

AP - 52

ANNUAL MONITORING REPORT

YEAR(S):
2008



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March 27, 2009

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

Re: Plains All American – 2008 Annual Monitoring Reports
6 Sites in Lea County, New Mexico

Dear Mr. Hansen:

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

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

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

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

Sincerely,

Jason Henry
Remediation Coordinator
Plains All American

CC: Larry Johnson, NMOCD, Hobbs, NM

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2008 ANNUAL GROUNDWATER MONITORING REPORT
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NMOCD REF. # AP-052

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March 27, 2009

2008 ANNUAL GROUNDWATER MONITORING REPORT

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NMOCD REF. # AP-052**

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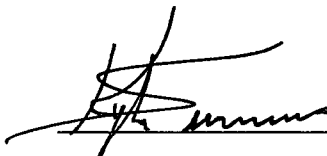
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March 2009

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NMOCD - New Mexico Oil Conservation Division

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Background

The C.S. Cayler (site) is located approximately 7 miles southeast of Lovington, Lea County, New Mexico, on property owned by Robert C. Rice. There are no residences, groundwater wells, or surface water bodies within a 1,000-foot radius of the site. The initial release occurred from an EOTT Energy Pipeline (EOTT) steel pipeline on September 19, 2002. Subsequently, EOTT changed its name to Link Energy in October 2003, and Plains Marketing, L.P. (Plains) purchased the assets of Link Energy on April 1, 2004. Initial reports estimated that 70 barrels (bbls) of crude oil were released. During site reconnaissance, it was observed that the ground surface beyond the current spill area had apparently been impacted by a prior spill or spills; however, the source(s) and date(s) of the spill are unknown. Based on available information, no crude oil was initially recovered at the release site.

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

1.2 Previous Environmental Investigations

A total of eighteen (18) groundwater monitor wells have been installed in the vicinity of the release (see Figure 1). With New Mexico Oil Conservation Division (NMOCD) approval and landowner concurrence, groundwater monitor well MW-1 was installed in October 2002 and subsequently plugged in September 2008 due to the well being dry. Groundwater monitor wells MW-2, MW-3, MW-4, and MW-5 were installed from May to June 2004, and MW-6, MW-7, MW-8, MW-9, and MW-10 were installed in October 2004. Groundwater monitor wells MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, and MW-17 were installed in February 2006, and MW-18 was installed in March 2008. Replacement monitor well MW-1A was installed in September 2008.

Phase-separated hydrocarbon (PSH) recovery operations have been performed at the site since September 2002. Currently there are six (6) skimmer pumps in operation. A summary of the historical groundwater and PSH gauging is provided in Table 1. Approximately 27,447 gallons (654 bbls) of PSH have been recovered to date from the site.

1.3 Regulatory Framework

Groundwater analytical data from this site was compared to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards. Following sections provide summaries of the groundwater monitoring activities conducted at the site as well as analytical results from each groundwater sampling event of 2008. Analytical results for the four sampling events are summarized in Table 2, Table 3, and Table 4 in Appendix B, and Figures 3a through 3d in Appendix A. Laboratory analytical data reports and chain of custody documentation are included in Appendix C.

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

2.0 SITE ACTIVITIES

The following section presents a summary of the product recovery and groundwater monitoring activities conducted at the site. The focus of the groundwater monitoring activities included collecting groundwater measurements and groundwater samples from monitor wells for laboratory analysis.

2.1 Groundwater Monitoring Activities

A total of four (4) groundwater monitoring events were conducted by Talon: March 2008; June 2008; August & September 2008; and December 2008.

During the March 2008 groundwater monitoring event, all monitor wells were gauged. Eleven (11) monitor wells, MW-6, MW-9 through MW-18, were purged and sampled. Six (6) monitor wells, MW-2, MW-3, MW-4, MW-5, MW-7, and MW-8, were not sampled due to the presence of PSH. Monitor well MW-1 was not sampled due to the well being dry during this monitoring event. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the June 2008 groundwater monitoring event, all monitor wells were gauged. Eleven (11) monitor wells, MW-6 and MW-9 through MW-18, were purged and sampled. Six (6) monitor wells, MW-2, MW-3, MW-4, MW-5, MW-7, and MW-8, were not sampled due to the presence of PSH. Monitor well MW-1 was not sampled due the well being dry during this monitoring event. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the August 2008 groundwater monitoring event, all monitor wells were gauged. Eleven (11) monitor wells, MW-6, and MW-9 through MW-18, were purged and sampled. Six (6) monitor wells, MW-2, MW-3, MW-4, MW-5, MW-7, and MW-8, contained measurable PSH during this event. Monitor well MW-1 was not sampled due the well being dry during this monitoring event. In September 2008, seven (7) monitor wells, MW-1A through MW-5, MW-7, and MW-8 exhibited PSH thicknesses ranging from 0.40' to 7.31'; however, groundwater samples were collected from these wells (except monitor wells MW-2, MW-7, and MW-8) per NMOCD request. Three (3) monitor wells, MW-2, MW-7, and MW-8, did not have a sufficient amount of water for the collection of a groundwater sample. Additional, details of the gauging, purging, and sampling activities are presented in Section 2.2.

During the December 2008 groundwater monitoring event, all monitor wells were gauged. Ten (10) monitor wells, MW-6, MW-9, MW-10, MW-11, MW-13 through MW-18, were purged and sampled. Eight (8) monitor wells, MW-1A, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, and MW-12 were not sampled due to the presence of PSH. Monitor well MW-1A was installed and MW-1 was plugged prior to this groundwater monitoring event. Details of the gauging, purging, and sampling activities are presented in Section 2.2.

2.2 Groundwater Gauging, Purging, and Sampling Procedures

During each groundwater monitoring event, all monitor wells were measured to determine static water levels and monitor the presence and/or absence of PSH accumulations. Measured groundwater depths and elevations collected during the sampling events, along with historical measurements, are presented in Table 1 – Summary of Groundwater Elevations and Phase Separated Thickness in Appendix B.

All wells not containing PSH were purged a minimum of three (3) well volumes prior to sampling. During the September 2008 groundwater sampling event, the monitor wells containing PSH (monitor wells MW-1A through MW-5, MW-7, and MW-8) were also purged prior to sampling. Purge volumes from the monitor wells exhibiting PSH varied from one well to the next, and each monitor well was purged to the maximum extent practical that still allowed for the collection of a groundwater sample. All monitor wells were purged utilizing pumps and vinyl tubing. The pumps and tubing used to purge the wells were decontaminated with Alconox® detergent and rinsed with distilled water prior to initial use at each well. Recovered purged groundwater and recovered decontamination water was immediately transferred to the on-site poly tank utilized to accumulate the recovered PSH. This tank is monitored and recorded to determine water and PSH recovery data and its contents are properly disposed of as needed. Approximately thirty-seven (37) gallons of groundwater was purged during the quarterly groundwater monitoring events of 2008.

Groundwater samples were collected from all monitor wells utilizing dedicated disposable Teflon® bailers, except for the monitor wells exhibiting PSH during the September 2008 groundwater sampling event. These groundwater samples were collected through the pump and the vinyl tubing. The groundwater samples were transferred from the disposable bailer or vinyl tubing into laboratory supplied sample containers appropriate for the analysis requested. The groundwater samples were maintained on ice in the custody of Talon, until delivery to TraceAnalysis, Inc. Laboratory in Midland, Texas for analysis. The collected groundwater samples were analyzed for BTEX by EPA Method SW-846 8021B and PAH using EPA Methods SW-846 610 and 8270C.

2.3 Phase Separated Hydrocarbon Recovery

PSH recovery methods have been conducted at the site since 2002 via hand bailing followed in March of 2003 with the deployment of a portable gasoline powered eductor recovery system. In November 2007, an automated skimmer recovery system was installed at the site. A total of six (6) skimmer pumps were installed in monitor wells MW-1A, MW-2, MW-3, MW-4, MW-5, and MW-7. Talon conducts weekly operation and maintenance to the skimmer system.

Recovered PSH is pumped to an on-site poly tank, which is monitor for the accumulation of PSH on a weekly basis. PSH is removed from the on-site poly tank via a vacuum truck and re-introduced to the Plains' pipeline system via the Scharb Station and/or 34 Junction South pipeline.

During 2008 the quarterly PSH recovery totals are as followed:

- 1st Quarter - 840 gallons (20 bbls)
- 2nd Quarter – 1,050 gallons (25 bbls)
- 3rd Quarter – 1,134 gallons (27 bbls)
- 4th Quarter – 1,596 gallons (38 bbls)

Approximately 27,447 gallons (654 bbls) of PSH have been recovered to date from the site.

3.0 GROUNDWATER MONITORING RESULTS

The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Data in Appendix B. Laboratory analytical data reports and chain of custody documentation are provided in Appendix C.

3.1 Groundwater Monitoring Results

The following sections present the results from the monitoring of the first water-bearing zone underlying the site.

3.1.1 Physical Characteristics of the First Water-Bearing Zone

The first water-bearing zone underlying the site is an unconfined aquifer that appears to be part of the Ogallala formation. According to “Ground-Water Report 6, Geology and Ground-Water Conditions in Southern Lea County, New Mexico, A. Nicholson, Jr. and A. Clebsch, Jr., United State Geological Survey, 1961,” (USGS Report #6) the Ogallala formation mantles the High Plains Physiographic Region in the area of Lea County north of Hobbs, New Mexico, and ranges in thickness from 100 to 250 feet. The saturated thickness of the Ogallala formation on the High Plains ranges from 25 feet to 175 feet because of the very irregularly eroded Triassic surface that underlies it. The Ogallala sands are overlain with an indurated and fractured calcium carbonate caliche cap up to 60-feet thick. Site delineation activities confirmed the presence of a 23-foot to 26-foot thick caliche cap underlain by fine to medium-grained sand.

The saturated thickness of the first water-bearing zone has exhibited a decreasing trend, with an average decrease of the potentiometric surface elevation of approximately seven (7) feet since October 2004. The depth of groundwater has historically been approximately 79 to 85 feet bgs and the gradient direction is to the southeast.

3.1.2 Groundwater Gradient and Flow Direction

Water level measurements were collected on March 12, 2008, June 19, 2008, August 13, 2008 and December 4, 2008. Due to abnormalities caused by utilizing the corrected groundwater elevations in wells containing PSH, the data from these wells were not utilized to generate some of the groundwater gradient maps contained in this report. Groundwater elevations at the site indicate a southeast gradient. The monitor well fluid level measurement data arising from the four (4) monitoring events is summarized in Table 1-Summary of Groundwater Elevations and Phase Separate Hydrocarbon Thickness presented in Appendix B.

Potentiometric surface maps were constructed from four (4) of the water level measurement datasets:

- March 12, 2008
- June 19, 2008
- August 13, 2008
- December 4, 2008

These maps are Figure 2a through Figure 2d presented in Appendix A.

The potentiometric surface map for March 2008 was constructed from water level elevations collected from all non-PSH containing monitor wells. The water level elevations exhibit a general groundwater direction of flow to the southeast with an approximate gradient of 0.001 feet/foot.

The potentiometric surface map for June 2008 was constructed from water level elevations in wells that did not contain PSH. The water level elevations exhibit a general groundwater direction of flow to the southeast with an approximate gradient of 0.001 feet/foot.

The potentiometric surface map for August 2008 was constructed from water level elevations collected from all monitor wells except PSH containing monitor wells MW-2, MW-7, and MW-8. The water level elevations exhibit a general groundwater direction of flow to the southeast with an approximate gradient of 0.002 feet/foot.

The potentiometric surface map for December 2008 was constructed from water level elevations collected from all monitor wells except PSH containing monitor wells MW-2, MW-7, and MW-8. The water level elevations exhibit a general groundwater direction of flow to the southeast with an approximate gradient of 0.001 feet/foot.

Based on fluid elevations measured at this site, the groundwater within the first water-bearing zone underlying the site flow is consistently towards the southeast.

3.1.3 Phase Separated Hydrocarbon (PSH)

The collection of water level measurement data was conducted using an oil/water interface probe, which was also used to determine the presence of PSH.

- In March 2008, PSH was observed in monitor wells MW-2, MW-3, MW-4, MW-5, MW-7, and MW-8. PSH thickness ranged from 1.41 feet to 8.14 feet.
- In June 2008, PSH was observed in monitor wells MW-2, MW-3, MW-4, MW-5, MW-7, and MW-8. PSH thickness ranged from 1.13 feet to 7.67 feet.
- In August 2008, PSH was observed in monitor wells MW-2, MW-3, MW-4, MW-5, MW-7, and MW-8. PSH thickness ranged from 1.64 feet to 8.61 feet.
- In December 2008, PSH was observed in monitor wells MW-1A, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, and MW-12. PSH thickness ranged from 0.26 to 6.08 feet.

PSH plume maps are presented on Figure 3a through 3d. Based on these measurements, the PSH plume is delineated by the current monitor well network and appears to be declining in thickness.

PSH recovery operations have been performed at the site since September 2002. Currently there are a total of six (6) skimmer pumps in operation in monitor wells MW-1A, MW-2, MW-3, MW-4, MW-5, and MW-7. A summary of the historical groundwater and PSH gauging is provided in Table 1. Approximately 27,447 gallons (654 bbls) of PSH have been recovered to date from the site.

3.1.4 Groundwater Sampling Results

During the March 2008 sampling event, monitor wells MW-6, MW-9 through MW-18 were sampled. Groundwater samples collected from these wells exhibited the following analytical results:

- Benzene concentrations ranged from <0.00100 mg/L to 31.5 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater sample collected from monitor wells MW-6, MW-10, MW-12, MW-13, and MW-16.
- Toluene concentrations ranged from <0.00100 mg/L to 1.12 mg/L. Toluene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-12.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.874 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-12.
- Xylene concentrations ranged from <0.00100 mg/L to 1.09 mg/L. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater sample collected from monitor well MW-12.
- Monitor wells MW-2, MW-3, MW-4, MW-5, MW-7, and MW-8 were not sampled due to the presence of PSH. Monitor well MW-1 was dry.

During the June 2008 sampling event, monitor wells MW-6 and MW-9 through MW-18 were sampled. Groundwater samples collected from these wells exhibited the following:

- Benzene concentrations ranged from <0.00100 mg/L to 30.7 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater sample collected from monitor wells MW-6, MW-9, MW-12, MW-13, and MW-16.
- Toluene concentrations ranged from <0.00100 mg/L to 4.95 mg/L. Toluene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-12.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.27 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-12.
- Xylene concentrations ranged from <0.00100 mg/L to 1.99 mg/L. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater sample collected from monitor well MW-12.
- Monitor well MW-1 was dry. Monitor wells MW-2, MW-3, MW-4, MW-5, MW-7, and MW-8 were not sampled due to the presence of PSH.

During the August and September 2008 sampling events, monitor wells MW-1A, MW-3, MW-4, MW-5, MW-6, MW-9 through MW-18, were sampled. Groundwater samples collected from these wells exhibited the following:

- Benzene concentrations ranged from <0.00100 mg/L to 31.2 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor well MW-1A, MW-3, MW-4, MW-5, MW-

6, MW-9, MW-12, MW-13, and MW-16.

- Toluene concentrations ranged from <0.00100 mg/L to 31.1 mg/L. Toluene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in groundwater samples collected from monitor wells MW-1A, MW-3, MW-4, MW-5, and MW-12.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 8.39 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in groundwater samples collected from monitor wells MW-1A, MW-3, MW-4, MW-5, and MW-12.
- Xylene concentrations ranged from <0.00100 mg/L to 18.9 mg/L. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in groundwater samples collected from monitor wells MW-1A, MW-3, MW-4, MW-5, and MW-12.
- PAH concentrations are summarized in Tables 3 and 4 in Appendix B.
- Monitor wells MW-2, MW-7, and MW-8 were not sampled due to an insufficient amount of water.

During the December 2008 sampling event, monitor wells MW-6, MW-9, MW-10, MW-11, and MW-13 through MW-18 were sampled. Groundwater samples collected from these wells exhibited the following:

- Benzene concentrations ranged from <0.00100 mg/L to 0.200 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater samples collected from monitor wells MW-6, MW-9, MW-13, and MW-16.
- Toluene concentrations ranged from <0.00100 mg/L to 0.0162 mg/L. All toluene concentrations were below the NMWQCC groundwater standard of 0.750 mg/L.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.0151 mg/L. All ethylbenzene concentrations were below the NMWQCC groundwater standard of 0.750 mg/L.
- Xylene concentrations ranged from <0.00100 mg/L to 0.0195 mg/L. All xylene concentrations were below the NMWQCC groundwater standard of 0.620 mg/L.
- Monitor wells MW-1A, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, and MW-12 were not sampled due to the presence of PSH.

The dissolved phase groundwater plume is impacted at concentrations above the NMWQCC groundwater standards for the perimeter delineation wells MW-9, MW-13, and MW-16. The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Results in Appendix B. Laboratory analytical data reports and chain of custody documentation are provided in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the groundwater monitoring events conducted at the C.S. Cayler site and provides recommendations for future actions.

4.1 Summary of Findings

The groundwater flow direction in the first water-bearing zone is to the southeast based upon the water level measurement data collected to date. Perimeter monitor wells MW-9, MW-13, and MW-16 exhibited benzene concentrations above the NMOCD guidelines during one or more of the quarterly sampling events. Monitor wells MW-9 and MW-16 are in apparent cross-gradient and upgradient locations while monitor well MW-13 is in an apparent cross to downgradient position from the source area. Benzene concentrations in MW-9 appeared to increase during the year while benzene concentrations in MW-13 and MW-16 were relatively stable. Down-gradient monitor well MW-12 exhibited benzene, toluene, and xylene concentrations above NMWQCC groundwater standards throughout the first three quarterly groundwater monitoring and exhibited PSH during the fourth quarter groundwater monitoring sampling event. Cross gradient monitor well MW-10 exhibited benzene concentrations above the NMWQCC groundwater standards during the first quarterly sampling event and decreased to below the NMWQCC groundwater standard during subsequent sampling events.

PSH has been encountered in monitor wells MW-1A, MW-2, MW-3, MW-4, MW-5, MW-7, MW-8, and MW-12. All of these wells except MW-8 and MW-12 have skimmer pumps installed in them. The PSH plume underlying this site has been delineated by the current monitoring system. Based upon the fluid level measurements to date, the PSH plume appears to be gradually moving to the southeast. The skimmer pump network has recovered approximately 27,447 gallons (654 bbls) of PSH to date.

Monitor wells MW-1A, MW-3, MW-4, MW-5, MW-6, MW-9, MW-12, MW-13, and MW-16 exhibited benzene concentrations above the NMWQCC groundwater standard during the September 2008 groundwater monitoring sampling event. The dissolved-phase plume appears to be moving and/or increasing in size to the southeast and appears to be gradually decreasing to the east and west of the site.

4.2 Recommendations

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

- Operate and maintain the existing skimmer recovery system to achieve maximum PSH recovery.
- Install skimmer pumps in monitor wells MW-8 and MW-12.
- Supplement skimmer system recovery with total fluids recovery in source area wells. Plains is in the process of installing a total fluid recovery/disposal system to facilitate total fluid recovery efforts.
- Pursuant to the request of the NMOCD, Plains will collect a discrete sample below the PSH in the water table from monitor wells containing PSH on an annual basis to evaluate BTEX and TPH concentrations in the groundwater.
- Closely monitor the benzene concentrations in perimeter monitor wells MW-9, MW-13, and MW-16 during 2009. Should BTEX concentrations in MW-9 continue to increase; Plains will evaluate the need for additional monitor wells.

APPENDIX A

Drawings

Figure 1 - Site Plan

Figure 2a - Groundwater Gradient Map – 03/12/2008

Figure 2b - Groundwater Gradient Map – 06/19/2008

Figure 2c - Groundwater Gradient Map – 08/13/2008

Figure 2d - Groundwater Gradient Map - 12/04/2008

Figure 3a - PSH Thickness & Groundwater Concentration Map - 03/12/2008

Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/19/2008

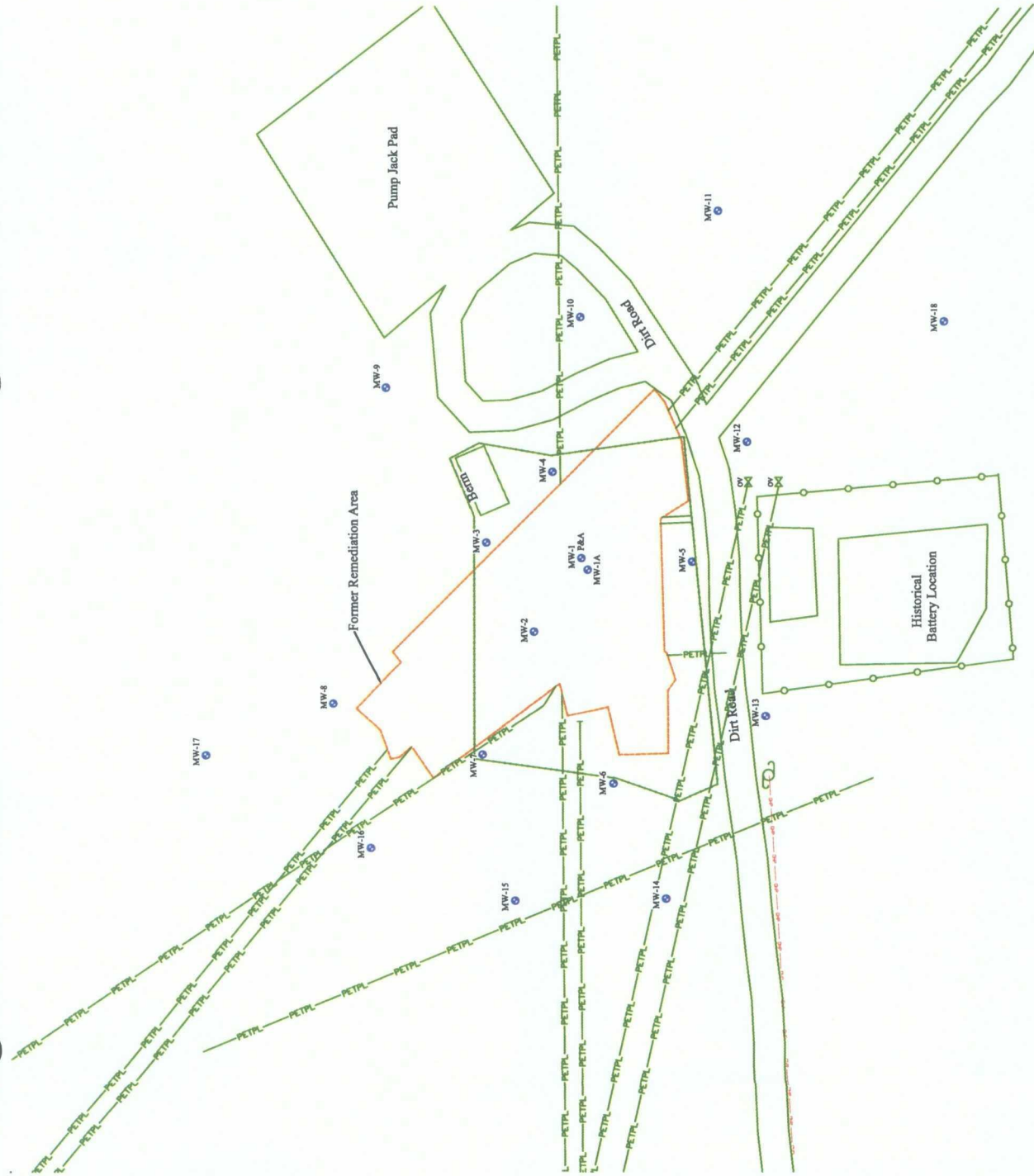
Figure 3c - PSH Thickness & Groundwater Concentration Map - 08/13/2008

Figure 3d - PSH Thickness & Groundwater Concentration Map - 12/04/2008

Figure 4 - Groundwater Concentration in Wells with PSH Map - 09/23/2008



0 50 100
Scale in Feet



C.S. Cayler (PLAINS044SPL)
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 1 - Site Plan

Date: 03/25/2009

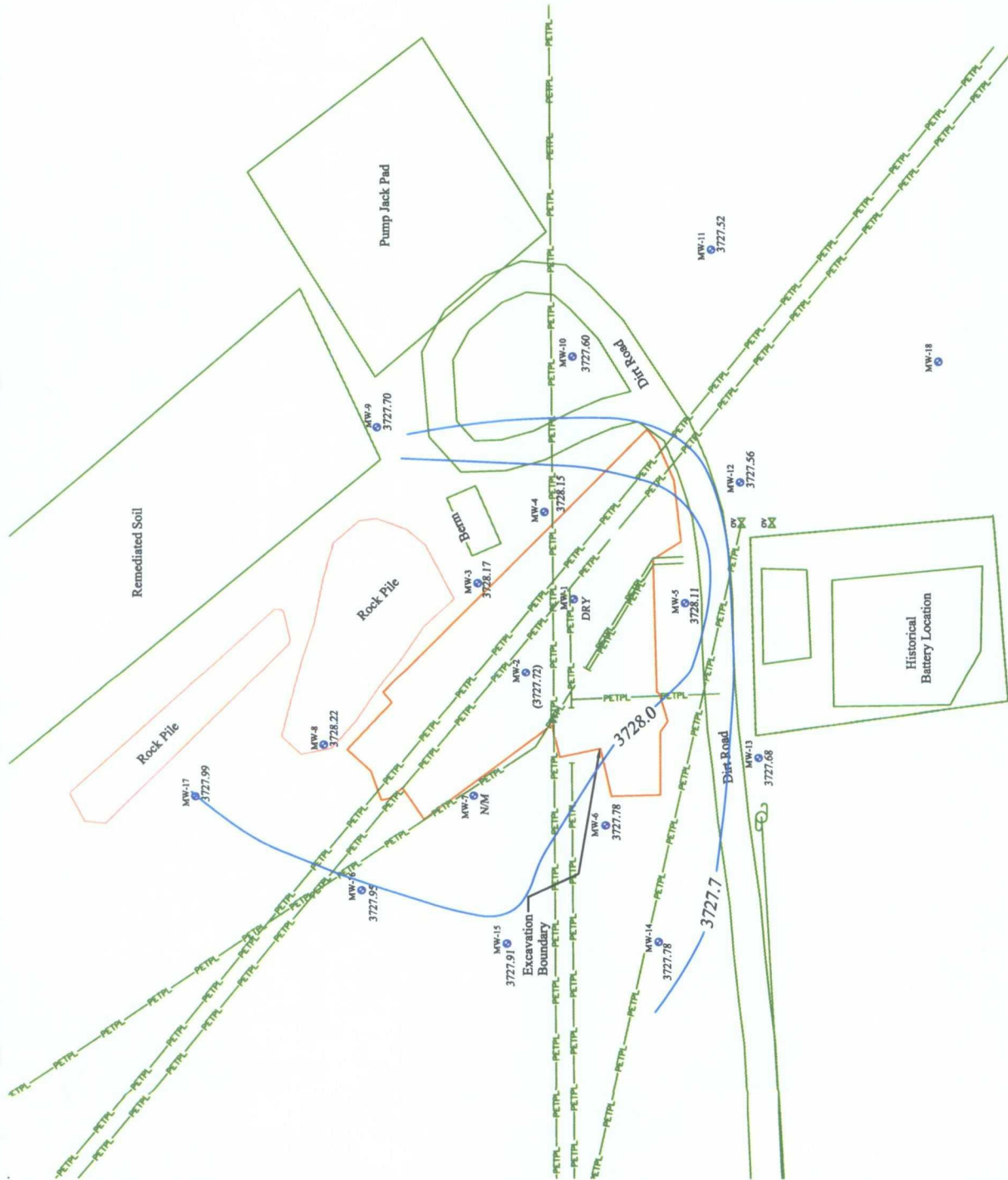
Scale: 1" = 100'

Drawn By: SJA





0 50 100
Scale in Feet



Date: 06/23/2008

Scale: 1" = 100'

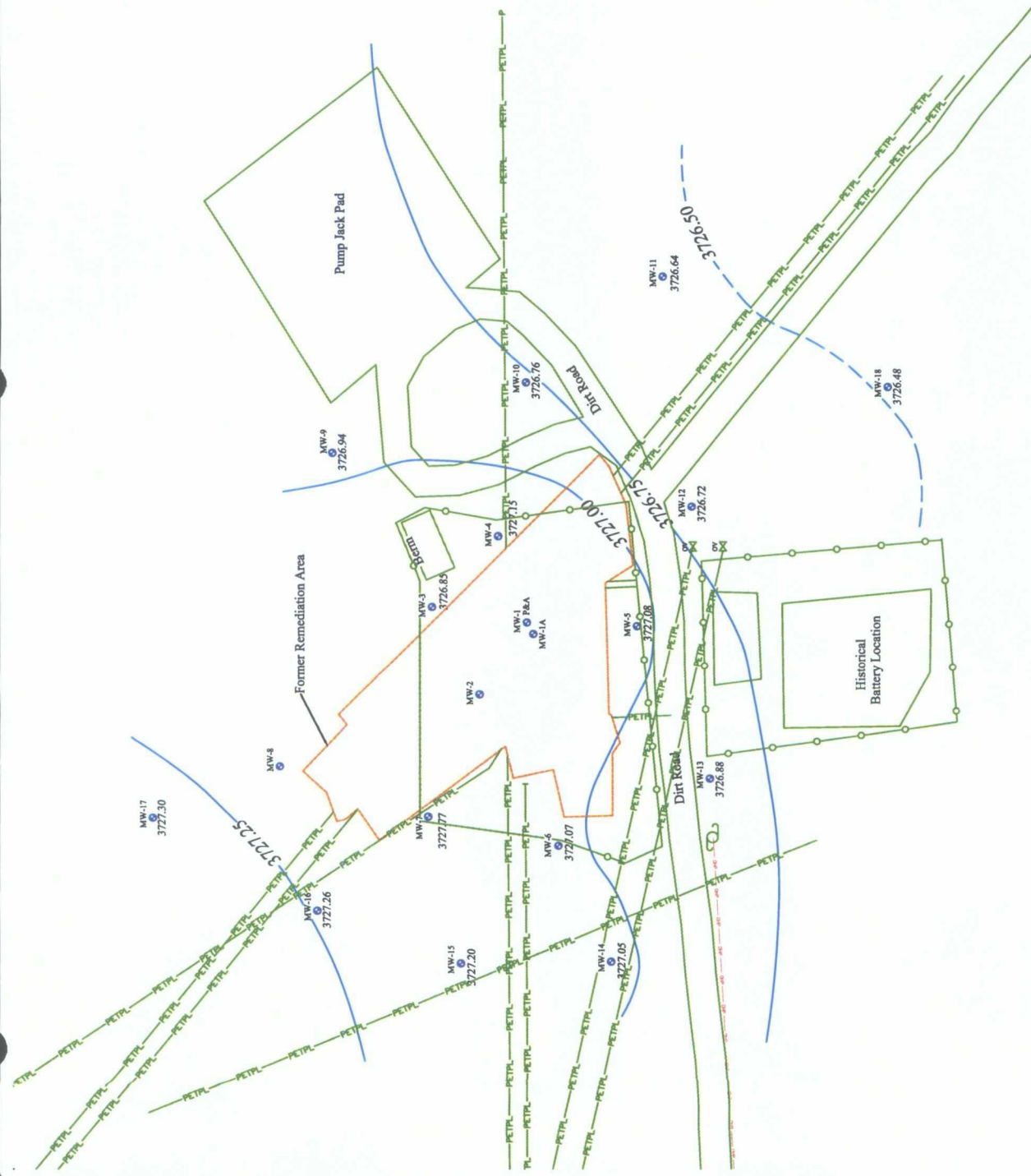
Drawn By: SJA

C.S. Cayler (PLAINS044SPL)
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 2a - Groundwater Gradient Map, (03/12/2008)



0 50 100
Scale in Feet

- Legend**
- Monitor Well
 - Pipeline
 - Valve
 - Fence line
 - Groundwater Elevation Contour Line
 - Groundwater Contour Elevation
 - 81.30
 - Groundwater Flow Direction



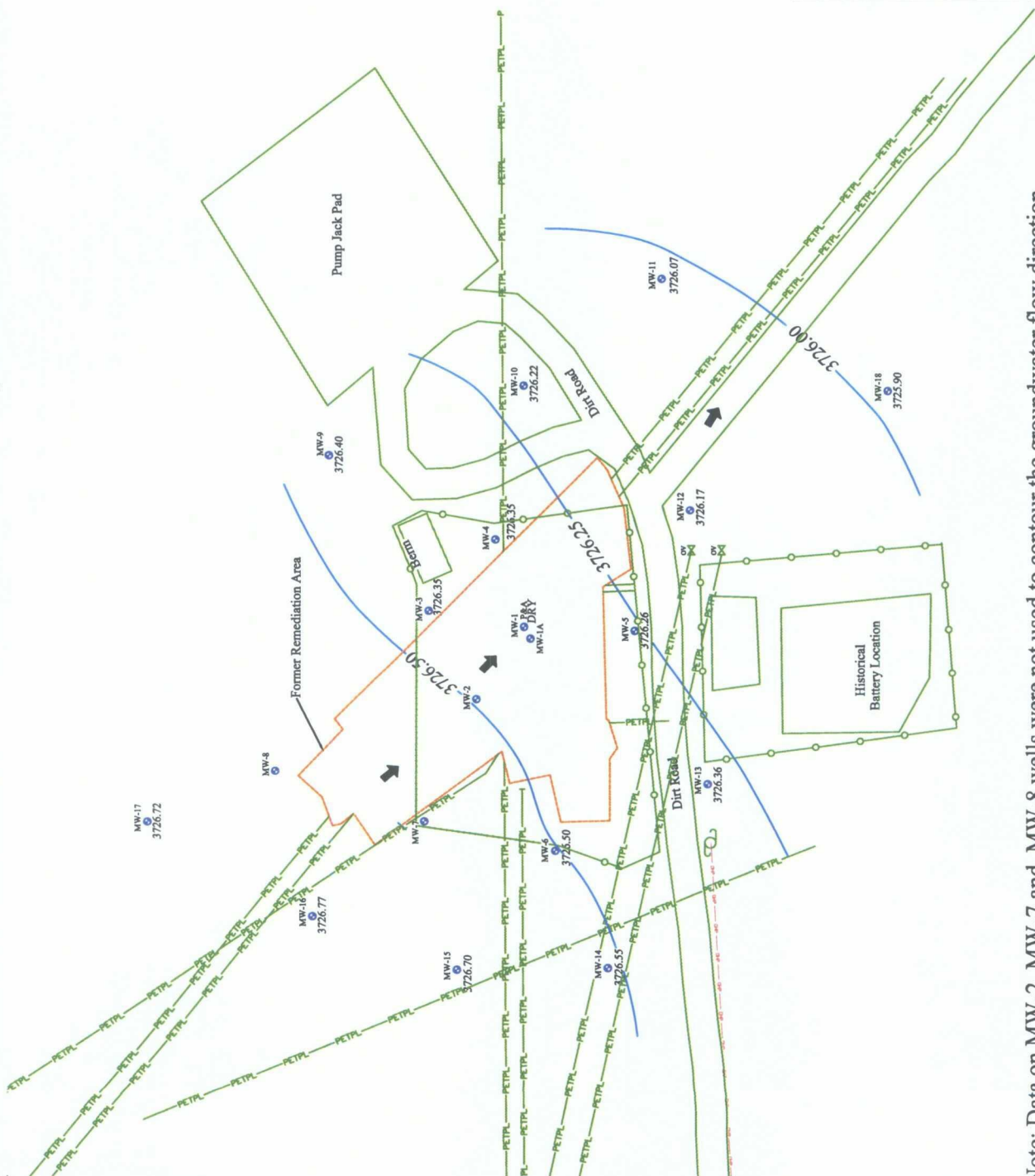
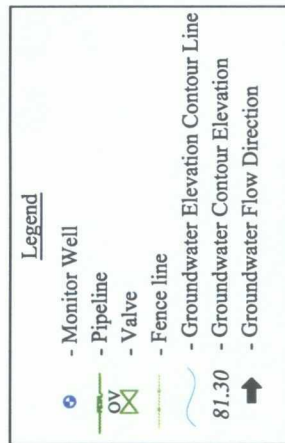
C.S. Cayler (PLAINS044SPL)
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 2b - Groundwater Gradient Map, (06/19/2008)

Date: 03/17/2009
Scale: 1" = 100'
Drawn By: SJA





0 50 100
Scale in Feet



Note: Data on MW-2, MW-7 and MW-8 wells were not used to contour the groundwater flow direction



Date: 03/17/2009

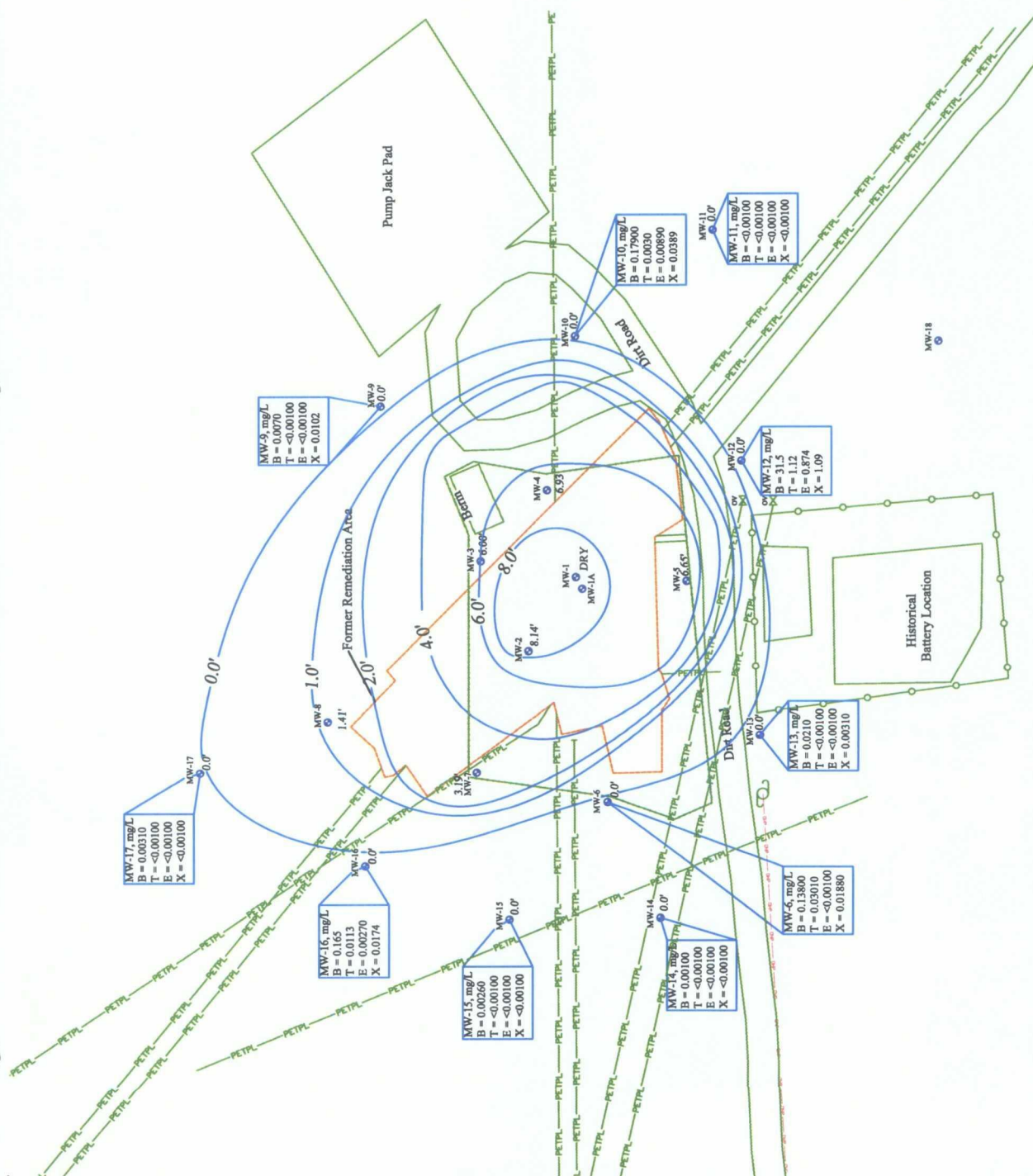
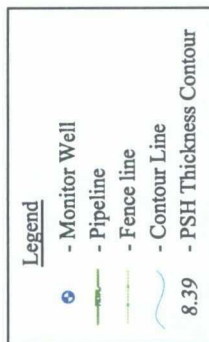
Scale: 1" = 100'

Drawn By: SJA

C.S. Cayler (PLAINS044SPL)
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 2c - Groundwater Gradient Map, (08/13/2008)



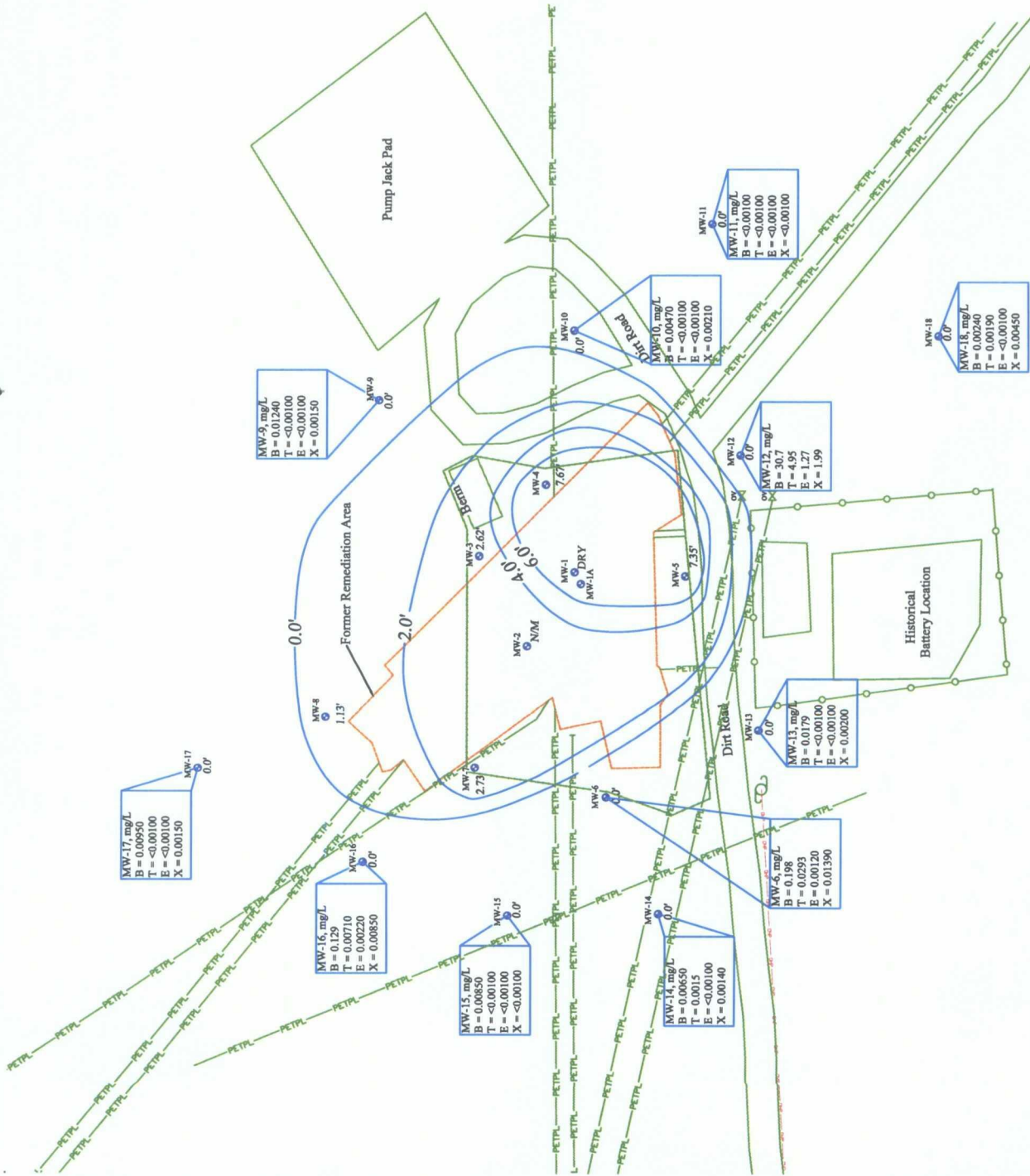
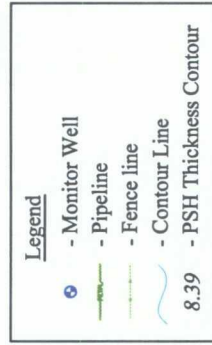
0 50 100
Scale in Feet



C.S. Cayler (PLAINS044SPL)
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 3a - PSH Plume & Groundwater Concentration Map, (03/12/2008)

Date: 03/25/2009
Scale: 1" = 100'
Drawn By: SJA





Date: 03/25/2009

Scale: 1" = 100'

Drawn By: SJA

C.S. Cayler (PLAINS044SPL)

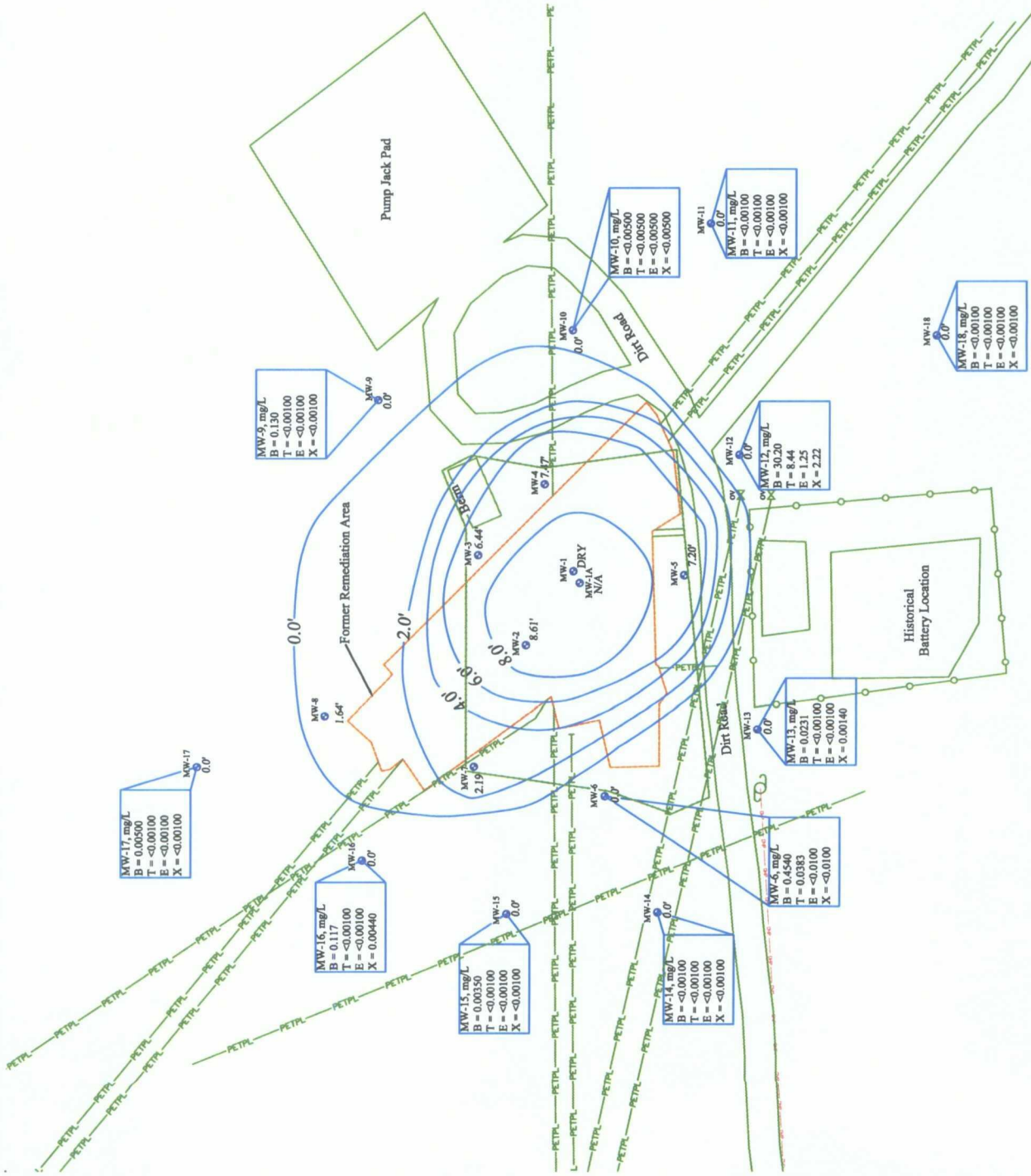
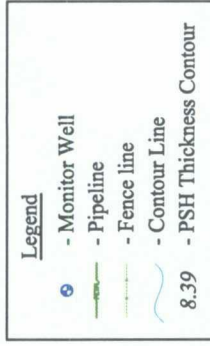
SRS # 2002-10250, NMOC REF. # AP-052 (OLD 1R-0382)

Lea County, New Mexico

Figure 3b - PSH Plume & Groundwater Concentration Map, (06/19/2008)



0 50 100
Scale in Feet



Date: 03/25/2009

Scale: 1" = 100'

Drawn By: SJA

C.S. Cayler (PLAINS044SPL)

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)

Lea County, New Mexico

Figure 3c - PSH Plume & Groundwater Concentration Map, (08/12/2008)



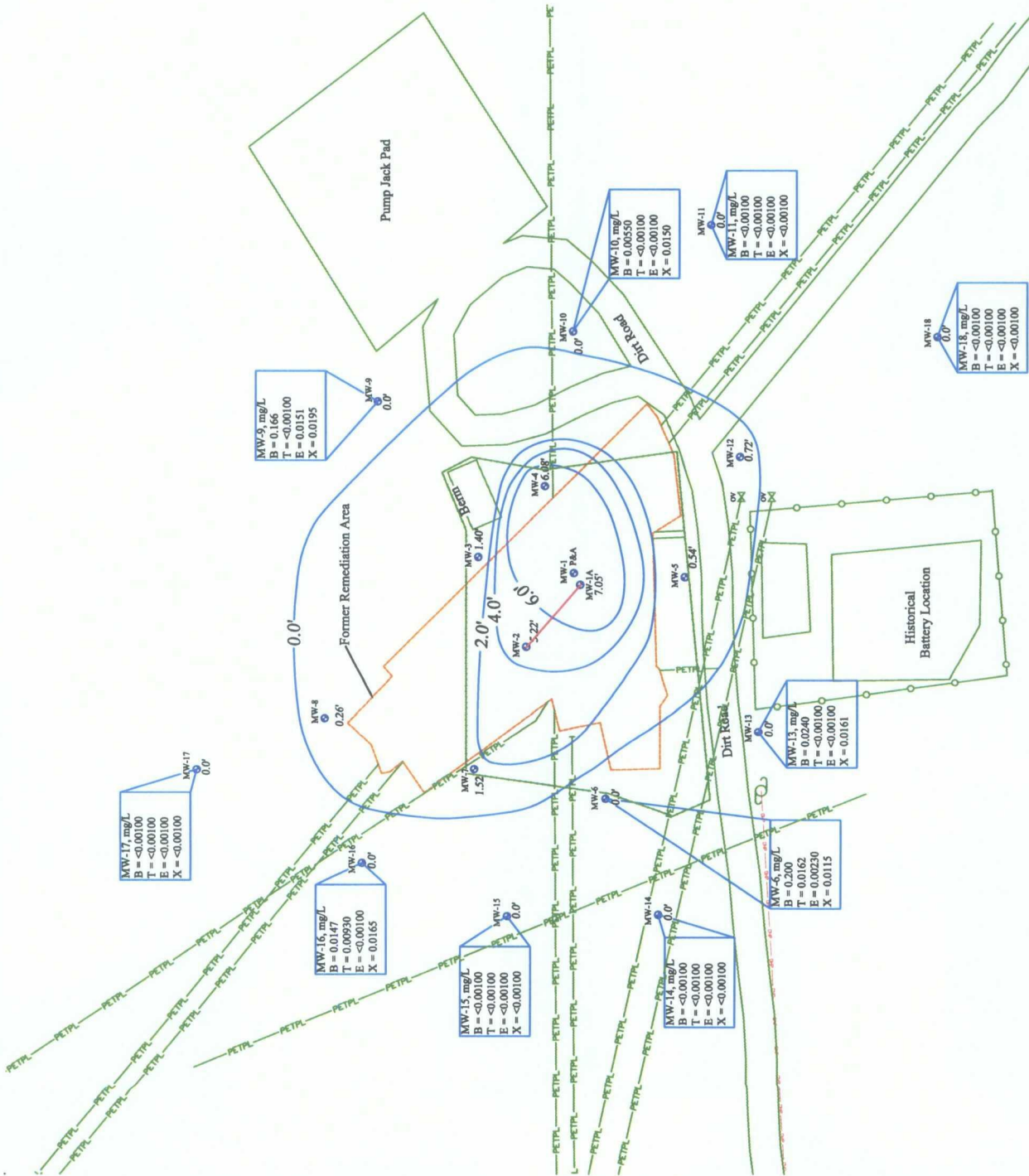
0 50 100

Scale in Feet

Legend

- Monitor Well
- Pipeline
- Fence line
- Contour Line
- PSH Thickness Contour

8.39



C.S. Cayler (PLAINS044SPL)

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)

Lea County, New Mexico

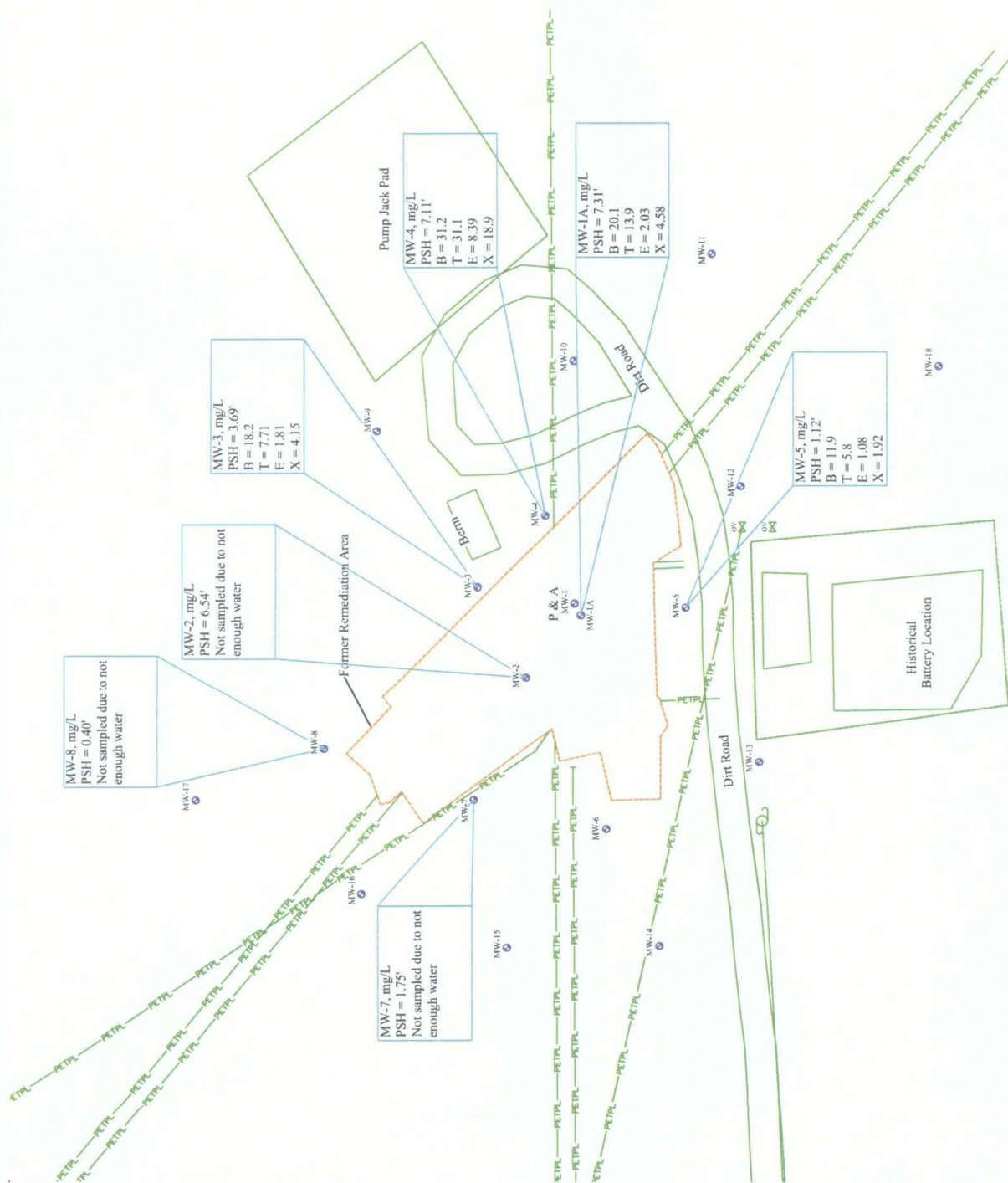
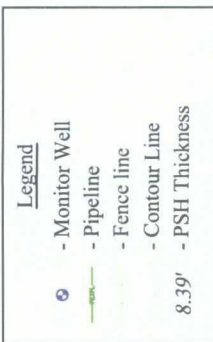
Figure 3d - PSH Plume & Groundwater Concentration Map, (12/04/2008)

