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Scaffold Erection Operation Week Nine to Week 12 Data Validation Report

**Week Nine to Week 12 Sampling Period
06/25/07 to 07/22/07**

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

Prepared By:

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General:

This report provides a summary of the Week Nine to Week 12 (06-25-07 to 07-22-07) 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 Nine to Week 12 include:

Week Nine: 06-25-07 to 07-01-07
Week Ten: 07-02-07 to 07-08-07
Week 11: 07-09-07 to 07-15-07
Week 12: 07-16-07 to 07-22-07

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 #1 (Sidewalk Bridge Level NW Corner) did not operate properly on 06/25/07 to 07/02/07 in Week Nine and part of Week Ten of sampling due to the damaged flow sensor. No data was generated for these days. The unit was replaced on 07/03/07. Therefore, only partial data was generated for 07/03/07.
2. TEOM - PM-10 Flow Error: The TEOM PM-10 unit located at Station #2 (Sidewalk Bridge Level SW Corner) did not operate properly on 06/25/07 to 07/02/07 in Week Nine and part of Week Ten of sampling due to the damaged flow sensor. No data was generated for these days. The unit was replaced on 07/03/07. Therefore, only partial data was generated for 07/03/07.

3. 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 seven samples (FH-062707-31, FH-070407-29, FH-070507-31, FH-070707-29, FH-070707-37, FH-071607-33 and FH-071707-33) collected on 06/27/07 in Week Nine, on 07/04/07, 07/05/07 and 07/07/07 in Week Ten, and on 07/16/07 and 07/17/07 in Week 12. (Reference: EMSL Analytical Inc. Technical Document: #SILICA-2006-01)
4. Organics - Receipt temperature blank for the shipment of samples from 06/30/07 in Week Nine arrived to the laboratory warm (15° 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. Additionally, due to a lab error, samples from two stations (Stations #1 and #3) in Week Ten were used for Dioxins/Furans and PCBs analyses. However, the duplicate samples (FH-070607-69 and FH-070607-71) on Station #1 were not analyzed by mistake.

QA Reviews:

Data from the SEO Week Nine to Week 12 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 Nine to Week 12 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.

Sensitivity and Quantitation Limits: As noted in this document, Quantitation limits for Silica (Quartz) were above the Target and Trigger levels in seven 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 98%. The Field Data for Week Nine to Week 12 as a whole exceeded 96%.

Lab Data: No single analytical parameter resulted in a completeness ratio of less than 92.30% (Organics data). The Lab Data for Week Nine to Week 12 as a whole exceeded 99.79%.

4. Elevated Background Contaminant Levels:

Silica: The SEO Weeks Nine, Ten and 12 revealed that localized background levels of silica can exceed the USEPA Trigger and Target levels irrespective of site activity at Fiterman Hall. Eight elevated background levels of Silica were recorded on the following date:

Week Nine:

June 25th, 2007 – Station #3 = 23 ug/m³

June 27th, 2007 – Station #1 = 13 ug/m³

June 27th, 2007 – Station #4 = 25 ug/m³

Week Ten:

July 2nd, 2007 – Station #3 = 11 ug/m³

Week 11:

July 15th, 2007 – Station #4 = 36 ug/m³

July 15th, 2007 – Station #6 = 11 ug/m³

Week 12:

July 19th, 2007 – Station #4 = 21 ug/m³

July 20th, 2007 – Station #3 = 13 ug/m³

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 Nine to Week 12 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 Nine to Week 12 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 #1 (Sidewalk Bridge Level NW Corner) and operated for SEO Week Nine to Week 12 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 June 25th to July 22nd, 2007). Summary sheets providing TEOM PM-2.5 24-hour averages are included in the attached SEO Week Nine to Week 12 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 #1 (Sidewalk Bridge Level NW Corner) did not operate

properly on 06/25/07 to 07/02/07 in Week Nine and part of Week Ten of sampling due to the damaged flow sensor. No data was generated for these days. The unit was replaced on 07/03/07. Therefore, only partial data was generated for 07/03/07.

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 Nine to Week 12 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 Nine to Week 12 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 #2 (Sidewalk Bridge Level SW Corner) and operated for the SEO Week Nine to Week 12 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 June 25th to July 22nd, 2007). Summary sheets providing TEOM PM-10 24-hour averages are included in the attached SEO Week Nine to Week 12 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 #2 (Sidewalk Bridge Level SW Corner) did not operate properly on 06/25/07 to 07/02/07 in Week Nine and part of Week Ten of sampling due to the damaged flow sensor. No data was generated for these days. The unit was replaced on 07/03/07. Therefore, only partial data was generated for 07/03/07.

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 Nine to Week 12 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 Nine to Week 12 Data Summaries.

Mercury:

Per the ECAMP/QAPP, monitoring was conducted for both mercury vapor and mercury particulate (total) throughout Week Nine to Week 12 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 Nine to Week 12 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 Nine to Week 12 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 Nine to Week 12 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 Nine to Week 12 Data Summaries. Copies of the laboratory data packages are attached.

Eight (8) background exceedance levels for Silica were detected on 06/25/07, 06/27/07, 07/02/07, 07/15/07, 07/19/07 and 07/20/07 as follows:

Week Nine:

FH-062507-31	= 23 ug/m ³
FH-062707-29	= 13 ug/m ³
FH-062707-32	= 25 ug/m ³

Week Ten:

FH-070207-31	= 11 ug/m ³
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Week 11:

FH-071507-32 = 36 ug/m³
FH-071507-34 = 11 ug/m³

Week 12:

FH-071907-32 = 21 ug/m³
FH-072007-31 = 13 ug/m³

Organics:

Samples were collected on 06/30/07, 07/06/07, 07/12/07, and 07/18/07 for Dioxins/Furans, PAHs and PCBs analyses. All samples were received in good condition at Severn Trent Laboratories except for 6/30/07. 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 Nine to Week 12 Data Summaries. Copies of the laboratory data packages are attached.

Notes:

1. Receipt temperature blank for the shipment of samples from 06/30/07 in Week Nine arrived to the laboratory warm (15° 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.

2. Due to a lab error, the samples from two stations in Week Ten were used for Dioxins/Furans and PCBs analyses as follows:

Dioxins/Furans: Station #1 - FH-070607-38
Station #3 – FH-070607-40

PCBs: Station #1 - FH-070607-56
Station #3 – FH-070607-58

3. Due to a lab error, the duplicate samples (FH-070607-69 and FH-070607-71) on Station #1 were not analyzed.