# Attachment 4

## Analytical Laboratory Data listed in Table 5

**Project Manager:** Paul Doherty **Org:** SUPR/ER&R **Phone:** 913-551-7924

**Project ID:** PDA7E600

**Project Desc:** ChemCentral Fire - PUFs/Dioxin analyses

**Location:** Kansas CIty **State:** Missouri **Program:** Superfund

**Site Name:** CHEMCENTRAL FIRE - SITEWIDE **Site ID:** A7E6 **Site OU:** 00

**Purpose:** Site Characterization **GPRA PRC:** 302DC6C

Paul Doherty, Cell = 913-645-6449
Mike Davis, Cell = 913-205-8866

## Explanation of Codes, Units and Qualifiers used on this report

**Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FB = Field Blank

**Units:** Specific units in which results are reported.

pg/m3 = Picograms per Cubic Meter

**Data Qualifiers:** Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
U = The analyte was not detected at or above the reporting limit.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

**ASR Number:** 3375 **Sample Information Summary** **02/26/2007**

**Project ID:** PDA7E600 **Project Desc:** ChemCentral Fire - PUFs/Dioxin analyses

| Sample No | QC Code | Matrix | Location Description | External Sample No | Start Date | Start Time | End Date | End Time | Receipt Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 - | ___ | Air | KCF-001 | | 02/08/2007 | | | | 02/22/2007 |
| 2 - | ___ | Air | KCF-002 | | 02/08/2007 | | | | 02/22/2007 |
| 3 - | ___ | Air | KCF-003 | | 02/08/2007 | | | | 02/22/2007 |
| 4 - | ___ | Air | KCF-004 | | 02/08/2007 | | | | 02/22/2007 |
| 5 - | ___ | Air | KCF-005 | | 02/08/2007 | | | | 02/22/2007 |
| 6 - | ___ | Air | KCF-104 | | 02/08/2007 | | | | 02/22/2007 |
| 103 - | FB | Air | KCF-103 | | 02/08/2007 | | | | 02/22/2007 |

**ASR Number:**3375 **RLAB Approved Analysis Comments** **02/26/2007**

**Project ID:**PDA7E600 **Project Desc** ChemCentral Fire - PUFs/Dioxin analyses

**Analysis** **Comments About Results For This Analysis**

1 PCDD/PCDF in Air by GC/HRMS

**Lab:** Region 7 EPA Laboratory - Kansas City, Ks.

**Method:** EPA Region 7 RLAB Method 3230.14B

**Samples:** 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 103-FB

**Comments:**

This analysis was not performed according to routine procedures due to the nature of the extracts. The samples were originally extracted and analyzed by another laboratory, and the extracts were shipped to the Region 7 lab for dioxin analysis. Because of this, not all of the normal QC procedures were performed. The extracts were received in amber vials with approximately 15mL of hexane extract in each. This extract represented half of the original extract, and, prior to the first analysis, contained 15.0 mL. An aliquot of 10.0 mL was used for the dioxin analysis, and this resulted in a dilution factor of 3 for each sample (DF =2 for split, DF = 1.5 due to using 10ml of 15ml extract). This dilution factor was also applied to the UHL method blank and field blank. The average air volume was 1000L, or 1.0 m3, and this sample volume was used for the method blank, field blank, and laboratory control sample. The 10mL extract was spiked with cleanup standard and processed according to the routine cleanup procedure. The extract was then concentrated and spike with the labeled recovery standard and the instrument internal standard. Routinely, this recovery standard is spiked into the sample prior to any processing steps and the native dioxins and furans are then corrected for this recovery. This was not possible for these extracts, so the labeled recovery standards, typically 50 - 80%, were basically 100%, and the native results were not really corrected. THIS WILL BIAS ALL THE RESULTS LOW. How low may be a function of the surrogate recoveries reported for the UHL data, assuming their surrogates react exactly as the dioxin/furans (the DCBP surrogate would most closely mimic the dioxins and furans). The extraction procedure appears to be similar to our routine PUF extraction. Our typical initial volume is 1000m3, so the reporting limits are significantly higher than routine.

The Toxic Equivalency Factor (TEF) methodology used to calculate the 2,3,7,8-Dioxin total Toxic Equivalency (TEQ) is based on the 1997 World Health Organization (WHO) values. The TEQ value is the sum of only positive concentrations of individual congeners multiplied by the individual congener's TEF. U-coded (and UJ-coded) values were not used in the calculation of the TEQ.

123789-Hexachlorodibenzo-p-dioxin was UJ-coded in samples 1,2,3,4,5,6, and 103FB. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

The only compound detected in any of the samples is Octachlorodibenzo-p-dioxin. This was also detected in the field blank, at almost the same level as the one sample. It was also detected in the laboratory method blank received from UHL, however, do to equipment malfunction, the recovery for that sample is low. If the amount found is corrected for cleanup recovery, it would be approximately the same amount as found in the sample and field blank. This is a common lab contaminant, and it is possible, considering both blank results, that this is not actually from the sample itself but from the PUF or the UHL lab. The Region 7 method blank was clean.

**ASR Number:** 3375 **RLAB Approved Sample Analysis Results** **02/26/2007**

**Project ID:** PDA7E600 **Project Desc:** ChemCentral Fire - PUFs/Dioxin analyses

| Analysis/ Analyte | Units | 1-___ | 2-___ | 3-___ | 4-___ |
|---|---|---|---|---|---|
| 1 PCDD/PCDF in Air by GC/HRMS | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin | pg/m3 | 26.6 U | 26.6 U | 31.3 U | 31.3 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin | pg/m3 | 133 UJ | 133 UJ | 156 UJ | 156 UJ |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin | pg/m3 | 266 U | 266 U | 383 | 313 U |
| 2,3,7,8-Tetrachlorodibenzo-p-furan | pg/m3 | 26.6 U | 26.6 U | 31.3 U | 31.3 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-furan | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 2,3,4,7,8-Pentachlorodibenzo-p-furan | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-furan | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-furan | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-furan | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 2,3,4,6,7,8-Hexachlorodibenzo-p-furan | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-furan | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,4,7,8,9-Heptachlorodibenzo-p-furan | pg/m3 | 133 U | 133 U | 156 U | 156 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-furan | pg/m3 | 266 U | 266 U | 313 U | 313 U |
| 2,3,7,8-Dioxin Total Equivalents | pg/m3 | 0.000 | 0.000 | 0.038 | 0.000 |

**ASR Number:** 3375 **RLAB Approved Sample Analysis Results** **02/26/2007**

**Project ID:** PDA7E600 **Project Desc:** ChemCentral Fire - PUFs/Dioxin analyses

| Analysis/ Analyte | Units | 5-___ | 6-___ | 103-FB |
|---|---|---|---|---|
| 1 PCDD/PCDF in Air by GC/HRMS | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin | pg/m3 | 31.3 U | 30.0 U | 30.0 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin | pg/m3 | 156 UJ | 150 UJ | 150 UJ |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin | pg/m3 | 313 U | 300 U | 346 |
| 2,3,7,8-Tetrachlorodibenzo-p-furan | pg/m3 | 31.3 U | 30.0 U | 30.0 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-furan | pg/m3 | 156 U | 150 U | 150 U |
| 2,3,4,7,8-Pentachlorodibenzo-p-furan | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-furan | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-furan | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-furan | pg/m3 | 156 U | 150 U | 150 U |
| 2,3,4,6,7,8-Hexachlorodibenzo-p-furan | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-furan | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,4,7,8,9-Heptachlorodibenzo-p-furan | pg/m3 | 156 U | 150 U | 150 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-furan | pg/m3 | 313 U | 300 U | 300 U |
| 2,3,7,8-Dioxin Total Equivalents | pg/m3 | 0.000 | 0.000 | 0.035 |

# Attachment 5

## Analytical Laboratory Data listed in Table 7

**United States Environmental Protection Agency**
**Region 7**
**901 N. 5th Street**
**Kansas City, KS 66101**

**Date:** 02/16/2007

**Subject:** Transmittal of Sample Analysis Results for ASR #: 3370

Project ID: CCC001

Project Description: Chemical Fire

**From:** Dale I. Bates, Director
Regional Laboratory, Environmental Services Division

**To:** Joe Davis
SUPR/ER&R

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

**Project Manager:** Joe Davis **Org:** SUPR/ER&R **Phone:** 913-551-7909

**Project ID:** CCC001

**Project Desc:** Chemical Fire

**Location:** Kansas City **State:** Missouri **Program:** Superfund

**Site Name:** ChemCentral Fire - Site Evaluation/Disposition **Site ID:** A7E6 **Site OU:** 00

**Purpose:** Site Characterization **GPRA PRC:** 302DC6C

Assess the Chemical Fire impact in Kansas City, MO and OSC support

## Explanation of Codes, Units and Qualifiers used on this report

**Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.

__ = Field Sample

**Units:** Specific units in which results are reported.

mg/kg = Milligrams per Kilogram
ng/kg = Nanograms per Kilogram

**Data Qualifiers:** Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
R = The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.
U = The analyte was not detected at or above the reporting limit.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

**ASR Number:** 3370 **Sample Information Summary** **02/16/2007**

**Project ID:** CCC001 **Project Desc:** Chemical Fire

| Sample No | QC Code | Matrix | Location Description | External Sample No | Start Date | Start Time | End Date | End Time | Receipt Date |
|---|---|---|---|---|---|---|---|---|---|
| 1 - ___ | | Waste | Sample 001 | | 02/07/2007 | | | | 02/08/2007 |
| 2 - ___ | | Waste | Sample 002 | | 02/07/2007 | | | | 02/08/2007 |
| 3 - ___ | | Waste | Sample 003 | | 02/07/2007 | | | | 02/08/2007 |
| 4 - ___ | | Waste | Sample 004 | | 02/07/2007 | | | | 02/08/2007 |

**Analysis** **Comments About Results For This Analysis**

1 Mercury in Hazardous Samples

**Lab:** Region 7 ESAT Contract Lab (In-House)

**Method:** EPA Region 7 RLAB Method 3121.23A

**Samples:** 1-__ 2-__ 3-__ 4-__

**Comments:**

Due to low sample density a reduced amount of sample was tested. The reporting limits were raised accordingly.