Date: 03/25/2009

Scale: 1" = 100'

Drawn By: SJA





Date: 10/10/2008

Scale: 1" = 100'

Drawn By: SJA



C.S. Cayler (PLAINS044SPL)

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)

Lea County, New Mexico

Figure 4 - Groundwater Concentration in Wells with PSH Map, (09/23/2008)

APPENDIX B

Tables

Table 1 – Summary of Historical Fluid Level Measurements

Table 2 – Summary of Groundwater Analytical Results

Table 3 – Summary of Semi-volatile and Volatile Groundwater Analytical Results

Table 4 – Summary of General Chemistry and Metals Groundwater Analytical Results

Table 5 – Summary of Groundwater Poly-Aromatic Hydrocarbon (PAH) Analytical Results

Table 6 – Summary of PSH Monitor Wells Groundwater Poly-Aromatic Hydrocarbon (PAH) Analytical Results



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-1	10/17/02	WELL INSTALLED 17-Oct-02				
MW-1	3/7/03	3,803.97	72.28	84.20	3,730.50	11.92
MW-1	3/11/03		72.30	84.19	3,730.48	11.89
MW-1	3/17/03		72.33	84.25	3,730.45	11.92
MW-1	3/22/03		72.35	84.24	3,730.43	11.89
MW-1	5/6/03		71.55	83.11	3,731.26	11.56
MW-1	5/7/03		71.58	83.05	3,731.24	11.47
MW-1	5/8/03		71.55	83.03	3,731.27	11.48
MW-1	5/9/03		71.53	83.00	3,731.29	11.47
MW-1	5/15/03		71.57	83.01	3,731.26	11.44
MW-1	5/16/03		71.59	82.90	3,731.25	11.31
MW-1	5/28/03		71.65	82.50	3,731.24	10.85
MW-1	6/11/03		71.75	82.57	3,731.14	10.82
MW-1	8/14/03		63.45	73.41	3,739.52	9.96
MW-1	1/2/04		64.31	73.63	3,738.73	9.32
MW-1	4/12/04		64.74	73.74	3,738.33	9.00
MW-1	6/1/04		64.87	73.52	3,738.24	8.65
MW-1	6/21/04		65.04	73.49	3,738.09	8.45
MW-1	7/14/04		67.52	75.92	3,735.61	8.40
MW-1	10/17/04		68.38	73.28	3,735.10	4.90
MW-1	10/29/04		68.53	73.45	3,734.95	4.92
MW-1	3/31/05		68.23	73.00	3,735.26	4.77
MW-1	4/25/05		68.56	72.68	3,735.00	4.12
MW-1	5/31/05		68.57	72.61	3,735.00	4.04
MW-1	6/29/05		68.88	73.72	3,734.61	4.84
MW-1	9/15/05		69.79	73.63	3,733.80	3.84
MW-1	11/14/05		70.44	73.26	3,733.25	2.82
MW-1	1/23/06		70.72	73.80	3,732.94	3.08
MW-1	3/1/06		70.41	73.59	3,733.24	3.18
MW-1	5/25/06		71.05	73.20	3,732.71	2.15
MW-1	8/14/06		72.46	73.76	3,731.38	1.30
MW-1	11/29/06		73.31	73.69	3,730.62	0.38
MW-1	1/11/07		73.31	73.69	3,730.62	0.38
MW-1	2/8/07		73.38	73.73	3,730.56	0.35
MW-1	4/3/07		73.86	82.21	3,729.28	8.35
MW-1	4/11/07		74.06	82.27	3,729.09	8.21
MW-1	4/17/07		74.21	82.63	3,728.92	8.42
MW-1	5/14/07		74.06	82.00	3,729.12	7.94
MW-1	6/26/07		73.80	NA	NA	NA
MW-1	6/28/07		DRY			
MW-1	9/14/07		DRY			
MW-1	9/26/07		DRY			
MW-1	10/5/07		DRY			
MW-1	10/9/07		DRY			
MW-1	10/19/07		DRY			
MW-1	10/24/07		DRY			
MW-1	10/31/07		DRY			
MW-1	11/28/07		DRY			
MW-1	12/3/07		DRY			
MW-1	1/3/08		DRY			
MW-1	1/8/08		DRY			
MW-1	1/14/08		DRY			
MW-1	1/23/08		DRY			
MW-1	1/28/08		DRY			
MW-1	2/11/08		DRY			
MW-1	3/12/08		DRY			
MW-1	3/26/08		DRY			
MW-1	4/1/08		DRY			
MW-1	8/13/08		DRY			
MW-1	9/18/08	WELL PLUGGED 9/18/08				



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-1A	9/18/08	WELL INSTALLED 9/18/08				
MW-1A	9/23/08	3,810.02	82.40	89.71	3,726.89	7.31
MW-1A	12/4/08		82.50	89.55	3,726.82	7.05
MW-2	5/28/04	WELL INSTALLED 5/28/04				
MW-2	6/1/04	3,803.93	67.17	77.76	3,735.70	10.59
MW-2	6/21/04		67.27	77.93	3,735.59	10.66
MW-2	7/14/04		67.38	78.09	3,735.48	10.71
MW-2	10/16/04		68.79	74.04	3,734.62	5.25
MW-2	10/29/04		67.97	77.70	3,734.99	9.73
MW-2	3/31/05		68.23	78.50	3,734.67	10.27
MW-2	4/25/05		68.37	77.03	3,734.69	8.66
MW-2	5/31/05		68.46	76.97	3,734.62	8.51
MW-2	6/29/05		69.09	76.12	3,734.14	7.03
MW-2	9/15/05		69.75	79.14	3,733.24	9.39
MW-2	11/14/05		70.66	78.44	3,732.49	7.78
MW-2	1/23/06		70.95	78.27	3,732.25	7.32
MW-2	3/1/06		70.53	77.41	3,732.71	6.88
MW-2	5/25/06		72.19	75.49	3,731.41	3.30
MW-2	8/14/06		73.08	78.31	3,730.33	5.23
MW-2	11/29/06		74.09	78.20	3,729.43	4.11
MW-2	12/12/06		74.53	77.57	3,729.10	3.04
MW-2	1/11/07		74.22	78.81	3,729.25	4.59
MW-2	2/8/07		75.11	75.18	3,728.81	0.07
MW-2	4/3/07		73.95	82.11	3,729.16	8.16
MW-2	4/11/07		74.02	82.30	3,729.08	8.28
MW-2	4/17/07		74.02	82.41	3,729.07	8.39
MW-2	5/14/07		74.03	82.55	3,729.05	8.52
MW-2	6/26/07		74.20	82.64	3,728.89	8.44
MW-2	6/28/07		74.36	82.48	3,728.76	8.12
MW-2	8/13/07		74.71	81.91	3,728.50	7.20
MW-2	8/17/07		75.66	79.30	3,727.91	3.64
MW-2	8/21/07		NA	76.19	NA	NA
MW-2	8/28/07		75.84	78.91	3,727.78	3.07
MW-2	9/14/07		75.63	79.29	3,727.93	3.66
MW-2	9/26/07		74.88	82.41	3,728.30	7.53
MW-2	10/5/07		74.85	82.70	3,728.30	7.85
MW-2	10/8/07		74.87	82.71	3,728.28	7.84
MW-2	10/19/07		74.87	82.96	3,728.25	8.09
MW-2	10/24/07		74.87	83.04	3,728.24	8.17
MW-2	10/31/07		74.88	83.11	3,728.23	8.23
MW-2	11/12/07		74.82	83.19	3,728.27	8.37
MW-2	11/28/07		74.89	83.27	3,728.20	8.38
MW-2	12/3/07		74.83	83.20	3,728.26	8.37
MW-2	1/3/08		75.32	83.50	3,727.79	8.18
MW-2	1/8/08		74.76	82.25	3,728.42	7.49
MW-2	1/14/08		75.49	83.23	3,727.67	7.74
MW-2	1/23/08		75.45	83.43	3,727.68	7.98
MW-2	1/28/08		75.38	83.47	3,727.74	8.09
MW-2	2/11/08		74.94	83.02	3,728.18	8.08
MW-2	3/12/08		75.40	83.54	3,727.72	8.14
MW-2	3/26/08		75.14	83.99	3,727.91	8.85
MW-2	4/1/08		76.19	83.34	3,727.03	7.15
MW-2	4/11/08		76.73	80.62	3,726.81	3.89
MW-2	4/15/08		76.33	79.08	3,727.33	2.75
MW-2	4/22/08		75.66	79.07	3,727.93	3.41
MW-2	4/28/08		76.00	83.17	3,727.21	7.17
MW-2	5/6/08		75.68	79.12	3,727.91	3.44
MW-2	5/16/08		75.40	83.02	3,727.77	7.62
MW-2	5/22/08		75.61	82.32	3,727.65	6.71
MW-2	5/25/08		79.90	87.72	3,723.25	7.82
MW-2	8/13/08		80.21	88.82	3,722.86	8.61



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOC REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-2	9/23/08	3,807.67	79.34	85.88	3,727.68	6.54
MW-2	10/15/08			79.89	3,727.78	
MW-2	12/4/08		79.68	84.90	3,727.47	5.22
MW-3	5/31/04		WELL INSTALLED 31-May-04			
MW-3	6/21/04	3,810.20	75.51	75.51	3,734.69	
MW-3	7/14/04		74.39	81.31	3,735.12	6.92
MW-3	8/26/04		74.75	84.31	3,734.49	9.56
MW-3	10/16/04		75.53	77.55	3,734.47	2.02
MW-3	10/29/04		75.45	79.00	3,734.40	3.55
MW-3	3/31/05		74.65	83.60	3,734.66	8.95
MW-3	4/25/05		74.81	82.74	3,734.60	7.93
MW-3	5/31/05		75.00	82.16	3,734.48	7.16
MW-3	6/29/05		75.83	80.44	3,733.91	4.61
MW-3	9/15/05		76.09	85.47	3,733.17	9.38
MW-3	11/14/05		77.81	81.11	3,732.06	3.30
MW-3	1/23/06		77.78	81.74	3,732.02	3.96
MW-3	3/1/06		77.43	81.49	3,732.36	4.06
MW-3	5/25/06		78.49	81.15	3,731.44	2.66
MW-3	8/14/06		79.51	84.36	3,730.21	4.85
MW-3	1/11/07		80.78	84.05	3,729.09	3.27
MW-3	2/8/07		83.65	83.66	3,726.55	0.01
MW-3	4/3/07		80.25	88.51	3,729.12	8.26
MW-3	4/11/07		80.69	88.97	3,728.68	8.28
MW-3	4/17/07		80.38	88.78	3,728.98	8.40
MW-3	5/14/07		80.43	89.56	3,728.86	9.13
MW-3	6/26/07		81.74	89.12	3,727.72	7.38
MW-3	6/28/07		80.69	89.05	3,728.67	8.36
MW-3	8/13/07		81.08	89.43	3,728.29	8.35
MW-3	8/17/07		82.05	83.50	3,728.01	1.45
MW-3	8/21/07		82.65	82.68	3,727.55	0.03
MW-3	8/28/07		81.51	88.44	3,728.00	6.93
MW-3	9/14/07		81.42	86.89	3,728.23	5.47
MW-3	9/26/07		81.22	88.92	3,728.21	7.70
MW-3	10/5/07		81.14	88.99	3,728.28	7.85
MW-3	10/8/07		81.14	89.00	3,728.27	7.86
MW-3	10/19/07		81.23	89.39	3,728.15	8.16
MW-3	10/24/07		81.24	89.35	3,728.15	8.11
MW-3	10/31/07		81.24	89.47	3,728.14	8.23
MW-3	11/12/07		81.25	89.39	3,728.14	8.14
MW-3	11/28/07		81.26	89.44	3,728.12	8.18
MW-3	12/3/07		81.26	89.36	3,728.13	8.10
MW-3	1/3/08		81.17	89.41	3,728.21	8.24
MW-3	1/8/08		81.11	89.05	3,728.30	7.94
MW-3	1/14/08		81.62	88.39	3,727.90	6.77
MW-3	1/23/08		80.84	87.89	3,728.66	7.05
MW-3	1/28/08		80.31	88.20	3,729.10	7.89
MW-3	2/11/08		81.92	88.49	3,727.62	6.57
MW-3	3/12/08		81.43	87.43	3,728.17	6.00
MW-3	3/26/08		80.57	88.54	3,728.83	7.97
MW-3	4/1/08		82.06	87.81	3,727.57	5.75
MW-3	4/11/08		81.90	87.81	3,727.71	5.91
MW-3	4/15/08		82.04	87.85	3,727.58	5.81
MW-3	4/22/08		82.01	87.90	3,727.60	5.89
MW-3	4/28/08		82.11	87.24	3,727.58	5.13
MW-3	5/6/08		82.00	87.94	3,727.61	5.94
MW-3	5/16/08		82.24	88.07	3,727.38	5.83
MW-3	5/22/08		82.94	89.22	3,726.63	6.28
MW-3	6/19/08		83.09	85.71	3,726.85	2.62
MW-3	7/25/08		83.35	88.33	3,726.35	4.98
MW-3	8/13/08		83.21	89.65	3,726.35	6.44
MW-3	9/23/08	3,810.35	83.28	86.97	3,726.70	3.69
MW-3	10/15/08		84.04	84.22	3,726.29	0.18
MW-3	12/4/08		83.61	85.01	3,726.60	1.40



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-4	6/1/04	WELL INSTALLED 01-Jun-04				
MW-4	6/21/04	3,810.70	76.04	76.04	3,734.66	
MW-4	7/14/04		74.51	83.91	3,735.25	9.40
MW-4	8/26/04		74.21	83.61	3,735.55	9.40
MW-4	10/16/04		75.77	80.56	3,734.45	4.79
MW-4	10/17/04		75.76	80.96	3,734.42	5.20
MW-4	10/29/04		75.56	81.42	3,734.55	5.86
MW-4	3/31/05		73.51	81.95	3,736.35	8.44
MW-4	4/25/05		75.53	82.62	3,734.46	7.09
MW-4	5/31/05		75.55	82.86	3,734.42	7.31
MW-4	6/29/05		75.96	83.51	3,733.99	7.55
MW-4	9/15/05		76.71	86.23	3,733.04	9.52
MW-4	11/14/05		77.64	85.38	3,732.29	7.74
MW-4	1/23/06		77.79	84.93	3,732.20	7.14
MW-4	3/1/06		77.48	84.12	3,732.56	6.64
MW-4	5/25/06		78.28	85.22	3,731.73	6.94
MW-4	8/14/06		79.78	86.67	3,730.23	6.89
MW-4	11/29/06		80.29	85.15	3,729.92	4.86
MW-4	12/12/06		81.71	86.01	3,728.56	4.30
MW-4	1/11/07		80.03	82.77	3,730.40	2.74
MW-4	2/8/07		81.28	82.70	3,729.28	1.42
MW-4	4/3/07		80.78	89.44	3,729.05	8.66
MW-4	4/11/07		80.85	89.55	3,728.98	8.70
MW-4	4/17/07		80.92	89.05	3,728.97	8.13
MW-4	5/14/07		80.96	89.68	3,728.87	8.72
MW-4	6/26/07		81.41	89.82	3,728.45	8.41
MW-4	6/28/07		81.28	89.71	3,728.58	8.43
MW-4	8/13/07		81.76	89.92	3,728.12	8.16
MW-4	8/17/07		80.36	87.55	3,729.62	7.19
MW-4	8/21/07		82.01	89.41	3,727.95	7.40
MW-4	8/28/07		NA	79.50	NA	NA
MW-4	9/14/07		81.76	89.85	3,728.13	8.09
MW-4	9/26/07		81.73	88.89	3,728.25	7.16
MW-4	10/5/07		81.66	89.80	3,728.23	8.14
MW-4	10/8/07		81.65	89.78	3,728.24	8.13
MW-4	10/19/07		81.80	90.05	3,728.08	8.25
MW-4	10/24/07		81.80	89.99	3,728.08	8.19
MW-4	10/31/07		81.82	90.07	3,728.06	8.25
MW-4	11/12/07		82.02	89.84	3,727.90	7.82
MW-4	11/28/07		81.93	89.82	3,727.98	7.89
MW-4	12/3/07		81.91	89.72	3,728.01	7.81
MW-4	1/3/08		81.66	89.19	3,728.29	7.53
MW-4	1/8/08		81.70	89.31	3,728.24	7.61
MW-4	1/14/08		81.98	88.87	3,728.03	6.89
MW-4	1/23/08		82.17	87.76	3,727.97	5.59
MW-4	1/28/08		81.77	89.17	3,728.19	7.40
MW-4	2/11/08		81.29	88.75	3,728.66	7.46
MW-4	3/12/08		81.86	88.79	3,728.15	6.93
MW-4	3/26/08		82.67	86.36	3,727.66	3.69
MW-4	4/1/08		82.56	88.83	3,727.51	6.27
MW-4	4/11/08		82.49	88.94	3,727.57	6.45
MW-4	4/15/08		82.31	89.90	3,727.63	7.59
MW-4	4/22/08		82.36	89.26	3,727.65	6.90
MW-4	5/6/08		83.98	90.27	3,726.09	6.29
MW-4	5/16/08		82.89	90.01	3,727.10	7.12
MW-4	5/22/08		82.39	90.19	3,727.53	7.80
MW-4	6/19/08		82.78	90.45	3,727.15	7.67
MW-4	7/25/08		83.71	91.11	3,726.25	7.40
MW-4	8/13/08		83.60	91.07	3,726.35	7.47
MW-4	9/23/08	3,810.82	83.36	90.47	3,726.75	7.11
MW-4	10/15/08		83.78	88.43	3,726.58	4.65
MW-4	12/4/08		83.32	89.40	3,726.89	6.08



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCDF REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-5	6/5/04	WELL INSTALLED 05-Jun-04				
MW-5	6/21/04	3,809.05	--	74.42	3,734.63	ND
MW-5	7/14/04		--	74.53	3,734.52	ND
MW-5	10/29/04		--	75.00	3,734.05	ND
MW-5	11/19/04		--	75.10	3,733.95	ND
MW-5	3/31/05		--	75.18	3,733.87	ND
MW-5	4/25/05		--	75.19	3,733.86	ND
MW-5	5/12/05		--	75.22	3,733.83	ND
MW-5	5/31/05		--	75.25	3,733.80	ND
MW-5	6/29/05		--	75.67	3,733.38	ND
MW-5	8/22/05		--	76.64	3,732.41	ND
MW-5	9/15/05		--	76.75	3,732.30	ND
MW-5	11/14/05		--	77.39	3,731.66	ND
MW-5	1/23/06		77.21	79.19	3,731.64	1.98
MW-5	3/1/06		76.59	79.18	3,732.20	2.59
MW-5	5/25/06		77.41	79.93	3,731.39	2.52
MW-5	8/14/06		78.99	80.63	3,729.90	1.64
MW-5	11/29/06		78.91	85.95	3,729.44	7.04
MW-5	1/11/07		78.85	86.30	3,729.46	7.45
MW-5	2/8/07		78.82	86.29	3,729.48	7.47
MW-5	2/20/07		79.22	85.66	3,729.19	6.44
MW-5	3/6/07		79.15	86.07	3,729.21	6.92
MW-5	3/14/07		78.68	85.60	3,729.68	6.92
MW-5	3/27/07		79.64	86.03	3,728.77	6.39
MW-5	3/29/07		79.36	86.25	3,729.00	6.89
MW-5	4/3/07		79.38	86.71	3,728.94	7.33
MW-5	4/11/07		79.91	87.02	3,728.43	7.11
MW-5	4/17/07		79.52	88.90	3,728.59	9.38
MW-5	5/24/07		79.54	86.90	3,728.77	7.36
MW-5	6/26/07		79.94	87.32	3,728.37	7.38
MW-5	6/28/07		79.84	87.25	3,728.47	7.41
MW-5	8/13/07		80.26	81.66	3,728.65	1.40
MW-5	8/21/07		80.39	87.63	3,727.94	7.24
MW-5	8/28/07		80.49	87.64	3,727.85	7.15
MW-5	9/14/07		80.32	87.59	3,728.00	7.27
MW-5	9/26/07		81.72	87.66	3,726.74	5.94
MW-5	10/5/07		80.22	87.51	3,728.10	7.29
MW-5	10/8/07		80.20	87.52	3,728.12	7.32
MW-5	10/19/07		80.44	87.66	3,727.89	7.22
MW-5	10/24/07		80.36	87.73	3,727.95	7.37
MW-5	10/31/07		80.37	87.85	3,727.93	7.48
MW-5	11/12/07		80.36	87.51	3,727.98	7.15
MW-5	12/28/07		80.83	87.61	3,727.54	6.78
MW-5	12/3/07		80.34	87.35	3,728.01	7.01
MW-5	1/3/08		80.17	86.72	3,728.23	6.55
MW-5	1/8/08		80.17	86.85	3,728.21	6.68
MW-5	1/14/08		80.32	86.74	3,728.09	6.42
MW-5	1/23/08		82.34	85.78	3,726.37	3.44
MW-5	1/28/08		80.25	87.03	3,728.12	6.78
MW-5	2/11/08		80.26	86.34	3,728.18	6.08
MW-5	3/12/08		80.28	86.93	3,728.11	6.65
MW-5	3/26/08		81.23	84.33	3,727.51	3.10
MW-5	4/1/08		81.38	84.40	3,727.37	3.02
MW-5	4/11/08		81.79	83.35	3,727.10	1.56
MW-5	4/15/08		81.77	83.38	3,727.12	1.61
MW-5	4/22/08		81.50	82.54	3,727.45	1.04
MW-5	4/28/08		81.87	82.13	3,727.15	0.26
MW-5	5/6/08		81.51	82.56	3,727.44	1.05
MW-5	5/16/08		82.15	82.56	3,726.86	0.41
MW-5	5/22/08		81.92	83.49	3,726.97	1.57
MW-5	6/19/08		81.24	88.59	3,727.08	7.35
MW-5	7/25/08		81.76	88.92	3,726.57	7.16
MW-5	8/13/08		82.07	89.27	3,726.26	7.20
MW-5	9/23/08	3,809.21	82.61	83.73	3,726.49	1.12
MW-5	10/15/08		82.98	83.20	3,726.21	0.22
MW-5	12/4/08		82.77	83.31	3,726.39	0.54



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCDF REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-6	10/21/04	WELL INSTALLED 21-Oct-04				
MW-6	10/27/04	3,809.17		75.13	3,734.04	
MW-6	10/29/04			75.13	3,734.04	
MW-6	11/19/04			75.23	3,733.94	
MW-6	3/31/05			75.33	3,733.84	
MW-6	4/25/05			75.27	3,733.90	
MW-6	5/12/05			75.30	3,733.87	
MW-6	5/31/05			75.33	3,733.84	
MW-6	6/29/05			75.68	3,733.49	
MW-6	8/22/05			76.63	3,732.54	
MW-6	9/15/05			76.80	3,732.37	
MW-6	11/14/05			77.41	3,731.76	
MW-6	1/23/06			77.60	3,731.57	
MW-6	3/1/06			77.01	3,732.16	
MW-6	5/25/06			77.92	3,731.25	
MW-6	8/14/06			79.18	3,729.99	
MW-6	11/29/06			80.12	3,729.05	
MW-6	12/12/06			80.19	3,728.98	
MW-6	1/11/07			80.20	3,728.97	
MW-6	2/8/07			79.99	3,729.18	
MW-6	2/20/07			80.36	3,728.81	
MW-6	3/6/07			80.40	3,728.77	
MW-6	3/14/07			79.92	3,729.25	
MW-6	3/27/07			80.62	3,728.55	
MW-6	3/29/07			80.34	3,728.83	
MW-6	4/3/07			80.68	3,728.49	
MW-6	4/11/07			81.03	3,728.14	
MW-6	4/17/07			80.82	3,728.35	
MW-6	6/13/07			80.88	3,728.29	
MW-6	6/26/07			81.04	3,728.13	
MW-6	9/14/07			81.62	3,727.55	
MW-6	10/19/07			81.64	3,727.53	
MW-6	12/3/07			81.56	3,727.61	
MW-6	1/8/08			81.78	3,727.39	
MW-6	1/28/08			81.39	3,727.78	
MW-6	3/12/08			81.39	3,727.78	
MW-6	4/22/08			84.48	3,724.69	
MW-6	6/19/08			82.10	3,727.07	
MW-6	8/13/08			82.67	3,726.50	
MW-6	10/15/08			82.99	3,726.18	
MW-6	12/4/08			82.88	3,726.29	



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCDF REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-7	10/21/04	WELL INSTALLED 21-Oct-04				
MW-7	10/27/04	3,809.95	75.82	76.05	3,734.11	0.23
MW-7	10/29/04		75.82	76.05	3,734.11	0.23
MW-7	11/19/04		75.21	79.14	3,734.35	3.93
MW-7	3/31/05		75.22	79.18	3,734.33	3.96
MW-7	4/25/05		74.37	82.84	3,734.73	8.47
MW-7	5/31/05		75.41	78.75	3,734.21	3.34
MW-7	6/29/05		74.86	83.31	3,734.25	8.45
MW-7	9/15/05		75.92	83.58	3,733.26	7.66
MW-7	11/14/05		76.75	83.17	3,732.56	6.42
MW-7	1/23/06		77.16	83.54	3,732.15	6.38
MW-7	3/1/06		76.71	82.60	3,732.65	5.89
MW-7	5/25/06		77.71	79.37	3,732.07	1.66
MW-7	8/14/06		78.61	83.34	3,730.87	4.73
MW-7	11/29/06		79.51	83.15	3,730.08	3.64
MW-7	12/12/06		79.95	83.00	3,729.70	3.05
MW-7	1/11/07		79.77	84.41	3,729.72	4.64
MW-7	2/8/07		79.63	84.15	3,729.87	4.52
MW-7	4/3/07		80.09	84.18	3,729.45	4.09
MW-7	4/11/07		80.73	84.91	3,728.80	4.18
MW-7	4/17/07		80.74	84.96	3,728.79	4.22
MW-7	5/14/07		80.30	84.42	3,729.24	4.12
MW-7	6/26/07		80.70	82.68	3,729.05	1.98
MW-7	6/28/07		80.52	83.66	3,729.12	3.14
MW-7	8/13/07		81.22	83.66	3,728.49	2.44
MW-7	8/21/07		81.37	83.44	3,728.37	2.07
MW-7	9/14/07		81.01	84.25	3,728.62	3.24
MW-7	9/26/07		80.97	84.30	3,728.65	3.33
MW-7	10/5/07		80.92	84.33	3,728.69	3.41
MW-7	10/8/07		80.92	84.32	3,728.69	3.40
MW-7	10/19/07		81.04	84.30	3,728.58	3.26
MW-7	10/24/07		81.05	84.30	3,728.58	3.25
MW-7	10/31/07		81.08	84.34	3,728.54	3.26
MW-7	11/12/07		81.02	84.35	3,728.60	3.33
MW-7	11/28/07		80.89	NA	NA	3.46**
MW-7	12/3/07		80.98	NA	NA	3.43**
MW-7	1/3/08		79.83	NA	NA	4.56**
MW-7	1/8/08		80.92	84.40**	NA	3.48**
MW-7	1/14/08		81.34	84.37**	NA	3.03**
MW-7	3/12/08		81.20	84.39**	NA	3.19**
MW-7	3/26/08		81.54	84.45**	NA	2.91**
MW-7	4/11/07		81.40	84.49	3,728.24	3.09
MW-7	4/15/07		82.67	83.16	3,727.23	0.49
MW-7	4/22/07		82.66	82.81	3,727.28	0.15
MW-7	4/28/07		82.75	83.14	3,727.16	0.39
MW-7	5/6/07		82.39	83.29	3,727.47	0.90
MW-7	5/16/07		83.03	83.26	3,726.90	0.23
MW-7	5/22/08		81.76	83.84	3,727.98	2.08
MW-7	6/19/08		81.91	84.64	3,727.77	2.73
MW-7	7/25/08		82.67	84.87	3,727.06	2.20
MW-7	8/13/08		82.76	84.95**	NA	2.19**
MW-7	9/23/08		82.54	84.29**	NA	1.75**
MW-7	10/15/08		83.48	84.29	3,726.39	0.81
MW-7	12/4/08		82.77	84.29	3,727.03	1.52



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCDF REF. # AP-052 (OLD IR-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-8	10/20/04	WELL INSTALLED 20-Oct-04				
MW-8	10/27/04	3,810.29	--	76.20	3,734.09	ND
MW-8	10/29/04		--	76.20	3,734.09	ND
MW-8	11/19/04		--	76.26	3,734.03	ND
MW-8	3/31/05		--	76.30	3,733.99	ND
MW-8	4/25/05		--	76.29	3,734.00	ND
MW-8	5/12/05		--	76.32	3,733.97	ND
MW-8	5/31/05		--	76.34	3,733.95	ND
MW-8	6/29/05		--	76.62	3,733.67	ND
MW-8	8/22/05		77.42	78.08	3,732.80	0.66
MW-8	11/14/05		78.16	79.40	3,732.01	1.24
MW-8	1/23/06		78.25	80.13	3,731.85	1.88
MW-8	3/1/06		77.60	80.55	3,732.40	2.95
MW-8	5/25/06		78.43	81.31	3,731.57	2.88
MW-8	8/14/06		79.63	82.84	3,730.34	3.21
MW-8	11/29/06		80.50	83.79	3,729.46	3.29
MW-8	12/12/06		80.59	83.90	3,729.37	3.31
MW-8	1/11/07		80.63	83.88	3,729.34	3.25
MW-8	2/8/07		80.66	83.94	3,729.30	3.28
MW-8	2/20/07		80.81	84.07	3,729.15	3.26
MW-8	3/6/07		80.88	84.11	3,729.09	3.23
MW-8	3/14/07		80.09	83.26	3,729.88	3.17
MW-8	3/27/07		80.13	83.24	3,729.85	3.11
MW-8	4/3/07		81.10	83.04	3,729.00	1.94
MW-8	4/11/07		81.59	83.49	3,728.51	1.90
MW-8	4/17/07		81.61	83.51	3,728.49	1.90
MW-8	5/24/07		81.33	NA	NA	1.77**
MW-8	6/26/07		81.62	NA	NA	1.48**
MW-8	6/28/07		81.52	NA	NA	1.58**
MW-8	8/13/07		81.86	NA	NA	2.1**
MW-8	8/21/07		81.96	NA	NA	1.79**
MW-8	8/28/07		82.02	NA	NA	1.73**
MW-8	9/14/07		82.35	82.36	3,727.94	0.01
MW-8	9/26/07		81.99	83.03	3,728.20	1.04
MW-8	10/5/07		81.97	84.33	3,728.08	2.36
MW-8	10/8/07		81.96	83.63	3,728.16	1.67
MW-8	10/19/07		82.04	82.41	3,728.21	0.37
MW-8	11/12/07		82.04	82.43	3,728.21	0.39
MW-8	11/28/07		82.04	NA	NA	0.46**
MW-8	12/3/07		82.11	NA	NA	0.48**
MW-8	1/3/08		81.84	NA	NA	0.61**
MW-8	1/8/08		81.85	82.56	3,728.37	0.71
MW-8	1/14/08		82.13	83.33	3,728.04	1.20
MW-8	1/23/08		82.12	83.09	3,728.07	0.97
MW-8	1/28/08		82.04	83.30	3,728.12	1.26
MW-8	2/11/08		81.97	83.34	3,728.18	1.37
MW-8	3/12/08		81.93	83.34	3,728.22	1.41
MW-8	4/1/08		81.95	83.34	3,728.20	1.39
MW-8	4/11/08		82.37	83.94	3,727.76	1.57
MW-8	4/15/08		82.36	83.45	3,727.82	1.09
MW-8	4/22/08		82.33	83.48	3,727.85	1.15
MW-8	4/28/08		82.32	83.46	3,727.86	1.14
MW-8	5/6/08		82.67	82.82	3,727.61	0.15
MW-8	5/16/08		82.47	83.46	3,727.72	0.99
MW-8	6/19/08		82.61	NA	NA	1.13**
MW-8	8/13/08		83.32	84.96*	NA	1.64**
MW-8	9/23/08		82.89	83.29*	NA	0.4**
MW-8	10/15/08			DRY		
MW-8	12/4/08		82.95	83.21*	NA	0.26



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-9	10/19/04	WELL INSTALLED 19-Oct-04				
MW-9	10/27/04	3,809.81		75.85	3,733.96	
MW-9	10/29/04			75.85	3,733.96	
MW-9	11/19/04			75.91	3,733.90	
MW-9	3/31/05			76.97	3,732.84	
MW-9	4/25/05			75.91	3,733.90	
MW-9	5/12/05			75.96	3,733.85	
MW-9	5/31/05			75.99	3,733.82	
MW-9	6/29/05			76.34	3,733.47	
MW-9	8/22/05			77.31	3,732.50	
MW-9	9/15/05			77.48	3,732.33	
MW-9	11/14/05			78.15	3,731.66	
MW-9	1/23/06			78.33	3,731.48	
MW-9	3/1/06			77.78	3,732.03	
MW-9	5/25/06			78.67	3,731.14	
MW-9	8/14/06			79.90	3,729.91	
MW-9	11/29/06			80.87	3,728.94	
MW-9	12/12/06			80.93	3,728.88	
MW-9	1/11/07			90.94	3,718.87	
MW-9	2/8/07			80.70	3,729.11	
MW-9	2/20/07			81.09	3,728.72	
MW-9	3/6/07			81.15	3,728.66	
MW-9	3/14/07			80.65	3,729.16	
MW-9	3/27/07			81.34	3,728.47	
MW-9	3/29/07			81.11	3,728.70	
MW-9	4/3/07			81.12	3,728.69	
MW-9	4/11/07			81.50	3,728.31	
MW-9	4/17/07			81.60	3,728.21	
MW-9	5/21/07			81.61	3,728.20	
MW-9	6/13/07			81.65	3,728.16	
MW-9	6/26/07			81.78	3,728.03	
MW-9	9/14/07			82.33	3,727.48	
MW-9	10/19/07			82.37	3,727.44	
MW-9	12/3/07			82.30	3,727.51	
MW-9	1/8/08			82.10	3,727.71	
MW-9	1/28/08			82.12	3,727.69	
MW-9	3/12/08			82.11	3,727.70	
MW-9	4/22/08			82.54	3,727.27	
MW-9	5/16/08			82.66	3,727.15	
MW-9	6/19/08			82.87	3,726.94	
MW-9	8/13/08			83.41	3,726.40	
MW-9	10/15/08			83.72	3,726.09	
MW-9	12/4/08			83.59	3,726.22	



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-10	10/20/04	WELL INSTALLED 20-Oct-04				
MW-10	10/27/04	3,809.64		75.76	3,733.88	
MW-10	10/29/04			75.76	3,733.88	
MW-10	11/19/04			75.84	3,733.80	
MW-10	3/31/05			75.87	3,733.77	
MW-10	4/25/05			75.85	3,733.79	
MW-10	5/12/05			75.96	3,733.68	
MW-10	5/31/05			75.91	3,733.73	
MW-10	6/29/05			76.30	3,733.34	
MW-10	8/22/05			77.32	3,732.32	
MW-10	9/15/05			77.46	3,732.18	
MW-10	11/14/05			78.08	3,731.56	
MW-10	1/23/06			78.22	3,731.42	
MW-10	3/1/06			77.58	3,732.06	
MW-10	5/25/06			78.66	3,730.98	
MW-10	8/14/06			79.96	3,729.68	
MW-10	11/29/06			80.84	3,728.80	
MW-10	12/12/06			80.91	3,728.73	
MW-10	1/11/07			80.84	3,728.80	
MW-10	2/8/07			80.59	3,729.05	
MW-10	2/20/07			81.00	3,728.64	
MW-10	3/6/07			81.08	3,728.56	
MW-10	3/14/07			80.52	3,729.12	
MW-10	3/27/07			81.33	3,728.31	
MW-10	3/29/07			81.07	3,728.57	
MW-10	4/3/07			81.37	3,728.27	
MW-10	4/11/07			81.46	3,728.18	
MW-10	4/17/07			81.53	3,728.11	
MW-10	5/24/07			81.54	3,728.10	
MW-10	6/13/07			81.59	3,728.05	
MW-10	6/26/07			81.78	3,727.86	
MW-10	9/14/07			82.30	3,727.34	
MW-10	10/19/07			82.33	3,727.31	
MW-10	12/3/07			85.26	3,724.38	
MW-10	1/8/08			82.01	3,727.63	
MW-10	1/28/08			82.02	3,727.62	
MW-10	3/12/08			82.04	3,727.60	
MW-10	4/22/08			82.51	3,727.13	
MW-10	5/16/08			82.64	3,727.00	
MW-10	6/19/08			82.88	3,726.76	
MW-10	8/13/08			83.42	3,726.22	
MW-10	10/15/08			83.73	3,725.91	
MW-10	12/4/08			83.51	3,726.13	



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-11	2/21/06	WELL INSTALLED 2/21/06				
MW-11	3/1/06	3,808.95		76.95	3,732.00	
MW-11	5/25/06			78.06	3,730.89	
MW-11	8/14/06			79.57	3,729.38	
MW-11	11/29/06			80.26	3,728.69	
MW-11	12/12/06			80.27	3,728.68	
MW-11	1/11/07			80.19	3,728.76	
MW-11	2/8/07			79.91	3,729.04	
MW-11	2/20/07			80.35	3,728.60	
MW-11	3/6/07			80.42	3,728.53	
MW-11	3/14/07			80.01	3,728.94	
MW-11	3/27/09			80.43	3,728.52	
MW-11	3/29/09			80.46	3,728.49	
MW-11	4/3/07			80.96	3,727.99	
MW-11	4/11/07			80.86	3,728.09	
MW-11	4/17/07			80.94	3,728.01	
MW-11	5/24/07			80.89	3,728.06	
MW-11	6/13/07			81.08	3,727.87	
MW-11	6/26/07			81.19	3,727.76	
MW-11	9/14/07			81.68	3,727.27	
MW-11	10/19/07			81.76	3,727.19	
MW-11	12/3/07			81.60	3,727.35	
MW-11	1/8/08			81.35	3,727.60	
MW-11	1/28/08			81.36	3,727.59	
MW-11	3/12/08			81.43	3,727.52	
MW-11	4/22/08			81.91	3,727.04	
MW-11	5/16/08			82.07	3,726.88	
MW-11	6/19/08			82.31	3,726.64	
MW-11	8/13/08			82.88	3,726.07	
MW-11	10/15/08			83.15	3,725.80	
MW-11	12/4/08			82.88	3,726.07	
MW-12	2/23/06	WELL INSTALLED 2/23/06				
MW-12	3/1/06	3,809.63		77.60	3,732.03	
MW-12	5/25/06			78.68	3,730.95	
MW-12	8/14/06			79.99	3,729.64	
MW-12	11/29/06			80.86	3,728.77	
MW-12	12/12/06			80.90	3,728.73	
MW-12	1/11/07			80.81	3,728.82	
MW-12	2/8/07			80.55	3,729.08	
MW-12	2/20/07			80.96	3,728.67	
MW-12	3/6/07			81.04	3,728.59	
MW-12	3/14/07			81.15	3,728.48	
MW-12	3/27/07			81.31	3,728.32	
MW-12	3/29/07			81.15	3,728.48	
MW-12	4/3/07			81.35	3,728.28	
MW-12	4/11/07			81.87	3,727.76	
MW-12	4/17/07			81.50	3,728.13	
MW-12	5/24/07			81.45	3,728.18	
MW-12	6/26/07			81.79	3,727.84	
MW-12	9/14/07			82.29	3,727.34	
MW-12	10/19/07			82.36	3,727.27	
MW-12	12/3/07			82.20	3,727.43	
MW-12	1/8/08			81.99	3,727.64	
MW-12	1/28/08			81.98	3,727.65	
MW-12	3/12/08			82.07	3,727.56	
MW-12	4/22/08			82.52	3,727.11	
MW-12	5/16/08			82.07	3,727.56	
MW-12	6/19/08			82.91	3,726.72	
MW-12	8/13/08			83.46	3,726.17	
MW-12	10/15/08			83.74	3,725.89	
MW-12	12/4/08		83.38	84.10	3,726.18	0.72



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-13	2/22/06	WELL INSTALLED 2/22/06				
MW-13	3/1/06	3,809.42		77.33	3,732.09	
MW-13	5/25/06			78.35	3,731.07	
MW-13	8/14/06			79.59	3,729.83	
MW-13	11/29/06			80.51	3,728.91	
MW-13	12/12/06			80.68	3,728.74	
MW-13	1/11/07			80.48	3,728.94	
MW-13	2/8/07			80.25	3,729.17	
MW-13	2/20/07			80.86	3,728.56	
MW-13	3/6/07			80.71	3,728.71	
MW-13	3/14/07			80.82	3,728.60	
MW-13	3/27/07			79.97	3,729.45	
MW-13	3/29/07			80.70	3,728.72	
MW-13	4/3/07			81.02	3,728.40	
MW-13	4/11/07			81.62	3,727.80	
MW-13	4/17/07			81.17	3,728.25	
MW-13	5/24/07			81.19	3,728.23	
MW-13	6/26/07			81.42	3,728.00	
MW-13	9/14/07			81.99	3,727.43	
MW-13	10/19/07			82.02	3,727.40	
MW-13	12/3/07			81.91	3,727.51	
MW-13	1/8/08			81.71	3,727.71	
MW-13	1/28/08			81.71	3,727.71	
MW-13	3/12/08			81.74	3,727.68	
MW-13	4/22/08			82.17	3,727.25	
MW-13	5/16/08			82.31	3,727.11	
MW-13	6/19/08			82.54	3,726.88	
MW-13	8/13/08			83.06	3,726.36	
MW-13	10/15/08			83.37	3,726.05	
MW-13	12/4/08			83.21	3,726.21	
MW-14	2/21/06	WELL INSTALLED 2/21/06				
MW-14	3/1/06	3,809.46		77.31	3,732.15	
MW-14	5/25/06			78.29	3,731.17	
MW-14	8/14/06			79.41	3,730.05	
MW-14	11/29/06			80.37	3,729.09	
MW-14	12/12/06			80.51	3,728.95	
MW-14	1/11/07			80.53	3,728.93	
MW-14	2/8/07			80.20	3,729.26	
MW-14	2/20/07			80.61	3,728.85	
MW-14	3/6/07			80.65	3,728.81	
MW-14	3/14/07			80.02	3,729.44	
MW-14	3/27/07			80.85	3,728.61	
MW-14	3/29/07			80.59	3,728.87	
MW-14	4/3/07			80.91	3,728.55	
MW-14	4/11/07			80.59	3,728.87	
MW-14	4/17/07			81.04	3,728.42	
MW-14	5/24/07			81.10	3,728.36	
MW-14	6/26/07			81.28	3,728.18	
MW-14	9/14/07			81.88	3,727.58	
MW-14	10/19/07			81.89	3,727.57	
MW-14	12/3/07			81.78	3,727.68	
MW-14	1/8/08			81.66	3,727.80	
MW-14	1/28/08			81.68	3,727.78	
MW-14	3/12/08			81.68	3,727.78	
MW-14	4/22/08			82.11	3,727.35	
MW-14	5/16/08			82.19	3,727.27	
MW-14	6/19/08			82.41	3,727.05	
MW-14	8/13/08			82.91	3,726.55	
MW-14	10/15/08			83.23	3,726.23	
MW-14	12/4/08			83.15	3,726.31	



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCDF REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-15	2/22/06		WELL INSTALLED 2/22/06			
MW-15	3/1/06	3,810.77		78.50	3,732.27	
MW-15	5/25/06			79.41	3,731.36	
MW-15	8/14/06			80.54	3,730.23	
MW-15	11/29/06			81.54	3,729.23	
MW-15	12/12/06			81.63	3,729.14	
MW-15	1/11/07			81.67	3,729.10	
MW-15	2/8/07			81.43	3,729.34	
MW-15	2/20/07			81.81	3,728.96	
MW-15	3/6/07			81.85	3,728.92	
MW-15	3/14/07			81.16	3,729.61	
MW-15	3/27/07			82.07	3,728.70	
MW-15	3/29/07			81.40	3,729.37	
MW-15	4/3/07			82.11	3,728.66	
MW-15	4/11/07			82.70	3,728.07	
MW-15	4/17/07			82.24	3,728.53	
MW-15	5/24/07			82.30	3,728.47	
MW-15	6/26/07			82.48	3,728.29	
MW-15	9/14/07			83.05	3,727.72	
MW-15	10/19/07			83.06	3,727.71	
MW-15	12/3/07			83.02	3,727.75	
MW-15	1/8/08			82.89	3,727.88	
MW-15	1/28/08			82.81	3,727.96	
MW-15	3/12/08			82.86	3,727.91	
MW-15	4/22/08			83.23	3,727.54	
MW-15	5/16/08			83.31	3,727.46	
MW-15	6/19/08			83.57	3,727.20	
MW-15	8/13/08			84.07	3,726.70	
MW-15	10/15/08			84.41	3,726.36	
MW-15	12/4/08			84.34	3,726.43	
MW-16	2/23/06		WELL INSTALLED 2/23/06			
MW-16	3/1/06	3,812.02		79.72	3,732.30	
MW-16	5/25/06			80.58	3,731.44	
MW-16	8/14/06			81.71	3,730.31	
MW-16	11/29/06			82.74	3,729.28	
MW-16	12/12/06			82.84	3,729.18	
MW-16	1/11/07			82.90	3,729.12	
MW-16	2/8/07			82.66	3,729.36	
MW-16	2/20/07			83.06	3,728.96	
MW-16	3/6/07			83.07	3,728.95	
MW-16	3/14/07			82.69	3,729.33	
MW-16	3/27/07			83.27	3,728.75	
MW-16	3/29/07			83.01	3,729.01	
MW-16	4/3/07			83.33	3,728.69	
MW-16	4/11/07			84.02	3,728.00	
MW-16	4/17/07			83.44	3,728.58	
MW-16	5/24/07			83.55	3,728.47	
MW-16	6/26/07			83.69	3,728.33	
MW-16	9/14/07			84.25	3,727.77	
MW-16	10/19/07			84.28	3,727.74	
MW-16	12/3/07			84.24	3,727.78	
MW-16	1/8/08			84.10	3,727.92	
MW-16	1/28/08			84.09	3,727.93	
MW-16	3/12/08			84.07	3,727.95	
MW-16	4/22/08			80.09	3,731.93	
MW-16	5/16/08			85.55	3,726.47	
MW-16	6/19/08			84.76	3,727.26	
MW-16	8/13/08			85.25	3,726.77	
MW-16	10/15/08			85.63	3,726.39	
MW-16	12/4/08			85.58	3,726.44	



TABLE 1
SUMMARY OF HISTORICAL FLUID LEVEL MEASUREMENTS
PLAINS PIPELINE, L.P.
C. S. CAYLER - SRS# 2002-10250
NMOCDF REF. # AP-052 (OLD IR-0382)
LEA COUNTY, NM
TALON/LPE # PLAINS044SPL

Monitoring Well	Date Gauged	Surveyed Top of Casing Elevation	Depth to PSH	Depth to Water	Corrected Groundwater Elevation	PSH Thickness
		(feet)	BTOC (feet)*	BTOC (feet)*	(feet)*	(feet)
MW-17	2/23/06	WELL INSTALLED 2/23/06				
MW-17	3/1/06	3,810.40		78.07	3,732.33	
MW-17	5/25/06			78.92	3,731.48	
MW-17	8/14/06			80.02	3,730.38	
MW-17	11/29/06			81.10	3,729.30	
MW-17	12/12/06			81.20	3,729.20	
MW-17	1/11/07			81.25	3,729.15	
MW-17	2/8/07			81.06	3,729.34	
MW-17	2/20/07			81.45	3,728.95	
MW-17	3/6/07			81.48	3,728.92	
MW-17	3/14/07			80.89	3,729.51	
MW-17	3/27/07			81.65	3,728.75	
MW-17	3/29/07			81.40	3,729.00	
MW-17	4/3/07			81.70	3,728.70	
MW-17	4/11/07			82.11	3,728.29	
MW-17	4/17/07			81.83	3,728.57	
MW-17	5/22/07			81.92	3,728.48	
MW-17	6/26/07			82.06	3,728.34	
MW-17	9/14/07			82.59	3,727.81	
MW-17	10/19/07			82.60	3,727.80	
MW-17	12/3/07			82.56	3,727.84	
MW-17	1/8/08			82.48	3,727.92	
MW-17	1/28/08			82.47	3,727.93	
MW-17	3/12/08			82.41	3,727.99	
MW-17	4/22/08			80.42	3,729.98	
MW-17	5/16/08			82.89	3,727.51	
MW-17	6/19/08			83.10	3,727.30	
MW-17	8/13/08			83.68	3,726.72	
MW-17	10/15/08			83.98	3,726.42	
MW-17	12/4/08			83.92	3,726.48	
MW-18	3/18/08	WELL INSTALLED 3/18/08				
MW-18	3/25/08	3,809.09		82.07	3,727.02	
MW-18	4/22/08			82.19	3,726.90	
MW-18	5/16/08			82.36	3,726.73	
MW-18	6/19/08			82.61	3,726.48	
MW-18	8/13/08			83.19	3,725.90	
MW-18	10/15/08			83.45	3,725.64	
MW-18	12/4/08			83.11	3,725.98	

monitoring well MW-3, which was assigned an elevation of 3,760 feet amsl.

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

** Estimated Product Thickness using Total Depth of Well as the Depth to Water.

... = Not Detected

FOC = Below Top of Casing



TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethyl Benzene	Xylene
MW-1	03/12/08	Not sampled Due to Dry Well			
	06/19/08	Not sampled Due to Dry Well			
	08/13/08	Not sampled Due to Dry Well			
	09/18/08	Well Plugged			
MW-1A	09/18/08	Well Installed			
	09/23/08	20.1	13.9	2.03	4.58
	12/04/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-2	03/12/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/19/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	08/13/08	Not sampled Due to Not Enough Water			
	12/04/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-3	03/12/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/19/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/23/08	18.2	7.71	1.81	4.15
	12/04/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-4	03/12/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/19/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/23/08	31.2	31.1	8.39	18.9
	12/04/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-5	03/12/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/19/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	09/23/08	11.9	5.8	1.08	1.92
	12/04/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-6	03/12/08	0.138	0.03010	<0.00100	0.01880
	06/19/08	0.198	0.0293	0.00120	0.01390
	08/13/08	0.454	0.0383	<0.0100	<0.0100
	12/04/08	0.200	0.0162	0.00230	0.0115
MW-7	03/12/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/19/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	08/13/08	Not sampled Due to Not Enough Water			
	12/04/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-8	03/12/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	06/19/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
	08/13/08	Not sampled Due to Not Enough Water			
	12/04/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-9	03/12/08	0.0070	<0.00100	<0.00100	0.0102
	06/19/08	0.01240	<0.00100	<0.00100	0.00150
	08/13/08	0.130	<0.00100	<0.00100	<0.00100
	12/04/08	0.166	<0.00100	0.0151	0.0195



TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10250
NMOCDF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethyl Benzene	Xylene
MW-10	03/12/08	0.17900	0.030	0.00890	0.0389
	06/19/08	0.00470	<0.00100	<0.00100	0.00210
	08/13/08	<0.00500	<0.00500	<0.00500	<0.00500
	12/04/08	0.00550	<0.00100	<0.00100	0.0150
MW-11	03/12/08	<0.00100	<0.00100	<0.00100	<0.00100
	06/19/08	<0.00100	<0.00100	<0.00100	<0.00100
	08/13/08	<0.00100	<0.00100	<0.00100	<0.00100
	12/04/08	<0.00100	<0.00100	<0.00100	<0.00100
MW-12	03/12/08	31.5	1.12	0.874	1.09
	06/19/08	30.7	4.95	1.27	1.99
	08/13/08	30.2	8.44	1.25	2.22
	12/04/08	Not Sampled Due to Presence of Phase Separated Hydrocarbons			
MW-13	03/12/08	0.0210	<0.00100	<0.00100	0.00310
	06/19/08	0.0179	<0.00100	<0.00100	0.00200
	08/13/08	0.0231	<0.00100	<0.00100	0.00140
	12/04/08	0.0240	<0.00100	<0.00100	0.0161
MW-14	03/12/08	0.00100	<0.00100	<0.00100	<0.00100
	06/19/08	0.00650	0.0015	<0.00100	0.00140
	08/13/08	<0.00100	<0.00100	<0.00100	<0.00100
	12/04/08	<0.00100	<0.00100	<0.00100	<0.00100
MW-15	03/12/08	0.00260	<0.00100	<0.00100	<0.00100
	06/19/08	0.00850	<0.00100	<0.00100	<0.00100
	08/13/08	0.00350	<0.00100	<0.00100	<0.00100
	12/04/08	<0.00100	<0.00100	<0.00100	<0.00100
MW-16	03/12/08	0.165	0.0113	0.00270	0.0174
	06/19/08	0.129	0.00710	0.00220	0.00850
	08/13/08	0.117	<0.00100	<0.00100	0.00440
	12/04/08	0.0147	0.00930	<0.00100	0.0165
MW-17	03/12/08	0.00310	<0.00100	<0.00100	<0.00100
	06/19/08	0.00950	<0.00100	<0.00100	0.00150
	08/13/08	0.00500	<0.00100	<0.00100	<0.00100
	12/04/08	<0.00100	<0.00100	<0.00100	<0.00100
MW-18	03/28/08	<0.00100	<0.00100	<0.00100	<0.00100
	06/19/08	0.00240	0.00190	<0.00100	0.00450
	08/13/08	<0.00100	<0.00100	<0.00100	<0.00100
	12/04/08	<0.00100	<0.00100	<0.00100	<0.00100
NMWQCC Remedial Limits		0.010	0.750	0.750	0.620

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

Monitor wells MW-1A, MW-3, MW-4, and MW-5 were sampled at the request of the NMOCDF even though they contain PSH.



