**Penn E&R**
Environmental & Remediation, Inc.

November 19, 2007
4000-PA4224

**VIA FEDERAL EXPRESS**

Ed Dihrberg, P.E., Manager
Industrial Permits Section
Water Quality Division
Oklahoma Department of Environmental Quality
707 North Robinson
P.O. Box 1677
Oklahoma City, OK 73101-1677

Subject: Pre-Closure Sampling and Analysis Report
Pond Nos. 6 and 7
FMRI, Inc.
Muskogee, Oklahoma
OPDES Permit No. OK0001643
Facility ID: I-51000040

Dear Mr. Dihrberg,

On behalf of FMRI, Inc. (FMRI), Penn Environmental & Remediation, Inc. (Penn E&R) is submitting a Pre-Closure Sampling and Analysis Report for Pond Nos. 6 and 7 located at FMRI's Muskogee, Oklahoma facility. Laboratory data sheets for the Volatile Organic Compound analyses of project samples are included with this report. Laboratory data sheets for the inorganic analyses performed on project samples will be submitted by Mr. James Burgess of FMRI under separate cover.

Additionally, we are including the pH data for Pond No. 3 wastewater that OKDEQ requested in your June 27, 2007 letter. This data can be found on the Outreach Laboratory November 12, 2007 transmittal for Outreach Lab - Project ID: 20070880.

If you should have any questions or require additional information, please contact me at 724-934-3530 or Mr. Jon Jackson of FMRI at 847-689-4900 ext. 553..

Sincerely,
PENN ENVIRONMENTAL & REMEDIATION, INC.

Ronald F. Doumont
Project Manager

# Pre-Closure Sampling and Analysis Report
# Pond Nos. 6 and 7
# Muskogee, Oklahoma Facility
# OPDES Permit No. OK0001643
# Facility ID: I-51000040

Prepared For:

**FMRI, Inc.**
# 10 Tantalum Place
Muskogee, OK 74403

**4000:PA4224**
**November 2007**

Prepared By:

**Penn Environmental & Remediation, Inc.**
359 Northgate Drive, Suite 400
Warrendale, PA 15086

Penn E&R
Environmental & Remediation, Inc.

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# PRE-CLOSURE SAMPLING AND ANALYSIS REPORT
# POND NOS. 6 AND 7
# FMRI, INC.
# MUSKOGEE, OKLAHOMA FACILITY
# OPDES PERMIT NO. OK0001643
# FACILITY ID: I-51000040

## 1.0 INTRODUCTION

On behalf of FMRI, Inc. (FMRI), Penn Environmental & Remediation, Inc. (Penn E&R) has prepared this Pre-Closure Sampling and Analysis Report (PCSAR) for Pond Nos. 6 and 7 located at FMRI's Muskogee, Oklahoma facility. This report details the characterization completed at the site in accordance with the Pre-Closure Sampling and Analysis Plan (PCSAP) submitted to the Oklahoma Department of Environmental Quality (ODEQ) in April 2007 and the subsequent ODEQ approval letter dated June 27, 2007.

The objective of the PCSAP was to characterize the site relative to the eventual development of an appropriate Closure Plan for Pond Nos. 6 and 7. The PCSAP was developed to characterize the southeastern portion of the site proximal to Pond Nos. 6 and 7. A site plan is included as **Figure 1**.

The FMRI Muskogee, Oklahoma site is currently being decommissioned under the authority of the U.S. Nuclear Regulatory Commission (NRC) in accordance with FMRI's license and the NRC-approved Decommissioning Plan. Site decommissioning is being conducted in a phased approach, with the first phase focusing on the reclamation of the highest-radioactive material from Ponds 3 and 2. Pond Nos. 6 and 7 are part of the second phase of site decommissioning. The most recently updated decommissioning schedule (submitted to the NRC on January 12, 2007) shows that the expected timeframe for decommissioning of Pond Nos. 6 through 9 in accordance with the NRC approved Decommissioning Plan is Years 2013-2015.

## 2.0 PRE-CLOSURE SAMPLING AND ANALYSIS SUMMARY

This chapter provides a summary of the PCSAP for Pond Nos. 6 and 7. These results will be used in the eventual development of an appropriate Closure Plan for the two ponds.

### 2.1 Pre-Closure Sampling and Analysis Program for Pond Nos. 6 and 7

A pre-closure sampling and analysis program was developed to characterize the southeastern portion of the site proximal to Pond Nos. 6 and 7 and to demonstrate that the interceptor trench is working effectively. The pre-closure sampling and analysis program included the following media and/or locations:

- Wastewater in Pond Nos. 6, 7, 8, and 9,
- Groundwater Monitoring Wells MW-57 through MW-63. This includes MW-57, MW-62, and MW-63 ( MW-58, MW-59, MW-60, and MW-61 were removed during construction of the Groundwater Interceptor Trench in 1998).
- Sump Nos. 1 through 4 associated with the Groundwater Interceptor Trench,
- Groundwater Observation Wells OW-3 through OW-9, and
- Sediment in Pond Nos. 6 and 7.

The pre-closure sampling and analysis program is summarized below in Tables 2.1.1 through 2.1.3. The locations of the monitoring wells, observations well, sumps, and ponds are shown on **Figure 1** (attached).

**Table 2.1.1 Groundwater Monitoring Wells, Sumps, and Observations Wells**

| Sampling Location | Depth to Groundwater Field Measurement | Ammonia (as N) | Cadmium Total | Chromium Total | Fluoride Total | Gross Alpha | pH | VOCs[2] |
|---|---|---|---|---|---|---|---|---|
| *Monitoring Wells MW-57 through MW-63* | X | X | X | X | X | X | X | X |
| *Sump 3* | High-Level[1] | X | X | X | X | X | X | X |
| *Sumps 1, 2, and 4* | High-Level[1] | | | | | | | |
| *Observation Wells OW-3 through OW-9* | X | | | | | | | |

[1] Depth to water at which pump starts in sump.
[2] Test Method 8260B.

**Table 2.1.2 Wastewater in Ponds Nos. 6, 7, 8, and 9**

| **Parameter** | |
|---|---|
| Ammonic nitrogen (as N) | Gross Alpha |
| Arsenic, total | Gross Beta |
| Cadmium, total | Lead, total |
| Chromium, total | Nickel, total |
| Columbium, total | Nitrate Nitrogen (as N) |
| Copper, total | Tantalum, total |
| Fluoride, total | Total Suspended Solids |
| Zinc, total | pH |
| ***Volatile Organic Compounds***: | |
| Acrolein | 1,2-Dichloropropane |
| Acrylonitrile | 1,3-Dichloropropylene |
| Benzene | Ethylbenzene |
| Bromoform | Methyl Bromide |
| Carbon Tetrachloride | Methyl Chloride |
| Chlorobenzene | Methylene Chloride |
| Chlorodibromomethane | 1,1,2,2-Tetrachloroethane |
| Chloroethane | Tetrachloroethylene |
| 2-Chloroethyl vinyl ether | Toluene |
| Chloroform | 1,2-trans-Dichloroethylene |
| Dichlorobromomethane | 1,1,1-Trichloroethane |
| 1,1-Dichloroethane | 1,1,2-Trichloroethane |
| 1,2-Dichloroethane | Trichloroethylene |
| 1,1-Dichloroethylene | Vinyl Chloride |

**Table 2.1.3 Sediment in Ponds Nos. 6 and 7**

| | |
|---|---|
| Ammonia Nitrogen (as N) | Lead, total |
| Arsenic, total | Nickel, total |
| Cadmium, total | Nitrate Nitrogen (as N) |
| Chromium, total | Tantalum, total |
| Columbium, total | VOCs |
| Copper, total | Zinc, total |
| Fluoride, total | pH |
| Gross Alpha | |

## 2.2 Pre-Closure Sampling and Analysis Plan Event

FMRI conducted the PCSAP event in September 2007, which included the following activities:

- Depth to Groundwater Field Measurements for Monitoring Wells MW57, MW-62, and MW-63 and Observation Wells OW-3 through OW-9,
- Sampling of Wastewater in Pond Nos. 6, 7, 8, and 9,
- Sampling of Groundwater Monitoring Wells MW-57, MW-62, and MW-63,
- High-Level Depth to Groundwater Measurements for Sump Nos. 1 through 4 associated with the Groundwater Interceptor Trench,
- Sampling of Sump No. 3 associated with the Groundwater Interceptor Trench, and
- Sampling of Sediment in Pond Nos. 6 and 7.