Slight mercury contamination was found in the laboratory method blank. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: 2-3.

The laboratory control sample was in control.

1 Metals in Haz.Waste by ICP

**Lab:** Region 7 EPA Laboratory - Kansas City, Ks.

**Method:** EPA Region 7 RLAB Method 3122.3B

**Samples:** 1-__ 2-__ 3-__ 4-__

**Comments:**

Cadmium and Selenium were UJ-coded in sample 3. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value.

Laboratory control samples were in control

1 PCDD/PCDF in Hazardous by GC/HRMS

**Lab:** Region 7 EPA Laboratory - Kansas City, Ks.

**Method:** EPA Region 7 RLAB Method 3230.14B

**Samples:** 1-__ 2-__ 3-__ 4-__

**Comments:**

The Toxic Equivalency Factor (TEF) methodology used to calculate the 2,3,7,8-Dioxin total Toxic Equivalency (TEQ) is based on the 1997 World Health Organization (WHO) values. The TEQ value is the sum of only positive concentrations of individual congeners multiplied by the individual congener's TEF. U-coded values were not used in the calculation of the TEQ.

Sample 3 contained an interferent that co-eluted with 1,2,3,4,6,7,8-Heptachlorodibenzo-p-furan. This analyte was not detected, but, due to the interferent, its absence could not be verified down to the normal reporting limit. The ion ratio was not within the control limits, so an estimated maximum possible concentration (EMPC) was calculated according to SW846 method 8290 and was below the reporting limit. This EMPC was used in the calculation of the

**Analysis** **Comments About Results For This Analysis**

TEQ, thus resulting in a maximum level possible.

The samples did not have sufficient weight to perform this analysis with the normal size sample aliquot. The reporting limits were therefore increased by a factor of 10 for samples 2 and 4, 20 for sample 3, and 17 for sample 1 for all analytes.

1 Semi-Volatile Organic Compounds in Hazardous Waste

**Lab:** Region 7 ESAT Contract Lab (In-House)

**Method:** EPA Region 7 RLAB Method 3230.2E

**Samples:** 1-__ 2-__ 3-__ 4-__

**Comments:**
The reporting limits are higher than typical reporting limits since the nature of the sample made it necessary to use a reduced sample weight to analyze these samples.

The samples were extracted per Section K.2 (Solid Hazardous Waste-Sonication) of 3230.2E with the following exceptions. The solid samples were so voluminous that it was impossible to use 1 gram of sample. A reduced amount was used. Since these were ash samples from a fire site and the volume of the sample was excessive, sodium sulfate was not used in the analysis. The samples were extracted with a minimum of 10 ml of methylene chloride. In some instances it took a greater volume of solvent to completely cover the samples. The sonicator described in the method was not accessible due to the installation of new floors in the extraction labs. The samples were sonicated in an ultrasonic water bath. This extraction was not nearly as rigorous as the microtip ultrasonic probe would have been. The waste samples were extracted three times with methylene chloride. All samples were reduced to 1 ml volume in a Turbo Vap and analyzed by GC/MS.

4-Chloraniline and 3-Nitroaniline were UJ-coded in samples 3370-1, -2, -3, and -4. These analytes were not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the initial calibration verification standard not meeting accuracy specifications. The actual reporting limit for these analytes may be higher than the reported value.

4-Nitroaniline was UJ-coded in samples 3370-1, -2, -3, and -4. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for these analytes may be higher than the reported value.

Benzoic acid was UJ-coded in samples 3370-2 and -4. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. Benzoic acid was UJ-coded in samples 3370-1 and -3. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications and due to the low recovery of two acid surrogates. The actual reporting limit for these analytes may be higher than the reported value.

Benzo(a)anthracene, Benzo(b)fluoranthene, bis(2-Chloroethoxy)methane, and Carbazole were UJ-coded in sample 3370-1, -2, -3, and -4. These analytes were not found in the sample at or

**Analysis** **Comments About Results For This Analysis**

above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value. These analytes were UJ-coded in all samples since the sample matrix appeared similar for all samples.

Benzo(k)fluoranthene was UJ-coded in samples 3370-1, -2, -3, and -4. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due tothe low recovery for this analyte in the laboratory matrix spike and due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate. The actual reporting limit for this analyte may be higher than the reported value. This analyte was UJ-coded in all samples since the sample matrix appeared similar for all samples.

Benzo(a)pyrene, Benzo(g,h,i)perylene, Dibenz(a,h)anthracene, 2,4-Dinitophenol, 4,6-Dinitro-2-methylphenol, Indeno(1,2,3-cd)pyrene, and Pentachlorophenol had unacceptable response in the laboratory matrix spike indicating that is was not possible to obtain valid results for these analytes. Results of 'N/A' were reported with an R-code for these analytes in sample 3370-1, -2, -3, and -4. These analytes were R-coded in all samples since the sample matrix appeared similar for all samples.

Benzyl alcohol were UJ-coded in sample 3370-1, -2, -3, and -4. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to poor precision obtained for these analytes in the laboratory matrix spike and matrix spike duplicate. The actual reporting limit for this analyte may be higher than the reported value. This analyte was UJ-coded in all samples since the sample matrix appeared similar for all samples.

2-Nitrophenol, 2,4-Dichlorophenol, 2,4,5-Trichlorophenol, and 4 -Nitrophenol were UJ-coded insample 3370-1 and -3. These analytes were not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the low recovery of these analytes in the laboratory matrix spike and due to low recovery of two acid surrogate analytes. The actual reporting limit for these analytes may be higher than the reported value.

2-Nitrophenol, 2,4-Dichlorophenol, 2,4,5-Trichlorophenol, and 4 -Nitrophenol were UJ-coded in sample 3370-2 and -4. These analytes was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of two acid surrogate analytes. The actual reporting limit for these analytes may be higher than the reported value.

Phenol, 2-Chlorophenol, 2-Methylphenol, 4-Methylphenol, 2,4-Dimethylphenol, 4-Chloro-3-methylphenol, and 2,4,6-Trichlorophenol were UJ-coded in sample 3370-1 and -3. These analytes was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of two surrogate analytes. The actual reporting limit for these analytes may be higher than the reported value.

1 VOCs in Solid Hazardous Matrices by GC/MS

**Lab:** Region 7 ESAT Contract Lab (In-House)

**Method:** EPA Region 7 RLAB Method 3230.17B

**Samples:** 1-__ 2-__ 3-__ 4-__

**Analysis** **Comments About Results For This Analysis**

**Comments:**

This method is slightly altered from the SOP. The sample amount and the extraction volume were decreased. Due to this, the reporting limits were lowered.

Carbon Tetrachloride was UJ-coded in samples 1, 2, 3, and 4. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory control sample. The actual reporting limit for this analyte may be higher than the reported value.

Acetone and 2-Butanone were U-coded in samples 1, 2, 3, and 4. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample.

Bromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, and 1,4-Dichlorobenzene were UJ-coded in sample 3. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value.

1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Styrene, m and/or p-Xylene, and o-Xylene were UJ-coded in sample 3. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate. The actual reporting limit for these analytes may be higher than the reported value.

**ASR Number:** 3370 **RLAB Approved Sample Analysis Results** **02/16/2007**

**Project ID:** CCC001 **Project Desc:** Chemical Fire

| Analysis/ Analyte | Units | 1-(201) | 2-(202) | 3-(203) | 4-(204) |
|---|---|---|---|---|---|
| 1 Mercury in Hazardous Samples | | | | | |
| Mercury | mg/kg | 0.219 | 0.0436 U | 0.0147 U | 0.0154 U |
| 1 Metals in Haz.Waste by ICP | | | | | |
| Arsenic | mg/kg | 10 U | 10 U | 10 U | 10 U |
| Barium | mg/kg | 34.0 | 3.66 | 5 U | 5 U |
| Cadmium | mg/kg | 5 U | 5 U | 5 UJ | 5 U |
| Chromium | mg/kg | 6.81 | 5 U | 5 U | 5 U |
| Lead | mg/kg | 13.2 | 13.5 | 10 U | 10 U |
| Selenium | mg/kg | 10 U | 10 U | 10 UJ | 10 U |
| Silver | mg/kg | 10 U | 10 U | 10 U | 10 U |
| 1 PCDD/PCDF in Hazardous by GC/HRMS | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin | ng/kg | 16.7 U | 10.0 U | 20.0 U | 10.0 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin | ng/kg | 167 U | 100 U | 200 U | 125 |
| 2,3,7,8-Tetrachlorodibenzo-p-furan | ng/kg | 16.7 U | 10.0 U | 20.0 U | 10.0 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-furan | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 2,3,4,7,8-Pentachlorodibenzo-p-furan | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-furan | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-furan | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-furan | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 2,3,4,6,7,8-Hexachlorodibenzo-p-furan | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-furan | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,4,7,8,9-Heptachlorodibenzo-p-furan | ng/kg | 83.3 U | 50.0 U | 100 U | 50.0 U |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-furan | ng/kg | 167 U | 100 U | 332 | 213 |
| 2,3,7,8-Dioxin Total Equivalents | ng/kg | 0.000 | 0.000 | 0.327 | 0.034 |
| 1 Semi-Volatile Organic Compounds in Hazardous Waste | | | | | |
| Acenaphthene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Acenaphthylene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Anthracene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Benzo(a)anthracene | mg/kg | 3.7 UJ | 3.9 UJ | 3.7 UJ | 3.9 UJ |
| Benzo(a)pyrene | mg/kg | N/A R | N/A R | N/A R | N/A R |
| Benzo(b)fluoranthene | mg/kg | 3.7 UJ | 3.9 UJ | 3.7 UJ | 3.9 UJ |
| Benzo(g,h,i)perylene | mg/kg | N/A R | N/A R | N/A R | N/A R |
| Benzo(k)fluoranthene | mg/kg | 3.7 UJ | 3.9 UJ | 3.7 UJ | 3.9 UJ |
| Benzoic acid | mg/kg | 18 UJ | 20 UJ | 19 UJ | 19 UJ |
| Benzyl alcohol | mg/kg | 9.2 UJ | 9.8 UJ | 9.4 UJ | 9.7 UJ |
| bis(2-Chloroethoxy)methane | mg/kg | 3.7 UJ | 3.9 UJ | 3.7 UJ | 3.9 UJ |
| bis(2-Chloroethyl)ether | mg/kg | 3.7 UJ | 3.9 U | 3.7 U | 3.9 U |
| bis(2-Chloroisopropyl)ether | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| bis(2-Ethylhexyl)phthalate | mg/kg | 9.2 U | 9.8 U | 9.4 U | 9.7 U |
| 4-Bromophenyl-phenylether | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Butylbenzylphthalate | mg/kg | 9.2 U | 9.8 U | 9.4 U | 9.7 U |