TABLE 3
SUMMARY OF SEMI-VOLATILE AND VOLATILE GROUNDWATER
ANALYTICAL DATA
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10257
NMOCDF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

Parameter	MW-18 3/25/08	MW-1A 9/23/08	Units
Pyridine	<0.00500	<0.0250	mg/L
N-Nitrosodimethylamine	<0.00500	<0.0250	mg/L
2-Picoline	<0.00500	<0.0250	mg/L
Methyl methanesulfonate	<0.00500	<0.0250	mg/L
Ethyl methanesulfonate	<0.00500	<0.0250	mg/L
Phenol	<0.00500	<0.0250	mg/L
Aniline	<0.00500	<0.0250	mg/L
bis(2-chloroethyl)ether	<0.00500	<0.0250	mg/L
2-Chlorophenol	<0.00500	<0.0250	mg/L
1,3-Dichlorobenzene (meta)	<0.00500	<0.0250	mg/L
1,4-Dichlorobenzene (para)	<0.00500	<0.0250	mg/L
Benzyl alcohol	<0.00500	<0.0250	mg/L
1,2-Dichlorobenzene (ortho)	<0.00500	<0.0250	mg/L
2-Methylphenol	<0.00500	0.126	mg/L
bis(2-chloroisopropyl)ether	<0.00500	<0.0250	mg/L
4-Methylphenol / 3-Methylphenol	<0.00500	0.0990	mg/L
N-Nitrosodi-n-propylamine	<0.00500	<0.0250	mg/L
Hexachloroethane	<0.00500	<0.0250	mg/L
Acetophenone	<0.00500	<0.0250	mg/L
Nitrobenzene	<0.00500	<0.0250	mg/L
N-Nitrosopiperidine	<0.00500	<0.0250	mg/L
Isophorone	<0.00500	<0.0250	mg/L
2-Nitrophenol	<0.00500	<0.0250	mg/L
2,4-Dimethylphenol	<0.00500	0.0710	mg/L
bis(2-chloroethoxy)methane	<0.00500	<0.0250	mg/L
2,4-Dichlorophenol	<0.00500	<0.0250	mg/L
1,2,4-Trichlorobenzene	<0.00500	<0.0250	mg/L
Benzoic acid	<0.00500	<0.0250	mg/L
Naphthalene	<0.00500	1.01	mg/L
a,a-Dimethylphenethylamine	<0.00500	<0.0250	mg/L



TABLE 3
SUMMARY OF SEMI-VOLATILE AND VOLATILE GROUNDWATER
ANALYTICAL DATA
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10257
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

Parameter	MW-18 3/25/08	MW-1A 9/23/08	Units
4-Chloroaniline	<0.00500	<0.0250	mg/L
2,6-Dichlorophenol	<0.0100	<0.0500	mg/L
Hexachlorobutadiene	<0.00500	<0.0250	mg/L
N-Nitroso-di-n-butylamine	<0.00500	<0.0250	mg/L
4-Chloro-3-methylphenol	<0.00500	<0.0250	mg/L
2-Methylnaphthalene	<0.00500	2.37	mg/L
1-Methylnaphthalene	<0.00500	2.00	mg/L
1,2,4,5-Tetrachlorobenzene	<0.00500	<0.0250	mg/L
Hexachlorocyclopentadiene	<0.00500	<0.0250	mg/L
2,4,6-Trichlorophenol	<0.0100	<0.0500	mg/L
2,4,5-Trichlorophenol	<0.00500	<0.0250	mg/L
2-Chloroaphthalene	<0.00500	<0.0250	mg/L
1-Chloronaphthalene	<0.00500	<0.0250	mg/L
2-Nitroaniline	<0.00500	<0.0250	mg/L
Dimethylphthalate	<0.00500	<0.0250	mg/L
Acenaphthylene	<0.00500	<0.0250	mg/L
2,6-Dinitrotoluene	<0.00500	<0.0250	mg/L
3-Nitroaniline	<0.00500	<0.0250	mg/L
Acenaphthene	<0.00500	<0.0250	mg/L
2,4-Dinitrophenol	<0.00500	<0.0250	mg/L
Dibenzofuran	<0.00500	0.175	mg/L
Pentachlorobenzene	<0.00500	<0.0250	mg/L
4-Nitrophenol	<0.0250	<0.125	mg/L



TABLE 3
SUMMARY OF SEMI-VOLATILE AND VOLATILE GROUNDWATER
ANALYTICAL DATA
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10257
NMOCDF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

Parameter	MW-18 3/25/08	MW-1A 9/23/08	Units
2,4-Dinitrotoluene	<0.00500	<0.0250	mg/L
1-Naphthylamine	<0.00500	<0.0250	mg/L
2,3,4,6-Tetrachlorophenol	<0.0100	<0.0250	mg/L
2-Naphthylamine	<0.00500	<0.0250	mg/L
Fluorene	<0.00500	0.201	mg/L
4-chlorophenyl-phenylether	<0.00500	<0.0250	mg/L
Diethylphthalate	<0.00500	<0.0250	mg/L
4-Nitroaniline	<0.00500	<0.0250	mg/L
diphenylhydrazine	<0.00500	<0.0250	mg/L
4,6-Dinitro-2-methylphenol	<0.00500	<0.0250	mg/L
diphenylhydrazine	<0.00500	<0.0250	mg/L
4,6-Dinitro-2-methylphenol	<0.00500	<0.0250	mg/L
Diphenylamine	<0.00500	<0.0250	mg/L
4-Bromophenyl-phenylether	<0.00500	<0.0250	mg/L
Phenacetin	<0.00500	<0.0250	mg/L
Hexachlorobenzene	<0.00500	<0.0250	mg/L
4-Aminobiphenyl	<0.00500	0.122	mg/L
Pentachlorophenol	<0.0100	<0.0500	mg/L
Anthracene	<0.00500	<0.0250	mg/L
Pentachloronitrobenzene	<0.00500	<0.0250	mg/L
Pronamide	<0.00500	<0.0250	mg/L
Phenanthrene	<0.00500	0.298	mg/L
Di-n-butylphthalate	<0.00500	<0.0250	mg/L
Fluoranthene	<0.00500	<0.0250	mg/L
Benzidine	<0.0250	<0.125	mg/L
Pyrene	<0.00500	<0.0250	mg/L



TABLE 3
SUMMARY OF SEMI-VOLATILE AND VOLATILE GROUNDWATER
ANALYTICAL DATA
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10257
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

Parameter	MW-18 3/25/08	MW-1A 9/23/08	Units
p-Dimthylaminoazobenzene	<0.00500	<0.0250	mg/L
Butylebenzylphthalae	<0.00500	<0.0250	mg/L
Benzo(a)anthracene	<0.00500	<0.0250	mg/L
3,3-Dichlorobenzidine	<0.00500	<0.0250	mg/L
Chrysene	<0.00500	0.0380	mg/L
bis(2-ethylhexyl)phthalate	<0.00500	4.83	mg/L
Di-n-octylphthalate	<0.00500	<0.0250	mg/L
Benzo(b)fluoranthene	<0.00500	<0.0250	mg/L
Benzo(k)fluoranthene	<0.00500	<0.0250	mg/L
7,12-Dimethylbenz(a)anthracene	<0.00500	<0.0250	mg/L
Benzo(a)pyrene	<0.00500	<0.0250	mg/L
3-Methylcholanthrene	<0.00500	<0.0250	mg/L
Dibenzo(a,j)acridine	<0.00500	<0.0250	mg/L
Indeno(1,2,3-cd)pyrene	<0.00500	<0.0250	mg/L
Dibenzo(a,h)anthracene	<0.00500	<0.0250	mg/L
Benzo(g,h,i)perylene	<0.00500	<0.0250	mg/L
Bromochloromethane	<0.001	<0.500	mg/L
Dichlorodifluoromethane	<0.001	<0.500	mg/L
Chloroethane (methyl chloride)	<0.001	<0.500	mg/L
Vinyl Chloride	<0.001	<0.500	mg/L
Bromomethane (methyl iodide)	<0.005	<2.500	mg/L
Chloroethane	<0.001	<0.500	mg/L
Trichlorofluoromethane	<0.001	<0.500	mg/L
Acetone	<0.010	5.570	mg/L
Iodomethane (methyl iodide)	<0.005	<2.500	mg/L
Carbon Disulfide	<0.001	<0.500	mg/L
Acrylonitrile	<0.001	<0.500	mg/L
2-Butanone (MEK)	<0.005	<2.500	mg/L
4-Methyl-2-pentanone (MIBK)	<0.005	<2.500	mg/L



TABLE 3
SUMMARY OF SEMI-VOLATILE AND VOLATILE GROUNDWATER
ANALYTICAL DATA
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10257
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

Parameter	MW-18 3/25/08	MW-1A 9/23/08	Units
2-Hexanone	<0.005	<2.500	mg/L
trans 1,4-Dichloro-2-butene	<0.010	<5.000	mg/L
1,1-Dichloroethene	<0.001	<0.500	mg/L
Methylene chloride	<0.005	<2.500	mg/L
MTBE	<0.001	<0.500	mg/L
trans-1,2-Dichloroethene	<0.001	<0.500	mg/L
1,1-Dichloroethane	<0.001	<0.500	mg/L
cis-1,2-Dichloroethene	<0.001	<0.500	mg/L
2,2-Dichloropropane	<0.001	<0.500	mg/L
1,2-Dichloroethane (EDC)	<0.001	<0.500	mg/L
Chloroform	<0.001	<0.500	mg/L
1,1,1-Trichloroethane	<0.001	<0.500	mg/L
1,1-Dichloropropene	<0.001	<0.500	mg/L
Benzene	<0.001	26.600	mg/L
Carbon Tetrachloride	<0.001	<0.500	mg/L
1,2-Dichloropropane	<0.001	<0.500	mg/L
Trichloroethene (TCE)	<0.001	<0.500	mg/L
Dibromomethane (methylene bromide)	<0.001	<0.500	mg/L
Bromodichloromethane	<0.001	<0.500	mg/L
2-Chloroethyl vinyl ether	<0.005	<2.500	mg/L
cis-1,3-Dichloropropene	<0.001	<0.500	mg/L
trans-1,3-Dichloropropene	<0.001	<0.500	mg/L
Toluene	<0.001	18.300	mg/L
1,1,2-Trichloroethane	<0.001	<0.500	mg/L
1,3-Dichloropropane	<0.001	<0.500	mg/L
Dibromochloromethane	<0.001	<0.500	mg/L
1,2-Dibromoethane (EDB)	<0.001	<0.500	mg/L



TABLE 3
SUMMARY OF SEMI-VOLATILE AND VOLATILE GROUNDWATER
ANALYTICAL DATA
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10257
NMOCDF REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

Parameter	MW-18 3/25/08	MW-1A 9/23/08	Units
Tetrachloroethene (PCE)	<0.001	<0.500	mg/L
Chlorobenzene	<0.001	<0.500	mg/L
1,1,1,2-Tetrachloroethane	<0.001	<0.500	mg/L
Ethylbenzene	<0.001	2.360	mg/L
m,p-Xylene	<0.001	3.540	mg/L
Bromoform	<0.001	<0.500	mg/L
Styrene	<0.001	<0.500	mg/L
o-Xylene	<0.001	1.200	mg/L
1,1,2,2-Tetrachloroethane	<0.001	<0.500	mg/L
2-Chlorotoluene	<0.001	<0.500	mg/L
1,2,3-Trichloropropane	<0.001	<0.500	mg/L
Isopropylbenzene	2.10	<0.500	mg/L
Bromobenzene	<0.001	<0.500	mg/L
n-Propylbenzene	<0.001	<0.500	mg/L
1,3,5-Trimethylebenzene	<0.001	<0.500	mg/L
tert-Butylbenzene	<0.001	<0.500	mg/L
1,2,4-Trimethylbenzene	<0.001	0.537	mg/L
1,4-Dichlorobenzene (para)	<0.001	<0.500	mg/L
sec-Butylbenzene	<0.001	<0.500	mg/L
1,3-Dichlorobenzene (meta)	<0.001	<0.500	mg/L
p-Isopropyltoluene	<0.001	<0.500	mg/L
4-Chlorotoluene	<0.001	<0.500	mg/L
1,2-Dichlorobenzene (ortho)	<0.001	<0.500	mg/L
n-Butylbenzene	<0.001	<0.500	mg/L
1,2-Dibromo-3-chloropropane	<0.005	<2.500	mg/L
1,2,3-Trichlorobenzene	<0.005	<2.500	mg/L
1,2,4-Trichlorobenzene	<0.005	<2.500	mg/L
Naphthalene	<0.005	<2.500	mg/L
Hexachlorobutadiene	<0.005	<2.500	mg/L



TABLE 4
SUMMARY OF GENERAL CHEMISTRY AND METALS GROUNDWATER
ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
C.S. CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (Old 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

Parameter	MW-18 6/19/08	MW-1A 9/23/08	Units	NMWQCC MCL
Total Aluminum	2.53	51.80	mg/L	5.0
Hydroxide Alkalinity	<1.00	<1.00	mg/L	
Carbonate Alkalinity	<1.00	<1.00	mg/L	
Bicarbonate Alkalinity	376	234	mg/L	
Total Alkalinity	376	234	mg/L	
Total Boron	0.265	0.194	mg/L	0.75
Dissolved Calcium	87.8	169.0	mg/L	
Dissolved Potassium	4.16	6.70	mg/L	
Dissolved Magnesium	11.0	36.1	mg/L	
Dissolved Sodium	96.5	146.0	mg/L	
Total Cobalt	<0.00200	0.0180	mg/L	0.05
Total Copper	<0.00500	0.0290	mg/L	1.0
Total Iron	1.34	32.10	mg/L	1.0
Chloride	45.5	203.0	mg/L	250
Fluoride	2.26	1.80	mg/L	1.6
Nitrate - N	2.07	4.59	mg/L	
PO4 - P	<2.50	<2.50	mg/L	600
Sulfate	48.9	117.0	mg/L	0.2
Total Manganese	0.0430	1.73	mg/L	1.0
Total Molybdenum	<0.0100	<0.0100	mg/L	0.2
Total Nickel	<0.00500	0.0340	mg/L	0.05
Total Silver	<0.00500	<0.00500	mg/L	0.1
Total Arsenic	<0.00500	<0.0100	mg/L	1.0
Total Barium	0.176	1.37	mg/L	0.1
Total Cadmium	<0.00100	<0.00200	mg/L	0.05
Total Chromium	<0.00100	0.0860	mg/L	0.002
Total Mercury	<0.000200	<0.000400	mg/L	0.05
Total Lead	<0.00500	<0.00500	mg/L	0.05
Total Selenium	<0.0100	<0.0200	mg/L	10.0
Total Zinc	0.0330	0.6130	mg/L	10.0



TABLE 5
SUMMARY OF GROUNDWATER POLY-AROMATIC
HYDROCARBON (PAH) ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
CS CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (OLD 1R-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

All concentrations are in mg/L

Sample Location	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[e,h,i]-perylene	Benzo[k]-fluoranthene	Chrysene	Dibenz[a,h]-anthracene	Dibenzofuran	Fluoranthene	Indeno[1,2,3-cd]-pyrene	2-Methylnaphthalene	1-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
MW-6	08/14/08	<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
MW-9	08/13/08	<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
MW-10	08/13/08	<0.00200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000406	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
MW-11	08/13/08	<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
MW-12	08/14/08	<0.00200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.00264	<0.000200	<0.000200	0.0421	0.0378	0.0698	0.00158	<0.000200
MW-13	08/14/08	<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
MW-14	08/13/08	<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
MW-15	08/13/08	<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
MW-16	08/14/08	<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
MW-17	08/14/08	<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
MW-18	08/14/08	<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
NMWQCC Remedial Limits						0.007											0.030		

¹ Bolded values are in excess of the NMWQCC Remediation Thresholds



TABLE 6
SUMMARY OF PSH MONITOR WELLS GROUNDWATER POLY-AROMATIC
HYDROCARBON (PAH) ANALYTICAL RESULTS
PLAINS PIPELINE, L.P.
CS CAYLER - SRS# 2002-10250
NMOCD REF. # AP-052 (Old IR-0382)
LEA COUNTY, NEW MEXICO
TALON/LPE # PLAINS044SPL

All concentrations are in mg/L

Sample Location	Sample Date	Benzene	Toluene	Ethylbenzene	Xylene	TPH BRO	TPH GRO	Total TPH	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]-anthracene	Benzo[a]-pyrene	Benzo[b]-fluoranthene	Benzo[ghi]perylene	Benzo[k]-fluoranthene	Chrysene	Dibenz[a,h]-anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno[1,2,3-cd]-pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
MW-1A	09/23/08	20.1	13.9	2.03	4.58	16.7	136	152.7	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.0292	<0.00100	0.118	0.00308	0.135	<0.00100	1.13	1.34	0.587	0.182	0.0134
MW-3	09/23/08	18.2	7.71	1.81	4.15	10.5	68.6	79.1	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.00149	<0.000200	0.00892	0.000399	0.0107	<0.000200	0.0940	0.111	0.1020	0.01140	0.000820
MW-4	09/23/08	31.2	31.1	8.39	18.9	343	363	706	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0326	<0.0100	<0.0100	0.259	<0.0100	1.28	0.0689	1.56	<0.0100	15.1	17.8	7.27	2.03	0.124
MW-5	09/23/08	11.9	5.8	1.08	1.92	70.8	57.4	128.2	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.00616	<0.000200	0.00678	<0.000200	0.0613	0.0690	0.0698	0.00683	0.000314
NMWQCC Remedial Limits		0.01	0.75	0.75	0.62								0.0007												0.030		

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

APPENDIX C

Laboratory Analytical Data Reports and Chain of Custody Documentation



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Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: March 21, 2008

Work Order: 8031234



Project Location: Lea County, NM
Project Name: C.S. Caylor
Project Number: PLAINS044 SPL
SRS #: SRS 2002-10250

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
153429	MW-17	water	2008-03-12	12:43	2008-03-12
153430	MW-16	water	2008-03-12	12:49	2008-03-12
153431	MW-15	water	2008-03-12	12:52	2008-03-12
153432	MW-14	water	2008-03-12	12:57	2008-03-12
153433	MW-12	water	2008-03-12	13:00	2008-03-12
153434	MW-13	water	2008-03-12	13:08	2008-03-12
153435	MW-9	water	2008-03-12	13:20	2008-03-12
153436	MW-6	water	2008-03-12	13:28	2008-03-12
153437	MW-10	water	2008-03-12	13:30	2008-03-12
153438	MW-11	water	2008-03-12	13:40	2008-03-12

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

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

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

Analytical Report

Sample: 153429 - MW-17

Analysis: BTEX, Total BTEX
QC Batch: 46626
Prep Batch: 40073

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-17

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00310	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
Total BTEX		0.00310	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0971	mg/L	1	0.100	97	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0669	mg/L	1	0.100	67	40.1 - 136

Sample: 153430 - MW-16

Analysis: BTEX, Total BTEX
QC Batch: 46626
Prep Batch: 40073

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-17

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.165	mg/L	1	0.00100
Toluene		0.0113	mg/L	1	0.00100
Ethylbenzene		0.00270	mg/L	1	0.00100
Xylene		0.0174	mg/L	1	0.00100
Total BTEX		0.196	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.100	mg/L	1	0.100	100	40.1 - 136

Sample: 153431 - MW-15

Analysis: BTEX, Total BTEX
QC Batch: 46626
Prep Batch: 40073

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-17

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00260	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100

continued ...

sample 153431 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene		<0.00100	mg/L	1	0.00100
Total BTEX		0.00260	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0996	mg/L	1	0.100	100	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0957	mg/L	1	0.100	96	40.1 - 136

Sample: 153432 - MW-14

Analysis: BTEX, Total BTEX
QC Batch: 46626
Prep Batch: 40073

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-17

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.102	mg/L	1	0.100	102	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0790	mg/L	1	0.100	79	40.1 - 136

Sample: 153433 - MW-12

Analysis: BTEX, Total BTEX
QC Batch: 46722
Prep Batch: 40146

Analytical Method: S 8021B
Date Analyzed: 2008-03-20
Sample Preparation: 2008-03-19

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		31.5	mg/L	100	0.00100
Toluene		1.12	mg/L	100	0.00100
Ethylbenzene		0.874	mg/L	100	0.00100
Xylene		1.09	mg/L	100	0.00100
Total BTEX		34.6	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.5	mg/L	100	10.0	105	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		7.72	mg/L	100	10.0	77	40.1 - 136

Sample: 153434 - MW-13

Analysis: BTEX, Total BTEX
QC Batch: 46626
Prep Batch: 40073

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-17

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0210	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00310	mg/L	1	0.00100
Total BTEX		0.0241	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.100	mg/L	1	0.100	100	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0851	mg/L	1	0.100	85	40.1 - 136

Sample: 153435 - MW-9

Analysis: BTEX, Total BTEX
QC Batch: 46626
Prep Batch: 40073

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-17

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00700	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0102	mg/L	1	0.00100
Total BTEX		0.0172	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.101	mg/L	1	0.100	101	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0900	mg/L	1	0.100	90	40.1 - 136

Sample: 153436 - MW-6

Analysis: BTEX, Total BTEX
QC Batch: 46633
Prep Batch: 40116

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-18

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.138	mg/L	1	0.00100
Toluene		0.0301	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0188	mg/L	1	0.00100
Total BTEX		0.187	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.105	mg/L	1	0.100	105	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0789	mg/L	1	0.100	79	40.1 - 136

Sample: 153437 - MW-10

Analysis: BTEX, Total BTEX
QC Batch: 46633
Prep Batch: 40116

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-18

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.179	mg/L	1	0.00100
Toluene		0.0300	mg/L	1	0.00100
Ethylbenzene		0.00890	mg/L	1	0.00100
Xylene		0.0389	mg/L	1	0.00100
Total BTEX		0.257	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.104	mg/L	1	0.100	104	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0652	mg/L	1	0.100	65	40.1 - 136

Sample: 153438 - MW-11

Analysis: BTEX, Total BTEX
QC Batch: 46633
Prep Batch: 40116

Analytical Method: S 8021B
Date Analyzed: 2008-03-18
Sample Preparation: 2008-03-18

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.107	mg/L	1	0.100	107	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0691	mg/L	1	0.100	69	40.1 - 136

Method Blank (1) QC Batch: 46626

QC Batch: 46626
Prep Batch: 40073

Date Analyzed: 2008-03-18
QC Preparation: 2008-03-17

Analyzed By: DC
Prepared By: DC

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0959	mg/L	1	0.100	96	77.2 - 129.1
4-Bromofluorobenzene (4-BFB)		0.0846	mg/L	1	0.100	85	69.1 - 122.3

Method Blank (1) QC Batch: 46633

QC Batch: 46633
Prep Batch: 40116

Date Analyzed: 2008-03-18
QC Preparation: 2008-03-18

Analyzed By: DC
Prepared By: DC

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.109	mg/L	1	0.100	109	77.2 - 129.1
4-Bromofluorobenzene (4-BFB)		0.109	mg/L	1	0.100	109	69.1 - 122.3

Method Blank (1) QC Batch: 46722

QC Batch: 46722
Prep Batch: 40146

Date Analyzed: 2008-03-20
QC Preparation: 2008-03-19

Analyzed By: DC
Prepared By: DC

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.103	mg/L	1	0.100	103	77.2 - 129.1
4-Bromofluorobenzene (4-BFB)		0.0736	mg/L	1	0.100	74	69.1 - 122.3

Laboratory Control Spike (LCS-1)

QC Batch: 46626
Prep Batch: 40073

Date Analyzed: 2008-03-18
QC Preparation: 2008-03-17

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0852	mg/L	1	0.100	<0.00110	85	84 - 119.7
Toluene	0.0851	mg/L	1	0.100	<0.00100	85	84.9 - 118.2
Ethylbenzene	0.0852	mg/L	1	0.100	<0.00100	85	84.4 - 118.6
Xylene	0.265	mg/L	1	0.300	<0.00290	88	84.8 - 117.8

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0881	mg/L	1	0.100	<0.00110	88	84 - 119.7	3	20
Toluene	0.0875	mg/L	1	0.100	<0.00100	88	84.9 - 118.2	3	20
Ethylbenzene	0.0864	mg/L	1	0.100	<0.00100	86	84.4 - 118.6	1	20
Xylene	0.276	mg/L	1	0.300	<0.00290	92	84.8 - 117.8	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)	0.0974	0.0975	mg/L	1	0.100	97	98	80 - 128.3
4-Bromofluorobenzene (4-BFB)	0.0874	0.0891	mg/L	1	0.100	87	89	67.7 - 126.3

Laboratory Control Spike (LCS-1)

QC Batch: 46633
Prep Batch: 40116

Date Analyzed: 2008-03-18
QC Preparation: 2008-03-18

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.112	mg/L	1	0.100	<0.00110	112	84 - 119.7
Toluene	0.113	mg/L	1	0.100	<0.00100	113	84.9 - 118.2
Ethylbenzene	0.115	mg/L	1	0.100	<0.00100	115	84.4 - 118.6
Xylene	0.352	mg/L	1	0.300	<0.00290	117	84.8 - 117.8

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.109	mg/L	1	0.100	<0.00110	109	84 - 119.7	3	20
Toluene	0.110	mg/L	1	0.100	<0.00100	110	84.9 - 118.2	3	20
Ethylbenzene	0.112	mg/L	1	0.100	<0.00100	112	84.4 - 118.6	3	20
Xylene	0.346	mg/L	1	0.300	<0.00290	115	84.8 - 117.8	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)	0.109	0.108	mg/L	1	0.100	109	108	80 - 128.3
4-Bromofluorobenzene (4-BFB)	0.110	0.109	mg/L	1	0.100	110	109	67.7 - 126.3

Laboratory Control Spike (LCS-1)

QC Batch: 46722
Prep Batch: 40146

Date Analyzed: 2008-03-20
QC Preparation: 2008-03-19

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.106	mg/L	1	0.100	<0.00110	106	84 - 119.7
Toluene	0.107	mg/L	1	0.100	<0.00100	107	84.9 - 118.2
Ethylbenzene	0.106	mg/L	1	0.100	<0.00100	106	84.4 - 118.6
Xylene	0.317	mg/L	1	0.300	<0.00290	106	84.8 - 117.8

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.105	mg/L	1	0.100	<0.00110	105	84 - 119.7	1	20
Toluene	0.106	mg/L	1	0.100	<0.00100	106	84.9 - 118.2	1	20
Ethylbenzene	0.106	mg/L	1	0.100	<0.00100	106	84.4 - 118.6	0	20
Xylene	0.315	mg/L	1	0.300	<0.00290	105	84.8 - 117.8	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)	0.102	0.103	mg/L	1	0.100	102	103	80 - 128.3
4-Bromofluorobenzene (4-BFB)	0.0745	0.0758	mg/L	1	0.100	74	76	67.7 - 126.3

Matrix Spike (MS-1) Spiked Sample: 153376

QC Batch: 46626
Prep Batch: 40073

Date Analyzed: 2008-03-18
QC Preparation: 2008-03-17

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	7.70	mg/L	50	5.00	3.0695	93	77.5 - 121.1
Toluene	5.32	mg/L	50	5.00	0.8106	90	78.8 - 119.6
Ethylbenzene	4.28	mg/L	50	5.00	<0.0500	86	77.9 - 120.5
Xylene	14.4	mg/L	50	15.0	0.9255	90	78.3 - 119.4

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	7.52	mg/L	50	5.00	3.0695	89	77.5 - 121.1	2	20
Toluene	5.16	mg/L	50	5.00	0.8106	87	78.8 - 119.6	3	20
Ethylbenzene	4.16	mg/L	50	5.00	<0.0500	83	77.9 - 120.5	3	20
Xylene	14.2	mg/L	50	15.0	0.9255	88	78.3 - 119.4	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)	4.89	4.87	mg/L	50	5	98	97	86.6 - 118.9
4-Bromofluorobenzene (4-BFB)	4.19	4.26	mg/L	50	5	84	85	59.4 - 127.3

Matrix Spike (MS-1) Spiked Sample: 153297

QC Batch: 46633
Prep Batch: 40116

Date Analyzed: 2008-03-18
QC Preparation: 2008-03-18

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.503	mg/L	5	0.500	<0.00550	101	77.5 - 121.1
Toluene	0.500	mg/L	5	0.500	<0.00500	100	78.8 - 119.6
Ethylbenzene	0.486	mg/L	5	0.500	<0.00500	97	77.9 - 120.5
Xylene	1.41	mg/L	5	1.50	<0.0145	94	78.3 - 119.4

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.501	mg/L	5	0.500	<0.00550	100	77.5 - 121.1	0	20
Toluene	0.501	mg/L	5	0.500	<0.00500	100	78.8 - 119.6	0	20
Ethylbenzene	0.491	mg/L	5	0.500	<0.00500	98	77.9 - 120.5	1	20
Xylene	1.43	mg/L	5	1.50	<0.0145	95	78.3 - 119.4	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.525	0.519	mg/L	5	0.5	105	104	86.6 - 118.9
4-Bromofluorobenzene (4-BFB)	0.293	0.298	mg/L	5	0.5	59	60	59.4 - 127.3

Matrix Spike (MS-1) Spiked Sample: 153939

QC Batch: 46722
Prep Batch: 40146

Date Analyzed: 2008-03-20
QC Preparation: 2008-03-19

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.83	mg/L	20	2.00	0.9306	95	77.5 - 121.1
Toluene	1.81	mg/L	20	2.00	<0.0200	90	78.8 - 119.6
Ethylbenzene	1.96	mg/L	20	2.00	0.368	80	77.9 - 120.5
Xylene	6.70	mg/L	20	6.00	2.9543	62	78.3 - 119.4

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.92	mg/L	20	2.00	0.9306	99	77.5 - 121.1	3	20
Toluene	2.02	mg/L	20	2.00	<0.0200	101	78.8 - 119.6	11	20
Ethylbenzene	2.06	mg/L	20	2.00	0.368	85	77.9 - 120.5	5	20
Xylene	6.84	mg/L	20	6.00	2.9543	65	78.3 - 119.4	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)	2.09	2.10	mg/L	20	2	104	105	86.6 - 118.9
4-Bromofluorobenzene (4-BFB)	0.960	0.969	mg/L	20	2	48	48	59.4 - 127.3

¹BFB out of control limits; TFT shows method to be in control.

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

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

⁴BFB out of control limits; TFT shows method to be in control.

⁵BFB out of control limits; TFT shows method to be in control.

Standard (ICV-1)

QC Batch: 46626

Date Analyzed: 2008-03-18

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0880	88	85 - 115	2008-03-18
Toluene		mg/L	0.100	0.0874	87	85 - 115	2008-03-18
Ethylbenzene		mg/L	0.100	0.0862	86	85 - 115	2008-03-18
Xylene		mg/L	0.300	0.272	91	85 - 115	2008-03-18

Standard (CCV-1)

QC Batch: 46626

Date Analyzed: 2008-03-18

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0946	95	85 - 115	2008-03-18
Toluene		mg/L	0.100	0.0951	95	85 - 115	2008-03-18
Ethylbenzene		mg/L	0.100	0.0926	93	85 - 115	2008-03-18
Xylene		mg/L	0.300	0.301	100	85 - 115	2008-03-18

Standard (ICV-1)

QC Batch: 46633

Date Analyzed: 2008-03-18

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.106	106	85 - 115	2008-03-18
Toluene		mg/L	0.100	0.109	109	85 - 115	2008-03-18
Ethylbenzene		mg/L	0.100	0.114	114	85 - 115	2008-03-18
Xylene	⁶	mg/L	0.300	0.350	117	85 - 115	2008-03-18

Standard (CCV-1)

QC Batch: 46633

Date Analyzed: 2008-03-18

Analyzed By: DC

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	85 - 115	2008-03-18
Toluene		mg/L	0.100	0.0995	100	85 - 115	2008-03-18
Ethylbenzene		mg/L	0.100	0.0964	96	85 - 115	2008-03-18
Xylene		mg/L	0.300	0.278	93	85 - 115	2008-03-18

⁶Xylene outside of control limits on ICV. ICV component average is 0.1130 which is within acceptable range. This is acceptable by Method 8000.

Standard (ICV-1)

QC Batch: 46722

Date Analyzed: 2008-03-20

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.103	103	85 - 115	2008-03-20
Toluene		mg/L	0.100	0.104	104	85 - 115	2008-03-20
Ethylbenzene		mg/L	0.100	0.103	103	85 - 115	2008-03-20
Xylene		mg/L	0.300	0.304	101	85 - 115	2008-03-20

Standard (CCV-1)

QC Batch: 46722

Date Analyzed: 2008-03-20

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0983	98	85 - 115	2008-03-20
Toluene		mg/L	0.100	0.0976	98	85 - 115	2008-03-20
Ethylbenzene		mg/L	0.100	0.0928	93	85 - 115	2008-03-20
Xylene		mg/L	0.300	0.265	88	85 - 115	2008-03-20

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2

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PLANS 044 SP
cation (including state):

cation (including state):

Lea County, NM

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
430	MW-17	2	✓	✓				✓					3-12-08	1243	
431	MW-16	2	✓	✓				✓					3-12-08	1249	
432	MW-15	2	✓	✓				✓					3-12-08	1252	
433	MW-14	2	✓	✓				✓					3-12-08	1257	
434	MW-12	2	✓	✓				✓					3-12-08	1300	
435	MW-13	2	✓	✓				✓					3-12-08	1308	
436	MW-9	2	✓	✓				✓					3-12-08	1320	
437	MW-6	2	✓	✓				✓					3-12-08	1328	
438	MW-10	2	✓	✓				✓					3-12-08	1330	
439	MW-11	2	✓	✓				✓					3-12-08	1340	
440		2	✓	✓				✓					3-12-08	1340	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
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DATE: _____

(1) $\frac{1}{3} \times 10.55 = 3.52$

Case 80-111

Reinquished by: _____ Date: _____ Time: _____

Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
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Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O. C.

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1

1. The first step in the process of creating a new product is to identify a market need. This involves conducting market research to understand the target audience's preferences and pain points. Once a need is identified, the next step is to develop a concept that addresses this need. This stage often involves brainstorming and prototyping to refine the idea. The third step is to create a business plan, which outlines the financial aspects of the product, including costs, pricing, and revenue projections. This plan is crucial for securing funding and guiding the development process. The fourth step is to develop a minimum viable product (MVP) to test the market. This involves creating a basic version of the product that allows for user feedback and iteration. Finally, the product is launched into the market, and ongoing monitoring and feedback are essential for making improvements and ensuring long-term success.

(Circle or Specify Method No.)

[illegible]

REMARKS: all tests - normal

LAB USE ONLY

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

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Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: March 26, 2008

Work Order: 8032421



Project Location: Lea County, NM
Project Name: C.S. Caylor
Project Number: PLAINS044 SPL
SRS #: SRS 2002-10250

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
154496	MW-18 5'	soil	2008-03-18	11:53	2008-03-24
154497	MW-18 40'	soil	2008-03-18	12:18	2008-03-24
154498	MW-18 75'	soil	2008-03-18	14:33	2008-03-24

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

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

Dr. Blair Leftwich, Director

Standard Flags

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

Analytical Report

Sample: 154496 - MW-18 5'

Analysis: BTEX, Total BTEX
QC Batch: 46818
Prep Batch: 40266

Analytical Method: S 8021B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100
Total BTEX		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.12	mg/Kg	1	1.00	112	89 - 107.2
4-Bromofluorobenzene (4-BFB)		1.15	mg/Kg	1	1.00	115	66.7 - 153.3

Sample: 154496 - MW-18 5'

Analysis: TPH DRO
QC Batch: 46817
Prep Batch: 40273

Analytical Method: Mod. 8015B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		72.4	mg/Kg	1	100	72	10 - 250.4

Sample: 154496 - MW-18 5'

Analysis: TPH GRO
QC Batch: 46823
Prep Batch: 40266

Analytical Method: S 8015B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.992	mg/Kg	1	1.00	99	84.4 - 101.7
4-Bromofluorobenzene (4-BFB)		0.986	mg/Kg	1	1.00	99	74.9 - 140.5

Sample: 154497 - MW-18 40'

Analysis: BTEX, Total BTEX
QC Batch: 46818
Prep Batch: 40266

Analytical Method: S 8021B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100
Total BTEX		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	1	1.11	mg/Kg	1	1.00	111	89 - 107.2
4-Bromofluorobenzene (4-BFB)		1.14	mg/Kg	1	1.00	114	66.7 - 153.3

Sample: 154497 - MW-18 40'

Analysis: TPH DRO
QC Batch: 46817
Prep Batch: 40273

Analytical Method: Mod. 8015B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		96.9	mg/Kg	1	100	97	10 - 250.4

Sample: 154497 - MW-18 40'

Analysis: TPH GRO
QC Batch: 46823
Prep Batch: 40266

Analytical Method: S 8015B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1.00	100	84.4 - 101.7
4-Bromofluorobenzene (4-BFB)		0.988	mg/Kg	1	1.00	99	74.9 - 140.5

¹High surrogate recovery. Sample non-detect, result bias high.

Sample: 154498 - MW-18 75'

Analysis: BTEX, Total BTEX
QC Batch: 46818
Prep Batch: 40266

Analytical Method: S 8021B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100
Total BTEX		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	²	1.12	mg/Kg	1	1.00	112	89 - 107.2
4-Bromofluorobenzene (4-BFB)		1.15	mg/Kg	1	1.00	115	66.7 - 153.3

Sample: 154498 - MW-18 75'

Analysis: TPH DRO
QC Batch: 46817
Prep Batch: 40273

Analytical Method: Mod. 8015B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		79.1	mg/Kg	1	100	79	10 - 250.4

Sample: 154498 - MW-18 75'

Analysis: TPH GRO
QC Batch: 46823
Prep Batch: 40266

Analytical Method: S 8015B
Date Analyzed: 2008-03-25
Sample Preparation: 2008-03-25

Prep Method: S 5035
Analyzed By: DC
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.973	mg/Kg	1	1.00	97	84.4 - 101.7
4-Bromofluorobenzene (4-BFB)		0.982	mg/Kg	1	1.00	98	74.9 - 140.5

²High surrogate recovery. Sample non-detect, result bias high.

Method Blank (1) QC Batch: 46817

QC Batch: 46817
Prep Batch: 40273

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: LD
Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		93.9	mg/Kg	1	100	94	30.9 - 146.4

Method Blank (1) QC Batch: 46818

QC Batch: 46818
Prep Batch: 40266

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0110	mg/Kg	0.01
Toluene		<0.0109	mg/Kg	0.01
Ethylbenzene		<0.0109	mg/Kg	0.01
Xylene		<0.0331	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.13	mg/Kg	1	1.00	113	82.3 - 121.6
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	72 - 123

Method Blank (1) QC Batch: 46823

QC Batch: 46823
Prep Batch: 40266

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		0.685	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.987	mg/Kg	1	1.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)		0.927	mg/Kg	1	1.00	93	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 46817
Prep Batch: 40273

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: LD
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	297	mg/Kg	1	250	<15.8	119	27.8 - 152.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	300	mg/Kg	1	250	<15.8	120	27.8 - 152.1	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
n-Triacontane	122	120	mg/Kg	1	100	122	120	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 46818
Prep Batch: 40266

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.08	mg/Kg	1	1.00	<0.0110	108	72.7 - 129.8
Toluene	1.09	mg/Kg	1	1.00	<0.0109	109	71.6 - 129.6
Ethylbenzene	1.10	mg/Kg	1	1.00	<0.0109	110	70.8 - 129.7
Xylene	3.37	mg/Kg	1	3.00	<0.0331	112	70.9 - 129.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.978	mg/Kg	1	1.00	<0.0110	98	72.7 - 129.8	10	20
Toluene	0.983	mg/Kg	1	1.00	<0.0109	98	71.6 - 129.6	10	20
Ethylbenzene	0.998	mg/Kg	1	1.00	<0.0109	100	70.8 - 129.7	10	20
Xylene	3.07	mg/Kg	1	3.00	<0.0331	102	70.9 - 129.4	9	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)	1.14	1.14	mg/Kg	1	1.00	114	114	82.9 - 122.8
4-Bromofluorobenzene (4-BFB)	1.15	1.16	mg/Kg	1	1.00	115	116	73.8 - 122.4

Laboratory Control Spike (LCS-1)

QC Batch: 46823
Prep Batch: 40266

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.70	mg/Kg	1	10.0	0.685	80	69.6 - 97.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.70	mg/Kg	1	10.0	0.685	90	69.6 - 97.3	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
Trifluorotoluene (TFT)	1.07	1.05	mg/Kg	1	1.00	107	105	70 - 130
4-Bromofluorobenzene (4-BFB)	1.03	1.03	mg/Kg	1	1.00	103	103	70 - 130

Matrix Spike (MS-1) Spiked Sample: 154490

QC Batch: 46817
Prep Batch: 40273

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	370	mg/Kg	1	250	<15.8	148	18 - 179.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	³ 298	mg/Kg	1	250	<15.8	119	18 - 179.5	22	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	128	128	mg/Kg	1	100	128	128	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 154498

QC Batch: 46818
Prep Batch: 40266

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	⁴ 2.20	mg/Kg	1	1.00	<0.0110	220	58.6 - 165.2
Toluene	⁵ 2.26	mg/Kg	1	1.00	<0.0109	226	64.2 - 153.8
Ethylbenzene	⁶ 2.33	mg/Kg	1	1.00	<0.0109	233	61.6 - 159.4
Xylene	⁷ 6.84	mg/Kg	1	3.00	<0.0331	228	64.4 - 155.3

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	⁸ 1.62	mg/Kg	1	1.00	<0.0110	162	58.6 - 165.2	30	20

continued ...

³MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

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

⁵Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

⁶Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

⁷Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

⁸MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Toluene	⁹	1.65	mg/Kg	1	1.00	<0.0109	165	64.2 - 153.8	31	20
Ethylbenzene	¹⁰	1.66	mg/Kg	1	1.00	<0.0109	166	61.6 - 159.4	34	20
Xylene	¹¹	5.03	mg/Kg	1	3.00	<0.0331	168	64.4 - 155.3	30	20

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

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		1.12	1.13	mg/Kg	1	1	112	113	76.5 - 127.9
4-Bromofluorobenzene (4-BFB)		1.16	1.17	mg/Kg	1	1	116	117	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 154498

QC Batch: 46823
Prep Batch: 40266

Date Analyzed: 2008-03-25
QC Preparation: 2008-03-25

Analyzed By: DC
Prepared By: DC

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	¹²	17.3	mg/Kg	1	10.0	<0.171	173	22.3 - 134.6

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	¹³	23.0	mg/Kg	1	10.0	<0.171	230	22.3 - 134.6	28	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)		0.975	0.978	mg/Kg	1	1	98	98	68.4 - 113.1
4-Bromofluorobenzene (4-BFB)		1.05	1.12	mg/Kg	1	1	105	112	66.7 - 134.3

Standard (CCV-1)

QC Batch: 46817

Date Analyzed: 2008-03-25

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	266	106	85 - 115	2008-03-25

Standard (CCV-2)

QC Batch: 46817

Date Analyzed: 2008-03-25

Analyzed By: LD

⁹Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

¹⁰Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

¹¹Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

¹²Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

¹³Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	257	103	85 - 115	2008-03-25

Standard (ICV-1)

QC Batch: 46818

Date Analyzed: 2008-03-25

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.109	109	85 - 115	2008-03-25
Toluene		mg/Kg	0.100	0.111	111	85 - 115	2008-03-25
Ethylbenzene		mg/Kg	0.100	0.114	114	85 - 115	2008-03-25
Xylene		mg/Kg	0.300	0.346	115	85 - 115	2008-03-25

Standard (CCV-1)

QC Batch: 46818

Date Analyzed: 2008-03-25

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.110	110	85 - 115	2008-03-25
Toluene		mg/Kg	0.100	0.110	110	85 - 115	2008-03-25
Ethylbenzene		mg/Kg	0.100	0.112	112	85 - 115	2008-03-25
Xylene		mg/Kg	0.300	0.343	114	85 - 115	2008-03-25

Standard (ICV-1)

QC Batch: 46823

Date Analyzed: 2008-03-25

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.978	98	85 - 115	2008-03-25

Standard (CCV-1)

QC Batch: 46823

Date Analyzed: 2008-03-25

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.05	105	85 - 115	2008-03-25

Abstract



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Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: April 17, 2008

Work Order: 8032710



Project Location: Lea County, NM
Project Name: C.S. Caylor
Project Number: PLAINS044 SPL
SRS #: SRS 2002-10250

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
154837	MW-18	water	2008-03-25	14:50	2008-03-25

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

This report consists of a total of 19 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

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

Analytical Report

Sample: 154837 - MW-18

Analysis: Semivolatiles
QC Batch: 47137
Prep Batch: 40542

Analytical Method: S 8270C
Date Analyzed: 2008-04-04
Sample Preparation: 2008-04-01

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

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.00500	mg/L	1	0.00500
N-Nitrosodimethylamine		<0.00500	mg/L	1	0.00500
2-Picoline		<0.00500	mg/L	1	0.00500
Methyl methanesulfonate		<0.00500	mg/L	1	0.00500
Ethyl methanesulfonate		<0.00500	mg/L	1	0.00500
Phenol		<0.00500	mg/L	1	0.00500
Aniline		<0.00500	mg/L	1	0.00500
bis(2-chloroethyl)ether		<0.00500	mg/L	1	0.00500
2-Chlorophenol		<0.00500	mg/L	1	0.00500
1,3-Dichlorobenzene (meta)		<0.00500	mg/L	1	0.00500
1,4-Dichlorobenzene (para)		<0.00500	mg/L	1	0.00500
Benzyl alcohol		<0.00500	mg/L	1	0.00500
1,2-Dichlorobenzene (ortho)		<0.00500	mg/L	1	0.00500
2-Methylphenol		<0.00500	mg/L	1	0.00500
bis(2-chloroisopropyl)ether		<0.00500	mg/L	1	0.00500
4-Methylphenol / 3-Methylphenol		<0.00500	mg/L	1	0.00500
N-Nitrosodi-n-propylamine		<0.00500	mg/L	1	0.00500
Hexachloroethane		<0.00500	mg/L	1	0.00500
Acetophenone		<0.00500	mg/L	1	0.00500
Nitrobenzene		<0.00500	mg/L	1	0.00500
N-Nitrosopiperidine		<0.00500	mg/L	1	0.00500
Isophorone		<0.00500	mg/L	1	0.00500
2-Nitrophenol		<0.00500	mg/L	1	0.00500
2,4-Dimethylphenol		<0.00500	mg/L	1	0.00500
bis(2-chloroethoxy)methane		<0.00500	mg/L	1	0.00500
2,4-Dichlorophenol		<0.00500	mg/L	1	0.00500
1,2,4-Trichlorobenzene		<0.00500	mg/L	1	0.00500
Benzoic acid		<0.00500	mg/L	1	0.00500
Naphthalene		<0.00500	mg/L	1	0.00500
a,a-Dimethylphenethylamine		<0.00500	mg/L	1	0.00500
4-Chloroaniline		<0.00500	mg/L	1	0.00500
2,6-Dichlorophenol		<0.0100	mg/L	1	0.0100
Hexachlorobutadiene		<0.00500	mg/L	1	0.00500
N-Nitroso-di-n-butylamine		<0.00500	mg/L	1	0.00500
4-Chloro-3-methylphenol		<0.00500	mg/L	1	0.00500
2-Methylnaphthalene		<0.00500	mg/L	1	0.00500
1-Methylnaphthalene		<0.00500	mg/L	1	0.00500
1,2,4,5-Tetrachlorobenzene		<0.00500	mg/L	1	0.00500
Hexachlorocyclopentadiene		<0.00500	mg/L	1	0.00500
2,4,6-Trichlorophenol		<0.0100	mg/L	1	0.0100
2,4,5-Trichlorophenol		<0.00500	mg/L	1	0.00500
2-Chloronaphthalene		<0.00500	mg/L	1	0.00500
1-Chloronaphthalene		<0.00500	mg/L	1	0.00500
2-Nitroaniline		<0.00500	mg/L	1	0.00500

continued ...

sample 154837 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Dimethylphthalate		<0.00500	mg/L	1	0.00500
Acenaphthylene		<0.00500	mg/L	1	0.00500
2,6-Dinitrotoluene		<0.00500	mg/L	1	0.00500
3-Nitroaniline		<0.00500	mg/L	1	0.00500
Acenaphthene		<0.00500	mg/L	1	0.00500
2,4-Dinitrophenol		<0.00500	mg/L	1	0.00500
Dibenzofuran		<0.00500	mg/L	1	0.00500
Pentachlorobenzene		<0.00500	mg/L	1	0.00500
4-Nitrophenol		<0.0250	mg/L	1	0.0250
2,4-Dinitrotoluene		<0.00500	mg/L	1	0.00500
1-Naphthylamine		<0.00500	mg/L	1	0.00500
2,3,4,6-Tetrachlorophenol		<0.0100	mg/L	1	0.0100
2-Naphthylamine		<0.00500	mg/L	1	0.00500
Fluorene		<0.00500	mg/L	1	0.00500
4-Chlorophenyl-phenylether		<0.00500	mg/L	1	0.00500
Diethylphthalate		<0.00500	mg/L	1	0.00500
4-Nitroaniline		<0.00500	mg/L	1	0.00500
Diphenylhydrazine		<0.00500	mg/L	1	0.00500
4,6-Dinitro-2-methylphenol		<0.00500	mg/L	1	0.00500
Diphenylamine		<0.00500	mg/L	1	0.00500
4-Bromophenyl-phenylether		<0.00500	mg/L	1	0.00500
Phenacetin		<0.00500	mg/L	1	0.00500
Hexachlorobenzene		<0.00500	mg/L	1	0.00500
4-Aminobiphenyl		<0.00500	mg/L	1	0.00500
Pentachlorophenol		<0.0100	mg/L	1	0.0100
Anthracene		<0.00500	mg/L	1	0.00500
Pentachloronitrobenzene		<0.00500	mg/L	1	0.00500
Pronamide		<0.00500	mg/L	1	0.00500
Phenanthrene		<0.00500	mg/L	1	0.00500
Di-n-butylphthalate		<0.00500	mg/L	1	0.00500
Fluoranthene		<0.00500	mg/L	1	0.00500
Benzidine		<0.0250	mg/L	1	0.0250
Pyrene		<0.00500	mg/L	1	0.00500
p-Dimethylaminoazobenzene		<0.00500	mg/L	1	0.00500
Butylbenzylphthalate		<0.00500	mg/L	1	0.00500
Benzo(a)anthracene		<0.00500	mg/L	1	0.00500
3,3-Dichlorobenzidine		<0.00500	mg/L	1	0.00500
Chrysene		<0.00500	mg/L	1	0.00500
bis(2-ethylhexyl)phthalate		<0.00500	mg/L	1	0.00500
Di-n-octylphthalate		<0.00500	mg/L	1	0.00500
Benzo(b)fluoranthene		<0.00500	mg/L	1	0.00500
Benzo(k)fluoranthene		<0.00500	mg/L	1	0.00500
7,12-Dimethylbenz(a)anthracene		<0.00500	mg/L	1	0.00500
Benzo(a)pyrene		<0.00500	mg/L	1	0.00500
3-Methylcholanthrene		<0.00500	mg/L	1	0.00500
Dibenzo(a,j)acridine		<0.00500	mg/L	1	0.00500
Indeno(1,2,3-cd)pyrene		<0.00500	mg/L	1	0.00500
Dibenzo(a,h)anthracene		<0.00500	mg/L	1	0.00500
Benzo(g,h,i)perylene		<0.00500	mg/L	1	0.00500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0131	mg/L	1	0.0800	16	10 - 84.7
Phenol-d5		0.00910	mg/L	1	0.0800	11	10 - 54.9
Nitrobenzene-d5		0.0475	mg/L	1	0.0800	59	10 - 202
2-Fluorobiphenyl		0.0601	mg/L	1	0.0800	75	10 - 199
2,4,6-Tribromophenol		0.0628	mg/L	1	0.0800	78	10 - 141
Terphenyl-d14		0.0692	mg/L	1	0.0800	86	10 - 160

Sample: 154837 - MW-18

Analysis: Volatiles
QC Batch: 47115
Prep Batch: 40517

Analytical Method: S 8260B
Date Analyzed: 2008-04-03
Sample Preparation: 2008-04-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		<10.0	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00	µg/L	1	1.00
2,2-Dichloropropane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
1,1-Dichloropropene		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
1,2-Dichloropropane		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00	µg/L	1	1.00
Bromodichloromethane		<1.00	µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00	µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00	µg/L	1	1.00
trans-1,3-Dichloropropene		<1.00	µg/L	1	1.00

continued ...

sample 154837 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,3-Dichloropropane		<1.00	µg/L	1	1.00
Dibromochloromethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Chlorobenzene		<1.00	µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
Bromoform		<1.00	µg/L	1	1.00
Styrene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00
2-Chlorotoluene		<1.00	µg/L	1	1.00
1,2,3-Trichloropropane		<1.00	µg/L	1	1.00
Isopropylbenzene		2.10	µg/L	1	1.00
Bromobenzene		<1.00	µg/L	1	1.00
n-Propylbenzene		<1.00	µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00	µg/L	1	1.00
tert-Butylbenzene		<1.00	µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00	µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00	µg/L	1	1.00
sec-Butylbenzene		<1.00	µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	µg/L	1	1.00
p-Isopropyltoluene		<1.00	µg/L	1	1.00
4-Chlorotoluene		<1.00	µg/L	1	1.00
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1.00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		48.7	µg/L	1	50.0	97	89.8 - 111
Toluene-d8		49.6	µg/L	1	50.0	99	93.2 - 108
4-Bromofluorobenzene (4-BFB)		47.8	µg/L	1	50.0	96	88.4 - 103

Method Blank (1) QC Batch: 47115

QC Batch: 47115
Prep Batch: 40517

Date Analyzed: 2008-04-03
QC Preparation: 2008-04-03

Analyzed By: KB
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.197	µg/L	1
Dichlorodifluoromethane		<0.672	µg/L	1
Chloromethane (methyl chloride)		<0.542	µg/L	1
Vinyl Chloride		<0.516	µg/L	1
Bromomethane (methyl bromide)		<0.446	µg/L	5
Chloroethane		<0.656	µg/L	1
Trichlorofluoromethane		<0.538	µg/L	1
Acetone		<1.10	µg/L	10
Iodomethane (methyl iodide)		<0.214	µg/L	5
Carbon Disulfide		<0.294	µg/L	1
Acrylonitrile		<0.442	µg/L	1
2-Butanone (MEK)		<0.420	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.407	µg/L	5
2-Hexanone		<0.486	µg/L	5
trans 1,4-Dichloro-2-butene		<0.463	µg/L	10
1,1-Dichloroethene		<0.237	µg/L	1
Methylene chloride		<0.312	µg/L	5
MTBE		<0.318	µg/L	1
trans-1,2-Dichloroethene		<0.217	µg/L	1
1,1-Dichloroethane		<0.202	µg/L	1
cis-1,2-Dichloroethene		<0.309	µg/L	1
2,2-Dichloropropane		<0.318	µg/L	1
1,2-Dichloroethane (EDC)		<0.292	µg/L	1
Chloroform		<0.234	µg/L	1
1,1,1-Trichloroethane		<0.257	µg/L	1
1,1-Dichloropropene		<0.286	µg/L	1
Benzene		<0.319	µg/L	1
Carbon Tetrachloride		<0.223	µg/L	1
1,2-Dichloropropane		<0.266	µg/L	1
Trichloroethene (TCE)		<0.235	µg/L	1
Dibromomethane (methylene bromide)		<0.341	µg/L	1
Bromodichloromethane		<0.291	µg/L	1
2-Chloroethyl vinyl ether		<0.293	µg/L	5
cis-1,3-Dichloropropene		<0.207	µg/L	1
trans-1,3-Dichloropropene		<0.293	µg/L	1
Toluene		<0.268	µg/L	1
1,1,2-Trichloroethane		<0.329	µg/L	1
1,3-Dichloropropane		<0.316	µg/L	1
Dibromochloromethane		<0.290	µg/L	1
1,2-Dibromoethane (EDB)		<0.229	µg/L	1
Tetrachloroethene (PCE)		<0.233	µg/L	1
Chlorobenzene		<0.276	µg/L	1
1,1,1,2-Tetrachloroethane		<0.226	µg/L	1
Ethylbenzene		<0.245	µg/L	1
m,p-Xylene		<0.517	µg/L	1
Bromoform		<0.175	µg/L	1
Styrene		<0.239	µg/L	1
o-Xylene		<0.247	µg/L	1
1,1,2,2-Tetrachloroethane		<0.223	µg/L	1
2-Chlorotoluene		<0.235	µg/L	1
1,2,3-Trichloropropane		<0.230	µg/L	1

