34.1 - 106	11	20
Dibenzo(a,h)anthracene		1	0.0627	mg/L	1	0.0800	<0.000107	78	47.1 - 103	12	20
Benzo(g,h,i)perylene			0.0454	mg/L	1	0.0800	<0.000143	57	21.9 - 112	11	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Nitrobenzene-d5	0.0368	0.0403	mg/L	1	0.0800	46	50	10 - 117
2-Fluorobiphenyl	0.0358	0.0402	mg/L	1	0.0800	45	50	10 - 99
Terphenyl-d14	0.0525	0.0562	mg/L	1	0.0800	66	70	22.6 - 115

**Matrix Spike (MS-1)**      Spiked Sample: 285014

QC Batch: 87391	Date Analyzed: 2011-12-22	Analyzed By: MT
Prep Batch: 74208	QC Preparation: 2011-12-22	Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit
Benzene		1	0.0979	mg/L	1	0.100	<0.000765	98	70 - 130
Toluene		1	0.0954	mg/L	1	0.100	<0.000719	95	70 - 130
Ethylbenzene		1	0.0971	mg/L	1	0.100	<0.000860	97	70 - 130
Xylene		1	0.286	mg/L	1	0.300	<0.000942	95	70 - 130

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

*continued...*

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 14 of 17  
Hobbs, NM

*matrix spikes continued ...*

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1		0.101	mg/L	1	0.100	<0.000765	101	70 - 130	3	20
Toluene	1		0.0998	mg/L	1	0.100	<0.000719	100	70 - 130	4	20
Ethylbenzene	1		0.102	mg/L	1	0.100	<0.000860	102	70 - 130	5	20
Xylene	1		0.302	mg/L	1	0.300	<0.000942	101	70 - 130	5	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0973	0.0982	mg/L	1	0.1	97	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0940	0.0956	mg/L	1	0.1	94	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 285189

QC Batch: 87403 Date Analyzed: 2011-12-23 Analyzed By: ZLM  
Prep Batch: 74218 QC Preparation: 2011-12-23 Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
Benzene	Q <sub>s</sub>	Q <sub>s</sub>	1	0.0633	mg/L	1	0.100	0.002	61	70 - 130
Toluene	Q <sub>s</sub>	Q <sub>s</sub>	1	0.0645	mg/L	1	0.100	<0.000719	64	70 - 130
Ethylbenzene	Q <sub>s</sub>	Q <sub>s</sub>	1	0.0652	mg/L	1	0.100	0.0027	62	70 - 130
Xylene	Q <sub>s</sub>	Q <sub>s</sub>	1	0.192	mg/L	1	0.300	0.0063	62	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
Benzene	Q <sub>r</sub>	Q <sub>r</sub>	1	0.0927	mg/L	1	0.100	0.002	91	70 - 130	38	20
Toluene	Q <sub>r</sub>	Q <sub>r</sub>	1	0.0949	mg/L	1	0.100	<0.000719	95	70 - 130	38	20
Ethylbenzene	Q <sub>r</sub>	Q <sub>r</sub>	1	0.0962	mg/L	1	0.100	0.0027	94	70 - 130	38	20
Xylene	Q <sub>r</sub>	Q <sub>r</sub>	1	0.283	mg/L	1	0.300	0.0063	92	70 - 130	38	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)	0.110	0.0129	mg/L	1	0.1	110	13	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0915	0.0971	mg/L	1	0.1	92	97	70 - 130

## Calibration Standards

### Standard (CCV-2)

				Date Analyzed:	2011-12-22	Analyzed By:		MT
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.0961	96	80 - 120	2011-12-22
Toluene	1		mg/L	0.100	0.0939	94	80 - 120	2011-12-22
Ethylbenzene	1		mg/L	0.100	0.0952	95	80 - 120	2011-12-22
Xylene	1		mg/L	0.300	0.278	93	80 - 120	2011-12-22

### Standard (CCV-3)

				Date Analyzed:	2011-12-22	Analyzed By:		MT
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.0970	97	80 - 120	2011-12-22
Toluene	1		mg/L	0.100	0.0948	95	80 - 120	2011-12-22
Ethylbenzene	1		mg/L	0.100	0.0948	95	80 - 120	2011-12-22
Xylene	1		mg/L	0.300	0.279	93	80 - 120	2011-12-22

### Standard (CCV-1)

				Date Analyzed:	2011-12-23	Analyzed By:		ZLM
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.0992	99	80 - 120	2011-12-23
Toluene	1		mg/L	0.100	0.0975	98	80 - 120	2011-12-23
Ethylbenzene	1		mg/L	0.100	0.0980	98	80 - 120	2011-12-23
Xylene	1		mg/L	0.300	0.289	96	80 - 120	2011-12-23

Report Date: January 5, 2012  
700376.050.01

Work Order: 11122203  
Kimbrough Sweet 8"

Page Number: 16 of 17  
Hobbs, NM

### Standard (CCV-2)

QC Batch: 87403

Date Analyzed: 2011-12-23

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	1		mg/L	0.100	0.0994	99	80 - 120	2011-12-23
Toluene	1		mg/L	0.100	0.0970	97	80 - 120	2011-12-23
Ethylbenzene	1		mg/L	0.100	0.0974	97	80 - 120	2011-12-23
Xylene	1		mg/L	0.300	0.286	95	80 - 120	2011-12-23

### Standard (CCV-3)

QC Batch: 87624

Date Analyzed: 2012-01-05

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene	1		mg/L	60.0	55.9	93	80 - 120	2012-01-05
2-Methylnaphthalene	1		mg/L	60.0	55.4	92	80 - 120	2012-01-05
1-Methylnaphthalene			mg/L	60.0	55.7	93	80 - 120	2012-01-05
Acenaphthylene	1		mg/L	60.0	55.5	92	80 - 120	2012-01-05
Acenaphthene	1		mg/L	60.0	56.2	94	80 - 120	2012-01-05
Dibenzofuran	1		mg/L	60.0	54.2	90	80 - 120	2012-01-05
Fluorene	1		mg/L	60.0	52.7	88	80 - 120	2012-01-05
Anthracene	1		mg/L	60.0	53.3	89	80 - 120	2012-01-05
Phenanthrene			mg/L	60.0	54.0	90	80 - 120	2012-01-05
Fluoranthene			mg/L	60.0	59.4	99	80 - 120	2012-01-05
Pyrene	1		mg/L	60.0	55.2	92	80 - 120	2012-01-05
Benzo(a)anthracene			mg/L	60.0	58.8	98	80 - 120	2012-01-05
Chrysene	1		mg/L	60.0	56.0	93	80 - 120	2012-01-05
Benzo(b)fluoranthene			mg/L	60.0	48.6	81	80 - 120	2012-01-05
Benzo(k)fluoranthene	1		mg/L	60.0	52.6	88	80 - 120	2012-01-05
Benzo(a)pyrene	1		mg/L	60.0	50.7	84	80 - 120	2012-01-05
Indeno(1,2,3-cd)pyrene	1		mg/L	60.0	53.3	89	80 - 120	2012-01-05
Dibenzo(a,h)anthracene	1		mg/L	60.0	53.8	90	80 - 120	2012-01-05
Benzo(g,h,i)perylene			mg/L	60.0	52.7	88	80 - 120	2012-01-05

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

## Appendix

### Report Definitions

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

### Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-11-5	Lubbock

### Standard Flags

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

### Attachments

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

11122203

# TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

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

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

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

Company Name:	Talon LPE	Phone #:	
Address:	(Street, City, Zip) 2901 State Hwy 349 Maryland TX		
Contact Person:	Steve Killingsworth	E-mail:	skillingsworth@talonlpe.com
Invoice to: (if different from above)	2000-10757		
Project #:	700376,050,01		
Project Location (including state):	Hobbs NM		
	Project Name: Kimberly Suck 84 Sampler Signature: 		

**ANALYSIS REQUEST  
(Circle or Specify Method No.)**

Turn Around Time if different from standard

**Relinquished by:**      **Company:**      **Date:**      **Time:**

**Received by:**      **Company:**      **Date:**      **Time:**      **INST**

LAR USE

**REMARKS**

Balanced by Company Date Title

Received by \_\_\_\_\_ Date \_\_\_\_\_ File No. \_\_\_\_\_ COR \_\_\_\_\_ C

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COR        °C

**Headspace** Y/N

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

ORIGINAL COPY

**Carrier #**

*Carroll*

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

## **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 March 17, 1999

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

**Release Notification and Corrective Action**

**OPERATOR**

Name of Company: Plains Pipeline, L.P.	Contact: Camille Reynolds	<input type="checkbox"/> Initial Report <input type="checkbox"/> Final Report
Address P.O. Box 3119 Midland, Texas 79702	Telephone No. 505.396.3341 (CJReynolds@paalp.com)	
Facility Name Kimbrough Sweet #2000-10757	Facility Type 8" Steel Pipeline	
Surface Owner: State of New Mexico	Mineral Owner	Lease No.