**ASR Number:** 3370 **RLAB Approved Sample Analysis Results** **02/16/2007**

**Project ID:** CCC001 **Project Desc:** Chemical Fire

| Analysis/ Analyte | Units | 1-(201) | 2-(202) | 3-(203) | 4-(204) |
|---|---|---|---|---|---|
| Carbazole | mg/kg | 9.2 UJ | 9.8 UJ | 9.4 UJ | 9.7 UJ |
| 4-Chloro-3-methylphenol | mg/kg | 9.2 UJ | 9.8 U | 9.4 UJ | 9.7 U |
| 4-Chloroaniline | mg/kg | 18 UJ | 20 UJ | 19 UJ | 19 UJ |
| 2-Chloronaphthalene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 2-Chlorophenol | mg/kg | 9.2 UJ | 9.8 U | 9.4 UJ | 9.7 U |
| 4-Chlorophenyl-phenylether | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Chrysene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Di-n-butylphthalate | mg/kg | 9.2 U | 9.8 U | 9.4 U | 9.7 U |
| Di-n-octylphthalate | mg/kg | 9.2 U | 9.8 U | 9.4 U | 9.7 U |
| Dibenz(a,h)anthracene | mg/kg | N/A R | N/A R | N/A R | N/A R |
| Dibenzofuran | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 1,2-Dichlorobenzene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 1,3-Dichlorobenzene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 1,4-Dichlorobenzene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 3,3'-Dichlorobenzidine | mg/kg | 18 U | 20 U | 19 U | 19 U |
| 2,4-Dichlorophenol | mg/kg | 9.2 UJ | 9.8 UJ | 9.4 UJ | 9.7 UJ |
| Diethylphthalate | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 2,4-Dimethylphenol | mg/kg | 9.2 UJ | 9.8 U | 9.4 UJ | 9.7 U |
| Dimethylphthalate | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 4,6-Dinitro-2-methylphenol | mg/kg | N/A R | N/A R | N/A R | N/A R |
| 2,4-Dinitrophenol | mg/kg | N/A R | N/A R | N/A R | N/A R |
| 2,4-Dinitrotoluene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 2,6-Dinitrotoluene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Fluoranthene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Fluorene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Hexachlorobenzene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Hexachlorobutadiene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Hexachlorocyclopentadiene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Hexachloroethane | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Indeno(1,2,3-cd)pyrene | mg/kg | N/A R | N/A R | N/A R | N/A R |
| Isophorone | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 2-Methylnaphthalene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 2-Methylphenol | mg/kg | 9.2 UJ | 9.8 U | 9.4 UJ | 9.7 U |
| 4-Methylphenol | mg/kg | 9.2 UJ | 9.8 U | 9.4 UJ | 9.7 U |
| Naphthalene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 2-Nitroaniline | mg/kg | 9.2 U | 9.8 U | 9.4 U | 9.7 U |
| 3-Nitroaniline | mg/kg | 9.2 UJ | 9.8 UJ | 9.4 UJ | 9.7 UJ |
| 4-Nitroaniline | mg/kg | 18 UJ | 20 UJ | 19 UJ | 19 UJ |
| Nitrobenzene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 2-Nitrophenol | mg/kg | 9.2 UJ | 9.8 UJ | 9.4 UJ | 9.7 UJ |
| 4-Nitrophenol | mg/kg | 18 UJ | 20 UJ | 19 UJ | 19 UJ |
| N-nitroso-di-n-propylamine | mg/kg | 9.2 U | 9.8 U | 9.4 U | 9.7 U |
| N-nitrosodiphenylamine | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| Pentachlorophenol | mg/kg | N/A R | N/A R | N/A R | N/A R |
| Phenanthrene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |

**ASR Number:** 3370 **RLAB Approved Sample Analysis Results** **02/16/2007**

**Project ID:** CCC001 **Project Desc:** Chemical Fire

| Analysis/ Analyte | Units | 1-(201) | 2-(202) | 3-(203) | 4-(204) |
|---|---|---|---|---|---|
| Phenol | mg/kg | 3.7 UJ | 3.9 U | 3.7 UJ | 3.9 U |
| Pyrene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 1,2,4-Trichlorobenzene | mg/kg | 3.7 U | 3.9 U | 3.7 U | 3.9 U |
| 2,4,5-Trichlorophenol | mg/kg | 9.2 UJ | 9.8 UJ | 9.4 UJ | 9.7 UJ |
| 2,4,6-Trichlorophenol | mg/kg | 9.2 UJ | 9.8 U | 9.4 UJ | 9.7 U |
| 1 VOCs in Solid Hazardous Matrices by GC/MS | | | | | |
| Acetone | mg/kg | 34 U | 33 U | 73 U | 35 U |
| Benzene | mg/kg | 5.0 U | 5.0 U | 15 | 16 |
| Bromodichloromethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Bromoform | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Bromomethane | mg/kg | 5.0 U | 5.0 U | 10 UJ | 5.0 U |
| 2-Butanone | mg/kg | 165 U | 159 U | 350 U | 170 U |
| Carbon Disulfide | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Carbon Tetrachloride | mg/kg | 5.0 UJ | 5.0 UJ | 10 UJ | 5.0 UJ |
| Chlorobenzene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Chloroethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Chloroform | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Chloromethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Dibromochloromethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| 1,2-Dibromoethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| 1,2-Dichlorobenzene | mg/kg | 5.0 U | 5.0 U | 10 UJ | 5.0 U |
| 1,3-Dichlorobenzene | mg/kg | 5.0 U | 5.0 U | 10 UJ | 5.0 U |
| 1,4-Dichlorobenzene | mg/kg | 5.0 U | 5.0 U | 10 UJ | 5.0 U |
| 1,1-Dichloroethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| 1,2-Dichloroethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| 1,1-Dichloroethene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| cis-1,2-Dichloroethene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| trans-1,2-Dichloroethene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| 1,2-Dichloropropane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| cis-1,3-Dichloropropene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| trans-1,3-Dichloropropene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Ethyl Benzene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| 2-Hexanone | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Methylene Chloride | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| 4-Methyl-2-Pentanone | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Styrene | mg/kg | 5.0 U | 5.0 U | 10 UJ | 5.0 U |
| 1,1,2,2-Tetrachloroethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Tetrachloroethene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Toluene | mg/kg | 5.0 U | 5.0 U | 10 U | 16 |
| 1,1,1-Trichloroethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| 1,1,2-Trichloroethane | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Trichloroethene | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| Vinyl Chloride | mg/kg | 5.0 U | 5.0 U | 10 U | 5.0 U |
| m and/or p-Xylene | mg/kg | 5.0 U | 5.0 U | 10 UJ | 5.0 U |
| o-Xylene | mg/kg | 5.0 U | 5.0 U | 10 UJ | 5.0 U |

# Sample Analysis Results

## US EPA Region 7 Laboratory
## 901 N. 5th Street
## Kansas City, Kansas 66101

02/08/2007

**ASR Number:** 3370

**Analysis:** 1 Metals in Haz.Waste by ICP **Lab:** EPA **Analyst:**_____

**Method:** EPA Region 7 RLAB Method 3122.3B **Reviewer:**_____

**Project ID:** CCC001 **Project Manager:** Joe Davis

**Project Desc:** Chemical Fire

**Location:** Kansas City **State:** Missouri **Program:** Superfund

**Site Name:** Multi-Site - General **Site Id:** 07ZZ **Site OU:** 00

**Report Comments:**

Cadmium and Selenium were UJ-coded in sample 3. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value.

**Analysis Comments:**

Cd was 3.00 ug/L low in the FCV Blank. This is less than the Hazardous Waste TRL.

Laboratory control samples were in control

**ASR Number:** 3370 **Project ID:** CCC001 **Analysis Results** 02/08/2007 **Analyst:**_____ **Reviewer:**_____

**Analysis:** 1 Metals in Haz.Waste by ICP

| Analyte | Units | 1-(201) | 2-(202) | 3-(203) | 3-MS | 3-MSD | 4-(204) |
|---|---|---|---|---|---|---|---|
| Arsenic | mg/kg | 10 U | 10 U | 10 U | 86.8 | 82.3 | 10 U |
| Barium | mg/kg | 34.0 | 3.66 | 5 U | 832 | 810 | 5 U |
| Cadmium | mg/kg | 5 U | 5 U | 5 UJ | 77.8 | 75.1 | 5 U |
| Chromium | mg/kg | 6.81 | 5 U | 5 U | 85.8 | 83.0 | 5 U |
| Lead | mg/kg | 13.2 | 13.5 | 10 U | 87.4 | 86.2 | 10 U |
| Selenium | mg/kg | 10 U | 10 U | 10 UJ | 66.8 | 62.1 | 10 U |
| Silver | mg/kg | 10 U | 10 U | 10 U | 11.4 | 11.3 | 10 U |

**ASR Number:** 3370 **Project ID:** CCC001 **Analysis Results** 02/08/2007 **Analyst:**_____ **Reviewer:**_____

**Analysis:** 1 Metals in Haz.Waste by ICP

| Analyte | Units | 903-MB | 903-LCS |
|---|---|---|---|
| Arsenic | mg/kg | 10 U | 85.1 |
| Barium | mg/kg | 5 U | 853 |
| Cadmium | mg/kg | 5 U | 81.1 |
| Chromium | mg/kg | 5 U | 87.9 |
| Lead | mg/kg | 10 U | 87.6 |
| Selenium | mg/kg | 10 U | 77.2 |
| Silver | mg/kg | 10 U | 16.9 |

# Sample Analysis Results

## US EPA Region 7 Laboratory
## 901 N. 5th Street
## Kansas City, Kansas 66101

02/08/2007

**ASR Number:** 3370

**Analysis:** 1 Mercury in Hazardous Samples **Lab:** ESAT **Analyst:**_____

**Method:** EPA Region 7 RLAB Method 3121.23A **Reviewer:**_____

**Project ID:** CCC001 **Project Manager:** Joe Davis

**Project Desc:** Chemical Fire

**Location:** Kansas City **State:** Missouri **Program:** Superfund

**Site Name:** Multi-Site - General **Site Id:** 07ZZ **Site OU:** 00

**Report Comments:**

Due to low sample density a reduce ammount of sample was tested. The reporting limits were raised accordingly.