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Isopropylbenzene		<0.226	µg/L	1
Bromobenzene		<0.245	µg/L	1
n-Propylbenzene		<0.234	µg/L	1
1,3,5-Trimethylbenzene		<0.261	µg/L	1
tert-Butylbenzene		<0.281	µg/L	1
1,2,4-Trimethylbenzene		<0.285	µg/L	1
1,4-Dichlorobenzene (para)		<0.307	µg/L	1
sec-Butylbenzene		<0.312	µg/L	1
1,3-Dichlorobenzene (meta)		<0.284	µg/L	1
p-Isopropyltoluene		<0.244	µg/L	1
4-Chlorotoluene		<0.257	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.294	µg/L	1
n-Butylbenzene		<0.339	µg/L	1
1,2-Dibromo-3-chloropropane		<0.780	µg/L	5
1,2,3-Trichlorobenzene		<0.736	µg/L	5
1,2,4-Trichlorobenzene		<0.432	µg/L	5
Naphthalene		<0.475	µg/L	5
Hexachlorobutadiene		<1.02	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.2	µg/L	1	50.0	98	89.8 - 111
Toluene-d8		50.5	µg/L	1	50.0	101	93.2 - 108
4-Bromofluorobenzene (4-BFB)		48.9	µg/L	1	50.0	98	88.4 - 103

Method Blank (1) QC Batch: 47137

QC Batch: 47137
Prep Batch: 40542

Date Analyzed: 2008-04-04
QC Preparation: 2008-04-01

Analyzed By: DS
Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
Pyridine		<0.00188	mg/L	0.005
N-Nitrosodimethylamine		<0.00180	mg/L	0.005
2-Picoline		<0.00181	mg/L	0.005
Methyl methanesulfonate		<0.00220	mg/L	0.005
Ethyl methanesulfonate		<0.00260	mg/L	0.005
Phenol		<0.00231	mg/L	0.005
Aniline		<0.00200	mg/L	0.005
bis(2-chloroethyl)ether		<0.00180	mg/L	0.005
2-Chlorophenol		<0.00190	mg/L	0.005
1,3-Dichlorobenzene (meta)		<0.00181	mg/L	0.005
1,4-Dichlorobenzene (para)		<0.00179	mg/L	0.005
Benzyl alcohol		<0.00244	mg/L	0.005
1,2-Dichlorobenzene (ortho)		<0.00173	mg/L	0.005
2-Methylphenol		<0.00230	mg/L	0.005
bis(2-chloroisopropyl)ether		<0.00209	mg/L	0.005
4-Methylphenol / 3-Methylphenol		<0.00229	mg/L	0.005
N-Nitrosodi-n-propylamine		<0.00236	mg/L	0.005

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Hexachloroethane		<0.00189	mg/L	0.005
Acetophenone		<0.00211	mg/L	0.005
Nitrobenzene		<0.00192	mg/L	0.005
N-Nitrosopiperidine		<0.00208	mg/L	0.005
Isophorone		<0.00206	mg/L	0.005
2-Nitrophenol		<0.00189	mg/L	0.005
2,4-Dimethylphenol		<0.00209	mg/L	0.005
bis(2-chloroethoxy)methane		<0.00216	mg/L	0.005
2,4-Dichlorophenol		<0.00192	mg/L	0.005
1,2,4-Trichlorobenzene		<0.00176	mg/L	0.005
Benzoic acid		<0.00765	mg/L	0.005
Naphthalene		<0.00187	mg/L	0.005
a,a-Dimethylphenethylamine		<0.00146	mg/L	0.005
4-Chloroaniline		<0.00210	mg/L	0.005
2,6-Dichlorophenol		<0.00199	mg/L	0.01
Hexachlorobutadiene		<0.00186	mg/L	0.005
N-Nitroso-di-n-butylamine		<0.00214	mg/L	0.005
4-Chloro-3-methylphenol		<0.00182	mg/L	0.005
2-Methylnaphthalene		<0.00206	mg/L	0.005
1-Methylnaphthalene		<0.00205	mg/L	0.005
1,2,4,5-Tetrachlorobenzene		<0.00211	mg/L	0.005
Hexachlorocyclopentadiene		<0.00175	mg/L	0.005
2,4,6-Trichlorophenol		<0.00200	mg/L	0.01
2,4,5-Trichlorophenol		<0.00176	mg/L	0.005
2-Chloronaphthalene		<0.00200	mg/L	0.005
1-Chloronaphthalene		<0.00259	mg/L	0.005
2-Nitroaniline		<0.00167	mg/L	0.005
Dimethylphthalate		<0.00160	mg/L	0.005
Acenaphthylene		<0.00201	mg/L	0.005
2,6-Dinitrotoluene		<0.00158	mg/L	0.005
3-Nitroaniline		<0.00166	mg/L	0.005
Acenaphthene		<0.00191	mg/L	0.005
2,4-Dinitrophenol		<0.000621	mg/L	0.005
Dibenzofuran		<0.00185	mg/L	0.005
Pentachlorobenzene		<0.00189	mg/L	0.005
4-Nitrophenol		<0.00156	mg/L	0.025
2,4-Dinitrotoluene		<0.00187	mg/L	0.005
1-Naphthylamine		<0.00149	mg/L	0.005
2,3,4,6-Tetrachlorophenol		<0.00162	mg/L	0.01
2-Naphthylamine		<0.00157	mg/L	0.005
Fluorene		<0.00182	mg/L	0.005
4-Chlorophenyl-phenylether		<0.00188	mg/L	0.005
Diethylphthalate		<0.00182	mg/L	0.005
4-Nitroaniline		<0.00182	mg/L	0.005
Diphenylhydrazine		<0.00184	mg/L	0.005
4,6-Dinitro-2-methylphenol		<0.00109	mg/L	0.005
Diphenylamine		<0.00193	mg/L	0.005
4-Bromophenyl-phenylether		<0.00179	mg/L	0.005
Phenacetin		<0.00190	mg/L	0.005
Hexachlorobenzene		<0.00193	mg/L	0.005

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
4-Aminobiphenyl		<0.00185	mg/L	0.005
Pentachlorophenol		<0.00130	mg/L	0.01
Anthracene		<0.00190	mg/L	0.005
Pentachloronitrobenzene		<0.00187	mg/L	0.005
Pronamide		<0.00182	mg/L	0.005
Phenanthrene		<0.00186	mg/L	0.005
Di-n-butylphthalate		<0.00180	mg/L	0.005
Fluoranthene		<0.00184	mg/L	0.005
Benzidine		<0.00156	mg/L	0.025
Pyrene		<0.00165	mg/L	0.005
p-Dimethylaminoazobenzene		<0.00145	mg/L	0.005
Butylbenzylphthalate		<0.00165	mg/L	0.005
Benzo(a)anthracene		<0.00157	mg/L	0.005
3,3-Dichlorobenzidine		<0.00162	mg/L	0.005
Chrysene		<0.00162	mg/L	0.005
bis(2-ethylhexyl)phthalate		<0.00171	mg/L	0.005
Di-n-octylphthalate		<0.00136	mg/L	0.005
Benzo(b)fluoranthene		<0.00160	mg/L	0.005
Benzo(k)fluoranthene		<0.00179	mg/L	0.005
7,12-Dimethylbenz(a)anthracene		<0.00152	mg/L	0.005
Benzo(a)pyrene		<0.00161	mg/L	0.005
3-Methylcholanthrene		<0.00147	mg/L	0.005
Dibenzo(a,j)acridine		<0.00154	mg/L	0.005
Indeno(1,2,3-cd)pyrene		<0.00160	mg/L	0.005
Dibenzo(a,h)anthracene		<0.00180	mg/L	0.005
Benzo(g,h,i)perylene		<0.00166	mg/L	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0187	mg/L	1	0.0800	23	10 - 66.9
Phenol-d5		0.0125	mg/L	1	0.0800	16	10 - 50.7
Nitrobenzene-d5		0.0529	mg/L	1	0.0800	66	10 - 124
2-Fluorobiphenyl		0.0548	mg/L	1	0.0800	68	10 - 127
2,4,6-Tribromophenol		0.0445	mg/L	1	0.0800	56	10 - 138
Terphenyl-d14		0.0688	mg/L	1	0.0800	86	10 - 143

Laboratory Control Spike (LCS-1)

QC Batch: 47115
Prep Batch: 40517

Date Analyzed: 2008-04-03
QC Preparation: 2008-04-03

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane	51.1	µg/L	1	50.0	<0.197	102	91.8 - 112
Dichlorodifluoromethane	52.4	µg/L	1	50.0	<0.672	105	40.7 - 133
Chloromethane (methyl chloride)	49.3	µg/L	1	50.0	<0.542	99	61.4 - 130
Vinyl Chloride	52.5	µg/L	1	50.0	<0.516	105	65.4 - 127
Bromomethane (methyl bromide)	51.5	µg/L	1	50.0	<0.446	103	61 - 140

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloroethane	51.7	µg/L	1	50.0	<0.656	103	72.1 - 121
Trichlorofluoromethane	53.2	µg/L	1	50.0	<0.538	106	77.1 - 116
Acetone	56.5	µg/L	1	50.0	<1.10	113	10 - 169
Iodomethane (methyl iodide)	51.9	µg/L	1	50.0	<0.214	104	84.4 - 118
Carbon Disulfide	52.3	µg/L	1	50.0	<0.294	105	84.7 - 116
Acrylonitrile	48.5	µg/L	1	50.0	<0.442	97	88.5 - 119
2-Butanone (MEK)	56.9	µg/L	1	50.0	<0.420	114	38.2 - 134
4-Methyl-2-pentanone (MIBK)	52.7	µg/L	1	50.0	<0.407	105	90.4 - 114
2-Hexanone	59.9	µg/L	1	50.0	<0.486	120	47 - 145
trans 1,4-Dichloro-2-butene	51.8	µg/L	1	50.0	<0.463	104	75.5 - 133
1,1-Dichloroethene	51.9	µg/L	1	50.0	<0.237	104	86.8 - 110
Methylene chloride	49.5	µg/L	1	50.0	<0.312	99	84.4 - 114
MTBE	49.1	µg/L	1	50.0	<0.318	98	88.3 - 115
trans-1,2-Dichloroethene	50.3	µg/L	1	50.0	<0.217	101	89.1 - 109
1,1-Dichloroethane	51.2	µg/L	1	50.0	<0.202	102	85 - 114
cis-1,2-Dichloroethane	50.5	µg/L	1	50.0	<0.309	101	91.2 - 109
2,2-Dichloropropane	44.1	µg/L	1	50.0	<0.318	88	63.4 - 132
1,2-Dichloroethane (EDC)	49.9	µg/L	1	50.0	<0.292	100	82.2 - 113
Chloroform	50.0	µg/L	1	50.0	<0.234	100	86.5 - 111
1,1,1-Trichloroethane	49.1	µg/L	1	50.0	<0.257	98	89.7 - 109
1,1-Dichloropropene	49.5	µg/L	1	50.0	<0.286	99	89.7 - 110
Benzene	49.7	µg/L	1	50.0	<0.319	99	87.6 - 107
Carbon Tetrachloride	49.1	µg/L	1	50.0	<0.223	98	92.1 - 111
1,2-Dichloropropane	50.5	µg/L	1	50.0	<0.266	101	91.8 - 111
Trichloroethene (TCE)	51.6	µg/L	1	50.0	<0.235	103	85.4 - 113
Dibromomethane (methylene bromide)	50.2	µg/L	1	50.0	<0.341	100	93.2 - 108
Bromodichloromethane	50.8	µg/L	1	50.0	<0.291	102	93.6 - 113
2-Chloroethyl vinyl ether	51.9	µg/L	1	50.0	<0.293	104	91.8 - 111
cis-1,3-Dichloropropene	51.0	µg/L	1	50.0	<0.207	102	94.6 - 117
trans-1,3-Dichloropropene	51.7	µg/L	1	50.0	<0.293	103	90.2 - 119
Toluene	49.9	µg/L	1	50.0	<0.268	100	91.3 - 110
1,1,2-Trichloroethane	50.9	µg/L	1	50.0	<0.329	102	94.3 - 106
1,3-Dichloropropane	50.6	µg/L	1	50.0	<0.316	101	92.2 - 108
Dibromochloromethane	53.2	µg/L	1	50.0	<0.290	106	92.1 - 122
1,2-Dibromoethane (EDB)	52.5	µg/L	1	50.0	<0.229	105	98.2 - 106
Tetrachloroethene (PCE)	57.8	µg/L	1	50.0	<0.233	116	20.2 - 156
Chlorobenzene	51.0	µg/L	1	50.0	<0.276	102	92.9 - 103
1,1,1,2-Tetrachloroethane	50.9	µg/L	1	50.0	<0.226	102	99.3 - 105
Ethylbenzene	49.8	µg/L	1	50.0	<0.245	100	90.5 - 107
m,p-Xylene	99.0	µg/L	1	100	<0.517	99	89.5 - 111
Bromoform	55.2	µg/L	1	50.0	<0.175	110	84.2 - 144
Styrene	49.2	µg/L	1	50.0	<0.239	98	94.3 - 113
o-Xylene	49.9	µg/L	1	50.0	<0.247	100	91.2 - 112
1,1,2,2-Tetrachloroethane	51.2	µg/L	1	50.0	<0.223	102	74.9 - 133
2-Chlorotoluene	48.9	µg/L	1	50.0	<0.235	98	87.4 - 110
1,2,3-Trichloropropane	51.9	µg/L	1	50.0	<0.230	104	86.6 - 114
Isopropylbenzene	50.1	µg/L	1	50.0	<0.226	100	87.6 - 115
Bromobenzene	49.6	µg/L	1	50.0	<0.245	99	91.3 - 105
n-Propylbenzene	49.2	µg/L	1	50.0	<0.234	98	84.4 - 113
1,3,5-Trimethylbenzene	49.3	µg/L	1	50.0	<0.261	99	89.3 - 109

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
tert-Butylbenzene	50.0	µg/L	1	50.0	<0.281	100	93.2 - 106
1,2,4-Trimethylbenzene	49.7	µg/L	1	50.0	<0.285	99	89.6 - 115
1,4-Dichlorobenzene (para)	51.4	µg/L	1	50.0	<0.307	103	88.4 - 106
sec-Butylbenzene	50.1	µg/L	1	50.0	<0.312	100	87.2 - 113
1,3-Dichlorobenzene (meta)	51.4	µg/L	1	50.0	<0.284	103	91.1 - 109
p-Isopropyltoluene	50.8	µg/L	1	50.0	<0.244	102	92.2 - 109
4-Chlorotoluene	49.7	µg/L	1	50.0	<0.257	99	89 - 110
1,2-Dichlorobenzene (ortho)	52.4	µg/L	1	50.0	<0.294	105	91.3 - 110
n-Butylbenzene	52.6	µg/L	1	50.0	<0.339	105	86.8 - 113
1,2-Dibromo-3-chloropropane	49.2	µg/L	1	50.0	<0.780	98	72.3 - 130
1,2,3-Trichlorobenzene	52.8	µg/L	1	50.0	<0.736	106	81.2 - 202
1,2,4-Trichlorobenzene	51.8	µg/L	1	50.0	<0.432	104	65 - 145
Naphthalene	51.9	µg/L	1	50.0	<0.475	104	84.5 - 150
Hexachlorobutadiene	52.1	µg/L	1	50.0	<1.02	104	70.2 - 133

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromochloromethane	50.7	µg/L	1	50.0	<0.197	101	91.8 - 112	1	20
Dichlorodifluoromethane	51.0	µg/L	1	50.0	<0.672	102	40.7 - 133	3	20
Chloromethane (methyl chloride)	49.0	µg/L	1	50.0	<0.542	98	61.4 - 130	1	20
Vinyl Chloride	51.0	µg/L	1	50.0	<0.516	102	65.4 - 127	3	20
Bromomethane (methyl bromide)	49.8	µg/L	1	50.0	<0.446	100	61 - 140	3	20
Chloroethane	51.0	µg/L	1	50.0	<0.656	102	72.1 - 121	1	20
Trichlorofluoromethane	51.4	µg/L	1	50.0	<0.538	103	77.1 - 116	3	20
Acetone	55.1	µg/L	1	50.0	<1.10	110	10 - 169	2	20
Iodomethane (methyl iodide)	51.7	µg/L	1	50.0	<0.214	103	84.4 - 118	0	20
Carbon Disulfide	51.9	µg/L	1	50.0	<0.294	104	84.7 - 116	1	20
Acrylonitrile	49.1	µg/L	1	50.0	<0.442	98	88.5 - 119	1	20
2-Butanone (MEK)	54.9	µg/L	1	50.0	<0.420	110	38.2 - 134	4	20
4-Methyl-2-pentanone (MIBK)	52.0	µg/L	1	50.0	<0.407	104	90.4 - 114	1	20
2-Hexanone	59.9	µg/L	1	50.0	<0.486	120	47 - 145	0	20
trans 1,4-Dichloro-2-butene	51.3	µg/L	1	50.0	<0.463	103	75.5 - 133	1	20
1,1-Dichloroethene	51.2	µg/L	1	50.0	<0.237	102	86.8 - 110	1	20
Methylene chloride	49.6	µg/L	1	50.0	<0.312	99	84.4 - 114	0	20
MTBE	49.7	µg/L	1	50.0	<0.318	99	88.3 - 115	1	20
trans-1,2-Dichloroethene	49.8	µg/L	1	50.0	<0.217	100	89.1 - 109	1	20
1,1-Dichloroethane	51.1	µg/L	1	50.0	<0.202	102	85 - 114	0	20
cis-1,2-Dichloroethene	50.4	µg/L	1	50.0	<0.309	101	91.2 - 109	0	20
2,2-Dichloropropane	44.4	µg/L	1	50.0	<0.318	89	63.4 - 132	1	20
1,2-Dichloroethane (EDC)	49.7	µg/L	1	50.0	<0.292	99	82.2 - 113	0	20
Chloroform	50.1	µg/L	1	50.0	<0.234	100	86.5 - 111	0	20
1,1,1-Trichloroethane	49.7	µg/L	1	50.0	<0.257	99	89.7 - 109	1	20
1,1-Dichloropropene	50.7	µg/L	1	50.0	<0.286	101	89.7 - 110	2	20
Benzene	50.6	µg/L	1	50.0	<0.319	101	87.6 - 107	2	20
Carbon Tetrachloride	50.2	µg/L	1	50.0	<0.223	100	92.1 - 111	2	20
1,2-Dichloropropane	51.4	µg/L	1	50.0	<0.266	103	91.8 - 111	2	20
Trichloroethene (TCE)	54.1	µg/L	1	50.0	<0.235	108	85.4 - 113	5	20
Dibromomethane (methylene bromide)	51.0	µg/L	1	50.0	<0.341	102	93.2 - 108	2	20
Bromodichloromethane	51.3	µg/L	1	50.0	<0.291	103	93.6 - 113	1	20

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
2-Chloroethyl vinyl ether	54.2	µg/L	1	50.0	<0.293	108	91.8 - 111	4	20
cis-1,3-Dichloropropene	51.8	µg/L	1	50.0	<0.207	104	94.6 - 117	2	20
trans-1,3-Dichloropropene	52.6	µg/L	1	50.0	<0.293	105	90.2 - 119	2	20
Toluene	50.5	µg/L	1	50.0	<0.268	101	91.3 - 110	1	20
1,1,2-Trichloroethane	50.8	µg/L	1	50.0	<0.329	102	94.3 - 106	0	20
1,3-Dichloropropane	50.1	µg/L	1	50.0	<0.316	100	92.2 - 108	1	20
Dibromochloromethane	52.7	µg/L	1	50.0	<0.290	105	92.1 - 122	1	20
1,2-Dibromoethane (EDB)	52.1	µg/L	1	50.0	<0.229	104	98.2 - 106	1	20
Tetrachloroethene (PCE)	61.9	µg/L	1	50.0	<0.233	124	20.2 - 156	7	20
Chlorobenzene	50.8	µg/L	1	50.0	<0.276	102	92.9 - 103	0	20
1,1,1,2-Tetrachloroethane	51.0	µg/L	1	50.0	<0.226	102	99.3 - 105	0	20
Ethylbenzene	49.5	µg/L	1	50.0	<0.245	99	90.5 - 107	1	20
m,p-Xylene	99.0	µg/L	1	100	<0.517	99	89.5 - 111	0	20
Bromoform	55.2	µg/L	1	50.0	<0.175	110	84.2 - 144	0	20
Styrene	49.3	µg/L	1	50.0	<0.239	99	94.3 - 113	0	20
o-Xylene	49.8	µg/L	1	50.0	<0.247	100	91.2 - 112	0	20
1,1,2,2-Tetrachloroethane	48.5	µg/L	1	50.0	<0.223	97	74.9 - 133	5	20
2-Chlorotoluene	48.6	µg/L	1	50.0	<0.235	97	87.4 - 110	1	20
1,2,3-Trichloropropane	51.7	µg/L	1	50.0	<0.230	103	86.6 - 114	0	20
Isopropylbenzene	49.4	µg/L	1	50.0	<0.226	99	87.6 - 115	1	20
Bromobenzene	49.1	µg/L	1	50.0	<0.245	98	91.3 - 105	1	20
n-Propylbenzene	48.9	µg/L	1	50.0	<0.234	98	84.4 - 113	1	20
1,3,5-Trimethylbenzene	48.8	µg/L	1	50.0	<0.261	98	89.3 - 109	1	20
tert-Butylbenzene	49.8	µg/L	1	50.0	<0.281	100	93.2 - 106	0	20
1,2,4-Trimethylbenzene	49.4	µg/L	1	50.0	<0.285	99	89.6 - 115	1	20
1,4-Dichlorobenzene (para)	51.1	µg/L	1	50.0	<0.307	102	88.4 - 106	1	20
sec-Butylbenzene	49.8	µg/L	1	50.0	<0.312	100	87.2 - 113	1	20
1,3-Dichlorobenzene (meta)	51.2	µg/L	1	50.0	<0.284	102	91.1 - 109	0	20
p-Isopropyltoluene	50.4	µg/L	1	50.0	<0.244	101	92.2 - 109	1	20
4-Chlorotoluene	49.7	µg/L	1	50.0	<0.257	99	89 - 110	0	20
1,2-Dichlorobenzene (ortho)	52.0	µg/L	1	50.0	<0.294	104	91.3 - 110	1	20
n-Butylbenzene	52.3	µg/L	1	50.0	<0.339	105	86.8 - 113	1	20
1,2-Dibromo-3-chloropropane	49.4	µg/L	1	50.0	<0.780	99	72.3 - 130	0	20
1,2,3-Trichlorobenzene	51.2	µg/L	1	50.0	<0.736	102	81.2 - 202	3	20
1,2,4-Trichlorobenzene	50.3	µg/L	1	50.0	<0.432	101	65 - 145	3	20
Naphthalene	50.6	µg/L	1	50.0	<0.475	101	84.5 - 150	2	20
Hexachlorobutadiene	51.4	µg/L	1	50.0	<1.02	103	70.2 - 133	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
Dibromofluoromethane	50.0	50.3	µg/L	1	50.0	100	101	89.5 - 107
Toluene-d8	49.6	50.0	µg/L	1	50.0	99	100	92.6 - 102
4-Bromofluorobenzene (4-BFB)	50.0	50.6	µg/L	1	50.0	100	101	95.2 - 103

Laboratory Control Spike (LCS-1)

QC Batch: 47137
Prep Batch: 40542

Date Analyzed: 2008-04-04
QC Preparation: 2008-04-01

Analyzed By: DS
Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenol	0.0177	mg/L	1	0.0800	0	22	10 - 46.1
2-Chlorophenol	0.0528	mg/L	1	0.0800	0	66	10 - 123
1,4-Dichlorobenzene (para)	0.0516	mg/L	1	0.0800	0	64	10 - 118
N-Nitrosodi-n-propylamine	0.0901	mg/L	1	0.0800	0	113	10 - 132
1,2,4-Trichlorobenzene	0.0709	mg/L	1	0.0800	0	89	10 - 130
Naphthalene	0.0596	mg/L	1	0.0800	0	74	20.3 - 121
4-Chloro-3-methylphenol	0.0645	mg/L	1	0.0800	0	81	10 - 140
Acenaphthylene	0.0700	mg/L	1	0.0800	0	88	22.3 - 124
Acenaphthene	0.0653	mg/L	1	0.0800	0	82	18.8 - 134
Dibenzofuran	0.0671	mg/L	1	0.0800	0	84	37.5 - 102
4-Nitrophenol	0.00807	mg/L	1	0.0800	0	10	10 - 135
2,4-Dinitrotoluene	0.0618	mg/L	1	0.0800	0	77	13.6 - 152
Fluorene	0.0602	mg/L	1	0.0800	0	75	29.7 - 114
Pentachlorophenol	0.0529	mg/L	1	0.0800	0	66	10 - 144
Anthracene	0.0720	mg/L	1	0.0800	0	90	48.2 - 118
Phenanthrene	0.0698	mg/L	1	0.0800	0	87	45.5 - 121
Fluoranthene	0.0929	mg/L	1	0.0800	0	116	42.7 - 126
Pyrene	0.0673	mg/L	1	0.0800	0	84	26.8 - 155
Benzo(a)anthracene	0.0666	mg/L	1	0.0800	0	83	60.2 - 97.3
Chrysene	0.0654	mg/L	1	0.0800	0	82	56 - 92.4
Benzo(b)fluoranthene	0.0677	mg/L	1	0.0800	0	85	73.9 - 102
Benzo(k)fluoranthene	0.0722	mg/L	1	0.0800	0	90	45.6 - 143
Benzo(a)pyrene	0.0774	mg/L	1	0.0800	0	97	54.8 - 122
Indeno(1,2,3-cd)pyrene	0.0899	mg/L	1	0.0800	0	112	61.4 - 118
Dibenzo(a,h)anthracene	0.0876	mg/L	1	0.0800	0	110	64.9 - 118
Benzo(g,h,i)perylene	0.0861	mg/L	1	0.0800	0	108	46.8 - 129

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Phenol	0.0183	mg/L	1	0.0800	0	23	10 - 46.1	3	20
2-Chlorophenol	0.0522	mg/L	1	0.0800	0	65	10 - 123	1	20
1,4-Dichlorobenzene (para)	0.0508	mg/L	1	0.0800	0	64	10 - 118	2	20
N-Nitrosodi-n-propylamine	0.0892	mg/L	1	0.0800	0	112	10 - 132	1	20
1,2,4-Trichlorobenzene	0.0714	mg/L	1	0.0800	0	89	10 - 130	1	20
Naphthalene	0.0599	mg/L	1	0.0800	0	75	20.3 - 121	0	20
4-Chloro-3-methylphenol	0.0649	mg/L	1	0.0800	0	81	10 - 140	1	20
Acenaphthylene	0.0710	mg/L	1	0.0800	0	89	22.3 - 124	1	20
Acenaphthene	0.0667	mg/L	1	0.0800	0	83	18.8 - 134	2	20
Dibenzofuran	0.0674	mg/L	1	0.0800	0	84	37.5 - 102	0	20
4-Nitrophenol	0.00827	mg/L	1	0.0800	0	10	10 - 135	2	20
2,4-Dinitrotoluene	0.0623	mg/L	1	0.0800	0	78	13.6 - 152	1	20
Fluorene	0.0602	mg/L	1	0.0800	0	75	29.7 - 114	0	20
Pentachlorophenol	0.0539	mg/L	1	0.0800	0	67	10 - 144	2	20
Anthracene	0.0728	mg/L	1	0.0800	0	91	48.2 - 118	1	20
Phenanthrene	0.0712	mg/L	1	0.0800	0	89	45.5 - 121	2	20
Fluoranthene	0.0955	mg/L	1	0.0800	0	119	42.7 - 126	3	20
Pyrene	0.0671	mg/L	1	0.0800	0	84	26.8 - 155	0	20
Benzo(a)anthracene	0.0665	mg/L	1	0.0800	0	83	60.2 - 97.3	0	20
Chrysene	0.0651	mg/L	1	0.0800	0	81	56 - 92.4	0	20
Benzo(b)fluoranthene	0.0682	mg/L	1	0.0800	0	85	73.9 - 102	1	20

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzo(k)fluoranthene	0.0730	mg/L	1	0.0800	0	91	45.6 - 143	1	20
Benzo(a)pyrene	0.0780	mg/L	1	0.0800	0	98	54.8 - 122	1	20
Indeno(1,2,3-cd)pyrene	0.0919	mg/L	1	0.0800	0	115	61.4 - 118	2	20
Dibenzo(a,h)anthracene	0.0895	mg/L	1	0.0800	0	112	64.9 - 118	2	20
Benzo(g,h,i)perylene	0.0880	mg/L	1	0.0800	0	110	46.8 - 129	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
2-Fluorophenol	0.0248	0.0241	mg/L	1	0.0800	31	30	10 - 109
Phenol-d5	0.0198	0.0196	mg/L	1	0.0800	25	24	10 - 61.5
Nitrobenzene-d5	0.0772	0.0780	mg/L	1	0.0800	96	98	10 - 139
2-Fluorobiphenyl	0.0945	0.0960	mg/L	1	0.0800	118	120	10 - 139
2,4,6-Tribromophenol	0.0865	0.0857	mg/L	1	0.0800	108	107	10 - 161
Terphenyl-d14	0.0777	0.0778	mg/L	1	0.0800	97	97	10 - 144

Matrix Spike (MS-1) Spiked Sample: 155082

QC Batch: 47115
Prep Batch: 40517

Date Analyzed: 2008-04-03
QC Preparation: 2008-04-03

Analyzed By: KB
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane	50.0	µg/L	1	50.0	<0.197	100	82.3 - 118
Dichlorodifluoromethane	41.7	µg/L	1	50.0	<0.672	83	24.2 - 131
Chloromethane (methyl chloride)	44.1	µg/L	1	50.0	<0.542	88	69.6 - 118
Vinyl Chloride	43.9	µg/L	1	50.0	<0.516	88	80.8 - 107
Bromomethane (methyl bromide)	45.2	µg/L	1	50.0	<0.446	90	74.8 - 126
Chloroethane	45.5	µg/L	1	50.0	<0.656	91	74.6 - 124
Trichlorofluoromethane	44.7	µg/L	1	50.0	<0.538	89	66.8 - 115
Acetone	1 64.5	µg/L	1	50.0	<1.10	129	15 - 80.4
Iodomethane (methyl iodide)	48.1	µg/L	1	50.0	<0.214	96	75.2 - 114
Carbon Disulfide	42.8	µg/L	1	50.0	<0.294	86	69 - 121
Acrylonitrile	48.1	µg/L	1	50.0	<0.442	96	69.6 - 135
2-Butanone (MEK)	2 70.1	µg/L	1	50.0	<0.420	140	28.1 - 108
4-Methyl-2-pentanone (MIBK)	3 79.1	µg/L	1	50.0	<0.407	158	81.5 - 117
2-Hexanone	4 108	µg/L	1	50.0	<0.486	216	44.6 - 122
trans 1,4-Dichloro-2-butene	50.9	µg/L	1	50.0	<0.463	102	48.3 - 128
1,1-Dichloroethene	45.0	µg/L	1	50.0	1.01	88	74.7 - 112
Methylene chloride	46.5	µg/L	1	50.0	<0.312	93	74.8 - 120
MTBE	48.2	µg/L	1	50.0	<0.318	96	73.5 - 125
trans-1,2-Dichloroethene	44.1	µg/L	1	50.0	<0.217	88	81.3 - 115
1,1-Dichloroethane	46.3	µg/L	1	50.0	0.37	92	76.8 - 122
cis-1,2-Dichloroethene	46.3	µg/L	1	50.0	<0.309	93	81 - 116
2,2-Dichloropropane	26.8	µg/L	1	50.0	<0.318	54	21.1 - 110

continued ...

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

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

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

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

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,2-Dichloroethane (EDC)	49.1	µg/L	1	50.0	<0.292	98	73.6 - 125
Chloroform	47.0	µg/L	1	50.0	0.82	92	74 - 122
1,1,1-Trichloroethane	44.7	µg/L	1	50.0	<0.257	89	73.4 - 119
1,1-Dichloropropene	41.7	µg/L	1	50.0	<0.286	83	73.8 - 119
Benzene	43.9	µg/L	1	50.0	<0.319	88	80.2 - 114
Carbon Tetrachloride	44.2	µg/L	1	50.0	<0.223	88	83.6 - 111
1,2-Dichloropropane	45.4	µg/L	1	50.0	<0.266	91	79.4 - 121
Trichloroethene (TCE)	46.0	µg/L	1	50.0	2.04	88	78.8 - 106
Dibromomethane (methylene bromide)	50.0	µg/L	1	50.0	<0.341	100	88 - 114
Bromodichloromethane	47.7	µg/L	1	50.0	<0.291	95	80.3 - 121
2-Chloroethyl vinyl ether	5 <0.293	µg/L	1	50.0	<0.293	0	79.4 - 121
cis-1,3-Dichloropropene	44.5	µg/L	1	50.0	<0.207	89	74.3 - 118
trans-1,3-Dichloropropene	46.4	µg/L	1	50.0	<0.293	93	69.2 - 121
Toluene	6 43.1	µg/L	1	50.0	<0.268	86	87.5 - 112
1,1,2-Trichloroethane	50.2	µg/L	1	50.0	<0.329	100	89.1 - 110
1,3-Dichloropropane	50.9	µg/L	1	50.0	<0.316	102	88.1 - 113
Dibromochloromethane	52.9	µg/L	1	50.0	<0.290	106	84 - 121
1,2-Dibromoethane (EDB)	53.9	µg/L	1	50.0	<0.229	108	89.1 - 111
Tetrachloroethene (PCE)	31.1	µg/L	1	50.0	<0.233	62	42.9 - 72.6
Chlorobenzene	46.2	µg/L	1	50.0	<0.276	92	75.2 - 114
1,1,1,2-Tetrachloroethane	49.1	µg/L	1	50.0	<0.226	98	87.7 - 113
Ethylbenzene	42.8	µg/L	1	50.0	<0.245	86	74.6 - 118
m,p-Xylene	86.6	µg/L	1	100	<0.517	87	72.9 - 120
Bromoform	58.5	µg/L	1	50.0	<0.175	117	79.2 - 135
Styrene	36.7	µg/L	1	50.0	<0.239	73	41.7 - 137
o-Xylene	44.7	µg/L	1	50.0	<0.247	89	74.1 - 123
1,1,2,2-Tetrachloroethane	57.6	µg/L	1	50.0	<0.223	115	80.7 - 131
2-Chlorotoluene	42.6	µg/L	1	50.0	<0.235	85	71.6 - 117
1,2,3-Trichloropropane	53.8	µg/L	1	50.0	<0.230	108	78.4 - 109
Isopropylbenzene	42.4	µg/L	1	50.0	<0.226	85	72.4 - 118
Bromobenzene	45.8	µg/L	1	50.0	<0.245	92	72.7 - 115
n-Propylbenzene	40.9	µg/L	1	50.0	<0.234	82	69.1 - 117
1,3,5-Trimethylbenzene	41.9	µg/L	1	50.0	<0.261	84	70.6 - 116
tert-Butylbenzene	41.6	µg/L	1	50.0	<0.281	83	77.1 - 113
1,2,4-Trimethylbenzene	42.2	µg/L	1	50.0	<0.285	84	76.5 - 118
1,4-Dichlorobenzene (para)	45.8	µg/L	1	50.0	<0.307	92	80.6 - 106
sec-Butylbenzene	40.3	µg/L	1	50.0	<0.312	81	74 - 113
1,3-Dichlorobenzene (meta)	45.6	µg/L	1	50.0	<0.284	91	81.4 - 109
p-Isopropyltoluene	41.1	µg/L	1	50.0	<0.244	82	74.6 - 114
4-Chlorotoluene	43.4	µg/L	1	50.0	<0.257	87	71.3 - 117
1,2-Dichlorobenzene (ortho)	47.5	µg/L	1	50.0	<0.294	95	87 - 104
n-Butylbenzene	40.3	µg/L	1	50.0	<0.339	81	65.7 - 115
1,2-Dibromo-3-chloropropane	55.2	µg/L	1	50.0	<0.780	110	45.5 - 132
1,2,3-Trichlorobenzene	44.9	µg/L	1	50.0	<0.736	90	10 - 200
1,2,4-Trichlorobenzene	42.5	µg/L	1	50.0	<0.432	85	26.5 - 139
Naphthalene	52.8	µg/L	1	50.0	<0.475	106	10 - 203
Hexachlorobutadiene	39.1	µg/L	1	50.0	<1.02	78	50.9 - 108

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

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

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromochloromethane	51.2	µg/L	1	50.0	<0.197	102	82.3 - 118	2	20
Dichlorodifluoromethane	47.4	µg/L	1	50.0	<0.672	95	24.2 - 131	13	20
Chloromethane (methyl chloride)	44.9	µg/L	1	50.0	<0.542	90	69.6 - 118	2	20
Vinyl Chloride	45.9	µg/L	1	50.0	<0.516	92	80.8 - 107	4	20
Bromomethane (methyl bromide)	45.0	µg/L	1	50.0	<0.446	90	74.8 - 126	0	20
Chloroethane	46.9	µg/L	1	50.0	<0.656	94	74.6 - 124	3	20
Trichlorofluoromethane	49.5	µg/L	1	50.0	<0.538	99	66.8 - 115	10	20
Acetone	70.6	µg/L	1	50.0	<1.10	141	15 - 80.4	9	20
Iodomethane (methyl iodide)	50.6	µg/L	1	50.0	<0.214	101	75.2 - 114	5	20
Carbon Disulfide	48.0	µg/L	1	50.0	<0.294	96	69 - 121	11	20
Acrylonitrile	52.5	µg/L	1	50.0	<0.442	105	69.6 - 135	9	20
2-Butanone (MEK)	75.4	µg/L	1	50.0	<0.420	151	28.1 - 108	7	20
4-Methyl-2-pentanone (MIBK)	83.7	µg/L	1	50.0	<0.407	167	81.5 - 117	6	20
2-Hexanone	113	µg/L	1	50.0	<0.486	226	44.6 - 122	4	20
trans 1,4-Dichloro-2-butene	53.8	µg/L	1	50.0	<0.463	108	48.3 - 128	6	20
1,1-Dichloroethene	51.0	µg/L	1	50.0	1.01	100	74.7 - 112	12	20
Methylene chloride	48.0	µg/L	1	50.0	<0.312	96	74.8 - 120	3	20
MTBE	52.6	µg/L	1	50.0	<0.318	105	73.5 - 125	9	20
trans-1,2-Dichloroethene	48.2	µg/L	1	50.0	<0.217	96	81.3 - 115	9	20
1,1-Dichloroethane	49.6	µg/L	1	50.0	0.37	98	76.8 - 122	7	20
cis-1,2-Dichloroethene	48.9	µg/L	1	50.0	<0.309	98	81 - 116	6	20
2,2-Dichloropropane	29.0	µg/L	1	50.0	<0.318	58	21.1 - 110	8	20
1,2-Dichloroethane (EDC)	49.4	µg/L	1	50.0	<0.292	99	73.6 - 125	1	20
Chloroform	49.3	µg/L	1	50.0	0.82	97	74 - 122	5	20
1,1,1-Trichloroethane	49.0	µg/L	1	50.0	<0.257	98	73.4 - 119	9	20
1,1-Dichloropropene	48.1	µg/L	1	50.0	<0.286	96	73.8 - 119	14	20
Benzene	47.9	µg/L	1	50.0	<0.319	96	80.2 - 114	9	20
Carbon Tetrachloride	49.7	µg/L	1	50.0	<0.223	99	83.6 - 111	12	20
1,2-Dichloropropane	48.2	µg/L	1	50.0	<0.266	96	79.4 - 121	6	20
Trichloroethene (TCE)	51.7	µg/L	1	50.0	2.04	99	78.8 - 106	12	20
Dibromomethane (methylene bromide)	52.0	µg/L	1	50.0	<0.341	104	88 - 114	4	20
Bromodichloromethane	50.7	µg/L	1	50.0	<0.291	101	80.3 - 121	6	20
2-Chloroethyl vinyl ether	<0.293	µg/L	1	50.0	<0.293	0	79.4 - 121	0	20
cis-1,3-Dichloropropene	47.0	µg/L	1	50.0	<0.207	94	74.3 - 118	6	20
trans-1,3-Dichloropropene	49.2	µg/L	1	50.0	<0.293	98	69.2 - 121	6	20
Toluene	48.6	µg/L	1	50.0	<0.268	97	87.5 - 112	12	20
1,1,2-Trichloroethane	51.4	µg/L	1	50.0	<0.329	103	89.1 - 110	2	20
1,3-Dichloropropane	52.3	µg/L	1	50.0	<0.316	105	88.1 - 113	3	20
Dibromochloromethane	54.8	µg/L	1	50.0	<0.290	110	84 - 121	4	20
1,2-Dibromoethane (EDB)	55.3	µg/L	1	50.0	<0.229	111	89.1 - 111	3	20
Tetrachloroethene (PCE)	34.8	µg/L	1	50.0	<0.233	70	42.9 - 72.6	11	20
Chlorobenzene	50.2	µg/L	1	50.0	<0.276	100	75.2 - 114	8	20

continued ...

⁷Matrix spike recovery out of control limits due to matrix interference. RPD within RPD limits. Use LCS/LCSD to demonstrate analysis is under control.

⁸Matrix spike recovery out of control limits due to matrix interference. RPD within RPD limits. Use LCS/LCSD to demonstrate analysis is under control. •

⁹Matrix spike recovery out of control limits due to matrix interference. RPD within RPD limits. Use LCS/LCSD to demonstrate analysis is under control. •

¹⁰Matrix spike recovery out of control limits due to matrix interference. RPD within RPD limits. Use LCS/LCSD to demonstrate analysis is under control. •

¹¹Matrix spike recovery out of control limits due to matrix interference. RPD within RPD limits. Use LCS/LCSD to demonstrate analysis is under control. •

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	51.7	µg/L	1	50.0	<0.226	103	87.7 - 113	5	20
Ethylbenzene	47.7	µg/L	1	50.0	<0.245	95	74.6 - 118	11	20
m,p-Xylene	96.0	µg/L	1	100	<0.517	96	72.9 - 120	10	20
Bromoform	61.1	µg/L	1	50.0	<0.175	122	79.2 - 135	4	20
Styrene	39.9	µg/L	1	50.0	<0.239	80	41.7 - 137	8	20
o-Xylene	48.8	µg/L	1	50.0	<0.247	98	74.1 - 123	9	20
1,1,2,2-Tetrachloroethane	60.6	µg/L	1	50.0	<0.223	121	80.7 - 131	5	20
2-Chlorotoluene	46.6	µg/L	1	50.0	<0.235	93	71.6 - 117	9	20
1,2,3-Trichloropropane	56.6	µg/L	1	50.0	<0.230	113	78.4 - 109	5	20
Isopropylbenzene	47.5	µg/L	1	50.0	<0.226	95	72.4 - 118	11	20
Bromobenzene	49.1	µg/L	1	50.0	<0.245	98	72.7 - 115	7	20
n-Propylbenzene	46.0	µg/L	1	50.0	<0.234	92	69.1 - 117	12	20
1,3,5-Trimethylbenzene	46.3	µg/L	1	50.0	<0.261	93	70.6 - 116	10	20
tert-Butylbenzene	46.8	µg/L	1	50.0	<0.281	94	77.1 - 113	12	20
1,2,4-Trimethylbenzene	46.3	µg/L	1	50.0	<0.285	93	76.5 - 118	9	20
1,4-Dichlorobenzene (para)	50.1	µg/L	1	50.0	<0.307	100	80.6 - 106	9	20
sec-Butylbenzene	45.5	µg/L	1	50.0	<0.312	91	74 - 113	12	20
1,3-Dichlorobenzene (meta)	49.7	µg/L	1	50.0	<0.284	99	81.4 - 109	9	20
p-Isopropyltoluene	46.1	µg/L	1	50.0	<0.244	92	74.6 - 114	12	20
4-Chlorotoluene	47.3	µg/L	1	50.0	<0.257	95	71.3 - 117	9	20
1,2-Dichlorobenzene (ortho)	51.3	µg/L	1	50.0	<0.294	103	87 - 104	8	20
n-Butylbenzene	45.8	µg/L	1	50.0	<0.339	92	65.7 - 115	13	20
1,2-Dibromo-3-chloropropane	60.7	µg/L	1	50.0	<0.780	121	45.5 - 132	10	20
1,2,3-Trichlorobenzene	52.6	µg/L	1	50.0	<0.736	105	10 - 200	16	20
1,2,4-Trichlorobenzene	48.5	µg/L	1	50.0	<0.432	97	26.5 - 139	13	20
Naphthalene	59.7	µg/L	1	50.0	<0.475	119	10 - 203	12	20
Hexachlorobutadiene	45.6	µg/L	1	50.0	<1.02	91	50.9 - 108	15	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	49.8	49.9	µg/L	1	50	100	100	91.5 - 112
Toluene-d8	48.5	48.1	µg/L	1	50	97	96	90.6 - 105
4-Bromofluorobenzene (4-BFB)	50.1	49.7	µg/L	1	50	100	99	88.7 - 112

Standard (CCV-1)

QC Batch: 47115

Date Analyzed: 2008-04-03

Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromochloromethane		µg/L	50.0	48.4	97	70 - 130	2008-04-03
Dichlorodifluoromethane		µg/L	50.0	49.5	99	70 - 130	2008-04-03
Chloromethane (methyl chloride)		µg/L	50.0	46.5	93	70 - 130	2008-04-03
Vinyl Chloride		µg/L	50.0	48.7	97	80 - 120	2008-04-03
Bromomethane (methyl bromide)		µg/L	50.0	48.9	98	70 - 130	2008-04-03
Chloroethane		µg/L	50.0	49.8	100	70 - 130	2008-04-03

continued ...

¹²MSD analyte out of range. MS/MSD has a RPD within limits. Therefore, MS shows extraction occurred properly.

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Trichlorofluoromethane		µg/L	50.0	50.4	101	70 - 130	2008-04-03
Acetone		µg/L	50.0	47.8	96	70 - 130	2008-04-03
Iodomethane (methyl iodide)		µg/L	50.0	49.3	99	70 - 130	2008-04-03
Carbon Disulfide		µg/L	50.0	49.6	99	70 - 130	2008-04-03
Acrylonitrile		µg/L	50.0	46.6	93	70 - 130	2008-04-03
2-Butanone (MEK)		µg/L	50.0	53.0	106	70 - 130	2008-04-03
4-Methyl-2-pentanone (MIBK)		µg/L	50.0	49.5	99	70 - 130	2008-04-03
2-Hexanone		µg/L	50.0	57.2	114	70 - 130	2008-04-03
trans 1,4-Dichloro-2-butene		µg/L	50.0	50.0	100	70 - 130	2008-04-03
1,1-Dichloroethene		µg/L	50.0	48.6	97	80 - 120	2008-04-03
Methylene chloride		µg/L	50.0	46.8	94	70 - 130	2008-04-03
MTBE		µg/L	50.0	48.7	97	70 - 130	2008-04-03
trans-1,2-Dichloroethene		µg/L	50.0	47.8	96	70 - 130	2008-04-03
1,1-Dichloroethane		µg/L	50.0	48.7	97	70 - 130	2008-04-03
cis-1,2-Dichloroethene		µg/L	50.0	48.3	97	70 - 130	2008-04-03
2,2-Dichloropropane		µg/L	50.0	44.9	90	70 - 130	2008-04-03
1,2-Dichloroethane (EDC)		µg/L	50.0	47.2	94	70 - 130	2008-04-03
Chloroform		µg/L	50.0	47.7	95	80 - 120	2008-04-03
1,1,1-Trichloroethane		µg/L	50.0	47.8	96	70 - 130	2008-04-03
1,1-Dichloropropene		µg/L	50.0	48.0	96	70 - 130	2008-04-03
Benzene		µg/L	50.0	47.5	95	70 - 130	2008-04-03
Carbon Tetrachloride		µg/L	50.0	47.5	95	70 - 130	2008-04-03
1,2-Dichloropropane		µg/L	50.0	48.4	97	80 - 120	2008-04-03
Trichloroethene (TCE)		µg/L	50.0	49.3	99	70 - 130	2008-04-03
Dibromomethane (methylene bromide)		µg/L	50.0	48.3	97	70 - 130	2008-04-03
Bromodichloromethane		µg/L	50.0	48.6	97	70 - 130	2008-04-03
2-Chloroethyl vinyl ether		µg/L	50.0	49.9	100	70 - 130	2008-04-03
cis-1,3-Dichloropropene		µg/L	50.0	49.2	98	70 - 130	2008-04-03
trans-1,3-Dichloropropene		µg/L	50.0	50.0	100	70 - 130	2008-04-03
Toluene		µg/L	50.0	47.4	95	80 - 120	2008-04-03
1,1,2-Trichloroethane		µg/L	50.0	48.2	96	70 - 130	2008-04-03
1,3-Dichloropropane		µg/L	50.0	48.0	96	70 - 130	2008-04-03
Dibromochloromethane		µg/L	50.0	50.0	100	70 - 130	2008-04-03
1,2-Dibromoethane (EDB)		µg/L	50.0	49.6	99	70 - 130	2008-04-03
Tetrachloroethene (PCE)		µg/L	50.0	54.4	109	70 - 130	2008-04-03
Chlorobenzene		µg/L	50.0	48.1	96	80 - 120	2008-04-03
1,1,1,2-Tetrachloroethane		µg/L	50.0	48.6	97	70 - 130	2008-04-03
Ethylbenzene		µg/L	50.0	47.3	95	80 - 120	2008-04-03
m,p-Xylene		µg/L	100	94.6	95	70 - 130	2008-04-03
Bromoform		µg/L	50.0	52.1	104	70 - 130	2008-04-03
Styrene		µg/L	50.0	46.8	94	70 - 130	2008-04-03
o-Xylene		µg/L	50.0	47.5	95	70 - 130	2008-04-03
1,1,2,2-Tetrachloroethane		µg/L	50.0	48.4	97	70 - 130	2008-04-03
2-Chlorotoluene		µg/L	50.0	46.5	93	70 - 130	2008-04-03
1,2,3-Trichloropropane		µg/L	50.0	49.7	99	70 - 130	2008-04-03
Isopropylbenzene		µg/L	50.0	47.3	95	70 - 130	2008-04-03
Bromobenzene		µg/L	50.0	47.1	94	70 - 130	2008-04-03
n-Propylbenzene		µg/L	50.0	47.0	94	70 - 130	2008-04-03
1,3,5-Trimethylbenzene		µg/L	50.0	46.8	94	70 - 130	2008-04-03

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
tert-Butylbenzene		µg/L	50.0	47.6	95	70 - 130	2008-04-03
1,2,4-Trimethylbenzene		µg/L	50.0	47.2	94	70 - 130	2008-04-03
1,4-Dichlorobenzene (para)		µg/L	50.0	48.6	97	70 - 130	2008-04-03
sec-Butylbenzene		µg/L	50.0	47.6	95	70 - 130	2008-04-03
1,3-Dichlorobenzene (meta)		µg/L	50.0	48.9	98	70 - 130	2008-04-03
p-Isopropyltoluene		µg/L	50.0	48.4	97	70 - 130	2008-04-03
4-Chlorotoluene		µg/L	50.0	47.3	95	70 - 130	2008-04-03
1,2-Dichlorobenzene (ortho)		µg/L	50.0	49.8	100	70 - 130	2008-04-03
n-Butylbenzene		µg/L	50.0	50.1	100	70 - 130	2008-04-03
1,2-Dibromo-3-chloropropane		µg/L	50.0	46.5	93	70 - 130	2008-04-03
1,2,3-Trichlorobenzene		µg/L	50.0	48.8	98	70 - 130	2008-04-03
1,2,4-Trichlorobenzene		µg/L	50.0	48.0	96	70 - 130	2008-04-03
Naphthalene		µg/L	50.0	48.1	96	70 - 130	2008-04-03
Hexachlorobutadiene		µg/L	50.0	49.5	99	70 - 130	2008-04-03

Standard (CCV-1)

QC Batch: 47137

Date Analyzed: 2008-04-04

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	61.4	102	80 - 120	2008-04-04
1,4-Dichlorobenzene (para)		mg/L	60.0	59.8	100	80 - 120	2008-04-04
2-Nitrophenol		mg/L	60.0	66.4	111	80 - 120	2008-04-04
2,4-Dichlorophenol		mg/L	60.0	63.1	105	80 - 120	2008-04-04
Hexachlorobutadiene		mg/L	60.0	63.6	106	80 - 120	2008-04-04
4-Chloro-3-methylphenol		mg/L	60.0	48.8	81	80 - 120	2008-04-04
2,4,6-Trichlorophenol		mg/L	60.0	69.3	116	80 - 120	2008-04-04
Acenaphthene		mg/L	60.0	55.3	92	80 - 120	2008-04-04
Diphenylamine		mg/L	60.0	56.2	94	80 - 120	2008-04-04
Pentachlorophenol		mg/L	60.0	51.4	86	80 - 120	2008-04-04
Fluoranthene		mg/L	60.0	68.6	114	80 - 120	2008-04-04
Di-n-octylphthalate		mg/L	60.0	49.6	83	80 - 120	2008-04-04
Benzo(a)pyrene		mg/L	60.0	62.1	104	80 - 120	2008-04-04

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		56.9	mg/L	1	60.0	95	80 - 120
Phenol-d5		62.1	mg/L	1	60.0	104	80 - 120
Nitrobenzene-d5		67.3	mg/L	1	60.0	112	80 - 120
2-Fluorobiphenyl	13	73.3	mg/L	1	60.0	122	80 - 120
2,4,6-Tribromophenol		69.2	mg/L	1	60.0	115	80 - 120
Terphenyl-d14		65.8	mg/L	1	60.0	110	80 - 120

¹³2-Fluorobiphenyl outside of control limits on CCV(ICV). CCV(ICV) component average is 103% which is within acceptable range. This is acceptable by Method 8000.

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Analytical and Quality Control Report

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Report Date: June 27, 2008

Work Order: 8062018



Project Location: Lovington, NM
Project Name: C.S. Cayler
Project Number: PLAINS044SPL
SRS #: 2002-10250

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
164182	MW-6	water	2008-06-19	14:55	2008-06-20
164183	MW-9	water	2008-06-19	14:34	2008-06-20
164184	MW-10	water	2008-06-19	14:31	2008-06-20
164185	MW-11	water	2008-06-19	14:27	2008-06-20
164186	MW-12	water	2008-06-19	14:45	2008-06-20
164187	MW-13	water	2008-06-19	14:50	2008-06-20
164188	MW-14	water	2008-06-19	14:57	2008-06-20
164189	MW-15	water	2008-06-19	15:05	2008-06-20
164190	MW-16	water	2008-06-19	15:07	2008-06-20
164191	MW-17	water	2008-06-19	14:40	2008-06-20
164192	MW-18	water	2008-06-19	14:18	2008-06-20

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 37 pages and shall not be reproduced except in its entirety, without written approval of

TraceAnalysis, Inc.