Results of the PCSAP activities are summarized in the following report sections. Sample analysis was completed by Outreach Laboratory (Outreach) of Broken Arrow, Oklahoma. Analytical data reports received from Outreach are included as **Attachment A**. The analytical results associated with the field quality assurance/quality Control (QA/QC) samples collected during the PCSAP event are included in the analytical reports.

### 2.2.1 Wastewater in Pond Nos. 6, 7, 8, and 9

Wastewater in Pond Nos. 6, 7, 8, and 9 was sampled by FMRI on September 11, 2007. Analytical results are summarized in the following table.

**Table 2.2.1 Wastewater Testing Results in Ponds Nos. 6, 7, 8, and 9**

| Parameter | EPA Method | Units | Pond 6 | Pond 7 | Pond 8 | Pond 9 |
|---|---|---|---|---|---|---|
| pH | 40 CFR 136 | SI | 8.18 | 8.32 | 8.85 | 8.10 |
| Ammonic nitrogen (as N) | 350.3 | mg/l | 0.3 | 0.2 | 2.6 | 1.1 |
| Arsenic, total | 6010B/200.7 | mg/l | 0.078 | 0.084 | 0.076 | 0.049 |
| Cadmium, total | 6010B/200.7 | mg/l | BDL | BDL | BDL | BDL |
| Chromium, total | 6010B/200.7 | mg/l | 0.148 | 0.132 | 0.022 | 0.305 |
| Columbium, total | 6010B/200.7 | mg/l | 0.028 | 0.011 | 0.017 | BDL |
| Copper, total | 6010B/200.7 | mg/l | 0.038 | 0.033 | 0.044 | 0.033 |
| Fluoride, total | 340.2 | mg/l | 6.8 | 7 | 10 | 10.1 |
| Gross Alpha | 900/9310 | pCi/l | 2.64 | 3.26 | 3.27 | 6.71 |
| Lead, total | 6010B/200.7 | mg/l | BDL | 0.006 | 0.007 | BDL |
| Nickel, total | 200.7 | mg/l | BDL | 0.004 | 0.007 | BDL |
| Nitrate Nitrogen (as N) | 352.1 | mg/l | 3.1 | 2.7 | 2.7 | 2.1 |
| Tantalum, total | 6010B/200.7 | mg/l | BDL | BDL | BDL | BDL |
| Total Suspended Solids | 160.2 | mg/l | 1.2 | 17.6 | 3.6 | 17.6 |
| Zinc, total | 6010B/200.7 | mg/l | BDL | 0.001 | BDL | BDL |
| *Volatile Organic Compounds*: | 8260B | ug/l | ND | ND | ND | ND |

BDL = Below Detection Limit
ND = No VOC Detected

These analytical results indicate the following characteristics for the wastewater contained in Pond Nos. 6 through 9:

- Tested VOCs are not present in the wastewater at levels above analytical laboratory reporting limits.
- Wastewater in the ponds is basic (pH levels ranging from 8.10 to 8.35 standard units)
- The metals cadmium and tantalum are not present in the wastewater at levels above the analytical laboratory reporting limits.
- Gross alpha activity concentrations are well below 15 pCi/l.

### 2.2.2 Groundwater

Groundwater samples were collected on September 12, 2007. **Figure 1** illustrates the location of the groundwater monitoring wells, sumps, and observation wells. Analytical results are summarized in the following table.

**Table 2.2.2.1 Groundwater Testing Results for Monitoring Wells and Sump 3**

| Parameter | Units | MW-57 | MW-62 | MW-63 | Sump 3 |
|---|---|---|---|---|---|
| Ammonia (as N) | mg/l | 44 | 34.6 | 31.6 | 50.1 |
| Cadmium,Total | mg/l | 0.001 | BDL | BDL | BDL |
| Chromium, Total | mg/l | 0.009 | 0.009 | 0.006 | 0.007 |
| Fluoride, Total | mg/l | 9.7 | 7.9 | 19.2 | 12.4 |
| Gross Alpha | pCi/l | 5.08 | 7.07 | 0.698 | 7.8 |
| pH | SI | 6.51 | 6.86 | 6.04 | 6.55 |
| *Volatile Organic Compounds*: | ug/l | ND | ND | ND | ND |

[1] Test Method 8260B
BDL = Below Detection Limit
ND = No VOC Detected

These analytical results indicate the following characteristics for the groundwater located in the vicinity of Pond Nos. 6 through 9:

- Tested VOCs are not present in groundwater at levels above analytical laboratory reporting limits.
- Groundwater in the vicinity of the ponds is slightly acidic to neutral (pH levels ranging from 6.04 to 6.86 standard units).

- Gross alpha activity concentrations are at typical background levels and well below 15 pCi/l.
- Fluoride concentrations decrease downgradient of Ponds 6 & 7.

**Table 2.2.2.2 Depth to Groundwater Measurements (Feet)**

| Location | Depth to Groundwater Field Measurement | Location Elevation | Groundwater Elevation |
|---|---|---|---|
| **MW-57** | 19.2 | 528.500 | 509.300 |
| **MW-62** | 20 | 528.430 | 508.43 |
| **MW-63** | 28.9 | 539.66 | 510.76 |
| **Sump 1**[1] | 15 | 520.566 | 505.566 |
| **Sump 2**[1] | 23.6 | 527.352 | 503.752 |
| **Sump 3**[1] | 26.5 | 530.025 | 503.525 |
| **Sump 4**[1] | 28 | 531.966 | 503.966 |
| **OW-3** | 23.8 | 535.847 | 512.047 |
| **OW-4** | 14.9 | 523.445 | 508.545 |
| **0W-5** | 17.4 | 525.005 | 507.605 |
| **OW-6** | 19 | 525.267 | 506.267 |
| **OW-7** | 19.9 | 528.001 | 508.101 |
| **OW-8** | 13.1 | 520.844 | 507.784 |
| **OW-9** | 24.1 | 533.031 | 508.931 |

[1] Depth to water at which pump starts in sump.

### 2.2.3 Sediment in Pond Nos. 6 and 7

Sediment in Pond Nos. 6 and 7 was sampled by FMRI on September 11 and 12, 2007. **Figure 2** illustrates the sediment sample locations for Pond Nos. 6 and 7. Analytical results are summarized in the following table.

