



March 18, 2011

Mr. Ken Rhame
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW, 11th Floor
Atlanta, Georgia 30303

**Subject: Draft Emergency Response Letter Report
Agrium US Fertilizer Fire
Hartsville, Darlington County, South Carolina
Contract No.: EP-W-05-054
TDD No.: TTEMI-05-001-0148**

Dear Mr. Rhame:

The Tetra Tech Superfund Technical Assessment and Response Team (START) is submitting this letter report summarizing the emergency response activities conducted from February 15 through 17, 2011 at the Agrium US Fertilizer Fire in Hartsville, Darlington County, South Carolina. Enclosure 1 contains figures illustrating the site location and key features associated with response activities. Enclosure 2 contains tables summarizing analytical results for samples collected during response activities. Enclosure 3 contains a photographic log of the response activities. Enclosure 4 contains a copy of the Tetra Tech START logbook notes. Enclosure 5 contains a table of witnesses. Enclosure 6 contains copies of the analytical data packages for samples collected during response activities.

BACKGROUND

The Agrium US Fertilizer (Agrium) facility, located at 201 Society Avenue in Hartsville, South Carolina, was impacted by a fire that began on their loading dock at approximately 1830 hours on February 14, 2011 (see Figure 1 of Enclosure 1). The geographic coordinates for the facility are 34.388341 degrees north latitude and 80.072594 degrees west longitude. Due to immediate health concerns from burning fertilizers and possible pesticides stored at the facility, local responders initiated a mandatory evacuation of local residents, which was later downgraded to a voluntary evacuation. An estimated 30 residents reported to a shelter.

The facility reportedly contained several thousand tons of fertilizer product and raw materials. Prestwood Lake serves as a reservoir and urban recreational lake and is located adjacent to the Agrium facility. Runoff water from firefighting activities which potentially contained fertilizer products, drained into the lake. Additionally, the smoke plume entered the surrounding community, which consists of a mixture of industrial, commercial, and residential properties. On February 14, 2011, the South Carolina Department of Health and Environmental Control (SC DHEC) requested assistance from the U.S. Environmental Protection Agency (EPA).

RESPONSE ACTIVITIES

On February 14, 2011, On Scene Coordinator (OSC) Ken Rhame and Tetra Tech START mobilized to the site. The following subsections provide a summary of response activities.

Air Monitoring

On February 15, 2011, Tetra Tech START arrived at the site and conducted initial air monitoring using a MultiRAE unit to measure concentrations of hydrogen sulfide, carbon monoxide, and volatile organic compounds (VOC) as well as lower explosive limit (LEL) for flammable gasses and percent oxygen in the air. In addition, two Single Point Monitors (SPM) were utilized to measure concentrations of phosgene and ammonia. Initial air monitoring conducted by Tetra Tech START included monitoring at locations only in the immediate vicinity of the facility, and was used primarily for health and safety controls and to supplement data collected by SC DHEC. No elevated readings were detected by Tetra Tech START.

Air quality monitoring was conducted during response activities primarily by SC DHEC using AreaRAE units that were deployed at various locations throughout the community with sensors capable of monitoring for percent oxygen, hydrogen sulfide, carbon monoxide, VOCs, chlorine, ammonia, phosgene, and LEL. Figure 2 of Enclosure 1 illustrates the monitoring locations used by SC DHEC. Because SC DHEC had the resources and staff available to conduct air monitoring activities for the duration of the response, Tetra Tech START focused on multimedia sampling activities, including the collection of air, surface water, sediment, and product (fertilizer) samples. Air monitoring results obtained by SC DHEC indicated slightly elevated detections of carbon monoxide, which were attributed to nearby vehicles, not the Agrium fertilizer fire. No other elevated readings were detected by SC DHEC.

During response activities, SC DHEC informed Tetra Tech START that a nuclear power plant was located upstream of the Agrium facility and tritium had reportedly been identified in Prestwood Lake. Tetra Tech START subsequently performed radiation monitoring at the Agrium site with a Ludlum Model 3 unit, but identified no significantly elevated readings. Typical readings were measured at approximately 40 counts per minute.

Air Sampling

On February 15, Tetra Tech START collected the following air samples for laboratory analysis of Resource Conservation and Recovery Act (RCRA) metals and zinc (see Figure 2 of Enclosure 1):

- 02-AA-021511 collected from inside the exclusion zone and attached to the excavator that was used to extinguish the smoldering fertilizer.
- 11-AA-021511 collected from a downwind location to the southwest of the facility.
- 12-AA-021511 collected from a downwind location to the southwest of the facility.

Each sample was collected using a Gilian (GilAir5) personal air sampling pump affixed with a mixed-cellulose ester (MCE) cassette for analysis of RCRA metals and zinc. The GilAir 5 pumps were calibrated at four liters per minute and allowed to run for four hours. No analytes were detected above the laboratory reporting limit in these samples. Table 1 of Enclosure 2 provides a summary of the analytical results.

On February 16, Tetra Tech START collected the following air samples for laboratory analysis of RCRA metals, zinc, and hexavalent chromium (see Figure 2 of Enclosure 1):

- 02-AA-021611 collected from inside the exclusion zone and attached to the excavator that was used to extinguish the smoldering fertilizer.
- 13-AA-021611 collected from a downwind location to the northeast of the facility.

- 14-AA-021611 collected from a downwind location to the northeast of the facility.

Each sample was collected using two Gilian (GilAir5) personal air sampling pumps, one affixed with a MCE cassette for analysis of RCRA metals and zinc and one affixed with a polyvinyl chloride (PVC) cassette for analysis of hexavalent chromium. The GilAir 5 pumps were calibrated at four liters per minute and allowed to run for four hours. Zinc was detected at a concentration of 0.0036 milligrams per cubic meter (mg/m^3) in the sample collected from inside the exclusion zone (02-AA-021611). No other analytes were detected above the laboratory reporting limit in these samples. Table 1 of Enclosure 2 provides a summary of the analytical results.

On February 16, Tetra Tech START also collected the following air samples for laboratory analysis of nitric oxide (NO), nitrous oxide (N_2O), and nitrogen dioxide (NO_2) because of concerns associated with the burning fertilizer (see Figure 2 of Enclosure 1):

- 02-AA-021611 collected from a smoke plume emanating from smoldering fertilizer inside the exclusion zone. A field duplicate sample (02-AA-021611-DUP) was also collected.
- 13-AA-021611 collected from a downwind location to the northeast of the facility (collocated with the MCE and PVC cassettes described above).
- 14-AA-021611 collected from a downwind location to the northeast of the facility (collocated with the MCE and PVC cassettes described above).

Each sample for laboratory analysis of NO, N_2O , and NO_2 was collected using tedlar bags that were filled with outside air drawn through the bag by a GilAir5 personal air sampling pump. Analytical results, which are summarized in Table 1 of Enclosure 2, were compared to the Acute Exposure Guideline Levels (AEGL) values, specifically AEGL-1, and the threshold values obtained from the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) Standards, 29 CFR 1910.146(b), that define a hazardous atmosphere. Highlights of the comparisons are summarized below:

- N_2O was detected at a concentration up to 5,049 parts per million by volume (ppmv) in the samples collected from inside the exclusion zone (02-AA-021611 and 02-AA-021611-DUP), which exceeds the OSHA standard of 25 ppmv.
- NO_x was detected at a concentration up to 141 parts per million by volume (ppmv) in the samples collected from inside the exclusion zone (02-AA-021611 and 02-AA-021611-DUP), which exceeds the AEGL value of 0.5 ppmv and the OSHA standard of 1 ppmv.
- Hydrogen chloride was detected at concentrations of approximately 100 to 150 ppmv in the samples collected from inside the exclusion zone (02-AA-021611 and 02-AA-021611-DUP), which exceeds the AEGL value of 1.8 ppmv and the OSHA standard of 5 ppmv.
- NO_x was detected at concentrations ranging from 1.49 to 2.31 ppmv in the samples collected from downwind locations (13-AA-021611 and 14-AA-021611), which exceeds the AEGL value of 0.5 ppmv and the OSHA standard of 1 ppmv.

On February 16, Tetra Tech START also collected one air sample for laboratory analysis of asbestos using transmission electron microscopy (TEM) based on a previous inspection report that indicated that non-friable asbestos was present at the Agrium facility. The sample location is described below:

- 01-AA-021611 collected from inside the exclusion zone and attached to the excavator that was used to extinguish the smoldering fertilizer.

The air sample for TEM asbestos analysis was collected using a GilAir5 personal air sampling pump that was calibrated at two liters per minute and allowed to run for eight hours. A GilAir5 pump was utilized to create a vacuum; subsequently passing air through the filter at two L/min for an 8-hour period. TEM results indicated no asbestos present in the sample.

Surface Water and Sediment Sampling

On February 15, Tetra Tech START collected the following surface water samples (see Figure 2 of Enclosure 1):

- SW-01-021511 collected on the northern portion of the property from a small creek that traversed the property;
- SW-02-021511 collected from a retention pond on the southeastern portion of the property;
- SW-03-021511 through SW-05-021511 collected from outfall locations on Prestwood Lake south and southwest of the burning building;
- SW-06-021511 through SW-08-021511 collected from Prestwood Lake;
- SW-09-021511 collected from the creek downstream of the dam on Prestwood Lake; and
- SW-10-021511 collected from an onsite vat used to store water from firefighting activities.

Surface water samples were delivered for laboratory analysis of biological oxygen demand (BOD), chemical oxygen demand (COD), dissolved oxygen (DO), nitrate-nitrite, phosphorus, Total Kjeldahl Nitrogen (TKN), RCRA metals, and potassium. Table 2 of Enclosure 2 provides a summary of the analytical results. As per agreement with the U.S. Fish and Wildlife Service (USFWS), further discussion of these analytical results will be provided in a forthcoming report prepared by the USFWS.

On February 16, Tetra Tech START also collected the following sediment samples to support efforts conducted by the USFWS:

- 02-SD-021611 collected from the same location as surface water sample SW-02-021511. A field duplicate sample (02-SD-021611-DUP) was also collected from this location.
- 05-SD-021611 collected from the same location as surface water sample SW-05-021511.
- 07-SD-021611 collected from the same location as surface water sample SW-07-021511.

Sediment samples, which were collected and split with the consultant for the potentially responsible party (PRP), were delivered for laboratory analysis of RCRA metals, zinc, and hexavalent chromium. Table 3 of Enclosure 2 provides a summary of analytical results. In addition, field measurements of the surface water were collected using a water quality meter for DO and pH during sediment sample collection. DO readings ranged from 7.97 to 10.87 milligrams per liter (mg/L) and pH readings ranged from 6.65 to 8.04. As per agreement with the USFWS, further discussion of these analytical results and water quality standards will be provided in a forthcoming report prepared by the USFWS.

EPA and Tetra Tech START demobilized from the site on the afternoon of February 17, 2011.

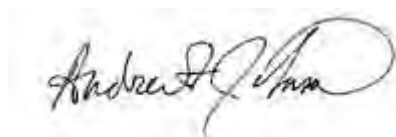
Mr. Ken Rhame
March 18, 2011

If you have any questions or comments regarding this letter report, please contact me at (678) 775-3081.

Sincerely,



Christopher Jones
Tetra Tech START III Site Manager



Andrew F. Johnson
Tetra Tech START III Program Manager

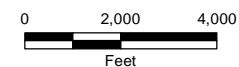
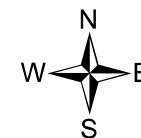
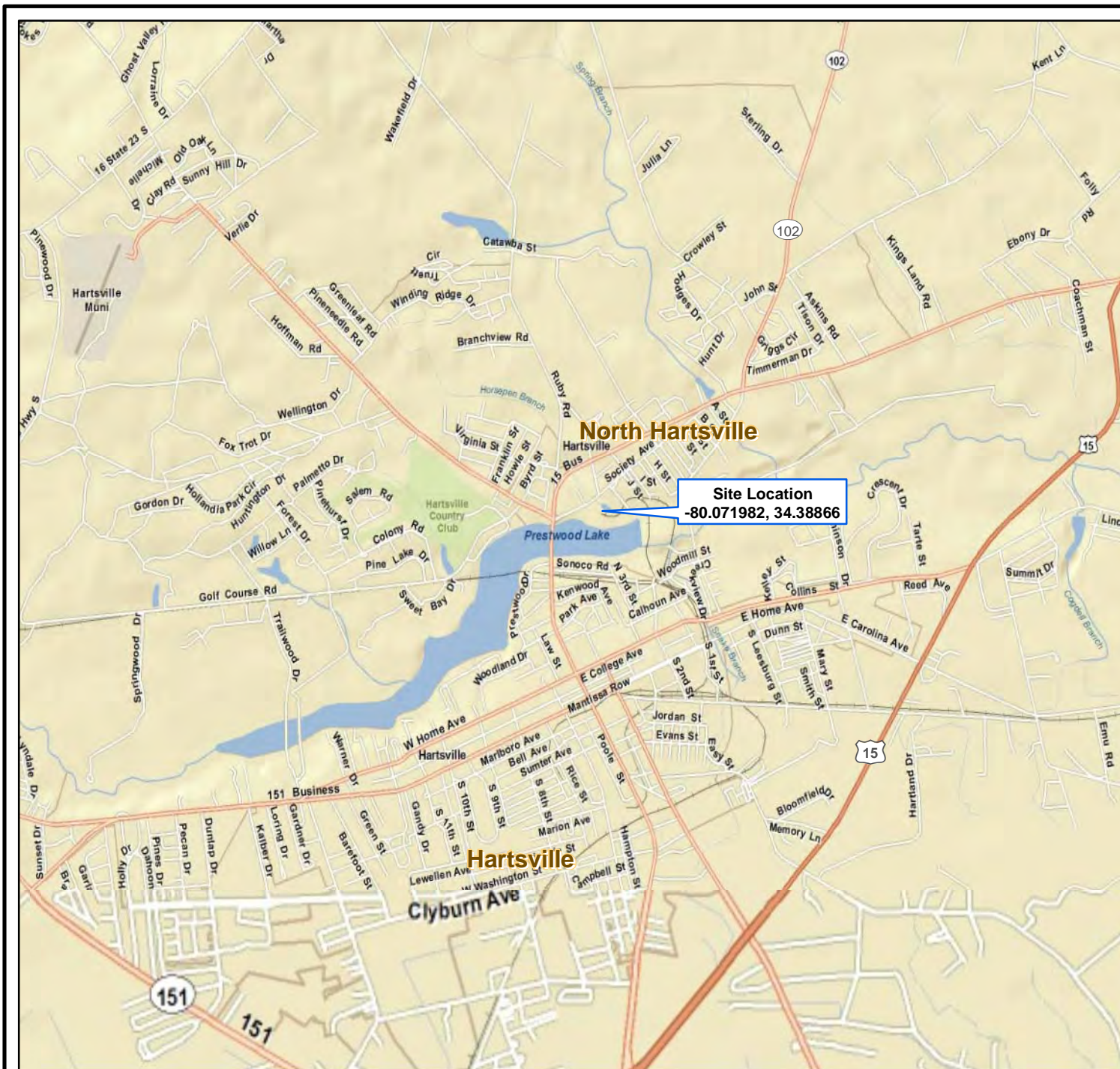
Enclosures (6)

cc: Katrina Jones, EPA Project Officer
Brian Croft, START III Task Order Manager
Angel Reed, START III Document Control Coordinator

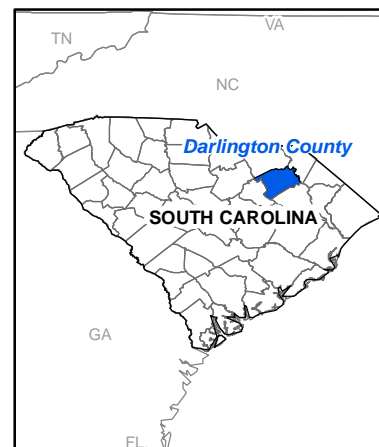
ENCLOSURE 1

FIGURES

(Two Pages)



Map Source:
ESRI StreetMap World 2D

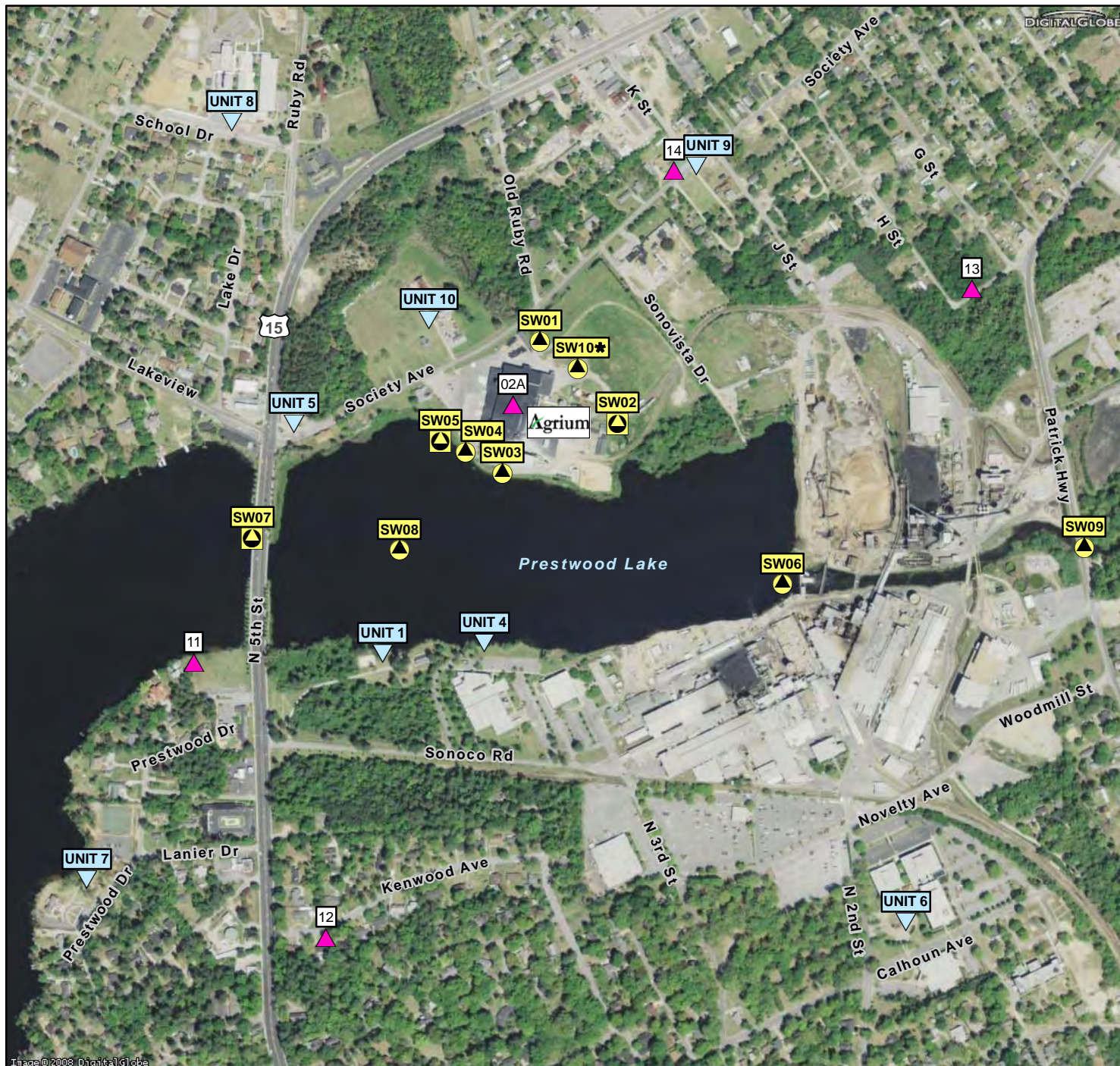


United States
Environmental Protection Agency

AGRIUM US FERTILIZER FIRE
201 SOCIETY AVENUE,
HARTSVILLE,
DARLINGTON COUNTY,
SOUTH CAROLINA
TDD: TTEMI-05-001-0148

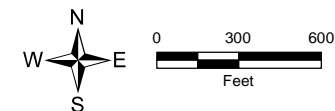
FIGURE 1
SITE LOCATION





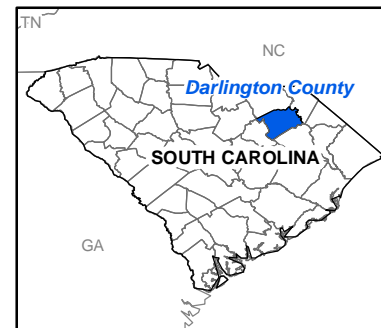
Legend

- Surface Water Sample
- Surface Water and Sediment Sample
- Air Sampling Location
- SCDHEC AreaRAE Monitoring Location



Note:
 * - Sample SW10 was collected from an onsite frac-tank used to store water from firefighting activities.

Map Source:
 GlobeXplorer Image Connect, 2009



United States
 Environmental Protection Agency

AGRIUM US FERTILIZER FIRE
 201 SOCIETY AVENUE,
 HARTSVILLE,
 DARLINGTON COUNTY,
 SOUTH CAROLINA
 TDD: TTEMI-05-001-0148

**FIGURE 2
 MONITORING AND
 SAMPLING LOCATIONS**



ENCLOSURE 2

TABLES

(Five Pages)

TABLE 1
ANALYTICAL RESULTS FOR AIR SAMPLES

| Analyte | AEGL-1 | NIOSH/ OSHA ^a | 02-AA-021511 | 11-AA-021511 | 12-AA-021511 |
|---------------------------------------|-------------------|-----------------------------|--------------|--------------|--------------|
| Inorganics and asbestos (ppmv) | | | | | |
| Nitrous oxide (N ₂ O) | NL | 25 | NA | NA | NA |
| Nitrogen oxides (NO _x) | 0.50 ^b | 1 ^b | NA | NA | NA |
| Asbestos | NL | LFC | NA | NA | NA |
| Metals (mg/m³) | | | | | |
| Arsenic | NL | 0.002 | 0.00032 U | 0.00030 U | 0.00031 U |
| Barium | NL | NL | 0.00016 U | 0.00015 U | 0.00015 U |
| Cadmium | 0.041 | LFC | 0.00016 U | 0.00015 U | 0.00015 U |
| Chromium | NL | 0.5 | 0.0032 U | 0.0030 U | 0.0031 U |
| Hexavalent Chromium | NL | 0.001 | NA | NA | NA |
| Trivalent Chromium (calculated) | NL | 0.5 | NA | NA | NA |
| Lead | NL | 0.05 | 0.00040 U | 0.00038 U | 0.00038 U |
| Selenium | NL | 0.2 | 0.0024 U | 0.0023 U | 0.0023 U |
| Silver | NL | 0.01 | 0.00032 UJ | 0.00030 UJ | 0.00031 UJ |
| Zinc | NL | NL | NA | 0.0023 U | 0.0023 U |

TABLE 1
ANALYTICAL RESULTS FOR AIR SAMPLES

| Analyte | AEGL-1 | NIOSH/OSHA | 02-AA-021611 | 02-AA-021611 DUP | 13-AA-021611 | 14-AA-021611 |
|---------------------------------------|-------------------|----------------|------------------------------|------------------------------|--------------|--------------|
| Inorganics and asbestos (ppmv) | | | | | | |
| Nitrous oxide (N ₂ O) | NL | 25 | 5049 | 4320 | 1.44 U | 1.49 J |
| Nitrogen oxides (NO _x) | 0.50 ^b | 1 ^b | 141 | 134 | 1.49 | 2.31 |
| Hydrogen chloride | 1.8 | 5 | 100 - 150^c | 100 - 150^c | NA | NA |
| Asbestos | NL | LFC | NAD | NA | NA | NA |
| Metals (mg/m³) | | | | | | |
| Arsenic | NL | 0.002 | 0.00030 U | NA | 0.00030 U | 0.00030 U |
| Barium | NL | NL | 0.00015 U | NA | 0.00015 U | 0.00015 U |
| Cadmium | 0.041 | LFC | 0.00015 U | NA | 0.00015 U | 0.00015 U |
| Chromium | NL | 0.5 | 0.0030 U | NA | 0.0030 U | 0.0030 U |
| Hexavalent Chromium | NL | 0.001 | 0.074 U | NA | 0.069 U | 0.065 U |
| Trivalent Chromium (calculated) | NL | 0.5 | 0.074 U | NA | 0.069 U | 0.065 U |
| Lead | NL | 0.05 | 0.00038 U | NA | 0.00038 U | 0.00038 U |
| Selenium | NL | 0.2 | 0.0023 U | NA | 0.0023 U | 0.0023 U |
| Silver | NL | 0.01 | 0.00030 UJ | NA | 0.00030 UJ | 0.00030 UJ |
| Zinc | NL | NL | 0.0036 | NA | 0.0023 U | 0.0023 U |

Notes:

- ^a Lower of the two values between the OSHA permissible exposure limit (PEL) and the NIOSH recommended exposure limit (REL)
- ^b Value listed is for nitrogen dioxide.
- ^c Estimated concentration was noted by laboratory analyst
- AA Agrium air
- AEGL Acute Exposure Guideline Levels
- DUP Field duplicate
- J Compound was detected above the minimum detectable concentration (MDC) value in some of the spectra, and below the MDC in others.
- LFC Lowest feasible concentration
- mg/m³ Milligrams per cubic meter
- NA Not analyzed
- NAD No asbestos detected
- NIOSH National Institute for Occupational Safety and Health
- NL Not listed
- OSHA Occupational Safety and Health Administration
- ppmv Parts Per Million by Volume
- 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 reported value is an estimate.
- BOLD** Shaded and bolded values exceed at least one of the listed criteria.

TABLE 2
ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

| Analysis | SW-01-021511 | SW-02-021511 | SW-03-021511 | SW-03-021511 DUP | SW-04-021511 | SW-05-021511 |
|--|--------------|--------------|--------------|---------------------|--------------|--------------|
| Wet Chemistry Parameters (mg/L) | | | | | | |
| BOD, 5 day | 2.0 U | 2.4 | 2.0 U | 2.4 | 2.5 | 3.3 |
| COD | 45 | 100 | 28 | 46 | 31 | 32 |
| Dissolved Oxygen | 10.2 | 11.0 | 11.2 J | 11.3 J | 11.0 J | 11.1 J |
| Nitrate-Nitrite - N | 31 | 13 | 3.2 | 3.8 | 5.4 | 1.2 |
| pH (standard units) | 6.09 J | 6.39 J | 6.09 J | 6.24 J | 5.71 J | 5.8 J |
| Phosphorus | 42 | 10 | 4.3 | 5.1 | 6.2 | 1.3 |
| TKN | 48 | 39 | 12 | 14 | 8.3 | 3.9 |
| Metals (mg/L) | | | | | | |
| Arsenic | 0.0066 J | 0.017 | 0.012 | 0.0092 J | 0.0041 J | 0.015 |
| Barium | 0.018 J | 0.021 J | 0.026 | 0.023 J | 0.027 | 0.035 |
| Cadmium | 0.0017 J | 0.0030 | 0.0020 U | 0.00096 J | 0.00087 J | 0.0020 U |
| Chromium | 0.017 | 0.0078 | 0.0037 J | 0.0050 U | 0.0026 J | 0.0031 J |
| Hexavalent Chromium | 0.010 UJ | 0.010 UJ | 0.010 UJ | 0.010 UJ | 0.010 UJ | 0.010 UJ |
| Trivalent Chromium (calculated) | 0.017 | 0.0078 | 0.0037 J | 0.010 U | 0.0026 J | 0.0031 J |
| Lead | 0.011 | 0.013 | 0.0093 J | 0.010 U | 0.010 U | 0.0055 J |
| Mercury | 0.00010 U | 0.00010 U | 0.00010 U | 0.00010 U | 0.00010 U | 0.00010 U |
| Potassium | 140 | 67 | 26 | 25 | 15 | 6.5 |
| Selenium | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.010 U |
| Silver | 0.0050 U | 0.00061 J | 0.0050 U | 0.0050 U | 0.0050 U | 0.00087 J |
| Zinc | 0.47 | 0.55 | 0.17 | 0.13 | 0.39 | 0.27 |

TABLE 2
ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES

| Analysis | SW-06-021511 | SW-07-021511 | SW-08-021511 | SW-09-021511 | SW-10-021511 |
|--|--------------|--------------|--------------|--------------|--------------|
| Wet Chemistry Parameters (mg/L) | | | | | |
| BOD, 5 day | 2.0 U | 2.0 U | 2.0 U | 2.0 U | 88 |
| COD | 19 | 24 | 17 | 19 | 960 |
| Dissolved Oxygen | 10.7 J | 10.5 J | 11.0 J | 10.8 J | 10.5 |
| Nitrate-Nitrite - N | 0.92 | 0.50 | 0.91 | 1.1 | 1100 |
| pH (standard units) | 5.51 J | 5.48 J | 5.1 J | 5.5 J | 6.28 J |
| Phosphorus | 0.21 | 0.16 | 0.047 | 0.31 | 770 |
| TKN | 0.65 | 0.15 | 0.25 | 0.71 | 960 |
| Metals (mg/L) | | | | | |
| Arsenic | 0.010 U | 0.0048 J | 0.0044 J | 0.010 U | 0.20 |
| Barium | 0.015 J | 0.015 J | 0.015 J | 0.015 J | 0.084 |
| Cadmium | 0.0020 U | 0.0020 U | 0.0020 U | 0.0020 U | 0.019 |
| Chromium | 0.0050 U | 0.0050 U | 0.0050 U | 0.0050 U | 0.12 |
| Hexavalent Chromium | 0.010 UJ | 0.010 UJ | 0.010 UJ | 0.010 UJ | 0.055 J- |
| Trivalent Chromium (calculated) | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.065 |
| Lead | 0.010 U | 0.010 U | 0.0026 J | 0.010 U | 0.047 |
| Mercury | 0.00010 U | 0.00010 U | 0.00010 U | 0.00010 U | 0.00010 U |
| Potassium | 1.8 J | 5.0 U | 1.2 J | 2.4 J | 9000 |
| Selenium | 0.010 U | 0.010 U | 0.010 U | 0.010 U | 0.0030 J |
| Silver | 0.0050 U | 0.0050 U | 0.0050 U | 0.0050 U | 0.0050 U |
| Zinc | 0.0061 J | 0.020 U | 0.011 J | 0.0090 J | 1.7 |

Notes:

| | |
|------|---|
| DUP | Field duplicate |
| mg/L | Milligrams per liter |
| J | The identification of the analyte is acceptable; the reported value is an estimate. |
| J- | The identification of the analyte is acceptable; the reported value is an estimate and may be biased low. |
| SW | Surface water |
| 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 reported value is an estimate. |

TABLE 3
ANALYTICAL RESULTS FOR SEDIMENT SAMPLES

| Analyte | 02-SD-021611 | 02-SD-021611 DUP | 05-SD-021611 | 07-SD-021611 |
|---------------------------------|--------------|---------------------|--------------|--------------|
| Metals (mg/kg) | | | | |
| Arsenic | 3.0 | 3.2 | 0.57 U | 1.0 |
| Barium | 110 | 120 | 2.7 | 15 |
| Cadmium | 1.6 | 1.9 | 0.029 J | 0.19 U |
| Chromium | 33 | 47 | 1.8 | 58 |
| Hexavalent Chromium | 2.7 UJ | 3.1 UJ | 1.2 UJ | 2.8 J |
| Trivalent Chromium (calculated) | 33 | 47 | 1.8 | 55 |
| Lead | 47 | 53 | 4.1 | 50 |
| Mercury | 0.051 J | 0.052 J | 0.093 U | 0.016 J |
| Selenium | 0.65 J | 1.4 U | 0.57 U | 0.96 U |
| Silver | 0.26 J | 0.72 U | 0.29 U | 0.48 U |
| Zinc | 470 | 600 | 5.9 | 20 |

Notes:

DUP Field duplicate

J The identification of the analyte is acceptable; the reported value is an estimate.

mg/kg Milligrams per kilogram

SD Sediment

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 reported value is an estimate.

ENCLOSURE 3
PHOTOGRAPHIC LOG
(Seven Pages)



OFFICIAL PHOTOGRAPH NO. 1
U.S. ENVIRONMENTAL PROTECTION AGENCY

| | | | |
|----------------------|---|------------------|----------------------------|
| TDD Number: | TTEMI-05-001-0148 | Location: | Agrium US Fertilizer Fire |
| Orientation: | Northwest | Date: | February 15, 2011 |
| Photographer: | Chris Jones, Tetra Tech | Witness: | John Steinauer, Tetra Tech |
| Subject: | Smoke rising from the Agrium US Fertilizer facility that caught fire on the evening of February 14, 2011. | | |





OFFICIAL PHOTOGRAPH NO. 2
U.S. ENVIRONMENTAL PROTECTION AGENCY

TDD Number: TTEMI-05-001-0148

Location: Agrium US Fertilizer Fire

Orientation: Southeast

Date: February 15, 2011

Photographer: Chris Jones, Tetra Tech

Witness: John Steinauer, Tetra Tech

Subject: Front of the burned building as the fire continued to smolder. Note the brownish yellow smoke; these areas were targeted during tedlar bag air sampling for laboratory analysis of nitric oxide, nitrous oxide, and nitrogen dioxide.