Blair Leftwich

Dr. Blair Leftwich, Director

Certifications

Lubbock - NELAP T104704219-08-TX

El Paso - NELAP T104704221-08-TX

Standard Flags

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

Case Narrative

Samples for project C.S. Cayler were received by TraceAnalysis, Inc. on 2008-06-20 and assigned to work order 8062018. Samples for work order 8062018 were received intact without headspace and at a temperature of 4.0 deg C.

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

Test	Method
Ag, Total	S 6010B
Alkalinity	SM 2320B
Al, Total	S 6010B
As, Total	S 6010B
Ba, Total	S 6010B
BTEX	S 8021B
B, Total	S 6010B
Ca, Dissolved	S 6010B
Cd, Total	S 6010B
Chloride (IC)	E 300.0
Co, Total	S 6010B
Cr, Total	S 6010B
Cu, Total	S 6010B
Fe, Total	S 6010B
Fluoride (IC)	E 300.0
Hg, Total	S 7470A
K, Dissolved	S 6010B
Mg, Dissolved	S 6010B
Mn, Total	S 6010B
Mo, Total	S 6010B
Na, Dissolved	S 6010B
Ni, Total	S 6010B
NO3 (IC)	E 300.0
Pb, Total	S 6010B
PO4 (IC)	E 300.0
Se, Total	S 6010B
SO4 (IC)	E 300.0
Zn, Total	S 6010B

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 8062018 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

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Analytical Report

Sample: 164182 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.198	mg/L	1	0.00100
Toluene		0.0293	mg/L	1	0.00100
Ethylbenzene		0.00120	mg/L	1	0.00100
Xylene		0.0139	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0789	mg/L	1	0.100	79	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0792	mg/L	1	0.100	79	52 - 124.1

Sample: 164183 - MW-9

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0124	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00150	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0769	mg/L	1	0.100	77	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0769	mg/L	1	0.100	77	52 - 124.1

Sample: 164184 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00470	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00210	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0774	mg/L	1	0.100	77	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0784	mg/L	1	0.100	78	52 - 124.1

Sample: 164185 - MW-11

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0775	mg/L	1	0.100	78	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0805	mg/L	1	0.100	80	52 - 124.1

Sample: 164186 - MW-12

Laboratory: Midland
Analysis: BTEX
QC Batch: 49700
Prep Batch: 42680

Analytical Method: S 8021B
Date Analyzed: 2008-06-24
Sample Preparation: 2008-06-24

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		30.7	mg/L	200	0.00100
Toluene		4.95	mg/L	200	0.00100
Ethylbenzene		1.27	mg/L	200	0.00100
Xylene		1.99	mg/L	200	0.00100

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		19.2	mg/L	200	20.0	96	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		19.2	mg/L	200	20.0	96	52 - 124.1

Sample: 164187 - MW-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 49700
Prep Batch: 42680

Analytical Method: S 8021B
Date Analyzed: 2008-06-24
Sample Preparation: 2008-06-24

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0179	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00200	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0964	mg/L	1	0.100	96	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0969	mg/L	1	0.100	97	52 - 124.1

Sample: 164188 - MW-14

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00650	mg/L	1	0.00100
Toluene		0.00150	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00140	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0747	mg/L	1	0.100	75	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0751	mg/L	1	0.100	75	52 - 124.1

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Sample: 164189 - MW-15

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00850	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)		0.0772	mg/L	1	0.100	77	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0769	mg/L	1	0.100	77	52 - 124.1

Sample: 164190 - MW-16

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.129	mg/L	1	0.00100
Toluene		0.00710	mg/L	1	0.00100
Ethylbenzene		0.00220	mg/L	1	0.00100
Xylene		0.00850	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0747	mg/L	1	0.100	75	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0753	mg/L	1	0.100	75	52 - 124.1

Sample: 164191 - MW-17

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00950	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00150	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0759	mg/L	1	0.100	76	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0758	mg/L	1	0.100	76	52 - 124.1

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Al, Total
QC Batch: 49710
Prep Batch: 42662

Analytical Method: S 6010B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Aluminum		2.53	mg/L	1	0.0500

Sample: 164192 - MW-18

Laboratory: Midland
Analysis: Alkalinity
QC Batch: 49670
Prep Batch: 42658

Analytical Method: SM 2320B
Date Analyzed: 2008-06-23
Sample Preparation: 2008-06-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		376	mg/L as CaCo3	1	4.00
Total Alkalinity		376	mg/L as CaCo3	1	4.00

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: B, Total
QC Batch: 49710
Prep Batch: 42662

Analytical Method: S 6010B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

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Parameter	Flag	RL Result	Units	Dilution	RL
Total Boron		0.265	mg/L	1	0.00500

Sample: 164192 - MW-18

Laboratory: Midland
Analysis: BTEX
QC Batch: 49663
Prep Batch: 42588

Analytical Method: S 8021B
Date Analyzed: 2008-06-22
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00240	mg/L	1	0.00100
Toluene		0.00190	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00450	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0743	mg/L	1	0.100	74	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0748	mg/L	1	0.100	75	52 - 124.1

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Cations
QC Batch: 49789
Prep Batch: 42734

Analytical Method: S 6010B
Date Analyzed: 2008-06-26
Sample Preparation: 2008-06-26

Prep Method: S 3005A
Analyzed By: TP
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		87.8	mg/L	1	1.00
Dissolved Potassium	B	4.16	mg/L	1	1.00
Dissolved Magnesium		11.0	mg/L	1	1.00
Dissolved Sodium		96.5	mg/L	1	1.00

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Co, Total
QC Batch: 49710
Prep Batch: 42662

Analytical Method: S 6010B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Cobalt		<0.00200	mg/L	1	0.00200

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Cu, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 Sample Preparation: 2008-06-25 Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Copper		<0.00500	mg/L	1	0.00500

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Fe, Total Analytical Method: S 6010B Prep Method: S 3010A
QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 Sample Preparation: 2008-06-25 Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		1.34	mg/L	1	0.0100

Sample: 164192 - MW-18

Laboratory: Midland
Analysis: Ion Chromatography Analytical Method: E 300.0 Prep Method: N/A
QC Batch: 49570 Date Analyzed: 2008-06-20 Analyzed By: AR
Prep Batch: 42571 Sample Preparation: 2008-06-20 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		45.5	mg/L	5	0.500
Fluoride		2.26	mg/L	5	0.200
Nitrate-N		2.07	mg/L	5	0.200
PO4-P		<2.50	mg/L	5	0.500
Sulfate		48.9	mg/L	5	0.500

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Sample: 164192 - MW-18

Laboratory:	Lubbock		
Analysis:	Mn, Total	Analytical Method:	S 6010B
QC Batch:	49710	Date Analyzed:	2008-06-25
Prep Batch:	42662	Sample Preparation:	2008-06-25
		Prep Method:	S 3010A
		Analyzed By:	RR
		Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		0.0430	mg/L	1	0.00250

Sample: 164192 - MW-18

Laboratory:	Lubbock		
Analysis:	Mo, Total	Analytical Method:	S 6010B
QC Batch:	49710	Date Analyzed:	2008-06-25
Prep Batch:	42662	Sample Preparation:	2008-06-25
		Prep Method:	S 3010A
		Analyzed By:	RR
		Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Molybdenum		<0.0100	mg/L	1	0.0100

Sample: 164192 - MW-18

Laboratory:	Lubbock		
Analysis:	Ni, Total	Analytical Method:	S 6010B
QC Batch:	49710	Date Analyzed:	2008-06-25
Prep Batch:	42662	Sample Preparation:	2008-06-25
		Prep Method:	S 3010A
		Analyzed By:	RR
		Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Nickel		<0.00500	mg/L	1	0.00500

Sample: 164192 - MW-18

Laboratory:	Lubbock		
Analysis:	Total 8 Metals	Analytical Method:	S 6010B
QC Batch:	49710	Date Analyzed:	2008-06-25
Prep Batch:	42662	Sample Preparation:	2008-06-25
		Prep Method:	S 3010A
		Analyzed By:	RR
		Prepared By:	KV
Laboratory:	Lubbock		
Analysis:	Total 8 Metals	Analytical Method:	S 7470A
QC Batch:	49781	Date Analyzed:	2008-06-26
Prep Batch:	42727	Sample Preparation:	2008-06-26
		Prep Method:	N/A
		Analyzed By:	TP
		Prepared By:	TP

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Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.00500	mg/L	1	0.00500
Total Arsenic		<0.00500	mg/L	1	0.00500
Total Barium		0.176	mg/L	1	0.00100
Total Cadmium		<0.00100	mg/L	1	0.00100
Total Chromium		<0.00100	mg/L	1	0.00100
Total Mercury		<0.000200	mg/L	1	0.000200
Total Lead		<0.00500	mg/L	1	0.00500
Total Selenium		<0.0100	mg/L	1	0.0100

Sample: 164192 - MW-18

Laboratory: Lubbock
Analysis: Zn, Total
QC Batch: 49710
Prep Batch: 42662

Analytical Method: S 6010B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Zinc		0.0330	mg/L	1	0.00700

Method Blank (1) QC Batch: 49570

QC Batch: 49570
Prep Batch: 42571

Date Analyzed: 2008-06-20
QC Preparation: 2008-06-20

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.16	mg/L	0.5
Fluoride		0.617	mg/L	0.2
Nitrate-N		<0.0106	mg/L	0.2
PO4-P		<0.0618	mg/L	0.5
Sulfate		<0.0485	mg/L	0.5

Method Blank (1) QC Batch: 49663

QC Batch: 49663
Prep Batch: 42588

Date Analyzed: 2008-06-22
QC Preparation: 2008-06-20

Analyzed By: DC
Prepared By: DC

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0762	mg/L	1	0.100	76	44.6 - 137.4
4-Bromofluorobenzene (4-BFB)		0.0772	mg/L	1	0.100	77	37.1 - 130.9

Method Blank (1) QC Batch: 49670

QC Batch: 49670 Date Analyzed: 2008-06-23 Analyzed By: AR
Prep Batch: 42658 QC Preparation: 2008-06-23 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 49700

QC Batch: 49700 Date Analyzed: 2008-06-24 Analyzed By: DC
Prep Batch: 42680 QC Preparation: 2008-06-24 Prepared By: DC

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0993	mg/L	1	0.100	99	44.6 - 137.4
4-Bromofluorobenzene (4-BFB)		0.0984	mg/L	1	0.100	98	37.1 - 130.9

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Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Aluminum		<0.0228	mg/L	0.05

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Boron		<0.00440	mg/L	0.005

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Cobalt		<0.00220	mg/L	0.002

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Copper		<0.00140	mg/L	0.005

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

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Parameter	Flag	MDL Result	Units	RL
Total Iron		<0.00690	mg/L	0.01

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Manganese		<0.000600	mg/L	0.0025

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Molybdenum		<0.00790	mg/L	0.01

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Nickel		<0.00190	mg/L	0.005

Method Blank (1) QC Batch: 49710

QC Batch: 49710 Date Analyzed: 2008-06-25 Analyzed By: RR
Prep Batch: 42662 QC Preparation: 2008-06-24 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Zinc		<0.00710	mg/L	0.007

Method Blank (1) QC Batch: 49710

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Silver		<0.00210	mg/L	0.005
Total Arsenic		<0.00430	mg/L	0.005
Total Barium		<0.00170	mg/L	0.001
Total Cadmium		<0.00140	mg/L	0.001
Total Chromium		<0.000900	mg/L	0.001
Total Lead		<0.00320	mg/L	0.005
Total Selenium		<0.0131	mg/L	0.01

Method Blank (1) QC Batch: 49781

QC Batch: 49781
Prep Batch: 42727

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: TP

Parameter	Flag	MDL Result	Units	RL
Total Mercury		<0.0000251	mg/L	0.0002

Method Blank (1) QC Batch: 49789

QC Batch: 49789
Prep Batch: 42734

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.175	mg/L	1
Dissolved Potassium		1.18	mg/L	1
Dissolved Magnesium		0.195	mg/L	1
Dissolved Sodium		0.385	mg/L	1

Duplicates (1)

QC Batch: 49670
Prep Batch: 42658

Date Analyzed: 2008-06-23
QC Preparation: 2008-06-23

Analyzed By: AR
Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	46.0	<1.00	mg/L as CaCo3	1	200	20
Bicarbonate Alkalinity	170	238	mg/L as CaCo3	1	33	20
Total Alkalinity	216	238	mg/L as CaCo3	1	10	20

Laboratory Control Spike (LCS-1)

QC Batch: 49570
Prep Batch: 42571

Date Analyzed: 2008-06-20
QC Preparation: 2008-06-20

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12.1	mg/L	1	12.5	<0.0181	97	90 - 110
Fluoride	2.24	mg/L	1	2.50	<0.0119	90	90 - 110
Nitrate-N	2.40	mg/L	1	2.50	<0.0106	96	90 - 110
PO4-P	11.8	mg/L	1	12.5	<0.0618	94	90 - 110
Sulfate	12.2	mg/L	1	12.5	<0.0485	98	90 - 110

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12.5	mg/L	1	12.5	<0.0181	100	90 - 110	3	
Fluoride	2.24	mg/L	1	2.50	<0.0119	90	90 - 110	0	
Nitrate-N	2.44	mg/L	1	2.50	<0.0106	98	90 - 110	2	
PO4-P	11.8	mg/L	1	12.5	<0.0618	94	90 - 110	0	
Sulfate	12.2	mg/L	1	12.5	<0.0485	98	90 - 110	0	

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

Laboratory Control Spike (LCS-1)

QC Batch: 49663
Prep Batch: 42588

Date Analyzed: 2008-06-22
QC Preparation: 2008-06-20

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0863	mg/L	1	0.100	<0.000200	86	71.7 - 120.5
Toluene	0.0854	mg/L	1	0.100	<0.000200	85	75.4 - 118.8
Ethylbenzene	0.0853	mg/L	1	0.100	<0.000200	85	73.5 - 118
Xylene	0.256	mg/L	1	0.300	<0.000300	85	72.9 - 118.2

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0883	mg/L	1	0.100	<0.000200	88	71.7 - 120.5	2	20
Toluene	0.0873	mg/L	1	0.100	<0.000200	87	75.4 - 118.8	2	20
Ethylbenzene	0.0861	mg/L	1	0.100	<0.000200	86	73.5 - 118	1	20
Xylene	0.259	mg/L	1	0.300	<0.000300	86	72.9 - 118.2	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0772	0.0763	mg/L	1	0.100	77	76	38.2 - 131.6
4-Bromofluorobenzene (4-BFB)	0.0785	0.0776	mg/L	1	0.100	78	78	43.9 - 132.4

Laboratory Control Spike (LCS-1)

QC Batch: 49700
Prep Batch: 42680

Date Analyzed: 2008-06-24
QC Preparation: 2008-06-24

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.102	mg/L	1	0.100	<0.000200	102	71.7 - 120.5
Toluene	0.0995	mg/L	1	0.100	<0.000200	100	75.4 - 118.8
Ethylbenzene	0.0948	mg/L	1	0.100	<0.000200	95	73.5 - 118
Xylene	0.285	mg/L	1	0.300	<0.000300	95	72.9 - 118.2

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.101	mg/L	1	0.100	<0.000200	101	71.7 - 120.5	1	20
Toluene	0.101	mg/L	1	0.100	<0.000200	101	75.4 - 118.8	2	20
Ethylbenzene	0.101	mg/L	1	0.100	<0.000200	101	73.5 - 118	6	20
Xylene	0.302	mg/L	1	0.300	<0.000300	101	72.9 - 118.2	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0986	0.101	mg/L	1	0.100	99	101	38.2 - 131.6
4-Bromofluorobenzene (4-BFB)	0.0986	0.101	mg/L	1	0.100	99	101	43.9 - 132.4

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	0.878	mg/L	1	1.00	<0.0228	88	85 - 106

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	0.871	mg/L	1	1.00	<0.0228	87	85 - 106	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Boron	0.0510	mg/L	1	0.0500	<0.00440	102	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Boron	0.0510	mg/L	1	0.0500	<0.00440	102	85 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.235	mg/L	1	0.250	<0.00220	94	88.6 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.234	mg/L	1	0.250	<0.00220	94	88.6 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.116	mg/L	1	0.125	<0.00140	93	85.6 - 113

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.115	mg/L	1	0.125	<0.00140	92	85.6 - 113	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.515	mg/L	1	0.500	<0.00690	103	86.9 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	0.507	mg/L	1	0.500	<0.00690	101	86.9 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.235	mg/L	1	0.250	<0.000600	94	85.4 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.239	mg/L	1	0.250	<0.000600	96	85.4 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.521	mg/L	1	0.500	<0.00790	104	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	0.530	mg/L	1	0.500	<0.00790	106	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.253	mg/L	1	0.250	<0.00190	101	86.4 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	0.255	mg/L	1	0.250	<0.00190	102	86.4 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.262	mg/L	1	0.250	<0.00710	105	85 - 113

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.267	mg/L	1	0.250	<0.00710	107	85 - 113	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.118	mg/L	1	0.125	<0.00210	94	86.7 - 113
Total Arsenic	0.461	mg/L	1	0.500	<0.00430	92	85 - 112
Total Barium	0.994	mg/L	1	1.00	<0.00170	99	86.9 - 115
Total Cadmium	0.266	mg/L	1	0.250	<0.00140	106	85.2 - 115
Total Chromium	0.102	mg/L	1	0.100	<0.000900	102	86 - 115
Total Lead	0.499	mg/L	1	0.500	<0.00320	100	87.9 - 112
Total Selenium	0.445	mg/L	1	0.500	<0.0131	89	85 - 109

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.119	mg/L	1	0.125	<0.00210	95	86.7 - 113	1	20
Total Arsenic	0.478	mg/L	1	0.500	<0.00430	96	85 - 112	4	20
Total Barium	1.00	mg/L	1	1.00	<0.00170	100	86.9 - 115	1	20
Total Cadmium	0.267	mg/L	1	0.250	<0.00140	107	85.2 - 115	0	20
Total Chromium	0.104	mg/L	1	0.100	<0.000900	104	86 - 115	2	20
Total Lead	0.501	mg/L	1	0.500	<0.00320	100	87.9 - 112	0	20
Total Selenium	0.445	mg/L	1	0.500	<0.0131	89	85 - 109	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49781
Prep Batch: 42727

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000999	mg/L	1	0.00100	<0.0000251	100	89.6 - 111

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.000983	mg/L	1	0.00100	<0.0000251	98	89.6 - 111	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 49789
Prep Batch: 42734

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: KV

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	49.6	mg/L	1	50.0	<0.175	99	89.5 - 114
Dissolved Potassium	48.6	mg/L	1	50.0	1.18	95	87.9 - 115
Dissolved Magnesium	49.4	mg/L	1	50.0	0.195	98	85.7 - 112
Dissolved Sodium	48.3	mg/L	1	50.0	0.385	96	90 - 114

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	49.6	mg/L	1	50.0	<0.175	99	89.5 - 114	0	20
Dissolved Potassium	49.8	mg/L	1	50.0	1.18	97	87.9 - 115	2	20
Dissolved Magnesium	49.4	mg/L	1	50.0	0.195	98	85.7 - 112	0	20
Dissolved Sodium	49.1	mg/L	1	50.0	0.385	97	90 - 114	2	20

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

Matrix Spike (MS-1) Spiked Sample: 164192

QC Batch: 49570
Prep Batch: 42571

Date Analyzed: 2008-06-20
QC Preparation: 2008-06-20

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	109	mg/L	5	62.5	45.46	102	90 - 110
Fluoride	14.0	mg/L	5	12.5	2.255	94	90 - 110
Nitrate-N	13.6	mg/L	5	12.5	2.0743	92	90 - 110
PO4-P	66.0	mg/L	5	62.5	<0.309	106	90 - 110
Sulfate	110	mg/L	5	62.5	48.8775	98	90 - 110

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
Chloride	109	mg/L	5	62.5	45.46	102	90 - 110	0	
Fluoride	13.9	mg/L	5	12.5	2.255	93	90 - 110	1	
Nitrate-N	13.7	mg/L	5	12.5	2.0743	93	90 - 110	1	
PO4-P	66.7	mg/L	5	62.5	<0.309	107	90 - 110	1	
Sulfate	110	mg/L	5	62.5	48.8775	98	90 - 110	0	

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

Matrix Spike (MS-1) Spiked Sample: 164025

QC Batch: 49663
Prep Batch: 42588

Date Analyzed: 2008-06-22
QC Preparation: 2008-06-20

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.656	mg/L	5	0.500	0.2589	79	10 - 160.8
Toluene	0.392	mg/L	5	0.500	<0.00100	78	10 - 160.7
Ethylbenzene	0.469	mg/L	5	0.500	0.0761	78	10 - 158.3
Xylene	1.24	mg/L	5	1.50	0.0721	78	10 - 158

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.657	mg/L	5	0.500	0.2589	80	10 - 160.8	0	20
Toluene	0.393	mg/L	5	0.500	<0.00100	79	10 - 160.7	0	20
Ethylbenzene	0.470	mg/L	5	0.500	0.0761	79	10 - 158.3	0	20
Xylene	1.24	mg/L	5	1.50	0.0721	78	10 - 158	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.388	0.391	mg/L	5	0.5	78	78	33.1 - 132.5
4-Bromofluorobenzene (4-BFB)	0.404	0.409	mg/L	5	0.5	81	82	37.5 - 136

Matrix Spike (MS-1) Spiked Sample: 164186

QC Batch: 49700
Prep Batch: 42680

Date Analyzed: 2008-06-24
QC Preparation: 2008-06-24

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	48.8	mg/L	200	20.0	30.6712	91	10 - 160.8
Toluene	23.0	mg/L	200	20.0	4.9516	90	10 - 160.7
Ethylbenzene	19.2	mg/L	200	20.0	1.2699	90	10 - 158.3
Xylene	55.9	mg/L	200	60.0	1.9903	90	10 - 158

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	47.5	mg/L	200	20.0	30.6712	84	10 - 160.8	3	20
Toluene	22.5	mg/L	200	20.0	4.9516	88	10 - 160.7	2	20
Ethylbenzene	18.9	mg/L	200	20.0	1.2699	88	10 - 158.3	2	20
Xylene	55.0	mg/L	200	60.0	1.9903	88	10 - 158	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)	19.1	19.3	mg/L	200	20	96	96	33.1 - 132.5
4-Bromofluorobenzene (4-BFB)	19.4	19.5	mg/L	200	20	97	98	37.5 - 136

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	0.946	mg/L	1	1.00	<0.0228	95	75 - 117

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
Total Aluminum	0.951	mg/L	1	1.00	<0.0228	95	75 - 117	0	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Boron	0.0540	mg/L	1	0.0500	<0.00440	108	75 - 125

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
Total Boron	0.0550	mg/L	1	0.0500	<0.00440	110	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.252	mg/L	1	0.250	<0.00220	101	75 - 116

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
Total Cobalt	0.252	mg/L	1	0.250	<0.00220	101	75 - 116	0	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.121	mg/L	1	0.125	<0.00140	97	81 - 112

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
Total Copper	0.129	mg/L	1	0.125	<0.00140	103	81 - 112	6	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.455	mg/L	1	0.500	<0.00690	91	75 - 125

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
Total Iron	0.485	mg/L	1	0.500	<0.00690	97	75 - 125	6	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.234	mg/L	1	0.250	<0.000600	94	75 - 111

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
Total Manganese	0.233	mg/L	1	0.250	<0.000600	93	75 - 111	0	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.498	mg/L	1	0.500	<0.00790	100	75 - 125

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
Total Molybdenum	0.501	mg/L	1	0.500	<0.00790	100	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.253	mg/L	1	0.250	<0.00190	101	75 - 121

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
Total Nickel	0.251	mg/L	1	0.250	<0.00190	100	75 - 121	1	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.251	mg/L	1	0.250	<0.00710	100	76.9 - 111

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
Total Zinc	0.252	mg/L	1	0.250	<0.00710	101	76.9 - 111	0	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49710
Prep Batch: 42662

Date Analyzed: 2008-06-25
QC Preparation: 2008-06-24

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.119	mg/L	1	0.125	<0.00210	95	76.1 - 115
Total Arsenic	0.469	mg/L	1	0.500	<0.00430	94	81.6 - 116
Total Barium	1.04	mg/L	1	1.00	0.048	99	75 - 123
Total Cadmium	0.252	mg/L	1	0.250	<0.00140	101	75 - 115
Total Chromium	0.0990	mg/L	1	0.100	<0.000900	99	75 - 125
Total Lead	0.480	mg/L	1	0.500	<0.00320	96	82.6 - 114
Total Selenium	0.441	mg/L	1	0.500	<0.0131	88	75 - 106

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
Total Silver	0.120	mg/L	1	0.125	<0.00210	96	76.1 - 115	1	20
Total Arsenic	0.469	mg/L	1	0.500	<0.00430	94	81.6 - 116	0	20
Total Barium	1.03	mg/L	1	1.00	0.048	98	75 - 123	1	20
Total Cadmium	0.251	mg/L	1	0.250	<0.00140	100	75 - 115	0	20
Total Chromium	0.0980	mg/L	1	0.100	<0.000900	98	75 - 125	1	20
Total Lead	0.486	mg/L	1	0.500	<0.00320	97	82.6 - 114	1	20
Total Selenium	0.430	mg/L	1	0.500	<0.0131	86	75 - 106	2	20

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

Matrix Spike (MS-1) Spiked Sample: 164378

QC Batch: 49781
Prep Batch: 42727

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: TP

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000994	mg/L	1	0.00100	<0.0000251	99	75 - 125

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
Total Mercury	0.00101	mg/L	1	0.00100	<0.0000251	101	75 - 125	2	20

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

Matrix Spike (MS-1) Spiked Sample: 164329

QC Batch: 49789
Prep Batch: 42734

Date Analyzed: 2008-06-26
QC Preparation: 2008-06-26

Analyzed By: TP
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	156	mg/L	1	50.0	107	98	75 - 125
Dissolved Potassium	52.6	mg/L	1	50.0	5.01	95	79.4 - 125
Dissolved Magnesium	65.7	mg/L	1	50.0	19.1	93	75 - 119
Dissolved Sodium	108	mg/L	1	50.0	61.3	93	75 - 125

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
Dissolved Calcium	158	mg/L	1	50.0	107	102	75 - 125	1	20
Dissolved Potassium	53.7	mg/L	1	50.0	5.01	97	79.4 - 125	2	20
Dissolved Magnesium	66.4	mg/L	1	50.0	19.1	95	75 - 119	1	20
Dissolved Sodium	108	mg/L	1	50.0	61.3	93	75 - 125	0	20

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

Standard (ICV-1)

QC Batch: 49570

Date Analyzed: 2008-06-20

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.2	90	90 - 110	2008-06-20
Fluoride		mg/L	2.50	2.44	98	90 - 110	2008-06-20
Nitrate-N		mg/L	2.50	2.61	104	90 - 110	2008-06-20

continued ...

standard continued ...

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
PO4-P		mg/L	12.5	11.2	90	90 - 110	2008-06-20
Sulfate		mg/L	12.5	12.3	98	90 - 110	2008-06-20

Standard (CCV-1)

QC Batch: 49570

Date Analyzed: 2008-06-20

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2008-06-20
Fluoride		mg/L	2.50	2.25	90	90 - 110	2008-06-20
Nitrate-N		mg/L	2.50	2.40	96	90 - 110	2008-06-20
PO4-P		mg/L	12.5	11.8	94	90 - 110	2008-06-20
Sulfate		mg/L	12.5	12.2	98	90 - 110	2008-06-20

Standard (ICV-1)

QC Batch: 49663

Date Analyzed: 2008-06-22

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0954	95	85 - 115	2008-06-22
Toluene		mg/L	0.100	0.0947	95	85 - 115	2008-06-22
Ethylbenzene		mg/L	0.100	0.0951	95	85 - 115	2008-06-22
Xylene		mg/L	0.300	0.285	95	85 - 115	2008-06-22

Standard (CCV-1)

QC Batch: 49663

Date Analyzed: 2008-06-22

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0928	93	85 - 115	2008-06-22
Toluene		mg/L	0.100	0.0917	92	85 - 115	2008-06-22
Ethylbenzene		mg/L	0.100	0.0916	92	85 - 115	2008-06-22
Xylene		mg/L	0.300	0.276	92	85 - 115	2008-06-22

Standard (ICV-1)

QC Batch: 49670

Date Analyzed: 2008-06-23

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2008-06-23
Carbonate Alkalinity		mg/L as CaCo3	0.00	196		0 - 200	2008-06-23
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	56.0		0 - 200	2008-06-23
Total Alkalinity		mg/L as CaCo3	250	252	101	90 - 110	2008-06-23

Standard (CCV-1)

QC Batch: 49670

Date Analyzed: 2008-06-23

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2008-06-23
Carbonate Alkalinity		mg/L as CaCo3	0.00	194		0 - 200	2008-06-23
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	61.0		0 - 200	2008-06-23
Total Alkalinity		mg/L as CaCo3	250	255	102	90 - 110	2008-06-23

Standard (CCV-1)

QC Batch: 49700

Date Analyzed: 2008-06-24

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0983	98	85 - 115	2008-06-24
Toluene		mg/L	0.100	0.0980	98	85 - 115	2008-06-24
Ethylbenzene		mg/L	0.100	0.0981	98	85 - 115	2008-06-24
Xylene		mg/L	0.300	0.294	98	85 - 115	2008-06-24

Standard (CCV-2)

QC Batch: 49700

Date Analyzed: 2008-06-24

Analyzed By: DC

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	85 - 115	2008-06-24
Toluene		mg/L	0.100	0.103	103	85 - 115	2008-06-24
Ethylbenzene		mg/L	0.100	0.104	104	85 - 115	2008-06-24

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/L	0.300	0.311	104	85 - 115	2008-06-24

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.975	98	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	1.00	0.991	99	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	0.997	100	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	0.973	97	90 - 110	2008-06-25

Standard (ICV-1)

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.989	99	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	1.04	104	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	1.02	102	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	1.03	103	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	0.975	98	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.127	102	90 - 110	2008-06-25
Total Arsenic		mg/L	1.00	1.00	100	90 - 110	2008-06-25
Total Barium		mg/L	1.00	0.978	98	90 - 110	2008-06-25
Total Cadmium		mg/L	1.00	0.993	99	90 - 110	2008-06-25
Total Chromium		mg/L	1.00	0.988	99	90 - 110	2008-06-25
Total Lead		mg/L	1.00	1.01	101	90 - 110	2008-06-25
Total Selenium		mg/L	1.00	0.999	100	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.977	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	1.00	0.991	99	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	0.985	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	0.981	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	0.979	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	1.04	104	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.978	98	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	1.02	102	90 - 110	2008-06-25

Standard (CCV-1)

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	0.974	97	90 - 110	2008-06-25

Standard (CCV-1)

QC Batch: 49710

Date Analyzed: 2008-06-25

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.129	103	90 - 110	2008-06-25
Total Arsenic		mg/L	1.00	0.996	100	90 - 110	2008-06-25
Total Barium		mg/L	1.00	0.989	99	90 - 110	2008-06-25
Total Cadmium		mg/L	1.00	0.978	98	90 - 110	2008-06-25
Total Chromium		mg/L	1.00	0.975	98	90 - 110	2008-06-25
Total Lead		mg/L	1.00	0.996	100	90 - 110	2008-06-25
Total Selenium		mg/L	1.00	0.983	98	90 - 110	2008-06-25

Standard (ICV-1)

QC Batch: 49781

Date Analyzed: 2008-06-26

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000959	96	90 - 110	2008-06-26

Standard (CCV-1)

QC Batch: 49781

Date Analyzed: 2008-06-26

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000993	99	80 - 120	2008-06-26

Standard (ICV-1)

QC Batch: 49789

Date Analyzed: 2008-06-26

Analyzed By: TP

Report Date: June 27, 2008
PLAINS044SPL

Work Order: 8062018
C.S. Cayler

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Lovington, NM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.9	100	90 - 110	2008-06-26
Dissolved Potassium		mg/L	50.0	49.8	100	90 - 110	2008-06-26
Dissolved Magnesium		mg/L	50.0	49.8	100	90 - 110	2008-06-26
Dissolved Sodium		mg/L	50.0	49.3	99	90 - 110	2008-06-26

Standard (CCV-1)

QC Batch: 49789

Date Analyzed: 2008-06-26

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	47.1	94	90 - 110	2008-06-26
Dissolved Potassium		mg/L	50.0	48.3	97	90 - 110	2008-06-26
Dissolved Magnesium		mg/L	50.0	47.1	94	90 - 110	2008-06-26
Dissolved Sodium		mg/L	50.0	46.6	93	90 - 110	2008-06-26

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Lubbock, Texas 79424
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8808 Camp Bowie Blvd. West, Suite 180
Ft. Worth, Texas 76116
Tel (817) 201-5260
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LAB Order ID # 8062018

Page 1 of 1

Company Name: Talon LPE Phone #: (432) 522-2153

Address: 2901 Rankin Hwy. Fax #:

Contact Person: Shana Smith E-mail: sem@talonlpe.com

Invoice to: FLAINS Camille Reynolds

(If different from above)

Project #: FLAINS0445PL SRS#2002-10200 Project Name: C.S. Caylor

Project Location (including state): Livingston, NM. Sampler Signature: Carl Vessels

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		TIME
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME	
182	MW-6	2	VDA	X				X				X		6/19/08	1455	
183	MW-9	2	VDA	X				X				X		6/19/08	1434	
184	MW-10	2	VDA	X				X				X		6/19/08	1431	
185	MW-11	2	VDA	X				X				X		6/19/08	1427	
186	MW-12	2	VDA	X				X				X		6/19/08	1445	
187	MW-13	2	VDA	X				X				X		6/19/08	1450	
188	MW-14	2	VDA	X				X				X		6/19/08	1457	
189	MW-15	2	VDA	X				X				X		6/19/08	1505	
190	MW-16	2	VDA	X				X				X		6/19/08	1507	
191	MW-17	2	VDA	X				X				X		6/19/08	1440	
192	MW-18	2	VDA	X				X				X		6/19/08	1418	

Relinquished by: Shana Smith Company: Talon LPE Date: 6/20/08 Time: 0800

Relinquished by: Shana Smith Company: Talon LPE Date: 6/20/08 Time: 0800

Relinquished by: Shana Smith Company: Talon LPE Date: 6/20/08 Time: 0800

Relinquished by: Shana Smith Company: Talon LPE Date: 6/20/08 Time: 0800

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B / 602 / 8260B / 624	X
BTEX 8021B / 602 / 8260B / 624	X
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270C / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	X
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C / 625	
PCBs 8082 / 608	
Pesticides 8081A / 608	
BOD, TSS, pH	
Moisture Content	
Metals - Cu, Fe, Mn, Zn, Al, B, Co, Mo, Ni	
Cations - Ca, Mg, Na, K	
IC - Cl, SO ₄ , NO ₃ , PO ₄ , F	
Alkalinity	
Turn Around Time if different from standard	

REMARKS:

PAH, IC, ALKALINITY - MIDLAND

MUTAGENICITY - LUBBOCK

☐ Dry Weight Basis Required

☐ TRRP Report Required

☐ Check If Special Reporting Limits Are Needed

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

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Carrier #



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: August 25, 2008

Work Order: 8081408



Project Location: Lea County, NM
Project Name: C.S. Caylor
Project Number: PLAINS044 SPL
SRS #: SRS 2002-10250

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
170581	MW-6	water	2008-08-13	12:02	2008-08-14
170582	MW-9	water	2008-08-13	10:50	2008-08-14
170583	MW-10	water	2008-08-13	10:57	2008-08-14
170584	MW-11	water	2008-08-13	11:05	2008-08-14
170585	MW-12	water	2008-08-13	11:39	2008-08-14
170586	MW-13	water	2008-08-13	11:45	2008-08-14
170587	MW-14	water	2008-08-13	11:33	2008-08-14
170588	MW-15	water	2008-08-13	12:16	2008-08-14
170589	MW-16	water	2008-08-13	11:05	2008-08-14

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
170590	MW-17	water	2008-08-13	11:49	2008-08-14
170591	MW-18	water	2008-08-13	11:28	2008-08-14

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



Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project C.S. Caylor were received by TraceAnalysis, Inc. on 2008-08-14 and assigned to work order 8081408. Samples for work order 8081408 were received intact without headspace and at a temperature of 3.0 deg. C.

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

Test	Method
BTEX	S 8021B
PAH	S 8270C

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 8081408 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 170581 - MW-6

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 51676
Prep Batch: 44308

Analytical Method: S 8021B
Date Analyzed: 2008-08-21
Sample Preparation: 2008-08-21

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.454	mg/L	10	0.00100
Toluene		0.0383	mg/L	10	0.00100
Ethylbenzene		<0.0100	mg/L	10	0.00100
Xylene		<0.0100	mg/L	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.860	mg/L	10	1.00	86	55.6 - 121.3
4-Bromofluorobenzene (4-BFB)		0.770	mg/L	10	1.00	77	58.1 - 118.4

Sample: 170582 - MW-9

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 51676
Prep Batch: 44308

Analytical Method: S 8021B
Date Analyzed: 2008-08-21
Sample Preparation: 2008-08-21

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.130	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)		0.0845	mg/L	1	0.100	84	55.6 - 121.3
4-Bromofluorobenzene (4-BFB)		0.0767	mg/L	1	0.100	77	58.1 - 118.4

Sample: 170582 - MW-9

Laboratory: Lubbock
Analysis: PAH
QC Batch: 51723
Prep Batch: 44352

Analytical Method: S 8270C
Date Analyzed: 2008-08-22
Sample Preparation: 2008-08-20

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0457	mg/L	1	0.0800	57	37.4 - 123
2-Fluorobiphenyl		0.0481	mg/L	1	0.0800	60	34.3 - 130
Terphenyl-d14		0.0769	mg/L	1	0.0800	96	10 - 252

Sample: 170583 - MW-10

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 51583
Prep Batch: 44231

Analytical Method: S 8021B
Date Analyzed: 2008-08-19
Sample Preparation: 2008-08-19

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

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

¹ Sample ran at a dilution due to soil in VOA.

Report Date: August 25, 2008
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C.S. Caylor

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.428	mg/L	5	0.500	86	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		0.406	mg/L	5	0.500	81	53.2 - 129.7

Sample: 170583 - MW-10

Laboratory: Lubbock
Analysis: PAH
QC Batch: 51723
Prep Batch: 44352

Analytical Method: S 8270C
Date Analyzed: 2008-08-22
Sample Preparation: 2008-08-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	1	0.000200
2-Methylnaphthalene		<0.000200	mg/L	1	0.000200
1-Methylnaphthalene		<0.000200	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		0.000406	mg/L	1	0.000200
Fluorene		<0.000200	mg/L	1	0.000200
Anthracene		<0.000200	mg/L	1	0.000200
Phenanthrene		<0.000200	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		<0.000200	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200
Chrysene		<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(a)pyrene		<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene		<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0397	mg/L	1	0.0800	50	37.4 - 123
2-Fluorobiphenyl		0.0427	mg/L	1	0.0800	53	34.3 - 130
Terphenyl-d14		0.0679	mg/L	1	0.0800	85	10 - 252

Sample: 170584 - MW-11

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 51583

Prep Batch: 44231

Analytical Method: S 8021B

Date Analyzed: 2008-08-19

Sample Preparation: 2008-08-19

Prep Method: S 5030B

Analyzed By: ER

Prepared By: ER

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0881	mg/L	1	0.100	88	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		0.0872	mg/L	1	0.100	87	53.2 - 129.7

Sample: 170584 - MW-11

Laboratory: Lubbock

Analysis: PAH

QC Batch: 51723

Prep Batch: 44352

Analytical Method: S 8270C

Date Analyzed: 2008-08-22

Sample Preparation: 2008-08-20

Prep Method: S 3510C

Analyzed By: DS

Prepared By: DS

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

continued ...

Report Date: August 25, 2008
PLAINS044 SPL

Work Order: 8081408
C.S. Caylor

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Lea County, NM

sample 170584 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0583	mg/L	1	0.0800	73	37.4 - 123
2-Fluorobiphenyl		0.0605	mg/L	1	0.0800	76	34.3 - 130
Terphenyl-d14		0.0722	mg/L	1	0.0800	90	10 - 252

Sample: 170585 - MW-12

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 51583

Prep Batch: 44231

Analytical Method: S 8021B

Date Analyzed: 2008-08-19

Sample Preparation: 2008-08-19

Prep Method: S 5030B

Analyzed By: ER

Prepared By: ER

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		30.2	mg/L	200	0.00100
Toluene		8.44	mg/L	200	0.00100
Ethylbenzene		1.25	mg/L	200	0.00100
Xylene		2.22	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		16.3	mg/L	200	20.0	82	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		16.1	mg/L	200	20.0	80	53.2 - 129.7

Sample: 170586 - MW-13

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 51583

Prep Batch: 44231

Analytical Method: S 8021B

Date Analyzed: 2008-08-19

Sample Preparation: 2008-08-19

Prep Method: S 5030B

Analyzed By: ER

Prepared By: ER

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0231	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00140	mg/L	1	0.00100

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0946	mg/L	1	0.100	95	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		0.0840	mg/L	1	0.100	84	53.2 - 129.7

Sample: 170587 - MW-14

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 51583
Prep Batch: 44231

Analytical Method: S 8021B
Date Analyzed: 2008-08-19
Sample Preparation: 2008-08-19

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0858	mg/L	1	0.100	86	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		0.0814	mg/L	1	0.100	81	53.2 - 129.7

Sample: 170587 - MW-14

Laboratory: Lubbock
Analysis: PAH
QC Batch: 51723
Prep Batch: 44352

Analytical Method: S 8270C
Date Analyzed: 2008-08-22
Sample Preparation: 2008-08-20

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

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

continued ...

sample 170587 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0587	mg/L	1	0.0800	73	37.4 - 123
2-Fluorobiphenyl		0.0606	mg/L	1	0.0800	76	34.3 - 130
Terphenyl-d14		0.0759	mg/L	1	0.0800	95	10 - 252

Sample: 170588 - MW-15

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 51583
Prep Batch: 44231

Analytical Method: S 8021B
Date Analyzed: 2008-08-19
Sample Preparation: 2008-08-19

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00350	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)		0.0890	mg/L	1	0.100	89	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		0.0814	mg/L	1	0.100	81	53.2 - 129.7

Sample: 170588 - MW-15

Laboratory: Lubbock
Analysis: PAH
QC Batch: 51723
Prep Batch: 44352

Analytical Method: S 8270C
Date Analyzed: 2008-08-22
Sample Preparation: 2008-08-20

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0602	mg/L	1	0.0800	75	37.4 - 123
2-Fluorobiphenyl		0.0606	mg/L	1	0.0800	76	34.3 - 130
Terphenyl-d14		0.0776	mg/L	1	0.0800	97	10 - 252

Sample: 170589 - MW-16

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 51583
Prep Batch: 44231

Analytical Method: S 8021B
Date Analyzed: 2008-08-19
Sample Preparation: 2008-08-19

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.117	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.00440	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0728	mg/L	1	0.100	73	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		0.0813	mg/L	1	0.100	81	53.2 - 129.7

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Sample: 170590 - MW-17

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 51583

Prep Batch: 44231

Analytical Method: S 8021B

Date Analyzed: 2008-08-19

Sample Preparation: 2008-08-19

Prep Method: S 5030B

Analyzed By: ER

Prepared By: ER

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00500	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)		0.0909	mg/L	1	0.100	91	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		0.0813	mg/L	1	0.100	81	53.2 - 129.7

Sample: 170591 - MW-18

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 51583

Prep Batch: 44231

Analytical Method: S 8021B

Date Analyzed: 2008-08-19

Sample Preparation: 2008-08-19

Prep Method: S 5030B

Analyzed By: ER

Prepared By: ER

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0856	mg/L	1	0.100	86	61.9 - 136.3
4-Bromofluorobenzene (4-BFB)		0.0813	mg/L	1	0.100	81	53.2 - 129.7

Method Blank (1) QC Batch: 51583

QC Batch: 51583

Prep Batch: 44231

Date Analyzed: 2008-08-19

QC Preparation: 2008-08-19

Analyzed By: ER

Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000208	mg/L	0.001
Toluene		<0.000199	mg/L	0.001
Ethylbenzene		<0.000347	mg/L	0.001
Xylene		<0.000468	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0865	mg/L	1	0.100	86	70.5 - 111.5
4-Bromofluorobenzene (4-BFB)		0.0823	mg/L	1	0.100	82	56.5 - 109.3

Method Blank (1) QC Batch: 51676

QC Batch: 51676
Prep Batch: 44308

Date Analyzed: 2008-08-21
QC Preparation: 2008-08-21

Analyzed By: MT
Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000119	mg/L	0.001
Toluene		<0.000146	mg/L	0.001
Ethylbenzene		<0.000119	mg/L	0.001
Xylene		<0.0000970	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0859	mg/L	1	0.100	86	69.3 - 105.6
4-Bromofluorobenzene (4-BFB)		0.0794	mg/L	1	0.100	79	66.8 - 110.2

Method Blank (1) QC Batch: 51723

QC Batch: 51723
Prep Batch: 44352

Date Analyzed: 2008-08-22
QC Preparation: 2008-08-20

Analyzed By: DS
Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000730	mg/L	0.0002
2-Methylnaphthalene		<0.0000509	mg/L	0.0002
1-Methylnaphthalene		<0.0000748	mg/L	0.0002
Acenaphthylene		<0.0000767	mg/L	0.0002
Acenaphthene		<0.000142	mg/L	0.0002
Dibenzofuran		<0.0000470	mg/L	0.0002
Fluorene		<0.0000569	mg/L	0.0002
Anthracene		<0.0000876	mg/L	0.0002

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Phenanthrene		<0.0000552	mg/L	0.0002
Fluoranthene		<0.0000954	mg/L	0.0002
Pyrene		<0.0000497	mg/L	0.0002
Benzo(a)anthracene		<0.0000328	mg/L	0.0002
Chrysene		<0.0000990	mg/L	0.0002
Benzo(b)fluoranthene		<0.0000684	mg/L	0.0002
Benzo(k)fluoranthene		<0.0000830	mg/L	0.0002
Benzo(a)pyrene		<0.0000549	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.0000869	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.0000605	mg/L	0.0002
Benzo(g,h,i)perylene		<0.0000681	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0432	mg/L	1	0.0800	54	10 - 146
2-Fluorobiphenyl		0.0423	mg/L	1	0.0800	53	10 - 141
Terphenyl-d14		0.0718	mg/L	1	0.0800	90	10 - 266

Laboratory Control Spike (LCS-1)

QC Batch: 51583
Prep Batch: 44231

Date Analyzed: 2008-08-19
QC Preparation: 2008-08-19

Analyzed By: ER
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0862	mg/L	1	0.100	<0.000208	86	79.4 - 113.7
Toluene	0.0866	mg/L	1	0.100	<0.000199	87	80.3 - 114.6
Ethylbenzene	0.0903	mg/L	1	0.100	<0.000347	90	82.2 - 116.2
Xylene	0.260	mg/L	1	0.300	<0.000468	87	84.2 - 117.8

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0850	mg/L	1	0.100	<0.000208	85	79.4 - 113.7	1	20
Toluene	0.0854	mg/L	1	0.100	<0.000199	85	80.3 - 114.6	1	20
Ethylbenzene	0.0889	mg/L	1	0.100	<0.000347	89	82.2 - 116.2	2	20
Xylene	0.256	mg/L	1	0.300	<0.000468	85	84.2 - 117.8	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0816	0.0814	mg/L	1	0.100	82	81	72.3 - 115.2

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control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	0.0789	0.0787	mg/L	1	0.100	79	79	79 - 121.8

Laboratory Control Spike (LCS-1)

QC Batch: 51676
Prep Batch: 44308

Date Analyzed: 2008-08-21
QC Preparation: 2008-08-21

Analyzed By: MT
Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0986	mg/L	1	0.100	<0.000119	99	81.5 - 108.2
Toluene	0.0988	mg/L	1	0.100	<0.000146	99	80.8 - 109
Ethylbenzene	0.0981	mg/L	1	0.100	<0.000119	98	80.7 - 109.2
Xylene	0.300	mg/L	1	0.300	<0.0000970	100	80 - 109.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0952	mg/L	1	0.100	<0.000119	95	81.5 - 108.2	4	20
Toluene	0.0948	mg/L	1	0.100	<0.000146	95	80.8 - 109	4	20
Ethylbenzene	0.0946	mg/L	1	0.100	<0.000119	95	80.7 - 109.2	4	20
Xylene	0.289	mg/L	1	0.300	<0.0000970	96	80 - 109.3	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)	0.102	0.0989	mg/L	1	0.100	102	99	79.3 - 114.3
4-Bromofluorobenzene (4-BFB)	0.100	0.0975	mg/L	1	0.100	100	98	76.3 - 119.7

Laboratory Control Spike (LCS-1)

QC Batch: 51723
Prep Batch: 44352

Date Analyzed: 2008-08-22
QC Preparation: 2008-08-20

Analyzed By: DS
Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0444	mg/L	1	0.0800	<0.0000730	56	10 - 141
2-Methylnaphthalene	0.0485	mg/L	1	0.0800	<0.0000509	61	50 - 150
1-Methylnaphthalene	0.0527	mg/L	1	0.0800	<0.0000748	66	50 - 150
Acenaphthylene	0.0573	mg/L	1	0.0800	<0.0000767	72	10 - 152
Acenaphthene	0.0544	mg/L	1	0.0800	<0.000142	68	10 - 151
Dibenzofuran	0.0542	mg/L	1	0.0800	<0.0000470	68	10 - 148

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Fluorene	0.0580	mg/L	1	0.0800	<0.0000569	72	10 - 172
Anthracene	0.0646	mg/L	1	0.0800	<0.0000876	81	22.5 - 172
Phenanthrene	0.0628	mg/L	1	0.0800	<0.0000552	78	19.6 - 172
Fluoranthene	0.0690	mg/L	1	0.0800	<0.0000954	86	17.3 - 187
Pyrene	0.0682	mg/L	1	0.0800	<0.0000497	85	14.9 - 199
Benzo(a)anthracene	0.0653	mg/L	1	0.0800	<0.0000328	82	19.4 - 185
Chrysene	0.0681	mg/L	1	0.0800	<0.0000990	85	18.4 - 188
Benzo(b)fluoranthene	0.0693	mg/L	1	0.0800	<0.0000684	87	10 - 193
Benzo(k)fluoranthene	0.0789	mg/L	1	0.0800	<0.0000830	99	27.8 - 196
Benzo(a)pyrene	0.0780	mg/L	1	0.0800	<0.0000549	98	12.4 - 205
Indeno(1,2,3-cd)pyrene	0.0814	mg/L	1	0.0800	<0.0000869	102	10 - 198
Dibenzo(a,h)anthracene	0.0778	mg/L	1	0.0800	<0.0000605	97	10 - 172
Benzo(g,h,i)perylene	0.0770	mg/L	1	0.0800	<0.0000681	96	10 - 186

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene	0.0439	mg/L	1	0.0800	<0.0000730	55	10 - 141	1	20
2-Methylnaphthalene	0.0480	mg/L	1	0.0800	<0.0000509	60	50 - 150	1	20
1-Methylnaphthalene	0.0517	mg/L	1	0.0800	<0.0000748	65	50 - 150	2	20
Acenaphthylene	0.0571	mg/L	1	0.0800	<0.0000767	71	10 - 152	0	20
Acenaphthene	0.0546	mg/L	1	0.0800	<0.000142	68	10 - 151	0	20
Dibenzofuran	0.0539	mg/L	1	0.0800	<0.0000470	67	10 - 148	1	20
Fluorene	0.0578	mg/L	1	0.0800	<0.0000569	72	10 - 172	0	20
Anthracene	0.0637	mg/L	1	0.0800	<0.0000876	80	22.5 - 172	1	20
Phenanthrene	0.0616	mg/L	1	0.0800	<0.0000552	77	19.6 - 172	2	20
Fluoranthene	0.0684	mg/L	1	0.0800	<0.0000954	86	17.3 - 187	1	20
Pyrene	0.0677	mg/L	1	0.0800	<0.0000497	85	14.9 - 199	1	20
Benzo(a)anthracene	0.0652	mg/L	1	0.0800	<0.0000328	82	19.4 - 185	0	20
Chrysene	0.0665	mg/L	1	0.0800	<0.0000990	83	18.4 - 188	2	20
Benzo(b)fluoranthene	0.0708	mg/L	1	0.0800	<0.0000684	88	10 - 193	2	20
Benzo(k)fluoranthene	0.0759	mg/L	1	0.0800	<0.0000830	95	27.8 - 196	4	20
Benzo(a)pyrene	0.0773	mg/L	1	0.0800	<0.0000549	97	12.4 - 205	1	20
Indeno(1,2,3-cd)pyrene	0.0829	mg/L	1	0.0800	<0.0000869	104	10 - 198	2	20
Dibenzo(a,h)anthracene	0.0790	mg/L	1	0.0800	<0.0000605	99	10 - 172	2	20
Benzo(g,h,i)perylene	0.0780	mg/L	1	0.0800	<0.0000681	98	10 - 186	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Nitrobenzene-d5	0.0515	0.0512	mg/L	1	0.0800	64	64	10 - 165
2-Fluorobiphenyl	0.0563	0.0557	mg/L	1	0.0800	70	70	10 - 157
Terphenyl-d14	0.0784	0.0781	mg/L	1	0.0800	98	98	10 - 220

Matrix Spike (MS-1) Spiked Sample: 170571

QC Batch: 51583
Prep Batch: 44231

Date Analyzed: 2008-08-19
QC Preparation: 2008-08-19

Analyzed By: ER
Prepared By: ER

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	²	0.0607	mg/L	1	0.100	<0.000208	61	66.8 - 128.4
Toluene	³	0.0590	mg/L	1	0.100	<0.000199	59	69 - 125.8
Ethylbenzene	⁴	0.0564	mg/L	1	0.100	<0.000347	56	69.7 - 126.1
Xylene	⁵	0.168	mg/L	1	0.300	<0.000468	56	69.2 - 128.8

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		0.0730	mg/L	1	0.100	<0.000208	73	66.8 - 128.4	18	20
Toluene		0.0720	mg/L	1	0.100	<0.000199	72	69 - 125.8	20	20
Ethylbenzene	⁶	0.0699	mg/L	1	0.100	<0.000347	70	69.7 - 126.1	21	20
Xylene	⁷	0.206	mg/L	1	0.300	<0.000468	69	69.2 - 128.8	20	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0830	0.0834	mg/L	1	0.1	83	83	73.4 - 117.3
4-Bromofluorobenzene (4-BFB)	0.0830	0.0822	mg/L	1	0.1	83	82	74 - 129.4

Matrix Spike (MS-1) Spiked Sample: 171328

QC Batch: 51676
Prep Batch: 44308

Date Analyzed: 2008-08-21
QC Preparation: 2008-08-21

Analyzed By: MT
Prepared By: MT

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		0.0857	mg/L	1	0.100	<0.000119	86	33.8 - 135.2
Toluene		0.0867	mg/L	1	0.100	<0.000146	87	46.1 - 126.8
Ethylbenzene		0.0859	mg/L	1	0.100	<0.000119	86	39.6 - 129.9
Xylene		0.262	mg/L	1	0.300	<0.0000970	87	42.5 - 127.4

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

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

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

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

⁵Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

⁶Matrix spike RPD out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

⁷Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0949	mg/L	1	0.100	<0.000119	95	33.8 - 135.2	10	20
Toluene	0.0945	mg/L	1	0.100	<0.000146	94	46.1 - 126.8	9	20
Ethylbenzene	0.0941	mg/L	1	0.100	<0.000119	94	39.6 - 129.9	9	20
Xylene	0.288	mg/L	1	0.300	<0.0000970	96	42.5 - 127.4	9	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)	0.0988	0.103	mg/L	1	0.1	99	103	70.4 - 122.7
4-Bromofluorobenzene (4-BFB)	0.0908	0.104	mg/L	1	0.1	91	104	74.5 - 119.8

Standard (ICV-1)

QC Batch: 51583

Date Analyzed: 2008-08-19

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0874	87	85 - 115	2008-08-19
Toluene		mg/L	0.100	0.0875	88	85 - 115	2008-08-19
Ethylbenzene		mg/L	0.100	0.0910	91	85 - 115	2008-08-19
Xylene		mg/L	0.300	0.261	87	85 - 115	2008-08-19

Standard (CCV-1)

QC Batch: 51583

Date Analyzed: 2008-08-19

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0942	94	85 - 115	2008-08-19
Toluene		mg/L	0.100	0.0905	90	85 - 115	2008-08-19
Ethylbenzene		mg/L	0.100	0.0886	89	85 - 115	2008-08-19
Xylene		mg/L	0.300	0.266	89	85 - 115	2008-08-19

Standard (ICV-1)

QC Batch: 51676

Date Analyzed: 2008-08-21

Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0928	93	85 - 115	2008-08-21

continued ...

standard continued ...