**Table 2.2.3 Sediment Testing Results in Ponds Nos. 6 and 7**

| Sample Location | Ammonia Nitrogen (as N) | Arsenic, total | Cadmium, total | Chromium, total | Columbium, total | Copper, total | Fluoride, total | Gross Alpha | Lead, total | Nickel, total | Nitrate Nitrogen (as N) | Tantalum, total | Zinc, total | pH | VOCs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | pCi/g | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | SI | mg/kg |
| Pond 6 North | 36.3 | 5.68 | 1.51 | 386 | 439 | 21.6 | 14400 | 12.7 | 31.4 | 43.5 | 20.3 | 9.08 | 62.6 | 7.93 | ND |
| Pond 6 South | 19.8 | 3.97 | 1.65 | 198 | 359 | 18.2 | 22400 | 10.5 | 25.5 | 23.2 | 13.7 | 595 | 42.3 | 7.98 | ND |
| Pond 6 East | 36.1 | 3.72 | 1.56 | 124 | 348 | 19 | 10700 | 1.8 | 26.9 | 26.6 | 16.4 | 537 | 38.8 | 7.78 | ND |
| Pond 6 West | 35.4 | 3.07 | 1.61 | 135 | 190 | 23.1 | 8300 | 12.7 | 20.4 | 28.3 | 10.2 | 3.5 | 37.2 | 7.68 | ND |
| Pond 6 Middle | 10.7 | 35.9 | 2.46 | 552 | 240 | 47.5 | 29500 | 28.4 | 201 | 77 | 33.6 | 8.09 | 47.5 | 7.57 | ND |
| Pond 6 Influent | 19.4 | 4.39 | 1.73 | 108 | 170 | 13.8 | 21900 | 23 | 20.1 | 16.4 | 10.4 | 3.32 | 56.8 | 7.58 | ND |
| Pond 6 Effluent | 25.8 | 8.51 | 1.99 | 148 | 128 | 29.8 | 18500 | 13.6 | 52.2 | 42.8 | 16 | 2.55 | 44.7 | 7.59 | ND |
| Pond 7 North | 6.2 | 19 | 2.17 | 295 | 10.3 | 42.5 | 17900 | 42.1 | 72.81 | 27.9 | 84.2 | 10.3 | 69.3 | 7.66 | ND |
| Pond 7 South | 28.9 | 8.9 | 2.22 | 181 | 777 | 24.1 | 15800 | 22.3 | 44.9 | 30 | 25.9 | 101 | 37.4 | 8.02 | ND |
| Pond 7 East | 12.5 | 15.8 | 0.962 | 87.7 | 737 | 13.3 | 16600 | 77.6 | 51.9 | 15.8 | 249 | 78.9 | 36.2 | 10.1 | ND |
| Pond 7 West | 9.6 | 19.6 | 2.63 | 523 | 798 | 40.6 | 41200 | 61.4 | 228 | 50.9 | 70 | 474 | 40.1 | 7.93 | ND |
| Pond 7 Middle | 16.2 | 54 | 2.54 | 613 | 7810 | 48.9 | 32600 | 183 | 448 | 68.3 | 58.7 | 5370 | 40 | 7.93 | ND |
| Pond 7 Influent 9 | BDL | 24.1 | 3.48 | 1260 | 2800 | 38.6 | 3730 | 58.4 | 90.7 | 57.1 | 73.3 | 1560 | 94 | 7.5 | ND |
| Pond 7 Influent 8 | 15.5 | 19.4 | 2.57 | 739 | 6730 | 40.8 | 32300 | 64.7 | 143 | 88.2 | 44.4 | 2380 | 50.8 | 7.96 | ND |
| Pond 7 Effluent | 13 | 14.5 | 2.52 | 621 | 4860 | 32.4 | 30000 | 49.9 | 123 | 43 | 52.3 | 1090 | 43.1 | 7.68 | ND |

[1] Test Method 8260B
Only Detected Constituents Reported
BDL = Below Detection Limit
ND = No VOCs Detected

These analytical results indicate the following characteristics for the sediment contained in Pond Nos. 6 and 7:

- Tested VOCs are not present in the sediment at levels above analytical laboratory reporting limits.
- Sediment in the ponds is basic (ph levels ranging from 7.5 to 10.1 standard units).

## 3.0 FINDINGS AND CONCLUSIONS

This Pre-Closure Sampling and Analysis Event characterized the southeastern portion of the site proximal to Pond Nos. 6 and 7. Relevant findings of the sampling and analysis event were as follows:

***Pond Wastewater:***

- No VOCs were detected in the wastewater contained in Pond Nos. 6 through 9.
- Wastewater in Pond Nos. 6 through 9 is basic.
- Gross alpha concentrations in wastewater in Ponds 6 through 9 are well below 15 pCi/l.

***Pond Sediments:***

- No VOCs were detected in the sediment contained in Pond Nos. 6 and 7.
- Sediment in Pond Nos. 6 and 7 is basic.

***Groundwater:***

- Groundwater at the site is being collected for treatment by the Groundwater Interceptor Trench installed in 1998.
- No VOCs were detected in the groundwater samples collected from the monitoring wells or groundwater interceptor trench sump.
- Groundwater in this area of the site is slightly acidic.
- Gross alpha concentrations in groundwater are typical background levels and well below 15 pCi/l
- Fluoride concentrations decrease downgradient of Pond Nos. 6 &7. Given the concentrations of fluoride present in pond sediment samples, this data indicates that constituents present in Pond Nos. 6 & 7 sediment are not impacting groundwater.

Based on these findings, FMRI concludes that the existing clay liner for Pond Nos. 6 and 7 is protective of groundwater. The data contained in this report indicates the existing Pond Nos. 6 & 7 liners do not require any modification and will remain in place until closure of the ponds can be completed during the scheduled decommissioning effort.

# FIGURES

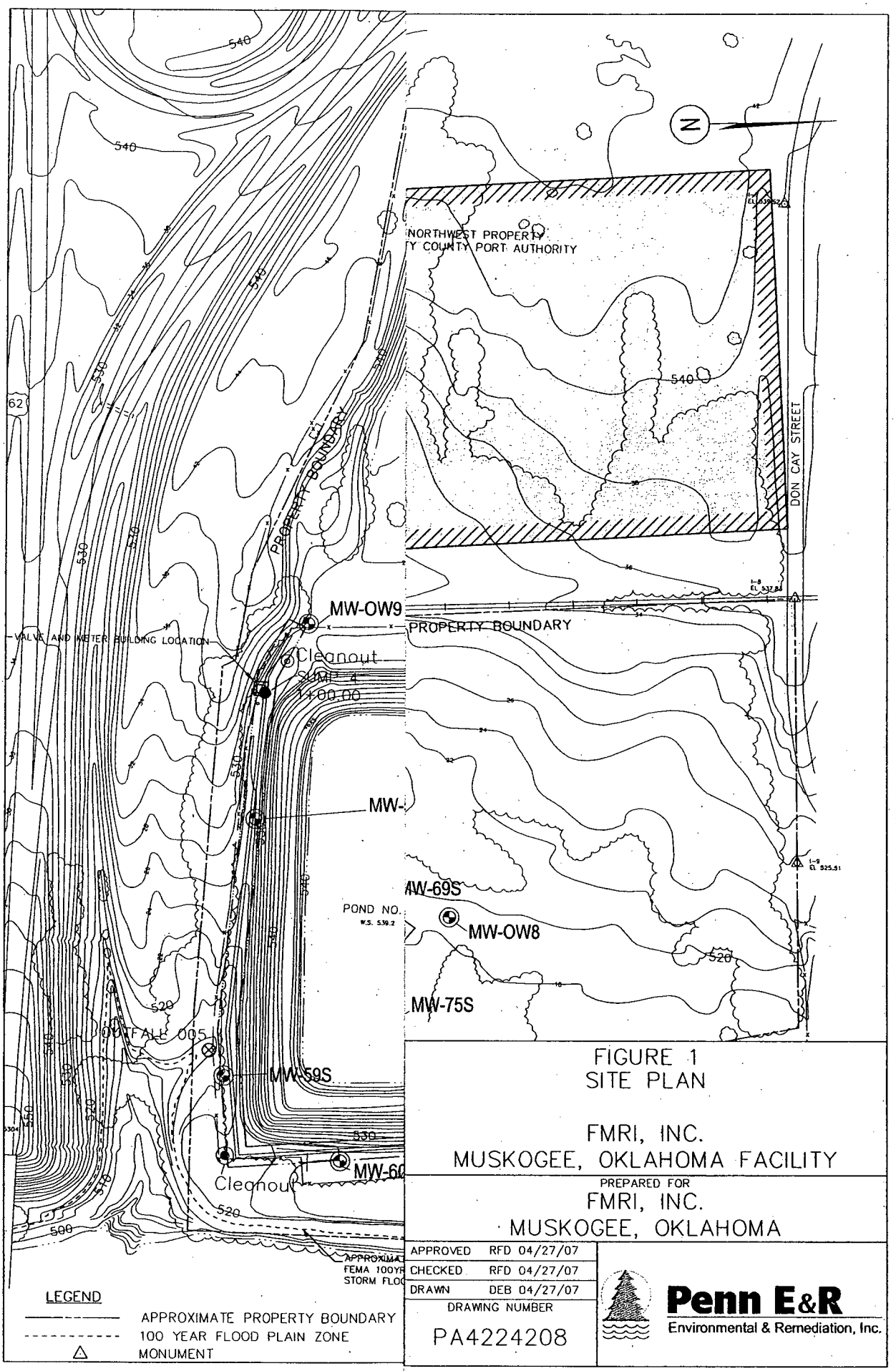


FIGURE 1
SITE PLAN

FMRI, INC.
MUSKOGEE, OKLAHOMA FACILITY

PREPARED FOR
FMRI, INC.
MUSKOGEE, OKLAHOMA

| | |
|---|---|
| APPROVED | RFD 04/27/07 |
| CHECKED | RFD 04/27/07 |
| DRAWN | DEB 04/27/07 |

DRAWING NUMBER
PA4224208

Penn E&R
Environmental & Remediation, Inc.