**LOCATION OF RELEASE**

Unit Letter G	Section 3	Township T18S	Range R37E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea

Latitude: 32°46'48"N      Longitude: 103°14'18"W

**NATURE OF RELEASE**

Type of Release Crude Oil	Volume of Release 60 bbls barrels	Volume Recovered 22 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 10/25/2000	Date and Hour of Discovery 10/25/2000
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Donna Williams	
By Whom? Wayne Brunette	Date and Hour 10-25-00@5:15PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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:* The release was caused by internal corrosion. Approximately 60 barrels of crude oil was released and approximately 22 barrels recovered and reintroduced to the system. The leak was excavated and repaired and the line placed back in service.

Describe Area Affected and Cleanup Action Taken.\*

*15,613 sqft 200' x 200': In 2001, the NMOCD approved a Soil and Groundwater Abatement Plan. Impacted soil down to 15' bgs was excavated, shredded, and treated. A 2-foot thick compacted clay barrier was installed in the bottom of the excavation and the treated soil used to bring to grade. 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:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
E-mail Address: CJReynolds@paalp.com	Approval Date:	Expiration Date:
Title: District Environmental Supervisor Date: Phone: 505.396.3341	Conditions of Approval:	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary



<b>PLAINS</b> ALL AMERICAN	<b>Site Information and Metrics</b>		<b>Incident Date:</b> 10/25/2000	<b>NMOCD Notified:</b> 10-25-00@5:15PM
<b>SITE:</b> Kimbrough Sweet		<b>Assigned Site Reference #:</b> 2000-10757		
<b>Company:</b> Plains Pipeline, L.P.				
<b>Street Address:</b> P.O. Box 3119				
<b>Mailing Address:</b>				
<b>City, State, Zip:</b> Midland, Texas 79702				
<b>Representative:</b> Camille Reynolds				
<b>Representative Telephone:</b> 505.396.3341 (CJReynolds@paalp.com)				
<b>Telephone:</b>				
<b>Fluid volume released (bbls):</b> 60 bbls		<b>Recovered (bbls):</b> 22 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)				
<b>Leak, Spill, or Pit (LSP) Name:</b> Kimbrough Sweet				
<b>Source of contamination:</b> 8" Steel Pipeline				
<b>Land Owner, i.e., BLM, ST, Fee, Other:</b> State of New Mexico				
<b>LSP Dimensions</b> 200' x 200'				
<b>LSP Area:</b> 15,613 ft <sup>2</sup>				
<b>Location of Reference Point (RP)</b>				
<b>Location distance and direction from RP</b>				
<b>Latitude:</b> 32°46'48"N				
<b>Longitude:</b> 103°14'18"W				
<b>Elevation above mean sea level:</b> 3,720'amsl				
<b>Feet from South Section Line</b>				
<b>Feet from West Section Line</b>				
<b>Location- Unit or 1/4:</b> SW 1/4 of the NE 1/4		<b>Unit Letter:</b> G		
<b>Location- Section:</b> 3				
<b>Location- Township:</b> T18S				
<b>Location- Range:</b> R37E				
<b>Surface water body within 1000' radius of site:</b> none				
<b>Domestic water wells within 1000' radius of site:</b> none				
<b>Agricultural water wells within 1000' radius of site:</b> none				
<b>Public water supply wells within 1000' radius of site:</b> none				
<b>Depth from land surface to ground water (DG)</b> 50'bgs				
<b>Depth of contamination (DC) -</b> 50'bgs				
<b>Depth to ground water (DG - DC = DtGW) -</b> zero feet				
<b>1. Ground Water</b>		<b>2. Wellhead Protection Area</b>		<b>3. Distance to Surface Water Body</b>
If Depth to GW <50 feet: 20 points		If <1000' from water source, or; <200' from private domestic water source: 20 points		<200 horizontal feet: 20 points
If Depth to GW 50 to 99 feet: 10 points				200-100 horizontal feet: 10 points
If Depth to GW >100 feet: 0 points		If >1000' from water source, or; >200' from private domestic water source: 0 points		>1000 horizontal feet: 0 points
Ground water Score = 20		Wellhead Protection Area Score = 0		Surface Water Score = 0
<b>Site Rank (1+2+3) = 20</b>				
<b>Total Site Ranking Score and Acceptable Concentrations</b>				
<b>Parameter</b>	>19	10-19	0-9	
Benzene <sup>1</sup>	10 ppm	10 ppm	10 ppm	
BTEX <sup>1</sup>	50 ppm	50 ppm	50 ppm	
TPH	100 ppm	1000 ppm	5000 ppm	
<sup>1</sup> 100 ppm field VOC headspace measurement may be substituted for lab analysis				