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.100	0.0929	93	85 - 115	2008-08-21
Ethylbenzene		mg/L	0.100	0.0928	93	85 - 115	2008-08-21
Xylene		mg/L	0.300	0.284	95	85 - 115	2008-08-21

Standard (CCV-1)

QC Batch: 51676

Date Analyzed: 2008-08-21

Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0951	95	85 - 115	2008-08-21
Toluene		mg/L	0.100	0.0964	96	85 - 115	2008-08-21
Ethylbenzene		mg/L	0.100	0.0950	95	85 - 115	2008-08-21
Xylene		mg/L	0.300	0.293	98	85 - 115	2008-08-21

Standard (CCV-2)

QC Batch: 51723

Date Analyzed: 2008-08-22

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	55.5	92	80 - 120	2008-08-22
2-Methylnaphthalene		mg/L	60.0	53.4	89	80 - 120	2008-08-22
1-Methylnaphthalene		mg/L	60.0	53.9	90	80 - 120	2008-08-22
Acenaphthylene		mg/L	60.0	58.0	97	80 - 120	2008-08-22
Acenaphthene		mg/L	60.0	57.2	95	80 - 120	2008-08-22
Dibenzofuran		mg/L	60.0	60.0	100	80 - 120	2008-08-22
Fluorene		mg/L	60.0	64.5	108	80 - 120	2008-08-22
Anthracene		mg/L	60.0	58.5	98	80 - 120	2008-08-22
Phenanthrene		mg/L	60.0	56.7	94	80 - 120	2008-08-22
Fluoranthene		mg/L	60.0	55.9	93	80 - 120	2008-08-22
Pyrene		mg/L	60.0	61.2	102	80 - 120	2008-08-22
Benzo(a)anthracene		mg/L	60.0	56.2	94	80 - 120	2008-08-22
Chrysene		mg/L	60.0	57.5	96	80 - 120	2008-08-22
Benzo(b)fluoranthene		mg/L	60.0	59.8	100	80 - 120	2008-08-22
Benzo(k)fluoranthene		mg/L	60.0	62.2	104	80 - 120	2008-08-22
Benzo(a)pyrene		mg/L	60.0	62.8	105	80 - 120	2008-08-22
Indeno(1,2,3-cd)pyrene		mg/L	60.0	68.3	114	80 - 120	2008-08-22
Dibenzo(a,h)anthracene		mg/L	60.0	68.9	115	80 - 120	2008-08-22
Benzo(g,h,i)perylene		mg/L	60.0	65.3	109	80 - 120	2008-08-22

Report Date: August 25, 2008
PLAINS044 SPL

Work Order: 8081408
C.S. Caylor

Page Number: 20 of 20
Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		57.9	mg/L	1	60.0	96	80 - 120
2-Fluorobiphenyl		57.4	mg/L	1	60.0	96	80 - 120
Terphenyl-d14		60.0	mg/L	1	60.0	100	80 - 120



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NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: August 25, 2008

Work Order: 8081436



Project Location: Lovington, NM
Project Name: C.S. Cayler
Project Number: PLAINS044SPL
SRS #: 2002-10250

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
170717	MW-6	water	2008-08-14	09:14	2008-08-14
170718	MW-12	water	2008-08-14	09:26	2008-08-14
170719	MW-13	water	2008-08-14	09:29	2008-08-14
170720	MW-16	water	2008-08-14	09:16	2008-08-14
170721	MW-17	water	2008-08-14	09:01	2008-08-14
170722	MW-18	water	2008-08-14	09:41	2008-08-14

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

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project C.S. Cayler were received by TraceAnalysis, Inc. on 2008-08-14 and assigned to work order 8081436. Samples for work order 8081436 were received intact at a temperature of 3.3 deg. C.

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

Test	Method
PAH	S 8270C

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 8081436 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 170717 - MW-6

Laboratory: Lubbock
Analysis: PAH
QC Batch: 51723
Prep Batch: 44352

Analytical Method: S 8270C
Date Analyzed: 2008-08-22
Sample Preparation: 2008-08-20

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0648	mg/L	1	0.0800	81	37.4 - 123
2-Fluorobiphenyl		0.0656	mg/L	1	0.0800	82	34.3 - 130
Terphenyl-d14		0.0782	mg/L	1	0.0800	98	10 - 252

Sample: 170718 - MW-12

Laboratory: Lubbock
Analysis: PAH
QC Batch: 51723
Prep Batch: 44352

Analytical Method: S 8270C
Date Analyzed: 2008-08-22
Sample Preparation: 2008-08-20

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

continued ...

sample 170718 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.0698	mg/L	1	0.000200
2-Methylnaphthalene		0.0421	mg/L	1	0.000200
1-Methylnaphthalene		0.0378	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		0.00264	mg/L	1	0.000200
Fluorene		0.00190	mg/L	1	0.000200
Anthracene		<0.000200	mg/L	1	0.000200
Phenanthrene		0.00158	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		<0.000200	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200
Chrysene		<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(a)pyrene		<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene		<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0458	mg/L	1	0.0800	57	37.4 - 123
2-Fluorobiphenyl		0.0505	mg/L	1	0.0800	63	34.3 - 130
Terphenyl-d14		0.0680	mg/L	1	0.0800	85	10 - 252

Sample: 170719 - MW-13

Laboratory: Lubbock
 Analysis: PAH
 QC Batch: 51723
 Prep Batch: 44352

Analytical Method: S 8270C
 Date Analyzed: 2008-08-22
 Sample Preparation: 2008-08-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	1	0.000200
2-Methylnaphthalene		<0.000200	mg/L	1	0.000200
1-Methylnaphthalene		<0.000200	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200

continued ...

sample 170719 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0396	mg/L	1	0.0800	50	37.4 - 123
2-Fluorobiphenyl		0.0424	mg/L	1	0.0800	53	34.3 - 130
Terphenyl-d14		0.0814	mg/L	1	0.0800	102	10 - 252

Sample: 170720 - MW-16

Laboratory: Lubbock
Analysis: PAH
QC Batch: 51723
Prep Batch: 44352

Analytical Method: S 8270C
Date Analyzed: 2008-08-22
Sample Preparation: 2008-08-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	1	0.000200
2-Methylnaphthalene		<0.000200	mg/L	1	0.000200
1-Methylnaphthalene		<0.000200	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		<0.000200	mg/L	1	0.000200
Fluorene		<0.000200	mg/L	1	0.000200
Anthracene		<0.000200	mg/L	1	0.000200
Phenanthrene		<0.000200	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		<0.000200	mg/L	1	0.000200

continued ...

sample 170720 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0423	mg/L	1	0.0800	53	37.4 - 123
2-Fluorobiphenyl		0.0473	mg/L	1	0.0800	59	34.3 - 130
Terphenyl-d14		0.0767	mg/L	1	0.0800	96	10 - 252

Sample: 170721 - MW-17

Laboratory: Lubbock
Analysis: PAH
QC Batch: 51723
Prep Batch: 44352

Analytical Method: S 8270C
Date Analyzed: 2008-08-22
Sample Preparation: 2008-08-20

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

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

continued ...

sample 170721 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0897	mg/L	1	0.0800	112	37.4 - 123
2-Fluorobiphenyl		0.0963	mg/L	1	0.0800	120	34.3 - 130
Terphenyl-d14		0.143	mg/L	1	0.0800	179	10 - 252

Sample: 170722 - MW-18

Laboratory: Lubbock

Analysis: PAH

QC Batch: 51723

Prep Batch: 44352

Analytical Method: S 8270C

Date Analyzed: 2008-08-22

Sample Preparation: 2008-08-20

Prep Method: S 3510C

Analyzed By: DS

Prepared By: DS

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0340	mg/L	1	0.0800	42	37.4 - 123
2-Fluorobiphenyl		0.0403	mg/L	1	0.0800	50	34.3 - 130
Terphenyl-d14		0.0638	mg/L	1	0.0800	80	10 - 252

Method Blank (1) QC Batch: 51723

QC Batch: 51723
Prep Batch: 44352

Date Analyzed: 2008-08-22
QC Preparation: 2008-08-20

Analyzed By: DS
Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000730	mg/L	0.0002
2-Methylnaphthalene		<0.0000509	mg/L	0.0002
1-Methylnaphthalene		<0.0000748	mg/L	0.0002
Acenaphthylene		<0.0000767	mg/L	0.0002
Acenaphthene		<0.000142	mg/L	0.0002
Dibenzofuran		<0.0000470	mg/L	0.0002
Fluorene		<0.0000569	mg/L	0.0002
Anthracene		<0.0000876	mg/L	0.0002
Phenanthrene		<0.0000552	mg/L	0.0002
Fluoranthene		<0.0000954	mg/L	0.0002
Pyrene		<0.0000497	mg/L	0.0002
Benzo(a)anthracene		<0.0000328	mg/L	0.0002
Chrysene		<0.0000990	mg/L	0.0002
Benzo(b)fluoranthene		<0.0000684	mg/L	0.0002
Benzo(k)fluoranthene		<0.0000830	mg/L	0.0002
Benzo(a)pyrene		<0.0000549	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.0000869	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.0000605	mg/L	0.0002
Benzo(g,h,i)perylene		<0.0000681	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0432	mg/L	1	0.0800	54	10 - 146
2-Fluorobiphenyl		0.0423	mg/L	1	0.0800	53	10 - 141
Terphenyl-d14		0.0718	mg/L	1	0.0800	90	10 - 266

Laboratory Control Spike (LCS-1)

QC Batch: 51723
Prep Batch: 44352

Date Analyzed: 2008-08-22
QC Preparation: 2008-08-20

Analyzed By: DS
Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0444	mg/L	1	0.0800	<0.0000730	56	10 - 141
2-Methylnaphthalene	0.0485	mg/L	1	0.0800	<0.0000509	61	50 - 150
1-Methylnaphthalene	0.0527	mg/L	1	0.0800	<0.0000748	66	50 - 150
Acenaphthylene	0.0573	mg/L	1	0.0800	<0.0000767	72	10 - 152
Acenaphthene	0.0544	mg/L	1	0.0800	<0.000142	68	10 - 151

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dibenzofuran	0.0542	mg/L	1	0.0800	<0.0000470	68	10 - 148
Fluorene	0.0580	mg/L	1	0.0800	<0.0000569	72	10 - 172
Anthracene	0.0646	mg/L	1	0.0800	<0.0000876	81	22.5 - 172
Phenanthrene	0.0628	mg/L	1	0.0800	<0.0000552	78	19.6 - 172
Fluoranthene	0.0690	mg/L	1	0.0800	<0.0000954	86	17.3 - 187
Pyrene	0.0682	mg/L	1	0.0800	<0.0000497	85	14.9 - 199
Benzo(a)anthracene	0.0653	mg/L	1	0.0800	<0.0000328	82	19.4 - 185
Chrysene	0.0681	mg/L	1	0.0800	<0.0000990	85	18.4 - 188
Benzo(b)fluoranthene	0.0693	mg/L	1	0.0800	<0.0000684	87	10 - 193
Benzo(k)fluoranthene	0.0789	mg/L	1	0.0800	<0.0000830	99	27.8 - 196
Benzo(a)pyrene	0.0780	mg/L	1	0.0800	<0.0000549	98	12.4 - 205
Indeno(1,2,3-cd)pyrene	0.0814	mg/L	1	0.0800	<0.0000869	102	10 - 198
Dibenzo(a,h)anthracene	0.0778	mg/L	1	0.0800	<0.0000605	97	10 - 172
Benzo(g,h,i)perylene	0.0770	mg/L	1	0.0800	<0.0000681	96	10 - 186

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene	0.0439	mg/L	1	0.0800	<0.0000730	55	10 - 141	1	20
2-Methylnaphthalene	0.0480	mg/L	1	0.0800	<0.0000509	60	50 - 150	1	20
1-Methylnaphthalene	0.0517	mg/L	1	0.0800	<0.0000748	65	50 - 150	2	20
Acenaphthylene	0.0571	mg/L	1	0.0800	<0.0000767	71	10 - 152	0	20
Acenaphthene	0.0546	mg/L	1	0.0800	<0.000142	68	10 - 151	0	20
Dibenzofuran	0.0539	mg/L	1	0.0800	<0.0000470	67	10 - 148	1	20
Fluorene	0.0578	mg/L	1	0.0800	<0.0000569	72	10 - 172	0	20
Anthracene	0.0637	mg/L	1	0.0800	<0.0000876	80	22.5 - 172	1	20
Phenanthrene	0.0616	mg/L	1	0.0800	<0.0000552	77	19.6 - 172	2	20
Fluoranthene	0.0684	mg/L	1	0.0800	<0.0000954	86	17.3 - 187	1	20
Pyrene	0.0677	mg/L	1	0.0800	<0.0000497	85	14.9 - 199	1	20
Benzo(a)anthracene	0.0652	mg/L	1	0.0800	<0.0000328	82	19.4 - 185	0	20
Chrysene	0.0665	mg/L	1	0.0800	<0.0000990	83	18.4 - 188	2	20
Benzo(b)fluoranthene	0.0708	mg/L	1	0.0800	<0.0000684	88	10 - 193	2	20
Benzo(k)fluoranthene	0.0759	mg/L	1	0.0800	<0.0000830	95	27.8 - 196	4	20
Benzo(a)pyrene	0.0773	mg/L	1	0.0800	<0.0000549	97	12.4 - 205	1	20
Indeno(1,2,3-cd)pyrene	0.0829	mg/L	1	0.0800	<0.0000869	104	10 - 198	2	20
Dibenzo(a,h)anthracene	0.0790	mg/L	1	0.0800	<0.0000605	99	10 - 172	2	20
Benzo(g,h,i)perylene	0.0780	mg/L	1	0.0800	<0.0000681	98	10 - 186	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Nitrobenzene-d5	0.0515	0.0512	mg/L	1	0.0800	64	64	10 - 165
2-Fluorobiphenyl	0.0563	0.0557	mg/L	1	0.0800	70	70	10 - 157
Terphenyl-d14	0.0784	0.0781	mg/L	1	0.0800	98	98	10 - 220

Standard (CCV-2)

QC Batch: 51723

Date Analyzed: 2008-08-22

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	55.5	92	80 - 120	2008-08-22
2-Methylnaphthalene		mg/L	60.0	53.4	89	80 - 120	2008-08-22
1-Methylnaphthalene		mg/L	60.0	53.9	90	80 - 120	2008-08-22
Acenaphthylene		mg/L	60.0	58.0	97	80 - 120	2008-08-22
Acenaphthene		mg/L	60.0	57.2	95	80 - 120	2008-08-22
Dibenzofuran		mg/L	60.0	60.0	100	80 - 120	2008-08-22
Fluorene		mg/L	60.0	64.5	108	80 - 120	2008-08-22
Anthracene		mg/L	60.0	58.5	98	80 - 120	2008-08-22
Phenanthrene		mg/L	60.0	56.7	94	80 - 120	2008-08-22
Fluoranthene		mg/L	60.0	55.9	93	80 - 120	2008-08-22
Pyrene		mg/L	60.0	61.2	102	80 - 120	2008-08-22
Benzo(a)anthracene		mg/L	60.0	56.2	94	80 - 120	2008-08-22
Chrysene		mg/L	60.0	57.5	96	80 - 120	2008-08-22
Benzo(b)fluoranthene		mg/L	60.0	59.8	100	80 - 120	2008-08-22
Benzo(k)fluoranthene		mg/L	60.0	62.2	104	80 - 120	2008-08-22
Benzo(a)pyrene		mg/L	60.0	62.8	105	80 - 120	2008-08-22
Indeno(1,2,3-cd)pyrene		mg/L	60.0	68.3	114	80 - 120	2008-08-22
Dibenzo(a,h)anthracene		mg/L	60.0	68.9	115	80 - 120	2008-08-22
Benzo(g,h,i)perylene		mg/L	60.0	65.3	109	80 - 120	2008-08-22

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		57.9	mg/L	1	60.0	96	80 - 120
2-Fluorobiphenyl		57.4	mg/L	1	60.0	96	80 - 120
Terphenyl-d14		60.0	mg/L	1	60.0	100	80 - 120

email: lab@traceanalysis.com

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(Circle or Specify Method No.)

[illegible]

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

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

Carrier # can yin

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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: October 1, 2008

Work Order: 8092403



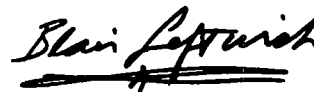
Project Location: Hobbs, NM
Project Name: C.S. Cayler
Project Number: PLAINS044SPL
SRS #: 2002-10250

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
174432	MW-4	water	2008-09-23	16:30	2008-09-24
174433	MW-5	water	2008-09-23	14:15	2008-09-24
174434	MW-1A	water	2008-09-23	17:00	2008-09-24
174435	MW-3	water	2008-09-23	14:40	2008-09-24

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

This report consists of a total of 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink, reading "Blair Leftwich". The signature is written in a cursive style and is positioned above a horizontal line.

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project C.S. Cayler were received by TraceAnalysis, Inc. on 2008-09-24 and assigned to work order 8092403. Samples for work order 8092403 were received intact without headspace and at a temperature of 2.0 deg. C.

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

Test	Method
BTEX	S 8021B
PAH	S 8270C
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8092403 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 174432 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 52712
Prep Batch: 45164

Analytical Method: S 8021B
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		31.2	mg/L	200	0.00100
Toluene		31.1	mg/L	200	0.00100
Ethylbenzene		8.39	mg/L	200	0.00100
Xylene		18.9	mg/L	200	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		17.4	mg/L	200	20.0	87	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		19.0	mg/L	200	20.0	95	52 - 124.1

Sample: 174432 - MW-4

Laboratory: Lubbock
Analysis: PAH
QC Batch: 52849
Prep Batch: 45290

Analytical Method: S 8270C
Date Analyzed: 2008-09-29
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene	1	7.27	mg/L	50	0.000200
2-Methylnaphthalene	2	17.8	mg/L	50	0.000200
1-Methylnaphthalene	3	15.1	mg/L	50	0.000200
Acenaphthylene		<0.0100	mg/L	50	0.000200
Acenaphthene		<0.0100	mg/L	50	0.000200
Dibenzofuran		1.28	mg/L	50	0.000200
Fluorene		1.56	mg/L	50	0.000200
Anthracene		<0.0100	mg/L	50	0.000200
Phenanthrene		2.03	mg/L	50	0.000200
Fluoranthene		0.0689	mg/L	50	0.000200
Pyrene		0.124	mg/L	50	0.000200
Benzo(a)anthracene		<0.0100	mg/L	50	0.000200
Chrysene		0.259	mg/L	50	0.000200

continued ...

¹ Estimated concentration value greater than standard range.

² Estimated concentration value greater than standard range.

³ Estimated concentration value greater than standard range.

sample 174432 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Benzo(b)fluoranthene		0.0326	mg/L	50	0.000200
Benzo(k)fluoranthene		<0.0100	mg/L	50	0.000200
Benzo(a)pyrene		<0.0100	mg/L	50	0.000200
Indeno(1,2,3-cd)pyrene		<0.0100	mg/L	50	0.000200
Dibenzo(a,h)anthracene		<0.0100	mg/L	50	0.000200
Benzo(g,h,i)perylene		<0.0100	mg/L	50	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	⁴	0.142	mg/L	50	0.0800	178	37.4 - 123
2-Fluorobiphenyl		0.0581	mg/L	50	0.0800	73	34.3 - 130
Terphenyl-d14		0.0723	mg/L	50	0.0800	90	10 - 252

Sample: 174432 - MW-4

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 52764
Prep Batch: 45205

Analytical Method: Mod. 8015B
Date Analyzed: 2008-09-27
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		343	mg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	⁵	32.0	mg/L	1	10.0	320	70 - 130

Sample: 174432 - MW-4

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 52720
Prep Batch: 45164

Analytical Method: S 8015B
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		363	mg/L	200	0.100

⁴8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.

⁵High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		18.5	mg/L	200	20.0	92	70 - 130
4-Bromofluorobenzene (4-BFB)		20.4	mg/L	200	20.0	102	70 - 130

Sample: 174433 - MW-5

Laboratory: Midland
Analysis: BTEX
QC Batch: 52712
Prep Batch: 45164

Analytical Method: S 8021B
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		11.9	mg/L	50	0.00100
Toluene		5.80	mg/L	50	0.00100
Ethylbenzene		1.08	mg/L	50	0.00100
Xylene		1.92	mg/L	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.22	mg/L	50	5.00	84	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		4.50	mg/L	50	5.00	90	52 - 124.1

Sample: 174433 - MW-5

Laboratory: Lubbock
Analysis: PAH
QC Batch: 52849
Prep Batch: 45290

Analytical Method: S 8270C
Date Analyzed: 2008-09-29
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.0698	mg/L	1	0.000200
2-Methylnaphthalene		0.0690	mg/L	1	0.000200
1-Methylnaphthalene		0.0613	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		0.00616	mg/L	1	0.000200
Fluorene		0.00678	mg/L	1	0.000200
Anthracene		<0.000200	mg/L	1	0.000200
Phenanthrene		0.00683	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		0.000314	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200

continued ...

sample 174433 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0597	mg/L	1	0.0800	75	37.4 - 123
2-Fluorobiphenyl		0.0510	mg/L	1	0.0800	64	34.3 - 130
Terphenyl-d14		0.0752	mg/L	1	0.0800	94	10 - 252

Sample: 174433 - MW-5

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 52764
Prep Batch: 45205

Analytical Method: Mod. 8015B
Date Analyzed: 2008-09-27
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		70.8	mg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	⁶	19.3	mg/L	1	10.0	193	70 - 130

Sample: 174433 - MW-5

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 52720
Prep Batch: 45164

Analytical Method: S 8015B
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		57.4	mg/L	50	0.100

⁶High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.41	mg/L	50	5.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)		4.57	mg/L	50	5.00	91	70 - 130

Sample: 174434 - MW-1A

Laboratory: Midland
Analysis: BTEX
QC Batch: 52743
Prep Batch: 45206

Analytical Method: S 8021B
Date Analyzed: 2008-09-25
Sample Preparation: 2008-09-25

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		20.1	mg/L	100	0.00100
Toluene		13.9	mg/L	100	0.00100
Ethylbenzene		2.03	mg/L	100	0.00100
Xylene		4.58	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		8.64	mg/L	100	10.0	86	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		8.95	mg/L	100	10.0	90	52 - 124.1

Sample: 174434 - MW-1A

Laboratory: Lubbock
Analysis: PAH
QC Batch: 52849
Prep Batch: 45290

Analytical Method: S 8270C
Date Analyzed: 2008-09-29
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene	⁷	0.587	mg/L	5	0.000200
2-Methylnaphthalene	⁸	1.34	mg/L	5	0.000200
1-Methylnaphthalene	⁹	1.13	mg/L	5	0.000200
Acenaphthylene		<0.00100	mg/L	5	0.000200
Acenaphthene		<0.00100	mg/L	5	0.000200
Dibenzofuran		0.118	mg/L	5	0.000200
Fluorene		0.135	mg/L	5	0.000200
Anthracene		<0.00100	mg/L	5	0.000200
Phenanthrene		0.182	mg/L	5	0.000200

continued ...

⁷Estimated concentration value greater than standard range.

⁸Estimated concentration value greater than standard range.

⁹Estimated concentration value greater than standard range.

sample 174434 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Fluoranthene		0.00308	mg/L	5	0.000200
Pyrene		0.0134	mg/L	5	0.000200
Benzo(a)anthracene		<0.00100	mg/L	5	0.000200
Chrysene		0.0292	mg/L	5	0.000200
Benzo(b)fluoranthene		<0.00100	mg/L	5	0.000200
Benzo(k)fluoranthene		<0.00100	mg/L	5	0.000200
Benzo(a)pyrene		<0.00100	mg/L	5	0.000200
Indeno(1,2,3-cd)pyrene		<0.00100	mg/L	5	0.000200
Dibenzo(a,h)anthracene		<0.00100	mg/L	5	0.000200
Benzo(g,h,i)perylene		<0.00100	mg/L	5	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0442	mg/L	5	0.0800	55	37.4 - 123
2-Fluorobiphenyl		0.0360	mg/L	5	0.0800	45	34.3 - 130
Terphenyl-d14		0.0470	mg/L	5	0.0800	59	10 - 252

Sample: 174434 - MW-1A

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 52764
Prep Batch: 45205

Analytical Method: Mod. 8015B
Date Analyzed: 2008-09-27
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		16.7	mg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹⁰	17.5	mg/L	1	10.0	175	70 - 130

Sample: 174434 - MW-1A

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 52720
Prep Batch: 45164

Analytical Method: S 8015B
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-23

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

continued ...

¹⁰High surrogate recovery. Sample non-detect, result bias high.

sample 174434 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		136	mg/L	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.63	mg/L	50	5.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)		5.35	mg/L	50	5.00	107	70 - 130

Sample: 174435 - MW-3

Laboratory: Midland
Analysis: BTEX
QC Batch: 52743
Prep Batch: 45206

Analytical Method: S 8021B
Date Analyzed: 2008-09-25
Sample Preparation: 2008-09-25

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		18.2	mg/L	100	0.00100
Toluene		7.71	mg/L	100	0.00100
Ethylbenzene		1.81	mg/L	100	0.00100
Xylene		4.15	mg/L	100	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		8.94	mg/L	100	10.0	89	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		9.27	mg/L	100	10.0	93	52 - 124.1

Sample: 174435 - MW-3

Laboratory: Lubbock
Analysis: PAH
QC Batch: 52849
Prep Batch: 45290

Analytical Method: S 8270C
Date Analyzed: 2008-09-29
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene	¹¹	0.102	mg/L	1	0.000200

continued ...

¹¹ Estimated concentration value greater than standard range.

sample 174435 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
2-Methylnaphthalene	¹²	0.111	mg/L	1	0.000200
1-Methylnaphthalene		0.0940	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		0.00892	mg/L	1	0.000200
Fluorene		0.0107	mg/L	1	0.000200
Anthracene		<0.000200	mg/L	1	0.000200
Phenanthrene		0.0114	mg/L	1	0.000200
Fluoranthene		0.000399	mg/L	1	0.000200
Pyrene		0.000820	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200
Chrysene		0.00149	mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(a)pyrene		<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene		<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0609	mg/L	1	0.0800	76	37.4 - 123
2-Fluorobiphenyl		0.0490	mg/L	1	0.0800	61	34.3 - 130
Terphenyl-d14		0.0735	mg/L	1	0.0800	92	10 - 252

Sample: 174435 - MW-3

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 52764
Prep Batch: 45205

Analytical Method: Mod. 8015B
Date Analyzed: 2008-09-27
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		10.5	mg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		11.0	mg/L	1	10.0	110	70 - 130

¹²Estimated concentration value greater than standard range.

Report Date: October 1, 2008
PLAINS044SPL

Work Order: 8092403
C.S. Cayler

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Sample: 174435 - MW-3

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 52720
Prep Batch: 45164

Analytical Method: S 8015B
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		68.6	mg/L	20	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.76	mg/L	20	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)		1.95	mg/L	20	2.00	98	70 - 130

Method Blank (1) QC Batch: 52712

QC Batch: 52712
Prep Batch: 45164

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-23

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000500	mg/L	0.001
Toluene		<0.000700	mg/L	0.001
Ethylbenzene		<0.000700	mg/L	0.001
Xylene		<0.00180	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0882	mg/L	1	0.100	88	44.6 - 137.4
4-Bromofluorobenzene (4-BFB)		0.0886	mg/L	1	0.100	89	37.1 - 130.9

Method Blank (1) QC Batch: 52720

QC Batch: 52720
Prep Batch: 45164

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-23

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		0.0899	mg/L	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0903	mg/L	1	0.100	90	70 - 130

continued ...

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method blank continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		0.0880	mg/L	1	0.100	88	50 - 130

Method Blank (1) QC Batch: 52743

QC Batch: 52743
Prep Batch: 45206

Date Analyzed: 2008-09-25
QC Preparation: 2008-09-25

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000500	mg/L	0.001
Toluene		<0.000700	mg/L	0.001
Ethylbenzene		<0.000700	mg/L	0.001
Xylene		<0.00180	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0883	mg/L	1	0.100	88	44.6 - 137.4
4-Bromofluorobenzene (4-BFB)		0.0895	mg/L	1	0.100	90	37.1 - 130.9

Method Blank (1) QC Batch: 52764

QC Batch: 52764
Prep Batch: 45205

Date Analyzed: 2008-09-27
QC Preparation: 2008-09-26

Analyzed By: LD
Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<2.44	mg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		12.4	mg/L	1	10.0	124	70 - 130

Method Blank (1) QC Batch: 52849

QC Batch: 52849
Prep Batch: 45290

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-26

Analyzed By: DS
Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000730	mg/L	0.0002

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
2-Methylnaphthalene		<0.0000509	mg/L	0.0002
1-Methylnaphthalene		<0.0000748	mg/L	0.0002
Acenaphthylene		<0.0000767	mg/L	0.0002
Acenaphthene		<0.000142	mg/L	0.0002
Dibenzofuran		<0.0000470	mg/L	0.0002
Fluorene		<0.0000569	mg/L	0.0002
Anthracene		<0.0000876	mg/L	0.0002
Phenanthrene		<0.0000552	mg/L	0.0002
Fluoranthene		<0.0000954	mg/L	0.0002
Pyrene		<0.0000497	mg/L	0.0002
Benzo(a)anthracene		<0.0000328	mg/L	0.0002
Chrysene		<0.0000990	mg/L	0.0002
Benzo(b)fluoranthene		<0.0000684	mg/L	0.0002
Benzo(k)fluoranthene		<0.0000830	mg/L	0.0002
Benzo(a)pyrene		<0.0000549	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.0000869	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.0000605	mg/L	0.0002
Benzo(g,h,i)perylene		<0.0000681	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0582	mg/L	1	0.0800	73	10 - 146
2-Fluorobiphenyl		0.0489	mg/L	1	0.0800	61	10 - 141
Terphenyl-d14		0.0665	mg/L	1	0.0800	83	10 - 266

Laboratory Control Spike (LCS-1)

QC Batch: 52712
Prep Batch: 45164

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-23

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.102	mg/L	1	0.100	<0.000500	102	71.7 - 120.5
Toluene	0.104	mg/L	1	0.100	<0.000700	104	75.4 - 118.8
Ethylbenzene	0.103	mg/L	1	0.100	<0.000700	103	73.5 - 118
Xylene	0.313	mg/L	1	0.300	<0.00180	104	72.9 - 118.2

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.104	mg/L	1	0.100	<0.000500	104	71.7 - 120.5	2	20
Toluene	0.106	mg/L	1	0.100	<0.000700	106	75.4 - 118.8	2	20

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene	0.104	mg/L	1	0.100	<0.000700	104	73.5 - 118	1	20
Xylene	0.317	mg/L	1	0.300	<0.00180	106	72.9 - 118.2	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0912	0.0958	mg/L	1	0.100	91	96	38.2 - 131.6
4-Bromofluorobenzene (4-BFB)	0.0957	0.0998	mg/L	1	0.100	96	100	43.9 - 132.4

Laboratory Control Spike (LCS-1)

QC Batch: 52720
Prep Batch: 45164

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-23

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	0.788	mg/L	1	1.00	0.0899	70	70 - 130

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	0.790	mg/L	1	1.00	0.0899	70	70 - 130	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0969	0.0919	mg/L	1	0.100	97	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0957	0.0924	mg/L	1	0.100	96	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 52743
Prep Batch: 45206

Date Analyzed: 2008-09-25
QC Preparation: 2008-09-25

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0961	mg/L	1	0.100	<0.000500	96	71.7 - 120.5
Toluene	0.0979	mg/L	1	0.100	<0.000700	98	75.4 - 118.8
Ethylbenzene	0.0958	mg/L	1	0.100	<0.000700	96	73.5 - 118
Xylene	0.289	mg/L	1	0.300	<0.00180	96	72.9 - 118.2

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0969	mg/L	1	0.100	<0.000500	97	71.7 - 120.5	1	20
Toluene	0.0995	mg/L	1	0.100	<0.000700	100	75.4 - 118.8	2	20
Ethylbenzene	0.0978	mg/L	1	0.100	<0.000700	98	73.5 - 118	2	20
Xylene	0.296	mg/L	1	0.300	<0.00180	98	72.9 - 118.2	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)	0.0888	0.0870	mg/L	1	0.100	89	87	38.2 - 131.6
4-Bromofluorobenzene (4-BFB)	0.0921	0.0907	mg/L	1	0.100	92	91	43.9 - 132.4

Laboratory Control Spike (LCS-1)

QC Batch: 52764
Prep Batch: 45205

Date Analyzed: 2008-09-27
QC Preparation: 2008-09-26

Analyzed By: LD
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	24.9	mg/L	1	25.0	<2.44	100	70 - 130

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	23.4	mg/L	1	25.0	<2.44	94	70 - 130	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	10.5	10.7	mg/L	1	10.0	105	107	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 52849
Prep Batch: 45290

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-26

Analyzed By: DS
Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0566	mg/L	1	0.0800	<0.0000730	71	10 - 141
2-Methylnaphthalene	0.0587	mg/L	1	0.0800	<0.0000509	73	50 - 150
1-Methylnaphthalene	0.0582	mg/L	1	0.0800	<0.0000748	73	50 - 150
Acenaphthylene	0.0703	mg/L	1	0.0800	<0.0000767	88	10 - 152
Acenaphthene	0.0666	mg/L	1	0.0800	<0.000142	83	10 - 151

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dibenzofuran	0.0663	mg/L	1	0.0800	<0.0000470	83	10 - 148
Fluorene	0.0775	mg/L	1	0.0800	<0.0000569	97	10 - 172
Anthracene	0.0692	mg/L	1	0.0800	<0.0000876	86	22.5 - 172
Phenanthrene	0.0691	mg/L	1	0.0800	<0.0000552	86	19.6 - 172
Fluoranthene	0.0748	mg/L	1	0.0800	<0.0000954	94	17.3 - 187
Pyrene	0.0715	mg/L	1	0.0800	<0.0000497	89	14.9 - 199
Benzo(a)anthracene	0.0690	mg/L	1	0.0800	<0.0000328	86	19.4 - 185
Chrysene	0.0733	mg/L	1	0.0800	<0.0000990	92	18.4 - 188
Benzo(b)fluoranthene	0.0719	mg/L	1	0.0800	<0.0000684	90	10 - 193
Benzo(k)fluoranthene	0.0748	mg/L	1	0.0800	<0.0000830	94	27.8 - 196
Benzo(a)pyrene	0.0812	mg/L	1	0.0800	<0.0000549	102	12.4 - 205
Indeno(1,2,3-cd)pyrene	0.0847	mg/L	1	0.0800	<0.0000869	106	10 - 198
Dibenzo(a,h)anthracene	0.0847	mg/L	1	0.0800	<0.0000605	106	10 - 172
Benzo(g,h,i)perylene	0.0839	mg/L	1	0.0800	<0.0000681	105	10 - 186

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene	0.0588	mg/L	1	0.0800	<0.0000730	74	10 - 141	4	20
2-Methylnaphthalene	0.0596	mg/L	1	0.0800	<0.0000509	74	50 - 150	2	20
1-Methylnaphthalene	0.0587	mg/L	1	0.0800	<0.0000748	73	50 - 150	1	20
Acenaphthylene	0.0740	mg/L	1	0.0800	<0.0000767	92	10 - 152	5	20
Acenaphthene	0.0699	mg/L	1	0.0800	<0.000142	87	10 - 151	5	20
Dibenzofuran	0.0698	mg/L	1	0.0800	<0.0000470	87	10 - 148	5	20
Fluorene	0.0800	mg/L	1	0.0800	<0.0000569	100	10 - 172	3	20
Anthracene	0.0713	mg/L	1	0.0800	<0.0000876	89	22.5 - 172	3	20
Phenanthrene	0.0712	mg/L	1	0.0800	<0.0000552	89	19.6 - 172	3	20
Fluoranthene	0.0781	mg/L	1	0.0800	<0.0000954	98	17.3 - 187	4	20
Pyrene	0.0758	mg/L	1	0.0800	<0.0000497	95	14.9 - 199	6	20
Benzo(a)anthracene	0.0726	mg/L	1	0.0800	<0.0000328	91	19.4 - 185	5	20
Chrysene	0.0765	mg/L	1	0.0800	<0.0000990	96	18.4 - 188	4	20
Benzo(b)fluoranthene	0.0755	mg/L	1	0.0800	<0.0000684	94	10 - 193	5	20
Benzo(k)fluoranthene	0.0776	mg/L	1	0.0800	<0.0000830	97	27.8 - 196	4	20
Benzo(a)pyrene	0.0850	mg/L	1	0.0800	<0.0000549	106	12.4 - 205	5	20
Indeno(1,2,3-cd)pyrene	0.0895	mg/L	1	0.0800	<0.0000869	112	10 - 198	6	20
Dibenzo(a,h)anthracene	0.0888	mg/L	1	0.0800	<0.0000605	111	10 - 172	5	20
Benzo(g,h,i)perylene	0.0879	mg/L	1	0.0800	<0.0000681	110	10 - 186	5	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	0.0675	0.0696	mg/L	1	0.0800	84	87	10 - 165
2-Fluorobiphenyl	0.0618	0.0674	mg/L	1	0.0800	77	84	10 - 157
Terphenyl-d14	0.0754	0.0797	mg/L	1	0.0800	94	100	10 - 220

Matrix Spike (MS-1) Spiked Sample: 174136

QC Batch: 52712
Prep Batch: 45164

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-23

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	20.8	mg/L	50	5.00	15.4129	108	10 - 160.8
Toluene	12.5	mg/L	50	5.00	7.2486	105	10 - 160.7
Ethylbenzene	5.88	mg/L	50	5.00	0.9752	98	10 - 158.3
Xylene	17.2	mg/L	50	15.0	2.5159	98	10 - 158

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	20.2	mg/L	50	5.00	15.4129	96	10 - 160.8	3	20
Toluene	12.2	mg/L	50	5.00	7.2486	99	10 - 160.7	2	20
Ethylbenzene	5.84	mg/L	50	5.00	0.9752	97	10 - 158.3	1	20
Xylene	17.0	mg/L	50	15.0	2.5159	96	10 - 158	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)	4.59	4.44	mg/L	50	5	92	89	33.1 - 132.5
4-Bromofluorobenzene (4-BFB)	4.90	4.68	mg/L	50	5	98	94	37.5 - 136

Matrix Spike (MS-1) Spiked Sample: 174151

QC Batch: 52720
Prep Batch: 45164

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-23

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	119	mg/L	50	50.0	73.8192	90	70 - 130

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	114	mg/L	50	50.0	73.8192	80	70 - 130	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	4.82	4.63	mg/L	50	5	96	93	70 - 130
4-Bromofluorobenzene (4-BFB)	4.97	4.78	mg/L	50	5	99	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 174434

QC Batch: 52743
Prep Batch: 45206

Date Analyzed: 2008-09-25
QC Preparation: 2008-09-25

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	31.6	mg/L	100	10.0	20.117	115	10 - 160.8
Toluene	25.3	mg/L	100	10.0	13.8703	114	10 - 160.7
Ethylbenzene	12.1	mg/L	100	10.0	2.0289	101	10 - 158.3
Xylene	34.8	mg/L	100	30.0	4.5755	101	10 - 158

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	29.7	mg/L	100	10.0	20.117	96	10 - 160.8	6	20
Toluene	23.8	mg/L	100	10.0	13.8703	99	10 - 160.7	6	20
Ethylbenzene	11.6	mg/L	100	10.0	2.0289	96	10 - 158.3	4	20
Xylene	33.5	mg/L	100	30.0	4.5755	96	10 - 158	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	9.32	8.75	mg/L	100	10	93	88	33.1 - 132.5
4-Bromofluorobenzene (4-BFB)	10.0	9.27	mg/L	100	10	100	93	37.5 - 136

Matrix Spike (MS-1) Spiked Sample: 174147

QC Batch: 52764
Prep Batch: 45205

Date Analyzed: 2008-09-27
QC Preparation: 2008-09-26

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	70.3	mg/L	1	25.0	49.43	83	70 - 130

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	81.1	mg/L	1	25.0	49.43	127	70 - 130	14	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	10.0	10.3	mg/L	1	10	100	103	70 - 130

Standard (ICV-1)

QC Batch: 52712

Date Analyzed: 2008-09-24

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2008-09-24
Toluene		mg/L	0.100	0.106	106	85 - 115	2008-09-24
Ethylbenzene		mg/L	0.100	0.0998	100	85 - 115	2008-09-24
Xylene		mg/L	0.300	0.306	102	85 - 115	2008-09-24

Standard (CCV-1)

QC Batch: 52712

Date Analyzed: 2008-09-24

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.107	107	85 - 115	2008-09-24
Toluene		mg/L	0.100	0.0900	90	85 - 115	2008-09-24
Ethylbenzene		mg/L	0.100	0.0889	89	85 - 115	2008-09-24
Xylene		mg/L	0.300	0.271	90	85 - 115	2008-09-24

Standard (ICV-1)

QC Batch: 52720

Date Analyzed: 2008-09-24

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.14	114	85 - 115	2008-09-24

Standard (CCV-1)

QC Batch: 52720

Date Analyzed: 2008-09-24

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	1.07	107	85 - 115	2008-09-24

Standard (ICV-1)

QC Batch: 52743

Date Analyzed: 2008-09-25

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2008-09-25
Toluene		mg/L	0.100	0.106	106	85 - 115	2008-09-25
Ethylbenzene		mg/L	0.100	0.105	105	85 - 115	2008-09-25
Xylene		mg/L	0.300	0.318	106	85 - 115	2008-09-25

Standard (CCV-1)

QC Batch: 52743

Date Analyzed: 2008-09-25

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0882	88	85 - 115	2008-09-25
Toluene		mg/L	0.100	0.0893	89	85 - 115	2008-09-25
Ethylbenzene		mg/L	0.100	0.0875	88	85 - 115	2008-09-25
Xylene		mg/L	0.300	0.264	88	85 - 115	2008-09-25

Standard (ICV-1)

QC Batch: 52764

Date Analyzed: 2008-09-27

Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	238	95	85 - 115	2008-09-27

Standard (CCV-1)

QC Batch: 52764

Date Analyzed: 2008-09-27

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	222	89	85 - 115	2008-09-27

Standard (CCV-2)

QC Batch: 52764

Date Analyzed: 2008-09-27

Analyzed By: LD

Report Date: October 1, 2008
PLAINS044SPL

Work Order: 8092403
C.S. Cayler

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Hobbs, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/L	250	235	94	85 - 115	2008-09-27

Standard (CCV-2)

QC Batch: 52849

Date Analyzed: 2008-09-29

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	56.8	95	80 - 120	2008-09-29
2-Methylnaphthalene		mg/L	60.0	52.9	88	80 - 120	2008-09-29
1-Methylnaphthalene		mg/L	60.0	54.2	90	80 - 120	2008-09-29
Acenaphthylene		mg/L	60.0	59.2	99	80 - 120	2008-09-29
Acenaphthene		mg/L	60.0	58.6	98	80 - 120	2008-09-29
Dibenzofuran		mg/L	60.0	62.5	104	80 - 120	2008-09-29
Fluorene		mg/L	60.0	69.8	116	80 - 120	2008-09-29
Anthracene		mg/L	60.0	59.0	98	80 - 120	2008-09-29
Phenanthrene		mg/L	60.0	57.2	95	80 - 120	2008-09-29
Fluoranthene		mg/L	60.0	56.6	94	80 - 120	2008-09-29
Pyrene		mg/L	60.0	59.7	100	80 - 120	2008-09-29
Benzo(a)anthracene		mg/L	60.0	55.4	92	80 - 120	2008-09-29
Chrysene		mg/L	60.0	58.0	97	80 - 120	2008-09-29
Benzo(b)fluoranthene		mg/L	60.0	60.3	100	80 - 120	2008-09-29
Benzo(k)fluoranthene		mg/L	60.0	60.4	101	80 - 120	2008-09-29
Benzo(a)pyrene		mg/L	60.0	63.9	106	80 - 120	2008-09-29
Indeno(1,2,3-cd)pyrene		mg/L	60.0	69.6	116	80 - 120	2008-09-29
Dibenzo(a,h)anthracene		mg/L	60.0	69.2	115	80 - 120	2008-09-29
Benzo(g,h,i)perylene		mg/L	60.0	68.5	114	80 - 120	2008-09-29

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		61.8	mg/L	1	60.0	103	80 - 120
2-Fluorobiphenyl		54.3	mg/L	1	60.0	90	80 - 120
Terphenyl-d14		59.1	mg/L	1	60.0	98	80 - 120



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E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: October 7, 2008

Work Order: 8092404



Project Location: Hobbs, NM
Project Name: C.S. Cayler
Project Number: PLAINS044SPL
SRS #: 2002-10250

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
174436	MW-1A	water	2008-09-23	17:00	2008-09-24

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

This report consists of a total of 53 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project C.S. Cayler were received by TraceAnalysis, Inc. on 2008-09-24 and assigned to work order 8092404. Samples for work order 8092404 were received intact without headspace and at a temperature of 2.0 deg. C.

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

Test	Method
Ag, Total	S 6010B
Alkalinity	SM 2320B
Al, Total	S 6010B
As, Total	S 6010B
Ba, Total	S 6010B
B, Total	S 6010B
Ca, Dissolved	S 6010B
Cd, Total	S 6010B
Chloride (IC)	E 300.0
Co, Total	S 6010B
Cr, Total	S 6010B
Cu, Total	S 6010B
Fe, Total	S 6010B
Fluoride (IC)	E 300.0
Hg, Total	S 7470A
K, Dissolved	S 6010B
Mg, Dissolved	S 6010B
Mn, Total	S 6010B
Mo, Total	S 6010B
Na, Dissolved	S 6010B
Ni, Total	S 6010B
NO3 (IC)	E 300.0
Pb, Total	S 6010B
PO4 (IC)	E 300.0
Semivolatiles	S 8270C
Se, Total	S 6010B
SO4 (IC)	E 300.0
Volatiles	S 8260B
Zn, Total	S 6010B

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 8092404 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 7, 2008
PLAINS044SPL

Work Order: 8092404
C.S. Cayler

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Hobbs, NM

Analytical Report

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Al, Total
QC Batch: 52862
Prep Batch: 45207

Analytical Method: S 6010B
Date Analyzed: 2008-09-30
Sample Preparation: 2008-09-26

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Aluminum		51.8	mg/L	1	0.0500

Sample: 174436 - MW-1A

Laboratory: Midland
Analysis: Alkalinity
QC Batch: 52658
Prep Batch: 45140

Analytical Method: SM 2320B
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-24

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

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		234	mg/L as CaCo3	1	4.00
Total Alkalinity		234	mg/L as CaCo3	1	4.00

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: B, Total
QC Batch: 52862
Prep Batch: 45207

Analytical Method: S 6010B
Date Analyzed: 2008-09-30
Sample Preparation: 2008-09-26

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Boron		0.194	mg/L	1	0.00500

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Co, Total
QC Batch: 52862
Prep Batch: 45207

Analytical Method: S 6010B
Date Analyzed: 2008-09-30
Sample Preparation: 2008-09-26

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Report Date: October 7, 2008
PLAINS044SPL

Work Order: 8092404
C.S. Cayler

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Hobbs, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Total Cobalt		0.0180	mg/L	1	0.00200

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Cu, Total
QC Batch: 52862
Prep Batch: 45207

Analytical Method: S 6010B
Date Analyzed: 2008-09-30
Sample Preparation: 2008-09-26

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Copper		0.0290	mg/L	1	0.00500

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Fe, Total
QC Batch: 52862
Prep Batch: 45207

Analytical Method: S 6010B
Date Analyzed: 2008-09-30
Sample Preparation: 2008-09-26

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Iron		32.1	mg/L	1	0.0100

Sample: 174436 - MW-1A

Laboratory: Midland
Analysis: Ion Chromatography
QC Batch: 52657
Prep Batch: 45139

Analytical Method: E 300.0
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-24

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		203	mg/L	10	0.500
Fluoride		1.80	mg/L	5	0.200
Sulfate		117	mg/L	5	0.500

Report Date: October 7, 2008
PLAINS044SPL

Work Order: 8092404
C.S. Cayler

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Hobbs, NM

Sample: 174436 - MW-1A

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Mn, Total	Date Analyzed:	2008-09-30	Analyzed By:	RR
QC Batch:	52862	Sample Preparation:	2008-09-26	Prepared By:	KV
Prep Batch:	45207				

Parameter	Flag	RL Result	Units	Dilution	RL
Total Manganese		1.73	mg/L	1	0.00250

Sample: 174436 - MW-1A

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Mo, Total	Date Analyzed:	2008-09-30	Analyzed By:	RR
QC Batch:	52862	Sample Preparation:	2008-09-26	Prepared By:	KV
Prep Batch:	45207				

Parameter	Flag	RL Result	Units	Dilution	RL
Total Molybdenum		<0.0100	mg/L	1	0.0100

Sample: 174436 - MW-1A

Laboratory:	Lubbock	Analytical Method:	S 6010B	Prep Method:	S 3010A
Analysis:	Ni, Total	Date Analyzed:	2008-09-30	Analyzed By:	RR
QC Batch:	52862	Sample Preparation:	2008-09-26	Prepared By:	KV
Prep Batch:	45207				

Parameter	Flag	RL Result	Units	Dilution	RL
Total Nickel		0.0340	mg/L	1	0.00500

Sample: 174436 - MW-1A

Laboratory:	Midland	Analytical Method:	E 300.0	Prep Method:	N/A
Analysis:	NO3 (IC)	Date Analyzed:	2008-09-24	Analyzed By:	AR
QC Batch:	52657	Sample Preparation:	2008-09-24	Prepared By:	AR
Prep Batch:	45139				

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		4.59	mg/L	5	0.200

Report Date: October 7, 2008
PLAINS044SPL

Work Order: 8092404
C.S. Cayler

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Hobbs, NM

Sample: 174436 - MW-1A

Laboratory: Midland
Analysis: PO4 (IC)
QC Batch: 52657
Prep Batch: 45139

Analytical Method: E 300.0
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-24

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

Parameter	Flag	RL Result	Units	Dilution	RL
PO4-P		<2.50	mg/L	5	0.500

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Salts, Dissolved
QC Batch: 53041
Prep Batch: 45388

Analytical Method: S 6010B
Date Analyzed: 2008-10-06
Sample Preparation: 2008-10-03

Prep Method: S 3005A
Analyzed By: TP
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		169	mg/L	1	1.00
Dissolved Magnesium		36.1	mg/L	1	1.00
Dissolved Potassium		6.70	mg/L	1	1.00
Dissolved Sodium		146	mg/L	1	1.00

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Semivolatiles
QC Batch: 52872
Prep Batch: 45305

Analytical Method: S 8270C
Date Analyzed: 2008-09-30
Sample Preparation: 2008-09-26

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

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.0250	mg/L	5	0.00500
N-Nitrosodimethylamine		<0.0250	mg/L	5	0.00500
2-Picoline		<0.0250	mg/L	5	0.00500
Methyl methanesulfonate		<0.0250	mg/L	5	0.00500
Ethyl methanesulfonate		<0.0250	mg/L	5	0.00500
Phenol		<0.0250	mg/L	5	0.00500
Aniline		<0.0250	mg/L	5	0.00500
bis(2-chloroethyl)ether		<0.0250	mg/L	5	0.00500
2-Chlorophenol		<0.0250	mg/L	5	0.00500
1,3-Dichlorobenzene (meta)		<0.0250	mg/L	5	0.00500
1,4-Dichlorobenzene (para)		<0.0250	mg/L	5	0.00500

continued ...

sample 174436 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Benzyl alcohol		<0.0250	mg/L	5	0.00500
1,2-Dichlorobenzene (ortho)		<0.0250	mg/L	5	0.00500
2-Methylphenol		0.126	mg/L	5	0.00500
bis(2-chloroisopropyl)ether		<0.0250	mg/L	5	0.00500
4-Methylphenol / 3-Methylphenol		0.0990	mg/L	5	0.00500
N-Nitrosodi-n-propylamine		<0.0250	mg/L	5	0.00500
Hexachloroethane		<0.0250	mg/L	5	0.00500
Acetophenone		<0.0250	mg/L	5	0.00500
Nitrobenzene		<0.0250	mg/L	5	0.00500
N-Nitrosopiperidine		<0.0250	mg/L	5	0.00500
Isophorone		<0.0250	mg/L	5	0.00500
2-Nitrophenol		<0.0250	mg/L	5	0.00500
2,4-Dimethylphenol		0.0710	mg/L	5	0.00500
bis(2-chloroethoxy)methane		<0.0250	mg/L	5	0.00500
2,4-Dichlorophenol		<0.0250	mg/L	5	0.00500
1,2,4-Trichlorobenzene		<0.0250	mg/L	5	0.00500
Benzoic acid		<0.0250	mg/L	5	0.00500
Naphthalene	1	1.01	mg/L	5	0.00500
a,a-Dimethylphenethylamine		<0.0250	mg/L	5	0.00500
4-Chloroaniline		<0.0250	mg/L	5	0.00500
2,6-Dichlorophenol		<0.0500	mg/L	5	0.0100
Hexachlorobutadiene		<0.0250	mg/L	5	0.00500
N-Nitroso-di-n-butylamine		<0.0250	mg/L	5	0.00500
4-Chloro-3-methylphenol		<0.0250	mg/L	5	0.00500
2-Methylnaphthalene	2	2.37	mg/L	5	0.00500
1-Methylnaphthalene	3	2.00	mg/L	5	0.00500
1,2,4,5-Tetrachlorobenzene		<0.0250	mg/L	5	0.00500
Hexachlorocyclopentadiene		<0.0250	mg/L	5	0.00500
2,4,6-Trichlorophenol		<0.0500	mg/L	5	0.0100
2,4,5-Trichlorophenol		<0.0250	mg/L	5	0.00500
2-Chloronaphthalene		<0.0250	mg/L	5	0.00500
1-Chloronaphthalene		<0.0250	mg/L	5	0.00500
2-Nitroaniline		<0.0250	mg/L	5	0.00500
Dimethylphthalate		<0.0250	mg/L	5	0.00500
Acenaphthylene		<0.0250	mg/L	5	0.00500
2,6-Dinitrotoluene		<0.0250	mg/L	5	0.00500
3-Nitroaniline		<0.0250	mg/L	5	0.00500
Acenaphthene		<0.0250	mg/L	5	0.00500
2,4-Dinitrophenol		<0.0250	mg/L	5	0.00500
Dibenzofuran		0.175	mg/L	5	0.00500

continued ...

