



AIRTEK ENVIRONMENTAL CORP.

39 WEST 38TH STREET, 12TH FLOOR, NEW YORK, NY 10018
PHONE (212) 768-0516 FAX (212) 768-0759
WWW.AIRTEKENV.COM

Scaffold Erection Operation Week Five to Week Eight Data Validation Report

**Week Five to Week Eight Sampling Period
05/28/07 to 06/24/07**

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

Prepared By:

**Airtek Environmental Corp.
39 West 38th Street
New York, NY 10018**

(212) 768-0516

Benn Lewis – Project Manager

July 10, 2007

General:

This report provides a summary of the Week Five to Week Eight (05-28-07 to 06-24-07) 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 Five to Week Eight include:

Week Five: 05-28-07 to 06-03-07
Week Six: 06-04-07 to 06-10-07
Week Seven: 06-11-07 to 06-17-07
Week Eight: 06-18-07 to 06-24-07

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. TEOM – PM-2.5 Flow Error: The TEOM PM-2.5 unit located at Station #2 (Sidewalk Bridge Level SW Corner) did not operate properly on 06/21/07 to 06/24/07 in Week Eight of sampling due to the damaged flow sensor. No data was generated for these days. The unit is being replaced. The flow error has been reported to the USEPA.
2. TEOM - PM-10 Flow Error: The TEOM PM-10 unit located at Station #1 (Sidewalk Bridge Level NW Corner) did not operate properly on 06/22/07 to 06/24/07 in Week Eight of sampling due to the damaged flow sensor. No data was generated for these days. The unit is being replaced. The flow error has been reported to the USEPA.

3. Mercury Spike: One (1) under-spiked Mercury field trap provided by Brooks Rand Laboratories was used in the spiked sample on 5/28/07 in Week Five (Sample # FH-052807-72) that yielded the recovery outside of the acceptance criteria (68%). Two technical documents (i.e. Under-Spiked Mercury Field Trap Correction Action; and Correction Action Letter) from the analytical laboratory discussing this occurrence are attached.
4. Metals: Two samples (FH-061907-24 and FH-062007-22) collected on 06/19/07 and 06/20/07 in Week Eight were voided due to field errors.
5. 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 two samples (FH-060807-31 and FH-062107-30) collected on 06/08/07 in Week Six and on 06/21/07 in Week Eight. (Reference: EMSL Analytical Inc. Technical Document: #SILICA-2006-01)
6. Organics - Receipt temperature blank for the shipment of samples from 06/24/07 in Week Eight arrived to the laboratory warm (19° C). Maintaining the samples at 2°-6° C is a method recommendation. Temperature maintenance is most important with soil samples, and has little impact on air samples of this type. It is, however, the goal of this project to comply with the method recommendation, and field corrective actions have been implemented. The data from these samples will be considered valid.

QA Reviews:

Data from the SEO Week Five to Week Eight 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. Minor deviations from the QAPP were noted in field equipment performance as noted and explained in this document. Fixed laboratory deviations were identified, and have been reported. Related technical documentation has been provided (attached).
2. Neither the individual deviations, nor the sum total of the impact of all deviations have a significant impact on the Week Five to Week Eight data sets. This is due in part to the minor nature of the deviations, and in part to the generally low readings for most analytes.
3. 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 except for one (1) under-spiked Mercury field trap used in the spiked sample on 5/28/07 that yielded the recovery outside of the acceptance criteria (68%).

Sensitivity and Quantitation Limits: As noted in this document, Quantitation limits for Silica (Quartz) were above the Target and Trigger levels in two samples due to primary peak interference. An explanatory technical document is attached.

Completeness:

Field Data: No single analytical parameter resulted in a completeness ratio of less than 99%. The Field Data for Week Five to Week Eight as a whole exceeded 98%.

Lab Data: No single analytical parameter resulted in a completeness ratio of less than 99.92%. The Lab Data for Week Five to Week Eight as a whole exceeded 99%.