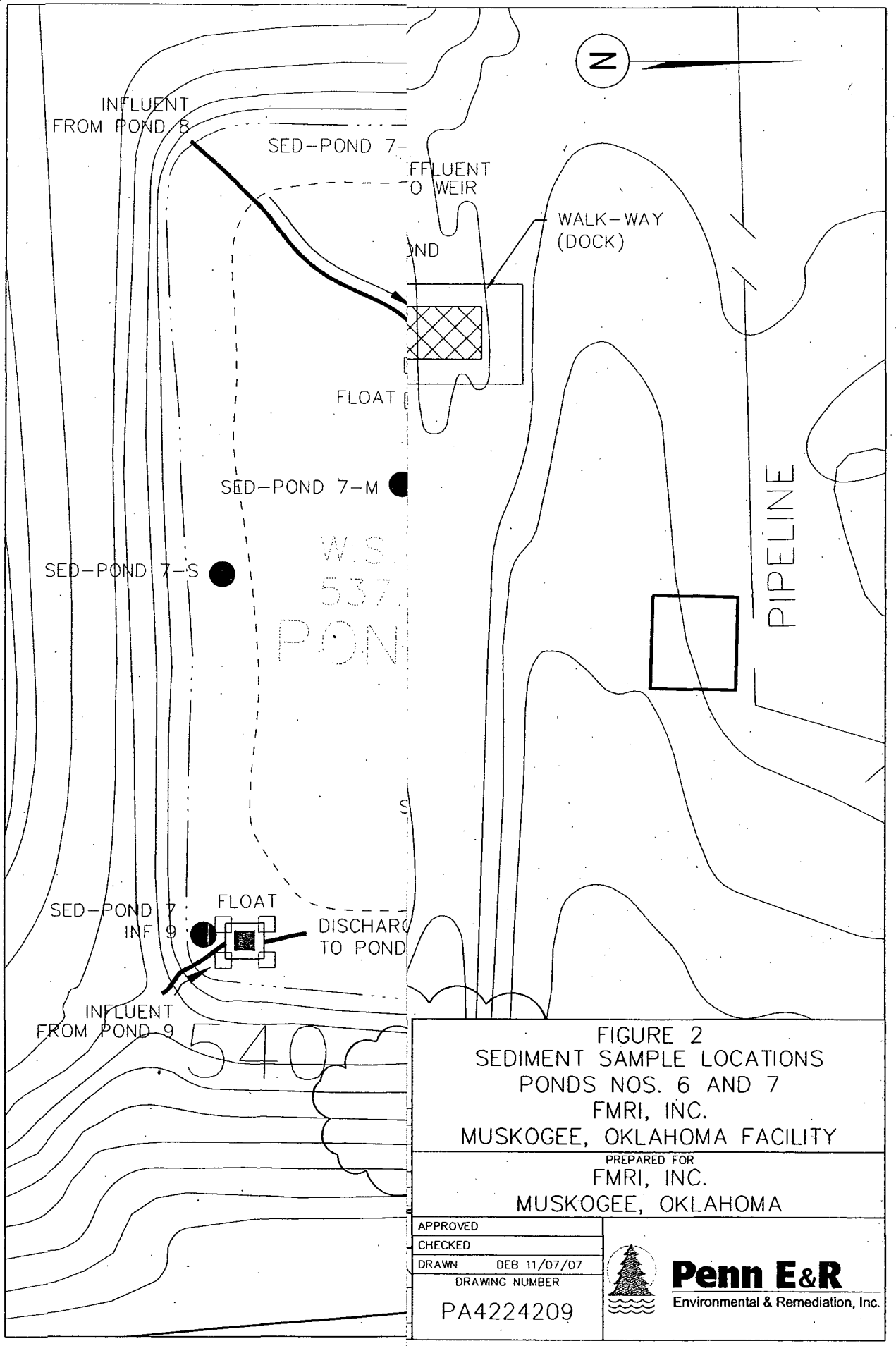


FIGURE 2
SEDIMENT SAMPLE LOCATIONS
PONDS NOS. 6 AND 7
FMRI, INC.
MUSKOGEE, OKLAHOMA FACILITY

PREPARED FOR
FMRI, INC.
MUSKOGEE, OKLAHOMA

| | |
|---|---|
| APPROVED | |
| CHECKED | |
| DRAWN | DEB 11/07/07 |
| DRAWING NUMBER | |
| PA4224209 | |

Penn E&R
Environmental & Remediation, Inc.

# ATTACHMENT A

# ATTACHMENT A

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

November 12, 2007

James Burgess
Fansteel Muskogee Remediation, Inc.
10 Tantalum Place
Muskogee, OK 74403

PROJECT NAME: Monitoring Wells & Sumps
OUTREACH LAB ID: 20070880

Dear Mr. Burgess:

Please find below additional field data for the above mentioned project sampled on 9/12/07 by Outreach personnel.

| | | |
|---|---|---|
| Pond 3 | pH 3.2 | 10:48 |
| MW-0W3 | depth 23.8' | 13:02 |
| MW-0W4 | depth 14.9' | 14:21 |
| MW-0W5 | depth 17.4' | 14:18 |
| MW-0W6 | depth 19.0' | 14:00 |
| MW-0W7 | depth 19.9' | 13:31 |
| MW-0W8 | depth 13.1' | 15:11 |
| MW-0W9 | depth 24.1' | 13:25 |

Thank you for choosing Outreach Laboratory and if you have any questions feel free to call us at 918-251-2515.

Laboratory Director

ODEQ ID #9517
NRC ODEQ LIC. #27522-01

ACCREDITED IN ACCORDANCE WITH

CERT. ID #OK001
See Certified
Parameter List

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | FMRI |
| Client Project: | Monitoring Wells & Sumps |
| Lab Number: | 20070880 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/13/07 |
| Page Number: | 1 of 6 |

# Analytical Report

**Lab ID:** 20070880-07
**Client ID:** MW-57
**Date Sampled:** 9/12/2007 12:07:00 PM
**Matrix:** Liquid

**Organics Analyses**

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | ug/l | 20 | | 9/19/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/19/2007 | RE |

**Lab ID:** 20070880-08
**Client ID:** MW-62
**Date Sampled:** 9/12/2007 11:41:00 AM
**Matrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | EMRI |
| Client Project: | Monitoring Wells & Sumps |
| Lab Number: | 20070880 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/13/07 |
| Page Number: | 2 of 6 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| crylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| enzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| romoform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| arbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| hlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| ibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| hloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| -Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| hloroform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | ug/l | 20 | | 9/20/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

**Lab ID:** 20070880-09
**Client ID:** MW-63
**Date Sampled:** 9/12/2007 11:15:00 AM
**Matrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | FMRI |
| Client Project: | Monitoring Wells & Sumps |
| Lab Number: | 20070880 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/13/07 |
| Page Number: | 3 of 6 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | ug/l | 20 | | 9/20/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

**Lab ID:** 20070880-22
**Client ID:** Sump 3
**Date Sampled:** 9/12/2007 12:18:00 PM
**Matrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | FMRI |
| Client Project: | Monitoring Wells & Sumps |
| Lab Number: | 20070880 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/13/07 |
| Page Number: | 4 of 6 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | ug/l | 20 | | 9/20/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

**Lab ID:** 20070880-24
**Client ID:** Sump 3 Field Dup
**Date Sampled:** 9/12/2007 2:45:00 PM
**Matrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | ug/l | 20 | | 9/20/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | FMRI |
| Client Project: | Monitoring Wells & Sumps |
| Lab Number: | 20070880 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/13/07 |
| Page Number: | 5 of 6 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

**Lab ID:** 20070880-25
**Client ID:** Trip Blank
**Date Sampled:** 9/12/2007
**Matrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | ug/l | 20 | | 9/20/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/20/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | FMRI |
| Client Project: | Monitoring Wells & Sumps |
| Lab Number: | 20070880 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/13/07 |
| Page Number: | 6 of 6 |