OFFICIAL PHOTOGRAPH NO. 3
U.S. ENVIRONMENTAL PROTECTION AGENCY

TDD Number: TTEMI-05-001-0148

Location: Agrium US Fertilizer Fire

Orientation: East

Date: February 16, 2011

Photographer: Didi Fung, Tetra Tech

Witness: Eric Turner, Tetra Tech

Subject: Burned building with heavy equipment being used to move metal debris and a vacuum truck being used to collect water used during firefighting efforts.





OFFICIAL PHOTOGRAPH NO. 4
U.S. ENVIRONMENTAL PROTECTION AGENCY

TDD Number: TTEMI-05-001-0148

Location: Agrium US Fertilizer Fire

Orientation: Northeast

Date: February 16, 2011

Photographer: Didi Fung, Tetra Tech

Witness: Eric Turner, Tetra Tech

Subject: Air sampling location 02-AA located on the excavator working in the exclusion zone.





OFFICIAL PHOTOGRAPH NO. 5
U.S. ENVIRONMENTAL PROTECTION AGENCY

TDD Number: TTEMI-05-001-0148

Location: Agrium US Fertilizer Fire

Orientation: Northwest

Date: February 15, 2011

Photographer: Didi Fung, Tetra Tech

Witness: Ken Rhame, EPA

Subject: Air monitoring location 12-AA located in a neighborhood southwest (and downwind) of the burned building. The Gilian personal air sampling pump and sampling cassette are visible on the telephone pole.





OFFICIAL PHOTOGRAPH NO. 6
U.S. ENVIRONMENTAL PROTECTION AGENCY

TDD Number: TTEMI-05-001-0148

Location: Agrium US Fertilizer Fire

Orientation: West

Date: February 15, 2011

Photographer: Chris Jones, Tetra Tech

Witness: Didi Fung, Tetra Tech

Subject: Surface water sampling location SW-05 located west of the burning facility and adjacent to an outfall. Tetra Tech START also collected a sediment sample at this same location.



TETRA TECH

C-6

TDD No. TTEMI-05-001-0148
Agrium US Fertilizer Fire



OFFICIAL PHOTOGRAPH NO. 7
U.S. ENVIRONMENTAL PROTECTION AGENCY

TDD Number: TTEMI-05-001-0148

Location: Agrium US Fertilizer Fire

Orientation: NA

Date: February 15, 2011

Photographer: Chris Jones, Tetra Tech

Witness: John Steinauer, Tetra Tech

Subject: EPA's RCRA Division was concerned that hazardous chemicals may have been used during the manufacturing process at the Agrium facility. As a result, five bags of finished product for three separate product grades were selected and composite samples were collected. Samples were split with the potentially responsible party (PRP).



ENCLOSURE 4
LOGBOOK NOTES
(15 Sheets)

INCH

"Rite in the Rain"
ALL-WEATHER WRITING PAPER



Name Tetra Tech

Address 1955 Evergreen Blvd

Building 200, Suite 300

Phone 678-775-3113

Project Agrium U.S. Fertilizer Fire

TDD No. 05-001-0148

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CONTENTS

PAGE

REFERENCE

DATE

2/15/11

TUESDAY

David Williamson (FIRE CHIEF)

(843) 616 1938 cell wants updates on analytical results.

1355 setup ¹¹ 05-AA-021511 Air sample for metals analysis (as Hg) Kennard Ave

LEL=0% VOC=0.0ppm HCN=0.0ppm

O₂=20.9% CO=0ppmH₂S=0ppm

1455 Ammonia, Sulfuric, Phosphoric acid tanks present are present on site per Ken Rhame.

140,000 lbs 44.0% nitrogen solution } tanks have been kept cool
6% water with water1510 Ownley James ~~Ray~~ - Plant manager from fire crew.H₂S Hydrogen Sulfide } potential gases coming from burning pig per plant manager
Potassium Chloride
NH₃ Ammonia

Scale: 1 square=

D. L. Fung

2/15/11

Preston D. (Pete)

Tuesday

1414 Setup second offsite air sample

12 05-AA-021511 for metals (as Hg)

4L/m rthw run time. Air monitor reads same

05 05 @ BSS, but O₂=21.3%

1534 Rad meter reading on the ground across from Aprison Hartsville, other road to CPA 2200pm The state discussed tridium being found in the water due to the nuclear plant.

1540 OSC Ken requested to add zinc to all matrix analysis & TSP zinc for waste or product samples. Previous hexavalent chrome was suspected and will be sampled for in air tomorrow.

On Monday (2/14/11) Del Fung & Chris Jones from TE SACT began mobilizing to Hartsville, SC to respond to a chemical fire at 2230. At 0400 the following day (2/15/11) we stopped to sleep in My Augusta, GA and arrange for pile of water quality meters requested for the response. At 0730 on 2/15/11 Fung & Jones resumed mobilization to Hartsville, SC and arrived on site at ~1030 (see page 2 notes).

Scale: 1 square=

D. L. Fung

SCDHEC air monitoring team skirted no significant detections of ~~from Area A~~ monitoring for CL, NH_3 , and ~~other~~. This was for 2/14/11 results.



Dana L. Cook
Environmental Health Manager

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SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



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SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Scale: 1 square =

Paul F. B.

2/15/91

02-AA-021511 air sample for metals (PCRA)
was collected from excavator waiting to put out
smelting fertilizer.

10 surface water samples were collected around the factory (see 1st logbook)

SW-01 through 10 02/15/11

02-AA-021511 asbestos cassette filled out

Phil

Scale: 1 square=_____

2/16/11

E. Turner

Wednesday

0800 TT START Fung, Jones, Stainauer & Turner, EPA arrive on site for H & S meeting, discuss daily plan. RCRA personnel will arrive on site around lunch. They had been inspecting site prior to fire and found hazardous waste (Zinc oxide) from automobile plating facility. TT will collect sed. samples, perform air & water monitoring, and collect asbestos sample from air in plume attached to excavator.

0835 Calibrate MultiRAE 095-508250

Iso. Lot # LTE040C - MD-CM exp 05-2013

Cocktail Lot # LTE260 - MD-CM exp 05-2011

Bump test fail, $H_2S \neq 10\%$

| Calibration Value | Actual Reading | (508250) | (518698) |
|-------------------|----------------|------------------|----------|
| H_2S 10 ppm | 10 ppm | 10 ppm | 10 ppm |
| CO 50 ppm | 50 ppm | 50 ppm | 50 ppm |
| LEL 90% | 48% | 19% * Bad Sensor | |
| O_2 20.9% | 20.9% | 20.9% | 20.9% |
| VOC 100 ppm | 99.7 ppm | 97.2 ppm | |

Calibrate MultiRAE 095-518698

0910 Calibrate HCN meter J410-Z024703

HCN 10 ppm Lot # 888922 exp 11-2011

Scale: 1 square=

2/16/11

Post calibration value 10.0 ppm

1042 Setup air sample 01-AA-021611 asbestos on excavator working in facility zone.

1109 Begin collecting sediment samples along south side of facility. Rep from Davis & Brown will accompany sample team.

1105 at location of SW sample #05

LEL=0%, O_2 = 20.1%, H_2S = 0 ppm, CO = 0 ppm
VOC = 0.0 ppm, HCN = 0 ppm

End of outfall 8.04 pH, Side of outfall 6.6 SpH

no noticeable flow out of outfall, right side outfall 8.2

9.9 mg/L DO at end of outfall

10.87 DO left of outfall, 7.97 DO mg/L Right of outfall
DO & pH meter provided Davis & Brown



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W. Van Ward, P.E.

Laboratory Director

vward@naccdb.com

Fax: (843) 656-2208

P.O. Box 15038

Quincy, SC 29506

W. Van Ward Scale: 1 square=

2/16/11

Rad meter = 40-60 cpm

1132 collected sediment sample 05-SD-021611¹⁶
outfall #006

(same as SW-02 sample)

1215 collected sediment sample 02-SD-021611

02-SD-021611 DUP at Pond on east side
of facility PH strip = 6.5H₂N = 0.0 ppm, LEL = 0%, O₂ = 20.7%, CO = 0 ppmH₂S = 0 ppm, Volc = 0.0 ppm, Rad = 40 to 60 cpm

1422 SC DHEC Area RAE locations

| Unit | Lat | Long | Location |
|------|---------------|---------------|----------------------|
| 1 | 34°38'52.31"N | 80°07'47.60"W | Coker Park |
| 4 | 34°38'53.51"N | 80°07'31.36"W | Sonoco |
| 5 | 34°23'17.8"N | 80°04'34.11"W | 5th & Society Ave |
| 6 | 34°22'53.8"N | 80°03'59.3"W | Coker College |
| 7 | 34°22'56.2"N | 80°04'46.2"W | Prestwood Park |
| 8 | 34°23'32.2"N | 80°04'37.5"W | N. Hartsville Elem |
| 9 | 34°23'29.9"N | 80°04'10.9"W | L Cir. & Society Ave |
| 10 | 34°23'22.7"N | 80°04'26.3"W | N. F site |

Sensors: Unit

| | | | | | |
|---|-----------------|------------------|----|-----------------|-----------------|
| 1 | Cl ₂ | H ₂ S | 8 | Cl ₂ | NH ₃ |
| 4 | Cl ₂ | H ₂ S | 9 | Cl ₂ | NH ₃ |
| 5 | CO | H ₂ S | 10 | HCN | SO ₂ |
| 6 | Cl ₂ | H ₂ S | | | |
| 7 | CO | H ₂ S | | | |

Scale: 1 square =

1/2" x 1/2" &

2/16/11⁹

D H E C



PROMOTE PROTECT PROSPER

Michael J. Spradlin

Homeland Security Coordinator

Environmental Quality Control

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SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

02-SD-021611

02-SD-021611 DUP

05-SD-021611

07-SD-021611

split samples turned
over to Van Ward
w/ Davis & Brown

Van Ward signature

2/16/11 date

1648

Scale: 1 square =

2/16/11

~1215 Sample supplies for air samples arrived for Chromium(VI) & Nitrous oxide ~~analysis~~ ^{analysis}. ~~These~~ ^{Two} Chromium samples were set out ~~and~~. One on site and two in down wind surrounding neighborhood.

02-AA-021611, & 13-AA-021611, 14-AA-021611

Four nitrous oxide samples were collected in Tedlar bags. Two for on site and two in the neighborhood. 02-AA-021611 & Dup, 13-AA-021611 & 14-AA-021611

1700 FedEx drop of samples after processing.

2030 Evening briefing for site ops.

Let fire department ^{know about} ~~and~~ sampling that many involve climbing on the piles of debris. Hespero still smothering smoking piles. They expect to be complete by tomorrow.

EPA state water quality monitor did not show alarming reading of DO or pH.

2100 Left site for the night

[Signature]

Scale: 1 square=

2/17/11

0800 Steve King on scene EPA noticed a film buildup on the lake. Wants to take a closer look.

0850 The film appears to be soot floating on the surface of the lake.

No smell detected. No oily texture. Hespero mentioned that they have been performing daily patrols of the lake, and no wildlife or animals seen affected or killed.

1215 02-AA-021611 (source) Preliminary results
 ppm 3500-4500 N_2O of Tedlar bags
 100 ppm NO_2 + R
 ~0 ppm NO 100 ppm HCL

1215 Team completes samples of product with EPA RCHA. 5 + dup samples were collected.

SCDHEC Contacts for

Ted Ambrose ambrosts@dhec.sc.gov

Buck ~~Graham~~ Graham bw@dhec.sc.gov

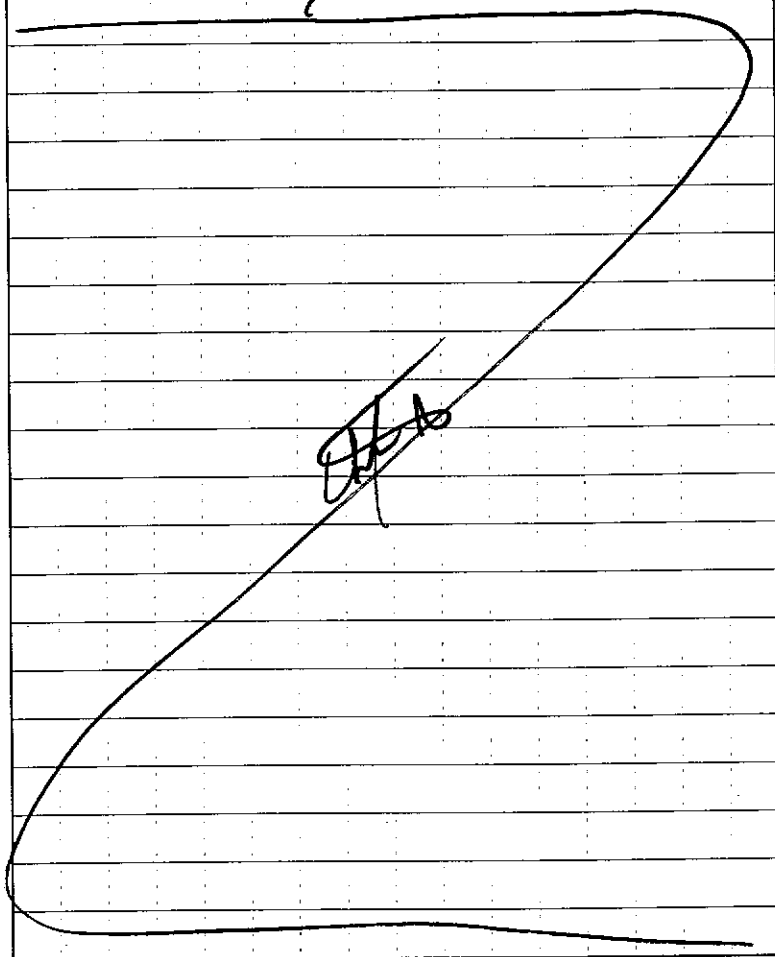
Keith Lane lanehk@dhec.sc.gov

Jeff.burr@hartsville.org

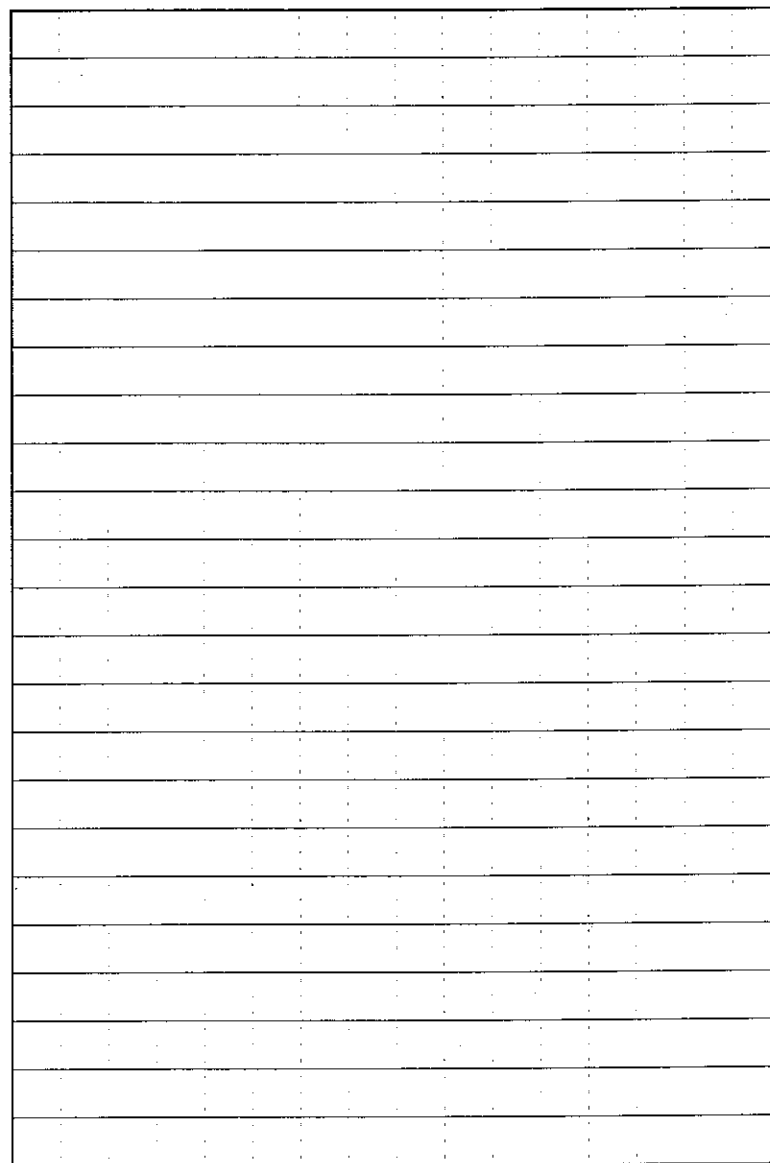
Scale: 1 square=

difficult
 include disclosure about preliminary

1400 Activities complete, START
departs site.
1900 Arrive back at office, End
of Day



Scale: 1 square=_____



Scale: 1 square=_____



Site # B4F7

Name John Steinauer

Address 1320 Londonderry Circle
Raleigh NC 27610

Phone 919 605 7491

Project Agrium Fertilizer Fine
OSC Ken Plume

ambrosts@dnec.sc.gov

Mark Gay, Rainbow Division Mgr
229-942-9578

Ted Ambrose 843-340-0579

SCATEC

Agrium - James Awnley
Plant Manager
843-959-1829 Cell
843-332-3104 Office

CONTENTS

| PAGE | REFERENCE | DATE |
|------|--|------|
| | 0930 | |
| | 02/11/11 Deploy to Wartsville, SC | |
| | to Fertilizer manufacturing Fine arrive 0130 | |
| | 02/15/11 consumed w/ NOx and NO | |
| | decomposition products. | |
| | Anticipate sampling 8 sites include | |
| | sample for Parameters | |
| | DO, BOD, COD, pH | |
| | Nitrate, Nitrite → | |
| | metals (RCRA) | |
| | (NPK) | |
| | 2 Tank Car 90 Ton 180 tons 1 | |
| | Rail | |
| | - 450 Ton Phosphoric Acid | |
| | - Sulfuric Acid 325 tons | |
| | - 8000 Tons finished products | |
| | - 4000 Raw Tons | |
| | - Weather 36°F winds NNE | |
| | 215 kts. | |
| | * Water Quality Meter | |
| | are needed | |
| | * Van Ward (Supervisor) 843 601 1692 | |
| | Davis + Brown - stormwater | |
| | 843 665 6746 | |
| | sampling (SWSP) (40 min) | |

working w/ local PCs to

determine makeup of waterway

* Spillway - Top + middle
feeds Black Creek

Prestwood Lake

Pee Dee River

02/15/11 obtained Facility data from RR.

* LEL, CO, NH₃, VOC, H₂S, etc
were measured by state DHEC

Highest Reading CO 6ppm

* HEPACO contractor H.R.

* J. Lindsay Cook, CIH, CSP w/ EIC
Senior VP

2101 Gateway Centre Blvd, E200
Morrisville, NC 27560

(0) 919 459-5246, (0) 919 425-1445

cook@e1.com

* Hwy 102 - gate sample alone
no gate access.

* Fuel Tank #10 - sample

* clarify w/ Didi Fung & Eric

equipment needed for water quality

sampling of lake & river

3 VES instruments for 2-7 ft Card + 1 30+ ft

0952 - need 3 1 l

plastic bottles per sample according
to Didi Fung. ETA est min.

1000 - Mike Badenbaugh, Lee County

Fore new PC

121550³ Sampling H₂O locations

| | Lat | Long | |
|------|----------|-----------|------|
| SW01 | 34.38934 | -80.07221 | 1507 |
| SW02 | 34.38824 | -80.07099 | 1527 |
| SW03 | 34.38760 | -80.07283 | 1357 |
| SW04 | 34.38789 | -80.07341 | 1348 |
| SW05 | 34.38803 | -80.07381 | 1337 |
| SW06 | 34.38610 | -80.06839 | 1322 |
| SW07 | 34.38677 | -80.07682 | 1242 |
| SW08 | 34.38660 | -80.07448 | 1315 |
| SW09 | 34.38655 | -80.06358 | 1219 |
| SW10 | 34.38898 | -80.07161 | 1515 |

* Advised that SC OSHA on site for:

* Dept. of Labor, Licensing &
Regulation - Charles R. Price
Division of Labor

(803) 896-7688

(803) 896-7670

0800 Arrive on site 021611

0810 Conduct Safety Brief. Assign H&SP

DHEC Air monitoring locations

- 1 S Shore of OL #158 Picnic area
- 2 Lake Drive at Church - school
- 3 - NO unit w/ this #
- 4 Sunkoos S Shore
- 5 Corner Society Ave + 158
- 6 - NO unit w/ this #
- 7 Park

#11 sonoco HQ on statute

POC Jim Rice 803 896-4114

0830 Briefing

- All Elementary Schools limited
outside activity until 1230

#10 Tons of 40% Zinc Oxide that we
should try and not disturb.

* Jeff Grussing, EHS Agrium
720 854-9711

* Agrium wants split samples of
sediment.

1200 Provided PRP + State DHEC

copies of Google Earth Map
print out w/ initial sample locations
and copy of log page w/ GPS
Coordinates.

1415 Take N_2O Tedlar bag,
sample at 34.38998 by
06-AA-021611 N_2O -80.06533 at 145hrs

1453 Take N_2O Tedlar bag
sample at 34.39158
-80.07005

at Hartsville Family Worship
Center 07-AA-021611 N_2O

1515 Take sample 14-AA-021611
at 34.39158 by
-80.07005

Same location as N_2O
at Hartsville Family Worship
Center for RCRA metals +
Chrom VI. Society Ave

1523 Take Sample 13-AA-021611
at 34.38998 by
-80.06533 at

same location as N_2O Tedlar
bag "H" Street

1555 sample background at
same location as SW-07-021511
on West Side of Bridge on
SC Hwy 15, 34.38677 by -80.07682.

1630 Request by EPA RCRA

to sample.

6-13-18 4AM

1) Composite 5 bags w/ Dup

± ms/msd

2) ~~14-4-14~~ RB 2 bag w/ Dup

± ms/msd

3) ~~8-16-24 RB TOB~~ 8 bags w/ Dup

± ms/msd

4) Zinc Oxide Take Sample
from each pile and composite
Take from progressively deeper
to 9"

5) Bulk Fertilizer ~ 10 Grabs

TCUP + Total Metals +

Cyanide plus Zinc. composited

2 402 Jars

A Lab advises that no ms/msd or
Dup is needed of bulk products.

021711 0915 Conduct Entry

8/ RCRA Samples, Field Team

determined that a Duplicate
Sample would be needed.

-0950 Zinc Oxide Sample Taken

-1001 Zinc Oxide Dup Taken

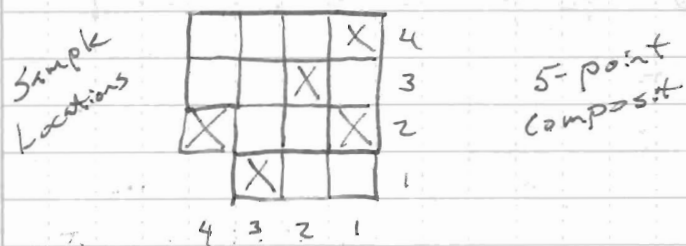
1013 • John enters Bulk fertilizer pile

• Material has solidified due to
the addition of water during
fire fighting activities.

• VOC = 0.1 ppm, No other
elevated readings.

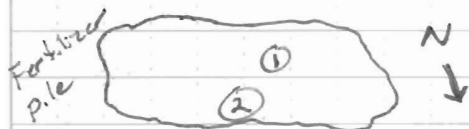
1023 Due to hardness unable to
collect Bulk Fertilizer sample,
an excavator will be utilized
to break up material, move to
bags in the mean time.

1042 Sample 6-3-18 4AM



1057 Back at Bulk Fertilizer location
Excavator takes 2 scoops 5-pt
will be collected from each
bucket. Material is very hot.
It will be put in bowl

and allowed to cool before
containerizing.



1 - 10 ft deep

2 - 3 ft deep

1117 Collect Bulk Fertilizer Sample

1132 Collect 18-16-24 RB TAB

1205 Collect 14-4-14 RB

1230 Leave Hot Zone

1300 Clean up equipment, load ER Van.

1500 Demob to Raleigh, NC

1700 Arrive in Raleigh, NC

No more Entries This Page 555

Wendell Warr

Administrator II / EHS

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wwarr@agrium.com

Mr. Warr maintains MSDS & FI
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Agrium
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Agrium Plant Manager on Duty
at time of Fire.



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Occupational Health
Safety
Training

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Consultant Hired by HEPACO



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Manager, Rainbow Operations

Plant Manager, Americus Operations (229) 924-6107 Tel

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(229) 924-8769 Fax

jgay@agrium.com



Plant Mgr of Heartsville Plant
Sister facility in Georgia.



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SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Requested copies of TTEMI
logs and other documentation.



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SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

End of log, no more entries.

205

Scale: 1 square=

Scale: 1 square=

ENCLOSURE 5
TABLE OF WITNESSES
(One Page)

TABLE OF WITNESSES
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HARTSVILLE, DARLINGTON COUNTY, SOUTH CAROLINA

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Mr. Chris Jones
Mr. Eric Turner
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Special Programs Coordinator
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Darlington, South Carolina 29532
Telephone No.: (843) 398-4450

ENCLOSURE 6
ANALYTICAL DATA PACKAGES
(Electronic copy only)



Ms. Jessica Vickers
Tetra Tech EM, Inc.
1955 Evergreen Blvd
Suite 300
Duluth, GA 30096

February 17, 2011

DOH ELAP# 11626

Account# 17302

Login# L233854

Dear Ms. Vickers:

Enclosed are the analytical results for the samples received by our laboratory on February 16, 2011. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Please contact Heidi Fruhlinger at (877) 386-0035, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories

Mary G. Unangst
Laboratory Director

Enclosure(s)



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Tetra Tech EM, Inc.
Site : NS

Date Sampled : 15-FEB-11
Date Received : 16-FEB-11
Date Analyzed : 17-FEB-11
Report ID : 681394

Account No.: 17302
Login No. : L233854

Client ID : 02-AA-021511
Date Sampled : 02/15/11

Lab ID : L233854-1
Date Analyzed : 02/17/11

Air Volume : 940 Liter

| Parameter | LOQ ug | Total ug | Conc | Units |
|-----------|-----------|-------------|----------|-------|
| Arsenic | 0.30 | <0.30 | <0.00032 | MG/M3 |
| Barium | 0.15 | <0.15 | <0.00016 | MG/M3 |
| Cadmium | 0.15 | <0.15 | <0.00016 | MG/M3 |
| Chromium | 3.0 | <3.0 | <0.0032 | MG/M3 |
| Lead | 0.38 | <0.38 | <0.00040 | MG/M3 |
| Selenium | 2.3 | <2.3 | <0.0024 | MG/M3 |
| Silver | 0.30 | <0.30 | <0.00032 | MG/M3 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media : Filter

Submitted by: CJU/DEH
Approved by : DEH
Date : 17-FEB-11 NYS DOH # : 11626
QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|---------------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | LOQ-Limit of Quantitation |

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Tetra Tech EM, Inc.
Site : NS

Date Sampled : 15-FEB-11
Date Received : 16-FEB-11
Date Analyzed : 17-FEB-11
Report ID : 681394

Account No.: 17302
Login No. : L233854

Client ID : BK-01 Lab ID : L233854-2 Air Volume : NA
Date Sampled : 02/15/11 Date Analyzed : 02/17/11

| Parameter | LOQ ug | Total ug | Conc | Units |
|-----------|-----------|-------------|------|-------|
| Arsenic | 0.30 | <0.30 | NA | MG/M3 |
| Barium | 0.15 | <0.15 | NA | MG/M3 |
| Cadmium | 0.15 | <0.15 | NA | MG/M3 |
| Chromium | 3.0 | <3.0 | NA | MG/M3 |
| Lead | 0.38 | <0.38 | NA | MG/M3 |
| Selenium | 2.3 | <2.3 | NA | MG/M3 |
| Silver | 0.30 | <0.30 | NA | MG/M3 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media : Filter

Submitted by: CJU/DEH
Approved by : DEH
Date : 17-FEB-11 NYS DOH # : 11626
QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|---------------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | LOQ-Limit of Quantitation |

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.



LABORATORY FOOTNOTE REPORT

Client Name : Tetra Tech EM, Inc.
Site :

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Date Sampled : 15-FEB-11
Date Received: 16-FEB-11
Date Analyzed: 16-FEB-11 - 17-FEB-11
Account No.: 17302
Login No.: L233854

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L233854 (Report ID: 681394):

Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

SOPs: MT-SOP-9(10), im-mwvfilt(13)

Due to different digestion requirements, silver should be collected on a separate filter. Results for silver may be biased low.

OSHA PEL: Chromium II and III = 0.5 mg/m3; Chromium metal (as Cr) = 1 mg/m3

Blank spike recovered above the control limit of 120% at 123% for Selenium.

Data is not affected as the bias would be biased high and the samples are non detect.

| Parameter | Method | PEL |
|-----------|--------------------------------------|----------------------|
| Arsenic | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.010 mg/m3 |
| Barium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.5 mg/m3 (soluble) |
| Cadmium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.005 mg/m3 |
| Chromium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | Varies, see footnote |
| Lead | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.05 mg/m3 |
| Selenium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | NA |
| Silver | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.01 mg/m3 |

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms
> -Greater Than ug -Micrograms l -Liters NS -Not Specified
NA -Not Applicable ND -Not Detected ppm -Parts per Million



6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)
Fax: (315) 437-0571
www.galsonlabs.com

☐ Check if change
of address

New Client ? ☐ yes
☒ no

Report To : Teta Tech (Jessica Vinters)
1855 EVERETT BLVD
DULUTH, GA 30096

Phone No. : 678 775-2104
Fax No. : _____

Invoice To : PM 2

Phone No. : _____
Fax No. : _____

Site Name : _____

Project : _____

Sampled By : _____

| | | | |
|--|--------------------|---|--|
| Need Results By: | (surcharge) | <input checked="" type="checkbox"/> Samples submitted using the Free Pump Loan™ Program. | <input type="checkbox"/> Samples submitted using the Free Sampling Badges™ Program. |
| <input type="checkbox"/> 5 Business Days | 0% | Client Account No. : _____ | |
| <input type="checkbox"/> 4 Business Days | 35% | Purchase Order No. : _____ | |
| <input type="checkbox"/> 3 Business Days | 50% | Credit Card No. : _____ | Card Holder Name : _____ Exp. : _____ |
| <input type="checkbox"/> 2 Business Days | 75% | | |
| <input type="checkbox"/> Next Day by 6pm | 100% | Email / Fax Results To : _____ | |
| <input type="checkbox"/> Next Day by Noon | 150% | Email Address : <u>jessica.vinters@tetatech.com</u> | Fax No. : _____ |
| <input checked="" type="checkbox"/> Same day | 200% | | |

| Sample Identification | Date Sampled | Collection Medium | *Air Volume (Liters) | Passive Monitors (Min) | Analysis Requested | Method Reference | Specific DL Needed |
|------------------------|----------------|-------------------|----------------------|------------------------|--------------------|------------------|--------------------|
| 1. <u>02-AA-021511</u> | <u>2/15/11</u> | <u>3/4 MW HCE</u> | <u>940</u> | | <u>RRA METALS</u> | | |
| 2. <u>BK-01</u> | <u>2/15/11</u> | <u>"</u> | <u>—</u> | | <u>RRA METALS</u> | | |
| 3. | | <u>none</u> | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| 9. | | | | | | | |
| 10. | | | | | | | |
| 11. | | | | | | | |

☐ Yes ☐ No We normally add a laboratory blank for each analyte. We will charge you for this at our normal rate. If you agree please check "Yes" otherwise check "No".

List description of industry or process / interference's present in sampling area: _____

Comments: _____

| Chain of Custody | Print Name | Signature | Date/Time |
|--------------------------------------|------------|--------------------|-----------------------|
| Relinquished by : <u>BIO: Fung</u> | | <u>[Signature]</u> | <u>2/15/11 - 1730</u> |
| Received by LAB : <u>[Signature]</u> | | <u>[Signature]</u> | <u>2/16/11 7012</u> |

Samples received after 3pm will be considered as next day's business.

* sample collection time X LPM = Air Vol.

Page _____ of _____

LAB ORIGINAL

LAB ORIGINAL



Ms. Jessica Vickers
Tetra Tech EM, Inc.
1955 Evergreen Blvd
Suite 300
Duluth, GA 30096

February 21, 2011

DOH ELAP# 11626

Account# 17302

Login# L233939

Dear Ms. Vickers:

Enclosed are the revised analytical results for the samples received by our laboratory on February 17, 2011. The report was revised in order to include Qualitative Dust analysis on sample 02-AA-021611. This sample was subcontracted to AMA. Its report is included. This version of the report replaces any previously issued versions. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

OSHA has issued a revised version of the OSHA ID-215 method for hexavalent chromium sampling. Method Number ID-215 (version 2), Control Number T-ID215-FV-02-0604-M. The significant modification related to sample collection in the method is that when using the 37 or 25 mm PVC filter with cellulose back-up pad for welding operations or chromium plating operations special handling requirements have been added.

A summary of the new special handling requirements follows:

1. Samples collected on PVC filters must be shipped overnight to the laboratory within 24 hours of sampling.
2. Samples collected on PVC filters from welding operations must be analyzed within 8 days of sampling.
3. Samples collected on PVC filters from chromium plating operations must be analyzed within 6 days of sampling or be stabilized at the laboratory upon receipt.