The laboratory control samples were in control.

**Analysis Comments:**

**ASR Number:** 3370 **Project ID:** CCC001 **Analysis Results** 02/08/2007 **Analyst:**_____ **Reviewer:**_____

**Analysis:** 1 Mercury in Hazardous Samples

| Analyte | Units | 1-(201) | 1-MS | 1-MSD | 2-(202) | 3-(203) | 4-(204) |
|---|---|---|---|---|---|---|---|
| Mercury | mg/kg | 0.219 | 2.08 | 2.01 | 0.0436 | 0.0147 | 0.0359 U |

**ASR Number:** 3370 **Project ID:** CCC001 **Analysis Results** 02/08/2007 **Analyst:**_____ **Reviewer:**_____

**Analysis:** 1 Mercury in Hazardous Samples

| Analyte | Units | 950-MB | 950-LCS |
|---|---|---|---|
| Mercury | mg/kg | 0.00400 U | 10.6 |

# Attachment 6

## Analytical Laboratory Data listed in Table 8

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

# Transmission Electron Microscopy Asbestos Summary Sheet

| | | | |
|---|---|---|---|
| QuanTEM Sample ID: | 146537 | Client: | Tetra Tech EM, Inc.<br>8030 Flint St<br>Lenexa, KS 66214 |
| Account Number: | B229 | | |
| Date Received: | 02/09/2007 | | |
| Received By: | Barbara Holder | | |
| Date Analyzed: | 02/09/2007 | Project: | Chem Central |
| Analyzed By: | Jeff Mlekush | Project Location: | Chem Central |
| Methodology: | TEM | Project Number: | I9004 E.06.0001.000 |

| QuanTEM Sample ID | Client Sample ID | Asbestos Structures 0.5 to <5 µm | Asbestos Structures ≥ 5 µm | Analytical Sensitivity s/cc | Concentrations s/cc | Concentrations s/mm² |
|---|---|---|---|---|---|---|
| 146537-001 | Woodlan | 0 | 0 | 0.0046 | NSD | NSD |
| 146537-002 | Scarritt | 0 | 0 | 0.0045 | NSD | NSD |
| 146537-003 | James | 0 | 0 | 0.0049 | NSD | NSD |
| 146537-004 | Garfield | 0 | 0 | 0.0028 | NSD | NSD |
| 146537-005 | Whittier | 0 | 0 | 0.0049 | NSD | NSD |
| 146537-006 | Gladstone | 0 | 0 | 0.0043 | NSD | NSD |

2/9/2007
Date of Report

Jeff Mlekush, Laboratory Manager

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM® LABORATORIES

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# Transmission Electron Microscopy Asbestos Analysis Report

| | | | |
|---|---|---|---|
| | | Client: | Tetra Tech EM, Inc. |
| | | Account Number: | B229 |
| | | Client Sample ID: | Woodlan |
| QuanTEM Sample ID: | 146537-001 | Filter Type: | 0.45 um, 25mm |
| Date Received: | 02/09/2007 | Sample Volume (Liters): | 1280 |
| Received By: | Barbara Holder | Grid Opening Area: | 0.0110 |
| Date Analyzed: | 02/09/2007 | Grid Opening Analyzed: | 6 |
| Analyzed By: | Jeff Mlekush | Area Analyzed: | 0.066 |
| Methodology: | TEM | Grid Archival: | 4195 B9 B10 C6 |

## Analysis Summary

| | Chrysotile | | Amphibole | | Ambiguous | Non Asbestos |
|---|---|---|---|---|---|---|
| Structures | 0.5 to <5 µm | ≥ 5 µm | 0.5 to <5 µm | ≥ 5 µm | | |
| Free Fibers | 0 | 0 | 0 | 0 | 0 | 0 |
| Bundles | 0 | 0 | 0 | 0 | 0 | 0 |
| Clusters | 0 | 0 | 0 | 0 | 0 | 0 |
| Matrices | 0 | 0 | 0 | 0 | 0 | 0 |

## Analysis Results

| | | Asbestos Structures / mm² | Asbestos Structures / cc |
|---|---|---|---|
| Analytical Sensitivity | | | 0.0046 |
| Concentration | 0.5 to <5 µm | NSD | NSD |
| Concentration | ≥ 5 µm | NSD | NSD |
| **Total Concentration** | | **NSD** | **NSD** |

**Comments:**

Jeff Mlekush, Laboratory Manager

2/9/2007
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM® LABORATORIES

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# Transmission Electron Microscopy Asbestos Analysis Report

| | |
|---|---|
| Client: | Tetra Tech EM, Inc. |
| Account Number: | B229 |
| Client Sample ID: | Scarritt |

| | |
|---|---|
| QuanTEM Sample ID: | 146537-002 |
| Date Received: | 02/09/2007 |
| Received By: | Barbara Holder |
| Date Analyzed: | 02/09/2007 |
| Analyzed By: | Jeff Mlekush |
| Methodology: | TEM |

| | |
|---|---|
| Filter Type: | 0.45 um, 25mm |
| Sample Volume (Liters): | 980 |
| Grid Opening Area: | 0.0110 |
| Grid Opening Analyzed: | 8 |
| Area Analyzed: | 0.088 |
| Grid Archival: | 4195 C7 C8 C9 |

## Analysis Summary

| | Chrysotile | | Amphibole | | Ambiguous | Non Asbestos |
|---|---|---|---|---|---|---|
| Structures | 0.5 to <5 µm | ≥ 5 µm | 0.5 to <5 µm | ≥ 5 µm | | |
| Free Fibers | 0 | 0 | 0 | 0 | 0 | 0 |
| Bundles | 0 | 0 | 0 | 0 | 0 | 0 |
| Clusters | 0 | 0 | 0 | 0 | 0 | 0 |
| Matrices | 0 | 0 | 0 | 0 | 0 | 0 |

## Analysis Results

| | | Asbestos Structures / mm² | Asbestos Structures / cc |
|---|---|---|---|
| Analytical Sensitivity | | | 0.0045 |
| Concentration | 0.5 to <5 µm | NSD | NSD |
| Concentration | ≥ 5 µm | NSD | NSD |
| **Total Concentration** | | **NSD** | **NSD** |

**Comments:**

Jeff Mlekush, Laboratory Manager

2/9/2007
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM® LABORATORIES

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# Transmission Electron Microscopy Asbestos Analysis Report

| | |
|---|---|
| Client: | Tetra Tech EM, Inc. |
| Account Number: | B229 |
| Client Sample ID: | James |

| | |
|---|---|
| QuanTEM Sample ID: | 146537-003 |
| Date Received: | 02/09/2007 |
| Received By: | Barbara Holder |
| Date Analyzed: | 02/09/2007 |
| Analyzed By: | Jeff Mlekush |
| Methodology: | TEM |

| | |
|---|---|
| Filter Type: | 0.45 um, 25mm |
| Sample Volume (Liters): | 788 |
| Grid Opening Area: | 0.0110 |
| Grid Opening Analyzed: | 9 |
| Area Analyzed: | 0.099 |
| Grid Archival: | 4195 C10 D6 D7 |

## Analysis Summary

| | Chrysotile | | Amphibole | | Ambiguous | Non Asbestos |
|---|---|---|---|---|---|---|
| Structures | 0.5 to <5 µm | ≥ 5 µm | 0.5 to <5 µm | ≥ 5 µm | | |
| Free Fibers | 0 | 0 | 0 | 0 | 0 | 0 |
| Bundles | 0 | 0 | 0 | 0 | 0 | 0 |
| Clusters | 0 | 0 | 0 | 0 | 0 | 0 |
| Matrices | 0 | 0 | 0 | 0 | 0 | 0 |

## Analysis Results

| | | Asbestos Structures / mm² | Asbestos Structures / cc |
|---|---|---|---|
| Analytical Sensitivity | | | 0.0049 |
| Concentration | 0.5 to <5 µm | NSD | NSD |
| Concentration | ≥ 5 µm | NSD | NSD |
| **Total Concentration** | | **NSD** | **NSD** |

**Comments:**

Jeff Mlekush, Laboratory Manager

2/9/2007
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM® LABORATORIES

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# Transmission Electron Microscopy Asbestos Analysis Report

| | | | |
|---|---|---|---|
| | | Client: | Tetra Tech EM, Inc. |
| | | Account Number: | B229 |
| | | Client Sample ID: | Garfield |
| QuanTEM Sample ID: | 146537-004 | Filter Type: | 0.45 um, 25mm |
| Date Received: | 02/09/2007 | Sample Volume (Liters): | 3075 |
| Received By: | Barbara Holder | Grid Opening Area: | 0.0110 |
| Date Analyzed: | 02/09/2007 | Grid Opening Analyzed: | 4 |
| Analyzed By: | Jeff Mlekush | Area Analyzed: | 0.044 |
| Methodology: | TEM | Grid Archival: | 4195 D8 D9 D10 |