# QC Report

| Parameter | Blank | LCS %REC | LCSD %REC | LCSD RPD | DUP RPD | MS %REC | MSD %REC | MSD RPD | Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,1 Dichloroethene | BDL | 66.4 | | | | 47.9 | 46.4 | 3.0 | 9/19/2007 |
| Ammonia (N) | 0.12 | 95.3 | | | 2.8 | 104.0 | 103.0 | 8.0 | 9/19/2007 |
| Ammonia (N) | 0.08 | 103.0 | | | 4.4 | 102.0 | 101.0 | 1.2 | 9/26/2007 |
| Arsenic | 0.001 | 93.0 | | | | 92.0 | 95.0 | 2.6 | 10/24/2007 |
| Arsenic | 0 | 95.0 | | | | 91.0 | 93.0 | 1.5 | 9/24/2007 |
| Benzene | BDL | 103.0 | | | | 99.6 | 100.0 | 0.0 | 9/19/2007 |
| Cadmium | 0 | 96.0 | | | | 96.0 | 96.0 | 0.0 | 9/24/2007 |
| Cadmium | 0 | 92.0 | | | | 88.0 | 90.0 | 2.5 | 10/24/2007 |
| Chlorobenzene | BDL | 105.0 | | | | 109.0 | 112.0 | 3.0 | 9/19/2007 |
| Chromium | 0.001 | 99.0 | | | | 102.0 | 102.0 | 0.0 | 9/24/2007 |
| Chromium | 0.001 | 92.0 | | | | 90.0 | 93.0 | 3.1 | 10/24/2007 |
| Fluoride | 0.12 | 98.0 | | | NC | 93.3 | 93.3 | 0.0 | 9/25/2007 |
| Fluoride | 0.08 | 92.9 | | | 0.0 | 101.0 | 96.7 | 2.1 | 9/24/2007 |
| Gross Alpha | 0 | 93.3 | | | NC | 96.9 | 95.3 | 1.7 | 10/10/2007 |
| Gross Alpha | 0 | 98.0 | | | 3.7 | 86.2 | 85.1 | 1.1 | 10/5/2007 |
| Gross Beta | 0 | 109.0 | | | 4.3 | 105.0 | 96.8 | 7.7 | 10/10/2007 |
| Gross Beta | 0 | 111.0 | | | 13.9 | 104.0 | 98.7 | 4.7 | 10/5/2007 |
| Lead | 0.007 | 99.0 | | | | 98.0 | 98.0 | 0.5 | 9/24/2007 |
| Toluene | BDL | 100.0 | | | | 45.8 | 46.0 | 0.0 | 9/19/2007 |
| Total Dissolved Solids | 1 | 99.7 | | | 0.5 | 95.7 | 95.7 | 0.0 | 9/15/2007 |
| Total Dissolved Solids | 0 | 101.0 | | | | 101.0 | 101.0 | 0.1 | 9/18/2007 |
| Trichloroethene | BDL | 104.0 | | | | 46.6 | 47.0 | 1.0 | 9/19/2007 |

Lab Approval:

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 Muskogee Pre-Pump |
| Lab Number: | 20070870 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 1 of 7 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| **Lab ID:** | **20070870-01** | | | | | | |
| **Client ID:** | **Trip_WW** | | | | | | |
| **Date Sampled:** | **9/11/2007 8:35:00 AM** | | | | | | |
| **Matrix:** | **Liquid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/14/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| **Lab ID:** | **20070870-02** | | | | | | |
| **Client ID:** | **Field Blank-WW** | | | | | | |
| **Date Sampled:** | **9/11/2007 8:37:00 AM** | | | | | | |
| **Matrix:** | **Liquid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 Muskogee Pre-Pump |
| Lab Number: | 20070870 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 2 of 7 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| rylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| nzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| rbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| lorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| loroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| omodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| -Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| thylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/14/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| luene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| nyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

**Lab ID:** 20070870-03
**ient ID:** WW Pond 6
**ate Sampled:** 9/11/2007 8:50:00 AM
**Matrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| nzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| lorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| loroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 Muskogee Pre-Pump |
| Lab Number: | 20070870 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 3 of 7 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/14/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

**Lab ID:** 20070870-04
**Client ID:** WW Pond 7
**Date Sampled:** 9/11/2007 9:05:00 AM
**Matrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 Muskogee Pre-Pump |
| Lab Number: | 20070870 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 4 of 7 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| -Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ethyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ethylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/14/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| trachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| oluene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| nyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

**ab ID:** 20070870-05
**ient ID:** WW Pond 7 D
**Date Sampled:** 9/11/2007 9:05:00 AM
**atrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| crylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| enzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| arbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| hlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| hloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| romodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| thylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ethyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ethylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/14/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| etrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 Muskogee Pre-Pump |
| Lab Number: | 20070870 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 5 of 7 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| luene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ns-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| ichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

**ab ID:** 20070870-06
**Client ID:** WW Pond 8
**te Sampled:** 9/11/2007 9:50:00 AM
**atrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| rolein | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| omoform | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| bromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| loroform | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| ethyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/17/2007 | RE |
| 1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| ns-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| ichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 Muskogee Pre-Pump |
| Lab Number: | 20070870 |
| Date Reported: | 11/12/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 6 of 7 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| **Lab ID:** | **20070870-07** | | | | | | |
| **Client ID:** | **WW Pond 9** | | | | | | |
| **Date Sampled:** | **9/11/2007 10:15:00 AM** | | | | | | |
| **Matrix:** | **Liquid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/14/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
11 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

Client: Penn E & R, Inc.
Client Project: PA-4000-4224 Muskogee Pre-Pump
Lab Number: 20070870
Date Reported: 11/12/2007
Date Received: 9/12/07


# QC Report

| Parameter | Blank | LCS %REC | LCSD %REC | LCSD RPD | DUP RPD | MS %REC | MSD %REC | MSD RPD | Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,1 Dichloroethene | BDL | 127.0 | | | | 71.0 | 101.0 | 35.0 | 9/14/2007 |
| Ammonia (N) | 0.08 | 103.0 | | | 4.4 | 102.0 | 101.0 | 1.2 | 9/26/2007 |
| Arsenic | 0 | 92.0 | | | | 92.0 | 94.0 | 2.0 | 9/13/2007 |
| Benzene | BDL | 111.0 | | | | 116.0 | 116.0 | 0.0 | 9/14/2007 |
| Cadmium | 0.001 | 92.0 | | | | 94.0 | 95.0 | 1.1 | 9/13/2007 |
| Chlorobenzene | BDL | 97.5 | | | | 103.0 | 105.0 | 2.0 | 9/14/2007 |
| Chromium | 0.001 | 95.0 | | | | 99.0 | 100.0 | 0.6 | 9/13/2007 |
| Copper | 0.035 | 97.0 | | | | 99.0 | 99.0 | 0.0 | 9/13/2007 |
| Fluoride | 0.09 | 92.0 | | | 0.8 | 96.2 | 89.8 | 4.0 | 9/19/2007 |
| Gross Alpha | 0 | 93.3 | | | NC | 96.9 | 95.3 | 1.7 | 10/10/2007 |
| Gross Alpha | 0 | 98.0 | | | 3.7 | 86.2 | 85.1 | 1.1 | 10/5/2007 |
| Gross Beta | 0 | 109.0 | | | 4.3 | 105.0 | 96.8 | 7.7 | 10/10/2007 |
| Gross Beta | 0 | 111.0 | | | 13.9 | 104.0 | 98.7 | 4.7 | 10/5/2007 |
| Lead | 0 | 95.0 | | | | 96.0 | 99.0 | 2.4 | 9/13/2007 |
| Nickel | 0 | 95.0 | | | | 94.0 | 95.0 | 1.2 | 9/13/2007 |
| Niobium (Columbium) | 0.014 | 44.0 | | | | 52.0 | 65.0 | 21.3 | 9/17/2007 |
| Nitrate (N) | 0.03 | 102.0 | | | NC | 105.0 | 95.2 | 8.0 | 9/22/2007 |
| pH | | 99.9 | | | 0.0 | | | | 9/12/2007 |
| Tantalum | 0 | 54.0 | | | | 61.0 | 70.0 | 14.3 | 9/17/2007 |
| Toluene | BDL | 108.0 | | | | 114.0 | 115.0 | 1.0 | 9/14/2007 |
| Total Suspended Solids | 0 | | | | 0.0 | | | | 9/12/2007 |
| Trichloroethene | BDL | 111.0 | | | | 103.0 | 127.0 | 21.0 | 9/14/2007 |
| Zinc | 0.009 | 95.0 | | | | 98.0 | 100.0 | 1.5 | 9/14/2007 |