¹ Estimated concentration value greater than standard range.

² Estimated concentration value greater than standard range.

³ Estimated concentration value greater than standard range.

sample 174436 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Pentachlorobenzene		<0.0250	mg/L	5	0.00500
4-Nitrophenol		<0.125	mg/L	5	0.0250
2,4-Dinitrotoluene		<0.0250	mg/L	5	0.00500
1-Naphthylamine		<0.0250	mg/L	5	0.00500
2,3,4,6-Tetrachlorophenol		<0.0500	mg/L	5	0.0100
2-Naphthylamine		<0.0250	mg/L	5	0.00500
Fluorene		0.201	mg/L	5	0.00500
4-Chlorophenyl-phenylether		<0.0250	mg/L	5	0.00500
Diethylphthalate		<0.0250	mg/L	5	0.00500
4-Nitroaniline		<0.0250	mg/L	5	0.00500
Diphenylhydrazine		<0.0250	mg/L	5	0.00500
4,6-Dinitro-2-methylphenol		<0.0250	mg/L	5	0.00500
Diphenylamine		<0.0250	mg/L	5	0.00500
4-Bromophenyl-phenylether		<0.0250	mg/L	5	0.00500
Phenacetin		<0.0250	mg/L	5	0.00500
Hexachlorobenzene		<0.0250	mg/L	5	0.00500
4-Aminobiphenyl		0.122	mg/L	5	0.00500
Pentachlorophenol		<0.0500	mg/L	5	0.0100
Anthracene		<0.0250	mg/L	5	0.00500
Pentachloronitrobenzene		<0.0250	mg/L	5	0.00500
Pronamide		<0.0250	mg/L	5	0.00500
Phenanthrene		0.298	mg/L	5	0.00500
Di-n-butylphthalate		<0.0250	mg/L	5	0.00500
Fluoranthene		<0.0250	mg/L	5	0.00500
Benzidine		<0.125	mg/L	5	0.0250
Pyrene		<0.0250	mg/L	5	0.00500
p-Dimethylaminoazobenzene		<0.0250	mg/L	5	0.00500
Butylbenzylphthalate		<0.0250	mg/L	5	0.00500
Benzo(a)anthracene		<0.0250	mg/L	5	0.00500
3,3-Dichlorobenzidine		<0.0250	mg/L	5	0.00500
Chrysene		0.0380	mg/L	5	0.00500
bis(2-ethylhexyl)phthalate	4	4.83	mg/L	5	0.00500
Di-n-octylphthalate		<0.0250	mg/L	5	0.00500
Benzo(b)fluoranthene		<0.0250	mg/L	5	0.00500
Benzo(k)fluoranthene		<0.0250	mg/L	5	0.00500
7,12-Dimethylbenz(a)anthracene		<0.0250	mg/L	5	0.00500
Benzo(a)pyrene		<0.0250	mg/L	5	0.00500
3-Methylcholanthrene		<0.0250	mg/L	5	0.00500
Dibenzo(a,j)acridine		<0.0250	mg/L	5	0.00500
Indeno(1,2,3-cd)pyrene		<0.0250	mg/L	5	0.00500
Dibenzo(a,h)anthracene		<0.0250	mg/L	5	0.00500
Benzo(g,h,i)perylene		<0.0250	mg/L	5	0.00500

⁴Estimated concentration value greater than standard range.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0203	mg/L	5	0.0800	25	10 - 84.7
Phenol-d5		0.0172	mg/L	5	0.0800	22	10 - 54.9
Nitrobenzene-d5		0.0474	mg/L	5	0.0800	59	10 - 202
2-Fluorobiphenyl		0.0348	mg/L	5	0.0800	44	10 - 199
2,4,6-Tribromophenol		0.0502	mg/L	5	0.0800	63	10 - 141
Terphenyl-d14		0.0402	mg/L	5	0.0800	50	10 - 160

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Total 8 Metals
QC Batch: 52761
Prep Batch: 45227
Laboratory: Lubbock
Analysis: Total 8 Metals
QC Batch: 52862
Prep Batch: 45207

Analytical Method: S 7470A
Date Analyzed: 2008-09-26
Sample Preparation: 2008-09-26

Analytical Method: S 6010B
Date Analyzed: 2008-09-30
Sample Preparation: 2008-09-26

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

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.00500	mg/L	1	0.00500
Total Arsenic		<0.0100	mg/L	1	0.0100
Total Barium		1.37	mg/L	1	0.00500
Total Cadmium		<0.00200	mg/L	1	0.00200
Total Chromium		0.0860	mg/L	1	0.00500
Total Mercury		<0.000400	mg/L	2	0.000200
Total Lead		<0.00500	mg/L	1	0.00500
Total Selenium		<0.0200	mg/L	1	0.0200

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Volatiles
QC Batch: 52856
Prep Batch: 45298

Analytical Method: S 8260B
Date Analyzed: 2008-09-29
Sample Preparation: 2008-09-29

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

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<500	µg/L	500	1.00
Dichlorodifluoromethane		<500	µg/L	500	1.00
Chloromethane (methyl chloride)		<500	µg/L	500	1.00
Vinyl Chloride		<500	µg/L	500	1.00
Bromomethane (methyl bromide)		<2500	µg/L	500	5.00

continued ...

sample 174436 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Chloroethane		<500	µg/L	500	1.00
Trichlorofluoromethane		<500	µg/L	500	1.00
Acetone		5570	µg/L	500	10.0
Iodomethane (methyl iodide)		<2500	µg/L	500	5.00
Carbon Disulfide		<500	µg/L	500	1.00
Acrylonitrile		<500	µg/L	500	1.00
2-Butanone (MEK)		<2500	µg/L	500	5.00
4-Methyl-2-pentanone (MIBK)		<2500	µg/L	500	5.00
2-Hexanone		<2500	µg/L	500	5.00
trans 1,4-Dichloro-2-butene		<5000	µg/L	500	10.0
1,1-Dichloroethene		<500	µg/L	500	1.00
Methylene chloride		<2500	µg/L	500	5.00
MTBE		<500	µg/L	500	1.00
trans-1,2-Dichloroethene		<500	µg/L	500	1.00
1,1-Dichloroethane		<500	µg/L	500	1.00
cis-1,2-Dichloroethene		<500	µg/L	500	1.00
2,2-Dichloropropane		<500	µg/L	500	1.00
1,2-Dichloroethane (EDC)		<500	µg/L	500	1.00
Chloroform		<500	µg/L	500	1.00
1,1,1-Trichloroethane		<500	µg/L	500	1.00
1,1-Dichloropropene		<500	µg/L	500	1.00
Benzene		26600	µg/L	500	1.00
Carbon Tetrachloride		<500	µg/L	500	1.00
1,2-Dichloropropane		<500	µg/L	500	1.00
Trichloroethene (TCE)		<500	µg/L	500	1.00
Dibromomethane (methylene bromide)		<500	µg/L	500	1.00
Bromodichloromethane		<500	µg/L	500	1.00
2-Chloroethyl vinyl ether		<2500	µg/L	500	5.00
cis-1,3-Dichloropropene		<500	µg/L	500	1.00
trans-1,3-Dichloropropene		<500	µg/L	500	1.00
Toluene		18300	µg/L	500	1.00
1,1,2-Trichloroethane		<500	µg/L	500	1.00
1,3-Dichloropropane		<500	µg/L	500	1.00
Dibromochloromethane		<500	µg/L	500	1.00
1,2-Dibromoethane (EDB)		<500	µg/L	500	1.00
Tetrachloroethene (PCE)		<500	µg/L	500	1.00
Chlorobenzene		<500	µg/L	500	1.00
1,1,1,2-Tetrachloroethane		<500	µg/L	500	1.00
Ethylbenzene		2360	µg/L	500	1.00
m,p-Xylene		3540	µg/L	500	1.00
Bromoform		<500	µg/L	500	1.00
Styrene		<500	µg/L	500	1.00
o-Xylene		1200	µg/L	500	1.00

continued ...

sample 174436 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
1,1,2,2-Tetrachloroethane		<500	µg/L	500	1.00
2-Chlorotoluene		<500	µg/L	500	1.00
1,2,3-Trichloropropane		<500	µg/L	500	1.00
Isopropylbenzene		<500	µg/L	500	1.00
Bromobenzene		<500	µg/L	500	1.00
n-Propylbenzene		<500	µg/L	500	1.00
1,3,5-Trimethylbenzene		<500	µg/L	500	1.00
tert-Butylbenzene		<500	µg/L	500	1.00
1,2,4-Trimethylbenzene		537	µg/L	500	1.00
1,4-Dichlorobenzene (para)		<500	µg/L	500	1.00
sec-Butylbenzene		<500	µg/L	500	1.00
1,3-Dichlorobenzene (meta)		<500	µg/L	500	1.00
p-Isopropyltoluene		<500	µg/L	500	1.00
4-Chlorotoluene		<500	µg/L	500	1.00
1,2-Dichlorobenzene (ortho)		<500	µg/L	500	1.00
n-Butylbenzene		<500	µg/L	500	1.00
1,2-Dibromo-3-chloropropane		<2500	µg/L	500	5.00
1,2,3-Trichlorobenzene		<2500	µg/L	500	5.00
1,2,4-Trichlorobenzene		<2500	µg/L	500	5.00
Naphthalene		<2500	µg/L	500	5.00
Hexachlorobutadiene		<2500	µg/L	500	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		29100	µg/L	500	25000	116	83.6 - 120
Toluene-d8		25700	µg/L	500	25000	103	85.1 - 120
4-Bromofluorobenzene (4-BFB)		23300	µg/L	500	25000	93	73.7 - 111

Sample: 174436 - MW-1A

Laboratory: Lubbock
Analysis: Zn, Total
QC Batch: 52862
Prep Batch: 45207

Analytical Method: S 6010B
Date Analyzed: 2008-09-30
Sample Preparation: 2008-09-26

Prep Method: S 3010A
Analyzed By: RR
Prepared By: KV

Parameter	Flag	RL Result	Units	Dilution	RL
Total Zinc		0.613	mg/L	1	0.00500

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Method Blank (1) QC Batch: 52657

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Nitrate-N		<0.0120	mg/L	0.2

Method Blank (1) QC Batch: 52657

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
PO4-P		<0.0270	mg/L	0.5

Method Blank (1) QC Batch: 52657

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.172	mg/L	0.5
Fluoride		<0.199	mg/L	0.2
Sulfate		<0.0320	mg/L	0.5

Method Blank (1) QC Batch: 52658

QC Batch: 52658
Prep Batch: 45140

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

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Method Blank (1) QC Batch: 52761

QC Batch: 52761
Prep Batch: 45227

Date Analyzed: 2008-09-26
QC Preparation: 2008-09-26

Analyzed By: TP
Prepared By: TP

Parameter	Flag	MDL Result	Units	RL
Total Mercury		<0.0000251	mg/L	0.0002

Method Blank (1) QC Batch: 52856

QC Batch: 52856
Prep Batch: 45298

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: KB
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.197	µg/L	1
Dichlorodifluoromethane		<0.672	µg/L	1
Chloromethane (methyl chloride)		<0.542	µg/L	1
Vinyl Chloride		<0.516	µg/L	1
Bromomethane (methyl bromide)		<0.446	µg/L	5
Chloroethane		<0.656	µg/L	1
Trichlorofluoromethane		<0.538	µg/L	1
Acetone		<1.10	µg/L	10
Iodomethane (methyl iodide)		<0.214	µg/L	5
Carbon Disulfide		<0.294	µg/L	1
Acrylonitrile		<0.442	µg/L	1
2-Butanone (MEK)		<0.420	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.407	µg/L	5
2-Hexanone		<0.486	µg/L	5
trans 1,4-Dichloro-2-butene		<0.463	µg/L	10
1,1-Dichloroethene		<0.237	µg/L	1
Methylene chloride		<0.312	µg/L	5
MTBE		<0.318	µg/L	1
trans-1,2-Dichloroethene		<0.217	µg/L	1
1,1-Dichloroethane		<0.202	µg/L	1
cis-1,2-Dichloroethene		<0.309	µg/L	1
2,2-Dichloropropane		<0.318	µg/L	1
1,2-Dichloroethane (EDC)		<0.292	µg/L	1
Chloroform		<0.234	µg/L	1
1,1,1-Trichloroethane		<0.257	µg/L	1
1,1-Dichloropropene		<0.286	µg/L	1
Benzene		<0.319	µg/L	1
Carbon Tetrachloride		<0.223	µg/L	1

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
1,2-Dichloropropane		<0.266	µg/L	1
Trichloroethene (TCE)		<0.235	µg/L	1
Dibromomethane (methylene bromide)		<0.341	µg/L	1
Bromodichloromethane		<0.291	µg/L	1
2-Chloroethyl vinyl ether		<0.293	µg/L	5
cis-1,3-Dichloropropene		<0.207	µg/L	1
trans-1,3-Dichloropropene		<0.293	µg/L	1
Toluene		<0.268	µg/L	1
1,1,2-Trichloroethane		<0.329	µg/L	1
1,3-Dichloropropane		<0.316	µg/L	1
Dibromochloromethane		<0.290	µg/L	1
1,2-Dibromoethane (EDB)		<0.229	µg/L	1
Tetrachloroethene (PCE)		<0.233	µg/L	1
Chlorobenzene		<0.276	µg/L	1
1,1,1,2-Tetrachloroethane		<0.226	µg/L	1
Ethylbenzene		<0.245	µg/L	1
m,p-Xylene		<0.517	µg/L	1
Bromoform		<0.175	µg/L	1
Styrene		<0.239	µg/L	1
o-Xylene		<0.247	µg/L	1
1,1,2,2-Tetrachloroethane		<0.223	µg/L	1
2-Chlorotoluene		<0.235	µg/L	1
1,2,3-Trichloropropane		<0.230	µg/L	1
Isopropylbenzene		<0.226	µg/L	1
Bromobenzene		<0.245	µg/L	1
n-Propylbenzene		<0.234	µg/L	1
1,3,5-Trimethylbenzene		<0.261	µg/L	1
tert-Butylbenzene		<0.281	µg/L	1
1,2,4-Trimethylbenzene		<0.285	µg/L	1
1,4-Dichlorobenzene (para)		<0.307	µg/L	1
sec-Butylbenzene		<0.312	µg/L	1
1,3-Dichlorobenzene (meta)		<0.284	µg/L	1
p-Isopropyltoluene		<0.244	µg/L	1
4-Chlorotoluene		<0.257	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.294	µg/L	1
n-Butylbenzene		<0.339	µg/L	1
1,2-Dibromo-3-chloropropane		<0.780	µg/L	5
1,2,3-Trichlorobenzene		<0.736	µg/L	5
1,2,4-Trichlorobenzene		<0.432	µg/L	5
Naphthalene		<0.475	µg/L	5
Hexachlorobutadiene		<1.02	µg/L	5

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		58.4	µg/L	1	50.0	117	83.6 - 120
Toluene-d8		51.1	µg/L	1	50.0	102	85 - 120
4-Bromofluorobenzene (4-BFB)		45.6	µg/L	1	50.0	91	73.7 - 111

Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Aluminum		<0.00540	mg/L	0.05

Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Boron		<0.00210	mg/L	0.005

Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Cobalt		<0.00170	mg/L	0.002

Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Copper		<0.00129	mg/L	0.005

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Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Iron		<0.00146	mg/L	0.01

Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Manganese		<0.000414	mg/L	0.0025

Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Molybdenum		<0.00613	mg/L	0.01

Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Nickel		<0.00271	mg/L	0.005

Method Blank (1) QC Batch: 52862

QC Batch: 52862 Date Analyzed: 2008-09-30 Analyzed By: RR
Prep Batch: 45207 QC Preparation: 2008-09-26 Prepared By: KV

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Parameter	Flag	MDL Result	Units	RL
Total Zinc		<0.000679	mg/L	0.005

Method Blank (1) QC Batch: 52862

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Total Silver		<0.000700	mg/L	0.005
Total Arsenic		<0.00850	mg/L	0.01
Total Barium		<0.00180	mg/L	0.005
Total Cadmium		<0.00110	mg/L	0.002
Total Chromium		<0.00201	mg/L	0.005
Total Lead		<0.00460	mg/L	0.005
Total Selenium		<0.0106	mg/L	0.02

Method Blank (1) QC Batch: 52872

QC Batch: 52872
Prep Batch: 45305

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: DS
Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
Pyridine		<0.00128	mg/L	0.005
N-Nitrosodimethylamine		<0.00192	mg/L	0.005
2-Picoline		<0.00132	mg/L	0.005
Methyl methanesulfonate		<0.00175	mg/L	0.005
Ethyl methanesulfonate		<0.00122	mg/L	0.005
Phenol		<0.00165	mg/L	0.005
Aniline		<0.00138	mg/L	0.005
bis(2-chloroethyl)ether		<0.00217	mg/L	0.005
2-Chlorophenol		<0.00150	mg/L	0.005
1,3-Dichlorobenzene (meta)		<0.00166	mg/L	0.005
1,4-Dichlorobenzene (para)		<0.00156	mg/L	0.005
Benzyl alcohol		<0.00100	mg/L	0.005
1,2-Dichlorobenzene (ortho)		<0.00164	mg/L	0.005
2-Methylphenol		<0.00158	mg/L	0.005
bis(2-chloroisopropyl)ether		<0.000828	mg/L	0.005
4-Methylphenol / 3-Methylphenol		<0.00124	mg/L	0.005
N-Nitrosodi-n-propylamine		<0.00127	mg/L	0.005
Hexachloroethane		<0.00198	mg/L	0.005

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Acetophenone		<0.00127	mg/L	0.005
Nitrobenzene		<0.00193	mg/L	0.005
N-Nitrosopiperidine		<0.00120	mg/L	0.005
Isophorone		<0.00194	mg/L	0.005
2-Nitrophenol		<0.00140	mg/L	0.005
2,4-Dimethylphenol		<0.00109	mg/L	0.005
bis(2-chloroethoxy)methane		<0.00124	mg/L	0.005
2,4-Dichlorophenol		<0.00134	mg/L	0.005
1,2,4-Trichlorobenzene		<0.00193	mg/L	0.005
Benzoic acid		<0.00304	mg/L	0.005
Naphthalene		<0.00165	mg/L	0.005
a,a-Dimethylphenethylamine		<0.000758	mg/L	0.005
4-Chloroaniline		<0.00115	mg/L	0.005
2,6-Dichlorophenol		<0.00120	mg/L	0.01
Hexachlorobutadiene		<0.00184	mg/L	0.005
N-Nitroso-di-n-butylamine		<0.00169	mg/L	0.005
4-Chloro-3-methylphenol		<0.00120	mg/L	0.005
2-Methylnaphthalene		<0.00145	mg/L	0.005
1-Methylnaphthalene		<0.00155	mg/L	0.005
1,2,4,5-Tetrachlorobenzene		<0.00205	mg/L	0.005
Hexachlorocyclopentadiene		<0.00385	mg/L	0.005
2,4,6-Trichlorophenol		<0.00152	mg/L	0.01
2,4,5-Trichlorophenol		<0.00320	mg/L	0.005
2-Chloronaphthalene		<0.00168	mg/L	0.005
1-Chloronaphthalene		<0.00181	mg/L	0.005
2-Nitroaniline		<0.00169	mg/L	0.005
Dimethylphthalate		<0.00178	mg/L	0.005
Acenaphthylene		<0.00136	mg/L	0.005
2,6-Dinitrotoluene		<0.00139	mg/L	0.005
3-Nitroaniline		<0.00124	mg/L	0.005
Acenaphthene		<0.00132	mg/L	0.005
2,4-Dinitrophenol		<0.00392	mg/L	0.005
Dibenzofuran		<0.00161	mg/L	0.005
Pentachlorobenzene		<0.00242	mg/L	0.005
4-Nitrophenol		<0.00127	mg/L	0.025
2,4-Dinitrotoluene		<0.00139	mg/L	0.005
1-Naphthylamine		<0.00128	mg/L	0.005
2,3,4,6-Tetrachlorophenol		<0.00130	mg/L	0.01
2-Naphthylamine		<0.00154	mg/L	0.005
Fluorene		<0.00130	mg/L	0.005
4-Chlorophenyl-phenylether		<0.00173	mg/L	0.005
Diethylphthalate		<0.00161	mg/L	0.005
4-Nitroaniline		<0.00101	mg/L	0.005
Diphenylhydrazine		<0.00125	mg/L	0.005

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
4,6-Dinitro-2-methylphenol		<0.00135	mg/L	0.005
Diphenylamine		<0.00159	mg/L	0.005
4-Bromophenyl-phenylether		<0.00187	mg/L	0.005
Phenacetin		<0.00139	mg/L	0.005
Hexachlorobenzene		<0.00238	mg/L	0.005
4-Aminobiphenyl		<0.00134	mg/L	0.005
Pentachlorophenol		<0.000632	mg/L	0.01
Anthracene		<0.00152	mg/L	0.005
Pentachloronitrobenzene		<0.00307	mg/L	0.005
Pronamide		<0.00159	mg/L	0.005
Phenanthrene		<0.00144	mg/L	0.005
Di-n-butylphthalate		<0.00125	mg/L	0.005
Fluoranthene		<0.00159	mg/L	0.005
Benzidine		<0.000845	mg/L	0.025
Pyrene		<0.00135	mg/L	0.005
p-Dimethylaminoazobenzene		<0.000969	mg/L	0.005
Butylbenzylphthalate		<0.00110	mg/L	0.005
Benzo(a)anthracene		<0.00138	mg/L	0.005
3,3-Dichlorobenzidine		<0.00130	mg/L	0.005
Chrysene		<0.00146	mg/L	0.005
bis(2-ethylhexyl)phthalate		0.00130	mg/L	0.005
Di-n-octylphthalate		<0.000892	mg/L	0.005
Benzo(b)fluoranthene		<0.00126	mg/L	0.005
Benzo(k)fluoranthene		<0.00149	mg/L	0.005
7,12-Dimethylbenz(a)anthracene		<0.00134	mg/L	0.005
Benzo(a)pyrene		<0.00155	mg/L	0.005
3-Methylcholanthrene		<0.00166	mg/L	0.005
Dibenzo(a,j)acridine		<0.00201	mg/L	0.005
Indeno(1,2,3-cd)pyrene		<0.00195	mg/L	0.005
Dibenzo(a,h)anthracene		<0.00210	mg/L	0.005
Benzo(g,h,i)perylene		<0.00207	mg/L	0.005

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.0335	mg/L	1	0.0800	42	10 - 66.9
Phenol-d5		0.0236	mg/L	1	0.0800	30	10 - 50.7
Nitrobenzene-d5		0.0657	mg/L	1	0.0800	82	10 - 124
2-Fluorobiphenyl		0.0606	mg/L	1	0.0800	76	10 - 127
2,4,6-Tribromophenol		0.0540	mg/L	1	0.0800	68	10 - 138
Terphenyl-d14		0.0729	mg/L	1	0.0800	91	10 - 143

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Method Blank (1) QC Batch: 53041

QC Batch: 53041
Prep Batch: 45388

Date Analyzed: 2008-10-06
QC Preparation: 2008-10-03

Analyzed By: TP
Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.175	mg/L	1
Dissolved Magnesium		<0.148	mg/L	1
Dissolved Potassium		0.642	mg/L	1
Dissolved Sodium		<0.244	mg/L	1

Duplicates (1) Duplicated Sample: 174436

QC Batch: 52658
Prep Batch: 45140

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	241	234	mg/L as CaCo3	1	3	20
Total Alkalinity	241	234	mg/L as CaCo3	1	3	20

Laboratory Control Spike (LCS-1)

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	2.50	mg/L	1	2.50	<0.0120	100	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N	2.50	mg/L	1	2.50	<0.0120	100	90 - 110	0	

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

Laboratory Control Spike (LCS-1)

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Report Date: October 7, 2008
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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
PO4-P	12.4	mg/L	1	12.5	<0.0270	99	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
PO4-P	12.3	mg/L	1	12.5	<0.0270	98	90 - 110	1	

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

Laboratory Control Spike (LCS-1)

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11.8	mg/L	1	12.5	<0.172	94	90 - 110
Fluoride	2.36	mg/L	1	2.50	<0.199	94	90 - 110
Sulfate	12.2	mg/L	1	12.5	<0.0320	98	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11.4	mg/L	1	12.5	<0.172	91	90 - 110	3	
Fluoride	2.58	mg/L	1	2.50	<0.199	103	90 - 110	9	
Sulfate	12.2	mg/L	1	12.5	<0.0320	98	90 - 110	0	

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

Laboratory Control Spike (LCS-1)

QC Batch: 52761
Prep Batch: 45227

Date Analyzed: 2008-09-26
QC Preparation: 2008-09-26

Analyzed By: TP
Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.000953	mg/L	1	0.00100	<0.0000251	95	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.000973	mg/L	1	0.00100	<0.0000251	97	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52856
Prep Batch: 45298

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane	56.2	µg/L	1	50.0	<0.197	112	88.2 - 114.5
Dichlorodifluoromethane	57.3	µg/L	1	50.0	<0.672	115	60.6 - 132.1
Chloromethane (methyl chloride)	54.7	µg/L	1	50.0	<0.542	109	55.7 - 127.9
Vinyl Chloride	60.3	µg/L	1	50.0	<0.516	121	47.6 - 142.9
Bromomethane (methyl bromide)	46.3	µg/L	1	50.0	<0.446	93	40.2 - 153.4
Chloroethane	46.3	µg/L	1	50.0	<0.656	93	44.5 - 145.8
Trichlorofluoromethane	58.3	µg/L	1	50.0	<0.538	117	55.9 - 152
Acetone	64.4	µg/L	1	50.0	<1.10	129	10 - 177.1
Iodomethane (methyl iodide)	58.8	µg/L	1	50.0	<0.214	118	76.6 - 128.8
Carbon Disulfide	59.5	µg/L	1	50.0	<0.294	119	66.1 - 137.3
Acrylonitrile	55.5	µg/L	1	50.0	<0.442	111	72.6 - 136.6
2-Butanone (MEK)	56.5	µg/L	1	50.0	<0.420	113	19.8 - 180.1
4-Methyl-2-pentanone (MIBK)	50.6	µg/L	1	50.0	<0.407	101	79.8 - 129.5
2-Hexanone	57.6	µg/L	1	50.0	<0.486	115	26.2 - 189.3
trans 1,4-Dichloro-2-butene	48.5	µg/L	1	50.0	<0.463	97	68 - 140.3
1,1-Dichloroethene	61.0	µg/L	1	50.0	<0.237	122	79 - 122.1
Methylene chloride	58.8	µg/L	1	50.0	<0.312	118	59.5 - 134.6
MTBE	80.4	µg/L	1	50.0	<0.318	161	69.8 - 137.1
trans-1,2-Dichloroethene	60.3	µg/L	1	50.0	<0.217	121	81.4 - 118.7
1,1-Dichloroethane	59.1	µg/L	1	50.0	<0.202	118	79.7 - 119.2
cis-1,2-Dichloroethene	58.8	µg/L	1	50.0	<0.309	118	86 - 120.2
2,2-Dichloropropane	60.6	µg/L	1	50.0	<0.318	121	48 - 145.8
1,2-Dichloroethane (EDC)	57.0	µg/L	1	50.0	<0.292	114	76.2 - 126.4
Chloroform	57.8	µg/L	1	50.0	<0.234	116	80.2 - 120.9
1,1,1-Trichloroethane	58.5	µg/L	1	50.0	<0.257	117	66 - 139.6
1,1-Dichloropropene	56.0	µg/L	1	50.0	<0.286	112	89.3 - 116.5
Benzene	54.7	µg/L	1	50.0	<0.319	109	89.5 - 113.9
Carbon Tetrachloride	55.4	µg/L	1	50.0	<0.223	111	78 - 128.2
1,2-Dichloropropane	56.3	µg/L	1	50.0	<0.266	113	88.5 - 115.5
Trichloroethene (TCE)	54.0	µg/L	1	50.0	<0.235	108	87.1 - 118.1
Dibromomethane (methylene bromide)	52.7	µg/L	1	50.0	<0.341	105	89.8 - 117.7
Bromodichloromethane	54.9	µg/L	1	50.0	<0.291	110	90.4 - 120.5
2-Chloroethyl vinyl ether	49.7	µg/L	1	50.0	<0.293	99	74.2 - 129.9
cis-1,3-Dichloropropene	57.9	µg/L	1	50.0	<0.207	116	88.8 - 124.1
trans-1,3-Dichloropropene	58.0	µg/L	1	50.0	<0.293	116	82 - 131.4
Toluene	54.3	µg/L	1	50.0	<0.268	109	91.1 - 113.8
1,1,2-Trichloroethane	51.8	µg/L	1	50.0	<0.329	104	91.5 - 113.9
1,3-Dichloropropane	54.0	µg/L	1	50.0	<0.316	108	89.6 - 115.8

continued ...

⁵Spike recovery outside control limits. Majority of analytes have recoveries within limits showing the analysis to be in control. •

⁶Spike recovery outside control limits. Majority of analytes have recoveries within limits showing the analysis to be in control. •

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dibromochloromethane	52.5	µg/L	1	50.0	<0.290	105	95.1 - 119.8
1,2-Dibromoethane (EDB)	50.6	µg/L	1	50.0	<0.229	101	93.8 - 117.4
Tetrachloroethene (PCE)	54.8	µg/L	1	50.0	<0.233	110	60.6 - 131.5
Chlorobenzene	51.6	µg/L	1	50.0	<0.276	103	91.3 - 108.8
1,1,1,2-Tetrachloroethane	51.6	µg/L	1	50.0	<0.226	103	92 - 114.9
Ethylbenzene	54.2	µg/L	1	50.0	<0.245	108	91.8 - 117.4
m,p-Xylene	109	µg/L	1	100	<0.517	109	91.4 - 120
Bromoform	41.1	µg/L	1	50.0	<0.175	82	84 - 133.8
Styrene	50.0	µg/L	1	50.0	<0.239	100	87 - 128.3
o-Xylene	55.6	µg/L	1	50.0	<0.247	111	89.3 - 122.4
1,1,2,2-Tetrachloroethane	46.7	µg/L	1	50.0	<0.223	93	79.7 - 129.4
2-Chlorotoluene	53.9	µg/L	1	50.0	<0.235	108	90.5 - 114.9
1,2,3-Trichloropropane	54.4	µg/L	1	50.0	<0.230	109	88.3 - 121
Isopropylbenzene	55.6	µg/L	1	50.0	<0.226	111	93.5 - 114.9
Bromobenzene	53.8	µg/L	1	50.0	<0.245	108	89.7 - 114
n-Propylbenzene	54.6	µg/L	1	50.0	<0.234	109	83.8 - 119
1,3,5-Trimethylbenzene	53.9	µg/L	1	50.0	<0.261	108	88.9 - 116.7
tert-Butylbenzene	53.1	µg/L	1	50.0	<0.281	106	89.6 - 115.9
1,2,4-Trimethylbenzene	53.5	µg/L	1	50.0	<0.285	107	92.2 - 114.6
1,4-Dichlorobenzene (para)	50.0	µg/L	1	50.0	<0.307	100	90.4 - 107
sec-Butylbenzene	53.3	µg/L	1	50.0	<0.312	107	87.7 - 116.6
1,3-Dichlorobenzene (meta)	51.0	µg/L	1	50.0	<0.284	102	91.3 - 110.9
p-Isopropyltoluene	52.9	µg/L	1	50.0	<0.244	106	89.9 - 116.6
4-Chlorotoluene	54.0	µg/L	1	50.0	<0.257	108	91 - 116
1,2-Dichlorobenzene (ortho)	50.1	µg/L	1	50.0	<0.294	100	92.9 - 113.3
n-Butylbenzene	52.4	µg/L	1	50.0	<0.339	105	87.1 - 120
1,2-Dibromo-3-chloropropane	43.7	µg/L	1	50.0	<0.780	87	72.5 - 129.8
1,2,3-Trichlorobenzene	44.3	µg/L	1	50.0	<0.736	89	10 - 218.8
1,2,4-Trichlorobenzene	44.1	µg/L	1	50.0	<0.432	88	53.2 - 146.6
Naphthalene	45.1	µg/L	1	50.0	<0.475	90	26.6 - 177.2
Hexachlorobutadiene	45.2	µg/L	1	50.0	<1.02	90	73.6 - 134.8

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromochloromethane	55.7	µg/L	1	50.0	<0.197	111	88.2 - 114.5	1	20
Dichlorodifluoromethane	51.5	µg/L	1	50.0	<0.672	103	60.6 - 132.1	11	20
Chloromethane (methyl chloride)	51.8	µg/L	1	50.0	<0.542	104	55.7 - 127.9	5	20
Vinyl Chloride	56.6	µg/L	1	50.0	<0.516	113	47.6 - 142.9	6	20
Bromomethane (methyl bromide)	49.4	µg/L	1	50.0	<0.446	99	40.2 - 153.4	6	20
Chloroethane	53.7	µg/L	1	50.0	<0.656	107	44.5 - 145.8	15	20
Trichlorofluoromethane	52.0	µg/L	1	50.0	<0.538	104	55.9 - 152	11	20
Acetone	64.8	µg/L	1	50.0	<1.10	130	10 - 177.1	1	20

continued ...

⁷Spike recovery outside control limits. Majority of analytes have recoveries within limits showing the analysis to be in control. •

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Iodomethane (methyl iodide)	57.6	µg/L	1	50.0	<0.214	115	76.6 - 128.8	2	20
Carbon Disulfide	58.6	µg/L	1	50.0	<0.294	117	66.1 - 137.3	2	20
Acrylonitrile	57.9	µg/L	1	50.0	<0.442	116	72.6 - 136.6	4	20
2-Butanone (MEK)	57.5	µg/L	1	50.0	<0.420	115	19.8 - 180.1	2	20
4-Methyl-2-pentanone (MIBK)	54.2	µg/L	1	50.0	<0.407	108	79.8 - 129.5	7	20
2-Hexanone	59.9	µg/L	1	50.0	<0.486	120	26.2 - 189.3	4	20
trans 1,4-Dichloro-2-butene	50.4	µg/L	1	50.0	<0.463	101	68 - 140.3	4	20
1,1-Dichloroethene	58.6	µg/L	1	50.0	<0.237	117	79 - 122.1	4	20
Methylene chloride	57.9	µg/L	1	50.0	<0.312	116	59.5 - 134.6	2	20
MTBE	⁸ 75.6	µg/L	1	50.0	<0.318	151	69.8 - 137.1	6	20
trans-1,2-Dichloroethene	⁹ 59.7	µg/L	1	50.0	<0.217	119	81.4 - 118.7	1	20
1,1-Dichloroethane	58.0	µg/L	1	50.0	<0.202	116	79.7 - 119.2	2	20
cis-1,2-Dichloroethene	58.4	µg/L	1	50.0	<0.309	117	86 - 120.2	1	20
2,2-Dichloropropane	59.7	µg/L	1	50.0	<0.318	119	48 - 145.8	2	20
1,2-Dichloroethane (EDC)	57.3	µg/L	1	50.0	<0.292	115	76.2 - 126.4	0	20
Chloroform	57.5	µg/L	1	50.0	<0.234	115	80.2 - 120.9	0	20
1,1,1-Trichloroethane	58.9	µg/L	1	50.0	<0.257	118	66 - 139.6	1	20
1,1-Dichloropropene	56.4	µg/L	1	50.0	<0.286	113	89.3 - 116.5	1	20
Benzene	55.4	µg/L	1	50.0	<0.319	111	89.5 - 113.9	1	20
Carbon Tetrachloride	56.3	µg/L	1	50.0	<0.223	113	78 - 128.2	2	20
1,2-Dichloropropane	57.4	µg/L	1	50.0	<0.266	115	88.5 - 115.5	2	20
Trichloroethene (TCE)	56.6	µg/L	1	50.0	<0.235	113	87.1 - 118.1	5	20
Dibromomethane (methylene bromide)	53.9	µg/L	1	50.0	<0.341	108	89.8 - 117.7	2	20
Bromodichloromethane	55.8	µg/L	1	50.0	<0.291	112	90.4 - 120.5	2	20
2-Chloroethyl vinyl ether	50.0	µg/L	1	50.0	<0.293	100	74.2 - 129.9	1	20
cis-1,3-Dichloropropene	58.6	µg/L	1	50.0	<0.207	117	88.8 - 124.1	1	20
trans-1,3-Dichloropropene	58.8	µg/L	1	50.0	<0.293	118	82 - 131.4	1	20
Toluene	55.0	µg/L	1	50.0	<0.268	110	91.1 - 113.8	1	20
1,1,2-Trichloroethane	52.4	µg/L	1	50.0	<0.329	105	91.5 - 113.9	1	20
1,3-Dichloropropane	54.7	µg/L	1	50.0	<0.316	109	89.6 - 115.8	1	20
Dibromochloromethane	53.8	µg/L	1	50.0	<0.290	108	95.1 - 119.8	2	20
1,2-Dibromoethane (EDB)	52.4	µg/L	1	50.0	<0.229	105	93.8 - 117.4	4	20
Tetrachloroethene (PCE)	56.2	µg/L	1	50.0	<0.233	112	60.6 - 131.5	2	20
Chlorobenzene	52.0	µg/L	1	50.0	<0.276	104	91.3 - 108.8	1	20
1,1,1,2-Tetrachloroethane	52.2	µg/L	1	50.0	<0.226	104	92 - 114.9	1	20
Ethylbenzene	54.6	µg/L	1	50.0	<0.245	109	91.8 - 117.4	1	20
m,p-Xylene	109	µg/L	1	100	<0.517	109	91.4 - 120	0	20
Bromoform	43.3	µg/L	1	50.0	<0.175	87	84 - 133.8	5	20
Styrene	50.8	µg/L	1	50.0	<0.239	102	87 - 128.3	2	20
o-Xylene	56.2	µg/L	1	50.0	<0.247	112	89.3 - 122.4	1	20

continued ...

⁸Spike recovery outside control limits. Majority of analytes have recoveries within limits showing the analysis to be in control. RPD within RPD limits.

⁹Spike recovery outside control limits. Majority of analytes have recoveries within limits showing the analysis to be in control. RPD within RPD limits.

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1,2,2-Tetrachloroethane	46.9	µg/L	1	50.0	<0.223	94	79.7 - 129.4	0	20
2-Chlorotoluene	53.8	µg/L	1	50.0	<0.235	108	90.5 - 114.9	0	20
1,2,3-Trichloropropane	56.0	µg/L	1	50.0	<0.230	112	88.3 - 121	3	20
Isopropylbenzene	56.5	µg/L	1	50.0	<0.226	113	93.5 - 114.9	2	20
Bromobenzene	54.1	µg/L	1	50.0	<0.245	108	89.7 - 114	1	20
n-Propylbenzene	54.8	µg/L	1	50.0	<0.234	110	83.8 - 119	0	20
1,3,5-Trimethylbenzene	54.2	µg/L	1	50.0	<0.261	108	88.9 - 116.7	1	20
tert-Butylbenzene	53.7	µg/L	1	50.0	<0.281	107	89.6 - 115.9	1	20
1,2,4-Trimethylbenzene	54.0	µg/L	1	50.0	<0.285	108	92.2 - 114.6	1	20
1,4-Dichlorobenzene (para)	50.4	µg/L	1	50.0	<0.307	101	90.4 - 107	1	20
sec-Butylbenzene	53.7	µg/L	1	50.0	<0.312	107	87.7 - 116.6	1	20
1,3-Dichlorobenzene (meta)	51.5	µg/L	1	50.0	<0.284	103	91.3 - 110.9	1	20
p-Isopropyltoluene	53.0	µg/L	1	50.0	<0.244	106	89.9 - 116.6	0	20
4-Chlorotoluene	54.4	µg/L	1	50.0	<0.257	109	91 - 116	1	20
1,2-Dichlorobenzene (ortho)	50.8	µg/L	1	50.0	<0.294	102	92.9 - 113.3	1	20
n-Butylbenzene	52.4	µg/L	1	50.0	<0.339	105	87.1 - 120	0	20
1,2-Dibromo-3-chloropropane	46.6	µg/L	1	50.0	<0.780	93	72.5 - 129.8	6	20
1,2,3-Trichlorobenzene	45.7	µg/L	1	50.0	<0.736	91	10 - 218.8	3	20
1,2,4-Trichlorobenzene	45.3	µg/L	1	50.0	<0.432	91	53.2 - 146.6	3	20
Naphthalene	47.1	µg/L	1	50.0	<0.475	94	26.6 - 177.2	4	20
Hexachlorobutadiene	44.4	µg/L	1	50.0	<1.02	89	73.6 - 134.8	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
Dibromofluoromethane	53.2	52.7	µg/L	1	50.0	106	105	85.4 - 110.5
Toluene-d8	50.3	49.4	µg/L	1	50.0	101	99	87 - 108.6
4-Bromofluorobenzene (4-BFB)	48.5	48.5	µg/L	1	50.0	97	97	83.3 - 113

Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	0.953	mg/L	1	1.00	<0.00540	95	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Aluminum	0.949	mg/L	1	1.00	<0.00540	95	85 - 115	0	20

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

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Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Boron	0.0480	mg/L	1	0.0500	<0.00210	96	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Boron	0.0480	mg/L	1	0.0500	<0.00210	96	85 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	0.249	mg/L	1	0.250	<0.00170	100	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Cobalt	0.249	mg/L	1	0.250	<0.00170	100	85 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	0.124	mg/L	1	0.125	<0.00129	99	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Copper	0.123	mg/L	1	0.125	<0.00129	98	85 - 115	1	20

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

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Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	0.523	mg/L	1	0.500	<0.00146	105	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Iron	0.521	mg/L	1	0.500	<0.00146	104	85 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	0.252	mg/L	1	0.250	<0.000414	101	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Manganese	0.252	mg/L	1	0.250	<0.000414	101	85 - 115	0	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	0.505	mg/L	1	0.500	<0.00613	101	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Molybdenum	0.514	mg/L	1	0.500	<0.00613	103	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	0.238	mg/L	1	0.250	<0.00271	95	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Nickel	0.235	mg/L	1	0.250	<0.00271	94	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	0.244	mg/L	1	0.250	<0.000679	98	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	0.242	mg/L	1	0.250	<0.000679	97	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.125	mg/L	1	0.125	<0.000700	100	85 - 115
Total Arsenic	0.491	mg/L	1	0.500	<0.00850	98	85 - 115
Total Barium	1.06	mg/L	1	1.00	<0.00180	106	85 - 115
Total Cadmium	0.260	mg/L	1	0.250	<0.00110	104	85 - 115
Total Chromium	0.0990	mg/L	1	0.100	<0.00201	99	85 - 115
Total Lead	0.529	mg/L	1	0.500	<0.00460	106	85 - 115

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Selenium	0.442	mg/L	1	0.500	<0.0106	88	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.124	mg/L	1	0.125	<0.000700	99	85 - 115	1	20
Total Arsenic	0.490	mg/L	1	0.500	<0.00850	98	85 - 115	0	20
Total Barium	1.06	mg/L	1	1.00	<0.00180	106	85 - 115	0	20
Total Cadmium	0.259	mg/L	1	0.250	<0.00110	104	85 - 115	0	20
Total Chromium	0.0980	mg/L	1	0.100	<0.00201	98	85 - 115	1	20
Total Lead	0.529	mg/L	1	0.500	<0.00460	106	85 - 115	0	20
Total Selenium	0.439	mg/L	1	0.500	<0.0106	88	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 52872
Prep Batch: 45305

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: DS
Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Phenol	0.0199	mg/L	1	0.0800	<0.00165	25	10 - 46.1
2-Chlorophenol	0.0542	mg/L	1	0.0800	<0.00150	68	10 - 123
1,4-Dichlorobenzene (para)	0.0544	mg/L	1	0.0800	<0.00156	68	10 - 118
N-Nitrosodi-n-propylamine	0.0580	mg/L	1	0.0800	<0.00127	72	10 - 132
1,2,4-Trichlorobenzene	0.0567	mg/L	1	0.0800	<0.00193	71	10 - 130
Naphthalene	0.0579	mg/L	1	0.0800	<0.00165	72	20.3 - 121
4-Chloro-3-methylphenol	0.0642	mg/L	1	0.0800	<0.00120	80	10 - 140
Acenaphthylene	0.0706	mg/L	1	0.0800	<0.00136	88	22.3 - 124
Acenaphthene	0.0684	mg/L	1	0.0800	<0.00132	86	18.8 - 134
4-Nitrophenol	0.0143	mg/L	1	0.0800	<0.00127	18	10 - 135
2,4-Dinitrotoluene	0.0706	mg/L	1	0.0800	<0.00139	88	13.6 - 152
Fluorene	0.0764	mg/L	1	0.0800	<0.00130	96	29.7 - 114
Pentachlorophenol	0.0157	mg/L	1	0.0800	<0.000632	20	10 - 144
Anthracene	0.0710	mg/L	1	0.0800	<0.00152	89	48.2 - 118
Phenanthrene	0.0731	mg/L	1	0.0800	<0.00144	91	45.5 - 121
Fluoranthene	0.0756	mg/L	1	0.0800	<0.00159	94	42.7 - 126
Pyrene	0.0741	mg/L	1	0.0800	<0.00135	93	26.8 - 155
Benzo(a)anthracene	0.0760	mg/L	1	0.0800	<0.00138	95	60.2 - 97.3
Chrysene	0.0777	mg/L	1	0.0800	<0.00146	97	56 - 92.4
Benzo(b)fluoranthene	0.0709	mg/L	1	0.0800	<0.00126	89	73.9 - 102

continued ...

¹⁰Chrysene out of control chart limits for LCS/LCSD. Majority of analytes within range show process is within control. •

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzo(k)fluoranthene	0.0746	mg/L	1	0.0800	<0.00149	93	45.6 - 143
Benzo(a)pyrene	0.0794	mg/L	1	0.0800	<0.00155	99	54.8 - 122
Indeno(1,2,3-cd)pyrene	0.0815	mg/L	1	0.0800	<0.00195	102	61.4 - 118
Dibenzo(a,h)anthracene	0.0806	mg/L	1	0.0800	<0.0210	101	64.9 - 118
Benzo(g,h,i)perylene	0.0820	mg/L	1	0.0800	<0.00207	102	46.8 - 129

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Phenol	0.0202	mg/L	1	0.0800	<0.00165	25	10 - 46.1	2	20
2-Chlorophenol	0.0540	mg/L	1	0.0800	<0.00150	68	10 - 123	0	20
1,4-Dichlorobenzene (para)	0.0542	mg/L	1	0.0800	<0.00156	68	10 - 118	0	20
N-Nitrosodi-n-propylamine	0.0558	mg/L	1	0.0800	<0.00127	70	10 - 132	4	20
1,2,4-Trichlorobenzene	0.0583	mg/L	1	0.0800	<0.00193	73	10 - 130	3	20
Naphthalene	0.0595	mg/L	1	0.0800	<0.00165	74	20.3 - 121	3	20
4-Chloro-3-methylphenol	0.0628	mg/L	1	0.0800	<0.00120	78	10 - 140	2	20
Acenaphthylene	0.0718	mg/L	1	0.0800	<0.00136	90	22.3 - 124	2	20
Acenaphthene	0.0695	mg/L	1	0.0800	<0.00132	87	18.8 - 134	2	20
4-Nitrophenol	0.0145	mg/L	1	0.0800	<0.00127	18	10 - 135	1	20
2,4-Dinitrotoluene	0.0696	mg/L	1	0.0800	<0.00139	87	13.6 - 152	1	20
Fluorene	0.0748	mg/L	1	0.0800	<0.00130	94	29.7 - 114	2	20
Pentachlorophenol	0.0197	mg/L	1	0.0800	<0.000632	25	10 - 144	23	20
Anthracene	0.0722	mg/L	1	0.0800	<0.00152	90	48.2 - 118	2	20
Phenanthrene	0.0734	mg/L	1	0.0800	<0.00144	92	45.5 - 121	0	20
Fluoranthene	0.0788	mg/L	1	0.0800	<0.00159	98	42.7 - 126	4	20
Pyrene	0.0734	mg/L	1	0.0800	<0.00135	92	26.8 - 155	1	20
Benzo(a)anthracene	0.0768	mg/L	1	0.0800	<0.00138	96	60.2 - 97.3	1	20
Chrysene	0.0774	mg/L	1	0.0800	<0.00146	97	56 - 92.4	0	20
Benzo(b)fluoranthene	0.0716	mg/L	1	0.0800	<0.00126	90	73.9 - 102	1	20
Benzo(k)fluoranthene	0.0780	mg/L	1	0.0800	<0.00149	98	45.6 - 143	4	20
Benzo(a)pyrene	0.0806	mg/L	1	0.0800	<0.00155	101	54.8 - 122	2	20
Indeno(1,2,3-cd)pyrene	0.0813	mg/L	1	0.0800	<0.00195	102	61.4 - 118	0	20
Dibenzo(a,h)anthracene	0.0812	mg/L	1	0.0800	<0.0210	102	64.9 - 118	1	20
Benzo(g,h,i)perylene	0.0820	mg/L	1	0.0800	<0.00207	102	46.8 - 129	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol	0.0340	0.0345	mg/L	1	0.0800	42	43	10 - 109
Phenol-d5	0.0232	0.0235	mg/L	1	0.0800	29	29	10 - 61.5
Nitrobenzene-d5	0.0703	0.0723	mg/L	1	0.0800	88	90	10 - 139
2-Fluorobiphenyl	0.0690	0.0726	mg/L	1	0.0800	86	91	10 - 139

continued ...

¹¹ Chrysene out of control chart limits for LCS/LCSD. Majority of analytes within range show process is within control. •

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Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2,4,6-Tribromophenol	0.0721	0.0712	mg/L	1	0.0800	90	89	10 - 161
Terphenyl-d14	0.0831	0.0830	mg/L	1	0.0800	104	104	10 - 144

Laboratory Control Spike (LCS-1)

QC Batch: 53041
Prep Batch: 45388

Date Analyzed: 2008-10-06
QC Preparation: 2008-10-03

Analyzed By: TP
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	48.6	mg/L	1	50.0	<0.175	97	85 - 115
Dissolved Magnesium	47.7	mg/L	1	50.0	<0.148	95	85 - 115
Dissolved Potassium	48.9	mg/L	1	50.0	0.642	96	85 - 115
Dissolved Sodium	49.2	mg/L	1	50.0	<0.244	98	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	47.7	mg/L	1	50.0	<0.175	95	85 - 115	2	20
Dissolved Magnesium	46.8	mg/L	1	50.0	<0.148	94	85 - 115	2	20
Dissolved Potassium	48.6	mg/L	1	50.0	0.642	96	85 - 115	1	20
Dissolved Sodium	48.8	mg/L	1	50.0	<0.244	98	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 174436

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	16.5	mg/L	5	12.5	4.59	95	90 - 110

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
Nitrate-N	16.6	mg/L	5	12.5	4.59	96	90 - 110	1	

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

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Matrix Spike (MS-1) Spiked Sample: 174436

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
PO4-P	61.1	mg/L	5	62.5	<0.135	98	90 - 110

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
PO4-P	61.8	mg/L	5	62.5	<0.135	99	90 - 110	1	

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

Matrix Spike (MS-1) Spiked Sample: 174436

QC Batch: 52657
Prep Batch: 45139

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: AR
Prepared By: AR

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		274	mg/L	5	62.5	211	101	90 - 110
Fluoride	¹²	17.8	mg/L	5	12.5	1.8	128	90 - 110
Sulfate	¹³	268	mg/L	5	62.5	117	242	90 - 110

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
Chloride		272	mg/L	5	62.5	211	98	90 - 110	1	
Fluoride	¹⁴	14.0	mg/L	5	12.5	1.8	98	90 - 110	24	
Sulfate	¹⁵	206	mg/L	5	62.5	117	142	90 - 110	26	

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52761
Prep Batch: 45227

Date Analyzed: 2008-09-26
QC Preparation: 2008-09-26

Analyzed By: TP
Prepared By: TP

¹²Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹³Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁴MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

¹⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	¹⁶ 0.000407	mg/L	1	0.00100	<0.0000251	41	75 - 125

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
Total Mercury	¹⁷ 0.000407	mg/L	1	0.00100	<0.0000251	41	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 174886

QC Batch: 52856
Prep Batch: 45298

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: KB
Prepared By: KB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Bromochloromethane	59.5	µg/L	1	50.0	<0.197	119	83.9 - 123
Dichlorodifluoromethane	51.0	µg/L	1	50.0	<0.672	102	38.4 - 157.1
Chloromethane (methyl chloride)	57.8	µg/L	1	50.0	<0.542	116	54.1 - 145.8
Vinyl Chloride	61.6	µg/L	1	50.0	<0.516	123	48 - 153.9
Bromomethane (methyl bromide)	68.5	µg/L	1	50.0	<0.446	137	29.9 - 175.7
Chloroethane	67.0	µg/L	1	50.0	<0.656	134	10 - 240.3
Trichlorofluoromethane	51.8	µg/L	1	50.0	<0.538	104	49.5 - 169.4
Acetone	47.3	µg/L	1	50.0	<1.10	95	10 - 186
Iodomethane (methyl iodide)	54.5	µg/L	1	50.0	<0.214	109	71.9 - 127.7
Carbon Disulfide	65.0	µg/L	1	50.0	<0.294	130	75.1 - 130.9
Acrylonitrile	66.5	µg/L	1	50.0	<0.442	133	62.6 - 149.5
2-Butanone (MEK)	56.9	µg/L	1	50.0	<0.420	114	19.8 - 138.2
4-Methyl-2-pentanone (MIBK)	56.3	µg/L	1	50.0	<0.407	113	50.4 - 160.5
2-Hexanone	67.2	µg/L	1	50.0	<0.486	134	20.8 - 171.5
trans 1,4-Dichloro-2-butene	57.0	µg/L	1	50.0	<0.463	114	45.7 - 136.4
1,1-Dichloroethene	62.0	µg/L	1	50.0	<0.237	124	75.2 - 127.4
Methylene chloride	62.4	µg/L	1	50.0	<0.312	125	61.5 - 137.2
MTBE	¹⁸ 77.5	µg/L	1	50.0	<0.318	155	60 - 149.2
trans-1,2-Dichloroethene	¹⁹ 63.8	µg/L	1	50.0	<0.217	128	78.2 - 125.1
1,1-Dichloroethane	²⁰ 64.9	µg/L	1	50.0	<0.202	130	79 - 126.5
cis-1,2-Dichloroethene	62.2	µg/L	1	50.0	<0.309	124	82.5 - 127.1
2,2-Dichloropropane	55.9	µg/L	1	50.0	<0.318	112	13.7 - 121.7
1,2-Dichloroethane (EDC)	64.5	µg/L	1	50.0	<0.292	129	73.7 - 141
Chloroform	63.3	µg/L	1	50.0	<0.234	127	78.1 - 129.7

continued ...

¹⁶ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁷ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁸ Matrix spike recovery out of control limits due to matrix interference.

¹⁹ Matrix spike recovery out of control limits due to matrix interference.

²⁰ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1,1-Trichloroethane	63.7	µg/L	1	50.0	<0.257	127	70 - 140.3
1,1-Dichloropropene	58.9	µg/L	1	50.0	<0.286	118	83 - 122
Benzene	58.1	µg/L	1	50.0	<0.319	116	63.3 - 136.4
Carbon Tetrachloride	57.5	µg/L	1	50.0	<0.223	115	75.8 - 128.8
1,2-Dichloropropane	61.4	µg/L	1	50.0	<0.266	123	84 - 124.5
Trichloroethene (TCE)	49.9	µg/L	1	50.0	<0.235	100	83.7 - 109.8
Dibromomethane (methylene bromide)	56.3	µg/L	1	50.0	<0.341	113	84.6 - 124.7
Bromodichloromethane	59.1	µg/L	1	50.0	<0.291	118	87.2 - 125.3
2-Chloroethyl vinyl ether	21 <0.293	µg/L	1	50.0	<0.293	0	10 - 174.1
cis-1,3-Dichloropropene	58.8	µg/L	1	50.0	<0.207	118	82.3 - 118.5
trans-1,3-Dichloropropene	61.3	µg/L	1	50.0	<0.293	123	75.9 - 126
Toluene	57.6	µg/L	1	50.0	<0.268	115	10 - 205.6
1,1,2-Trichloroethane	55.4	µg/L	1	50.0	<0.329	111	84 - 125.8
1,3-Dichloropropane	57.5	µg/L	1	50.0	<0.316	115	83 - 126.6
Dibromochloromethane	54.2	µg/L	1	50.0	<0.290	108	91.4 - 119.1
1,2-Dibromoethane (EDB)	53.0	µg/L	1	50.0	<0.229	106	88.8 - 118.8
Tetrachloroethene (PCE)	28.5	µg/L	1	50.0	<0.233	57	46.8 - 74.2
Chlorobenzene	53.2	µg/L	1	50.0	<0.276	106	86.6 - 111.7
1,1,1,2-Tetrachloroethane	52.8	µg/L	1	50.0	<0.226	106	87.2 - 118.6
Ethylbenzene	57.1	µg/L	1	50.0	<0.245	114	81.8 - 123.6
m,p-Xylene	116	µg/L	1	100	<0.517	116	36 - 162.4
Bromoform	41.6	µg/L	1	50.0	<0.175	83	74.1 - 133
Styrene	22 1.09	µg/L	1	50.0	<0.239	2	10 - 187.2
o-Xylene	56.9	µg/L	1	50.0	<0.247	114	40.7 - 160.6
1,1,2,2-Tetrachloroethane	59.4	µg/L	1	50.0	<0.223	119	74.8 - 154.8
2-Chlorotoluene	54.6	µg/L	1	50.0	<0.235	109	86.3 - 117
1,2,3-Trichloropropane	57.6	µg/L	1	50.0	<0.230	115	73.2 - 125.2
Isopropylbenzene	55.0	µg/L	1	50.0	<0.226	110	87.8 - 114.2
Bromobenzene	55.3	µg/L	1	50.0	<0.245	111	84.8 - 116
n-Propylbenzene	56.2	µg/L	1	50.0	<0.234	112	79.4 - 117.1
1,3,5-Trimethylbenzene	54.3	µg/L	1	50.0	<0.261	109	82.6 - 115.9
tert-Butylbenzene	53.2	µg/L	1	50.0	<0.281	106	83 - 115.2
1,2,4-Trimethylbenzene	55.8	µg/L	1	50.0	<0.285	112	86.2 - 116.1
1,4-Dichlorobenzene (para)	51.0	µg/L	1	50.0	<0.307	102	86 - 106.4
sec-Butylbenzene	53.7	µg/L	1	50.0	<0.312	107	79.7 - 116.6
1,3-Dichlorobenzene (meta)	51.5	µg/L	1	50.0	<0.284	103	86.7 - 109.5
p-Isopropyltoluene	53.2	µg/L	1	50.0	<0.244	106	81.6 - 114.7
4-Chlorotoluene	55.0	µg/L	1	50.0	<0.257	110	87.1 - 115.4
1,2-Dichlorobenzene (ortho)	51.5	µg/L	1	50.0	<0.294	103	88.4 - 112.8
n-Butylbenzene	53.7	µg/L	1	50.0	<0.339	107	79.7 - 117.1
1,2-Dibromo-3-chloropropane	51.0	µg/L	1	50.0	<0.780	102	61.6 - 136.2
1,2,3-Trichlorobenzene	45.0	µg/L	1	50.0	<0.736	90	22.9 - 143.5

continued ...

²¹ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

²² Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,2,4-Trichlorobenzene	43.8	µg/L	1	50.0	<0.432	88	55.2 - 123.7
Naphthalene	48.6	µg/L	1	50.0	<0.475	97	37.2 - 147
Hexachlorobutadiene	39.8	µg/L	1	50.0	<1.02	80	74.3 - 107.4

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Bromochloromethane	59.4	µg/L	1	50.0	<0.197	119	83.9 - 123	0	20
Dichlorodifluoromethane	53.2	µg/L	1	50.0	<0.672	106	38.4 - 157.1	4	20
Chloromethane (methyl chloride)	60.3	µg/L	1	50.0	<0.542	121	54.1 - 145.8	4	20
Vinyl Chloride	62.5	µg/L	1	50.0	<0.516	125	48 - 153.9	1	20
Bromomethane (methyl bromide)	67.2	µg/L	1	50.0	<0.446	134	29.9 - 175.7	2	20
Chloroethane	66.6	µg/L	1	50.0	<0.656	133	10 - 240.3	1	20
Trichlorofluoromethane	51.6	µg/L	1	50.0	<0.538	103	49.5 - 169.4	0	20
Acetone	48.7	µg/L	1	50.0	<1.10	97	10 - 186	3	20
Iodomethane (methyl iodide)	57.0	µg/L	1	50.0	<0.214	114	71.9 - 127.7	4	20
Carbon Disulfide	63.7	µg/L	1	50.0	<0.294	127	75.1 - 130.9	2	20
Acrylonitrile	65.6	µg/L	1	50.0	<0.442	131	62.6 - 149.5	1	20
2-Butanone (MEK)	56.3	µg/L	1	50.0	<0.420	113	19.8 - 138.2	1	20
4-Methyl-2-pentanone (MIBK)	58.4	µg/L	1	50.0	<0.407	117	50.4 - 160.5	4	20
2-Hexanone	66.5	µg/L	1	50.0	<0.486	133	20.8 - 171.5	1	20
trans 1,4-Dichloro-2-butene	55.1	µg/L	1	50.0	<0.463	110	45.7 - 136.4	3	20
1,1-Dichloroethene	61.8	µg/L	1	50.0	<0.237	124	75.2 - 127.4	0	20
Methylene chloride	62.0	µg/L	1	50.0	<0.312	124	61.5 - 137.2	1	20
MTBE	23 82.8	µg/L	1	50.0	<0.318	166	60 - 149.2	7	20
trans-1,2-Dichloroethene	24 64.6	µg/L	1	50.0	<0.217	129	78.2 - 125.1	1	20
1,1-Dichloroethane	25 64.9	µg/L	1	50.0	<0.202	130	79 - 126.5	0	20
cis-1,2-Dichloroethene	63.1	µg/L	1	50.0	<0.309	126	82.5 - 127.1	1	20
2,2-Dichloropropane	55.8	µg/L	1	50.0	<0.318	112	13.7 - 121.7	0	20
1,2-Dichloroethane (EDC)	64.4	µg/L	1	50.0	<0.292	129	73.7 - 141	0	20
Chloroform	62.4	µg/L	1	50.0	<0.234	125	78.1 - 129.7	1	20
1,1,1-Trichloroethane	63.2	µg/L	1	50.0	<0.257	126	70 - 140.3	1	20
1,1-Dichloropropene	59.1	µg/L	1	50.0	<0.286	118	83 - 122	0	20
Benzene	58.5	µg/L	1	50.0	<0.319	117	63.3 - 136.4	1	20
Carbon Tetrachloride	58.4	µg/L	1	50.0	<0.223	117	75.8 - 128.8	2	20
1,2-Dichloropropane	26 62.3	µg/L	1	50.0	<0.266	125	84 - 124.5	1	20
Trichloroethene (TCE)	51.4	µg/L	1	50.0	<0.235	103	83.7 - 109.8	3	20
Dibromomethane (methylene bromide)	56.2	µg/L	1	50.0	<0.341	112	84.6 - 124.7	0	20
Bromodichloromethane	59.7	µg/L	1	50.0	<0.291	119	87.2 - 125.3	1	20

continued ...

²³Matrix spike recovery out of control limits due to matrix interference. RPD within RPD limits.

²⁴Matrix spike recovery out of control limits due to matrix interference. RPD within RPD limits.

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

²⁶MSD analyte out of range. MS/MSD has a RPD within limits. Therefore, MS shows extraction occurred properly.

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
2-Chloroethyl vinyl ether	²⁷ <0.293	µg/L	1	50.0	<0.293	0	10 - 174.1	0	20
cis-1,3-Dichloropropene	²⁸ 59.5	µg/L	1	50.0	<0.207	119	82.3 - 118.5	1	20
trans-1,3-Dichloropropene	61.1	µg/L	1	50.0	<0.293	122	75.9 - 126	0	20
Toluene	57.9	µg/L	1	50.0	<0.268	116	10 - 205.6	0	20
1,1,2-Trichloroethane	55.4	µg/L	1	50.0	<0.329	111	84 - 125.8	0	20
1,3-Dichloropropane	57.7	µg/L	1	50.0	<0.316	115	83 - 126.6	0	20
Dibromochloromethane	54.7	µg/L	1	50.0	<0.290	109	91.4 - 119.1	1	20
1,2-Dibromoethane (EDB)	53.4	µg/L	1	50.0	<0.229	107	88.8 - 118.8	1	20
Tetrachloroethene (PCE)	29.5	µg/L	1	50.0	<0.233	59	46.8 - 74.2	3	20
Chlorobenzene	53.1	µg/L	1	50.0	<0.276	106	86.6 - 111.7	0	20
1,1,1,2-Tetrachloroethane	53.1	µg/L	1	50.0	<0.226	106	87.2 - 118.6	1	20
Ethylbenzene	56.7	µg/L	1	50.0	<0.245	113	81.8 - 123.6	1	20
m,p-Xylene	114	µg/L	1	100	<0.517	114	36 - 162.4	2	20
Bromoform	42.6	µg/L	1	50.0	<0.175	85	74.1 - 133	2	20
Styrene	²⁹ 1.09	µg/L	1	50.0	<0.239	2	10 - 187.2	0	20
o-Xylene	56.6	µg/L	1	50.0	<0.247	113	40.7 - 160.6	0	20
1,1,2,2-Tetrachloroethane	58.0	µg/L	1	50.0	<0.223	116	74.8 - 154.8	2	20
2-Chlorotoluene	56.0	µg/L	1	50.0	<0.235	112	86.3 - 117	2	20
1,2,3-Trichloropropane	57.8	µg/L	1	50.0	<0.230	116	73.2 - 125.2	0	20
Isopropylbenzene	56.4	µg/L	1	50.0	<0.226	113	87.8 - 114.2	2	20
Bromobenzene	55.7	µg/L	1	50.0	<0.245	111	84.8 - 116	1	20
n-Propylbenzene	56.6	µg/L	1	50.0	<0.234	113	79.4 - 117.1	1	20
1,3,5-Trimethylbenzene	55.1	µg/L	1	50.0	<0.261	110	82.6 - 115.9	2	20
tert-Butylbenzene	54.6	µg/L	1	50.0	<0.281	109	83 - 115.2	3	20
1,2,4-Trimethylbenzene	56.7	µg/L	1	50.0	<0.285	113	86.2 - 116.1	2	20
1,4-Dichlorobenzene (para)	51.6	µg/L	1	50.0	<0.307	103	86 - 106.4	1	20
sec-Butylbenzene	55.0	µg/L	1	50.0	<0.312	110	79.7 - 116.6	2	20
1,3-Dichlorobenzene (meta)	52.4	µg/L	1	50.0	<0.284	105	86.7 - 109.5	2	20
p-Isopropyltoluene	54.1	µg/L	1	50.0	<0.244	108	81.6 - 114.7	2	20
4-Chlorotoluene	55.6	µg/L	1	50.0	<0.257	111	87.1 - 115.4	1	20
1,2-Dichlorobenzene (ortho)	52.0	µg/L	1	50.0	<0.294	104	88.4 - 112.8	1	20
n-Butylbenzene	54.4	µg/L	1	50.0	<0.339	109	79.7 - 117.1	1	20
1,2-Dibromo-3-chloropropane	49.8	µg/L	1	50.0	<0.780	100	61.6 - 136.2	2	20
1,2,3-Trichlorobenzene	46.4	µg/L	1	50.0	<0.736	93	22.9 - 143.5	3	20
1,2,4-Trichlorobenzene	45.1	µg/L	1	50.0	<0.432	90	55.2 - 123.7	3	20
Naphthalene	49.4	µg/L	1	50.0	<0.475	99	37.2 - 147	2	20
Hexachlorobutadiene	42.0	µg/L	1	50.0	<1.02	84	74.3 - 107.4	5	20

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

²⁷ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

²⁸ MSD analyte out of range. MS/MSD has a RPD within limits. Therefore, MS shows extraction occurred properly.

²⁹ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane ³⁰	56.7	55.5	µg/L	1	50	113	111	89 - 112.8
Toluene-d8	50.3	49.7	µg/L	1	50	101	99	86.2 - 109.5
4-Bromofluorobenzene (4-BFB)	49.2	47.9	µg/L	1	50	98	96	81.3 - 115.4

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Aluminum	10.7	mg/L	1	10.0	0.166	105	75 - 125

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
Total Aluminum	10.7	mg/L	1	10.0	0.166	105	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Boron ³¹	20.9	mg/L	10	0.500	20.9	0	75 - 125

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
Total Boron ³²	20.9	mg/L	10	0.500	20.9	0	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

³⁰8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

³¹Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

³²Matrix spike recoveries out of control limits due to matrix spike being diluted out. Use LCS/LCSD to demonstrate analysis is under control.

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Cobalt	1.96	mg/L	1	2.50	<0.00170	78	75 - 125

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
Total Cobalt	1.94	mg/L	1	2.50	<0.00170	78	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Copper	1.49	mg/L	1	1.25	0.067	114	75 - 125

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
Total Copper	1.50	mg/L	1	1.25	0.067	115	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Iron	4.65	mg/L	1	5.00	0.576	81	75 - 125

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
Total Iron	4.62	mg/L	1	5.00	0.576	81	75 - 125	1	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Report Date: October 7, 2008
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Work Order: 8092404
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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Manganese	2.79	mg/L	1	2.50	0.733	82	75 - 125

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
Total Manganese	2.88	mg/L	1	2.50	0.733	86	75 - 125	3	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Molybdenum	4.59	mg/L	1	5.00	0.132	89	75 - 125

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
Total Molybdenum	4.79	mg/L	1	5.00	0.132	93	75 - 125	4	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Nickel	1.98	mg/L	1	2.50	<0.00271	79	75 - 125

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
Total Nickel	1.97	mg/L	1	2.50	<0.00271	79	75 - 125	0	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Report Date: October 7, 2008
PLAIN044SPL

Work Order: 8092404
C.S. Cayler

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	2.41	mg/L	1	2.50	0.126	91	75 - 125

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
Total Zinc	2.49	mg/L	1	2.50	0.126	94	75 - 125	3	20

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

Matrix Spike (MS-1) Spiked Sample: 174273

QC Batch: 52862
Prep Batch: 45207

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-26

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	1.30	mg/L	1	1.25	<0.000700	104	75 - 125
Total Arsenic	4.59	mg/L	1	5.00	<0.00850	92	75 - 125
Total Barium	10.7	mg/L	1	10.0	0.022	107	75 - 125
Total Cadmium	1.98	mg/L	1	2.50	<0.00110	79	75 - 125
Total Chromium	0.815	mg/L	1	1.00	<0.00201	82	75 - 125
Total Lead	4.57	mg/L	1	5.00	<0.00460	91	75 - 125
Total Selenium	4.31	mg/L	1	5.00	<0.0106	86	75 - 125

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
Total Silver	1.32	mg/L	1	1.25	<0.000700	106	75 - 125	2	20
Total Arsenic	4.78	mg/L	1	5.00	<0.00850	96	75 - 125	4	20
Total Barium	10.8	mg/L	1	10.0	0.022	108	75 - 125	1	20
Total Cadmium	1.98	mg/L	1	2.50	<0.00110	79	75 - 125	0	20
Total Chromium	0.833	mg/L	1	1.00	<0.00201	83	75 - 125	2	20
Total Lead	4.76	mg/L	1	5.00	<0.00460	95	75 - 125	4	20
Total Selenium	4.49	mg/L	1	5.00	<0.0106	90	75 - 125	4	20

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

Standard (ICV-1)

QC Batch: 52657

Date Analyzed: 2008-09-24

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.51	100	90 - 110	2008-09-24

Standard (ICV-1)

QC Batch: 52657

Date Analyzed: 2008-09-24

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
PO4-P		mg/L	12.5	12.5	100	90 - 110	2008-09-24

Standard (ICV-1)

QC Batch: 52657

Date Analyzed: 2008-09-24

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.2	90	90 - 110	2008-09-24
Fluoride		mg/L	2.50	2.46	98	90 - 110	2008-09-24
Sulfate		mg/L	12.5	12.4	99	90 - 110	2008-09-24

Standard (CCV-1)

QC Batch: 52657

Date Analyzed: 2008-09-24

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.48	99	90 - 110	2008-09-24

Standard (CCV-1)

QC Batch: 52657

Date Analyzed: 2008-09-24

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
PO4-P		mg/L	12.5	12.4	99	90 - 110	2008-09-24

Standard (CCV-1)

QC Batch: 52657

Date Analyzed: 2008-09-24

Analyzed By: AR

Report Date: October 7, 2008
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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	11.8	94	90 - 110	2008-09-24
Fluoride		mg/L	2.50	2.36	94	90 - 110	2008-09-24
Sulfate		mg/L	12.5	12.2	98	90 - 110	2008-09-24

Standard (ICV-1)

QC Batch: 52658

Date Analyzed: 2008-09-24

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	<1.00		0 - 200	2008-09-24
Carbonate Alkalinity		mg/L as CaCo3	0.00	236		0 - 200	2008-09-24
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	5.00		0 - 200	2008-09-24
Total Alkalinity		mg/L as CaCo3	250	241	96	90 - 110	2008-09-24

Standard (CCV-1)

QC Batch: 52658

Date Analyzed: 2008-09-24

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Hydroxide Alkalinity		mg/L as CaCo3	0.00	7.00		0 - 200	2008-09-24
Carbonate Alkalinity		mg/L as CaCo3	0.00	246		0 - 200	2008-09-24
Bicarbonate Alkalinity		mg/L as CaCo3	0.00	<4.00		0 - 200	2008-09-24
Total Alkalinity		mg/L as CaCo3	250	253	101	90 - 110	2008-09-24

Standard (ICV-1)

QC Batch: 52761

Date Analyzed: 2008-09-26

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.00101	101	90 - 110	2008-09-26

Standard (CCV-1)

QC Batch: 52761

Date Analyzed: 2008-09-26

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00100	0.000990	99	90 - 110	2008-09-26

Standard (CCV-1)

QC Batch: 52856

Date Analyzed: 2008-09-29

Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromochloromethane		µg/L	50.0	55.5	111	70 - 130	2008-09-29
Dichlorodifluoromethane		µg/L	50.0	51.0	102	70 - 130	2008-09-29
Chloromethane (methyl chloride)		µg/L	50.0	58.6	117	70 - 130	2008-09-29
Vinyl Chloride	33	µg/L	50.0	62.3	125	80 - 120	2008-09-29
Bromomethane (methyl bromide)	34	µg/L	50.0	67.3	135	70 - 130	2008-09-29
Chloroethane	35	µg/L	50.0	66.5	133	70 - 130	2008-09-29
Trichlorofluoromethane		µg/L	50.0	52.4	105	70 - 130	2008-09-29
Acetone	36	µg/L	50.0	67.1	134	70 - 130	2008-09-29
Iodomethane (methyl iodide)		µg/L	50.0	51.8	104	70 - 130	2008-09-29
Carbon Disulfide		µg/L	50.0	61.2	122	70 - 130	2008-09-29
Acrylonitrile		µg/L	50.0	61.8	124	70 - 130	2008-09-29
2-Butanone (MEK)		µg/L	50.0	59.6	119	70 - 130	2008-09-29
4-Methyl-2-pentanone (MIBK)		µg/L	50.0	53.9	108	70 - 130	2008-09-29
2-Hexanone	37	µg/L	50.0	69.0	138	70 - 130	2008-09-29
trans 1,4-Dichloro-2-butene		µg/L	50.0	56.9	114	70 - 130	2008-09-29
1,1-Dichloroethene		µg/L	50.0	57.9	116	80 - 120	2008-09-29
Methylene chloride		µg/L	50.0	59.0	118	70 - 130	2008-09-29
MTBE	38	µg/L	50.0	79.4	159	70 - 130	2008-09-29
trans-1,2-Dichloroethene		µg/L	50.0	60.3	121	70 - 130	2008-09-29
1,1-Dichloroethane		µg/L	50.0	60.3	121	70 - 130	2008-09-29
cis-1,2-Dichloroethene		µg/L	50.0	58.8	118	70 - 130	2008-09-29
2,2-Dichloropropane	39	µg/L	50.0	71.9	144	70 - 130	2008-09-29
1,2-Dichloroethane (EDC)		µg/L	50.0	60.0	120	70 - 130	2008-09-29

continued ...

³³Vinyl Chloride outside of control limits on CCV(ICV). CCV(ICV) component average is 111 which is within acceptable range. This is acceptable by Method 8000.

³⁴Bromomethane outside of control limits on CCV(ICV). CCV(ICV) component average is 111 which is within acceptable range. This is acceptable by Method 8000.

³⁵Chloroethane outside of control limits on CCV(ICV). CCV(ICV) component average is 111 which is within acceptable range. This is acceptable by Method 8000.

³⁶Acetone outside of control limits on CCV(ICV). CCV(ICV) component average is 111 which is within acceptable range. This is acceptable by Method 8000.

³⁷2-Hexanone outside of control limits on CCV(ICV). CCV(ICV) component average is 111 which is within acceptable range. This is acceptable by Method 8000.

³⁸MTBE outside of control limits on CCV(ICV). CCV(ICV) component average is 111 which is within acceptable range. This is acceptable by Method 8000.

³⁹2,2-Dichloropropane outside of control limits on CCV(ICV). CCV(ICV) component average is 111 which is within acceptable range. This is acceptable by Method 8000.

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloroform		µg/L	50.0	58.4	117	80 - 120	2008-09-29
1,1,1-Trichloroethane		µg/L	50.0	59.6	119	70 - 130	2008-09-29
1,1-Dichloropropene		µg/L	50.0	55.6	111	70 - 130	2008-09-29
Benzene		µg/L	50.0	54.9	110	70 - 130	2008-09-29
Carbon Tetrachloride		µg/L	50.0	54.7	109	70 - 130	2008-09-29
1,2-Dichloropropane		µg/L	50.0	58.5	117	80 - 120	2008-09-29
Trichloroethene (TCE)		µg/L	50.0	49.0	98	70 - 130	2008-09-29
Dibromomethane (methylene bromide)		µg/L	50.0	53.2	106	70 - 130	2008-09-29
Bromodichloromethane		µg/L	50.0	55.6	111	70 - 130	2008-09-29
2-Chloroethyl vinyl ether		µg/L	50.0	53.2	106	70 - 130	2008-09-29
cis-1,3-Dichloropropene		µg/L	50.0	59.9	120	70 - 130	2008-09-29
trans-1,3-Dichloropropene		µg/L	50.0	60.4	121	70 - 130	2008-09-29
Toluene		µg/L	50.0	54.5	109	80 - 120	2008-09-29
1,1,2-Trichloroethane		µg/L	50.0	52.0	104	70 - 130	2008-09-29
1,3-Dichloropropane		µg/L	50.0	54.6	109	70 - 130	2008-09-29
Dibromochloromethane		µg/L	50.0	51.6	103	70 - 130	2008-09-29
1,2-Dibromoethane (EDB)		µg/L	50.0	50.4	101	70 - 130	2008-09-29
Tetrachloroethene (PCE)		µg/L	50.0	39.4	79	70 - 130	2008-09-29
Chlorobenzene		µg/L	50.0	50.4	101	80 - 120	2008-09-29
1,1,1,2-Tetrachloroethane		µg/L	50.0	50.0	100	70 - 130	2008-09-29
Ethylbenzene		µg/L	50.0	53.9	108	80 - 120	2008-09-29
m,p-Xylene		µg/L	100	109	109	70 - 130	2008-09-29
Bromoform		µg/L	50.0	41.1	82	70 - 130	2008-09-29
Styrene		µg/L	50.0	50.3	101	70 - 130	2008-09-29
o-Xylene		µg/L	50.0	55.9	112	70 - 130	2008-09-29
1,1,2,2-Tetrachloroethane		µg/L	50.0	55.0	110	70 - 130	2008-09-29
2-Chlorotoluene		µg/L	50.0	52.5	105	70 - 130	2008-09-29
1,2,3-Trichloropropane		µg/L	50.0	55.0	110	70 - 130	2008-09-29
Isopropylbenzene		µg/L	50.0	53.8	108	70 - 130	2008-09-29
Bromobenzene		µg/L	50.0	53.1	106	70 - 130	2008-09-29
n-Propylbenzene		µg/L	50.0	53.9	108	70 - 130	2008-09-29
1,3,5-Trimethylbenzene		µg/L	50.0	52.4	105	70 - 130	2008-09-29
tert-Butylbenzene		µg/L	50.0	51.8	104	70 - 130	2008-09-29
1,2,4-Trimethylbenzene		µg/L	50.0	53.4	107	70 - 130	2008-09-29
1,4-Dichlorobenzene (para)		µg/L	50.0	48.8	98	70 - 130	2008-09-29
sec-Butylbenzene		µg/L	50.0	52.7	105	70 - 130	2008-09-29
1,3-Dichlorobenzene (meta)		µg/L	50.0	49.8	100	70 - 130	2008-09-29
p-Isopropyltoluene		µg/L	50.0	51.8	104	70 - 130	2008-09-29
4-Chlorotoluene		µg/L	50.0	52.7	105	70 - 130	2008-09-29
1,2-Dichlorobenzene (ortho)		µg/L	50.0	48.9	98	70 - 130	2008-09-29
n-Butylbenzene		µg/L	50.0	53.6	107	70 - 130	2008-09-29
1,2-Dibromo-3-chloropropane		µg/L	50.0	46.8	94	70 - 130	2008-09-29
1,2,3-Trichlorobenzene		µg/L	50.0	43.6	87	70 - 130	2008-09-29

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
1,2,4-Trichlorobenzene		µg/L	50.0	43.2	86	70 - 130	2008-09-29
Naphthalene		µg/L	50.0	45.1	90	70 - 130	2008-09-29
Hexachlorobutadiene		µg/L	50.0	42.8	86	70 - 130	2008-09-29

Standard (CCV-2)

QC Batch: 52856

Date Analyzed: 2008-09-29

Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Bromochloromethane		µg/L	50.0	59.4	119	70 - 130	2008-09-29
Dichlorodifluoromethane		µg/L	50.0	52.4	105	70 - 130	2008-09-29
Chloromethane (methyl chloride)		µg/L	50.0	59.0	118	70 - 130	2008-09-29
Vinyl Chloride	40	µg/L	50.0	63.6	127	80 - 120	2008-09-29
Bromomethane (methyl bromide)	41	µg/L	50.0	67.3	135	70 - 130	2008-09-29
Chloroethane	42	µg/L	50.0	67.2	134	70 - 130	2008-09-29
Trichlorofluoromethane		µg/L	50.0	52.6	105	70 - 130	2008-09-29
Acetone	43	µg/L	50.0	77.1	154	70 - 130	2008-09-29
Iodomethane (methyl iodide)		µg/L	50.0	56.0	112	70 - 130	2008-09-29
Carbon Disulfide	44	µg/L	50.0	65.3	131	70 - 130	2008-09-29
Acrylonitrile		µg/L	50.0	62.1	124	70 - 130	2008-09-29
2-Butanone (MEK)	45	µg/L	50.0	68.8	138	70 - 130	2008-09-29
4-Methyl-2-pentanone (MIBK)		µg/L	50.0	56.3	113	70 - 130	2008-09-29
2-Hexanone	46	µg/L	50.0	75.8	152	70 - 130	2008-09-29
trans 1,4-Dichloro-2-butene		µg/L	50.0	54.4	109	70 - 130	2008-09-29
1,1-Dichloroethene	47	µg/L	50.0	61.0	122	80 - 120	2008-09-29
Methylene chloride		µg/L	50.0	63.4	127	70 - 130	2008-09-29
MTBE	48	µg/L	50.0	79.2	158	70 - 130	2008-09-29

continued ...

⁴⁰Vinyl Chloride outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁴¹Bromomethane outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁴²Chloroethane outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁴³Acetone outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁴⁴Carbon Disulfide outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁴⁵2-Butanone outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁴⁶2-Hexanone outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁴⁷1,1-Dichloroethene outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁴⁸MTBE outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
trans-1,2-Dichloroethene		µg/L	50.0	63.3	127	70 - 130	2008-09-29
1,1-Dichloroethane		µg/L	50.0	64.6	129	70 - 130	2008-09-29
cis-1,2-Dichloroethene		µg/L	50.0	62.3	125	70 - 130	2008-09-29
2,2-Dichloropropane		µg/L	50.0	52.5	105	70 - 130	2008-09-29
1,2-Dichloroethane (EDC)		µg/L	50.0	63.3	127	70 - 130	2008-09-29
Chloroform	49	µg/L	50.0	63.4	127	80 - 120	2008-09-29
1,1,1-Trichloroethane		µg/L	50.0	62.7	125	70 - 130	2008-09-29
1,1-Dichloropropene		µg/L	50.0	58.7	117	70 - 130	2008-09-29
Benzene		µg/L	50.0	57.8	116	70 - 130	2008-09-29
Carbon Tetrachloride		µg/L	50.0	56.8	114	70 - 130	2008-09-29
1,2-Dichloropropane	50	µg/L	50.0	61.6	123	80 - 120	2008-09-29
Trichloroethene (TCE)		µg/L	50.0	59.9	120	70 - 130	2008-09-29
Dibromomethane (methylene bromide)		µg/L	50.0	55.8	112	70 - 130	2008-09-29
Bromodichloromethane		µg/L	50.0	58.7	117	70 - 130	2008-09-29
2-Chloroethyl vinyl ether		µg/L	50.0	55.3	111	70 - 130	2008-09-29
cis-1,3-Dichloropropene		µg/L	50.0	59.4	119	70 - 130	2008-09-29
trans-1,3-Dichloropropene		µg/L	50.0	60.0	120	70 - 130	2008-09-29
Toluene		µg/L	50.0	57.3	115	80 - 120	2008-09-29
1,1,2-Trichloroethane		µg/L	50.0	54.4	109	70 - 130	2008-09-29
1,3-Dichloropropane		µg/L	50.0	56.6	113	70 - 130	2008-09-29
Dibromochloromethane		µg/L	50.0	53.6	107	70 - 130	2008-09-29
1,2-Dibromoethane (EDB)		µg/L	50.0	52.0	104	70 - 130	2008-09-29
Tetrachloroethene (PCE)		µg/L	50.0	54.5	109	70 - 130	2008-09-29
Chlorobenzene		µg/L	50.0	52.4	105	80 - 120	2008-09-29
1,1,1,2-Tetrachloroethane		µg/L	50.0	52.4	105	70 - 130	2008-09-29
Ethylbenzene		µg/L	50.0	56.2	112	80 - 120	2008-09-29
m,p-Xylene		µg/L	100	113	113	70 - 130	2008-09-29
Bromoform		µg/L	50.0	42.1	84	70 - 130	2008-09-29
Styrene		µg/L	50.0	52.4	105	70 - 130	2008-09-29
o-Xylene		µg/L	50.0	57.9	116	70 - 130	2008-09-29
1,1,2,2-Tetrachloroethane		µg/L	50.0	42.8	86	70 - 130	2008-09-29
2-Chlorotoluene		µg/L	50.0	54.5	109	70 - 130	2008-09-29
1,2,3-Trichloropropane		µg/L	50.0	55.0	110	70 - 130	2008-09-29
Isopropylbenzene		µg/L	50.0	55.4	111	70 - 130	2008-09-29
Bromobenzene		µg/L	50.0	54.0	108	70 - 130	2008-09-29
n-Propylbenzene		µg/L	50.0	55.6	111	70 - 130	2008-09-29
1,3,5-Trimethylbenzene		µg/L	50.0	54.4	109	70 - 130	2008-09-29
tert-Butylbenzene		µg/L	50.0	53.6	107	70 - 130	2008-09-29
1,2,4-Trimethylbenzene		µg/L	50.0	55.2	110	70 - 130	2008-09-29

continued ...

Method 8000.

⁴⁹Chloroform outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

⁵⁰1,2-Dichloropropane outside of control limits on CCV(ICV). CCV(ICV) component average is 115 which is within acceptable range. This is acceptable by Method 8000.

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
1,4-Dichlorobenzene (para)		µg/L	50.0	50.6	101	70 - 130	2008-09-29
sec-Butylbenzene		µg/L	50.0	54.7	109	70 - 130	2008-09-29
1,3-Dichlorobenzene (meta)		µg/L	50.0	51.4	103	70 - 130	2008-09-29
p-Isopropyltoluene		µg/L	50.0	53.8	108	70 - 130	2008-09-29
4-Chlorotoluene		µg/L	50.0	54.5	109	70 - 130	2008-09-29
1,2-Dichlorobenzene (ortho)		µg/L	50.0	51.1	102	70 - 130	2008-09-29
n-Butylbenzene		µg/L	50.0	53.7	107	70 - 130	2008-09-29
1,2-Dibromo-3-chloropropane		µg/L	50.0	48.3	97	70 - 130	2008-09-29
1,2,3-Trichlorobenzene		µg/L	50.0	43.9	88	70 - 130	2008-09-29
1,2,4-Trichlorobenzene		µg/L	50.0	43.3	87	70 - 130	2008-09-29
Naphthalene		µg/L	50.0	45.9	92	70 - 130	2008-09-29
Hexachlorobutadiene		µg/L	50.0	42.6	85	70 - 130	2008-09-29

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.996	100	90 - 110	2008-09-30

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	1.00	1.02	102	90 - 110	2008-09-30

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	1.03	103	90 - 110	2008-09-30

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	1.02	102	90 - 110	2008-09-30

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.05	105	90 - 110	2008-09-30

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	1.02	102	90 - 110	2008-09-30

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	1.01	101	90 - 110	2008-09-30

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	1.01	101	90 - 110	2008-09-30

Report Date: October 7, 2008
PLAINS044SPL

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C.S. Cayler

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Hobbs, NM

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	1.05	105	90 - 110	2008-09-30

Standard (ICV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.126	101	90 - 110	2008-09-30
Total Arsenic		mg/L	1.00	1.01	101	90 - 110	2008-09-30
Total Barium		mg/L	1.00	1.05	105	90 - 110	2008-09-30
Total Cadmium		mg/L	1.00	1.01	101	90 - 110	2008-09-30
Total Chromium		mg/L	1.00	1.04	104	90 - 110	2008-09-30
Total Lead		mg/L	1.00	0.993	99	90 - 110	2008-09-30
Total Selenium		mg/L	1.00	1.01	101	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Aluminum		mg/L	1.00	0.996	100	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Boron		mg/L	1.00	1.04	104	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

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C.S. Cayler

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Hobbs, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Cobalt		mg/L	1.00	1.04	104	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Copper		mg/L	1.00	1.02	102	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Iron		mg/L	1.00	1.05	105	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Manganese		mg/L	1.00	1.01	101	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Molybdenum		mg/L	1.00	0.995	100	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Report Date: October 7, 2008
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Hobbs, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Nickel		mg/L	1.00	1.03	103	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/L	1.00	1.06	106	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52862

Date Analyzed: 2008-09-30

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.127	102	90 - 110	2008-09-30
Total Arsenic		mg/L	1.00	1.04	104	90 - 110	2008-09-30
Total Barium		mg/L	1.00	1.03	103	90 - 110	2008-09-30
Total Cadmium		mg/L	1.00	1.04	104	90 - 110	2008-09-30
Total Chromium		mg/L	1.00	1.04	104	90 - 110	2008-09-30
Total Lead		mg/L	1.00	1.02	102	90 - 110	2008-09-30
Total Selenium		mg/L	1.00	1.04	104	90 - 110	2008-09-30

Standard (CCV-1)

QC Batch: 52872

Date Analyzed: 2008-09-30

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Phenol		mg/L	60.0	52.4	87	80 - 120	2008-09-30
1,4-Dichlorobenzene (para)		mg/L	60.0	59.8	100	80 - 120	2008-09-30
2-Nitrophenol		mg/L	60.0	64.2	107	80 - 120	2008-09-30
2,4-Dichlorophenol		mg/L	60.0	55.2	92	80 - 120	2008-09-30
Hexachlorobutadiene		mg/L	60.0	65.1	108	80 - 120	2008-09-30
4-Chloro-3-methylphenol		mg/L	60.0	65.2	109	80 - 120	2008-09-30
2,4,6-Trichlorophenol		mg/L	60.0	60.7	101	80 - 120	2008-09-30
Acenaphthene		mg/L	60.0	60.0	100	80 - 120	2008-09-30
Diphenylamine		mg/L	60.0	58.7	98	80 - 120	2008-09-30

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Pentachlorophenol		mg/L	60.0	50.4	84	80 - 120	2008-09-30
Fluoranthene		mg/L	60.0	56.2	94	80 - 120	2008-09-30
Di-n-octylphthalate		mg/L	60.0	70.7	118	80 - 120	2008-09-30
Benzo(a)pyrene		mg/L	60.0	61.4	102	80 - 120	2008-09-30

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		59.3	mg/L	1	60.0	99	80 - 120
Phenol-d5		51.6	mg/L	1	60.0	86	80 - 120
Nitrobenzene-d5		61.2	mg/L	1	60.0	102	80 - 120
2-Fluorobiphenyl		54.4	mg/L	1	60.0	91	80 - 120
2,4,6-Tribromophenol		66.0	mg/L	1	60.0	110	80 - 120
Terphenyl-d14		60.1	mg/L	1	60.0	100	80 - 120

Standard (ICV-1)

QC Batch: 53041

Date Analyzed: 2008-10-06

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.9	100	90 - 110	2008-10-06
Dissolved Magnesium		mg/L	50.0	50.6	101	90 - 110	2008-10-06
Dissolved Potassium		mg/L	50.0	50.5	101	90 - 110	2008-10-06
Dissolved Sodium		mg/L	50.0	51.1	102	90 - 110	2008-10-06

Standard (CCV-1)

QC Batch: 53041

Date Analyzed: 2008-10-06

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	50.5	101	90 - 110	2008-10-06
Dissolved Magnesium		mg/L	50.0	50.5	101	90 - 110	2008-10-06
Dissolved Potassium		mg/L	50.0	50.4	101	90 - 110	2008-10-06
Dissolved Sodium		mg/L	50.0	51.0	102	90 - 110	2008-10-06



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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Shanna Smith
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: December 10, 2008

Work Order: 8120501



Project Location: Lea County, NM
Project Name: C.S. Cayler
Project Number: PLAINS044SPL
SRS #: 2002-10250

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
181309	MW-6	water	2008-12-04	13:05	2008-12-05
181310	MW-9	water	2008-12-04	13:01	2008-12-05
181311	MW-10	water	2008-12-04	12:53	2008-12-05
181312	MW-11	water	2008-12-04	12:42	2008-12-05
181313	MW-13	water	2008-12-04	12:47	2008-12-05
181314	MW-14	water	2008-12-04	13:12	2008-12-05
181315	MW-15	water	2008-12-04	13:18	2008-12-05
181316	MW-16	water	2008-12-04	13:18	2008-12-05
181317	MW-17	water	2008-12-04	13:12	2008-12-05
181318	MW-18	water	2008-12-04	12:50	2008-12-05

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



Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project C.S. Cayler were received by TraceAnalysis, Inc. on 2008-12-05 and assigned to work order 8120501. Samples for work order 8120501 were received intact without headspace and at a temperature of 3.4 deg. C.

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

Test	Method
BTEX	S 8021B

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 8120501 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 10, 2008
PLAINS044SPL

Work Order: 8120501
C.S. Cayler

Page Number: 4 of 12
Lea County, NM

Analytical Report

Sample: 181309 - MW-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 54892
Prep Batch: 46921

Analytical Method: S 8021B
Date Analyzed: 2008-12-06
Sample Preparation: 2008-12-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.200	mg/L	1	0.00100
Toluene		0.0162	mg/L	1	0.00100
Ethylbenzene		0.00230	mg/L	1	0.00100
Xylene		0.0115	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0974	mg/L	1	0.100	97	65.1 - 116.8
4-Bromofluorobenzene (4-BFB)		0.0969	mg/L	1	0.100	97	52 - 124.1

Sample: 181310 - MW-9

Laboratory: Midland
Analysis: BTEX
QC Batch: 54899
Prep Batch: 46921

Analytical Method: S 8021B
Date Analyzed: 2008-12-08
Sample Preparation: 2008-12-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.166	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		0.0151	mg/L	1	0.00100
Xylene		0.0195	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0890	mg/L	1	0.100	89	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0831	mg/L	1	0.100	83	40.1 - 136

Sample: 181311 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 54899
Prep Batch: 46921

Analytical Method: S 8021B
Date Analyzed: 2008-12-08
Sample Preparation: 2008-12-06

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

Report Date: December 10, 2008
PLAINS044SPL

Work Order: 8120501
C.S. Cayler

Page Number: 5 of 12
Lea County, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.00550	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0150	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0932	mg/L	1	0.100	93	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0785	mg/L	1	0.100	78	40.1 - 136

Sample: 181312 - MW-11

Laboratory: Midland
Analysis: BTEX
QC Batch: 54899
Prep Batch: 46921

Analytical Method: S 8021B
Date Analyzed: 2008-12-08
Sample Preparation: 2008-12-06

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0886	mg/L	1	0.100	89	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0784	mg/L	1	0.100	78	40.1 - 136

Sample: 181313 - MW-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 54899
Prep Batch: 46921

Analytical Method: S 8021B
Date Analyzed: 2008-12-08
Sample Preparation: 2008-12-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0240	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0161	mg/L	1	0.00100

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PLAINS044SPL

Work Order: 8120501
C.S. Cayler

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Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0869	mg/L	1	0.100	87	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0775	mg/L	1	0.100	78	40.1 - 136

Sample: 181314 - MW-14

Laboratory: Midland

Analysis: BTEX

QC Batch: 54899

Prep Batch: 46921

Analytical Method: S 8021B

Date Analyzed: 2008-12-08

Sample Preparation: 2008-12-06

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0881	mg/L	1	0.100	88	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0766	mg/L	1	0.100	77	40.1 - 136

Sample: 181315 - MW-15

Laboratory: Midland

Analysis: BTEX

QC Batch: 54899

Prep Batch: 46921

Analytical Method: S 8021B

Date Analyzed: 2008-12-08

Sample Preparation: 2008-12-06

Prep Method: S 5030B

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0870	mg/L	1	0.100	87	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0753	mg/L	1	0.100	75	40.1 - 136

Report Date: December 10, 2008
PLAINS044SPL

Work Order: 8120501
C.S. Caylor

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Lea County, NM

Sample: 181316 - MW-16

Laboratory: Midland
Analysis: BTEX
QC Batch: 54899
Prep Batch: 46921

Analytical Method: S 8021B
Date Analyzed: 2008-12-08
Sample Preparation: 2008-12-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0147	mg/L	1	0.00100
Toluene		0.00930	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		0.0165	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0933	mg/L	1	0.100	93	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0777	mg/L	1	0.100	78	40.1 - 136

Sample: 181317 - MW-17

Laboratory: Midland
Analysis: BTEX
QC Batch: 54899
Prep Batch: 46921

Analytical Method: S 8021B
Date Analyzed: 2008-12-08
Sample Preparation: 2008-12-06

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0921	mg/L	1	0.100	92	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0745	mg/L	1	0.100	74	40.1 - 136

Sample: 181318 - MW-18

Laboratory: Midland
Analysis: BTEX
QC Batch: 54899
Prep Batch: 46921

Analytical Method: S 8021B
Date Analyzed: 2008-12-08
Sample Preparation: 2008-12-06

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

Report Date: December 10, 2008
PLAINS044SPL

Work Order: 8120501
C.S. Cayler

Page Number: 8 of 12
Lea County, NM

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0871	mg/L	1	0.100	87	77.8 - 121.1
4-Bromofluorobenzene (4-BFB)		0.0742	mg/L	1	0.100	74	40.1 - 136

Method Blank (1) QC Batch: 54892

QC Batch: 54892
Prep Batch: 46921

Date Analyzed: 2008-12-06
QC Preparation: 2008-12-06

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000800	mg/L	0.001
Toluene		<0.000800	mg/L	0.001
Ethylbenzene		<0.000500	mg/L	0.001
Xylene		<0.000900	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0970	mg/L	1	0.100	97	44.6 - 137.4
4-Bromofluorobenzene (4-BFB)		0.0944	mg/L	1	0.100	94	37.1 - 130.9

Method Blank (1) QC Batch: 54899

QC Batch: 54899
Prep Batch: 46921

Date Analyzed: 2008-12-08
QC Preparation: 2008-12-06

Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0900	mg/L	1	0.100	90	77.2 - 129.1
4-Bromofluorobenzene (4-BFB)		0.0807	mg/L	1	0.100	81	69.1 - 132.3

Laboratory Control Spike (LCS-1)

QC Batch: 54892
Prep Batch: 46921

Date Analyzed: 2008-12-06
QC Preparation: 2008-12-06

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0976	mg/L	1	0.100	<0.000800	98	71.7 - 120.5
Toluene	0.0964	mg/L	1	0.100	<0.000800	96	75.4 - 118.8
Ethylbenzene	0.0940	mg/L	1	0.100	<0.000500	94	73.5 - 118
Xylene	0.282	mg/L	1	0.300	<0.000900	94	72.9 - 118.2

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0955	mg/L	1	0.100	<0.000800	96	71.7 - 120.5	2	20
Toluene	0.0953	mg/L	1	0.100	<0.000800	95	75.4 - 118.8	1	20
Ethylbenzene	0.0959	mg/L	1	0.100	<0.000500	96	73.5 - 118	2	20
Xylene	0.288	mg/L	1	0.300	<0.000900	96	72.9 - 118.2	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)	0.0974	0.0958	mg/L	1	0.100	97	96	38.2 - 131.6
4-Bromofluorobenzene (4-BFB)	0.0973	0.0971	mg/L	1	0.100	97	97	43.9 - 132.4

Laboratory Control Spike (LCS-1)

QC Batch: 54899
Prep Batch: 46921

Date Analyzed: 2008-12-08
QC Preparation: 2008-12-06

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0935	mg/L	1	0.100	<0.00110	94	84 - 119.7
Toluene	0.0939	mg/L	1	0.100	<0.00100	94	84.9 - 118.2
Ethylbenzene	0.0926	mg/L	1	0.100	<0.00100	93	84.4 - 118.6
Xylene	0.276	mg/L	1	0.300	<0.00290	92	84.8 - 117.8

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0922	mg/L	1	0.100	<0.00110	92	84 - 119.7	1	20
Toluene	0.0927	mg/L	1	0.100	<0.00100	93	84.9 - 118.2	1	20
Ethylbenzene	0.0929	mg/L	1	0.100	<0.00100	93	84.4 - 118.6	0	20
Xylene	0.275	mg/L	1	0.300	<0.00290	92	84.8 - 117.8	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0893	0.0888	mg/L	1	0.100	89	89	80 - 128.3
4-Bromofluorobenzene (4-BFB)	0.0832	0.0824	mg/L	1	0.100	83	82	67.7 - 136.3

Matrix Spike (MS-1) Spiked Sample: 181309

QC Batch: 54892
Prep Batch: 46921

Date Analyzed: 2008-12-06
QC Preparation: 2008-12-06

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.306	mg/L	1	0.100	0.2	106	10 - 160.8
Toluene	0.111	mg/L	1	0.100	0.0162	95	10 - 160.7
Ethylbenzene	0.0941	mg/L	1	0.100	0.0023	92	10 - 158.3
Xylene	0.289	mg/L	1	0.300	0.0115	92	10 - 158

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.309	mg/L	1	0.100	0.2	109	10 - 160.8	1	20
Toluene	0.112	mg/L	1	0.100	0.0162	96	10 - 160.7	1	20
Ethylbenzene	0.0951	mg/L	1	0.100	0.0023	93	10 - 158.3	1	20
Xylene	0.295	mg/L	1	0.300	0.0115	94	10 - 158	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0949	0.0958	mg/L	1	0.1	95	96	33.1 - 132.5
4-Bromofluorobenzene (4-BFB)	0.0981	0.0972	mg/L	1	0.1	98	97	37.5 - 136

Matrix Spike (MS-1) Spiked Sample: 181327

QC Batch: 54899
Prep Batch: 46921

Date Analyzed: 2008-12-08
QC Preparation: 2008-12-06

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.0793	mg/L	1	0.100	<0.00110	79	77.5 - 121.1
Toluene	0.0807	mg/L	1	0.100	<0.00100	81	78.8 - 119.6
Ethylbenzene	0.0794	mg/L	1	0.100	<0.00100	79	77.9 - 120.5
Xylene	0.235	mg/L	1	0.300	<0.00290	78	78 - 119.4

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.0820	mg/L	1	0.100	<0.00110	82	77.5 - 121.1	3	20
Toluene	0.0832	mg/L	1	0.100	<0.00100	83	78.8 - 119.6	3	20
Ethylbenzene	0.0810	mg/L	1	0.100	<0.00100	81	77.9 - 120.5	2	20
Xylene	0.238	mg/L	1	0.300	<0.00290	79	78 - 119.4	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0868	0.0873	mg/L	1	0.1	87	87	86.6 - 118.9
4-Bromofluorobenzene (4-BFB)	0.0786	0.0750	mg/L	1	0.1	79	75	59.4 - 127.3

Standard (ICV-1)

QC Batch: 54892

Date Analyzed: 2008-12-06

Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.101	101	85 - 115	2008-12-06
Toluene		mg/L	0.100	0.100	100	85 - 115	2008-12-06
Ethylbenzene		mg/L	0.100	0.102	102	85 - 115	2008-12-06
Xylene		mg/L	0.300	0.305	102	85 - 115	2008-12-06

Standard (CCV-1)

QC Batch: 54892

Date Analyzed: 2008-12-06

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0941	94	85 - 115	2008-12-06
Toluene		mg/L	0.100	0.0918	92	85 - 115	2008-12-06
Ethylbenzene		mg/L	0.100	0.0927	93	85 - 115	2008-12-06
Xylene		mg/L	0.300	0.278	93	85 - 115	2008-12-06

Standard (ICV-1)

QC Batch: 54899

Date Analyzed: 2008-12-08

Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0923	92	85 - 115	2008-12-08

continued ...

standard continued ...

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/L	0.100	0.0922	92	85 - 115	2008-12-08
Ethylbenzene		mg/L	0.100	0.0916	92	85 - 115	2008-12-08
Xylene		mg/L	0.300	0.273	91	85 - 115	2008-12-08

Standard (CCV-1)

QC Batch: 54899

Date Analyzed: 2008-12-08

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0914	91	85 - 115	2008-12-08
Toluene		mg/L	0.100	0.0919	92	85 - 115	2008-12-08
Ethylbenzene		mg/L	0.100	0.0926	93	85 - 115	2008-12-08
Xylene		mg/L	0.300	0.272	91	85 - 115	2008-12-08

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 "INFORMATION ONLY NON-REPORTABLE" ☒ Initial Report ☐ Final Report

Name of Company EOTT Energy Pipeline	Contact Frank Hernandez
Address 5805 East Highway 80 / P.O. Box 1660, Midland, TX 79703	Telephone No. 915.638.3799
Facility Name: Moore to Kimbrough 8" Sweet Vacuum (C.S. Cayler) 9-19-02 #2002-10250	Facility Type Crude Oil Pipeline

Surface Owner Robert C. Rice	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter B	Section 6	Township 17S	Range 37E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea Lat.: 32°52'2.45"N Lon: 103°17'17.73"W
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NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 70 bbls	Volume Recovered 0 bbls
Source of Release 8" steel pipeline	Date and Hour of Occurrence 9-19-02 8:00 AM	Date and Hour of Discovery 9-19-02 12:00 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Paul Sheeley, Hobbs NMOCD	
By Whom? Pat McCasland (Environmental Plus, Inc.)	Date and Hour: NMOCD notified on 9-19-02 3:15 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

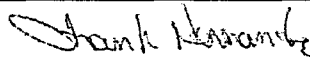
Describe Cause of Problem and Remedial Action Taken.*

The cause of the leak was internal/external corrosion. The contaminated soil was stockpiled on a plastic barrier on site awaiting remediation.

Describe Area Affected and Cleanup Action Taken.*

Spill Area = ~2,199 ft² Near surface soil will be characterized in accordance with 40 CFR 261 and with NMOCD approval, disposed of in a NMOCD approved facility. The site will be delineated and remediated.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Frank Hernandez	Approved by District Supervisor:	
Title: District Environmental Supervisor	Approval Date:	Expiration Date:
Date: October 2, 2002 Phone: 915.638.3799	Conditions of Approval:	Attached ☐

* Attach Additional Sheets If Necessary

EOTT Energy Pipeline		Incident Date and NMOCD Notified?:	
Site Information and Metrics		Discovered 9-19-02 NMOCD verbally notified on 9-19-02	
SITE: 8" Sweet Vacuum (C.S. Cayler) 9-19-02		Assigned Site Reference #: #2002-10250	
Company: EOTT Energy Pipeline			
Street Address: 5805 East Highway 80			
Mailing Address: P.O. Box 1660			
City, State, Zip: Midland, Texas 79703			
Representative: Frank Hernandez, District Environmental Supervisor			
Representative Telephone: 915.638.3799			
Telephone:			
Fluid volume released (bbls): 70 bbls		Recovered (bbls): 0	
>25 bbls : Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: 8" Sweet Vacuum (C.S. Cayler) 9-19-02 #2002-10250			
Source of contamination: Crude Oil Pipeline			
Land Owner, i.e., BLM, ST, Fee, Other: Robert C. Rice			
LSP Dimensions 85' X 45'			
LSP Area: Spill Area 2,199 ft ²			
Location of Reference Point (RP)			
Location distance and direction from RP			
Latitude: 32°52'2.45"N			
Longitude: 103°17'17.73"W			
Elevation above mean sea level: ~3,805 'amsl			
Feet from South Section Line			
Feet from West Section Line			
Location- Unit or ¼: UL-B NW ¼ of the NE ¼			
Location- Section: 6			
Location- Township: 17S			
Location- Range: 37E			
Surface water body within 1000' radius of site: None			
Domestic water wells within 1000' radius of site: None			
Agricultural water wells within 1000' radius of site: None			
Public water supply wells within 1000' radius of site: None			
Depth from land surface to ground water (DG) ~40.0' below ground surface			
Depth of contamination (DC) - ?			
Depth to ground water (DG - DC = DtGW) - to be determined			
1. Ground Water		2. Wellhead Protection Area	
If Depth to GW <50 feet: 20 points		If <1000' from water source, or; <200' from	
If Depth to GW 50 to 99 feet: 10 points		private domestic water source: 20 points	
If Depth to GW >100 feet: 0 points		If >1000' from water source, or; >200' from	
		private domestic water source: 0 points	
Ground water Score = 20		Wellhead Protection Area Score = 0	
Site Rank (1+2+3) = 20		Surface Water Score = 0	
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19 (Surface to 40.0'bgs)	10-19	0-9
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis			