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## **Scaffold Erection Operation Week 33 to Week 36 Data Validation Report**

**Week 33 to Week 36 Sampling Period  
12/10/07 to 01/06/08**

**The Remediation and Deconstruction of Fiterman Hall  
30 West Broadway  
New York, New York**

**Prepared By:**

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**March 3, 2008**

## **General:**

This report provides a summary of the Week 33 to Week 36 (12-10-07 to 01-06-08) data validation conducted in support of the Scaffold Erection Operation (SEO) of the project being conducted at 30 West Broadway, New York, NY per the approved Environmental Community Air Monitoring Plan (ECAMP) dated March 16, 2007 and the associated Quality Assurance Project Plan (QAPP) dated March 16, 2007.

Week 33 to Week 36 include:

Week 33:	12-10-07 to 12-16-07
Week 34:	12-17-07 to 12-23-07
Week 35:	12-24-07 to 12-30-07
Week 36:	12-31-07 to 01-06-08

Per the ECAMP and QAPP, sampling has been conducted for the following parameters:

- Airborne Particulate PM-2.5
- Reference Method for PM-2.5
- Airborne Particulate PM-10
- Reference Method for PM-10
- Asbestos
- Mercury (Vapor and Total)
- Metals
- Silica
- Dioxins/Furans
- PAHs
- PCBs

## **Project Quality Objectives:**

The project quality objectives (POQs) detailed in the QAPP for the project were met in all cases, except for the following:

1. Silica – Primary Peak Interference: Due to primary peak interference in the laboratory, Quantification Limits (QL) for Silica (Quartz) were greater than the Target Air Quality Levels and EPA Trigger Levels for that analyte in six samples (FH-121707-37, FH-121807-68, FH-122507-29, FH-122807-30, FH-010208-31 and FH-010608-32) collected on 12/17/07 and 12/18/07 in Week 34, on 12/25/07 and 12/28/07 in Week 35, and on 01/02/08 and 01/06/08 in Week 36. (Reference: EMSL Analytical Inc. Technical Document: #SILICA-2006-01)

## **QA Reviews:**

Data from the SEO Week 33 to Week 36 has been subjected to the following QA reviews:

Field Technician (Joseph Walsh): 100% of field sampling data and field analysis data have been reviewed and verified by the field technician recording the data. This includes review and signature on the chains-of-custody, and review and signature on the field calibration manual.

Field Sampling Coordinator (designee – Christine Chen): 100% field calibration manual notes, field sampling forms, and COCs reviewed/verified. Sample calibration, collection, handling, preservation, and storage procedures were reviewed for compliance with the protocols described in the QAPP. Deviations were documented and Project QA Officer notified.

Data Manager (designee – Christine Chen): 100% of documentation provided by each analytical laboratory supporting the project reviewed. Deviations are documented, Project QA Officer notified.

Fixed Laboratory QA Review: It is Airtek's belief that 100% of all fixed laboratory data has been subject to internal review as detailed in Section 16.1.3.1 of the QAPP.

Project QA Officer (Clifford Cooper, CIH): 100% evaluation of data and potential usability issues related to deviations and deficiencies documented by staff reviews as detailed in this document.

Project Manager (Benn Lewis): Overall review of field operations, field documentation, field equipment function, fixed laboratory performance, data collection and presentation.

Conclusions:

1. Per Section 16.2 of the QAPP, the following data usability parameters have been met:

Precision: No duplicate sample sets resulted in values above the quantitation limits of the methodologies employed. Valid precision values cannot be calculated.

Accuracy: Where applicable, laboratory percent recoveries were within tolerance per the QAPP.

Sensitivity and Quantitation Limits: Sensitivity and Quantitation targets for all analytes were met.

Completeness:

Both Field Data and Lab Data are 100% complete for the sampling period.

2. Elevated Background Contaminant Levels:

Silica: The SEO Week 33 revealed that localized background levels of silica can exceed the USEPA Trigger and Target levels irrespective of site activity at Fiterman Hall. One (1) elevated background level of silica was recorded on the following date:

December 13<sup>th</sup>, 2007 – Station #8 = 11 ug/m<sup>3</sup>

### **Contaminant-Specific Narratives:**

#### **Airborne Particulate PM-2.5:**

PM-2.5 particulate sampling was conducted using eight Met-One EBAM monitors, one at each of the community monitoring stations designated by the ECAMP/QAPP. All eight monitors were calibrated prior to Week 33 to Week 36 of the SEO. Data collected as ten-minute averages are attached. Summary sheets providing EBAM PM-2.5 24-hour averages are included in the attached SEO Week 33 to Week 36 Data Summaries.

#### **Reference Method for PM-2.5:**

A Rupprecht & Patashnick TEOM PM-2.5 monitor was collocated with the EBAM PM-2.5 monitor at Sampling Station #2 (Sidewalk Bridge Level SW Corner) and operated for SEO Weeks 33, 34 to 35, and at Sampling Station #1 (Sidewalk Bridge Level NW Corner) and operated for SEO Week 36 to comply with the ECAMP/QAPP requirement for an EPA reference method for EBAM data. TEOM PM-2.5 data collected as thirty-minute averages is attached (TEOM PM-2.5 data December 10<sup>th</sup>, 2007 to January 6<sup>th</sup>, 2008). Summary sheets providing TEOM PM-2.5 24-hour averages are included in the attached SEO Week 33 to Week 36 Data Summaries. Based on review of the data to date, it has been determined that application of a correction factor is not necessary at this time.

#### **Airborne Particulate PM-10:**

PM-10 particulate sampling was conducted using eight Met-One EBAM monitors, one at each of the community monitoring stations designated by the ECAMP/QAPP. All eight monitors were calibrated prior to Week 33 to Week 36 of the SEO. Data collected as ten-minute averages are attached. Summary sheets providing PM-10 24-hour averages are included in the attached SEO Week 33 to Week 36 Data Summary.

#### **Reference Method for PM-10:**

A Rupprecht & Patashnick TEOM PM-10 monitor was collocated with the EBAM PM-10 monitor at Sampling Station #1 (Sidewalk Bridge Level NW Corner) and operated for SEO Weeks 33, 34 and 35, and at Sampling Station #2 (Sidewalk Bridge Level SW Corner) and operated for SEO Week 36 to comply

with the ECAMP/QAPP requirement for an EA reference method for EBAM data. TEOM PM-10 data collected as 30-minute averages is attached (TEOM PM-10 data December 10<sup>th</sup>, 2007 to January 6<sup>th</sup>, 2008). Summary sheets providing TEOM PM-10 24-hour averages are included in the attached SEO Week 33 to Week 36 Data Summaries. Based on review of the data to date, it has been determined that application of a correction factor is not necessary at this time.

#### **Asbestos:**

Asbestos air samples were collected as provided for in the ECAMP/QAPP. All samples were delivered in good condition to the contract Laboratory (EMSL). Analyses were conducted by TEM (AHERA) and PCMe methodologies. Field blanks are analyzed and reported only in the case where asbestos is detected in the field samples for the subject time period. No asbestos was detected during Week 33 to Week 36 of the SEO; no field blanks were analyzed or reported. Method blanks were provided by the laboratory as required by the methodology. Summaries of all asbestos data are included in the attached SEO Week 33 to Week 36 Data Summaries.

#### **Mercury:**

Per the ECAMP/QAPP, monitoring was conducted for both mercury vapor and mercury particulate (total) throughout Week 33 to Week 36 of the SEO.

**Mercury Vapor:** Mercury Vapor was monitored per the ECAMP/QAPP with an Ohio Lumex RA 915+ real-time monitor. Summaries of the data recorded in the field are included in the attached SEO Week 33 to Week 36 Data Summaries.

**Particulate Mercury:** Particulate mercury was monitored by the use of Iodated Carbon Traps (ICT). Per the ECAMP/QAPP, two (2) “Spike” samples were run during Week 33 to Week 36 of the SEO.

#### **Metals:**

Metals sample collection was conducted in accordance with the ECAMP/QAPP. All samples were received in good condition at Severn Trent Laboratories. All Lab QA criteria were met. No further qualification of data was required. Summaries of the data recorded in the field are included in the attached SEO Week 33 to Week 36 Data Summaries. Copies of the laboratory data packages are attached.

#### **Silica:**

Silica air sample collection was conducted in accordance with the ECAMP/QAPP. All samples were received in good condition at EMSL Laboratories. All Lab QA criteria were met. No further qualification of data was required. Summaries of the data recorded in the field are included in the attached

SEO Week 33 to Week 36 Data Summaries. Copies of the laboratory data packages are attached.

One (1) background exceedance level for Silica was detected on 12/13/07 in Week 33 as follows:

$$\text{FH-121307-36} = 11 \text{ ug/m}^3$$

**Organics:**

Samples were collected on 12/12/07, 12/18/07, 12/24/07, and 1/06/08 for Dioxins/Furans, PAHs and PCBs analyses. All samples were received in good condition at Severn Trent Laboratories. All Lab QA criteria were met. No further qualification of data was required. Summaries of the data recorded in the field are included in the attached SEO Week 33 to Week 36 Data Summaries. Copies of the laboratory data packages are attached.