**Lab Approval:** _____

BDL = Below Detection Limit

# OUTREACH LABORATORY

311 North Aspen
Broken Arrow, OK 74012
Phone: (918) 251-2515
Fax: (918) 251-0008

## CHAIN OF CUSTODY

**Results To:**
Company: PENN EAR, INC.
Name: Don Dormont
Address: 359 NORTHGATE DRIVE SUITE 400
City: WARRENDALE State: PA Zip: 15086
Phone: 724-934-3534 Fax #: 724-934-3533

**Bill To:**
Company: PENN EAR, INC.
Name: Don Dormont
Address: 359 N. GATE DR, SUITE 400
City: WARRENDALE State: PA Zip: 15086

## ANALYSIS REQUESTED

PO #: PA-4224
PROJECT #: PA-4000-4224
PROJECT NAME: MUSKINGEE PRE-RUP
REQUESTED TURNAROUND TIME (ADDITIONAL CHARGES MAY APPLY): Closure / NORMAL
SAMPLER: Davis B. Wright (signature) DAVIS B. WRIGHT

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE SAMPLED | TIME SAMPLED | MATRIX | # CONTAINERS | CONTAINER SIZE (PLASTIC OR GLASS) | PRESERVATIVE # (1. $HNO_3$ pH<2; 2. Ice <4°C; 3. HCl pH<2; 4. $H_2SO_4$ pH<2; 5. NaOH pH>11) | VOCs | SEE TABLE 2.2.2 WASTE WATER | | | | | | | REMARKS (I.E. FILTERED, UNFILTERED, GRAB, COMPOSITE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TRIP-WW | 9-11-07 | 0835 | $H_2O$ | 3 | G/Aomb | 3 | X | | | | | | | | FILTERED |
| | FIELD BLANK-WW | 9-11-07 | 0837 | $H_2O$ | 6 | G/P | 1,3,4 | X | X | | | | | | | 12, 15mL, 40mL/FILTERED |
| | WW POND 6 | 9-11-07 | 0850 | $H_2O$ | 6 | G/P | 1,3,4 | X | X | | | | | | | UNFILTERED |
| | WW POND 7 | 9-11-07 | 0905 | $H_2O$ | 6 | G/P | 1,3,4 | X | X | | | | | | | UNFILTERED |
| | WW POND 7D | 9-11-07 | 0905 | $H_2O$ | 6 | G/P | 1,3,4 | X | X | | | | | | | UNFILTERED |
| | WW POND 8 | 9-11-07 | 0950 | $H_2O$ | 6 | G/P | 1,3,4 | X | X | | | | | | | UNFILTERED |
| | WW POND 9 | 9-11-07 | 1015 | $H_2O$ | 6 | G/P | 1,3,4 | X | X | | | | | | | UNFILTERED |

RELINQUISHED BY: Davis B. Wright (DAVIS B. WRIGHT) DATE: 9-11-07 TIME: 1200 RECEIVED BY: Raymond Thomas DATE: 09/11/07 TIME: 12:16

RELINQUISHED BY: _____ DATE: _____ TIME: _____ RECEIVED BY: _____ DATE: _____ TIME: _____

My signature on this chain of custody form indicates that I am authorized by the above company to release samples for analysis. The company agrees to pay the entire balance upon receipt of sample data and it is understood and agreed that any balance carried over thirty (30) days is subject to a 1.5% per month (18% per annum) late charge. In the event of default, the company becomes legally liable for any reasonable attorney and/or collection fees and all related costs necessary to remit the entire balance to Outreach Technologies, Inc. (Outreach Laboratory).

SAMPLE RETURN/DISPOSAL: All non-hazardous samples shall be disposed of 30 days after issue of final report. All others will be returned at client's expense.

FOR LABORATORY USE ONLY:
Sample Condition Upon Receipt:
Custody Seals Intact: Y N
Cooler Temperature:

Outreach Laboratory
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| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 1 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| **Lab ID:** | **20070873-01** | | | | | | |
| **Client ID:** | **Trip Blank-820** | | | | | | |
| **Date Sampled:** | **9/11/2007 12:01:00 PM** | | | | | | |
| **Matrix:** | **Liquid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/17/2007 | RE |
| **Lab ID:** | **20070873-02** | | | | | | |
| **Client ID:** | **Field Blank-820** | | | | | | |
| **Date Sampled:** | **9/11/2007 1:00:00 PM** | | | | | | |
| **Matrix:** | **Liquid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |

BDL = Below Detection Limit

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| | |
|---|---|
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| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 2 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/17/2007 | RE |

**Lab ID:** 20070873-03
**Client ID:** SED-POND 7-N
**Date Sampled:** 9/11/2007 1:10:00 PM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |

BDL = Below Detection Limit

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|---|---|
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| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
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# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | mg/kg | 2.3 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |

**Lab ID:** 20070873-04
**Client ID:** SED-POND 7-S
**Date Sampled:** 9/11/2007 1:30:00 PM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

BDL = Below Detection Limit

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| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
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# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | mg/kg | 2.4 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

**Lab ID:** 20070873-05
**Client ID:** SED-POND 7-E
**Date Sampled:** 9/11/2007 1:51:00 PM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |

BDL = Below Detection Limit

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# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Methylene Chloride | EPA 8260B | BDL | mg/kg | 2.5 | | 9/21/2007 | RE |
| ,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| rans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| ,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.3 | | 9/21/2007 | RE |

**Lab ID:** 20070873-06
**Client ID:** SED-POND 7-W
**Date Sampled:** 9/11/2007 2:18:00 PM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| crolein | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| romoform | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| ibromochloromethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| -Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| hloroform | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| ,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| ,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| ,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| ,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | mg/kg | 2.0 | | 9/21/2007 | RE |
| ,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| ans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |

BDL = Below Detection Limit

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| | |
|---|---|
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# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |

**Lab ID:** 20070873-07
**Client ID:** SED-POND 7-INF 9
**Date Sampled:** 9/11/2007 2:30:00 PM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | mg/kg | 2.2 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 7 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| **Lab ID:** | **20070873-08** | | | | | | |
| **Client ID:** | **SED-POND7-EFF** | | | | | | |
| **Date Sampled:** | **9/11/2007 2:45:00 PM** | | | | | | |
| **Matrix:** | **Solid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 2.2 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| **Lab ID:** | **20070873-09** | | | | | | |
| **Client ID:** | **EQUIPMENT BLANK** | | | | | | |
| **Date Sampled:** | **9/11/2007 3:15:00 PM** | | | | | | |
| **Matrix:** | **Liquid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
811 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 8 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/14/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/14/2007 | RE |

**Lab ID:** 20070873-10
**Client ID:** SED-POND 6-E
**Date Sampled:** 9/11/2007 4:03:00 PM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 9 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Methylene Chloride | EPA 8260B | BDL | mg/kg | 2.0 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.0 | | 9/21/2007 | RE |

**Lab ID:** 20070873-11
**Client ID:** SED-POND 6-N
**Date Sampled:** 9/11/2007 4:24:00 PM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008



# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 1.7 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |

**Lab ID:** 20070873-12
**Client ID:** Field Blank-SED-2
**Date Sampled:** 9/12/2007 7:43:00 AM
**Matrix:** Liquid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Benzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Bromoform | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Chloroform | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 11 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Methylene Chloride | EPA 8260B | BDL | ug/l | 20 | | 9/17/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Toluene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | ug/l | 10 | | 9/17/2007 | RE |

**Lab ID:** 20070873-13
**Client ID:** SED-POND 6-EFF
**Date Sampled:** 9/12/2007 7:54:00 AM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 1.9 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 12 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |

**Lab ID:** 20070873-14
**Client ID:** SED-POND 6D-EFF
**Date Sampled:** 9/12/2007 7:54:00 AM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 2.3 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
211 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 13 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| **Lab ID:** | **20070873-15** | | | | | | |
| **Client ID:** | **SED-POND 6-S** | | | | | | |
| **Date Sampled:** | **9/12/2007 8:09:00 AM** | | | | | | |
| **Matrix:** | **Solid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 1.8 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| **Lab ID:** | **20070873-16** | | | | | | |
| **Client ID:** | **SED-POND 6-INF** | | | | | | |
| **Date Sampled:** | **9/12/2007 8:23:00 AM** | | | | | | |
| **Matrix:** | **Solid** | | | | | | |
| | | **Organics Analyses** | | | | | |
| Acrolein | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
811 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 14 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 1.8 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 0.9 | | 9/21/2007 | RE |

**Lab ID:** 20070873-17
**Client ID:** SED-POND 6-W
**Date Sampled:** 9/12/2007 8:38:00 AM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 15 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 2.4 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

**Lab ID:** 20070873-18
**Client ID:** SED-POND 6-M
**Date Sampled:** 9/12/2007 10:03:00 AM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 16 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 2.4 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

**Lab ID:** 20070873-19
**Client ID:** SED-POND 7-M
**Date Sampled:** 9/12/2007 10:32:00 AM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 17 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| Methylene chloride | EPA 8260B | BDL | mg/kg | 2.4 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

**Lab ID:** 20070873-20
**Client ID:** SED-POND 7-INF8
**Date Sampled:** 9/12/2007 11:08:00 AM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 2.5 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
(918) 251-2515
FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 18 of 20 |

# Analytical Report

| | Method | Result | Units | DL | Prep Date | Analysis Date | Analyst |
|---|---|---|---|---|---|---|---|
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.2 | | 9/21/2007 | RE |

**Lab ID:** 20070873-21
**Client ID:** SED-POND 7D-INF8
**Date Sampled:** 9/12/2007 11:08:00 AM
**Matrix:** Solid

**Organics Analyses**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Acrolein | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Acrylonitrile | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Benzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Bromoform | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Carbon tetrachloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chlorobenzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Dibromochloromethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 2-Chloroethyl vinyl ether | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Chloroform | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Bromodichloromethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,2-Dichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,2-Dichloropropane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,3-Dichloropropene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Ethylbenzene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methyl Bromide | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methyl Chloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Methylene chloride | EPA 8260B | BDL | mg/kg | 2.3 | | 9/21/2007 | RE |
| 1,1,2,2-Tetrachloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Tetrachloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Toluene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| trans-1,2-Dichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1,1-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| 1,1,2-Trichloroethane | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Trichloroethene | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |
| Vinyl Chloride | EPA 8260B | BDL | mg/kg | 1.1 | | 9/21/2007 | RE |

BDL = Below Detection Limit

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| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 19 of 20 |

# QC Report

| Parameter | Blank | LCS %REC | LCSD %REC | LCSD RPD | DUP RPD | MS %REC | MSD %REC | MSD RPD | Date |
|---|---|---|---|---|---|---|---|---|---|
| 1,1 Dichloroethene | BDL | 127.0 | | | | 71.0 | 101.0 | 35.0 | 9/14/2007 |
| 1,1 Dichloroethene | BDL | 83.2 | | | | 87.7 | 60.6 | 37.0 | 9/21/2007 |
| Ammonia (N) | 1.3 | 105.0 | | | 3.1 | 100.0 | 101.0 | 1.0 | 10/8/2007 |
| Ammonia (N) | 0.08 | 103.0 | | | 4.4 | 102.0 | 101.0 | 1.2 | 9/26/2007 |
| Arsenic | 0 | 95.0 | | | | 91.0 | 93.0 | 1.5 | 9/24/2007 |
| Arsenic | 0 | 94.0 | | | | 89.0 | 89.0 | 1.0 | 10/11/2007 |
| Benzene | BDL | 111.0 | | | | 116.0 | 116.0 | 0.0 | 9/14/2007 |
| Benzene | BDL | 101.0 | | | | 152.0 | 102.0 | 39.0 | 9/21/2007 |
| Cadmium | 0 | 96.0 | | | | 96.0 | 96.0 | 0.0 | 9/24/2007 |
| Cadmium | 0 | 89.0 | | | | 82.0 | 81.0 | 0.5 | 10/11/2007 |
| Chlorobenzene | BDL | 97.5 | | | | 103.0 | 105.0 | 2.0 | 9/14/2007 |
| Chlorobenzene | BDL | 104.0 | | | | 119.0 | 120.0 | 1.0 | 9/21/2007 |
| Chromium | 0.001 | 99.0 | | | | 102.0 | 102.0 | 0.0 | 9/24/2007 |
| Chromium | 0.30 | 89.0 | | | | 129.0 | 113.0 | 13.2 | 10/11/2007 |
| Copper | 0.027 | 100.0 | | | | 100.0 | 99.0 | 1.0 | 9/24/2007 |
| Copper | 1.40 | 93.0 | | | | 89.0 | 87.0 | 2.7 | 10/11/2007 |
| Fluoride | 34.6 | 92.6 | | | 2.3 | DO | DO | 0.0 | 10/3/2007 |
| Fluoride | 0.08 | 92.9 | | | 0.0 | 101.0 | 96.7 | 2.1 | 9/24/2007 |
| Gross Alpha | BDL | 96.2 | | | 11.5 | 65.4 | 56.1 | 15.2 | 10/10/2007 |
| Gross Alpha | 0 | 93.3 | | | NC | 96.9 | 95.3 | 1.7 | 10/10/2007 |
| Gross Beta | 0 | 109.0 | | | 4.3 | 105.0 | 96.8 | 7.7 | 10/10/2007 |
| Gross Beta | BDL | 107.0 | | | 34.4 | 89.4 | 85.8 | 3.9 | 10/10/2007 |
| Lead | 0.007 | 99.0 | | | | 98.0 | 98.0 | 0.5 | 9/24/2007 |
| Lead | 0.60 | 93.0 | | | | 96.0 | 96.0 | 0.4 | 10/11/2007 |
| Nickel | 3.0 | 99.0 | | | | 94.0 | 90.0 | 3.9 | 10/11/2007 |
| Nickel | 0 | 120.0 | | | | 101.0 | 98.0 | 2.6 | 10/1/2007 |
| Niobium (Columbium) | 2.0 | 86.0 | | | | DO | DO | 4.2 | 10/10/2007 |
| Niobium (Columbium) | 0.006 | 53.0 | | | | 65.0 | 61.0 | 7.1 | 10/8/2007 |
| Nitrate (N) | 1.2 | 98.6 | | | 5.6 | 117.0 | 114.0 | 2.4 | 9/26/2007 |
| Nitrate (N) | 0.03 | 102.0 | | | NC | 105.0 | 95.2 | 8.0 | 9/22/2007 |
| pH | | 100.0 | | | 1.8 | | | | 9/12/2007 |
| pH | | 99.7 | | | 0.8 | | | | 9/12/2007 |
| Tantalum | 0 | 39.0 | | | | 59.0 | 51.0 | 15.4 | 10/8/2007 |
| Tantalum | 1.2 | 79.0 | | | | DO | DO | 17.2 | 10/10/2007 |
| Toluene | BDL | 108.0 | | | | 114.0 | 115.0 | 1.0 | 9/14/2007 |
| Toluene | BDL | 95.6 | | | | 76.6 | 53.6 | 35.0 | 9/21/2007 |
| Trichloroethene | BDL | 111.0 | | | | 103.0 | 127.0 | 21.0 | 9/14/2007 |
| Trichloroethene | BDL | 102.0 | | | | 81.2 | 57.7 | 34.0 | 9/21/2007 |

BDL = Below Detection Limit

Outreach Laboratory
311 North Aspen
Broken Arrow, OK 74012
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FAX (918) 251-0008

| | |
|---|---|
| Client: | Penn E & R, Inc. |
| Client Project: | PA-4000-4224 |
| Lab Number: | 20070873 |
| Date Reported: | 11/13/2007 |
| Date Received: | 9/12/07 |
| Page Number: | 20 of 20 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Zinc | 0 | 100.0 | 100.0 | 100.0 | 0.3 | 9/24/2007 |
| Zinc | 1.2 | 90.0 | 83.0 | 82.0 | 0.5 | 10/11/2007 |

**Lab Approval:** _____

BDL = Below Detection Limit

# OUTREACH LABORATORY

311 North Aspen
Broken Arrow, OK 74012
Phone: (918) 251-2515
Fax: (918) 251-0008

# CHAIN OF CUSTODY

1 of 2

**Results To:**
Company: PENN ERA, INC.
Name: Rod Dawmont
Address: 359 NORTHGATE DR. SUITE 400
City: WARRENDALE State: PA Zip: 15086
Phone: 724-934-3530 Fax #: 724-934-3533

**Bill To:**
Company: PENN ERA, INC.
Name: Rod Dawmont
Address: 359 N. GATE DR. SUITE 400
City: WARRENDALE State: PA Zip: 15086

## ANALYSIS REQUESTED

PO #: 07-5143 PA-4224
PROJECT #: PA-4224
PROJECT NAME: MOSHANNON PAD POND CLOSURE
REQUESTED TURNAROUND TIME (ADDITIONAL CHARGES MAY APPLY): NORMAL
SAMPLER: David Wright
Signature: DAVID B. WRIGHT

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE SAMPLED | TIME SAMPLED | MATRIX | # CONTAINERS | CONTAINER SIZE (PLASTIC OR GLASS) | PRESERVATIVE # (1. $HNO_3$ pH<2; 2. Ice <4°C; 3. HCl pH<2; 4. $H_2SO_4$ pH<2; 5. NaOH pH>11) | VOCs | TABLE 2,9,3 SEDIMENT | | | | | | | REMARKS (I.E. FILTERED, UNFILTERED, GRAB, COMPOSITE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | TRIP BLANK-SED | 9-11-07 | 1231 | $H_2O$ | 3 | G | 3, 2 | X | | | | | | | | FILTERED / 40 ml |
| 2 | FIELD BLANK-SED | | 1300 | | 6 | G/P | 1,2,3,4 | X | X | | | | | | | FILTERED / 1L, 150ml / 40ml |
| 3 | SED-POND7-N | | 1310 | SED | 2 | G | 2 | X | X | | | | | | | 150ml / 500ml |
| 4 | SED-POND7-S | | 1330 | | 2 | G | 2 | X | X | | | | | | | |
| 5 | SED-POND7-E | | 1351 | | 2 | G | 2 | X | X | | | | | | | |
| 6 | SED-POND7-W | | 1418 | | 2 | G | 2 | X | X | | | | | | | |
| 7 | SED-POND7-INF9 | | 1430 | | 2 | G | 2 | X | X | | | | | | | |
| 8 | SED-POND7-EFF | | 1445 | | 2 | G | 2 | X | X | | | | | | | |
| 9 | EQUIPMENT BLANK | | 1515 | $H_2O$ | 6 | G/P | 1,2,3,4 | X | X | | | | | | | FILTERED / 1L, 150ml / 40ml |
| 10 | SED-POND6-E | | 1603 | SED | 2 | G | 2 | X | X | | | | | | | 150ml / 500ml |
| 11 | SED-POND6-N | | 1624 | | 2 | G | 2 | X | X | | | | | | | |
| 12 | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | |

RELINQUISHED BY: David Wright DATE: 9-12-07 TIME: 1520 RECEIVED BY: Jessica Pitts DATE: 9-12-07 TIME: 1520

RELINQUISHED BY: _____ DATE _____ TIME _____ RECEIVED BY: _____ DATE _____ TIME _____

My signature on this chain of custody form indicates that I am authorized by the above company to release samples for analysis. The company agrees to pay the entire balance upon receipt of sample data and it is understood and agreed that any balance carried over thirty (30) days is subject to a 1.5% per month (18% per annum) late charge. In the event of default, the company becomes legally liable for any reasonable attorney and/or collection fees and all related costs necessary to remit the entire balance to Outreach Technologies, Inc. (Outreach Laboratory).

SAMPLE RETURN/DISPOSAL: All non-hazardous samples shall be disposed of 30 days after issue of final report. All others will be returned at client's expense.

FOR LABORATORY USE ONLY
2007 0873
Sample Condition Upon Receipt: good
Custody Seals Intact: Y N
Cooler Temperature: 20.0

# OUTREACH LABORATORY

311 North Aspen
Broken Arrow, OK 74012
Phone: (918) 251-2515
Fax: (918) 251-0008

## CHAIN OF CUSTODY

**Results To:**
Company: PEAS ERA, INC.
Name: Ron Doumont
Address: 359 North Gate Dr. Suite 400
City: Warrendale State: PA Zip: 15086
Phone: 724-934-3530 Fax #: 724-934-3533

**Bill To:**
Company: PEAS ERA, INC.
Name: Ron Doumont
Address: 359 N. Gate Dr. Suite 400
City: Warrendale State: PA Zip: 15086

## ANALYSIS REQUESTED

PO # 07-5143
PROJECT # PA-4006-4224
PROJECT NAME Mosha GSA PRR-Pond Closure
REQUESTED TURNAROUND TIME (ADDITIONAL CHARGES MAY APPLY) NORMAL
SAMPLER David B. Weyant (Signature) DAVID B. WEYANT

CONTAINER SIZE: PLASTIC OR GLASS
PRESERVATIVE #: 1. $HNO_3$ pH<2; 2. Ice <4°C; 3. HCl pH<2; 4. $H_2SO_4$ pH<2; 5. NaOH pH>11

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE SAMPLED | TIME SAMPLED | MATRIX | # CONTAINERS | CONTAINER SIZE | PRESERVATIVE # | VOCs | TABLE 2.2.3 Sediment | | | | | | | REMARKS (I.E. FILTERED, UNFILTERED, GRAB, COMPOSITE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | Field Blank-Sed-2 | 9-12-07 | 0743 | $H_2O$ | 6 | G/P | 1,2,3,4 | X | X | | | | | | | Filtered/1L, 150ml/40ml |
| 13 | Sed-Pond6 Eff | 9-12-07 | 0754 | SED | 2 | G | 2 | X | X | | | | | | | 150ml/500ml |
| 14 | Sed-Pond6D-Eff | 9-12-07 | 0754 | SED | 2 | G | 2 | X | X | | | | | | | |
| 15 | Sed-Pond6-S | 9-12-07 | 0809 | SED | 2 | G | 2 | X | X | | | | | | | |
| 16 | Sed-Pond6-Inf | 9-12-07 | 0823 | SED | 2 | G | 2 | X | X | | | | | | | |
| 17 | Sed-Pond6-W | 9-12-07 | 0839 | SED | 2 | G | 2 | X | X | | | | | | | |
| 18 | Sed-Pond6-M | 9-12-07 | 1003 | SED | 2 | G | 2 | X | X | | | | | | | |
| 19 | Sed-Pond7-M | 9-12-07 | 1032 | SED | 2 | G | 2 | X | X | | | | | | | |
| 20 | Sed-Pond7-Inf8 | | 1108 | SED | 2 | G | 2 | X | X | | | | | | | |
| 21 | Sed-Pond7D-Inf8 | | 1108 | SED | 2 | G | 2 | X | X | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

RELINQUISHED BY: David B. Weyant DATE 9-12-07 TIME 1520 RECEIVED BY: Jessica Foster DATE 9-12-07 TIME 1520
RELINQUISHED BY: DATE TIME RECEIVED BY: DATE TIME

My signature on this chain of custody form indicates that I am authorized by the above company to release samples for analysis. The company agrees to pay the entire balance upon receipt of sample data and it is understood and agreed that any balance carried over thirty (30) days is subject to a 1.5% per month (18% per annum) late charge. In the event of default, the company becomes legally liable for any reasonable attorney and/or collection fees and all related costs necessary to remit the entire balance to Outreach Technologies, Inc. (Outreach Laboratory).

SAMPLE RETURN/DISPOSAL: All non-hazardous samples shall be disposed of 30 days after issue of final report. All others will be returned at client's expense.

FOR LABORATORY USE ONLY: 9-13-07
Sample Condition Upon Receipt: good
Custody Seal Intact: Y N
Cooler Temperature: 2.0°C