If special handling requirements are not met there is the possibility that the sample results may be biased low. Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Please contact Heidi Fruhlinger at (877) 386-0035, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories

Mary G. Unangst
Laboratory Director

Enclosure(s)



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Tetra Tech EM, Inc.
Site : Agrium, Hartsville SC

Date Sampled : 15-FEB-11 - 16-FEB-11 Account No.: 17302
Date Received : 17-FEB-11 Login No. : L233939
Date Analyzed : 17-FEB-11
Report ID : 681395

Client ID : 11-AA-021511
Date Sampled : 02/15/11

Lab ID : L233939-5
Date Analyzed : 02/17/11

Air Volume : 987.5 Liter

| Parameter | LOQ ug | Total ug | Conc | Units |
|-----------|-----------|-------------|----------|-------|
| Arsenic | 0.30 | <0.30 | <0.00030 | MG/M3 |
| Barium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Cadmium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Chromium | 3.0 | <3.0 | <0.0030 | MG/M3 |
| Lead | 0.38 | <0.38 | <0.00038 | MG/M3 |
| Selenium | 2.3 | <2.3 | <0.0023 | MG/M3 |
| Silver | 0.30 | <0.30 | <0.00030 | MG/M3 |
| Zinc | 2.3 | <2.3 | <0.0023 | MG/M3 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media : Filter

Submitted by: CJU/DEH

Approved by : DEH

Date : 17-FEB-11 NYS DOH # : 11626

QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|---------------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | LOQ-Limit of Quantitation |

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.



LABORATORY ANALYSIS REPORT

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Client : Tetra Tech EM, Inc.
Site : Agrium, Hartsville SC

Date Sampled : 15-FEB-11 - 16-FEB-11 Account No.: 17302
Date Received : 17-FEB-11 Login No. : L233939
Date Analyzed : 17-FEB-11
Report ID : 681395

Client ID : 12-AA-021511
Date Sampled : 02/15/11

Lab ID : L233939-6
Date Analyzed : 02/17/11

Air Volume : 978.0 Liter

| Parameter | LOQ ug | Total ug | Conc | Units |
|-----------|-----------|-------------|----------|-------|
| Arsenic | 0.30 | <0.30 | <0.00031 | MG/M3 |
| Barium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Cadmium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Chromium | 3.0 | <3.0 | <0.0031 | MG/M3 |
| Lead | 0.38 | <0.38 | <0.00038 | MG/M3 |
| Selenium | 2.3 | <2.3 | <0.0023 | MG/M3 |
| Silver | 0.30 | <0.30 | <0.00031 | MG/M3 |
| Zinc | 2.3 | <2.3 | <0.0023 | MG/M3 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media : Filter

Submitted by: CJU/DEH
Approved by : DEH
Date : 17-FEB-11 NYS DOH # : 11626
QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|---------------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | LOQ-Limit of Quantitation |

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.



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Client : Tetra Tech EM, Inc.
Site : Agrium, Hartsville SC

Date Sampled : 15-FEB-11 - 16-FEB-11 Account No.: 17302
Date Received : 17-FEB-11 Login No. : L233939
Date Analyzed : 17-FEB-11
Report ID : 681395

Client ID : BK-02 Lab ID : L233939-7 Air Volume : NA
Date Sampled : 02/16/11 Date Analyzed : 02/17/11

| Parameter | LOQ ug | Total ug | Conc | Units |
|-----------|-----------|-------------|------|-------|
| Arsenic | 0.30 | <0.30 | NA | MG/M3 |
| Barium | 0.15 | <0.15 | NA | MG/M3 |
| Cadmium | 0.15 | <0.15 | NA | MG/M3 |
| Chromium | 3.0 | <3.0 | NA | MG/M3 |
| Lead | 0.38 | <0.38 | NA | MG/M3 |
| Selenium | 2.3 | <2.3 | NA | MG/M3 |
| Silver | 0.30 | <0.30 | NA | MG/M3 |
| Zinc | 2.3 | <2.3 | NA | MG/M3 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media : Filter

Submitted by: CJU/DEH
Approved by : DEH
Date : 17-FEB-11 NYS DOH # : 11626
QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|---------------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | LOQ-Limit of Quantitation |

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.



LABORATORY ANALYSIS REPORT

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East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Tetra Tech EM, Inc.
Site : Agrium, Hartsville SC

Date Sampled : 16-FEB-11
Date Received : 17-FEB-11
Date Analyzed : 17-FEB-11
Report ID : 681375

Account No.: 17302
Login No. : L233939

Hexavalent Chromium

| <u>Sample ID</u> | <u>Lab ID</u> | <u>Air Vol</u> <u>liter</u> | <u>Total</u> <u>ug</u> | <u>Conc</u> <u>ug/m3</u> |
|------------------|---------------|--------------------------------|---------------------------|-----------------------------|
| 02-AA-021611 | L233939-3 | 389.06 | <0.029 | <0.074 |
| BK-03 | L233939-4 | NA | <0.029 | NA |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.030 ug

Analytical Method : mod. OSHA ID-215; IC

OSHA PEL (TWA) : 5 ug/m3

Collection Media : 37mm PVC

Submitted by: EEB

Approved by : tns

Date : 17-FEB-11 NYS DOH # : 11626

QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|-------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | |



LABORATORY FOOTNOTE REPORT

6601 Kirkville Road
East Syracuse, NY 13057
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www.galsonlabs.com

Client Name : Tetra Tech EM, Inc.
Site : Agrium, Hartsville SC

Date Sampled : 15-FEB-11 - 16-FEB-11 Account No.: 17302
Date Received: 17-FEB-11 Login No. : L233939
Date Analyzed: 17-FEB-11

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L233939 (Report ID: 681395):

The Silver results are considered accurate to within 105% +/-6.3 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

The Arsenic results are considered accurate to within 101% +/-7.2 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

The Barium results are considered accurate to within 103% +/-7.7 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

The Cadmium results are considered accurate to within 101% +/-6.1 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

The Chromium results are considered accurate to within 104% +/-7.9 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

The Lead results are considered accurate to within 99% +/-6.6 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

The Selenium results are considered accurate to within 111% +/-7.9 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

The Zinc results are considered accurate to within 102% +/-5.8 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

SOPs: MT-SOP-9(10), im-icp(17), im-icpms(14), im-mwvfilt(13)

Due to different digestion requirements, silver should be collected on a separate filter. Results for silver may be biased low.

OSHA PEL: Chromium II and III = 0.5 mg/m3; Chromium metal (as Cr) = 1 mg/m3

| Parameter | Method | PEL |
|-----------|--------------------------------------|-------------|
| Arsenic | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.010 mg/m3 |

| | | | |
|--------------------|------------------|------------------------|-------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | |



LABORATORY FOOTNOTE REPORT

Client Name : Tetra Tech EM, Inc.
Site : Agrium, Hartsville SC

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FAX: (315) 437-0571
www.galsonlabs.com

Date Sampled : 15-FEB-11 - 16-FEB-11 Account No.: 17302
Date Received: 17-FEB-11 Login No. : L233939
Date Analyzed: 17-FEB-11

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L233939 (Report ID: 681395):

| Parameter | Method | PEL |
|-----------|--------------------------------------|----------------------|
| Barium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.5 mg/m3 (soluble) |
| Cadmium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.005 mg/m3 |
| Chromium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | Varies, see footnote |
| Lead | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.05 mg/m3 |
| Selenium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | NA |
| Silver | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.01 mg/m3 |
| Zinc | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | Varies |

L233939 (Report ID: 681375):

The Hexavalent Chromium results are considered accurate to within 95.9% +/-16.4 based on a 95% confidence interval. The estimated uncertainty applies to the media, technology, and SOP(s) referenced in this report and does not account for any uncertainty associated with the sampling process.

SOPs: IC-SOP-15(2)

Total ug corrected for a desorption efficiency of 104%.

Samples were prepared and analyzed within method-specified hold times.

| | | | |
|--------------------|------------------|------------------------|-------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | |

AMA Analytical Services, Inc.



A Specialized Environmental Laboratory

CERTIFICATE OF ANALYSIS

Client: Galson Laboratories Job Name: Re-Analysis by TEM Qual. Dust from COC 206545 Chain of Custody: 210121
Address: 6601 Kirkville Road Job Location: Not Provided Date Analyzed: 2/21/2011
East Syracuse, New York 13057-9672 Job Number: L233939 Person Submitting: John Bailey
P.O. Number: Not Provided
Attention: John Bailey

Summary of Qualitative Asbestos Analysis by TEM of Settled Dust Samples

| AMA Sample Number | Client Sample Number | Asbestos Present | Type(s) of Asbestos Detected | Comments |
|-------------------|------------------------|------------------|------------------------------|----------|
| 1136498 | 02-AA-021611 (1136192) | No | NAD | |

The sample(s) were analyzed for the presence or absence of asbestos. If asbestos was detected the amount detected was not quantified.

Chry = Chrysotile; Anos = Anosite; Croc = Crocidolite; Trem = Tremolite; Actn = Actinolite; Anth = Anthophyllite

NAD = "No Asbestos Detected"

All results are to be considered preliminary and subject to change unless signed by the Technical Director or Deputy.

TBM = Transmission Electron Microscopy

Technical Director

Andreas Saldivar

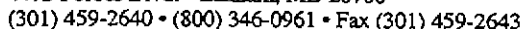
Analyst(s)

Michael Creaghan

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these Laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from us. Sample types, locations, and collection protocols are based upon the information provided by the persons submitting them and, unless collected by personnel of these Laboratories, we expressly disclaim any knowledge and liability for the accuracy and completeness of this information. Residual sample material will be discarded in accordance with the appropriate regulatory guidelines, unless otherwise requested by the client.

An AIHA (#100470), NVLAP (101143-0), and NY ELAP (#10920) Accredited Laboratory

4475 Forbes Blvd. • Larchmont, NY 10538 • (914) 835-1200 • Fax (914) 835-1511 • 459-2643



CHAIN OF CUSTODY

(Please Refer To This
Number For Inquires)

210121

1. Client Name: Gratson
2. Address 1: _____
3. Address 2: _____
4. Address 3: _____
5. Phone #: _____ Fax #: _____

1. Job Name: Re-Analysis by I-TH Qualitative Dist
2. Job Location: from CEC 2006/15
3. Job #: L2330159 P.O. #: _____
4. Contact Person: John Bailey @ phone # 216680
5. Submitted by: _____ Signature: _____

Reporting Info (Results provided as soon as technically feasible). If no TAT/Reporting Info is provided, AMA will assign defaults of 5-Day and email/fax to contacts on file.

| | | | | | |
|--|--|--|--|--|--|
| AFTER HOURS (must be pre-scheduled) <input type="checkbox"/> Immediate Date Due: _____ <input type="checkbox"/> 24 Hours Time Due: _____ Comments: _____ | | NORMAL BUSINESS HOURS <input checked="" type="checkbox"/> Immediate <input type="checkbox"/> 3 Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day + <input type="checkbox"/> Results Required By Noon <input type="checkbox"/> 2 Day Date Due: <u>2/21/11</u> | | REPORT TO: <input checked="" type="checkbox"/> Include COC/Field Data Sheets with Report <input checked="" type="checkbox"/> Email: <u>barag</u> @ <u>galson hbs.com</u> <input type="checkbox"/> Fax: _____ <input type="checkbox"/> Verbal: <u>skrause @ galson hbs.com</u> | |
|--|--|--|--|--|--|

*It is recommended that blank samples be submitted with all air and surface samples.

Q11. LFA 10.1 (Q11)

(TEM Water samples _____ °C)

☐ Other (Specify _____) (QTY) _____

(LABORATORY STAFF ONLY)

Date/Time: 2/4/89 Contact: R. A. H.

Date/Time: 2/10/10 Contact: GHI By: JUE

samek voiced s/e or condition

Der DAUE an mich

22. We can't make it.

as $\text{PC5}/\text{PC5}$ dust \Rightarrow DO L

Date/Time: Contact: By:

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DATE _____

Date/Time: _____ Contact: _____ By: _____



W. COBURN Sign: 

Sign: _____

Sign: _____

Time: _____ Initials: _____

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | |

| Percentage of respondents who believe that the use of force is justified | Percentage of respondents who believe that the use of force is justified |
|--|--|
| 0 | 0 |
| 10 | 10 |
| 20 | 20 |
| 30 | 30 |
| 40 | 40 |
| 50 | 50 |
| 60 | 60 |
| 70 | 70 |
| 80 | 80 |
| 90 | 90 |
| 100 | 100 |

**LABORATORY
STAFF ONLY:
(CUSTODY)**

1. Date/Time RCVD: 2/10/11 @ 100 Via: phone By (Print): James Hudson Sign: [Signature]
2. Date/Time Analyzed: 2/21/11 @ 144 By (Print): [Signature] Sign: [Signature]
3. Results Reported To: _____ Via: _____ Date: ____/____/____ Time: _____ Initials: _____
4. Comments: _____



6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)
Fax: (315) 437-0571
www.galsonlabs.com

☐ Check if change of address

New Client? ☐ yes
☐ no

Report To: TETRA TECH
1955 EVERGREEN BLVD
DULUTH, GA 30096

Phone No.: 678 775-3404
Fax No.: _____

Invoice To: _____
Phone No.: _____
Fax No.: _____

Site Name: AGRIUM, HARTSVILLE SC Project:

Sampled By: D. FONG / E. TURNER

| | | | |
|--|-------------|--|---|
| Need Results By: | (surcharge) | <input checked="" type="checkbox"/> Samples submitted using the FreePumpLoan™ Program. | <input type="checkbox"/> Samples submitted using the FreeSamplingBadges™ Program. |
| <input type="checkbox"/> 5 Business Days | 0% | Client Account No.: <u>TTMI</u> | |
| <input type="checkbox"/> 4 Business Days | 35% | Purchase Order No.: _____ | |
| <input type="checkbox"/> 3 Business Days | 50% | Credit Card No.: _____ | Card Holder Name: _____ Exp.: _____ |
| <input type="checkbox"/> 2 Business Days | 75% | | |
| <input type="checkbox"/> Next Day by 6pm | 100% | Email / Fax Results To: _____ | |
| <input type="checkbox"/> Next Day by Noon | 150% | Email Address: _____ | Fax No.: _____ |
| <input checked="" type="checkbox"/> Same day | 200% | | |

| Sample Identification | Date Sampled | Collection Medium | *Air Volume (Liters) | Passive Monitors (Min) | Analysis Requested | Method Reference | Specific DL Needed |
|------------------------|-----------------|-------------------|----------------------|------------------------|---|--------------------|--------------------|
| 1. <u>02-AA-021611</u> | <u>02/16/11</u> | <u>PCM Medium</u> | <u>PCM - 700 L</u> | <u>PCM - 369 min</u> | <u>TEM W EPA level 2</u> <u>ASBESTOS + CHROME (VI)</u> | <u>PCM / 2 PCM</u> | <u>PVC</u> |
| 2. <u>01-AA-021611</u> | | | | | | | |
| 3. <u>02-AA-021611</u> | | | | | | | |
| 4. <u>03-AA-021611</u> | | | | | | | |
| 5. <u>04-AA-021611</u> | | | | | | | |
| 6. <u>01-AA-021511</u> | <u>02/15/11</u> | <u>MCE</u> | <u>987.5 L</u> | | <u>RLRA METALS + ZINC</u> | | |
| 7. <u>02-AA-021511</u> | <u>02/15/11</u> | <u>MCE</u> | <u>978.0 L</u> | | <u>RLRA METALS + ZINC</u> | | |
| 8. <u>BK-02</u> | <u>02/16/11</u> | <u>MCE</u> | | | <u>" " "</u> | | |
| 9. <u>BK-03</u> | <u>02/16/11</u> | <u>PVC</u> | | | <u>CHROME (VI)</u> | | |
| 10. <u>BK-04</u> | <u>02/16/11</u> | <u>PCM</u> | | | <u>TEM W EPA level 2 (Asbestos)</u> | | |
| 11. | | | | | | | |

☒ Yes ☐ No We normally add a laboratory blank for each analyte. We will charge you for this at our normal rate. If you agree please check "Yes" otherwise check "No".

List description of industry or process / interference's present in sampling area: As, Ba, Cd, Cr, Pb, Se, Ag per client spec 2/17/11

Comments: _____

| Chain of Custody | Print Name | Signature | Date/Time |
|------------------|--------------------------|--------------------|---------------------|
| Relinquished by: | <u>Christopher Jones</u> | <u>[Signature]</u> | <u>2/16/11 1700</u> |
| Received by LAB: | <u>[Signature]</u> | <u>[Signature]</u> | <u>2/17/11 1000</u> |

Samples received after 3pm will be considered as next day's business.

* sample collection time X LPM = Air Vol.

Page 1 of 1

LAB ORIGINAL

LAB ORIGINAL



Ms. Jessica Vickers
Tetra Tech EM, Inc.
1955 Evergreen Blvd
Suite 300
Duluth, GA 30096

February 18, 2011

DOH ELAP# 11626

Account# 17302

Login# L234047

Dear Ms. Vickers:

Enclosed are the analytical results for the samples received by our laboratory on February 18, 2011. All test results meet the quality control requirements of AIHA and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

OSHA has issued a revised version of the OSHA ID-215 method for hexavalent chromium sampling. Method Number ID-215 (version 2), Control Number T-ID215-FV-02-0604-M. The significant modification related to sample collection in the method is that when using the 37 or 25 mm PVC filter with cellulose back-up pad for welding operations or chromium plating operations special handling requirements have been added.

A summary of the new special handling requirements follows:

1. Samples collected on PVC filters must be shipped overnight to the laboratory within 24 hours of sampling.
2. Samples collected on PVC filters from welding operations must be analyzed within 8 days of sampling.
3. Samples collected on PVC filters from chromium plating operations must be analyzed within 6 days of sampling or be stabilized at the laboratory upon receipt.

If the special handling requirements are not met there is the possibility that the sample results may be biased low.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report.

Please contact Heidi Fruhlinger at (877) 386-0035, if you would like any additional information regarding this report.

Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories

Mary G. Unangst
Laboratory Director

Enclosure(s)



LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Tetra Tech EM, Inc.
Site : Agrium, Hartsville, SC
Date Sampled : 16-FEB-11
Date Received : 18-FEB-11
Date Analyzed : 18-FEB-11
Report ID : 681556

Account No.: 17302
Login No. : L234047

Client ID : 02-AA-021611
Date Sampled : 02/16/11

Lab ID : L234047-1
Date Analyzed : 02/18/11

Air Volume : 990.1 Liter

| Parameter | LOQ ug | Total ug | Conc | Units |
|-----------|-----------|-------------|----------|-------|
| Arsenic | 0.30 | <0.30 | <0.00030 | MG/M3 |
| Barium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Cadmium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Chromium | 3.0 | <3.0 | <0.0030 | MG/M3 |
| Lead | 0.38 | <0.38 | <0.00038 | MG/M3 |
| Selenium | 2.3 | <2.3 | <0.0023 | MG/M3 |
| Silver | 0.30 | <0.30 | <0.00030 | MG/M3 |
| Zinc | 2.3 | 3.6 | 0.0036 | MG/M3 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media : Filter

Submitted by: cju
Approved by : DEH
Date : 18-FEB-11 NYS DOH # : 11626
QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|---------------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | LOQ-Limit of Quantitation |

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.



LABORATORY ANALYSIS REPORT

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East Syracuse, NY 13057
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FAX: (315) 437-0571
www.galsonlabs.com

Client : Tetra Tech EM, Inc.
Site : Agrium, Hartsville, SC

Date Sampled : 16-FEB-11
Date Received : 18-FEB-11
Date Analyzed : 18-FEB-11
Report ID : 681556

Account No.: 17302
Login No. : L234047

Client ID : 13-AA-021611
Date Sampled : 02/16/11

Lab ID : L234047-2
Date Analyzed : 02/18/11

Air Volume : 991.6 Liter

| <u>Parameter</u> | <u>LOQ</u> <u>ug</u> | <u>Total</u> <u>ug</u> | <u>Conc</u> | <u>Units</u> |
|------------------|-------------------------|---------------------------|-------------|--------------|
| Arsenic | 0.30 | <0.30 | <0.00030 | MG/M3 |
| Barium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Cadmium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Chromium | 3.0 | <3.0 | <0.0030 | MG/M3 |
| Lead | 0.38 | <0.38 | <0.00038 | MG/M3 |
| Selenium | 2.3 | <2.3 | <0.0023 | MG/M3 |
| Silver | 0.30 | <0.30 | <0.00030 | MG/M3 |
| Zinc | 2.3 | <2.3 | <0.0023 | MG/M3 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media : Filter

Submitted by: cju
Approved by : DEH
Date : 18-FEB-11 NYS DOH # : 11626
QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|---------------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | LOQ-Limit of Quantitation |

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.



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(315) 432-5227
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www.galsonlabs.com

Client : Tetra Tech EM, Inc.
Site : Agrium, Hartsville, SC

Date Sampled : 16-FEB-11
Date Received : 18-FEB-11
Date Analyzed : 18-FEB-11
Report ID : 681556

Account No.: 17302
Login No. : L234047

Client ID : 14-AA-021611
Date Sampled : 02/16/11

Lab ID : L234047-3
Date Analyzed : 02/18/11

Air Volume : 995.8 Liter

| <u>Parameter</u> | <u>LOQ</u> <u>ug</u> | <u>Total</u> <u>ug</u> | <u>Conc</u> | <u>Units</u> |
|------------------|-------------------------|---------------------------|-------------|--------------|
| Arsenic | 0.30 | <0.30 | <0.00030 | MG/M3 |
| Barium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Cadmium | 0.15 | <0.15 | <0.00015 | MG/M3 |
| Chromium | 3.0 | <3.0 | <0.0030 | MG/M3 |
| Lead | 0.38 | <0.38 | <0.00038 | MG/M3 |
| Selenium | 2.3 | <2.3 | <0.0023 | MG/M3 |
| Silver | 0.30 | <0.30 | <0.00030 | MG/M3 |
| Zinc | 2.3 | <2.3 | <0.0023 | MG/M3 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Collection Media : Filter

Submitted by: cju
Approved by : DEH
Date : 18-FEB-11 NYS DOH # : 11626
QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|---------------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | LOQ-Limit of Quantitation |

Field sampling was not performed by Galson. Galson presents results based on sampling data provided by clients.



LABORATORY ANALYSIS REPORT

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East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Tetra Tech EM, Inc.
Site : Agrium, Hartsville, SC

Date Sampled : 16-FEB-11
Date Received : 18-FEB-11
Date Analyzed : 18-FEB-11
Report ID : 681553

Account No.: 17302
Login No. : L234047

Hexavalent Chromium

| <u>Sample ID</u> | <u>Lab ID</u> | <u>Air Vol</u> <u>liter</u> | <u>Total</u> <u>ug</u> | <u>Conc</u> <u>ug/m3</u> |
|------------------|---------------|--------------------------------|---------------------------|-----------------------------|
| 13-AA-021611 | L234047-4 | 419.6 | <0.029 | <0.069 |
| 14-AA-021611 | L234047-5 | 443.2 | <0.029 | <0.065 |

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.030 ug
Analytical Method : mod. OSHA ID-215; IC
OSHA PEL (TWA) : 5 ug/m3
Collection Media : 37mm PVC

Submitted by: tmk
Approved by : tns
Date : 18-FEB-11 NYS DOH # : 11626
QC by: Tom Burgess

| | | | |
|--------------------|------------------|------------------------|-------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | |



LABORATORY FOOTNOTE REPORT

Client Name : Tetra Tech EM, Inc.
Site : Agrium, Hartsville, SC

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Date Sampled : 16-FEB-11
Date Received: 18-FEB-11
Date Analyzed: 18-FEB-11

Account No.: 17302
Login No. : L234047

Unless otherwise noted below, all quality control results associated with the samples were within established control limits.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

L234047 (Report ID: 681556):

Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

SOPs: MT-SOP-9(11), im-mwvfilt(13)

Due to different digestion requirements, silver should be collected on a separate filter. Results for silver may be biased low.

OSHA PEL: Chromium II and III = 0.5 mg/m3; Chromium metal (as Cr) = 1 mg/m3

Blank spikes recovered above the control limit of 120% for Selenium at 122%, 126%, 123%, 125%.

Sample data is not affected as the bias would be high and the samples are non detect.

| Parameter | Method | PEL |
|-----------|--------------------------------------|----------------------|
| Arsenic | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.010 mg/m3 |
| Barium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.5 mg/m3 (soluble) |
| Cadmium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.005 mg/m3 |
| Chromium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | Varies, see footnote |
| Lead | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.05 mg/m3 |
| Selenium | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | NA |
| Silver | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | 0.01 mg/m3 |
| Zinc | mod. NIOSH 7300/OSHA 125G; ICP/ICPMS | Varies |

L234047 (Report ID: 681553):

SOPs: IC-SOP-15(2)

Total ug corrected for a desorption efficiency of 104%.

Samples were prepared and analyzed within method-specified hold times.

| | | | |
|--------------------|------------------|------------------------|-------------------|
| < -Less Than | mg -Milligrams | m3 -Cubic Meters | kg -Kilograms |
| > -Greater Than | ug -Micrograms | l -Liters | NS -Not Specified |
| NA -Not Applicable | ND -Not Detected | ppm -Parts per Million | |



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Fax: (315) 437-0571
www.galsonlabs.com

☐ Check if change
of address

New Client ? ☐ yes
☐ no

Report To : Tetra Tech
1955 Evergreen Blvd
Duluth, GA 30096

Phone No. : Jessica Vukob 678 775-3104
Fax No. : _____

Invoice To : _____

RUS

Phone No. : _____
Fax No. : _____

Site Name : Agrium, Hartsville, SC Project : _____

Sampled By : C. JONES

| | | | |
|---|-------------|--|---|
| Need Results By: | (surcharge) | <input checked="" type="checkbox"/> Samples submitted using the FreePumpLoan™ Program. | <input type="checkbox"/> Samples submitted using the FreeSamplingBadges™ Program. |
| <input type="checkbox"/> 5 Business Days | 0% | Client Account No. : _____ | |
| <input type="checkbox"/> 4 Business Days | 35% | Purchase Order No. : _____ | |
| <input type="checkbox"/> 3 Business Days | 50% | Credit Card No. : _____ | Card Holder Name : _____ Exp. : _____ |
| <input type="checkbox"/> 2 Business Days | 75% | Email / Fax Results To : _____ | |
| <input type="checkbox"/> Next Day by 6pm | 100% | Email Address : _____ | Fax No. : _____ |
| <input type="checkbox"/> Next Day by Noon | 150% | | |
| <input checked="" type="checkbox"/> Report Same day | 200% | | |

| Sample Identification | Date Sampled | Collection Medium | *Air Volume (Liters) | Passive Monitors (Min) | Analysis Requested | Method Reference | Specific DL Needed |
|------------------------|----------------|-------------------|----------------------------------|------------------------|--|------------------|--------------------|
| 1. <u>02-AA-021611</u> | <u>2/16/11</u> | <u>MCE 3P</u> | <u>990.1 L</u> | | <u>Metals (ELPA) + ZINC</u> | | |
| 2. <u>B3-AA-021611</u> | <u>2/16/11</u> | <u>MCE / PVC</u> | <u>MCE=991.6L PVC=119.6L</u> | | <u>PCA Metals + ZINC / Chromium (VI)</u> | | |
| 3. <u>TA-AA-021611</u> | <u>2/16/11</u> | <u>MCE / PVC</u> | <u>MCE=995.0L, PVC=113.2L</u> | | <u>PCA Metals + ZINC / Chromium (VI)</u> | | |
| 4. <u>OK-05 (DP)</u> | | | | | | | |
| 5. <u>OK-06 (DP)</u> | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| 9. | | | | | | | |
| 10. | | | | | | | |
| 11. | | | | | | | |

☐ Yes ☐ No We normally add a laboratory blank for each analyte. We will charge you for this at our normal rate. If you agree please check "Yes" otherwise check "No".
List description of industry or process / interference's present in sampling area: PCA Metals - Ag, As, Ba, Cd, Cr, Pb, Se per client.
Comments: Received by FedEx Florence, SC at 2/17/11 1100 PM 2/18/11

| Chain of Custody | Print Name | Signature | Date/Time |
|-------------------|--------------------|--------------------|---------------------|
| Relinquished by : | <u>Eric Turner</u> | <u>[Signature]</u> | <u>2/17/11 1100</u> |
| Received by LAB : | <u>ACostello</u> | <u>[Signature]</u> | <u>2/18/11 1024</u> |

Samples received after 3pm will be considered as next day's business. * sample collection time X LPM = Air Vol.

Page _____ of _____

LAB ORIGINAL

Tetra Tech, Inc.

1955 Evergreen Blvd
Bldg 200, Suite 300
Duluth, GA 30096

**Agrium Chemical Fire
Hartsville, SC**

**Analytical Report
(0211-67)**

EPA Method 320 type

Nitrogen dioxide, nitrogen monoxide, nitrous oxide



Enthalpy Analytical, Inc.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
2202 Ellis Road Durham, NC 27703 - 5518

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 23 pages.