4. Elevated Background Contaminant Levels:

Silica: The SEO Week Six and Week Eight revealed that localized background levels of silica can exceed the USEPA Trigger and Target levels irrespective of site activity at Fiterman Hall. Nine elevated background levels of Silica were recorded on the following date:

Week Six:

June 8 th , 2007 – Station #1	= 24 ug/m ³
June 8 th , 2007 – Station #2	= 24 ug/m ³
June 8 th , 2007 – Station #4	= 32 ug/m ³
June 8 th , 2007 – Station #5	= 23 ug/m ³
June 8 th , 2007 – Station #6	= 20 ug/m ³

Week Eight:

June 21 st , 2007 – Station #1	= 13 ug/m ³
June 21 st , 2007 – Station #3	= 14 ug/m ³
June 21 st , 2007 – Station #4	= 11 ug/m ³
June 24 th , 2007 – Station #1	= 19 ug/m ³

Contaminant-Specific Narratives:

Airborne Particulate PM-2.5:

PM-2.5 particulate sampling was conducted using six Met-One EBAM monitors, one at each of the community monitoring stations designated by the ECAMP/QAPP. All six monitors were calibrated prior to Week Five to Week Eight 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 Five to Week Eight 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 Week Five to Week Eight 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 May 28th to June 24th, 2007). Summary sheets providing TEOM PM-2.5 24-hour averages are included in the attached SEO Week Five to Week Eight 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.

Notes:

1. TEOM – PM-2.5 Flow Error: The TEOM PM-2.5 unit located at Station #2 (Sidewalk Bridge Level SW Corner) did not operate properly on 06/21/07 to 06/24/07 in Week Eight of sampling due to the damaged flow sensor. No data was generated for these days. The unit is being replaced. The flow error has been reported to the USEPA.

Airborne Particulate PM-10:

PM-10 particulate sampling was conducted using six Met-One EBAM monitors, one at each of the community monitoring stations designated by the ECAMP/QAPP. All six monitors were calibrated prior to Week Five to Week Eight 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 Five to Week Eight 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 the SEO Week Five to Week Eight 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 May 28th to June 24th, 2007). Summary sheets providing TEOM PM-10 24-hour averages are included in the attached SEO Week Five to Week Eight 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.

Notes:

1. TEOM - PM-10 Flow Error: The TEOM PM-10 unit located at Station #1 (Sidewalk Bridge Level NW Corner) did not operate properly on 06/22/07 to 06/24/07 in Week Eight of sampling due to the damaged flow sensor. No data was generated for these days. The unit is being replaced. The flow error has been reported to the USEPA.

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 Five to Week Eight 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 Five to Week Eight Data Summaries.

Mercury:

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

Notes:

1. Mercury Spike: One (1) under-spiked Mercury field trap provided by Brooks Rand Laboratories was used in the spiked sample on 5/28/07 during Week Five (Sample # FH-052807-72) that yielded the recovery outside of the acceptance criteria (68%). Two technical documents (i.e. Under-Spiked Mercury Field Trap Correction Action; and Correction Action Letter) from the analytical laboratory discussing this occurrence are attached.

Metals:

Metals sample collection was conducted in accordance with the ECAMP/QAPP. All samples except two 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 Five to Week Eight Data Summaries. Copies of the laboratory data packages are attached.

Notes:

1. Two samples (FH-061907-24 and FH-062007-22) were voided due to field errors.

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 Five to Week Eight Data Summaries. Copies of the laboratory data packages are attached.

Nine (9) background exceedance levels for Silica were detected on 06/08/07, 06/21/07 and 06/24/07 as follows:

Week Six:

FH-060807-29	= 24 ug/m ³
FH-060807-30	= 24 ug/m ³
FH-060807-32	= 32 ug/m ³
FH-060807-33	= 23 ug/m ³
FH-060807-34	= 20 ug/m ³

Week Eight:

FH-062107-29	= 13 ug/m ³
FH-062107-31	= 14 ug/m ³
FH-062107-32	= 11 ug/m ³
FH-062407-29	= 19 ug/m ³

Organics:

Samples were collected on 05/30/07, 06/05/07, 06/11/07, and 06/24/07 for Dioxins/Furans, PAHs and PCBs analyses. All samples were received in good condition at Severn Trent Laboratories except for 6/24/07. 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 Five to Week Eight Data Summaries. Copies of the laboratory data packages are attached.

Notes:

1. Receipt temperature blank for the shipment of samples from 06/24/07 in Week Eight arrived to the laboratory warm (19° C). Maintaining the samples at 2°-6° C is a method recommendation. Temperature maintenance is most important with soil samples, and has little impact on air samples of this type. It is, however, the goal of this project to comply with the method recommendation, and field corrective actions have been implemented. The data from these samples will be considered valid.