## Analysis Summary

| | Chrysotile | | Amphibole | | Ambiguous | Non Asbestos |
|---|---|---|---|---|---|---|
| Structures | 0.5 to <5 µm | ≥ 5 µm | 0.5 to <5 µm | ≥ 5 µm | | |
| Free Fibers | 0 | 0 | 0 | 0 | 0 | 0 |
| Bundles | 0 | 0 | 0 | 0 | 0 | 0 |
| Clusters | 0 | 0 | 0 | 0 | 0 | 0 |
| Matrices | 0 | 0 | 0 | 0 | 0 | 0 |

## Analysis Results

| | | Asbestos Structures / mm² | Asbestos Structures / cc |
|---|---|---|---|
| Analytical Sensitivity | | | 0.0028 |
| Concentration | 0.5 to <5 µm | NSD | NSD |
| Concentration | ≥ 5 µm | NSD | NSD |
| **Total Concentration** | | **NSD** | **NSD** |

**Comments:**

Jeff Mlekush, Laboratory Manager

2/9/2007
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

# Transmission Electron Microscopy Asbestos Analysis Report

| | | | |
|---|---|---|---|
| | | Client: | Tetra Tech EM, Inc. |
| | | Account Number: | B229 |
| | | Client Sample ID: | Whittier |
| QuanTEM Sample ID: | 146537-005 | Filter Type: | 0.45 um, 25mm |
| Date Received: | 02/09/2007 | Sample Volume (Liters): | 718 |
| Received By: | Barbara Holder | Grid Opening Area: | 0.0110 |
| Date Analyzed: | 02/09/2007 | Grid Opening Analyzed: | 10 |
| Analyzed By: | Jeff Mlekush | Area Analyzed: | 0.11 |
| Methodology: | TEM | Grid Archival: | 4195 E6 E7 E8 |

## Analysis Summary

| | Chrysotile | | Amphibole | | Ambiguous | Non Asbestos |
|---|---|---|---|---|---|---|
| Structures | 0.5 to <5 µm | ≥ 5 µm | 0.5 to <5 µm | ≥ 5 µm | | |
| Free Fibers | 0 | 0 | 0 | 0 | 0 | 0 |
| Bundles | 0 | 0 | 0 | 0 | 0 | 0 |
| Clusters | 0 | 0 | 0 | 0 | 0 | 0 |
| Matrices | 0 | 0 | 0 | 0 | 0 | 0 |

## Analysis Results

| | | Asbestos Structures / mm² | Asbestos Structures / cc |
|---|---|---|---|
| Analytical Sensitivity | | | 0.0049 |
| Concentration | 0.5 to <5 µm | NSD | NSD |
| Concentration | ≥ 5 µm | NSD | NSD |
| **Total Concentration** | | **NSD** | **NSD** |

**Comments:**

Jeff Mlekush, Laboratory Manager

2/9/2007
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QUANTEM® LABORATORIES

2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

# Transmission Electron Microscopy Asbestos Analysis Report

| | |
|---|---|
| Client: | Tetra Tech EM, Inc. |
| Account Number: | B229 |
| Client Sample ID: | Gladstone |
| QuanTEM Sample ID: | 146537-006 |
| Date Received: | 02/09/2007 |
| Received By: | Barbara Holder |
| Date Analyzed: | 02/09/2007 |
| Analyzed By: | Jeff Mlekush |
| Methodology: | TEM |
| Filter Type: | 0.45 um, 25mm |
| Sample Volume (Liters): | 1350 |
| Grid Opening Area: | 0.0110 |
| Grid Opening Analyzed: | 6 |
| Area Analyzed: | 0.066 |
| Grid Archival: | 4196 A1 A2 A3 |

## Analysis Summary

| | Chrysotile | | Amphibole | | Ambiguous | Non Asbestos |
|---|---|---|---|---|---|---|
| Structures | 0.5 to <5 µm | ≥ 5 µm | 0.5 to <5 µm | ≥ 5 µm | | |
| Free Fibers | 0 | 0 | 0 | 0 | 0 | 0 |
| Bundles | 0 | 0 | 0 | 0 | 0 | 0 |
| Clusters | 0 | 0 | 0 | 0 | 0 | 0 |
| Matrices | 0 | 0 | 0 | 0 | 0 | 0 |

## Analysis Results

| | | Asbestos Structures / mm² | Asbestos Structures / cc |
|---|---|---|---|
| Analytical Sensitivity | | | 0.0043 |
| Concentration | 0.5 to <5 µm | NSD | NSD |
| Concentration | ≥ 5 µm | NSD | NSD |
| **Total Concentration** | | **NSD** | **NSD** |

**Comments:**

Jeff Mlekush, Laboratory Manager

2/9/2007
Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Page 1 of

Filter Diagram

# QUANTEM LABORATORIES TEM Air Sample Analysis Sheet

LD/JM 2-7-07
preparer's initials / date

| Grid Square | B9 | B10 |
|---|---|---|
| Grid Orient. | 4 | 3 |
| Prep Evaluation | Good / Fair | Good / Fair |

Client: Tetra Tech EM-KS
G.O. Area: 0.0110
Analytical Sensitivity (s/cc): 0.0096
QuanTEM Sample ID: 146537-1
No. GO analyzed: 6
Analytical Sensitivity (s/mm²): 1516
Client Sample ID: Woodland
Filter Type: 0.45µ / 0.8µ / 25 mm MCE
Volume: ~~1280~~ 1180 ℓℓ
Area Analyzed: 0.0660
Microscope / Screen Mag: JEOL 100CXII / 18150X
Analysis performed: TEM AHERA
Grid Archival: 4195 (B9 B10 C6)
Accelerating Voltage: 100KeV
Analyzed by: JMell
Date Analyzed: 2/9/07

| Grid Opening | Structure No. | Sketch | Length (µ) | Width (µ) | Type (F, B, M, C) | EDXA | SAED Pattern (C, A, N) | SAED Micrograph | SAED Line Space Camera Length ____cm | Conclusion |
|---|---|---|---|---|---|---|---|---|---|---|
| B9 P7 | | | | | | | | | | NSD |
| N3 | | | | | | | | | | |
| H6 | | | | | | | | | | |
| B10 H9 | | | | | | | | | | |
| P2 | | | | | | | | | | |
| P8 | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Filter Diagram

QUANTEM LABORATORIES

# TEM Air Sample Analysis Sheet

Page 1 of

LL/JM 2-9-07
preparer's initials / date

| Grid Square | C7 | C8 |
|---|---|---|
| Grid Orient. | 4 | 4 |
| Prep Evaluation | Good / Fair | Good / Fair |

Client: Tetra Tech EM Inc
QuanTEM Sample ID: 146537-2
Client Sample ID: L Scarritt
Volume: 980
Analysis performed: TEM AHERA
Analyzed by: JMell

G.O. Area: 00110
No. GO analyzed: 8
Filter Type: 0.45µ 0.8µ 25 mm MCE
Area Analyzed: 0.0880
Grid Archival: 4195 (C7 C8 C9)
Date Analyzed: 2/9/07

Analytical Sensitivity (s/cc): 0.0045
Analytical Sensitivity (s/mm²): 11.36
Microscope / Screen Mag: JEOL 100CXII / 18150X
Accelerating Voltage: 100KeV

| Grid Opening | Structure No. | Sketch | Length (µ) | Width (µ) | Type (F, B, M, C) | EDXA | SAED Pattern (C, A, N) | SAED Micrograph | SAED Line Space Camera Length ____cm | Conclusion |
|---|---|---|---|---|---|---|---|---|---|---|
| C8 J8 | | | | | | | | | | NS |
| J3 | | | | | | | | | | |
| K2 | | | | | | | | | | |
| E9 | | | | | | | | | | |
| C7 J2 | | | | | | | | | | |
| J8 | | | | | | | | | | |
| Q6 | | | | | | | | | | |
| R8 | | | | | | | | | | |

Filter Diagram

QUANTEM LABORATORIES

# TEM Air Sample Analysis Sheet



LD/JM 2-7-07
preparer's initials / date

Client: Tetra Tech FM-KS
G.O. Area: Ocotillo
Analytical Sensitivity (s/cc): 0.0049
QuanTEM Sample ID: 146537-3
No. GO analyzed: 9
Analytical Sensitivity (s/mm²): 10.10
Client Sample ID: B Jamea
Filter Type: (0.45µ) 0.8µ 25 mm MCE
Volume: 788
Area Analyzed: 0.099
Microscope / Screen Mag: JEOL 100CXII / 18150X
Analysis performed: (TEM) AHERA
Grid Archival: 4195 (C10 D6 D7)
Accelerating Voltage: 100KeV
Analyzed by: JMell
Date Analyzed: 2/9/07

| Grid Square | D6 | D7 |
|---|---|---|
| Grid Orient. | F | F |
| Prep Evaluation | (Good) Fair | (Good) Fair |

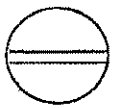
| Grid Opening | Structure No. | Sketch | Length (µ) | Width (µ) | Type (F, B, M, C) | EDXA | SAED Pattern (C, A, N) | SAED Micrograph | SAED Line Space Camera Length ____cm | Conclusion |
|---|---|---|---|---|---|---|---|---|---|---|
| D6 S1 | | | | | | | | | | N≥8 |
| R2 | | | | | | | | | | 1 |
| R4/Q3 | | | | | | | | | | |
| P8 | | | | | | | | | | |
| D1 C9 | | | | | | | | | | |
| I2 | | | | | | | | | | |
| I8 | | | | | | | | | | |
| P6 | | | | | | | | | | |

Filter Diagram

QUANTEM LABORATORIES

# TEM Air Sample Analysis Sheet





LL/JM 2-9-07
preparer's initials / date

Client: Tetra Tech EM-KS
QuanTEM Sample ID: 146537 - 4
Client Sample ID: Garfield 4
Volume: 3075
Analysis performed: (TEM) AHERA
Analyzed by: JMcL

G.O. Area: Quad
No. GO analyzed: 4
Filter Type: (0.45µ) 0.8µ 25 mm MCE
Area Analyzed: 0.0440
Grid Archival: 4/95 (D8 D9 D10)
Date Analyzed: 2/9/07

Analytical Sensitivity (s/cc): 0.0028
Analytical Sensitivity (s/mm²): 22.73
Microscope / Screen Mag: JEOL 100CXII / 18150X
Accelerating Voltage: 100KeV

| Grid Square | D8 | D9 |
|---|---|---|
| Grid Orient. | | |
| Prep Evaluation | (Good) / Fair | (Good) / Fair |

| Grid Opening | Structure No. | Sketch | Length (µ) | Width (µ) | Type (F, B, M, C) | EDXA | SAED Pattern (C, A, N) | SAED Micrograph | SAED Line Space Camera Length ____cm | Conclusion |
|---|---|---|---|---|---|---|---|---|---|---|
| D9 13 | | | | | | | | | | NSD |
| I4 | | | | | | | | | | |
| D8 Q8 | | | | | | | | | | |
| Q2 | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Filter Diagram

# QUANTEM LABORATORIES TEM Air Sample Analysis Sheet



preparer's initials / date: LP/JM 2-9-07

Client: Tetra Tech EM-KS
QuanTEM Sample ID: 146537-5
Client Sample ID: Whittier
Volume: 718
Analysis performed: (TEM) AHERA
Analyzed by: JMell

G.O. Area: 00010
No. GO analyzed: 10
Filter Type: (0.45µ) 0.8µ 25 mm MCE
Area Analyzed: 0.110
Grid Archival: 4195 (E6 E7 E8)
Date Analyzed: 2/9/07

Analytical Sensitivity (s/cc): 0.0049
Analytical Sensitivity (s/mm²): 9.09
Microscope / Screen Mag: JEOL 100CXII / 18150X
Accelerating Voltage: 100KeV

| Grid | Grid Square | Grid Orient. | Prep Evaluation |
|---|---|---|---|
| 1 | E6 | F | (Good) Fair |
| 2 | E7 | F | (Good) Fair |

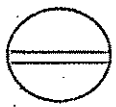
| Grid Opening | Structure No. | Sketch | Length (µ) | Width (µ) | Type (F, B, M, C) | EDXA | SAED Pattern (C, A, N) | SAED Micrograph | SAED Line Space Camera Length ____cm | Conclusion |
|---|---|---|---|---|---|---|---|---|---|---|
| E6 Q2 | | | | | | | | | | NAD |
| D9/I4 | | | | | | | | | | |
| E2/F4 | | | | | | | | | | |
| E7 Q9 | | | | | | | | | | |
| J4/Q2 | | | | | | | | | | |
| I2/I8 | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Filter Diagram

QUANTEM LABORATORIES

# TEM Air Sample Analysis Sheet





LL/JM 2-9-07
preparer's initials / date

| Grid Square | A1 | A2 |
|---|---|---|
| Grid Orient. | F | X |
| Prep Evaluation | Good / Fair | Good / Fair |

Client: Tetra Tech EM Inc
QuanTEM Sample ID: 146537 - 6
Client Sample ID: Gladstone
Volume: 1350
Analysis performed: (TEM) AHERA
Analyzed by: JMcL

G.O. Area: 0.0110
No. GO analyzed: 6
Filter Type: (0.45µ) 0.8µ 25 mm MCE
Area Analyzed: 0.06600
Grid Archival: 4196 (A1 A2 A3)
Date Analyzed: 2/9/07

Analytical Sensitivity (s/cc): 0.0043
Analytical Sensitivity (s/mm²): 15.15
Microscope / Screen Mag: JEOL 100CXII / 18150X
Accelerating Voltage: 100KeV

| Grid Opening | Structure No. | Sketch | Length (µ) | Width (µ) | Type (F, B, M, C) | EDXA | SAED Pattern (C, A, N) | SAED Micrograph | SAED Line Space Camera Length ____cm | Conclusion |
|---|---|---|---|---|---|---|---|---|---|---|
| A2 P2 | | | | | | | | | | NSP |
| P8 | | | | | | | | | | |
| Q4 | | | | | | | | | | |
| A1 J4 | | | | | | | | | | |
| I2 | | | | | | | | | | |
| H3 | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

Tetra Tech EM
8030 Flint St
Lenexa, KS 66214

- Email to jpritchard@seagullenvirotech.com
- 913-495-3930 - Jeff Pritchard or Emily Fisher

146537

# Asbestos Chain-of-Custody Form

QUANTEM® LABORATORIES
2033 Heritage Park Drive, Oklahoma City, OK 73120
**(800) 822-1650** (405) 755-7272 Fax (405) 755-2058



**Legal Document**
**Please Print**
**Legibly**

Company: Tetra Tech Acct.# Project: ChemCentral

Project Location: ChemCentral Project Number: I9004 E.06 0001.000

| | Sample ID Number | ☑ To Be Analyzed | Color / Description | Volume / Area (if applicable) | Comments |
|---|---|---|---|---|---|
| 1 | Woodland | ✓ | Time 1230 - 1750 | 1280 Liters | TEM |
| 2 | Seavitt | ✓ | Time 1330 - 1810 | 980 L | Analysis Rush |
| 3 | James | ✓ | Time 1415 - 1825 | 788 L | ASAP |
| 4 | Garfield | ✓ | Time 1445 - 1840 | 3075 Liters | |
| 5 | Whittier | ✓ | Time 1515 - 1840 | 718 L | |
| 6 | Gladstone | ✓ | Time 1345 - 1815 | 1350 L | |
| 7 | Field Blank | ✓ | Blank | — | |
| 8 | Media Blank | ✓ | Blank | — | |

**TEM**

| | |
|---|---|
| | Air - AHERA clearance* |
| X | Air - TEM |
| | Air - NIOSH 7402 |
| | Bulk - Qualitative [Yes / No] (EPA 600/R-93/116) |
| | Bulk - Quantitative [ weight % ] (Chatfield) |
| | Dust - Qualitative [Yes / No] |
| | Dust - Quantative [ fibers / sq. cm ] (ASTM D5755) |
| | Drinking Water (EPA 100.2) |
| | Waste Water (EPA 600/4-83-043) |
| | Other |

* AHERA clearance samples must consist of 5 inside, 5 outside, and 3 blank samples collected on 0.45 micron 25mm MCE filters with a minimum volume of 560 L.

**PLM**

| | |
|---|---|
| | Bulk Analysis (EPA 600/R-93/116) |
| | Quantitative Point Counting |
| | Other |

**PCM**

| | |
|---|---|
| | NIOSH 7400 |
| | Other |

| Relinquished By | Time/Date | Via | Received By | Time/Date |
|---|---|---|---|---|
| | 2-807 | FEDEX | | 915/24 0907 |
| Relinquished By | Time/Date | Via | Received By | Time/Date |

Turnaround: ☒ Rush ☐ Same Day ☐ 24 hour ☐ 48 hour ☐ 3-5 Day

Report results to: Jeff Pritchard
Telephone number: 913-495-3930
Fax Number: 913-894-6295

**Saturday FedEx Shipping:**
***(Use for FedEx only)***

4220 N. Santa Fe Ave,. Oklahoma City, OK 73105
(Mark package "***HOLD FOR PICKUP***")

| Sampled By: | Date Sampled: |
|---|---|
| | |

Revised 1/18/02

# Attachment 7

## Analytical Laboratory Data listed in Table 9

Pace Analytical®
www.pacelabs.com

**Pace Analytical Services, Inc.**
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: (913)599-5665
Fax: (913)599-1759

February 09, 2007

Emily Fisher
TETRA TECH EMI
8030 Flint
Overland Park, KS 66214

RE: Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

Dear Emily Fisher:
Enclosed are the analytical results for sample(s) received by the laboratory on February 08, 2007. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Derek Varney

derek.varney@pacelabs.com
Project Manager

A2LA Certification Number: 2456.01
Arkansas Certification Number: 05-008-0
California Certification Number: 02109CA
Illinois Certification Number: 001191
Iowa Certification Number: 118
Kansas/NELAP Certification Number: E-10116
Louisiana Certification Number: 03055
Oklahoma Certification Number: 9205/9935
Utah Certification Number: 9135995665

Enclosures

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Phone: (913)599-5665
Fax: (913)599-1759

## SAMPLE SUMMARY

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| 6018670001 | WOODLAND | Wipe | 02/08/07 13:00 | 02/08/07 16:50 |
| 6018670002 | SCARRITT | Wipe | 02/08/07 13:35 | 02/08/07 16:50 |
| 6018670003 | GLADSTONE | Wipe | 02/08/07 13:50 | 02/08/07 16:50 |
| 6018670004 | JAMES | Wipe | 02/08/07 14:20 | 02/08/07 16:50 |
| 6018670005 | GARFIELD | Wipe | 02/08/07 14:50 | 02/08/07 16:50 |
| 6018670006 | WHITTIER | Wipe | 02/08/07 15:15 | 02/08/07 16:50 |

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Phone: (913)599-5665
Fax: (913)599-1759

## SAMPLE ANALYTE COUNT

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

| Lab ID | Sample ID | Method | Analytes Reported |
|---|---|---|---|
| 6018670001 | WOODLAND | EPA 6010 | 7 |
| | | EPA 7470 | 1 |
| | | EPA 8270 by SIM | 19 |
| 6018670002 | SCARRITT | EPA 6010 | 7 |
| | | EPA 7470 | 1 |
| | | EPA 8270 by SIM | 19 |
| 6018670003 | GLADSTONE | EPA 6010 | 7 |
| | | EPA 7470 | 1 |
| | | EPA 8270 by SIM | 19 |
| 6018670004 | JAMES | EPA 6010 | 7 |
| | | EPA 7470 | 1 |
| | | EPA 8270 by SIM | 19 |
| 6018670005 | GARFIELD | EPA 6010 | 7 |
| | | EPA 7470 | 1 |
| | | EPA 8270 by SIM | 19 |
| 6018670006 | WHITTIER | EPA 6010 | 7 |
| | | EPA 7470 | 1 |
| | | EPA 8270 by SIM | 19 |

Pace Analytical Services, Inc.
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Lenexa, KS 66219
Phone: (913)599-5665
Fax: (913)599-1759

## ANALYTICAL RESULTS

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

**Sample: WOODLAND** **Lab ID: 6018670001** Collected: 02/08/07 13:00 Received: 02/08/07 16:50 Matrix: Wipe

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, Wipe** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | |
| Arsenic | ND | Total ug | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:38 | 7440-38-2 | |
| Barium | **5.2** | Total ug | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:38 | 7440-39-3 | |
| Cadmium | ND | Total ug | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:38 | 7440-43-9 | |
| Chromium | ND | Total ug | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:38 | 7440-47-3 | |
| Lead | **1.5** | Total ug | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:38 | 7439-92-1 | |
| Selenium | ND | Total ug | 5.0 | 1 | 02/09/07 00:00 | 02/09/07 11:38 | 7782-49-2 | |
| Silver | ND | Total ug | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:38 | 7440-22-4 | |
| **7471 Mercury, Wipe** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | |
| Mercury | ND | Total ug | 0.015 | 1 | 02/09/07 00:00 | 02/09/07 13:55 | 7439-97-6 | |
| **8270 PAHs by GC/MS SIM, Wipe** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550 | | | | | | | |
| Acenaphthene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 83-32-9 | |
| Acenaphthylene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 208-96-8 | |
| Anthracene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 120-12-7 | |
| Benzo(a)anthracene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 56-55-3 | |
| Benzo(a)pyrene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 50-32-8 | |
| Benzo(b)fluoranthene | **0.13** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 207-08-9 | |
| Chrysene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 53-70-3 | |
| Fluoranthene | **0.18** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 206-44-0 | |
| Fluorene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 193-39-5 | |
| Naphthalene | **0.40** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 91-20-3 | |
| Phenanthrene | **0.24** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 85-01-8 | 1e |
| Pyrene | **0.16** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 79 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 61 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 321-60-8 | |
| Terphenyl-d14 (S) | 70 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:14 | 1718-51-0 | |

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Lenexa, KS 66219
Phone: (913)599-5665
Fax: (913)599-1759

## ANALYTICAL RESULTS

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

**Sample: SCARRITT** **Lab ID: 6018670002** Collected: 02/08/07 13:35 Received: 02/08/07 16:50 Matrix: Wipe

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, Wipe** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | |
| Arsenic | ND | Total ug | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:42 | 7440-38-2 | |
| Barium | **7.8** | Total ug | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:42 | 7440-39-3 | |
| Cadmium | ND | Total ug | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:42 | 7440-43-9 | |
| Chromium | **0.79** | Total ug | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:42 | 7440-47-3 | |
| Lead | **8.2** | Total ug | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:42 | 7439-92-1 | |
| Selenium | ND | Total ug | 5.0 | 1 | 02/09/07 00:00 | 02/09/07 11:42 | 7782-49-2 | |
| Silver | ND | Total ug | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:42 | 7440-22-4 | |
| **7471 Mercury, Wipe** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | |
| Mercury | ND | Total ug | 0.015 | 1 | 02/09/07 00:00 | 02/09/07 13:56 | 7439-97-6 | |
| **8270 PAHs by GC/MS SIM, Wipe** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550 | | | | | | | |
| Acenaphthene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 83-32-9 | |
| Acenaphthylene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 208-96-8 | |
| Anthracene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 120-12-7 | |
| Benzo(a)anthracene | **0.30** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 56-55-3 | |
| Benzo(a)pyrene | **0.39** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 50-32-8 | |
| Benzo(b)fluoranthene | **0.74** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 205-99-2 | |
| Benzo(g,h,i)perylene | **0.35** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 207-08-9 | |
| Chrysene | **0.52** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 218-01-9 | |
| Dibenz(a,h)anthracene | **0.12** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 53-70-3 | |
| Fluoranthene | **0.99** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 206-44-0 | |
| Fluorene | ND | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | **0.34** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 193-39-5 | |
| Naphthalene | **0.40** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 91-20-3 | |
| Phenanthrene | **0.63** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 85-01-8 | 1e |
| Pyrene | **0.75** | Total ug | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 77 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 53 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 321-60-8 | |
| Terphenyl-d14 (S) | 74 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:32 | 1718-51-0 | |



**REPORT OF LABORATORY ANALYSIS**

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# ANALYTICAL RESULTS

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

**Sample: GLADSTONE** **Lab ID: 6018670003** Collected: 02/08/07 13:50 Received: 02/08/07 16:50 Matrix: Wipe

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, Wipe** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | |
| Arsenic | ND | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:46 | 7440-38-2 | |
| Barium | **6.2** | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:46 | 7440-39-3 | |
| Cadmium | ND | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:46 | 7440-43-9 | |
| Chromium | **0.62** | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:46 | 7440-47-3 | |
| Lead | **1.7** | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:46 | 7439-92-1 | |
| Selenium | ND | Total ug- | 5.0 | 1 | 02/09/07 00:00 | 02/09/07 11:46 | 7782-49-2 | |
| Silver | ND | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:46 | 7440-22-4 | |
| **7471 Mercury, Wipe** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | |
| Mercury | ND | Total ug- | 0.015 | 1 | 02/09/07 00:00 | 02/09/07 13:58 | 7439-97-6 | |
| **8270 PAHs by GC/MS SIM, Wipe** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550 | | | | | | | |
| Acenaphthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 83-32-9 | |
| Acenaphthylene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 208-96-8 | |
| Anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 120-12-7 | |
| Benzo(a)anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 56-55-3 | |
| Benzo(a)pyrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 207-08-9 | |
| Chrysene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 53-70-3 | |
| Fluoranthene | **0.14** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 206-44-0 | |
| Fluorene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 193-39-5 | |
| Naphthalene | **0.38** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 91-20-3 | |
| Phenanthrene | **0.16** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 85-01-8 | 1e |
| Pyrene | **0.10** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 71 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 63 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 321-60-8 | |
| Terphenyl-d14 (S) | 65 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 13:49 | 1718-51-0 | |

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# ANALYTICAL RESULTS

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

**Sample: JAMES** **Lab ID: 6018670004** Collected: 02/08/07 14:20 Received: 02/08/07 16:50 Matrix: Wipe

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, Wipe** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | |
| Arsenic | ND | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:50 | 7440-38-2 | |
| Barium | **7.0** | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:50 | 7440-39-3 | |
| Cadmium | ND | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:50 | 7440-43-9 | |
| Chromium | **0.93** | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:50 | 7440-47-3 | |
| Lead | **2.1** | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:50 | 7439-92-1 | |
| Selenium | ND | Total ug- | 5.0 | 1 | 02/09/07 00:00 | 02/09/07 11:50 | 7782-49-2 | |
| Silver | ND | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:50 | 7440-22-4 | |
| **7471 Mercury, Wipe** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | |
| Mercury | ND | Total ug- | 0.015 | 1 | 02/09/07 00:00 | 02/09/07 14:00 | 7439-97-6 | |
| **8270 PAHs by GC/MS SIM, Wipe** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550 | | | | | | | |
| Acenaphthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 83-32-9 | |
| Acenaphthylene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 208-96-8 | |
| Anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 120-12-7 | |
| Benzo(a)anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 56-55-3 | |
| Benzo(a)pyrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 50-32-8 | |
| Benzo(b)fluoranthene | **0.14** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 207-08-9 | |
| Chrysene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 53-70-3 | |
| Fluoranthene | **0.17** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 206-44-0 | |
| Fluorene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 193-39-5 | |
| Naphthalene | **0.43** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 91-20-3 | |
| Phenanthrene | **0.18** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 85-01-8 | 1e |
| Pyrene | **0.12** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 82 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 68 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 321-60-8 | |
| Terphenyl-d14 (S) | 68 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:07 | 1718-51-0 | |

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## ANALYTICAL RESULTS

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

**Sample: GARFIELD** **Lab ID: 6018670005** Collected: 02/08/07 14:50 Received: 02/08/07 16:50 Matrix: Wipe

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, Wipe** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | |
| Arsenic | ND | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:54 | 7440-38-2 | |
| Barium | **3.8** | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:54 | 7440-39-3 | |
| Cadmium | ND | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:54 | 7440-43-9 | |
| Chromium | ND | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:54 | 7440-47-3 | |
| Lead | **1.9** | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:54 | 7439-92-1 | |
| Selenium | ND | Total ug- | 5.0 | 1 | 02/09/07 00:00 | 02/09/07 11:54 | 7782-49-2 | |
| Silver | ND | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:54 | 7440-22-4 | |
| **7471 Mercury, Wipe** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | |
| Mercury | ND | Total ug- | 0.015 | 1 | 02/09/07 00:00 | 02/09/07 14:02 | 7439-97-6 | |
| **8270 PAHs by GC/MS SIM, Wipe** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550 | | | | | | | |
| Acenaphthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 83-32-9 | |
| Acenaphthylene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 208-96-8 | |
| Anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 120-12-7 | |
| Benzo(a)anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 56-55-3 | |
| Benzo(a)pyrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 207-08-9 | |
| Chrysene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 53-70-3 | |
| Fluoranthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 206-44-0 | |
| Fluorene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 193-39-5 | |
| Naphthalene | **0.37** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 91-20-3 | |
| Phenanthrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 85-01-8 | |
| Pyrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 70 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 63 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 321-60-8 | |
| Terphenyl-d14 (S) | 65 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:24 | 1718-51-0 | |



**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

**Sample: WHITTIER** **Lab ID: 6018670006** Collected: 02/08/07 15:15 Received: 02/08/07 16:50 Matrix: Wipe

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **6010 MET ICP, Wipe** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | |
| Arsenic | ND | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:58 | 7440-38-2 | |
| Barium | **11.4** | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:58 | 7440-39-3 | |
| Cadmium | ND | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:58 | 7440-43-9 | |
| Chromium | **1.7** | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:58 | 7440-47-3 | |
| Lead | **5.7** | Total ug- | 0.50 | 1 | 02/09/07 00:00 | 02/09/07 11:58 | 7439-92-1 | |
| Selenium | ND | Total ug- | 5.0 | 1 | 02/09/07 00:00 | 02/09/07 11:58 | 7782-49-2 | |
| Silver | ND | Total ug- | 1.0 | 1 | 02/09/07 00:00 | 02/09/07 11:58 | 7440-22-4 | |
| **7471 Mercury, Wipe** | Analytical Method: EPA 7470 Preparation Method: EPA 7470 | | | | | | | |
| Mercury | 0.029 | Total ug- | 0.015 | 1 | 02/09/07 00:00 | 02/09/07 14:03 | 7439-97-6 | |
| **8270 PAHs by GC/MS SIM, Wipe** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3550 | | | | | | | |
| Acenaphthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 83-32-9 | |
| Acenaphthylene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 208-96-8 | |
| Anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 120-12-7 | |
| Benzo(a)anthracene | **0.12** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 56-55-3 | |
| Benzo(a)pyrene | **0.13** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 50-32-8 | |
| Benzo(b)fluoranthene | **0.34** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 207-08-9 | |
| Chrysene | **0.20** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 53-70-3 | |
| Fluoranthene | **0.87** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 206-44-0 | |
| Fluorene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 193-39-5 | |
| Naphthalene | **0.12** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 91-20-3 | |
| Phenanthrene | **0.98** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 85-01-8 | 1e |
| Pyrene | **0.69** | Total ug- | 0.10 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 91 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 64 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 321-60-8 | |
| Terphenyl-d14 (S) | 63 | % | 50-150 | 1 | 02/09/07 00:00 | 02/09/07 14:42 | 1718-51-0 | |



**REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

QC Batch: OEXT/5340
QC Batch Method: EPA 3550
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270 Wipe PAH by SIM MSSV
Associated Lab Samples: 6018670001, 6018670002, 6018670003, 6018670004, 6018670005, 6018670006

METHOD BLANK: 148405
Associated Lab Samples: 6018670001, 6018670002, 6018670003, 6018670004, 6018670005, 6018670006

| Parameter | Units | Blank Result | Reporting Limit | Qualifiers |
|---|---|---|---|---|
| Acenaphthene | Total ug- | ND | 0.10 | |
| Acenaphthylene | Total ug- | ND | 0.10 | |
| Anthracene | Total ug- | ND | 0.10 | |
| Benzo(a)anthracene | Total ug- | ND | 0.10 | |
| Benzo(a)pyrene | Total ug- | ND | 0.10 | |
| Benzo(b)fluoranthene | Total ug- | ND | 0.10 | |
| Benzo(g,h,i)perylene | Total ug- | ND | 0.10 | |
| Benzo(k)fluoranthene | Total ug- | ND | 0.10 | |
| Chrysene | Total ug- | ND | 0.10 | |
| Dibenz(a,h)anthracene | Total ug- | ND | 0.10 | |
| Fluoranthene | Total ug- | ND | 0.10 | |
| Fluorene | Total ug- | ND | 0.10 | |
| Indeno(1,2,3-cd)pyrene | Total ug- | ND | 0.10 | |
| Naphthalene | Total ug- | ND | 0.10 | |
| Phenanthrene | Total ug- | 0.12 | 0.10 | 2e |
| Pyrene | Total ug- | ND | 0.10 | |
| 2-Fluorobiphenyl (S) | % | 79 | 50-150 | |
| Nitrobenzene-d5 (S) | % | 74 | 50-150 | |
| Terphenyl-d14 (S) | % | 67 | 50-150 | |

LABORATORY CONTROL SAMPLE: 148406

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Acenaphthene | Total ug- | 1 | 0.66 | 66 | 50-150 | |
| Acenaphthylene | Total ug- | 1 | 0.67 | 67 | 50-150 | |
| Anthracene | Total ug- | 1 | 0.63 | 63 | 50-150 | |
| Benzo(a)anthracene | Total ug- | 1 | 0.66 | 66 | 50-150 | |
| Benzo(a)pyrene | Total ug- | 1 | 0.67 | 67 | 50-150 | |
| Benzo(b)fluoranthene | Total ug- | 1 | 0.60 | 60 | 50-150 | |
| Benzo(g,h,i)perylene | Total ug- | 1 | 0.72 | 72 | 50-150 | |
| Benzo(k)fluoranthene | Total ug- | 1 | 0.77 | 77 | 50-150 | |
| Chrysene | Total ug- | 1 | 0.69 | 69 | 50-150 | |
| Dibenz(a,h)anthracene | Total ug- | 1 | 0.75 | 75 | 50-150 | |
| Fluoranthene | Total ug- | 1 | 0.66 | 66 | 50-150 | |
| Fluorene | Total ug- | 1 | 0.69 | 69 | 50-150 | |
| Indeno(1,2,3-cd)pyrene | Total ug- | 1 | 0.71 | 71 | 50-150 | |
| Naphthalene | Total ug- | 1 | 0.68 | 68 | 50-150 | |
| Phenanthrene | Total ug- | 1 | 0.76 | 76 | 50-150 | |
| Pyrene | Total ug- | 1 | 0.71 | 71 | 50-150 | |
| 2-Fluorobiphenyl (S) | % | | | 78 | 50-150 | |
| Nitrobenzene-d5 (S) | % | | | 72 | 50-150 | |



REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

LABORATORY CONTROL SAMPLE: 148406

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Terphenyl-d14 (S) | % | | | 75 | 50-150 | |

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## QUALITY CONTROL DATA

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

QC Batch: MPRP/3444
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET Wipes
Associated Lab Samples: 6018670001, 6018670002, 6018670003, 6018670004, 6018670005, 6018670006

METHOD BLANK: 148462
Associated Lab Samples: 6018670001, 6018670002, 6018670003, 6018670004, 6018670005, 6018670006

| Parameter | Units | Blank Result | Reporting Limit | Qualifiers |
|---|---|---|---|---|
| Arsenic | Total ug- | ND | 1.0 | |
| Barium | Total ug- | ND | 1.0 | |
| Cadmium | Total ug- | ND | 0.50 | |
| Chromium | Total ug- | ND | 0.50 | |
| Lead | Total ug- | ND | 0.50 | |
| Selenium | Total ug- | ND | 5.0 | |
| Silver | Total ug- | ND | 1.0 | |

LABORATORY CONTROL SAMPLE: 148463

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Arsenic | Total ug- | 50 | 57.3 | 115 | 80-120 | |
| Barium | Total ug- | 50 | 58.2 | 116 | 80-120 | |
| Cadmium | Total ug- | 50 | 58.4 | 117 | 80-120 | |
| Chromium | Total ug- | 50 | 59.0 | 118 | 80-120 | |
| Lead | Total ug- | 50 | 56.6 | 113 | 80-120 | |
| Selenium | Total ug- | 50 | 53.1 | 106 | 80-120 | |
| Silver | Total ug- | 25 | 26.6 | 106 | 80-120 | |

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## QUALITY CONTROL DATA

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

QC Batch: MERP/1739
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7471 Mercury Wipe
Associated Lab Samples: 6018670001, 6018670002, 6018670003, 6018670004, 6018670005, 6018670006

METHOD BLANK: 148480
Associated Lab Samples: 6018670001, 6018670002, 6018670003, 6018670004, 6018670005, 6018670006

| Parameter | Units | Blank Result | Reporting Limit | Qualifiers |
|---|---|---|---|---|
| Mercury | Total ug- | ND | 0.015 | |

LABORATORY CONTROL SAMPLE: 148481

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | Total ug- | .15 | 0.145 | 97 | 80-120 | |

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# QUALIFIERS

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

## ANALYTE QUALIFIERS

| | |
|---|---|
| 1e | Compound was detected in the method blank above report limit. Therefore concentration detected should be considered to have a high bias. |
| 2e | Compound was detected above the report limit. Associated samples with positive results should be considered to have a high bias. |

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# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CHEMCENTRAL FIRE
Pace Project No.: 6018670

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| 6018670001 | WOODLAND | EPA 3550 | OEXT/5340 | EPA 8270 by SIM | MSSV/2550 |
| 6018670002 | SCARRITT | EPA 3550 | OEXT/5340 | EPA 8270 by SIM | MSSV/2550 |
| 6018670003 | GLADSTONE | EPA 3550 | OEXT/5340 | EPA 8270 by SIM | MSSV/2550 |
| 6018670004 | JAMES | EPA 3550 | OEXT/5340 | EPA 8270 by SIM | MSSV/2550 |
| 6018670005 | GARFIELD | EPA 3550 | OEXT/5340 | EPA 8270 by SIM | MSSV/2550 |
| 6018670006 | WHITTIER | EPA 3550 | OEXT/5340 | EPA 8270 by SIM | MSSV/2550 |
| 6018670001 | WOODLAND | EPA 3050 | MPRP/3444 | EPA 6010 | ICP/3083 |
| 6018670002 | SCARRITT | EPA 3050 | MPRP/3444 | EPA 6010 | ICP/3083 |
| 6018670003 | GLADSTONE | EPA 3050 | MPRP/3444 | EPA 6010 | ICP/3083 |
| 6018670004 | JAMES | EPA 3050 | MPRP/3444 | EPA 6010 | ICP/3083 |
| 6018670005 | GARFIELD | EPA 3050 | MPRP/3444 | EPA 6010 | ICP/3083 |
| 6018670006 | WHITTIER | EPA 3050 | MPRP/3444 | EPA 6010 | ICP/3083 |
| 6018670001 | WOODLAND | EPA 7470 | MERP/1739 | EPA 7470 | MERC/1722 |
| 6018670002 | SCARRITT | EPA 7470 | MERP/1739 | EPA 7470 | MERC/1722 |
| 6018670003 | GLADSTONE | EPA 7470 | MERP/1739 | EPA 7470 | MERC/1722 |
| 6018670004 | JAMES | EPA 7470 | MERP/1739 | EPA 7470 | MERC/1722 |
| 6018670005 | GARFIELD | EPA 7470 | MERP/1739 | EPA 7470 | MERC/1722 |
| 6018670006 | WHITTIER | EPA 7470 | MERP/1739 | EPA 7470 | MERC/1722 |