Valgena Respass

QA Review Performed by – Valgena Respass

Report Issued: 02/18/2011



FTIR Summary of Results



| | |
|------------------|---------------------|
| Company | Tetra Tech |
| Analyst Initials | CJT |
| Parameters | EPA Method 320-Type |
| # Samples | 4 Bags |

| | |
|-------------|---------------------------------------|
| Client # | Agrium Chemical Fire - Hartsville, SC |
| Job # | 0211-67 |
| PO # | Verbal |
| Report Date | 2/17/2011 |

| Compound | Sample ID / Concentration (ppmv wet) | |
|------------------------------------|--------------------------------------|------------------------|
| | 13-AA-021611 | 14-AA-021611 |
| Nitrous Oxide (N ₂ O) | 1.44 ND | 1.49 J |
| Nitrogen Oxides (NO _x) | 1.49 | 2.31 |
| | 02-AA-021611 | 02-AA-021611Dup |
| Nitrous Oxide (N ₂ O) | 5,049 | 4,320 |
| Nitrogen Oxides (NO _x) | 141 | 134 |

FTIR Results



| | |
|------------------|---------------------|
| Company | Tetra Tech |
| Analyst Initials | CJT |
| Parameters | EPA Method 320-Type |
| # Samples | 4 Bags |

| | |
|-------------|---------------------------------------|
| Client # | Agrium Chemical Fire - Hartsville, SC |
| Job # | 0211-67 |
| PO # | Verbal |
| Report Date | 2/17/2011 |

13-AA-021611

| Date | Method | Filename | DF | N2O (ppm) | SEC (ppm) | NO (ppm) | SEC (ppm) | NO2 (ppm) | SEC (ppm) |
|----------------------|----------|----------------------|------|-----------|-----------|----------|-----------|-----------|-----------|
| 2/17/2011 10:03 | 0211-67A | 11_02_17_1003_07_580 | 1.07 | 1.34 | 0.499 | 0.121 | 3.24 | 1.71 | 0.281 |
| 2/17/2011 10:04 | 0211-67A | 11_02_17_1004_00_251 | 1.07 | 1.34 | 0.530 | 0.121 | 3.23 | 1.26 | 0.290 |
| 2/17/2011 10:04 | 0211-67A | 11_02_17_1004_52_923 | 1.07 | 1.34 | 0.512 | 0.121 | 3.24 | 1.56 | 0.285 |
| 2/17/2011 10:05 | 0211-67A | 11_02_17_1005_45_610 | 1.07 | 1.34 | 0.488 | 0.121 | 3.25 | 1.12 | 0.304 |
| 2/17/2011 10:06 | 0211-67A | 11_02_17_1006_38_282 | 1.07 | 1.34 | 0.502 | 0.121 | 3.25 | 1.30 | 0.320 |
| Average Conc. (ppm): | | | 1.07 | 1.44 | 0.544 | 0.130 | 3.48 | 1.49 | 0.318 |

14-AA-021611

| Date | Method | Filename | DF | N2O (ppm) | SEC (ppm) | NO (ppm) | SEC (ppm) | NO2 (ppm) | SEC (ppm) |
|----------------------|----------|----------------------|------|-----------|-----------|----------|-----------|-----------|-----------|
| 2/17/2011 10:21 | 0211-67A | 11_02_17_1021_21_981 | 1.09 | 1.34 | 0.512 | 0.121 | 3.29 | 2.30 | 0.333 |
| 2/17/2011 10:22 | 0211-67A | 11_02_17_1022_14_652 | 1.09 | 1.34 | 0.501 | 0.121 | 3.28 | 2.28 | 0.309 |
| 2/17/2011 10:23 | 0211-67A | 11_02_17_1023_07_324 | 1.09 | 1.34 | 0.491 | 0.121 | 3.28 | 2.65 | 0.306 |
| 2/17/2011 10:23 | 0211-67A | 11_02_17_1023_59_995 | 1.09 | 1.46 | 0.485 | 0.121 | 3.29 | 1.76 | 0.313 |
| 2/17/2011 10:24 | 0211-67A | 11_02_17_1024_52_698 | 1.09 | 1.34 | 0.520 | 0.121 | 3.28 | 1.58 | 0.323 |
| Average Conc. (ppm): | | | 1.09 | 1.49 | 0.549 | 0.132 | 3.59 | 2.31 | 0.346 |

02-AA-021611

| Date | Method | Filename | DF | N2O (ppm) | SEC (ppm) | NO (ppm) | SEC (ppm) | NO2 (ppm) | SEC (ppm) |
|----------------------|----------|----------------------|------|-----------|-----------|----------|-----------|-----------|-----------|
| 2/17/2011 10:36 | 0211-67A | 11_02_17_1036_13_445 | 1.05 | 3,860 | 55.4 | 5.17 | 2.77 | 121 | 1.58 |
| 2/17/2011 10:37 | 0211-67A | 11_02_17_1037_06_117 | 1.05 | 3,861 | 55.5 | 6.57 | 2.78 | 124 | 1.53 |
| 2/17/2011 10:37 | 0211-67A | 11_02_17_1037_58_788 | 1.05 | 3,857 | 55.3 | 7.66 | 2.82 | 127 | 1.50 |
| 2/17/2011 10:38 | 0211-67A | 11_02_17_1038_51_460 | 1.05 | 3,856 | 55.3 | 8.57 | 2.82 | 129 | 1.47 |
| 2/17/2011 10:39 | 0211-67A | 11_02_17_1039_44_147 | 1.05 | 3,852 | 55.3 | 9.51 | 2.78 | 130 | 1.48 |
| Average Conc. (ppm): | | | 1.05 | 4,066 | 58.4 | 7.90 | 2.94 | 133 | 1.59 |

02-AA-021611Dup

| Date | Method | Filename | DF | N2O (ppm) | SEC (ppm) | NO (ppm) | SEC (ppm) | NO2 (ppm) | SEC (ppm) |
|----------------------|----------|----------------------|------|-----------|-----------|----------|-----------|-----------|-----------|
| 2/17/2011 10:46 | 0211-67A | 11_02_17_1046_14_052 | 1.05 | 3,365 | 47.0 | 4.90 | 2.88 | 114 | 2.56 |
| 2/17/2011 10:47 | 0211-67A | 11_02_17_1047_06_739 | 1.05 | 3,364 | 46.9 | 5.69 | 2.89 | 118 | 2.52 |
| 2/17/2011 10:47 | 0211-67A | 11_02_17_1047_59_410 | 1.05 | 3,359 | 46.8 | 6.39 | 2.89 | 122 | 2.50 |
| 2/17/2011 10:48 | 0211-67A | 11_02_17_1048_52_082 | 1.05 | 3,358 | 47.1 | 7.07 | 2.85 | 125 | 2.51 |
| 2/17/2011 10:49 | 0211-67A | 11_02_17_1049_44_769 | 1.05 | 3,359 | 47.1 | 7.49 | 2.88 | 128 | 2.53 |
| Average Conc. (ppm): | | | 1.05 | 3,535 | 49.4 | 6.64 | 3.02 | 128 | 2.65 |

02-AA-021611 (diluted)

| Date | Method | Filename | DF | N2O (ppm) | SEC (ppm) | NO (ppm) | SEC (ppm) | NO2 (ppm) | SEC (ppm) |
|----------------------|----------|----------------------|------|-----------|-----------|----------|-----------|-----------|-----------|
| 2/17/2011 11:45 | 0211-67A | 11_02_17_1145_03_364 | 2.30 | 2,202 | 26.0 | 8.80 | 3.92 | 54.7 | 1.05 |
| 2/17/2011 11:45 | 0211-67A | 11_02_17_1145_56_051 | 2.30 | 2,201 | 26.1 | 9.37 | 3.91 | 56.4 | 1.03 |
| 2/17/2011 11:46 | 0211-67A | 11_02_17_1146_48_707 | 2.30 | 2,200 | 26.2 | 9.76 | 3.91 | 57.2 | 1.01 |
| 2/17/2011 11:47 | 0211-67A | 11_02_17_1147_41_379 | 2.30 | 2,200 | 26.3 | 10.3 | 3.90 | 58.2 | 0.991 |
| 2/17/2011 11:48 | 0211-67A | 11_02_17_1148_34_066 | 2.30 | 2,195 | 26.2 | 10.7 | 3.90 | 58.7 | 0.984 |
| Average Conc. (ppm): | | | 2.30 | 5,049 | 60.0 | 22.43 | 8.97 | 130.9 | 2.33 |

02-AA-021811 Dup (diluted)

| Date | Method | Filename | DF | N2O (ppm) | SEC (ppm) | NO (ppm) | SEC (ppm) | NO2 (ppm) | SEC (ppm) |
|----------------------|----------|----------------------|------|-----------|-----------|----------|-----------|-----------|-----------|
| 2/17/2011 11:52 | 0211-67A | 11_02_17_1152_38_721 | 2.26 | 1,913 | 20.2 | 6.69 | 3.89 | 51.0 | 1.81 |
| 2/17/2011 11:53 | 0211-67A | 11_02_17_1153_31_393 | 2.26 | 1,913 | 20.2 | 7.32 | 3.89 | 52.6 | 1.83 |
| 2/17/2011 11:54 | 0211-67A | 11_02_17_1154_24_064 | 2.26 | 1,914 | 20.3 | 7.68 | 3.88 | 54.2 | 1.81 |
| 2/17/2011 11:55 | 0211-67A | 11_02_17_1155_16_736 | 2.26 | 1,912 | 20.3 | 8.04 | 3.88 | 55.9 | 1.80 |
| 2/17/2011 11:56 | 0211-67A | 11_02_17_1156_09_408 | 2.26 | 1,913 | 20.3 | 8.29 | 3.89 | 57.7 | 1.82 |
| Average Conc. (ppm): | | | 2.26 | 4,320 | 45.8 | 17.17 | 8.77 | 122.5 | 4.10 |

FTIR Narrative Summary



Enthalpy Analytical Narrative Summary

| | |
|-------------------|---------------------|
| Company | Tetra Tech, Inc. |
| Analyst | CJT |
| Parameters | EPA Method 320 type |
| # Samples | 4 Bags |

| | |
|--------------------|--|
| Client # | Agrium Chemical Fire - Hartsville, SC |
| Job # | 0211-67 |
| PO # | Verbal |
| Report Date | February 17, 2011 |

Custody

Anthony Mastrianni received the samples on 2/17/11 after being relinquished by Tetra Tech, Inc. The samples were received at ambient temperature in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis

The four bags were analyzed for nitrous oxide (N_2O), nitrogen monoxide (NO or nitric oxide), and nitrogen dioxide (NO_2) using the analytical procedures in EPA Method 320, Measurement of Vapor Phase Organic and Inorganic Emissions (40 CFR, Part 63, Appendix A). While this is a source testing method, the analytical parameters of the method are easily adapted to Tedlar® bag analysis.

The FTIR gas cell was purged with nitrogen gas and evacuated using a vacuum pump to between 0.5 and 8.5psi, absolute. A bag was then connected to the inlet of the FTIR gas cell. The valve on the bag was opened and the total gas pressure in the absorption cell was brought to approximately 1.0 atm, after which the FTIR gas cell was isolated. The FTIR absorption spectrum of the sample was recorded several times.

Using the measured cell pressure after evacuation (P_{vac}) and the final cell pressure after it has been filled with sample gas (P_{final}), a cell dilution ratio can be determined. Due to various levels of different compounds, multiple cell dilutions were required to ensure that each compound was present at a concentration within or near its calibration range. Compounds whose concentrations were not within the appropriate concentration range for a given dilution are reported from an alternate, more appropriate dilution level. Compounds with a "strikethrough" through their concentration for a given dilution indicate that the concentration of that compound in that particular dilution was not appropriate, and that the appropriate result has been reported from an alternate dilution.



Enthalpy Analytical Narrative Summary (continued)

Analysis (continued)

In samples *13-AA-021611-N2O* and *14-AA-021611-N2O*, NO_2 was detected above its minimum detectable concentration (MDC) value in the samples. NO was not detected above its MDC value, and N_2O was detected above its MDC value in only one of the sample spectra (though only slightly above the MDC value).

In samples *02-AA-021611-N2O* and *02-AA-021611-N2O Dup*, all compounds were detected above their respective MDC values. However, there was a high degree of uncertainty in the results for NO due to the high level of moisture present. It was also noted by the analyst that these samples contained a substantial amount of hydrogen chloride (HCl) at about 100-150ppm.

In samples where compounds detected below their respective MDC values are tagged "ND" and are reported as the MDC on the summary page. In samples where a compound was detected above its respective MDC value in some of the spectra and below it in others, the compound is reported with a "J" flag for that sample. The reported concentrations include corrections for dilutions of the samples in the FTIR cell. The reported MDC values were calculated according to Section A2.2 of ASTM Standard D6348-03.

Before and after all the samples were analyzed, a calibration transfer standard (CTS) gas (Ethylene) was introduced to the FTIR and allowed to reach steady state. A single cylinder of Ethylene in Nitrogen (100 ppm, Custom Gas CC47738) served as the CTS. The CTS was used to determine cell path length and check for instrument drift/problems pre and post analysis.

Instrumentation

The FTIR spectrometer used for this test was a Midac I-1301 medium-resolution Michelson interferometer instrument. The interferometer and detector were assembled by MIDAC Corporation (Irvine, CA). The nominal spectral resolution of the system was 0.5 cm^{-1} .

The instrument was equipped with a fixed, nominal 10-meter path length White cell, a potassium bromide (KBr) beamsplitter, zinc selenide (ZnSe) non-hygroscopic windows, and a mercury cadmium telluride (MCT) liquid nitrogen cooled detector. The inside walls of the cell were polished stainless steel to minimize interaction of the sample with the cell walls and the mirrors were bare gold. The pressure of the FTIR extractive sample cell was monitored with a digital pressure transducer connected directly to the sample cell. The sample cell was wrapped in an insulating blanket and the temperature monitored with digital type J thermocouple. The cell volume is 1.915 liters.



Enthalpy Analytical Narrative Summary (continued)

Data Analysis

All data were analyzed using Autoquant Pro (Midac Corporation, Irvine, CA). The spectra used for this analysis were obtained from available spectra found in the Enthalpy, Midac and EPA spectral libraries. For all data analysis, the apodization was triangular and the baseline correction was linear. The "Method Map" section contains all the parameters required to reproduce the results of this testing.

Reporting Notes

The nitrogen oxides reported on the Summary page is the sum of the NO and NO₂ results.

The results presented in this report are representative of the samples as provided to the laboratory.



Sample Custody



FTIR QA



| | |
|------------------|---------------------|
| Company | Tetra Tech |
| Analyst Initials | CJT |
| Parameters | EPA Method 320-Type |
| # Samples | 4 Bags |

| | |
|-------------|---------------------------------------|
| Client # | Agrium Chemical Fire - Hartsville, SC |
| Job # | 0211-67 |
| PO # | Verbal |
| Report Date | 2/17/2011 |

Minimum Detectable Concentration - Default

| Date | Method | Filename | DF | N2O (ppm) | SEC (ppm) | NO (ppm) | SEC (ppm) | NO2 (ppm) | SEC (ppm) |
|----------------|----------|----------------------|----|-----------|-----------|----------|-----------|-----------|-----------|
| 2/17/2011 9:46 | 0211-67A | 11_02_17_0946_37_069 | 1 | -0.0780 | 0.365 | -0.0700 | 0.0320 | -0.455 | 0.162 |
| 2/17/2011 9:47 | 0211-67A | 11_02_17_0947_29_756 | 1 | 0.411 | 0.353 | -0.0440 | 0.0350 | -0.443 | 0.153 |
| 2/17/2011 9:48 | 0211-67A | 11_02_17_0948_22_428 | 1 | -0.335 | 0.363 | -0.0830 | 0.0330 | 0.435 | 0.161 |
| 2/17/2011 9:49 | 0211-67A | 11_02_17_0949_15_115 | 1 | -0.0810 | 0.346 | 0.0170 | 0.0320 | 0.0710 | 0.163 |
| 2/17/2011 9:50 | 0211-67A | 11_02_17_0950_07_818 | 1 | -0.871 | 0.352 | -0.0460 | 0.0330 | -0.709 | 0.176 |
| 2/17/2011 9:51 | 0211-67A | 11_02_17_0951_00_489 | 1 | 0.212 | 0.372 | 0.0200 | 0.0350 | -0.481 | 0.173 |
| 2/17/2011 9:51 | 0211-67A | 11_02_17_0951_53_161 | 1 | 0.296 | 0.383 | -0.0780 | 0.0330 | -0.466 | 0.159 |
| 2/17/2011 9:52 | 0211-67A | 11_02_17_0952_45_864 | 1 | 0.469 | 0.381 | -0.0230 | 0.0330 | -0.197 | 0.168 |
| | | | | 0.448 | | 0.0403 | | 0.370 | |
| MDC(ppm): | | | | 1.34 | | 0.121 | | 1.11 | |

| | |
|------------------|---------------------|
| Company | Tetra Tech |
| Analyst Initials | CJT |
| Parameters | EPA Method 320-Type |
| # Samples | 4 Bags |

| | |
|-------------|---------------------------------------|
| Client # | Agrium Chemical Fire - Hartsville, SC |
| Job # | 0211-67 |
| PO # | Verbal |
| Report Date | 2/17/2011 |

Path Length - Path

| Date | Method | FileName | ethylene (ppm) | SEC (ppm) |
|------------------------|------------|----------------------|----------------|-----------|
| 2/17/2011 9:35 | 0211-67CTS | 11_02_17_0935_22_275 | 8.26 | 0.113 |
| 2/17/2011 9:35 | 0211-67CTS | 11_02_17_0935_39_134 | 8.27 | 0.113 |
| 2/17/2011 9:35 | 0211-67CTS | 11_02_17_0935_55_994 | 8.25 | 0.113 |
| 2/17/2011 9:36 | 0211-67CTS | 11_02_17_0936_12_868 | 8.25 | 0.114 |
| 2/17/2011 9:36 | 0211-67CTS | 11_02_17_0936_29_728 | 8.27 | 0.114 |
| 2/17/2011 9:36 | 0211-67CTS | 11_02_17_0936_46_571 | 8.24 | 0.113 |
| 2/17/2011 9:37 | 0211-67CTS | 11_02_17_0937_03_415 | 8.22 | 0.113 |
| 2/17/2011 9:37 | 0211-67CTS | 11_02_17_0937_20_274 | 8.25 | 0.113 |
| Average (m) | | | 8.25 | 0.113 |
| 2/17/2011 10:59 | 0211-67CTS | 11_02_17_1059_09_267 | 8.29 | 0.111 |
| 2/17/2011 10:59 | 0211-67CTS | 11_02_17_1059_26_142 | 8.32 | 0.111 |
| 2/17/2011 10:59 | 0211-67CTS | 11_02_17_1059_43_001 | 8.32 | 0.111 |
| 2/17/2011 10:59 | 0211-67CTS | 11_02_17_1059_59_829 | 8.30 | 0.111 |
| 2/17/2011 11:00 | 0211-67CTS | 11_02_17_1100_16_688 | 8.31 | 0.111 |
| 2/17/2011 11:00 | 0211-67CTS | 11_02_17_1100_33_548 | 8.29 | 0.111 |
| 2/17/2011 11:00 | 0211-67CTS | 11_02_17_1100_50_423 | 8.30 | 0.111 |
| 2/17/2011 11:01 | 0211-67CTS | 11_02_17_1101_07_282 | 8.31 | 0.111 |
| Average (m) | | | 8.31 | 0.111 |
| 2/17/2011 12:03 | 0211-67CTS | 11_02_17_1203_52_734 | 8.37 | 0.111 |
| 2/17/2011 12:04 | 0211-67CTS | 11_02_17_1204_09_984 | 8.38 | 0.112 |
| 2/17/2011 12:04 | 0211-67CTS | 11_02_17_1204_26_937 | 8.35 | 0.111 |
| 2/17/2011 12:04 | 0211-67CTS | 11_02_17_1204_43_937 | 8.36 | 0.111 |
| 2/17/2011 12:05 | 0211-67CTS | 11_02_17_1205_01_062 | 8.36 | 0.112 |
| 2/17/2011 12:05 | 0211-67CTS | 11_02_17_1205_18_265 | 8.36 | 0.112 |
| 2/17/2011 12:05 | 0211-67CTS | 11_02_17_1205_35_202 | 8.35 | 0.111 |
| 2/17/2011 12:05 | 0211-67CTS | 11_02_17_1205_52_249 | 8.36 | 0.111 |
| Average (m) | | | 8.36 | 0.111 |
| Average Pathlength (m) | | | 8.31 | 0.112 |
| Max (m) | | | 8.36 | |
| Min (m) | | | 8.25 | |
| Max % Deviation | | | 0.670% | |

FTIR Method Map



CTS Method Map:

Overrides: Path Length=100ppm

Method Name: 0211-67CTS

Method Path: c:\autoq4\methods\0211-67CTS\0211-67CTS.aq4

Method Type: AutoQuant 4.0

Linear Analysis Mode

MethodParameters

Wavenumber range: 650.00 - 4500.00 cm-1

Default Pathlength = 100.0000 M

Gain = 0.000000

Apodization = Triangle

Phase Correction = Mertz

Resolution = 0.5 cm-1

Baseline Correction: Single Linear

Exclusion Criterion: 2500.000000

Compound: ethylene

Description:

Molecular Weight: 0.00

Alarms: Disabled

Primary Spectrum: ETYH5A.SPC

Reference Concentration: 206.6000 ppm-m

Reference Pathlength: 1.0000 M

Reference Pressure: 1.0000 atm

Reference Temperature: 121.00 C

Region #1: 870.00 - 1040.00 cm-1

Sample Method Map:

Overrides: Path Length=8.31m

Method Name: 0211-67A

Method Path: X:\FTIR2011Q1\0211-67_TetraTech\Methods\0211-67A\0211-67A.aq4

Method Type: AutoQuant 4.0

Non-Linear Analysis Mode

MethodParameters

Wavenumber range: 650.00 - 4500.00 cm-1

Default Pathlength = 9.3000 M

Gain = 0.000000

Apodization = Triangle

Phase Correction = Mertz

Resolution = 0.5 cm-1

Baseline Correction: Single

Exclusion Criterion: 2500.000000

Compound: N2O

Description:

Molecular Weight: 0.00

Alarms: Disabled

Spectrum: N2O_808ppm_8.6916m_121C.SPC

Reference Concentration: 7022.8128 ppm-m

Reference Pathlength: 8.6916 M

Reference Pressure: 1.0002 atm

Reference Temperature: 121.39 C

Region #1: 2504.49 - 2617.46 cm-1

Spectrum: N2O_600ppm_8.5025m_121C.SPC

Reference Concentration: 5101.5000 ppm-m

Reference Pathlength: 8.5025 M

Reference Pressure: 1.0034 atm

Reference Temperature: 121.39 C

Region #1: 2504.49 - 2617.46 cm-1

Spectrum: N2O_300ppm_8.5025m_121C.SPC

Reference Concentration: 2550.7500 ppm-m

Reference Pathlength: 8.5025 M

Reference Pressure: 1.0028 atm

Reference Temperature: 121.39 C

Region #1: 2504.49 - 2617.46 cm-1

Spectrum: N2O_3050ppm_121C_8.44m(tri).SPC

Reference Concentration: 25742.0000 ppm-m

Reference Pathlength: 8.4400 M

Reference Pressure: 0.9765 atm

Reference Temperature: 121.00 C

Region #1: 2504.49 - 2617.46 cm-1

Primary Spectrum: N2O_60ppm_8.5025m_121C.SPC
Reference Concentration: 510.1500 ppm-m
Reference Pathlength: 8.5025 M
Reference Pressure: 1.0027 atm
Reference Temperature: 121.17 C
Region #1: 2504.49 - 2617.46 cm-1

Compound: NO

Description:
Molecular Weight: 0.00
Alarms: Disabled
Primary Spectrum: NO_1662.282ppm-m_121C_14.54psi.SPC
Reference Concentration: 1662.2820 ppm-m
Reference Pathlength: 1.0000 M
Reference Pressure: 0.9883 atm
Reference Temperature: 120.88 C
Region #1: 1863.15 - 1965.63 cm-1
Spectrum: NO_831.141ppm-m_121C_14.56psi.SPC
Reference Concentration: 831.1410 ppm-m
Reference Pathlength: 1.0000 M
Reference Pressure: 0.9915 atm
Reference Temperature: 120.95 C
Region #1: 1863.15 - 1965.63 cm-1
Spectrum: NO_415.152ppm-m_121C_14.57psi.SPC
Reference Concentration: 415.1520 ppm-m
Reference Pathlength: 1.0000 M
Reference Pressure: 0.9915 atm
Reference Temperature: 120.88 C
Region #1: 1863.15 - 1965.63 cm-1

Compound: NO2

Description:
Molecular Weight: 0.00
Alarms: Disabled
Primary Spectrum: NO2_1690.74ppm-m_121C_14.56psi.SPC
Reference Concentration: 1690.7400 ppm-m
Reference Pathlength: 1.0000 M
Reference Pressure: 0.9974 atm
Reference Temperature: 120.81 C
Region #1: 2847.09 - 2943.15 cm-1
Spectrum: NO2_845.37ppm-m_121C_14.6psi.SPC
Reference Concentration: 845.3700 ppm-m
Reference Pathlength: 1.0000 M
Reference Pressure: 0.9929 atm
Reference Temperature: 120.81 C
Region #1: 2847.09 - 2943.15 cm-1

Spectrum: NO2_422.69ppm-m_121C_14.59psi.SPC
Reference Concentration: 422.6900 ppm-m
Reference Pathlength: 1.0000 M
Reference Pressure: 0.9922 atm
Reference Temperature: 120.88 C
Region #1: 2847.09 - 2943.15 cm-1

Compound: H2O

Description:
Molecular Weight: 0.00
Alarms: Disabled
Primary Spectrum: 11_02_17_1215_21_248.abs
Reference Concentration: 83.0000 ppm-m
Reference Pathlength: 8.3000 M
Reference Pressure: 1.0038 atm
Reference Temperature: 121.17 C
Region #1: 1971.45 - 1855.85 cm-1
Region #2: 2972.00 - 2709.25 cm-1

Compound: HCl

Description:
Molecular Weight: 0.00
Alarms: Disabled
Primary Spectrum: 57.5PPM_HCL_9.101M_T1.SPC
Reference Concentration: 523.2500 ppm-m
Reference Pathlength: 9.1000 M
Reference Pressure: 1.0190 atm
Reference Temperature: 181.10 C
Region #1: 2613.05 - 2955.20 cm-1

Logbook Notes



Form Page No.

X

INST
PACT1
T1I1301-430
F0177-105

2/17/11

| CHARGE | TIME | TEMP °C | PRESS PSI | SL | NRG | NOTES | PRESS PSI |
|-----------|------|------------|--------------|-----|-----|--|--------------|
| 2-17-0922 | 0922 | 12.0 | 14.88 | 128 | 1 | BL T-ken | N/A |
| | 0927 | 12.0 | 14.88 | 16 | 1 | OTS CTY 100ppm (Carbon Gas - CC47738) | N/A |
| | 0940 | 12.0 | 14.88 | 50 | 1 | N ₂ Blank | N/A |
| | 0942 | 12.0 | 14.88 | 128 | 2 | BL T-ken | N/A |
| | 0946 | 12.0 | 14.88 | 50 | 2 | N ₂ Blank | N/A |
| | 0958 | 12.0 | 14.88 | 128 | 3 | BL T-ken | N/A |
| | 1003 | 12.0 | 14.68 | 50 | 3 | 13-AA-021611-N ₂ O | 1.01 |
| | 1021 | 12.0 | 14.59 | 50 | 3 | 14-AA-021611-N ₂ O | 1.25 |
| | 1030 | 12.0 | 14.93 | 128 | 4 | BL T-ken | N/A |
| | 1036 | 12.0 | 14.61 | 50 | 4 | 02-AA-021611-N ₂ O | 0.75 |
| | 1046 | 12.0 | 14.61 | 50 | 4 | 02-AA-021611-N ₂ O Dup | 0.72 |
| | 1053 | 12.0 | 14.88 | 16 | 4 | OTS CTY 100ppm (Carbon Gas - CC47738) | N/A |
| | 1133 | 12.0 | 14.92 | 128 | 5 | BL T-ken | N/A |
| | 1145 | 12.0 | 14.69 | 50 | 5 | 02-AA-021611-N ₂ O B'ntel | 8.25 |
| | 1152 | 12.0 | 14.61 | 50 | 5 | 02-AA-021611-N ₂ O Dup D'ntel | 8.14 |
| | 1203 | 12.0 | 14.89 | 16 | 5 | OTS CTY 100ppm (Carbon Gas - CC47738) | N/A |
| | 1211 | 12.0 | 14.85 | 32 | 5 | N ₂ O Fraction - use 1215.21 | N/A |

OTS 2/17/11

Inspected & Understood by me,

Date

Invented by:

G. P. H.

Date 2/17/11

To Page No.

EA# 0211-67, Page 22 of 23

Recorded by:

2/15/11

**This Is The Last Page
Of This Report.**



Report of Analysis

Tetra Tech EM Inc.
1955 Evergreen Boulevard
Building 200, Suite 300
Duluth, GA 30096
Attention: Jessica Vickers

Project Name: **Agrium Fire**

Lot Number: **MB16011**
Date Completed: **02/17/2011**



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

* MB16011 *

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DEHNR No: 329

Case Narrative **Tetra Tech EM Inc.** **Lot Number: MB16011**

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Hexavalent Chromium

The MS recoveries in batch 52935 were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

TKN

According to Standard Methods nitrate in excess of 10 mg/L can oxidize a portion of the ammonia released from the digested organics nitrogen, resulting in a negative interference. The conditions under which significant interference occur are not well defined and there are no proven ways to eliminate the interference in conjunction with kjeldahl method. The TKN result of sample -011 is most likely biased low.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary Tetra Tech EM Inc. Lot Number: MB16011

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|-----------------|---------|-----------------|---------------|
| 001 | SW-01-021511 | Aqueous | 02/15/2011 1507 | 02/16/2011 |
| 002 | SW-02-021511 | Aqueous | 02/15/2011 1527 | 02/16/2011 |
| 003 | SW-03-021511 | Aqueous | 02/15/2011 1357 | 02/16/2011 |
| 004 | SW-03-021511DUP | Aqueous | 02/15/2011 1357 | 02/16/2011 |
| 005 | SW-04-021511 | Aqueous | 02/15/2011 1345 | 02/16/2011 |
| 006 | SW-05-021511 | Aqueous | 02/15/2011 1337 | 02/16/2011 |
| 007 | SW-06-021511 | Aqueous | 02/15/2011 1322 | 02/16/2011 |
| 008 | SW-07-021511 | Aqueous | 02/15/2011 1242 | 02/16/2011 |
| 009 | SW-08-021511 | Aqueous | 02/15/2011 1315 | 02/16/2011 |
| 010 | SW-09-021511 | Aqueous | 02/15/2011 1219 | 02/16/2011 |
| 011 | SW-10-021511 | Aqueous | 02/15/2011 1515 | 02/16/2011 |

(11 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

Tetra Tech EM Inc.

Lot Number: MB16011

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|-----------------|---------|---------------------|-------------|---------|---|-------|------|
| 001 | SW-01-021511 | Aqueous | COD | SM 5220D | 45 | | mg/L | 7 |
| 001 | SW-01-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 10.2 | | mg/L | 7 |
| 001 | SW-01-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 31 | | mg/L | 7 |
| 001 | SW-01-021511 | Aqueous | Phosphorus | 365.1 | 42 | | mg/L | 7 |
| 001 | SW-01-021511 | Aqueous | TKN | 351.2 | 48 | | mg/L | 7 |
| 001 | SW-01-021511 | Aqueous | Arsenic | 6010C | 0.0066 | J | mg/L | 8 |
| 001 | SW-01-021511 | Aqueous | Barium | 6010C | 0.018 | J | mg/L | 8 |
| 001 | SW-01-021511 | Aqueous | Cadmium | 6010C | 0.0017 | J | mg/L | 8 |
| 001 | SW-01-021511 | Aqueous | Chromium | 6010C | 0.017 | | mg/L | 8 |
| 001 | SW-01-021511 | Aqueous | Lead | 6010C | 0.011 | | mg/L | 8 |
| 001 | SW-01-021511 | Aqueous | Potassium | 6010C | 140 | | mg/L | 8 |
| 001 | SW-01-021511 | Aqueous | Zinc | 6010C | 0.47 | | mg/L | 8 |
| 002 | SW-02-021511 | Aqueous | COD | SM 5220D | 100 | | mg/L | 9 |
| 002 | SW-02-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 11.0 | | mg/L | 9 |
| 002 | SW-02-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 13 | | mg/L | 9 |
| 002 | SW-02-021511 | Aqueous | Phosphorus | 365.1 | 10 | | mg/L | 9 |
| 002 | SW-02-021511 | Aqueous | TKN | 351.2 | 39 | | mg/L | 9 |
| 002 | SW-02-021511 | Aqueous | Arsenic | 6010C | 0.017 | | mg/L | 10 |
| 002 | SW-02-021511 | Aqueous | Barium | 6010C | 0.021 | J | mg/L | 10 |
| 002 | SW-02-021511 | Aqueous | Cadmium | 6010C | 0.0030 | | mg/L | 10 |
| 002 | SW-02-021511 | Aqueous | Chromium | 6010C | 0.0078 | | mg/L | 10 |
| 002 | SW-02-021511 | Aqueous | Lead | 6010C | 0.013 | | mg/L | 10 |
| 002 | SW-02-021511 | Aqueous | Potassium | 6010C | 67 | | mg/L | 10 |
| 002 | SW-02-021511 | Aqueous | Silver | 6010C | 0.00061 | J | mg/L | 10 |
| 002 | SW-02-021511 | Aqueous | Zinc | 6010C | 0.55 | | mg/L | 10 |
| 003 | SW-03-021511 | Aqueous | COD | SM 5220D | 28 | | mg/L | 11 |
| 003 | SW-03-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 11.2 | H | mg/L | 11 |
| 003 | SW-03-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 3.2 | | mg/L | 11 |
| 003 | SW-03-021511 | Aqueous | Phosphorus | 365.1 | 4.3 | | mg/L | 11 |
| 003 | SW-03-021511 | Aqueous | TKN | 351.2 | 12 | | mg/L | 11 |
| 003 | SW-03-021511 | Aqueous | Arsenic | 6010C | 0.012 | | mg/L | 12 |
| 003 | SW-03-021511 | Aqueous | Barium | 6010C | 0.026 | | mg/L | 12 |
| 003 | SW-03-021511 | Aqueous | Chromium | 6010C | 0.0037 | J | mg/L | 12 |
| 003 | SW-03-021511 | Aqueous | Lead | 6010C | 0.0093 | J | mg/L | 12 |
| 003 | SW-03-021511 | Aqueous | Potassium | 6010C | 26 | | mg/L | 12 |
| 003 | SW-03-021511 | Aqueous | Zinc | 6010C | 0.17 | | mg/L | 12 |
| 004 | SW-03-021511DUP | Aqueous | COD | SM 5220D | 46 | | mg/L | 13 |
| 004 | SW-03-021511DUP | Aqueous | Dissolved Oxygen | SM 4500-O G | 11.3 | H | mg/L | 13 |
| 004 | SW-03-021511DUP | Aqueous | Nitrate-Nitrite - N | 353.2 | 3.8 | | mg/L | 13 |
| 004 | SW-03-021511DUP | Aqueous | Phosphorus | 365.1 | 5.1 | | mg/L | 13 |
| 004 | SW-03-021511DUP | Aqueous | TKN | 351.2 | 14 | | mg/L | 13 |
| 004 | SW-03-021511DUP | Aqueous | Arsenic | 6010C | 0.0092 | J | mg/L | 14 |
| 004 | SW-03-021511DUP | Aqueous | Barium | 6010C | 0.023 | J | mg/L | 14 |
| 004 | SW-03-021511DUP | Aqueous | Cadmium | 6010C | 0.00096 | J | mg/L | 14 |
| 004 | SW-03-021511DUP | Aqueous | Potassium | 6010C | 25 | | mg/L | 14 |

Executive Summary (Continued)

Lot Number: MB16011

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|-----------------|---------|---------------------|-------------|---------|---|-------|------|
| 004 | SW-03-021511DUP | Aqueous | Zinc | 6010C | 0.13 | | mg/L | 14 |
| 005 | SW-04-021511 | Aqueous | COD | SM 5220D | 31 | | mg/L | 15 |
| 005 | SW-04-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 11.0 | H | mg/L | 15 |
| 005 | SW-04-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 5.4 | | mg/L | 15 |
| 005 | SW-04-021511 | Aqueous | Phosphorus | 365.1 | 6.2 | | mg/L | 15 |
| 005 | SW-04-021511 | Aqueous | TKN | 351.2 | 8.3 | | mg/L | 15 |
| 005 | SW-04-021511 | Aqueous | Arsenic | 6010C | 0.0041 | J | mg/L | 16 |
| 005 | SW-04-021511 | Aqueous | Barium | 6010C | 0.027 | | mg/L | 16 |
| 005 | SW-04-021511 | Aqueous | Cadmium | 6010C | 0.00087 | J | mg/L | 16 |
| 005 | SW-04-021511 | Aqueous | Chromium | 6010C | 0.0026 | J | mg/L | 16 |
| 005 | SW-04-021511 | Aqueous | Potassium | 6010C | 15 | | mg/L | 16 |
| 005 | SW-04-021511 | Aqueous | Zinc | 6010C | 0.39 | | mg/L | 16 |
| 006 | SW-05-021511 | Aqueous | COD | SM 5220D | 32 | | mg/L | 17 |
| 006 | SW-05-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 11.1 | H | mg/L | 17 |
| 006 | SW-05-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 1.2 | | mg/L | 17 |
| 006 | SW-05-021511 | Aqueous | Phosphorus | 365.1 | 1.3 | | mg/L | 17 |
| 006 | SW-05-021511 | Aqueous | TKN | 351.2 | 3.9 | | mg/L | 17 |
| 006 | SW-05-021511 | Aqueous | Arsenic | 6010C | 0.015 | | mg/L | 18 |
| 006 | SW-05-021511 | Aqueous | Barium | 6010C | 0.035 | | mg/L | 18 |
| 006 | SW-05-021511 | Aqueous | Chromium | 6010C | 0.0031 | J | mg/L | 18 |
| 006 | SW-05-021511 | Aqueous | Lead | 6010C | 0.0055 | J | mg/L | 18 |
| 006 | SW-05-021511 | Aqueous | Potassium | 6010C | 6.5 | | mg/L | 18 |
| 006 | SW-05-021511 | Aqueous | Silver | 6010C | 0.00087 | J | mg/L | 18 |
| 006 | SW-05-021511 | Aqueous | Zinc | 6010C | 0.27 | | mg/L | 18 |
| 007 | SW-06-021511 | Aqueous | COD | SM 5220D | 19 | | mg/L | 19 |
| 007 | SW-06-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 10.7 | H | mg/L | 19 |
| 007 | SW-06-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 0.92 | | mg/L | 19 |
| 007 | SW-06-021511 | Aqueous | Phosphorus | 365.1 | 0.21 | | mg/L | 19 |
| 007 | SW-06-021511 | Aqueous | TKN | 351.2 | 0.65 | | mg/L | 19 |
| 007 | SW-06-021511 | Aqueous | Barium | 6010C | 0.015 | J | mg/L | 20 |
| 007 | SW-06-021511 | Aqueous | Potassium | 6010C | 1.8 | J | mg/L | 20 |
| 007 | SW-06-021511 | Aqueous | Zinc | 6010C | 0.0061 | J | mg/L | 20 |
| 008 | SW-07-021511 | Aqueous | COD | SM 5220D | 24 | | mg/L | 21 |
| 008 | SW-07-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 10.5 | H | mg/L | 21 |
| 008 | SW-07-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 0.50 | | mg/L | 21 |
| 008 | SW-07-021511 | Aqueous | Phosphorus | 365.1 | 0.16 | | mg/L | 21 |
| 008 | SW-07-021511 | Aqueous | TKN | 351.2 | 0.15 | | mg/L | 21 |
| 008 | SW-07-021511 | Aqueous | Arsenic | 6010C | 0.0048 | J | mg/L | 22 |
| 008 | SW-07-021511 | Aqueous | Barium | 6010C | 0.015 | J | mg/L | 22 |
| 009 | SW-08-021511 | Aqueous | COD | SM 5220D | 17 | | mg/L | 23 |
| 009 | SW-08-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 11.0 | H | mg/L | 23 |
| 009 | SW-08-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 0.91 | | mg/L | 23 |
| 009 | SW-08-021511 | Aqueous | Phosphorus | 365.1 | 0.047 | | mg/L | 23 |
| 009 | SW-08-021511 | Aqueous | TKN | 351.2 | 0.25 | | mg/L | 23 |
| 009 | SW-08-021511 | Aqueous | Arsenic | 6010C | 0.0044 | J | mg/L | 24 |
| 009 | SW-08-021511 | Aqueous | Barium | 6010C | 0.015 | J | mg/L | 24 |
| 009 | SW-08-021511 | Aqueous | Lead | 6010C | 0.0026 | J | mg/L | 24 |
| 009 | SW-08-021511 | Aqueous | Potassium | 6010C | 1.2 | J | mg/L | 24 |

Executive Summary (Continued)

Lot Number: MB16011

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|--------------|---------|---------------------|--------------|--------|---|-------|------|
| 009 | SW-08-021511 | Aqueous | Zinc | 6010C | 0.011 | J | mg/L | 24 |
| 010 | SW-09-021511 | Aqueous | COD | SM 5220D | 19 | | mg/L | 25 |
| 010 | SW-09-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 10.8 | H | mg/L | 25 |
| 010 | SW-09-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 1.1 | | mg/L | 25 |
| 010 | SW-09-021511 | Aqueous | Phosphorus | 365.1 | 0.31 | | mg/L | 25 |
| 010 | SW-09-021511 | Aqueous | TKN | 351.2 | 0.71 | | mg/L | 25 |
| 010 | SW-09-021511 | Aqueous | Barium | 6010C | 0.015 | J | mg/L | 26 |
| 010 | SW-09-021511 | Aqueous | Potassium | 6010C | 2.4 | J | mg/L | 26 |
| 010 | SW-09-021511 | Aqueous | Zinc | 6010C | 0.0090 | J | mg/L | 26 |
| 011 | SW-10-021511 | Aqueous | COD | SM 5220D | 960 | | mg/L | 27 |
| 011 | SW-10-021511 | Aqueous | Dissolved Oxygen | SM 4500-O G | 10.5 | | mg/L | 27 |
| 011 | SW-10-021511 | Aqueous | Hexavalent Chromium | SM 3500-Cr D | 0.055 | | mg/L | 27 |
| 011 | SW-10-021511 | Aqueous | Nitrate-Nitrite - N | 353.2 | 1100 | | mg/L | 27 |
| 011 | SW-10-021511 | Aqueous | Phosphorus | 365.1 | 770 | | mg/L | 27 |
| 011 | SW-10-021511 | Aqueous | TKN | 351.2 | 960 | | mg/L | 27 |
| 011 | SW-10-021511 | Aqueous | Arsenic | 6010C | 0.20 | | mg/L | 28 |
| 011 | SW-10-021511 | Aqueous | Barium | 6010C | 0.084 | | mg/L | 28 |
| 011 | SW-10-021511 | Aqueous | Cadmium | 6010C | 0.019 | | mg/L | 28 |
| 011 | SW-10-021511 | Aqueous | Chromium | 6010C | 0.12 | | mg/L | 28 |
| 011 | SW-10-021511 | Aqueous | Lead | 6010C | 0.047 | | mg/L | 28 |
| 011 | SW-10-021511 | Aqueous | Potassium | 6010C | 9000 | | mg/L | 28 |
| 011 | SW-10-021511 | Aqueous | Selenium | 6010C | 0.0030 | J | mg/L | 28 |
| 011 | SW-10-021511 | Aqueous | Zinc | 6010C | 1.7 | | mg/L | 28 |

(116 detections)

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-001 |
| Description: SW-01-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1507 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1237 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 20 | 02/16/2011 1428 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 100 | 02/17/2011 1608 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 10 | 02/17/2011 1833 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|--------------|-------------|----------|
| COD | | SM 5220D | 45 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 10.2 | | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 31 | | 0.40 | 0.026 | mg/L | 1 |
| pH | | SM 4500-H B | 6.09 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 42 | | 1.0 | 0.48 | mg/L | 1 |
| TKN | | 351.2 | 48 | | 1.0 | 0.84 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-001 |
| Description: SW-01-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1507 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2152 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2125 | CDF | 02/16/2011 1220 | 52899 |
| 2 | 3005A | 6010C | 1 | 02/17/2011 1247 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 0.0066 | J | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.018 | J | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.0017 | J | 0.0020 | 0.00060 | mg/L | 2 |
| Chromium | 7440-47-3 | 6010C | 0.017 | | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | 0.011 | | 0.010 | 0.0019 | mg/L | 2 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 140 | | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.47 | | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

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E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-002 |
| Description: SW-02-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1527 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1015 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1238 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 10 | 02/16/2011 1424 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 25 | 02/17/2011 1608 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 10 | 02/17/2011 1859 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|--------------|-------------|----------|
| COD | | SM 5220D | 100 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 11.0 | | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 13 | | 0.20 | 0.013 | mg/L | 1 |
| pH | | SM 4500-H B | 6.39 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 10 | | 0.25 | 0.12 | mg/L | 1 |
| TKN | | 351.2 | 39 | | 1.0 | 0.84 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-002 | | | |
| Description: SW-02-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1527 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2155 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2128 | CDF | 02/16/2011 1220 | 52899 |
| 2 | 3005A | 6010C | 1 | 02/17/2011 1251 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|---------|---|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 0.017 | | 0.010 | 0.0040 | mg/L | 2 |
| Barium | 7440-39-3 | 6010C | 0.021 | J | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.0030 | | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.0078 | | 0.0050 | 0.0021 | mg/L | 2 |
| Lead | 7439-92-1 | 6010C | 0.013 | | 0.010 | 0.0019 | mg/L | 2 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 67 | | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | 0.00061 | J | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.55 | | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-003 |
| Description: SW-03-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1357 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1237 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 2 | 02/16/2011 1425 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 10 | 02/17/2011 1608 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 4 | 02/17/2011 1859 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|---------------|-------------|----------|
| COD | | SM 5220D | 28 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 11.2 | H | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 3.2 | | 0.040 | 0.0026 | mg/L | 1 |
| pH | | SM 4500-H B | 6.09 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 4.3 | | 0.10 | 0.048 | mg/L | 1 |
| TKN | | 351.2 | 12 | | 0.40 | 0.33 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-003 | | | |
| Description: SW-03-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1357 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2157 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2132 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|------------------|------------------|-------------------|---------------|----------|---------------|---------------|-------------|----------|
| Arsenic | 7440-38-2 | 6010C | 0.012 | | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.026 | | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | ND | | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.0037 | J | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | 0.0093 | J | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 26 | | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.17 | | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

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Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-004 |
| Description: SW-03-021511DUP | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1357 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1237 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 2 | 02/16/2011 1426 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 20 | 02/17/2011 1608 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 10 | 02/17/2011 1859 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|---------------|-------------|----------|
| COD | | SM 5220D | 46 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 11.3 | H | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 3.8 | | 0.040 | 0.0026 | mg/L | 1 |
| pH | | SM 4500-H B | 6.24 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 5.1 | | 0.20 | 0.096 | mg/L | 1 |
| TKN | | 351.2 | 14 | | 1.0 | 0.84 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-004 | | | |
| Description: SW-03-021511DUP | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1357 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2200 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2147 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|------------------|------------------|-------------------|----------------|----------|---------------|----------------|-------------|----------|
| Arsenic | 7440-38-2 | 6010C | 0.0092 | J | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.023 | J | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.00096 | J | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | ND | | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 25 | | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.13 | | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-005 |
| Description: SW-04-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1345 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1237 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 5 | 02/16/2011 1427 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 20 | 02/17/2011 1608 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 2 | 02/17/2011 1859 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|---------------|-------------|----------|
| COD | | SM 5220D | 31 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 11.0 | H | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 5.4 | | 0.10 | 0.0065 | mg/L | 1 |
| pH | | SM 4500-H B | 5.71 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 6.2 | | 0.20 | 0.096 | mg/L | 1 |
| TKN | | 351.2 | 8.3 | | 0.20 | 0.17 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-005 | | | |
| Description: SW-04-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1345 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2202 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2151 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|------------------|------------------|-------------------|----------------|----------|---------------|----------------|-------------|----------|
| Arsenic | 7440-38-2 | 6010C | 0.0041 | J | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.027 | | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.00087 | J | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.0026 | J | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 15 | | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.39 | | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-006 |
| Description: SW-05-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1337 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1229 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 1 | 02/16/2011 1414 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 5 | 02/17/2011 1612 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 1 | 02/17/2011 1825 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|---------------|-------------|----------|
| COD | | SM 5220D | 32 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 11.1 | H | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 1.2 | | 0.020 | 0.0013 | mg/L | 1 |
| pH | | SM 4500-H B | 5.8 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 1.3 | | 0.050 | 0.024 | mg/L | 1 |
| TKN | | 351.2 | 3.9 | | 0.10 | 0.084 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-006 | | | |
| Description: SW-05-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1337 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2204 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2155 | CDF | 02/16/2011 1220 | 52899 |
| 2 | 3005A | 6010C | 1 | 02/17/2011 1254 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|------------------|------------------|-------------------|----------------|----------|---------------|----------------|-------------|----------|
| Arsenic | 7440-38-2 | 6010C | 0.015 | | 0.010 | 0.0040 | mg/L | 2 |
| Barium | 7440-39-3 | 6010C | 0.035 | | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | ND | | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.0031 | J | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | 0.0055 | J | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 6.5 | | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | 0.00087 | J | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.27 | | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-007 |
| Description: SW-06-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1322 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1229 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 1 | 02/16/2011 1415 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 1 | 02/17/2011 1633 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 1 | 02/17/2011 1825 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|---------------|-------------|----------|
| COD | | SM 5220D | 19 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 10.7 | H | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 0.92 | | 0.020 | 0.0013 | mg/L | 1 |
| pH | | SM 4500-H B | 5.51 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 0.21 | | 0.010 | 0.0048 | mg/L | 1 |
| TKN | | 351.2 | 0.65 | | 0.10 | 0.084 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-007 | | | |
| Description: SW-06-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1322 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2208 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2159 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|------------------|------------------|-------------------|---------------|----------|--------------|---------------|-------------|----------|
| Arsenic | 7440-38-2 | 6010C | ND | | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.015 | J | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | ND | | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | ND | | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 1.8 | J | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.0061 | J | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

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Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-008 |
| Description: SW-07-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1242 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1229 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 1 | 02/16/2011 1429 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 1 | 02/17/2011 1633 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 1 | 02/17/2011 1825 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|---------------|-------------|----------|
| COD | | SM 5220D | 24 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 10.5 | H | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 0.50 | | 0.020 | 0.0013 | mg/L | 1 |
| pH | | SM 4500-H B | 5.48 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 0.16 | | 0.010 | 0.0048 | mg/L | 1 |
| TKN | | 351.2 | 0.15 | | 0.10 | 0.084 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-008 | | | |
| Description: SW-07-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1242 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2215 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2202 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 0.0048 | J | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.015 | J | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | ND | | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | ND | | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | ND | | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | ND | | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-009 |
| Description: SW-08-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1315 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1229 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 1 | 02/16/2011 1430 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 1 | 02/17/2011 1631 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 1 | 02/17/2011 1825 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|--------------|----------|--------------|---------------|-------------|----------|
| COD | | SM 5220D | 17 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 11.0 | H | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 0.91 | | 0.020 | 0.0013 | mg/L | 1 |
| pH | | SM 4500-H B | 5.1 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 0.047 | | 0.010 | 0.0048 | mg/L | 1 |
| TKN | | 351.2 | 0.25 | | 0.10 | 0.084 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-009 | | | |
| Description: SW-08-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1315 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2225 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2218 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|------------------|------------------|-------------------|---------------|----------|--------------|---------------|-------------|----------|
| Arsenic | 7440-38-2 | 6010C | 0.0044 | J | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.015 | J | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | ND | | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | ND | | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | 0.0026 | J | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 1.2 | J | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.011 | J | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-010 |
| Description: SW-09-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1219 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1040 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1229 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 1 | 02/16/2011 1431 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 1 | 02/17/2011 1631 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 1 | 02/17/2011 1825 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|----------------------------|------------------|--------------------|-------------|----------|--------------|---------------|-------------|----------|
| COD | | SM 5220D | 19 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 10.8 | H | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | ND | H | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 1.1 | | 0.020 | 0.0013 | mg/L | 1 |
| pH | | SM 4500-H B | 5.5 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 0.31 | | 0.010 | 0.0048 | mg/L | 1 |
| TKN | | 351.2 | 0.71 | | 0.10 | 0.084 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-010 | | | |
| Description: SW-09-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1219 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2230 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2229 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|------------------|------------------|-------------------|---------------|----------|--------------|---------------|-------------|----------|
| Arsenic | 7440-38-2 | 6010C | ND | | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.015 | J | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | ND | | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | ND | | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 2.4 | J | 5.0 | 1.1 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 0.0090 | J | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|--------------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB16011-011 |
| Description: SW-10-021511 | Matrix: Aqueous |
| Date Sampled: 02/15/2011 1515 | |
| Date Received: 02/16/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (COD) SM 5220D | 1 | 02/17/2011 1015 | SNM | 02/16/2011 1500 | |
| 1 | | (Dissolved Ox) SM | 1 | 02/16/2011 1445 | MML | | |
| 1 | | (Hexavalent C) SM | 1 | 02/16/2011 1237 | HBB | | 52935 |
| 1 | | (Nitrate-Nitr) 353.2 | 1000 | 02/16/2011 1500 | SMH | | 52919 |
| 1 | | (pH) SM 4500-H B | 1 | 02/17/2011 0036 | PMM | | 52965 |
| 1 | | (Phosphorus) 365.1 | 2500 | 02/17/2011 1612 | HBB | 02/16/2011 1348 | 52920 |
| 1 | 351.4 | (TKN) 351.2 | 500 | 02/17/2011 1926 | HBB | 02/16/2011 1125 | 52902 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|-------|--------|-------|-----|
| COD | | SM 5220D | 960 | | 10 | 5.7 | mg/L | 1 |
| Dissolved Oxygen | | SM 4500-O G | 10.5 | | 2.00 | | mg/L | 1 |
| Hexavalent Chromium | 18540-29-9 | SM 3500-Cr D | 0.055 | | 0.010 | 0.0046 | mg/L | 1 |
| Nitrate-Nitrite - N | | 353.2 | 1100 | | 20 | 1.3 | mg/L | 1 |
| pH | | SM 4500-H B | 6.28 | H | 0.000 | 0.000 | su | 1 |
| Phosphorus | 7723-14-0 | 365.1 | 770 | | 25 | 12 | mg/L | 1 |
| TKN | | 351.2 | 960 | | 50 | 42 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|--------------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16011-011 | | | |
| Description: SW-10-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1515 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7470A | 1 | 02/16/2011 2232 | KJC | 02/16/2011 1815 | 52939 |
| 1 | 3005A | 6010C | 1 | 02/16/2011 2233 | CDF | 02/16/2011 1220 | 52899 |
| 2 | 3005A | 6010C | 50 | 02/17/2011 1302 | CDF | 02/16/2011 1220 | 52899 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 0.20 | | 0.010 | 0.0040 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.084 | | 0.025 | 0.0075 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.019 | | 0.0020 | 0.00060 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.12 | | 0.0050 | 0.0021 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | 0.047 | | 0.010 | 0.0019 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00010 | 0.000053 | mg/L | 1 |
| Potassium | 7440-09-7 | 6010C | 9000 | | 250 | 55 | mg/L | 2 |
| Selenium | 7782-49-2 | 6010C | 0.0030 | J | 0.010 | 0.0026 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.0050 | 0.00040 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 1.7 | | 0.020 | 0.0045 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

QC Summary

Inorganic non-metals - MB

Sample ID: MQ52902-001

Matrix: Aqueous

Batch: 52902

Prep Method: 351.4

Analytical Method: 351.2

Prep Date: 02/16/2011 1125

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|------|-------|-------|-----------------|
| TKN | ND | | 1 | 0.10 | 0.084 | mg/L | 02/17/2011 1825 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: MQ52902-002

Matrix: Aqueous

Batch: 52902

Prep Method: 351.4

Analytical Method: 351.2

Prep Date: 02/16/2011 1125

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| TKN | 2.0 | 2.1 | | 1 | 103 | 90-110 | 02/17/2011 1825 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: MQ52902-003

Matrix: Aqueous

Batch: 52902

Prep Method: 351.4

Analytical Method: 351.2

Prep Date: 02/16/2011 1125

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| TKN | 2.0 | 1.9 | | 1 | 97 | 6.1 | 90-110 | 20 | 02/17/2011 1825 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: MQ52919-001

Matrix: Aqueous

Batch: 52919

Analytical Method: 353.2

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|---------------------|--------|---|-----|-------|--------|-------|-----------------|
| Nitrate-Nitrite - N | ND | | 1 | 0.020 | 0.0013 | mg/L | 02/16/2011 1405 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: MQ52919-002

Matrix: Aqueous

Batch: 52919

Analytical Method: 353.2

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Nitrate-Nitrite - N | 0.80 | 0.86 | | 1 | 108 | 90-110 | 02/16/2011 1406 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: MQ52919-003

Matrix: Aqueous

Batch: 52919

Analytical Method: 353.2

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Nitrate-Nitrite - N | 0.80 | 0.85 | | 1 | 106 | 1.4 | 90-110 | 20 | 02/16/2011 1408 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: MQ52920-001

Matrix: Aqueous

Batch: 52920

Prep Method: 365.1

Analytical Method: 365.1

Prep Date: 02/16/2011 1348

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|------------|--------|---|-----|-------|--------|-------|-----------------|
| Phosphorus | ND | | 1 | 0.010 | 0.0048 | mg/L | 02/17/2011 1309 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: MQ52920-002

Matrix: Aqueous

Batch: 52920

Prep Method: 365.1

Analytical Method: 365.1

Prep Date: 02/16/2011 1348

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Phosphorus | 0.25 | 0.25 | | 1 | 99 | 90-110 | 02/17/2011 1631 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: MQ52920-003

Matrix: Aqueous

Batch: 52920

Prep Method: 365.1

Analytical Method: 365.1

Prep Date: 02/16/2011 1348

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|------------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Phosphorus | 0.25 | 0.27 | | 1 | 107 | 7.8 | 90-110 | 20 | 02/17/2011 1546 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: MQ52935-001

Matrix: Aqueous

Batch: 52935

Analytical Method: SM 3500-Cr D

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|---------------------|--------|---|-----|-------|--------|-------|-----------------|
| Hexavalent Chromium | ND | | 1 | 0.010 | 0.0046 | mg/L | 02/16/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: MQ52935-002

Matrix: Aqueous

Batch: 52935

Analytical Method: SM 3500-Cr D

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Hexavalent Chromium | 0.10 | 0.10 | | 1 | 101 | 90-110 | 02/16/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: MQ52935-003

Matrix: Aqueous

Batch: 52935

Analytical Method: SM 3500-Cr D

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Hexavalent Chromium | 0.10 | 0.10 | | 1 | 100 | 0.17 | 90-110 | 20 | 02/16/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: MB16011-002MS

Matrix: Aqueous

Batch: 52935

Analytical Method: SM 3500-Cr D

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Hexavalent Chromium | ND | 0.10 | 0.074 | | 1 | 74 | 70-130 | 02/16/2011 1238 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: MB16011-002MD

Matrix: Aqueous

Batch: 52935

Analytical Method: SM 3500-Cr D

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|----------------------|---------------------|---------------|-----|-----|-------|-------|-------------|-------------|-----------------|
| Hexavalent Chromium | ND | 0.10 | 0.059 | N,+ | 1 | 59 | 24 | 70-130 | 20 | 02/16/2011 1238 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: MB16011-005MS

Matrix: Aqueous

Batch: 52935

Analytical Method: SM 3500-Cr D

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Hexavalent Chromium | ND | 0.10 | 0.086 | | 1 | 86 | 70-130 | 02/16/2011 1237 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: MB16011-005MD

Matrix: Aqueous

Batch: 52935

Analytical Method: SM 3500-Cr D

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|----------------------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Hexavalent Chromium | ND | 0.10 | 0.088 | | 1 | 88 | 2.5 | 70-130 | 20 | 02/16/2011 1237 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: MQ52965-001

Matrix: Aqueous

Batch: 52965

Analytical Method: SM 4500-H B

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|-------|-------|-------|-----------------|
| pH | 6.07 | | 1 | 0.000 | 0.000 | su | 02/17/2011 0036 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: MB16011-010DU

Matrix: Aqueous

Batch: 52965

Analytical Method: SM 4500-H B

| Parameter | Sample Amount (su) | Result | Q | Dil | % RPD | % RPD Limit | Analysis Date |
|-----------|--------------------|--------|---|-----|-------|-------------|-----------------|
| pH | 5.5 | 5.5 | | 1 | 0.00 | 20 | 02/17/2011 0036 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MB

Sample ID: MQ52899-001

Matrix: Aqueous

Batch: 52899

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 02/16/2011 1220

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|--------|---------|-------|-----------------|
| Arsenic | ND | | 1 | 0.010 | 0.0040 | mg/L | 02/16/2011 2113 |
| Barium | ND | | 1 | 0.025 | 0.0075 | mg/L | 02/16/2011 2113 |
| Cadmium | ND | | 1 | 0.0020 | 0.00060 | mg/L | 02/16/2011 2113 |
| Chromium | ND | | 1 | 0.0050 | 0.0021 | mg/L | 02/16/2011 2113 |
| Lead | ND | | 1 | 0.010 | 0.0019 | mg/L | 02/16/2011 2113 |
| Potassium | ND | | 1 | 5.0 | 1.1 | mg/L | 02/16/2011 2113 |
| Selenium | ND | | 1 | 0.010 | 0.0026 | mg/L | 02/16/2011 2113 |
| Silver | ND | | 1 | 0.0050 | 0.00040 | mg/L | 02/16/2011 2113 |
| Zinc | ND | | 1 | 0.020 | 0.0045 | mg/L | 02/16/2011 2113 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCS

Sample ID: MQ52899-002

Matrix: Aqueous

Batch: 52899

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 02/16/2011 1220

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Arsenic | 0.40 | 0.40 | | 1 | 99 | 80-120 | 02/16/2011 2117 |
| Barium | 2.0 | 1.9 | | 1 | 95 | 80-120 | 02/16/2011 2117 |
| Cadmium | 0.40 | 0.37 | | 1 | 92 | 80-120 | 02/16/2011 2117 |
| Chromium | 2.0 | 1.8 | | 1 | 92 | 80-120 | 02/16/2011 2117 |
| Lead | 0.40 | 0.38 | | 1 | 94 | 80-120 | 02/16/2011 2117 |
| Potassium | 40 | 38 | | 1 | 96 | 80-120 | 02/16/2011 2117 |
| Selenium | 0.40 | 0.39 | | 1 | 97 | 80-120 | 02/16/2011 2117 |
| Silver | 0.40 | 0.37 | | 1 | 94 | 80-120 | 02/16/2011 2117 |
| Zinc | 2.0 | 1.9 | | 1 | 95 | 80-120 | 02/16/2011 2117 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCSD

Sample ID: MQ52899-003

Matrix: Aqueous

Batch: 52899

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 02/16/2011 1220

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Arsenic | 0.40 | 0.42 | | 1 | 104 | 5.1 | 80-120 | 20 | 02/16/2011 2121 |
| Barium | 2.0 | 2.0 | | 1 | 99 | 4.4 | 80-120 | 20 | 02/16/2011 2121 |
| Cadmium | 0.40 | 0.39 | | 1 | 97 | 5.4 | 80-120 | 20 | 02/16/2011 2121 |
| Chromium | 2.0 | 1.9 | | 1 | 97 | 5.5 | 80-120 | 20 | 02/16/2011 2121 |
| Lead | 0.40 | 0.38 | | 1 | 95 | 0.94 | 80-120 | 20 | 02/16/2011 2121 |
| Potassium | 40 | 41 | | 1 | 101 | 5.7 | 80-120 | 20 | 02/16/2011 2121 |
| Selenium | 0.40 | 0.41 | | 1 | 102 | 5.3 | 80-120 | 20 | 02/16/2011 2121 |
| Silver | 0.40 | 0.39 | | 1 | 99 | 5.4 | 80-120 | 20 | 02/16/2011 2121 |
| Zinc | 2.0 | 2.0 | | 1 | 100 | 5.5 | 80-120 | 20 | 02/16/2011 2121 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MS

Sample ID: MB16011-003MS

Matrix: Aqueous

Batch: 52899

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 02/16/2011 1220

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Arsenic | 0.012 | 0.40 | 0.39 | | 1 | 94 | 75-125 | 02/16/2011 2144 |
| Barium | 0.026 | 2.0 | 1.9 | | 1 | 94 | 75-125 | 02/16/2011 2144 |
| Cadmium | ND | 0.40 | 0.37 | | 1 | 92 | 75-125 | 02/16/2011 2144 |
| Chromium | 0.0037 | 2.0 | 1.9 | | 1 | 93 | 75-125 | 02/16/2011 2144 |
| Lead | 0.0093 | 0.40 | 0.38 | | 1 | 92 | 75-125 | 02/16/2011 2144 |
| Potassium | 26 | 40 | 62 | | 1 | 90 | 75-125 | 02/16/2011 2144 |
| Selenium | ND | 0.40 | 0.38 | | 1 | 95 | 75-125 | 02/16/2011 2144 |
| Silver | ND | 0.40 | 0.38 | | 1 | 94 | 75-125 | 02/16/2011 2144 |
| Zinc | 0.17 | 2.0 | 2.1 | | 1 | 94 | 75-125 | 02/16/2011 2144 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MS

Sample ID: MB16011-008MS

Matrix: Aqueous

Batch: 52899

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 02/16/2011 1220

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Arsenic | 0.0048 | 0.40 | 0.41 | | 1 | 100 | 75-125 | 02/16/2011 2206 |
| Barium | 0.015 | 2.0 | 2.0 | | 1 | 98 | 75-125 | 02/16/2011 2206 |
| Cadmium | ND | 0.40 | 0.38 | | 1 | 96 | 75-125 | 02/16/2011 2206 |
| Chromium | ND | 2.0 | 1.9 | | 1 | 95 | 75-125 | 02/16/2011 2206 |
| Lead | ND | 0.40 | 0.39 | | 1 | 97 | 75-125 | 02/16/2011 2206 |
| Potassium | ND | 40 | 40 | | 1 | 99 | 75-125 | 02/16/2011 2206 |
| Selenium | ND | 0.40 | 0.41 | | 1 | 102 | 75-125 | 02/16/2011 2206 |
| Silver | ND | 0.40 | 0.39 | | 1 | 97 | 75-125 | 02/16/2011 2206 |
| Zinc | ND | 2.0 | 2.0 | | 1 | 99 | 75-125 | 02/16/2011 2206 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MSD

Sample ID: MB16011-008MD

Matrix: Aqueous

Batch: 52899

Prep Method: 3005A

Analytical Method: 6010C

Prep Date: 02/16/2011 1220

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Arsenic | 0.0048 | 0.40 | 0.40 | | 1 | 99 | 1.1 | 75-125 | 20 | 02/16/2011 2210 |
| Barium | 0.015 | 2.0 | 2.0 | | 1 | 98 | 0.46 | 75-125 | 20 | 02/16/2011 2210 |
| Cadmium | ND | 0.40 | 0.38 | | 1 | 95 | 0.80 | 75-125 | 20 | 02/16/2011 2210 |
| Chromium | ND | 2.0 | 1.9 | | 1 | 95 | 0.53 | 75-125 | 20 | 02/16/2011 2210 |
| Lead | ND | 0.40 | 0.39 | | 1 | 98 | 0.51 | 75-125 | 20 | 02/16/2011 2210 |
| Potassium | ND | 40 | 40 | | 1 | 101 | 1.4 | 75-125 | 20 | 02/16/2011 2210 |
| Selenium | ND | 0.40 | 0.40 | | 1 | 99 | 3.5 | 75-125 | 20 | 02/16/2011 2210 |
| Silver | ND | 0.40 | 0.38 | | 1 | 96 | 0.31 | 75-125 | 20 | 02/16/2011 2210 |
| Zinc | ND | 2.0 | 2.0 | | 1 | 98 | 1.2 | 75-125 | 20 | 02/16/2011 2210 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MB

Sample ID: MQ52939-001

Matrix: Aqueous

Batch: 52939

Prep Method: 7470A

Analytical Method: 7470A

Prep Date: 02/16/2011 1815

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|---------|----------|-------|-----------------|
| Mercury | ND | | 1 | 0.00010 | 0.000053 | mg/L | 02/16/2011 2145 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCS

Sample ID: MQ52939-002

Matrix: Aqueous

Batch: 52939

Prep Method: 7470A

Analytical Method: 7470A

Prep Date: 02/16/2011 1815

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Mercury | 0.0020 | 0.0020 | | 1 | 98 | 85-115 | 02/16/2011 2148 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCSD

Sample ID: MQ52939-003

Matrix: Aqueous

Batch: 52939

Prep Method: 7470A

Analytical Method: 7470A

Prep Date: 02/16/2011 1815

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Mercury | 0.0020 | 0.0018 | | 1 | 90 | 9.1 | 85-115 | 20 | 02/16/2011 2150 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MS

Sample ID: MB16011-008MS

Matrix: Aqueous

Batch: 52939

Prep Method: 7470A

Analytical Method: 7470A

Prep Date: 02/16/2011 1815

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Mercury | ND | 0.0020 | 0.0020 | | 1 | 100 | 85-115 | 02/16/2011 2217 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MSD

Sample ID: MB16011-008MD

Matrix: Aqueous

Batch: 52939

Prep Method: 7470A

Analytical Method: 7470A

Prep Date: 02/16/2011 1815

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Mercury | ND | 0.0020 | 0.0020 | | 1 | 98 | 2.0 | 85-115 | 20 | 02/16/2011 2220 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MS

Sample ID: MB16011-009MS

Matrix: Aqueous

Batch: 52939

Prep Method: 7470A

Analytical Method: 7470A

Prep Date: 02/16/2011 1815

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Mercury | ND | 0.0020 | 0.0020 | | 1 | 100 | 85-115 | 02/16/2011 2227 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results



Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 03227

SHEALY ENVIRONMENTAL SERVICES, INC.

| | | | | | | | |
|---|--------------------|---|--|--|-----------------------------|--|---|
| Client TETRA TECH | | Report to Contact JESSICA VICKERS | | Sampler (Printed Name) | | Quote No. | |
| Address 1955 EVERGREEN BLVD | | Telephone No. / Fax No. / Email 678 775-3104 | | Waybill No. | | Page 1 of 2 | |
| City DULUTH | State GA | Zip Code 30096 | Preservative 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio. | | Number of Containers | | Bottle (See instructions on back) |
| Project Name AGRIVM FIRE | | Project Number | | P.O Number | | Lot No. MB16011 | |
| Sample ID / Description (Containers for each sample may be combined on one line) | | Date | Time | G-Grab C-Composite | Matrix CW DW WW SW Other | Remarks / Cooler ID | |
| SW-01-021511 | | 2/15/11 | | G | X | Analysis BOD, DO, PH COD/H2O2/HNO3 TKN/Phos RCA metals+TKN Heavy Metals Chromium | |
| SW-02-021511 | | | | G | X | | |
| SW-03-021511 | | | | G | X | | |
| SW-03-021511-Dup | | | | G | X | | |
| SW-04-021511 | | | | G | X | | |
| SW-05-021511 | | | | G | X | | |
| SW-06-021511 | | | | G | X | | |
| SW-07-021511 | | | | G | X | | |
| SW-08-021511 | | | | G | X | | |
| SW-09-021511 | | | | G | X | | |
| Turn Around Time Required (Prior lab approval required for expedited TAT) <input type="checkbox"/> Standard <input type="checkbox"/> Rush (Please Specify) | | Sample Disposal <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab | | QC Requirements (Specify) | | Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown | |
| 1. Relinquished by / Sampler | | Date | Time | 1. Received by | | Date | Time |
| 2. Relinquished by | | Date | Time | 2. Received by | | Date | Time |
| 3. Relinquished by | | Date | Time | 3. Received by | | Date | Time |
| 4. Relinquished by FEDEx 2-16-11 0905 | | Date | Time | 4. Laboratory Received by [Signature] | | Date 2-16-11 | Time 0905 |
| Note: All samples are retained for six weeks from receipt unless other arrangements are made. | | | | LAB USE ONLY Received on Ice (Check) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack | | Receipt Temp. 1.0 °C | Temp. Blank <input type="checkbox"/> Y <input type="checkbox"/> N |

1.0 1.8



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Number 03223

SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
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Page 1 of 1
Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: Tetra Tech Cooler Inspected by/date: CC 7/10/11 Lot #: MB 16012
MB 16011

| | | |
|---|--|--|
| Means of receipt: <input type="checkbox"/> SESI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other | | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 1. Were custody seals present on the cooler? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 2. If custody seals were present, were they intact and unbroken? | |
| Cooler ID/temperature upon receipt <u>1-0</u> °C <u>1-8</u> °C <u>/</u> °C <u>/</u> °C <u>1-4</u> °C <u>/</u> °C <u>/</u> °C <u>/</u> °C | | |
| Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles | | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | | |
| If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided. | | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: <u>/</u> . (For coolers received via commercial courier, PMs are to be notified immediately.) | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 4. Is the commercial courier's packing slip attached to this form? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 5. Were proper custody procedures (relinquished/received) followed? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 6. Were sample IDs listed? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 7. Was collection date & time listed? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 8. Were tests to be performed listed on the COC or was quote # provided? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 9. Did all samples arrive in the proper containers for each test? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 10. Did all container label information (ID, date, time) agree with COC? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 11. Did all containers arrive in good condition (unbroken, lids on, etc.)? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 12. Was adequate sample volume available? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 13. Were all samples received within ½ the holding time or 48 hours, whichever comes first? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 14. Were any samples containers missing? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 15. Were there any excess samples not listed on COC? | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> | 16. Were bubbles present > "pca-size" (¼" or 6mm in diameter) in any VOA vials? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2? | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> | 18. Were all cyanide and/or sulfide samples received at a pH >12? | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine? | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> | 20. Were collection temperatures documented on the COC for NC samples? | |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | | |
| Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) with the SR # (number) _____ | | |
| Sample(s) _____ were received with bubbles >6 mm in diameter. | | |
| Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb. | | |
| Toxicity sample(s) _____ were received with TRC >0.1 mg/L and were analyzed by method 330.5. | | |

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

Did client respond: Yes ☐ No ☐

SESI employee: _____

Date of response: _____

Comments: _____

Report of Analysis

Tetra Tech EM Inc.
1955 Evergreen Boulevard
Building 200, Suite 300
Duluth, GA 30096
Attention: Jessica Vickers

Project Name: Agrium Fire

Lot Number: MB16012
Date Completed: 02/22/2011



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

*** MB16012 ***

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DEHNR No: 329

Case Narrative

Tetra Tech EM Inc.

Lot Number: MB16012

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary Tetra Tech EM Inc. Lot Number: MB16012

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|-----------------|---------|-----------------|---------------|
| 001 | SW-01-021511 | Aqueous | 02/15/2011 1507 | 02/16/2011 |
| 002 | SW-02-021511 | Aqueous | 02/15/2011 1527 | 02/16/2011 |
| 003 | SW-03-021511 | Aqueous | 02/15/2011 1357 | 02/16/2011 |
| 004 | SW-03-021511DUP | Aqueous | 02/15/2011 1357 | 02/16/2011 |
| 005 | SW-04-021511 | Aqueous | 02/15/2011 1345 | 02/16/2011 |
| 006 | SW-05-021511 | Aqueous | 02/15/2011 1337 | 02/16/2011 |
| 007 | SW-06-021511 | Aqueous | 02/15/2011 1322 | 02/16/2011 |
| 008 | SW-07-021511 | Aqueous | 02/15/2011 1242 | 02/16/2011 |
| 009 | SW-08-021511 | Aqueous | 02/15/2011 1315 | 02/16/2011 |
| 010 | SW-09-021511 | Aqueous | 02/15/2011 1219 | 02/16/2011 |
| 011 | SW-10-021511 | Aqueous | 02/15/2011 1515 | 02/16/2011 |

(11 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

Tetra Tech EM Inc.

Lot Number: MB16012

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|-----------------|---------|------------|----------|--------|---|-------|------|
| 002 | SW-02-021511 | Aqueous | BOD, 5 day | SM 5210B | 2.4 | | mg/L | 6 |
| 004 | SW-03-021511DUP | Aqueous | BOD, 5 day | SM 5210B | 2.4 | | mg/L | 8 |
| 005 | SW-04-021511 | Aqueous | BOD, 5 day | SM 5210B | 2.5 | | mg/L | 9 |
| 006 | SW-05-021511 | Aqueous | BOD, 5 day | SM 5210B | 3.3 | | mg/L | 10 |
| 011 | SW-10-021511 | Aqueous | BOD, 5 day | SM 5210B | 88 | | mg/L | 15 |

(5 detections)

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-001 | | | |
| Description: SW-01-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1507 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1156 | SMH | 02/16/2011 1154 | 6197 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | ND | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-002 | | | |
| Description: SW-02-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1527 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1156 | SMH | 02/16/2011 1154 | 6197 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | 2.4 | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-003 | | | |
| Description: SW-03-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1357 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | ND | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

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Level 1 Report v2.1

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-004 | | | |
| Description: SW-03-021511DUP | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1357 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | 2.4 | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

ND = Not detected at or above the PQL

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank

J = Estimated result < PQL and \geq MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-005 | | | |
| Description: SW-04-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1345 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | 2.5 | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-006 | | | |
| Description: SW-05-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1337 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | 3.3 | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-007 | | | |
| Description: SW-06-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1322 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | ND | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

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Level 1 Report v2.1

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-008 | | | |
| Description: SW-07-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1242 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | ND | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-009 | | | |
| Description: SW-08-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1315 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | ND | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-010 | | | |
| Description: SW-09-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1219 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | ND | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

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Level 1 Report v2.1

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|----------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB16012-011 | | | |
| Description: SW-10-021511 | | | | Matrix: Aqueous | | | |
| Date Sampled: 02/15/2011 1515 | | | | | | | |
| Date Received: 02/16/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (BOD, 5 day) SM 5210B | 1 | 02/21/2011 1405 | SMH | 02/16/2011 1503 | 6198 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | Units | Run |
|------------|------------|-------------------|--------|---|-----|-------|-----|
| BOD, 5 day | | SM 5210B | 88 | | 2.0 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the PQL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

QC Summary



Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 03227

| | | | | | | | | | | | |
|---|--------------------|--------------------------|---|---------------------|---|--|--|------------------------|--|---|---|
| Client TETRA TECH | | | Report to Contact JESSICA VICKERS | | | Sampler (Printed Name) | | | Quote No. | | |
| Address 1955 EVERGREEN BLVD | | | Telephone No. / Fax No. / Email 678 775-3104 | | | Waybill No. | | | Page 1 of 2 | | |
| City DULUTH | State GA | Zip Code 30096 | Preservative 1. Unpres. 4. HNO3 7. NaOH 2. NaOH/ZnA 5. HCL 3. H2SO4 6. Na Thio. | | | | | | Number of Containers | | |
| Project Name AGRIVM FIRE | | | Project Number | | | P.O. Number | | | Bottle (See Instructions on back) | | |
| Sample ID / Description (Containers for each sample may be combined on one line) | | | Date | Time | G=Grab C=Composite | Matrix GW DW WW SW Other | | | Analysis | | |
| SW-01-021511 | | | 2/15/11 | | G | | | | X | X | X |
| SW-02-021511 | | | | | G | | | | X | X | X |
| SW-03-021511 | | | | | G | | | | X | X | X |
| SW-03-021511-DWP | | | | | G | | | | X | X | X |
| SW-04-021511 | | | | | G | | | | X | X | X |
| SW-05-021511 | | | | | G | | | | X | X | X |
| SW-06-021511 | | | | | G | | | | X | X | X |
| SW-07-021511 | | | | | G | | | | X | X | X |
| SW-08-021511 | | | | | G | | | | X | X | X |
| SW-09-021511 | | | | | G | | | | X | X | X |
| Turn Around Time Required (Prior lab approval required for expedited TAT) <input type="checkbox"/> Standard <input type="checkbox"/> Rush (Please Specify) | | | Sample Disposal <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab | | | QC Requirements (Specify) | | | Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input type="checkbox"/> Unknown | | |
| 1. Relinquished by / Sampler | | | Date | Time | 1. Received by | | | Date | Time | | |
| 2. Relinquished by | | | Date | Time | 2. Received by | | | Date | Time | | |
| 3. Relinquished by | | | Date | Time | 3. Received by | | | Date | Time | | |
| 4. Relinquished by FEDIX 2-16-11 | | | Date 2-16-11 | Time 0905 | 4. Laboratory Received by <i>[Signature]</i> | | | Date 2-16-11 | Time 0905 | | |
| Note: All samples are retained for six weeks from receipt unless other arrangements are made. | | | | | | LAB USE ONLY Received on Ice (Check) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Pack | | | Receipt Temp. 1.0 °C Temp. Blank <input type="checkbox"/> Y <input type="checkbox"/> N 1.8 | | |



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Number 03223

SHEALY ENVIRONMENTAL SERVICES, INC

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Page 1 of 1
Replaces Date: 06/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: Tetra Tech

Cooler Inspected by/date: CC 3/16/11

Lot #: MB 16012

| | | |
|---|---|--|
| Means of receipt: <input type="checkbox"/> SESI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other | | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 1. Were custody seals present on the cooler? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 2. If custody seals were present, were they intact and unbroken? | |
| Cooler ID/temperature upon receipt: <u>1-0</u> °C <u>1-8</u> °C <u>1</u> °C <u>1</u> °C | | |
| Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles | | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | | |
| If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided. | | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> | 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.) | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 4. Is the commercial courier's packing slip attached to this form? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 5. Were proper custody procedures (relinquished/received) followed? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 6. Were sample IDs listed? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 7. Was collection date & time listed? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 8. Were tests to be performed listed on the COC or was quote # provided? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 9. Did all samples arrive in the proper containers for each test? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 10. Did all container label information (ID, date, time) agree with COC? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 11. Did all containers arrive in good condition (unbroken, lids on, etc.)? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 12. Was adequate sample volume available? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 13. Were all samples received within ½ the holding time or 48 hours, whichever comes first? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 14. Were any samples containers missing? | |
| Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA <input type="checkbox"/> | 15. Were there any excess samples not listed on COC? | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> | 16. Were bubbles present > "pea-size" (¼" or 6mm in diameter) in any VOA vials? | |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2? | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> | 18. Were all cyanide and/or sulfide samples received at a pH >12? | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/> | 19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine? | |
| Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> | 20. Were collection temperatures documented on the COC for NC samples? | |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | | |
| Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) with the SR # (number) | | |
| Sample(s) _____ were received with bubbles > 6 mm in diameter. | | |
| Sample(s) _____ were received with TRC > 0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb. | | |
| Toxicity sample(s) _____ were received with TRC > 0.1 mg/L and were analyzed by method 330.5. | | |

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

SESI employee: _____

Comments: _____

Did client respond: Yes ☐ No ☐

Date of response: _____

Report of Analysis

Tetra Tech EM Inc.
1955 Evergreen Boulevard
Building 200, Suite 300
Duluth, GA 30096
Attention: Jessica Vickers

Project Name: Agrium

Lot Number: MB17032
Date Completed: 02/18/2011



Nisreen Saikaly
Project Manager



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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

*** MB17032 ***

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DEHNR No: 329

Case Narrative

Tetra Tech EM Inc.

Lot Number: MB17032

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary Tetra Tech EM Inc. Lot Number: MB17032

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|------------------|--------|-----------------|---------------|
| 001 | 02-SD-021611 | Solid | 02/16/2011 1215 | 02/17/2011 |
| 002 | 02-SD-021611-DUP | Solid | 02/16/2011 1215 | 02/17/2011 |
| 003 | 05-SD-021611 | Solid | 02/16/2011 1132 | 02/17/2011 |
| 004 | 07-SD-021611 | Solid | 02/16/2011 1555 | 02/17/2011 |

(4 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

Tetra Tech EM Inc.

Lot Number: MB17032

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|------------------|--------|---------------------|--------|--------|----|-------|------|
| 001 | 02-SD-021611 | Solid | Hexavalent Chromium | 7196A | 0.98 | BJ | mg/kg | 5 |
| 001 | 02-SD-021611 | Solid | Arsenic | 6010C | 3.0 | | mg/kg | 6 |
| 001 | 02-SD-021611 | Solid | Barium | 6010C | 110 | | mg/kg | 6 |
| 001 | 02-SD-021611 | Solid | Cadmium | 6010C | 1.6 | | mg/kg | 6 |
| 001 | 02-SD-021611 | Solid | Chromium | 6010C | 33 | | mg/kg | 6 |
| 001 | 02-SD-021611 | Solid | Lead | 6010C | 47 | B | mg/kg | 6 |
| 001 | 02-SD-021611 | Solid | Mercury | 7471B | 0.051 | J | mg/kg | 6 |
| 001 | 02-SD-021611 | Solid | Selenium | 6010C | 0.65 | J | mg/kg | 6 |
| 001 | 02-SD-021611 | Solid | Silver | 6010C | 0.26 | J | mg/kg | 6 |
| 001 | 02-SD-021611 | Solid | Zinc | 6010C | 470 | | mg/kg | 6 |
| 002 | 02-SD-021611-DUP | Solid | Hexavalent Chromium | 7196A | 2.4 | BJ | mg/kg | 7 |
| 002 | 02-SD-021611-DUP | Solid | Arsenic | 6010C | 3.2 | | mg/kg | 8 |
| 002 | 02-SD-021611-DUP | Solid | Barium | 6010C | 120 | | mg/kg | 8 |
| 002 | 02-SD-021611-DUP | Solid | Cadmium | 6010C | 1.9 | | mg/kg | 8 |
| 002 | 02-SD-021611-DUP | Solid | Chromium | 6010C | 47 | | mg/kg | 8 |
| 002 | 02-SD-021611-DUP | Solid | Lead | 6010C | 53 | B | mg/kg | 8 |
| 002 | 02-SD-021611-DUP | Solid | Mercury | 7471B | 0.052 | J | mg/kg | 8 |
| 002 | 02-SD-021611-DUP | Solid | Zinc | 6010C | 600 | | mg/kg | 8 |
| 003 | 05-SD-021611 | Solid | Barium | 6010C | 2.7 | | mg/kg | 10 |
| 003 | 05-SD-021611 | Solid | Cadmium | 6010C | 0.029 | J | mg/kg | 10 |
| 003 | 05-SD-021611 | Solid | Chromium | 6010C | 1.8 | | mg/kg | 10 |
| 003 | 05-SD-021611 | Solid | Lead | 6010C | 4.1 | B | mg/kg | 10 |
| 003 | 05-SD-021611 | Solid | Zinc | 6010C | 5.9 | | mg/kg | 10 |
| 004 | 07-SD-021611 | Solid | Hexavalent Chromium | 7196A | 2.8 | B | mg/kg | 11 |
| 004 | 07-SD-021611 | Solid | Arsenic | 6010C | 1.0 | | mg/kg | 12 |
| 004 | 07-SD-021611 | Solid | Barium | 6010C | 15 | | mg/kg | 12 |
| 004 | 07-SD-021611 | Solid | Chromium | 6010C | 58 | | mg/kg | 12 |
| 004 | 07-SD-021611 | Solid | Lead | 6010C | 50 | B | mg/kg | 12 |
| 004 | 07-SD-021611 | Solid | Mercury | 7471B | 0.016 | J | mg/kg | 12 |
| 004 | 07-SD-021611 | Solid | Zinc | 6010C | 20 | | mg/kg | 12 |

(30 detections)

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17032-001 | | | |
| Description: 02-SD-021611 | | | | Matrix: Solid | | | |
| Date Sampled: 02/16/2011 1215 | | | | % Solids: 36.9 02/18/2011 0802 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | | |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|--|--|
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/18/2011 1600 | SNM | 02/17/2011 1513 | 53034 | | |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|----|-----|------|-------|-----|
| Hexavalent Chromium | 18540-29-9 | 7196A | 0.98 | BJ | 2.7 | 0.68 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17032-001 | | | |
| Description: 02-SD-021611 | | | | Matrix: Solid | | | |
| Date Sampled: 02/16/2011 1215 | | | | % Solids: 36.9 02/18/2011 0802 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7471B | 1 | 02/18/2011 0008 | KJC | 02/17/2011 2102 | 53040 |
| 1 | 3050B | 6010C | 1 | 02/18/2011 1314 | CDF | 02/17/2011 1656 | 52995 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|------|-------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 3.0 | | 1.2 | 0.46 | mg/kg | 1 |
| Barium | 7440-39-3 | 6010C | 110 | | 3.2 | 0.22 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 1.6 | | 0.25 | 0.026 | mg/kg | 1 |
| Chromium | 7440-47-3 | 6010C | 33 | | 0.62 | 0.13 | mg/kg | 1 |
| Lead | 7439-92-1 | 6010C | 47 | B | 1.2 | 0.23 | mg/kg | 1 |
| Mercury | 7439-97-6 | 7471B | 0.051 | J | 0.22 | 0.016 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | 0.65 | J | 1.2 | 0.43 | mg/kg | 1 |
| Silver | 7440-22-4 | 6010C | 0.26 | J | 0.62 | 0.10 | mg/kg | 1 |
| Zinc | 7440-66-6 | 6010C | 470 | | 6.2 | 0.84 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

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Level 1 Report v2.1

Inorganic non-metals

| | |
|-------------------------------|--------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17032-002 |
| Description: 02-SD-021611-DUP | Matrix: Solid |
| Date Sampled: 02/16/2011 1215 | % Solids: 32.3 02/18/2011 0802 |
| Date Received: 02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | | | |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|--|--|--|
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/18/2011 1600 | SNM | 02/17/2011 1513 | 53034 | | | |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|----|-----|------|-------|-----|
| Hexavalent Chromium | 18540-29-9 | 7196A | 2.4 | BJ | 3.1 | 0.78 | mg/kg | 1 |

PQL = Practical quantitation limit

ND = Not detected at or above the MDL

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank

J = Estimated result < PQL and \geq MDL

E = Quantitation of compound exceeded the calibration range

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | |
|-------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17032-002 |
| Description: 02-SD-021611-DUP | Matrix: Solid |
| Date Sampled:02/16/2011 1215 | % Solids: 32.3 02/18/2011 0802 |
| Date Received:02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7471B | 1 | 02/18/2011 0010 | KJC | 02/17/2011 2102 | 53040 |
| 1 | 3050B | 6010C | 1 | 02/18/2011 1320 | CDF | 02/17/2011 1656 | 52995 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|------|-------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 3.2 | | 1.4 | 0.54 | mg/kg | 1 |
| Barium | 7440-39-3 | 6010C | 120 | | 3.7 | 0.26 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 1.9 | | 0.29 | 0.030 | mg/kg | 1 |
| Chromium | 7440-47-3 | 6010C | 47 | | 0.72 | 0.15 | mg/kg | 1 |
| Lead | 7439-92-1 | 6010C | 53 | B | 1.4 | 0.27 | mg/kg | 1 |
| Mercury | 7439-97-6 | 7471B | 0.052 | J | 0.25 | 0.018 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 1.4 | 0.50 | mg/kg | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.72 | 0.12 | mg/kg | 1 |
| Zinc | 7440-66-6 | 6010C | 600 | | 7.2 | 0.98 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17032-003 | | | |
| Description: 05-SD-021611 | | | | Matrix: Solid | | | |
| Date Sampled: 02/16/2011 1132 | | | | % Solids: 85.0 02/18/2011 0802 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | | | |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|--|--|--|
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/18/2011 1600 | SNM | 02/17/2011 1513 | 53034 | | | |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|-----|------|-------|-----|
| Hexavalent Chromium | 18540-29-9 | 7196A | ND | | 1.2 | 0.30 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17032-003 | | | |
| Description: 05-SD-021611 | | | | Matrix: Solid | | | |
| Date Sampled: 02/16/2011 1132 | | | | % Solids: 85.0 02/18/2011 0802 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7471B | 1 | 02/18/2011 0012 | KJC | 02/17/2011 2102 | 53040 |
| 1 | 3050B | 6010C | 1 | 02/18/2011 1326 | CDF | 02/17/2011 1656 | 52995 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|-------|--------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | ND | | 0.57 | 0.22 | mg/kg | 1 |
| Barium | 7440-39-3 | 6010C | 2.7 | | 1.5 | 0.10 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.029 | J | 0.11 | 0.012 | mg/kg | 1 |
| Chromium | 7440-47-3 | 6010C | 1.8 | | 0.29 | 0.058 | mg/kg | 1 |
| Lead | 7439-92-1 | 6010C | 4.1 | B | 0.57 | 0.11 | mg/kg | 1 |
| Mercury | 7439-97-6 | 7471B | ND | | 0.093 | 0.0066 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.57 | 0.20 | mg/kg | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.29 | 0.048 | mg/kg | 1 |
| Zinc | 7440-66-6 | 6010C | 5.9 | | 2.9 | 0.39 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

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Level 1 Report v2.1

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17032-004 | | | |
| Description: 07-SD-021611 | | | | Matrix: Solid | | | |
| Date Sampled: 02/16/2011 1555 | | | | % Solids: 51.2 02/18/2011 0802 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | | |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|--|--|
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/18/2011 1600 | SNM | 02/17/2011 1513 | 53034 | | |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|-----|------|-------|-----|
| Hexavalent Chromium | 18540-29-9 | 7196A | 2.8 | B | 2.0 | 0.49 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17032-004 | | | |
| Description: 07-SD-021611 | | | | Matrix: Solid | | | |
| Date Sampled: 02/16/2011 1555 | | | | % Solids: 51.2 02/18/2011 0802 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7471B | 1 | 02/18/2011 0014 | KJC | 02/17/2011 2102 | 53040 |
| 1 | 3050B | 6010C | 1 | 02/18/2011 1332 | CDF | 02/17/2011 1656 | 52995 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|------|-------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 1.0 | | 0.96 | 0.36 | mg/kg | 1 |
| Barium | 7440-39-3 | 6010C | 15 | | 2.5 | 0.17 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | ND | | 0.19 | 0.020 | mg/kg | 1 |
| Chromium | 7440-47-3 | 6010C | 58 | | 0.48 | 0.097 | mg/kg | 1 |
| Lead | 7439-92-1 | 6010C | 50 | B | 0.96 | 0.18 | mg/kg | 1 |
| Mercury | 7439-97-6 | 7471B | 0.016 | J | 0.15 | 0.011 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.96 | 0.33 | mg/kg | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.48 | 0.080 | mg/kg | 1 |
| Zinc | 7440-66-6 | 6010C | 20 | | 4.8 | 0.65 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

QC Summary

Inorganic non-metals - MB

Sample ID: MQ53034-001

Batch: 53034

Analytical Method: 7196A

Matrix: Solid

Prep Method: 3060A

Prep Date: 02/17/2011 1513

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|---------------------|--------|---|-----|-----|------|-------|-----------------|
| Hexavalent Chromium | 0.36 | J | 1 | 1.0 | 0.25 | mg/kg | 02/18/2011 1600 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: MQ53034-002

Batch: 53034

Analytical Method: 7196A

Matrix: Solid

Prep Method: 3060A

Prep Date: 02/17/2011 1513

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|----------------------------|-------------------|---|-----|-------|----------------|-----------------|
| Hexavalent Chromium | 4.0 | 4.3 | | 1 | 107 | 90-110 | 02/18/2011 1600 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: MQ53034-003

Batch: 53034

Analytical Method: 7196A

Matrix: Solid

Prep Method: 3060A

Prep Date: 02/17/2011 1513

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|----------------------------|-------------------|---|-----|-------|-------|----------------|----------------|-----------------|
| Hexavalent Chromium | 4.0 | 4.0 | | 1 | 99 | 7.8 | 90-110 | 20 | 02/18/2011 1600 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: MB17032-003MS

Matrix: Solid

Batch: 53034

Prep Method: 3060A

Analytical Method: 7196A

Prep Date: 02/17/2011 1513

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Hexavalent Chromium | ND | 0.12 | 0.85 | N | 1 | 720 | 70-130 | 02/18/2011 1600 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: MB17032-003MD

Matrix: Solid

Batch: 53034

Prep Method: 3060A

Analytical Method: 7196A

Prep Date: 02/17/2011 1513

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|-----------------------|----------------------|----------------|------------------|-----|-------|-------|-------------|-------------|-----------------|
| Hexavalent Chromium | ND | 0.12 | 0.56 | N _t + | 1 | 480 | 40 | 70-130 | 20 | 02/18/2011 1600 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: MB17032-004MS

Batch: 53034

Analytical Method: 7196A

Matrix: Solid

Prep Method: 3060A

Prep Date: 02/17/2011 1513

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Hexavalent Chromium | 2.8 | 7.8 | ND | N | 1 | -36 | 70-130 | 02/18/2011 1600 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: MB17032-004MD

Matrix: Solid

Batch: 53034

Prep Method: 3060A

Analytical Method: 7196A

Prep Date: 02/17/2011 1513

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|-----------------------|----------------------|----------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Hexavalent Chromium | 2.8 | 7.8 | ND | N | 1 | -36 | 0.00 | 70-130 | 20 | 02/18/2011 1600 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MB

Sample ID: MQ52995-001

Matrix: Solid

Batch: 52995

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/17/2011 1656

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|------|-------|-------|-----------------|
| Arsenic | ND | | 1 | 0.50 | 0.19 | mg/kg | 02/18/2011 1255 |
| Barium | ND | | 1 | 1.3 | 0.091 | mg/kg | 02/18/2011 1255 |
| Cadmium | ND | | 1 | 0.10 | 0.011 | mg/kg | 02/18/2011 1255 |
| Chromium | ND | | 1 | 0.25 | 0.051 | mg/kg | 02/18/2011 1255 |
| Lead | 0.39 | J | 1 | 0.50 | 0.093 | mg/kg | 02/18/2011 1255 |
| Selenium | ND | | 1 | 0.50 | 0.17 | mg/kg | 02/18/2011 1255 |
| Silver | ND | | 1 | 0.25 | 0.042 | mg/kg | 02/18/2011 1255 |
| Zinc | ND | | 1 | 2.5 | 0.34 | mg/kg | 02/18/2011 1255 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCS

Sample ID: MQ52995-002

Matrix: Solid

Batch: 52995

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/17/2011 1656

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Arsenic | 250 | 270 | | 1 | 108 | 80-120 | 02/18/2011 1302 |
| Barium | 500 | 530 | | 1 | 106 | 80-120 | 02/18/2011 1302 |
| Cadmium | 50 | 53 | | 1 | 107 | 80-120 | 02/18/2011 1302 |
| Chromium | 250 | 270 | | 1 | 107 | 80-120 | 02/18/2011 1302 |
| Lead | 250 | 260 | | 1 | 102 | 80-120 | 02/18/2011 1302 |
| Selenium | 50 | 53 | | 1 | 106 | 80-120 | 02/18/2011 1302 |
| Silver | 250 | 270 | | 1 | 107 | 80-120 | 02/18/2011 1302 |
| Zinc | 100 | 110 | | 1 | 109 | 80-120 | 02/18/2011 1302 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCSD

Sample ID: MQ52995-003

Matrix: Solid

Batch: 52995

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/17/2011 1656

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|----------------------|----------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Arsenic | 250 | 270 | | 1 | 107 | 1.3 | 80-120 | 20 | 02/18/2011 1308 |
| Barium | 500 | 530 | | 1 | 105 | 0.96 | 80-120 | 20 | 02/18/2011 1308 |
| Cadmium | 50 | 53 | | 1 | 106 | 1.3 | 80-120 | 20 | 02/18/2011 1308 |
| Chromium | 250 | 270 | | 1 | 106 | 1.2 | 80-120 | 20 | 02/18/2011 1308 |
| Lead | 250 | 250 | | 1 | 101 | 0.87 | 80-120 | 20 | 02/18/2011 1308 |
| Selenium | 50 | 52 | | 1 | 105 | 1.0 | 80-120 | 20 | 02/18/2011 1308 |
| Silver | 250 | 260 | | 1 | 106 | 1.0 | 80-120 | 20 | 02/18/2011 1308 |
| Zinc | 100 | 110 | | 1 | 107 | 1.7 | 80-120 | 20 | 02/18/2011 1308 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MS

Sample ID: MB17032-004MS

Matrix: Solid

Batch: 52995

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/17/2011 1656

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Arsenic | 1.0 | 470 | 500 | | 1 | 108 | 75-125 | 02/18/2011 1338 |
| Barium | 15 | 940 | 1000 | | 1 | 107 | 75-125 | 02/18/2011 1338 |
| Cadmium | ND | 94 | 99 | | 1 | 106 | 75-125 | 02/18/2011 1338 |
| Chromium | 58 | 470 | 510 | | 1 | 96 | 75-125 | 02/18/2011 1338 |
| Lead | 50 | 470 | 520 | | 1 | 101 | 75-125 | 02/18/2011 1338 |
| Selenium | ND | 94 | 99 | | 1 | 106 | 75-125 | 02/18/2011 1338 |
| Silver | ND | 470 | 500 | | 1 | 107 | 75-125 | 02/18/2011 1338 |
| Zinc | 20 | 190 | 220 | | 1 | 107 | 75-125 | 02/18/2011 1338 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MSD

Sample ID: MB17032-004MD

Matrix: Solid

Batch: 52995

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/17/2011 1656

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Arsenic | 1.0 | 410 | 470 | | 1 | 112 | 1.7 | 75-125 | 20 | 02/18/2011 1344 |
| Barium | 15 | 830 | 970 | | 1 | 115 | 1.1 | 75-125 | 20 | 02/18/2011 1344 |
| Cadmium | ND | 83 | 93 | | 1 | 112 | 0.75 | 75-125 | 20 | 02/18/2011 1344 |
| Chromium | 58 | 410 | 470 | | 1 | 101 | 0.82 | 75-125 | 20 | 02/18/2011 1344 |
| Lead | 50 | 410 | 490 | | 1 | 107 | 0.34 | 75-125 | 20 | 02/18/2011 1344 |
| Selenium | ND | 83 | 90 | | 1 | 108 | 3.3 | 75-125 | 20 | 02/18/2011 1344 |
| Silver | ND | 410 | 470 | | 1 | 114 | 0.054 | 75-125 | 20 | 02/18/2011 1344 |
| Zinc | 20 | 170 | 210 | | 1 | 112 | 0.51 | 75-125 | 20 | 02/18/2011 1344 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MB

Sample ID: MQ53040-001

Batch: 53040

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/17/2011 2102

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|-------|--------|-------|-----------------|
| Mercury | ND | | 1 | 0.083 | 0.0059 | mg/kg | 02/17/2011 2330 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCS

Sample ID: MQ53040-002

Batch: 53040

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/17/2011 2102

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------------|-------------------|---|-----|-------|----------------|-----------------|
| Mercury | 0.83 | 0.83 | | 1 | 100 | 85-115 | 02/17/2011 2332 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCSD

Sample ID: MQ53040-003

Batch: 53040

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/17/2011 2102

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|----------------------------|-------------------|---|-----|-------|-------|----------------|----------------|-----------------|
| Mercury | 0.83 | 0.83 | | 1 | 100 | 0.00 | 85-115 | 20 | 02/17/2011 2334 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MS

Sample ID: MB17032-004MS

Matrix: Solid

Batch: 53040

Prep Method: 7471B

Analytical Method: 7471B

Prep Date: 02/17/2011 2102

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Mercury | 0.016 | 1.3 | 1.6 | N | 1 | 123 | 85-115 | 02/18/2011 0020 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MSD

Sample ID: MB17032-004MD

Matrix: Solid

Batch: 53040

Prep Method: 7471B

Analytical Method: 7471B

Prep Date: 02/17/2011 2102

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Mercury | 0.016 | 1.4 | 1.6 | | 1 | 113 | 1.9 | 85-115 | 20 | 02/18/2011 0022 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 6

Page 1 of 1
Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: Tetra Tech Cooler Inspected by/date: mu + 2/17/11 Lot #: MB1732

| | | |
|---|--|--|
| Means of receipt: <input type="checkbox"/> SESI <input type="checkbox"/> Client <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 1. Were custody seals present on the cooler? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 2. If custody seals were present, were they intact and unbroken? | | |
| Cooler ID/temperature upon receipt: <u>1.5</u> °C <u>1</u> °C <u>1</u> °C <u>1</u> °C | | |
| Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles | | |
| Method of coolant: <input checked="" type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input type="checkbox"/> None | | |
| If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided. | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: <u>note</u> . (For coolers received via commercial courier, PMs are to be notified immediately.) | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 4. Is the commercial courier's packing slip attached to this form? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 5. Were proper custody procedures (relinquished/received) followed? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 6. Were sample IDs listed? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 7. Was collection date & time listed? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 8. Were tests to be performed listed on the COC or was quote # provided? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 9. Did all samples arrive in the proper containers for each test? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 10. Did all container label information (ID, date, time) agree with COC? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 11. Did all containers arrive in good condition (unbroken, lids on, etc.)? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 12. Was adequate sample volume available? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 13. Were all samples received within ½ the holding time or 48 hours, whichever comes first? | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| 14. Were any samples containers missing? | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| 15. Were there any excess samples not listed on COC? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 16. Were bubbles present > "pea-size" (¼" or 6mm in diameter) in any VOA vials? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 18. Were all cyanide and/or sulfide samples received at a pH >12? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 20. Were collection temperatures documented on the COC for NC samples? | | |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | | |
| Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) with the SR # (number) _____. | | |
| Sample(s) _____ were received with bubbles >6 mm in diameter. | | |
| Sample(s) _____ were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb. | | |
| Toxicity sample(s) _____ were received with TRC >0.1 mg/L and were analyzed by method 330.5. | | |

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

Did client respond: Yes ☐ No ☐

SESI employee: _____

Date of response: _____

Comments: _____

Report of Analysis

Tetra Tech EM Inc.
1955 Evergreen Boulevard
Building 200, Suite 300
Duluth, GA 30096
Attention: Jessica Vickers

Project Name: Agrium

Lot Number: MB17050
Date Completed: 02/22/2011



Nisreen Saikaly
Project Manager



This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

*** MB17050 ***

SHEALY ENVIRONMENTAL SERVICES, INC.

SC DHEC No: 32010

NELAC No: E87653

NC DEHNR No: 329

Case Narrative Tetra Tech EM Inc. Lot Number: MB17050

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Hexavalent Chromium

The MS/MSD recoveries in batch 53342 were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

Metals

The MS/MSD recoveries in batch 53074 were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

TCLP Metals

The MS recoveries in batch 53207 and 53208 were outside acceptance criteria. All other QA/QC criteria for the batch were within acceptance criteria and method control limits. The MS/MSD recovery results are attributed to matrix interference. The associated sample results were reported and no corrective action was required.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary Tetra Tech EM Inc. Lot Number: MB17050

| Sample Number | Sample ID | Matrix | Date Sampled | Date Received |
|---------------|-----------------|--------|-----------------|---------------|
| 001 | Zinc Oxide | Solid | 02/17/2011 0950 | 02/17/2011 |
| 002 | Zinc Oxide-Dup | Solid | 02/17/2011 1001 | 02/17/2011 |
| 003 | 6-3-18 YAM | Solid | 02/17/2011 1042 | 02/17/2011 |
| 004 | Bulk Fertilizer | Solid | 02/17/2011 1117 | 02/17/2011 |
| 005 | 8-16-24-RB TOB | Solid | 02/17/2011 1132 | 02/17/2011 |
| 006 | 14-4-14-RB | Solid | 02/17/2011 1205 | 02/17/2011 |

(6 samples)

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary

Tetra Tech EM Inc.

Lot Number: MB17050

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|----------------|--------|---------------------|--------|---------|----|-------|------|
| 001 | Zinc Oxide | Solid | Cyanide - Total | 9012B | 0.99 | | mg/kg | 7 |
| 001 | Zinc Oxide | Solid | Hexavalent Chromium | 7196A | 0.93 | J | mg/kg | 7 |
| 001 | Zinc Oxide | Solid | Barium | 6010C | 190 | | mg/kg | 8 |
| 001 | Zinc Oxide | Solid | Cadmium | 6010C | 840 | | mg/kg | 8 |
| 001 | Zinc Oxide | Solid | Chromium | 6010C | 1100 | B | mg/kg | 8 |
| 001 | Zinc Oxide | Solid | Lead | 6010C | 530 | | mg/kg | 8 |
| 001 | Zinc Oxide | Solid | Mercury | 7471B | 1.3 | B | mg/kg | 8 |
| 001 | Zinc Oxide | Solid | Selenium | 6010C | 21 | BJ | mg/kg | 8 |
| 001 | Zinc Oxide | Solid | Silver | 6010C | 73 | | mg/kg | 8 |
| 001 | Zinc Oxide | Solid | Zinc | 6010C | 390000 | | mg/kg | 8 |
| 001 | Zinc Oxide | Solid | Barium | 6010C | 0.26 | | mg/L | 9 |
| 001 | Zinc Oxide | Solid | Cadmium | 6010C | 1.2 | | mg/L | 9 |
| 001 | Zinc Oxide | Solid | Lead | 6010C | 0.10 | | mg/L | 9 |
| 001 | Zinc Oxide | Solid | Mercury | 7470A | 0.00032 | | mg/L | 9 |
| 001 | Zinc Oxide | Solid | Silver | 6010C | 0.021 | BJ | mg/L | 9 |
| 001 | Zinc Oxide | Solid | Zinc | 6010C | 550 | | mg/L | 9 |
| 002 | Zinc Oxide-Dup | Solid | Cyanide - Total | 9012B | 0.85 | | mg/kg | 10 |
| 002 | Zinc Oxide-Dup | Solid | Hexavalent Chromium | 7196A | 0.94 | J | mg/kg | 10 |
| 002 | Zinc Oxide-Dup | Solid | Arsenic | 6010C | 20 | J | mg/kg | 11 |
| 002 | Zinc Oxide-Dup | Solid | Barium | 6010C | 170 | | mg/kg | 11 |
| 002 | Zinc Oxide-Dup | Solid | Cadmium | 6010C | 890 | | mg/kg | 11 |
| 002 | Zinc Oxide-Dup | Solid | Chromium | 6010C | 1300 | B | mg/kg | 11 |
| 002 | Zinc Oxide-Dup | Solid | Lead | 6010C | 390 | | mg/kg | 11 |
| 002 | Zinc Oxide-Dup | Solid | Mercury | 7471B | 1.2 | B | mg/kg | 11 |
| 002 | Zinc Oxide-Dup | Solid | Silver | 6010C | 96 | | mg/kg | 11 |
| 002 | Zinc Oxide-Dup | Solid | Zinc | 6010C | 400000 | | mg/kg | 11 |
| 002 | Zinc Oxide-Dup | Solid | Barium | 6010C | 0.25 | | mg/L | 12 |
| 002 | Zinc Oxide-Dup | Solid | Cadmium | 6010C | 0.87 | | mg/L | 12 |
| 002 | Zinc Oxide-Dup | Solid | Lead | 6010C | 0.12 | | mg/L | 12 |
| 002 | Zinc Oxide-Dup | Solid | Mercury | 7470A | 0.00037 | | mg/L | 12 |
| 002 | Zinc Oxide-Dup | Solid | Silver | 6010C | 0.016 | BJ | mg/L | 12 |
| 002 | Zinc Oxide-Dup | Solid | Zinc | 6010C | 600 | | mg/L | 12 |
| 003 | 6-3-18 YAM | Solid | Cyanide - Total | 9012B | 0.38 | J | mg/kg | 13 |
| 003 | 6-3-18 YAM | Solid | Hexavalent Chromium | 7196A | 0.41 | J | mg/kg | 13 |
| 003 | 6-3-18 YAM | Solid | Arsenic | 6010C | 2.2 | | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Barium | 6010C | 75 | | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Cadmium | 6010C | 23 | | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Chromium | 6010C | 54 | B | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Lead | 6010C | 7.4 | | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Mercury | 7471B | 0.017 | BJ | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Selenium | 6010C | 1.3 | B | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Silver | 6010C | 0.78 | | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Zinc | 6010C | 16000 | | mg/kg | 14 |
| 003 | 6-3-18 YAM | Solid | Barium | 6010C | 0.046 | J | mg/L | 15 |
| 003 | 6-3-18 YAM | Solid | Cadmium | 6010C | 0.29 | | mg/L | 15 |

Executive Summary (Continued)

Lot Number: MB17050

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|--------|-----------------|--------|---------------------|--------|----------|----|-------|------|
| 003 | 6-3-18 YAM | Solid | Chromium | 6010C | 0.074 | | mg/L | 15 |
| 003 | 6-3-18 YAM | Solid | Zinc | 6010C | 29 | | mg/L | 15 |
| 004 | Bulk Fertilizer | Solid | Cyanide - Total | 9012B | 0.20 | J | mg/kg | 16 |
| 004 | Bulk Fertilizer | Solid | Hexavalent Chromium | 7196A | 1.5 | | mg/kg | 16 |
| 004 | Bulk Fertilizer | Solid | Arsenic | 6010C | 2.3 | | mg/kg | 17 |
| 004 | Bulk Fertilizer | Solid | Barium | 6010C | 32 | | mg/kg | 17 |
| 004 | Bulk Fertilizer | Solid | Cadmium | 6010C | 9.1 | | mg/kg | 17 |
| 004 | Bulk Fertilizer | Solid | Chromium | 6010C | 33 | B | mg/kg | 17 |
| 004 | Bulk Fertilizer | Solid | Lead | 6010C | 2.8 | | mg/kg | 17 |
| 004 | Bulk Fertilizer | Solid | Mercury | 7471B | 0.0089 | BJ | mg/kg | 17 |
| 004 | Bulk Fertilizer | Solid | Selenium | 6010C | 0.78 | B | mg/kg | 17 |
| 004 | Bulk Fertilizer | Solid | Zinc | 6010C | 1800 | | mg/kg | 17 |
| 004 | Bulk Fertilizer | Solid | Arsenic | 6010C | 0.030 | J | mg/L | 18 |
| 004 | Bulk Fertilizer | Solid | Barium | 6010C | 0.092 | J | mg/L | 18 |
| 004 | Bulk Fertilizer | Solid | Cadmium | 6010C | 0.040 | | mg/L | 18 |
| 004 | Bulk Fertilizer | Solid | Chromium | 6010C | 0.024 | J | mg/L | 18 |
| 004 | Bulk Fertilizer | Solid | Mercury | 7470A | 0.000058 | J | mg/L | 18 |
| 004 | Bulk Fertilizer | Solid | Zinc | 6010C | 18 | | mg/L | 18 |
| 005 | 8-16-24-RB TOB | Solid | Cyanide - Total | 9012B | 0.21 | J | mg/kg | 19 |
| 005 | 8-16-24-RB TOB | Solid | Hexavalent Chromium | 7196A | 1.1 | | mg/kg | 19 |
| 005 | 8-16-24-RB TOB | Solid | Arsenic | 6010C | 2.5 | | mg/kg | 20 |
| 005 | 8-16-24-RB TOB | Solid | Barium | 6010C | 7.4 | | mg/kg | 20 |
| 005 | 8-16-24-RB TOB | Solid | Cadmium | 6010C | 3.0 | | mg/kg | 20 |
| 005 | 8-16-24-RB TOB | Solid | Chromium | 6010C | 41 | B | mg/kg | 20 |
| 005 | 8-16-24-RB TOB | Solid | Lead | 6010C | 2.4 | | mg/kg | 20 |
| 005 | 8-16-24-RB TOB | Solid | Mercury | 7471B | 0.0081 | BJ | mg/kg | 20 |
| 005 | 8-16-24-RB TOB | Solid | Selenium | 6010C | 0.52 | B | mg/kg | 20 |
| 005 | 8-16-24-RB TOB | Solid | Zinc | 6010C | 790 | | mg/kg | 20 |
| 005 | 8-16-24-RB TOB | Solid | Arsenic | 6010C | 0.088 | J | mg/L | 21 |
| 005 | 8-16-24-RB TOB | Solid | Cadmium | 6010C | 0.093 | | mg/L | 21 |
| 005 | 8-16-24-RB TOB | Solid | Chromium | 6010C | 0.41 | | mg/L | 21 |
| 005 | 8-16-24-RB TOB | Solid | Zinc | 6010C | 9.8 | | mg/L | 21 |
| 006 | 14-4-14-RB | Solid | Cyanide - Total | 9012B | 1.4 | | mg/kg | 22 |
| 006 | 14-4-14-RB | Solid | Hexavalent Chromium | 7196A | 0.40 | J | mg/kg | 22 |
| 006 | 14-4-14-RB | Solid | Arsenic | 6010C | 1.4 | | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Barium | 6010C | 45 | | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Cadmium | 6010C | 17 | | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Chromium | 6010C | 41 | B | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Lead | 6010C | 3.0 | | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Mercury | 7471B | 0.020 | BJ | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Selenium | 6010C | 1.2 | B | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Silver | 6010C | 0.49 | | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Zinc | 6010C | 3600 | | mg/kg | 23 |
| 006 | 14-4-14-RB | Solid | Arsenic | 6010C | 0.027 | J | mg/L | 24 |
| 006 | 14-4-14-RB | Solid | Barium | 6010C | 0.047 | J | mg/L | 24 |
| 006 | 14-4-14-RB | Solid | Cadmium | 6010C | 0.65 | | mg/L | 24 |
| 006 | 14-4-14-RB | Solid | Chromium | 6010C | 0.077 | | mg/L | 24 |
| 006 | 14-4-14-RB | Solid | Zinc | 6010C | 35 | | mg/L | 24 |

Executive Summary (Continued)

Lot Number: MB17050

| Sample | Sample ID | Matrix | Parameter | Method | Result | Q | Units | Page |
|-----------------|-----------|--------|-----------|--------|--------|---|-------|------|
| (93 detections) | | | | | | | | |

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17050-001 | | | |
| Description: Zinc Oxide | | | | Matrix: Solid | | | |
| Date Sampled: 02/17/2011 0950 | | | | % Solids: 94.2 02/18/2011 0806 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (Cyanide - To) 9012B | 1 | 02/18/2011 1347 | SMH | 02/18/2011 1100 | 53120 |
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/22/2011 1229 | ARW | 02/21/2011 0830 | 53342 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|------|-------|-------|-----|
| Cyanide - Total | 57-12-5 | 9012B | 0.99 | | 0.53 | 0.066 | mg/kg | 1 |
| Hexavalent Chromium | 18540-29-9 | 7196A | 0.93 | J | 1.1 | 0.27 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Shealy Environmental Services, Inc.

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Level 1 Report v2.1

TAL Metals

| | | | |
|------------------------------|--|-----------------------------------|--|
| Client: Tetra Tech EM Inc. | | Laboratory ID: MB17050-001 | |
| Description: Zinc Oxide | | Matrix: Solid | |
| Date Sampled:02/17/2011 0950 | | % Solids: 94.2 02/18/2011 0806 | |
| Date Received: 02/17/2011 | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | 3050B | 6010C | 1 | 02/19/2011 0139 | CDF | 02/18/2011 0937 | 53074 |
| 1 | | 7471B | 1 | 02/18/2011 1143 | KJC | 02/18/2011 0930 | 53072 |
| 2 | 3050B | 6010C | 100 | 02/21/2011 2043 | CDF | 02/18/2011 0937 | 53074 |
| 3 | 3050B | 6010C | 200 | 02/21/2011 2231 | KJC | 02/18/2011 0937 | 53074 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|----|-------|--------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | ND | | 52 | 19 | mg/kg | 2 |
| Barium | 7440-39-3 | 6010C | 190 | | 1.3 | 0.094 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 840 | | 10 | 1.1 | mg/kg | 2 |
| Chromium | 7440-47-3 | 6010C | 1100 | B | 26 | 5.2 | mg/kg | 2 |
| Lead | 7439-92-1 | 6010C | 530 | | 52 | 9.6 | mg/kg | 2 |
| Mercury | 7439-97-6 | 7471B | 1.3 | B | 0.087 | 0.0062 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | 21 | BJ | 52 | 18 | mg/kg | 2 |
| Silver | 7440-22-4 | 6010C | 73 | | 26 | 4.3 | mg/kg | 2 |
| Zinc | 7440-66-6 | 6010C | 390000 | | 520 | 70 | mg/kg | 3 |

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Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TCLP Metals

| | | | | | | | |
|-------------------------------|--|--|--|-----------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17050-001 | | | |
| Description: Zinc Oxide | | | | Matrix: Solid | | | |
| Date Sampled: 02/17/2011 0950 | | | | % Solids: 94.2 02/18/2011 0806 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | Leachate Date |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|-----------------|
| 1 | 1311/7470A | 7470A | 1 | 02/21/2011 1349 | BNW | 02/21/2011 1015 | 53198 | 02/18/2011 1851 |
| 1 | 1311/3010A | 6010C | 10 | 02/21/2011 2313 | KJC | 02/21/2011 1026 | 53207 | 02/18/2011 1851 |
| 2 | 1311/3010A | 6010C | 20 | 02/22/2011 1309 | CDF | 02/21/2011 1026 | 53207 | 02/18/2011 1851 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|---------|----|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | ND | | 0.10 | 0.023 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.26 | | 0.25 | 0.023 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 1.2 | | 0.020 | 0.0030 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | ND | | 0.050 | 0.014 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | 0.10 | | 0.10 | 0.017 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | 0.00032 | | 0.00020 | 0.000053 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.20 | 0.064 | mg/L | 2 |
| Silver | 7440-22-4 | 6010C | 0.021 | BJ | 0.050 | 0.0090 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 550 | | 0.40 | 0.20 | mg/L | 2 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|-------------------------------|--------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17050-002 |
| Description: Zinc Oxide-Dup | Matrix: Solid |
| Date Sampled: 02/17/2011 1001 | % Solids: 93.6 02/18/2011 0806 |
| Date Received: 02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (Cyanide - To) 9012B | 1 | 02/18/2011 1348 | SMH | 02/18/2011 1100 | 53120 |
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/22/2011 1229 | ARW | 02/21/2011 0830 | 53342 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|------|-------|-------|-----|
| Cyanide - Total | 57-12-5 | 9012B | 0.85 | | 0.53 | 0.066 | mg/kg | 1 |
| Hexavalent Chromium | 18540-29-9 | 7196A | 0.94 | J | 1.1 | 0.27 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | |
|-------------------------------|--------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17050-002 |
| Description: Zinc Oxide-Dup | Matrix: Solid |
| Date Sampled: 02/17/2011 1001 | % Solids: 93.6 02/18/2011 0806 |
| Date Received: 02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | 3050B | 6010C | 1 | 02/19/2011 0143 | CDF | 02/18/2011 0937 | 53074 |
| 1 | | 7471B | 1 | 02/18/2011 1146 | KJC | 02/18/2011 0930 | 53072 |
| 2 | 3050B | 6010C | 100 | 02/21/2011 2050 | CDF | 02/18/2011 0937 | 53074 |
| 3 | 3050B | 6010C | 200 | 02/21/2011 2236 | KJC | 02/18/2011 0937 | 53074 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|-------|--------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 20 | J | 53 | 20 | mg/kg | 2 |
| Barium | 7440-39-3 | 6010C | 170 | | 1.4 | 0.097 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 890 | | 11 | 1.1 | mg/kg | 2 |
| Chromium | 7440-47-3 | 6010C | 1300 | B | 27 | 5.4 | mg/kg | 2 |
| Lead | 7439-92-1 | 6010C | 390 | | 53 | 9.9 | mg/kg | 2 |
| Mercury | 7439-97-6 | 7471B | 1.2 | B | 0.087 | 0.0062 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 53 | 18 | mg/kg | 2 |
| Silver | 7440-22-4 | 6010C | 96 | | 27 | 4.5 | mg/kg | 2 |
| Zinc | 7440-66-6 | 6010C | 400000 | | 530 | 72 | mg/kg | 3 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TCLP Metals

| | | | | | |
|------------------------------|--|--|-----------------------------------|--|--|
| Client: Tetra Tech EM Inc. | | | Laboratory ID: MB17050-002 | | |
| Description: Zinc Oxide-Dup | | | Matrix: Solid | | |
| Date Sampled:02/17/2011 1001 | | | % Solids: 93.6 02/18/2011 0806 | | |
| Date Received:02/17/2011 | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | Leachate Date |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|-----------------|
| 1 | 1311/7470A | 7470A | 1 | 02/21/2011 1352 | BNW | 02/21/2011 1015 | 53198 | 02/18/2011 1851 |
| 1 | 1311/3010A | 6010C | 10 | 02/21/2011 2331 | KJC | 02/21/2011 1026 | 53207 | 02/18/2011 1851 |
| 2 | 1311/3010A | 6010C | 20 | 02/22/2011 1320 | CDF | 02/21/2011 1026 | 53207 | 02/18/2011 1851 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|---------|----|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | ND | | 0.10 | 0.023 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.25 | | 0.25 | 0.023 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.87 | | 0.020 | 0.0030 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | ND | | 0.050 | 0.014 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | 0.12 | | 0.10 | 0.017 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | 0.00037 | | 0.00020 | 0.000053 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.20 | 0.064 | mg/L | 2 |
| Silver | 7440-22-4 | 6010C | 0.016 | BJ | 0.050 | 0.0090 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 600 | | 0.40 | 0.20 | mg/L | 2 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|-------------------------------|--------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17050-003 |
| Description: 6-3-18 YAM | Matrix: Solid |
| Date Sampled: 02/17/2011 1042 | % Solids: 98.1 02/18/2011 0806 |
| Date Received: 02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (Cyanide - To) 9012B | 1 | 02/18/2011 1349 | SMH | 02/18/2011 1100 | 53120 |
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/22/2011 1229 | ARW | 02/21/2011 0830 | 53342 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|------|-------|-------|-----|
| Cyanide - Total | 57-12-5 | 9012B | 0.38 | J | 0.51 | 0.063 | mg/kg | 1 |
| Hexavalent Chromium | 18540-29-9 | 7196A | 0.41 | J | 1.0 | 0.26 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

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Level 1 Report v2.1

TAL Metals

| | |
|------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17050-003 |
| Description: 6-3-18 YAM | Matrix: Solid |
| Date Sampled:02/17/2011 1042 | % Solids: 98.1 02/18/2011 0806 |
| Date Received: 02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7471B | 1 | 02/18/2011 1148 | KJC | 02/18/2011 0930 | 53072 |
| 1 | 3050B | 6010C | 1 | 02/19/2011 0148 | CDF | 02/18/2011 0937 | 53074 |
| 2 | 3050B | 6010C | 50 | 02/21/2011 2056 | CDF | 02/18/2011 0937 | 53074 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|----|-------|--------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 2.2 | | 0.51 | 0.19 | mg/kg | 1 |
| Barium | 7440-39-3 | 6010C | 75 | | 1.3 | 0.092 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 23 | | 0.10 | 0.011 | mg/kg | 1 |
| Chromium | 7440-47-3 | 6010C | 54 | B | 0.25 | 0.052 | mg/kg | 1 |
| Lead | 7439-92-1 | 6010C | 7.4 | | 0.51 | 0.095 | mg/kg | 1 |
| Mercury | 7439-97-6 | 7471B | 0.017 | BJ | 0.081 | 0.0058 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | 1.3 | B | 0.51 | 0.18 | mg/kg | 1 |
| Silver | 7440-22-4 | 6010C | 0.78 | | 0.25 | 0.043 | mg/kg | 1 |
| Zinc | 7440-66-6 | 6010C | 16000 | | 130 | 17 | mg/kg | 2 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TCLP Metals

| | | | | | |
|------------------------------|--|--|-----------------------------------|--|--|
| Client: Tetra Tech EM Inc. | | | Laboratory ID: MB17050-003 | | |
| Description: 6-3-18 YAM | | | Matrix: Solid | | |
| Date Sampled:02/17/2011 1042 | | | % Solids: 98.1 02/18/2011 0806 | | |
| Date Received:02/17/2011 | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | Leachate Date |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|-----------------|
| 1 | 1311/7470A | 7470A | 1 | 02/21/2011 1415 | BNW | 02/21/2011 1015 | 53199 | 02/18/2011 1851 |
| 1 | 1311/3010A | 6010C | 10 | 02/22/2011 1343 | CDF | 02/21/2011 1026 | 53208 | 02/18/2011 1851 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | ND | | 0.10 | 0.023 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.046 | J | 0.25 | 0.023 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.29 | | 0.020 | 0.0030 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.074 | | 0.050 | 0.014 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.10 | 0.017 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00020 | 0.000053 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.10 | 0.032 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.050 | 0.0090 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 29 | | 0.20 | 0.10 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | |
|-------------------------------|--------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17050-004 |
| Description: Bulk Fertilizer | Matrix: Solid |
| Date Sampled: 02/17/2011 1117 | % Solids: 95.1 02/18/2011 0806 |
| Date Received: 02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (Cyanide - To) 9012B | 1 | 02/18/2011 1355 | SMH | 02/18/2011 1100 | 53120 |
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/22/2011 1229 | ARW | 02/21/2011 0830 | 53342 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|------|-------|-------|-----|
| Cyanide - Total | 57-12-5 | 9012B | 0.20 | J | 0.53 | 0.065 | mg/kg | 1 |
| Hexavalent Chromium | 18540-29-9 | 7196A | 1.5 | | 1.1 | 0.26 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17050-004 | | | |
| Description: Bulk Fertilizer | | | | Matrix: Solid | | | |
| Date Sampled: 02/17/2011 1117 | | | | % Solids: 95.1 02/18/2011 0806 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7471B | 1 | 02/18/2011 1156 | KJC | 02/18/2011 0930 | 53072 |
| 1 | 3050B | 6010C | 1 | 02/19/2011 0205 | CDF | 02/18/2011 0937 | 53074 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|----|-------|--------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 2.3 | | 0.50 | 0.19 | mg/kg | 1 |
| Barium | 7440-39-3 | 6010C | 32 | | 1.3 | 0.090 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 9.1 | | 0.10 | 0.010 | mg/kg | 1 |
| Chromium | 7440-47-3 | 6010C | 33 | B | 0.25 | 0.051 | mg/kg | 1 |
| Lead | 7439-92-1 | 6010C | 2.8 | | 0.50 | 0.093 | mg/kg | 1 |
| Mercury | 7439-97-6 | 7471B | 0.0089 | BJ | 0.078 | 0.0056 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | 0.78 | B | 0.50 | 0.17 | mg/kg | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.25 | 0.042 | mg/kg | 1 |
| Zinc | 7440-66-6 | 6010C | 1800 | | 2.5 | 0.34 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TCLP Metals

| | | | | | |
|------------------------------|--|--|-----------------------------------|--|--|
| Client: Tetra Tech EM Inc. | | | Laboratory ID: MB17050-004 | | |
| Description: Bulk Fertilizer | | | Matrix: Solid | | |
| Date Sampled:02/17/2011 1117 | | | % Solids: 95.1 02/18/2011 0806 | | |
| Date Received:02/17/2011 | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | Leachate Date |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|-----------------|
| 1 | 1311/7470A | 7470A | 1 | 02/21/2011 1425 | BNW | 02/21/2011 1015 | 53199 | 02/18/2011 1851 |
| 1 | 1311/3010A | 6010C | 10 | 02/22/2011 1354 | CDF | 02/21/2011 1026 | 53208 | 02/18/2011 1851 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|----------|---|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 0.030 | J | 0.10 | 0.023 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.092 | J | 0.25 | 0.023 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.040 | | 0.020 | 0.0030 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.024 | J | 0.050 | 0.014 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.10 | 0.017 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | 0.000058 | J | 0.00020 | 0.000053 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.10 | 0.032 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.050 | 0.0090 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 18 | | 0.20 | 0.10 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | |
|------------------------------|--|-----------------------------------|--|
| Client: Tetra Tech EM Inc. | | Laboratory ID: MB17050-005 | |
| Description: 8-16-24-RB TOB | | Matrix: Solid | |
| Date Sampled:02/17/2011 1132 | | % Solids: 98.5 02/18/2011 0806 | |
| Date Received:02/17/2011 | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (Cyanide - To) 9012B | 1 | 02/18/2011 1356 | SMH | 02/18/2011 1100 | 53120 |
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/22/2011 1229 | ARW | 02/21/2011 0830 | 53342 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|------|-------|-------|-----|
| Cyanide - Total | 57-12-5 | 9012B | 0.21 | J | 0.51 | 0.063 | mg/kg | 1 |
| Hexavalent Chromium | 18540-29-9 | 7196A | 1.1 | | 1.0 | 0.26 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | |
|------------------------------|-----------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17050-005 |
| Description: 8-16-24-RB TOB | Matrix: Solid |
| Date Sampled:02/17/2011 1132 | % Solids: 98.5 02/18/2011 0806 |
| Date Received:02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7471B | 1 | 02/18/2011 1203 | KJC | 02/18/2011 0930 | 53072 |
| 1 | 3050B | 6010C | 1 | 02/19/2011 0217 | CDF | 02/18/2011 0937 | 53074 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|----|-------|--------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 2.5 | | 0.50 | 0.19 | mg/kg | 1 |
| Barium | 7440-39-3 | 6010C | 7.4 | | 1.3 | 0.091 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 3.0 | | 0.10 | 0.011 | mg/kg | 1 |
| Chromium | 7440-47-3 | 6010C | 41 | B | 0.25 | 0.051 | mg/kg | 1 |
| Lead | 7439-92-1 | 6010C | 2.4 | | 0.50 | 0.093 | mg/kg | 1 |
| Mercury | 7439-97-6 | 7471B | 0.0081 | BJ | 0.082 | 0.0058 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | 0.52 | B | 0.50 | 0.17 | mg/kg | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.25 | 0.042 | mg/kg | 1 |
| Zinc | 7440-66-6 | 6010C | 790 | | 2.5 | 0.34 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TCLP Metals

| | | | | | |
|------------------------------|--|--|-----------------------------------|--|--|
| Client: Tetra Tech EM Inc. | | | Laboratory ID: MB17050-005 | | |
| Description: 8-16-24-RB TOB | | | Matrix: Solid | | |
| Date Sampled:02/17/2011 1132 | | | % Solids: 98.5 02/18/2011 0806 | | |
| Date Received:02/17/2011 | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | Leachate Date |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|-----------------|
| 1 | 1311/7470A | 7470A | 1 | 02/21/2011 1428 | BNW | 02/21/2011 1015 | 53199 | 02/18/2011 1851 |
| 1 | 1311/3010A | 6010C | 10 | 02/22/2011 1358 | CDF | 02/21/2011 1026 | 53208 | 02/18/2011 1851 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 0.088 | J | 0.10 | 0.023 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | ND | | 0.25 | 0.023 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.093 | | 0.020 | 0.0030 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.41 | | 0.050 | 0.014 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.10 | 0.017 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00020 | 0.000053 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.10 | 0.032 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.050 | 0.0090 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 9.8 | | 0.20 | 0.10 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Inorganic non-metals

| | | | | | | | |
|-------------------------------|--|--|--|--------------------------------|--|--|--|
| Client: Tetra Tech EM Inc. | | | | Laboratory ID: MB17050-006 | | | |
| Description: 14-4-14-RB | | | | Matrix: Solid | | | |
| Date Sampled: 02/17/2011 1205 | | | | % Solids: 99.2 02/18/2011 0806 | | | |
| Date Received: 02/17/2011 | | | | | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|----------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | (Cyanide - To) 9012B | 1 | 02/18/2011 1356 | SMH | 02/18/2011 1100 | 53120 |
| 1 | 3060A | (Hexavalent C) 7196A | 1 | 02/22/2011 1229 | ARW | 02/21/2011 0830 | 53342 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|---------------------|------------|-------------------|--------|---|------|-------|-------|-----|
| Cyanide - Total | 57-12-5 | 9012B | 1.4 | | 0.50 | 0.062 | mg/kg | 1 |
| Hexavalent Chromium | 18540-29-9 | 7196A | 0.40 | J | 1.0 | 0.25 | mg/kg | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TAL Metals

| | |
|-------------------------------|--------------------------------|
| Client: Tetra Tech EM Inc. | Laboratory ID: MB17050-006 |
| Description: 14-4-14-RB | Matrix: Solid |
| Date Sampled: 02/17/2011 1205 | % Solids: 99.2 02/18/2011 0806 |
| Date Received: 02/17/2011 | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|
| 1 | | 7471B | 1 | 02/18/2011 1205 | KJC | 02/18/2011 0930 | 53072 |
| 1 | 3050B | 6010C | 1 | 02/19/2011 0220 | CDF | 02/18/2011 0937 | 53074 |
| 2 | 3050B | 6010C | 10 | 02/21/2011 2121 | CDF | 02/18/2011 0937 | 53074 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|----|-------|--------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 1.4 | | 0.50 | 0.19 | mg/kg | 1 |
| Barium | 7440-39-3 | 6010C | 45 | | 1.3 | 0.091 | mg/kg | 1 |
| Cadmium | 7440-43-9 | 6010C | 17 | | 0.10 | 0.011 | mg/kg | 1 |
| Chromium | 7440-47-3 | 6010C | 41 | B | 0.25 | 0.051 | mg/kg | 1 |
| Lead | 7439-92-1 | 6010C | 3.0 | | 0.50 | 0.093 | mg/kg | 1 |
| Mercury | 7439-97-6 | 7471B | 0.020 | BJ | 0.084 | 0.0059 | mg/kg | 1 |
| Selenium | 7782-49-2 | 6010C | 1.2 | B | 0.50 | 0.17 | mg/kg | 1 |
| Silver | 7440-22-4 | 6010C | 0.49 | | 0.25 | 0.042 | mg/kg | 1 |
| Zinc | 7440-66-6 | 6010C | 3600 | | 25 | 3.4 | mg/kg | 2 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

TCLP Metals

| | | | |
|------------------------------|--|-----------------------------------|--|
| Client: Tetra Tech EM Inc. | | Laboratory ID: MB17050-006 | |
| Description: 14-4-14-RB | | Matrix: Solid | |
| Date Sampled:02/17/2011 1205 | | % Solids: 99.2 02/18/2011 0806 | |
| Date Received:02/17/2011 | | | |

| Run | Prep Method | Analytical Method | Dilution | Analysis Date | Analyst | Prep Date | Batch | Leachate Date |
|-----|-------------|-------------------|----------|-----------------|---------|-----------------|-------|-----------------|
| 1 | 1311/7470A | 7470A | 1 | 02/21/2011 1431 | BNW | 02/21/2011 1015 | 53199 | 02/18/2011 1851 |
| 1 | 1311/3010A | 6010C | 10 | 02/22/2011 1401 | CDF | 02/21/2011 1026 | 53208 | 02/18/2011 1851 |

| Parameter | CAS Number | Analytical Method | Result | Q | PQL | MDL | Units | Run |
|-----------|------------|-------------------|--------|---|---------|----------|-------|-----|
| Arsenic | 7440-38-2 | 6010C | 0.027 | J | 0.10 | 0.023 | mg/L | 1 |
| Barium | 7440-39-3 | 6010C | 0.047 | J | 0.25 | 0.023 | mg/L | 1 |
| Cadmium | 7440-43-9 | 6010C | 0.65 | | 0.020 | 0.0030 | mg/L | 1 |
| Chromium | 7440-47-3 | 6010C | 0.077 | | 0.050 | 0.014 | mg/L | 1 |
| Lead | 7439-92-1 | 6010C | ND | | 0.10 | 0.017 | mg/L | 1 |
| Mercury | 7439-97-6 | 7470A | ND | | 0.00020 | 0.000053 | mg/L | 1 |
| Selenium | 7782-49-2 | 6010C | ND | | 0.10 | 0.032 | mg/L | 1 |
| Silver | 7440-22-4 | 6010C | ND | | 0.050 | 0.0090 | mg/L | 1 |
| Zinc | 7440-66-6 | 6010C | 35 | | 0.20 | 0.10 | mg/L | 1 |

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

P = The RPD between two GC columns exceeds 40%

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

H = Out of holding time

Shealy Environmental Services, Inc.

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Level 1 Report v2.1

QC Summary

Inorganic non-metals - MB

Sample ID: MQ53120-001

Batch: 53120

Analytical Method: 9012B

Matrix: Solid

Prep Method: 9012B

Prep Date: 02/18/2011 1100

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------------|--------|---|-----|------|-------|-------|-----------------|
| Cyanide - Total | ND | | 1 | 0.50 | 0.062 | mg/kg | 02/18/2011 1343 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: MQ53120-002

Batch: 53120

Analytical Method: 9012B

Matrix: Solid

Prep Method: 9012B

Prep Date: 02/18/2011 1100

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------------|----------------------------|-------------------|---|-----|-------|----------------|-----------------|
| Cyanide - Total | 5.0 | 5.0 | | 1 | 100 | 90-110 | 02/18/2011 1344 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: MQ53120-003

Batch: 53120

Analytical Method: 9012B

Matrix: Solid

Prep Method: 9012B

Prep Date: 02/18/2011 1100

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------------|----------------------------|-------------------|---|-----|-------|-------|----------------|----------------|-----------------|
| Cyanide - Total | 5.0 | 5.1 | | 1 | 102 | 2.5 | 90-110 | 20 | 02/18/2011 1344 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - Duplicate

Sample ID: MB17050-006DU

Batch: 53120

Analytical Method: 9012B

Matrix: Solid

Prep Method: 9012B

Prep Date: 02/18/2011 1100

| Parameter | Sample Amount (mg/kg) | Result (mg/kg) | Q | Dil | % RPD | % RPD Limit | Analysis Date |
|-----------------|-----------------------|----------------|---|-----|-------|-------------|-----------------|
| Cyanide - Total | 1.4 | 1.1 | | 1 | 18 | 20 | 02/18/2011 1357 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: MB17050-003MS

Batch: 53120

Analytical Method: 9012B

Matrix: Solid

Prep Method: 9012B

Prep Date: 02/18/2011 1100

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Cyanide - Total | 0.38 | 5.1 | 4.6 | | 1 | 83 | 70-130 | 02/18/2011 1350 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: MB17050-003MD

Matrix: Solid

Batch: 53120

Prep Method: 9012B

Analytical Method: 9012B

Prep Date: 02/18/2011 1100

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------------|-----------------------|----------------------|----------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Cyanide - Total | 0.38 | 5.1 | 4.5 | | 1 | 82 | 1.2 | 70-130 | 20 | 02/18/2011 1351 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: MQ53342-001

Batch: 53342

Analytical Method: 7196A

Matrix: Solid

Prep Method: 3060A

Prep Date: 02/21/2011 830

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|---------------------|--------|---|-----|-----|------|-------|-----------------|
| Hexavalent Chromium | ND | | 1 | 1.0 | 0.25 | mg/kg | 02/22/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: MQ53342-002

Batch: 53342

Analytical Method: 7196A

Matrix: Solid

Prep Method: 3060A

Prep Date: 02/21/2011 830

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|----------------------------|-------------------|---|-----|-------|----------------|-----------------|
| Hexavalent Chromium | 4.0 | 3.6 | | 1 | 90 | 90-110 | 02/22/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ = RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: MQ53342-003

Batch: 53342

Analytical Method: 7196A

Matrix: Solid

Prep Method: 3060A

Prep Date: 02/21/2011 830

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|----------------------------|-------------------|---|-----|-------|-------|----------------|----------------|-----------------|
| Hexavalent Chromium | 4.0 | 3.9 | | 1 | 98 | 8.5 | 90-110 | 20 | 02/22/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: MB17050-001MS

Batch: 53342

Analytical Method: 7196A

Matrix: Solid

Prep Method: 3060A

Prep Date: 02/21/2011 830

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Hexavalent Chromium | 0.93 | 4.2 | 5.7 | | 1 | 113 | 70-130 | 02/22/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: MB17050-003MS

Matrix: Solid

Batch: 53342

Prep Method: 3060A

Analytical Method: 7196A

Prep Date: 02/21/2011 830

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|---------------------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Hexavalent Chromium | 0.41 | 4.1 | 0.98 | N | 1 | 14 | 70-130 | 02/22/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: MB17050-003MD

Matrix: Solid

Batch: 53342

Prep Method: 3060A

Analytical Method: 7196A

Prep Date: 02/21/2011 830

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|---------------------|-----------------------|----------------------|----------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Hexavalent Chromium | 0.41 | 4.1 | 0.97 | N | 1 | 14 | 0.47 | 70-130 | 20 | 02/22/2011 1229 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MB

Sample ID: MQ53074-001

Matrix: Solid

Batch: 53074

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/18/2011 937

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|------|-------|-------|-----------------|
| Arsenic | ND | | 1 | 0.50 | 0.19 | mg/kg | 02/19/2011 0127 |
| Barium | ND | | 1 | 1.3 | 0.091 | mg/kg | 02/19/2011 0127 |
| Cadmium | ND | | 1 | 0.10 | 0.011 | mg/kg | 02/19/2011 0127 |
| Chromium | 0.12 | J | 1 | 0.25 | 0.051 | mg/kg | 02/19/2011 0127 |
| Lead | ND | | 1 | 0.50 | 0.093 | mg/kg | 02/19/2011 0127 |
| Selenium | 0.49 | J | 1 | 0.50 | 0.17 | mg/kg | 02/19/2011 0127 |
| Silver | ND | | 1 | 0.25 | 0.042 | mg/kg | 02/19/2011 0127 |
| Zinc | ND | | 1 | 2.5 | 0.34 | mg/kg | 02/19/2011 0127 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCS

Sample ID: MQ53074-002

Matrix: Solid

Batch: 53074

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/18/2011 937

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Arsenic | 250 | 270 | | 1 | 109 | 80-120 | 02/19/2011 0131 |
| Barium | 500 | 490 | | 1 | 99 | 80-120 | 02/19/2011 0131 |
| Cadmium | 50 | 43 | | 1 | 85 | 80-120 | 02/19/2011 0131 |
| Chromium | 250 | 260 | | 1 | 105 | 80-120 | 02/19/2011 0131 |
| Lead | 250 | 220 | | 1 | 86 | 80-120 | 02/19/2011 0131 |
| Selenium | 50 | 51 | | 1 | 102 | 80-120 | 02/19/2011 0131 |
| Silver | 250 | 230 | | 1 | 91 | 80-120 | 02/19/2011 0131 |
| Zinc | 100 | 110 | | 1 | 112 | 80-120 | 02/19/2011 0131 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCSD

Sample ID: MQ53074-003

Matrix: Solid

Batch: 53074

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/18/2011 937

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|----------------------|----------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Arsenic | 250 | 280 | | 1 | 112 | 3.4 | 80-120 | 20 | 02/19/2011 0135 |
| Barium | 500 | 500 | | 1 | 99 | 0.28 | 80-120 | 20 | 02/19/2011 0135 |
| Cadmium | 50 | 43 | | 1 | 86 | 0.75 | 80-120 | 20 | 02/19/2011 0135 |
| Chromium | 250 | 250 | | 1 | 102 | 2.6 | 80-120 | 20 | 02/19/2011 0135 |
| Lead | 250 | 220 | | 1 | 87 | 0.77 | 80-120 | 20 | 02/19/2011 0135 |
| Selenium | 50 | 53 | | 1 | 105 | 3.2 | 80-120 | 20 | 02/19/2011 0135 |
| Silver | 250 | 220 | | 1 | 89 | 1.5 | 80-120 | 20 | 02/19/2011 0135 |
| Zinc | 100 | 110 | | 1 | 112 | 0.28 | 80-120 | 20 | 02/19/2011 0135 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MS

Sample ID: MB17050-003MS

Matrix: Solid

Batch: 53074

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/18/2011 937

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Arsenic | 2.2 | 250 | 230 | | 1 | 88 | 75-125 | 02/19/2011 0152 |
| Barium | 75 | 510 | 250 | N | 1 | 34 | 75-125 | 02/19/2011 0152 |
| Cadmium | 23 | 51 | 51 | N | 1 | 55 | 75-125 | 02/19/2011 0152 |
| Chromium | 54 | 250 | 280 | | 1 | 91 | 75-125 | 02/19/2011 0152 |
| Lead | 7.4 | 250 | 190 | N | 1 | 73 | 75-125 | 02/19/2011 0152 |
| Selenium | 1.3 | 51 | 51 | | 1 | 99 | 75-125 | 02/19/2011 0152 |
| Silver | 0.78 | 250 | 230 | | 1 | 89 | 75-125 | 02/19/2011 0152 |
| Zinc | 16000 | 100 | 5500 | N | 50 | -9930 | 75-125 | 02/21/2011 2102 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MSD

Sample ID: MB17050-003MD

Matrix: Solid

Batch: 53074

Prep Method: 3050B

Analytical Method: 6010C

Prep Date: 02/18/2011 937

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|------|-----|--------|-------|-------------|-------------|-----------------|
| Arsenic | 2.2 | 230 | 220 | | 1 | 94 | 2.7 | 75-125 | 20 | 02/19/2011 0156 |
| Barium | 75 | 470 | 200 | N | 1 | 26 | 19 | 75-125 | 20 | 02/19/2011 0156 |
| Cadmium | 23 | 47 | 100 | N, + | 1 | 164 | 68 | 75-125 | 20 | 02/19/2011 0156 |
| Chromium | 54 | 230 | 320 | | 1 | 113 | 15 | 75-125 | 20 | 02/19/2011 0156 |
| Lead | 7.4 | 230 | 180 | | 1 | 75 | 0.77 | 75-125 | 20 | 02/19/2011 0156 |
| Selenium | 1.3 | 47 | 48 | | 1 | 101 | 1.8 | 75-125 | 20 | 02/19/2011 0156 |
| Silver | 0.78 | 230 | 230 | | 1 | 96 | 3.2 | 75-125 | 20 | 02/19/2011 0156 |
| Zinc | 16000 | 94 | 5900 | N | 50 | -10300 | 11 | 75-125 | 20 | 02/21/2011 2108 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - MB

Sample ID: MQ53207-001

Matrix: Solid

Batch: 53207

Prep Method: 1311/3010A

Analytical Method: 6010C

Prep Date: 02/21/2011 1026 Leachate Date: 02/18/2011 1851

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|-------|--------|-------|-----------------|
| Arsenic | ND | | 10 | 0.10 | 0.023 | mg/L | 02/21/2011 2255 |
| Barium | ND | | 10 | 0.25 | 0.023 | mg/L | 02/21/2011 2255 |
| Cadmium | ND | | 10 | 0.020 | 0.0030 | mg/L | 02/21/2011 2255 |
| Chromium | ND | | 10 | 0.050 | 0.014 | mg/L | 02/21/2011 2255 |
| Lead | ND | | 10 | 0.10 | 0.017 | mg/L | 02/21/2011 2255 |
| Selenium | 0.047 | J | 10 | 0.10 | 0.032 | mg/L | 02/22/2011 1258 |
| Silver | 0.020 | J | 10 | 0.050 | 0.0090 | mg/L | 02/21/2011 2255 |
| Zinc | ND | | 10 | 0.20 | 0.10 | mg/L | 02/21/2011 2255 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - LCS

Sample ID: MQ53207-002

Matrix: Solid

Batch: 53207

Prep Method: 1311/3010A

Analytical Method: 6010C

Prep Date: 02/21/2011 1026 Leachate Date: 02/18/2011 1851

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Arsenic | 5.0 | 5.1 | | 10 | 102 | 80-120 | 02/21/2011 2301 |
| Barium | 10 | 11 | | 10 | 106 | 80-120 | 02/21/2011 2301 |
| Cadmium | 1.0 | 1.0 | | 10 | 102 | 80-120 | 02/21/2011 2301 |
| Chromium | 5.0 | 5.2 | | 10 | 105 | 80-120 | 02/21/2011 2301 |
| Lead | 5.0 | 5.2 | | 10 | 105 | 80-120 | 02/21/2011 2301 |
| Selenium | 1.0 | 1.1 | | 10 | 107 | 80-120 | 02/22/2011 1302 |
| Silver | 5.0 | 5.2 | | 10 | 103 | 80-120 | 02/21/2011 2301 |
| Zinc | 2.0 | 2.1 | | 10 | 107 | 80-120 | 02/21/2011 2301 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - LCSD

Sample ID: MQ53207-003

Matrix: Solid

Batch: 53207

Prep Method: 1311/3010A

Analytical Method: 6010C

Prep Date: 02/21/2011 1026 Leachate Date: 02/18/2011 1851

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Arsenic | 5.0 | 5.0 | | 10 | 100 | 2.5 | 80-120 | 20 | 02/21/2011 2307 |
| Barium | 10 | 10 | | 10 | 102 | 3.9 | 80-120 | 20 | 02/21/2011 2307 |
| Cadmium | 1.0 | 0.99 | | 10 | 99 | 2.9 | 80-120 | 20 | 02/21/2011 2307 |
| Chromium | 5.0 | 5.1 | | 10 | 101 | 3.1 | 80-120 | 20 | 02/21/2011 2307 |
| Lead | 5.0 | 5.1 | | 10 | 102 | 2.5 | 80-120 | 20 | 02/21/2011 2307 |
| Selenium | 1.0 | 1.0 | | 10 | 102 | 4.2 | 80-120 | 20 | 02/22/2011 1306 |
| Silver | 5.0 | 5.0 | | 10 | 99 | 3.8 | 80-120 | 20 | 02/21/2011 2307 |
| Zinc | 2.0 | 2.1 | | 10 | 104 | 2.8 | 80-120 | 20 | 02/21/2011 2307 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - MS

Sample ID: MB17050-001MS

Matrix: Solid

Batch: 53207

Prep Method: 1311/3010A

Analytical Method: 6010C

Prep Date: 02/21/2011 1026 Leachate Date: 02/18/2011 1851

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Arsenic | ND | 5.0 | 5.1 | | 10 | 101 | 75-125 | 02/21/2011 2319 |
| Barium | 0.26 | 10 | 11 | | 10 | 104 | 75-125 | 02/21/2011 2319 |
| Cadmium | 1.2 | 1.0 | 2.2 | | 10 | 96 | 75-125 | 02/21/2011 2319 |
| Chromium | ND | 5.0 | 5.1 | | 10 | 102 | 75-125 | 02/21/2011 2319 |
| Lead | 0.10 | 5.0 | 5.2 | | 10 | 102 | 75-125 | 02/21/2011 2319 |
| Selenium | ND | 1.0 | 1.2 | | 20 | 116 | 75-125 | 02/22/2011 1313 |
| Silver | 0.021 | 5.0 | 4.7 | | 10 | 94 | 75-125 | 02/21/2011 2319 |
| Zinc | 550 | 2.0 | 540 | N | 20 | -279 | 75-125 | 02/22/2011 1313 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - MB

Sample ID: MQ53208-001

Matrix: Solid

Batch: 53208

Prep Method: 1311/3010A

Analytical Method: 6010C

Prep Date: 02/21/2011 1026 Leachate Date: 02/18/2011 1851

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|-------|--------|-------|-----------------|
| Arsenic | ND | | 10 | 0.10 | 0.023 | mg/L | 02/22/2011 1332 |
| Barium | ND | | 10 | 0.25 | 0.023 | mg/L | 02/22/2011 1332 |
| Cadmium | ND | | 10 | 0.020 | 0.0030 | mg/L | 02/22/2011 1332 |
| Chromium | ND | | 10 | 0.050 | 0.014 | mg/L | 02/22/2011 1332 |
| Lead | ND | | 10 | 0.10 | 0.017 | mg/L | 02/22/2011 1332 |
| Selenium | 0.041 | J | 10 | 0.10 | 0.032 | mg/L | 02/22/2011 1332 |
| Silver | ND | | 10 | 0.050 | 0.0090 | mg/L | 02/22/2011 1332 |
| Zinc | ND | | 10 | 0.20 | 0.10 | mg/L | 02/22/2011 1332 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - LCS

Sample ID: MQ53208-002

Batch: 53208

Analytical Method: 6010C

Matrix: Solid

Prep Method: 1311/3010A

Prep Date: 02/21/2011 1026 Leachate Date: 02/18/2011 1851

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Arsenic | 5.0 | 5.1 | | 10 | 101 | 80-120 | 02/22/2011 1336 |
| Barium | 10 | 10 | | 10 | 100 | 80-120 | 02/22/2011 1336 |
| Cadmium | 1.0 | 0.94 | | 10 | 94 | 80-120 | 02/22/2011 1336 |
| Chromium | 5.0 | 5.0 | | 10 | 99 | 80-120 | 02/22/2011 1336 |
| Lead | 5.0 | 5.0 | | 10 | 101 | 80-120 | 02/22/2011 1336 |
| Selenium | 1.0 | 1.0 | | 10 | 100 | 80-120 | 02/22/2011 1336 |
| Silver | 5.0 | 4.9 | | 10 | 99 | 80-120 | 02/22/2011 1336 |
| Zinc | 2.0 | 2.1 | | 10 | 105 | 80-120 | 02/22/2011 1336 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - LCSD

Sample ID: MQ53208-003

Matrix: Solid

Batch: 53208

Prep Method: 1311/3010A

Analytical Method: 6010C

Prep Date: 02/21/2011 1026 Leachate Date: 02/18/2011 1851

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Arsenic | 5.0 | 5.2 | | 10 | 103 | 2.2 | 80-120 | 20 | 02/22/2011 1339 |
| Barium | 10 | 10 | | 10 | 104 | 3.1 | 80-120 | 20 | 02/22/2011 1339 |
| Cadmium | 1.0 | 0.97 | | 10 | 97 | 2.8 | 80-120 | 20 | 02/22/2011 1339 |
| Chromium | 5.0 | 5.1 | | 10 | 102 | 2.9 | 80-120 | 20 | 02/22/2011 1339 |
| Lead | 5.0 | 5.2 | | 10 | 104 | 2.8 | 80-120 | 20 | 02/22/2011 1339 |
| Selenium | 1.0 | 1.0 | | 10 | 101 | 0.62 | 80-120 | 20 | 02/22/2011 1339 |
| Silver | 5.0 | 5.1 | | 10 | 102 | 2.7 | 80-120 | 20 | 02/22/2011 1339 |
| Zinc | 2.0 | 2.2 | | 10 | 108 | 2.9 | 80-120 | 20 | 02/22/2011 1339 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - MS

Sample ID: MB17050-003MS

Matrix: Solid

Batch: 53208

Prep Method: 1311/3010A

Analytical Method: 6010C

Prep Date: 02/21/2011 1026 Leachate Date: 02/18/2011 1851

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Arsenic | ND | 5.0 | 4.9 | | 10 | 99 | 75-125 | 02/22/2011 1347 |
| Barium | 0.046 | 10 | 11 | | 10 | 107 | 75-125 | 02/22/2011 1347 |
| Cadmium | 0.29 | 1.0 | 1.3 | | 10 | 99 | 75-125 | 02/22/2011 1347 |
| Chromium | 0.074 | 5.0 | 5.3 | | 10 | 105 | 75-125 | 02/22/2011 1347 |
| Lead | ND | 5.0 | 5.7 | | 10 | 113 | 75-125 | 02/22/2011 1347 |
| Selenium | ND | 1.0 | 0.96 | | 10 | 96 | 75-125 | 02/22/2011 1347 |
| Silver | ND | 5.0 | 5.4 | | 10 | 109 | 75-125 | 02/22/2011 1347 |
| Zinc | 29 | 2.0 | 31 | N | 10 | 72 | 75-125 | 02/22/2011 1347 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MB

Sample ID: MQ53072-001

Batch: 53072

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/18/2011 930

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|-------|--------|-------|-----------------|
| Mercury | 0.0077 | J | 1 | 0.083 | 0.0059 | mg/kg | 02/18/2011 1137 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCS

Sample ID: MQ53072-002

Batch: 53072

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/18/2011 930

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------------|-------------------|---|-----|-------|----------------|-----------------|
| Mercury | 0.83 | 0.86 | | 1 | 103 | 85-115 | 02/18/2011 1139 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - LCSD

Sample ID: MQ53072-003

Batch: 53072

Analytical Method: 7471B

Matrix: Solid

Prep Method: 7471B

Prep Date: 02/18/2011 930

| Parameter | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|----------------------------|-------------------|---|-----|-------|-------|----------------|----------------|-----------------|
| Mercury | 0.83 | 0.83 | | 1 | 100 | 3.3 | 85-115 | 20 | 02/18/2011 1141 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MS

Sample ID: MB17050-003MS

Matrix: Solid

Batch: 53072

Prep Method: 7471B

Analytical Method: 7471B

Prep Date: 02/18/2011 930

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------------|-----------------|
| Mercury | 0.017 | 0.82 | 0.83 | | 1 | 100 | 85-115 | 02/18/2011 1150 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TAL Metals - MSD

Sample ID: MB17050-003MD

Matrix: Solid

Batch: 53072

Prep Method: 7471B

Analytical Method: 7471B

Prep Date: 02/18/2011 930

| Parameter | Sample Amount (mg/kg) | Spike Amount (mg/kg) | Result (mg/kg) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|-----------------------|----------------------|----------------|---|-----|-------|-------|-------------|-------------|-----------------|
| Mercury | 0.017 | 0.71 | 0.76 | | 1 | 106 | 1.7 | 85-115 | 20 | 02/18/2011 1152 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - MB

Sample ID: MQ53198-001

Batch: 53198

Analytical Method: 7470A

Matrix: Solid

Prep Method: 1311/7470A

Prep Date: 02/21/2011 1015 Leachate Date: 02/18/2011 1851

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|---------|----------|-------|-----------------|
| Mercury | ND | | 1 | 0.00020 | 0.000053 | mg/L | 02/21/2011 1340 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - LCS

Sample ID: MQ53198-002

Batch: 53198

Analytical Method: 7470A

Matrix: Solid

Prep Method: 1311/7470A

Prep Date: 02/21/2011 1015 Leachate Date: 02/18/2011 1851

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Mercury | 0.0020 | 0.0020 | | 1 | 102 | 85-115 | 02/21/2011 1343 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - LCSD

Sample ID: MQ53198-003

Batch: 53198

Analytical Method: 7470A

Matrix: Solid

Prep Method: 1311/7470A

Prep Date: 02/21/2011 1015 Leachate Date: 02/18/2011 1851

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|---------------------------|------------------|---|-----|-------|-------|----------------|----------------|-----------------|
| Mercury | 0.0020 | 0.0020 | | 1 | 101 | 1.5 | 85-115 | 20 | 02/21/2011 1346 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - MS

Sample ID: MB17050-002MS

Matrix: Solid

Batch: 53198

Prep Method: 1311/7470A

Analytical Method: 7470A

Prep Date: 02/21/2011 1015 Leachate Date: 02/18/2011 1851

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Mercury | 0.00037 | 0.0020 | 0.0024 | | 1 | 101 | 85-115 | 02/21/2011 1355 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - MB

Sample ID: MQ53199-001

Batch: 53199

Analytical Method: 7470A

Matrix: Solid

Prep Method: 1311/7470A

Prep Date: 02/21/2011 1015 Leachate Date: 02/18/2011 1851

| Parameter | Result | Q | Dil | PQL | MDL | Units | Analysis Date |
|-----------|--------|---|-----|---------|----------|-------|-----------------|
| Mercury | ND | | 1 | 0.00020 | 0.000053 | mg/L | 02/21/2011 1402 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - LCS

Sample ID: MQ53199-002

Batch: 53199

Analytical Method: 7470A

Matrix: Solid

Prep Method: 1311/7470A

Prep Date: 02/21/2011 1015 Leachate Date: 02/18/2011 1851

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Mercury | 0.0020 | 0.0020 | | 1 | 102 | 85-115 | 02/21/2011 1404 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - LCSD

Sample ID: MQ53199-003

Batch: 53199

Analytical Method: 7470A

Matrix: Solid

Prep Method: 1311/7470A

Prep Date: 02/21/2011 1015 Leachate Date: 02/18/2011 1851

| Parameter | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % RPD | % Rec Limit | % RPD Limit | Analysis Date |
|-----------|---------------------------|------------------|---|-----|-------|-------|----------------|----------------|-----------------|
| Mercury | 0.0020 | 0.0018 | | 1 | 88 | 15 | 85-115 | 20 | 02/21/2011 1407 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

TCLP Metals - MS

Sample ID: MB17050-003MS

Batch: 53199

Analytical Method: 7470A

Matrix: Solid

Prep Method: 1311/7470A

Prep Date: 02/21/2011 1015 Leachate Date: 02/18/2011 1851

| Parameter | Sample Amount (mg/L) | Spike Amount (mg/L) | Result (mg/L) | Q | Dil | % Rec | % Rec Limit | Analysis Date |
|-----------|----------------------|---------------------|---------------|---|-----|-------|-------------|-----------------|
| Mercury | ND | 0.0020 | 0.0020 | | 1 | 102 | 85-115 | 02/21/2011 1417 |

PQL = Practical quantitation limit

P = The RPD between two GC columns exceeds 40%

N - Recovery is out of criteria

ND = Not detected at or above the MDL

J = Estimated result < PQL and \geq MDL

+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results



Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.

106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111

Number 89652

| | | | | | | | |
|---|--------------------|--|--|---|---|-------------------------------------|-----------------------|
| Client Tetra Tech | | Report to Contact Jessica Vickers | | Telephone No. / Fax No. / E-mail 678-775-3104 / Jessica.Vickers@tetratech.com | | Quote No. | |
| Address 1955 Evergreen Blvd | | Sampler's Signature <i>[Signature]</i> | | Waybill No. | | Page 1 of 1 | |
| City Duluth | State Ga | Zip Code 30096 | X <i>[Signature]</i> Printed Name Christopher Jones | | Analysis (Attach list if more space is needed.) | | |
| Project Name Agrium | | Project No. | | No. of Containers by Preservative Type | | Lot No. MA17050 | |
| Sample ID / Description (Containers for each sample may be combined on one line.) | | Date | Time | Matrix | Urine | MSO ₄ | Remarks / Cooler I.D. |
| Zinc Oxide | | 2-17-11 | 0950 | C | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Quick TAT |
| Zinc Oxide-DLP | | 1001 | C | C | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 6-3-18 YAM | | 1042 | C | C | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | MS/MSD |
| Bulk Fertilizer | | 1117 | C | C | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 8-16-24-RB TOB | | 1132 | C | C | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 14-4-14-RB | | 1205 | C | C | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Possible Hazard Identification | | Sample Disposal | | Note: All samples are retained for six weeks from receipt unless other arrangements are made. | | | |
| <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison <input checked="" type="checkbox"/> Unknown | | <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab | | QC Requirements (Specify) | | | |
| Turn Around Time Required (Prior lab approval required for expedited TAT.) | | | | | | | |
| <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush (Specify) | | | | | | | |
| 1. Relinquished by <i>[Signature]</i> | | Date | Time | 1. Received by | | Date | Time |
| | | 2-17-11 | 1549 | | | | |
| 2. Relinquished by | | Date | Time | 2. Received by | | Date | Time |
| | | | | | | | |
| 3. Relinquished by | | Date | Time | 3. Laboratory received by | | Date | Time |
| | | | | <i>[Signature]</i> | | 2-17-11 | 1549 |
| Comments | | LAB USE ONLY | | Received on ice (Circle) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Ice Pack | | Receipt Temp. 21.6 °C | |

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field Client Copy

Document Number: F-AD-012 Effective Date: 08-04-02

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: F-AD-015
Revision Number: 6

Page 1 of 1
Replaces Date: 09/22/06
Effective Date: 05/29/07

Sample Receipt Checklist (SRC)

Client: Tetra Tech Cooler Inspected by/date: 6/13/11 Lot #: MB17050

| | | |
|---|--|--|
| Means of receipt: <input type="checkbox"/> SESI <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Airborne Exp <input type="checkbox"/> Other | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| 1. Were custody seals present on the cooler? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 2. If custody seals were present, were they intact and unbroken? | | |
| Cooler ID/temperature upon receipt <u>21/6</u> °C <u> </u> / <u> </u> °C <u> </u> / <u> </u> °C <u> </u> / <u> </u> °C | | |
| Method: <input type="checkbox"/> Temperature Blank <input checked="" type="checkbox"/> Against Bottles | | |
| Method of coolant: <input type="checkbox"/> Wet Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> Dry Ice <input checked="" type="checkbox"/> None | | |
| If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided. | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other: <u> </u> . (For coolers received via commercial courier, PMs are to be notified immediately.) | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 4. Is the commercial courier's packing slip attached to this form? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 5. Were proper custody procedures (relinquished/received) followed? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 6. Were sample IDs listed? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 7. Was collection date & time listed? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 8. Were tests to be performed listed on the COC or was quote # provided? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 9. Did all samples arrive in the proper containers for each test? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 10. Did all container label information (ID, date, time) agree with COC? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 11. Did all containers arrive in good condition (unbroken, lids on, etc.)? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 12. Was adequate sample volume available? | | |
| Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 13. Were all samples received within ½ the holding time or 48 hours, whichever comes first? | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| 14. Were any samples containers missing? | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | NA <input type="checkbox"/> |
| 15. Were there any excess samples not listed on COC? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 16. Were bubbles present > "pea-size" (½" or 6mm in diameter) in any VOA vials? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 18. Were all cyanide and/or sulfide samples received at a pH >12? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) and toxicity (<0.1mg/L) samples free of residual chlorine? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 20. Were collection temperatures documented on the COC for NC samples? | | |
| Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.) | | |
| Sample(s) <u> </u> were received incorrectly preserved and were adjusted accordingly in sample receiving with <u> </u> (H ₂ SO ₄ , HNO ₃ , HCl, NaOH) with the SR # (number) <u> </u> . | | |
| Sample(s) <u> </u> were received with bubbles >6 mm in diameter. | | |
| Sample(s) <u> </u> were received with TRC >0.2 mg/L for NH3/TKN/cyanide/BNA/pest/PCB/herb. | | |
| Toxicity sample(s) <u> </u> were received with TRC >0.1 mg/L and were analyzed by method 330.5. | | |

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐

Did client respond: Yes ☐ No ☐

SESI employee:

Date of response:

Comments: