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REMOVAL SUPPORT TEAM 2
EPA CONTRACT EP-W-06-072

RST 2-02-F-2778

# TRANSMITTAL MEMO

To: Ángel Rodríguez, On-Scene Coordinator
Caribbean Environmental Protection Branch
U.S. EPA, Region II

From: Smita Sumbaly, Data Reviewer
RST 2, Region II

Subject: Puerto Rico Olefins Asbestos Site
Data Validation Assessment

Date: April 24, 2014

The purpose of this memo is to transmit the following information:

- Data validation results for the following parameters:

  Asbestos TEM 103 Samples

- Matrices and Number of Samples

  Microvacuum 96 Samples
  Field/Lot Blanks 7 Samples

- Sampling Dates: March 4 through 27, 2014

The final data assessment narrative and original analytical data package are attached.

cc: RST 2 SPM: Carlos Huertas
RST 2 SITE FILE TDD #: TO-0029-0122
ANALYTICAL TDD #: TO-0029-0133
PCS#: 7133

U.S. ENVIRONMENTAL PROTECTION AGENCY

**MEMORANDUM**

**DATE:** **April 24, 2014**

**TO:** **Ángel Rodríguez, On-Scene Coordinator**
**U.S. EPA, Region II**

**FROM:** **Smita Sumbaly**
**RST 2 Data Review Team**

**SUBJECT:** **QA/QC Compliance Review Summary**

As requested quality control and performance measures for the data packages noted have been examined and compared to EPA standards for compliance. Measures for the following general areas were evaluated as applicable:

Data Completeness
Sample Collection, Holding Times, and Preservation
Blank Analysis
Sample Sensitivity
Monthly Report TEM Calibrations

Any statistical measures used to support the following conclusions are attached so that the review may be reviewed by others.

Summary of Results

| | I<br>Asbestos<br>TEM |
|---|---|
| Acceptable as Submitted | X |
| Acceptable with Comments | |
| Unacceptable, Action Pending | |
| Unacceptable | |

Data Reviewed by: Smita Sumbaly Date: 4/24/14

Approved By: Date: 4/24/14

Area Code/Phone No.: (732) 585-4410

# NARRATIVE

## PCS No. 7133

**SITE NAME:** **Puerto Rico Olefins Asbestos Site**
**PR 385 KM 5.4 Int., 127 Tallaboa Ponente,**
**Ward Penuelas, Puerto Rico**

**Laboratory Name:** Batta Laboratories, 6 Garfield Way, Newark, DE 19713.

INTRODUCTION:

The laboratory's portion of this case consisted of 103 microvacuum samples, including five field blanks and two lot blank samples. All samples were collected from March 4 through 27, 2014. The Batta Lab Project Numbers are **L6888F and L6888G.**

The laboratory reported No problem(s) with the receipt of these samples.

The laboratory reported problems with the analyses of Asbestos TEM: Due to heavy particulate and serial dilutions, the sensitivity of some samples as required by the method was not reached.

The evaluator has commented on the criteria specified under each fraction heading. All criteria have been assessed, but no discussion is given where the evaluator has determined that criteria were adequately performed or require no comment. Details relevant to these comments are given on the following forms.

Appropriate Form Is and Chain of Custody have been copied from the original data package and appended to the data assessment narrative for reference.

Title: Evaluation of Asbestos Data
Data Assessment Narrative

**RFP #: 279/Task#: 7133** **Site: Puerto Rico Olefins Asbestos Site**

**Lab: Batta Laboratories** **Matrix/No. of Samples: Microvacuum/103**

**SDG#'s: L6888F and L6888G** **Reviewer: SMITA SUMBALY**

**Contractor: WESTON-RST 2**

A.2.1 Validation Flags- The following flags have been applied in red by the data validator and must be considered by the data user.

J- This flag indicates the result qualified as estimated.

Red- Line- A red-line drawn through a sample result indicates an unusable value. The red-lined data are known to contain significant errors based on documented information and must not be used by the data user.

Fully Usable Data- The results that do not carry "J" or "red-line" are fully usable.

A.2.2 The data assessment is given below and on the attached sheets.

From March 4 through 27, 2014, U.S. EPA, Region II, RST 2 personnel collected 103 microvacuum samples, including five field blanks and two lot blank samples, from the Puerto Rico Olefins Asbestos Site, located at PR 385 KM 5.4 Int., 127 Tallaboa Ponente, Ward Penuelas, Puerto Rico. Within 24 hours of collections, samples were shipped via FedEx to Batta Laboratories, 6 Garfield Way, Newark, DE. The laboratory verified that the samples were received intact and properly custody sealed.

All microvacuum samples for asbestos were prepared and analyzed in accordance with Standard Test Method ASTM D5755-09 for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Surface Loading. Data was reported as asbestos str/cm$^2$ with fiber sizing and counting.

TEM analysis was performed using a procedure from TEM ASTM D5755-09. The sizing of structures (analysis) was performed on JEM-100 CX II microscope at approximately 19,000X magnification.

All the samples are reported as str/cm$^2$. The target analytical sensitivity for these samples were 260 str/cm$^2$. The project target sensitivity of this analysis is 260 s/cm$^2$. Due to heavy particulate and serial dilutions, the sensitivity of some samples as required by the method was not reached. An aspect ratio of >5.1 was applied.

The laboratory reported the area sampled, asbestos type, asbestos structure, sensitivity, and concentration of asbestos detected. Results are provided in Table 1.

Client identification (ID) and laboratory ID numbers are as follows:

| Client ID No. | Laboratory ID No: | Matrix | Sampling Date | Analysis |
|---|---|---|---|---|
| **SDG No.: FB-B-030414/Sampling Date: 3/4/2014** | | | | |
| FB-B-030414 | 786549 | Field Blank | 03/04/2014 | Asbestos TEM |
| LB-B-030414 | 786550 | Lot Blank | 03/04/2014 | Asbestos TEM |
| P0006-MV01-01 | 786551 | Microvacuum | 03/04/2014 | Asbestos TEM |
| P0006-MV02-01 | 786552 | Microvacuum | 03/04/2014 | Asbestos TEM |
| P0006-MV03-01 | 786553 | Microvacuum | 03/04/2014 | Asbestos TEM |
| P0047-MV01-01 | 786554 | Microvacuum | 03/04/2014 | Asbestos TEM |
| P0047-MV02-01 | 786555 | Microvacuum | 03/04/2014 | Asbestos TEM |
| P0047-MV03-01 | 786556 | Microvacuum | 03/04/2014 | Asbestos TEM |
| **SDG No.: P0050-MV01-01/Sampling Date: 3/5/2014** | | | | |
| P0050-MV01-01 | 786581 | Microvacuum | 03/05/2014 | Asbestos TEM |
| P0050-MV02-01 | 786582 | Microvacuum | 03/05/2014 | Asbestos TEM |
| P0050-MV03-01 | 786583 | Microvacuum | 03/05/2014 | Asbestos TEM |
| **SDG No.: P0009-MV01-01/Sampling Date: 3/6/2014** | | | | |
| P0009-MV01-01 | 786623 | Microvacuum | 03/06/2014 | Asbestos TEM |
| P0009-MV02-01 | 786624 | Microvacuum | 03/06/2014 | Asbestos TEM |
| P0009-MV03-01 | 786625 | Microvacuum | 03/06/2014 | Asbestos TEM |
| P0069-MV01-01 | 786626 | Microvacuum | 03/06/2014 | Asbestos TEM |
| P0069-MV02-01 | 786627 | Microvacuum | 03/06/2014 | Asbestos TEM |
| P0069-MV03-01 | 786628 | Microvacuum | 03/06/2014 | Asbestos TEM |
| **SDG No.: FB-B-030814/Sampling Dates: 3/7-8/2014** | | | | |
| FB-B-030814 | 786863 | Field Blank | 03/08/2014 | Asbestos TEM |
| P0008-MV01-01 | 786864 | Microvacuum | 03/08/2014 | Asbestos TEM |
| P0008-MV02-01 | 786865 | Microvacuum | 03/08/2014 | Asbestos TEM |
| P0008-MV03-01 | 786866 | Microvacuum | 03/08/2014 | Asbestos TEM |
| P0057-MV01-01 | 786867 | Microvacuum | 03/07/2014 | Asbestos TEM |
| P0057-MV02-01 | 786868 | Microvacuum | 03/07/2014 | Asbestos TEM |
| P0057-MV03-01 | 786869 | Microvacuum | 03/07/2014 | Asbestos TEM |
| P0058-MV01-01 | 786870 | Microvacuum | 03/07/2014 | Asbestos TEM |
| P0058-MV02-01 | 786871 | Microvacuum | 03/07/2014 | Asbestos TEM |
| P0058-MV03-01 | 786872 | Microvacuum | 03/07/2014 | Asbestos TEM |
| **SDG No.: P0008-MV04-01/Sampling Date: 3/10/2014** | | | | |
| P0008-MV04-01 | 786913 | Microvacuum | 03/10/2014 | Asbestos TEM |
| P0008-MV05-01 | 786914 | Microvacuum | 03/10/2014 | Asbestos TEM |
| P0008-MV06-01 | 786915 | Microvacuum | 03/10/2014 | Asbestos TEM |
| P0076-MV01-01 | 786916 | Microvacuum | 03/10/2014 | Asbestos TEM |
| P0076-MV02-01 | 786917 | Microvacuum | 03/10/2014 | Asbestos TEM |
| P0076-MV03-01 | 786918 | Microvacuum | 03/10/2014 | Asbestos TEM |
| **SDG No.: LB-B-031114/Sampling Date: 3/11/2014** | | | | |
| LB-B-031114 | 787009 | Lot Blank | 03/11/2014 | Asbestos TEM |
| P0007-MV01-01 | 787010 | Microvacuum | 03/11/2014 | Asbestos TEM |
| P0007-MV02-01 | 787011 | Microvacuum | 03/11/2014 | Asbestos TEM |
| P0007-MV03-01 | 787012 | Microvacuum | 03/11/2014 | Asbestos TEM |
| P0051-MV01-01 | 787013 | Microvacuum | 03/11/2014 | Asbestos TEM |
| P0051-MV02-01 | 787014 | Microvacuum | 03/11/2014 | Asbestos TEM |
| P0051-MV03-01 | 787015 | Microvacuum | 03/11/2014 | Asbestos TEM |

| Client ID No. | Laboratory ID No: | Matrix | Sampling Date | Analysis |
|---|---|---|---|---|
| **SDG No.: P0054-MV01-01/Sampling Date: 3/12/2014** | | | | |
| P0054-MV01-01 | 787063 | Microvacuum | 03/12/2014 | Asbestos TEM |
| P0054-MV02-01 | 787064 | Microvacuum | 03/12/2014 | Asbestos TEM |
| P0054-MV03-01 | 787065 | Microvacuum | 03/12/2014 | Asbestos TEM |
| P0055-MV01-01 | 787066 | Microvacuum | 03/12/2014 | Asbestos TEM |
| P0055-MV02-01 | 787067 | Microvacuum | 03/12/2014 | Asbestos TEM |
| P0055-MV03-01 | 787068 | Microvacuum | 03/12/2014 | Asbestos TEM |
| FB-B-031214 | 787069 | Field Blank | 03/12/2014 | Asbestos TEM |
| **SDG No.: P0065-MV01-01/Sampling Date: 3/13/2014** | | | | |
| P0065-MV01-01 | 787204 | Microvacuum | 03/13/2014 | Asbestos TEM |
| P0065-MV02-01 | 787205 | Microvacuum | 03/13/2014 | Asbestos TEM |
| P0065-MV03-01 | 787206 | Microvacuum | 03/13/2014 | Asbestos TEM |
| P0067B-MV01-01 | 787207 | Microvacuum | 03/13/2014 | Asbestos TEM |
| P0067B-MV02-01 | 787208 | Microvacuum | 03/13/2014 | Asbestos TEM |
| P0067B-MV03-01 | 787209 | Microvacuum | 03/13/2014 | Asbestos TEM |
| **SDG No.: P0056A-MV01-01/Sampling Dates: 3/14-15/2014** | | | | |
| P0056A-MV01-01 | 787228 | Microvacuum | 03/15/2014 | Asbestos TEM |
| P0056A-MV02-01 | 787229 | Microvacuum | 03/15/2014 | Asbestos TEM |
| P0056A-MV03-01 | 787230 | Microvacuum | 03/15/2014 | Asbestos TEM |
| P0056B-MV01-01 | 787231 | Microvacuum | 03/14/2014 | Asbestos TEM |
| P0056B-MV02-01 | 787232 | Microvacuum | 03/14/2014 | Asbestos TEM |
| P0056B-MV03-01 | 787233 | Microvacuum | 03/14/2014 | Asbestos TEM |
| P0067A-MV01-01 | 787234 | Microvacuum | 03/14/2014 | Asbestos TEM |
| P0067A-MV02-01 | 787235 | Microvacuum | 03/14/2014 | Asbestos TEM |
| P0067A-MV03-01 | 787236 | Microvacuum | 03/14/2014 | Asbestos TEM |
| P0074-MV01-01 | 787237 | Microvacuum | 03/15/2014 | Asbestos TEM |
| P0074-MV02-01 | 787238 | Microvacuum | 03/15/2014 | Asbestos TEM |
| P0074-MV03-01 | 787239 | Microvacuum | 03/15/2014 | Asbestos TEM |
| **SDG No.: FB-B-031814/Sampling Date: 3/18/2014** | | | | |
| FB-B-031814 | 787303 | Field Blank | 03/18/2014 | Asbestos TEM |
| P0068-MV01-01 | 787304 | Microvacuum | 03/18/2014 | Asbestos TEM |
| P0068-MV02-01 | 787305 | Microvacuum | 03/18/2014 | Asbestos TEM |
| P0068-MV03-01 | 787306 | Microvacuum | 03/18/2014 | Asbestos TEM |
| P0077-MV01-01 | 787307 | Microvacuum | 03/18/2014 | Asbestos TEM |
| P0077-MV02-01 | 787308 | Microvacuum | 03/18/2014 | Asbestos TEM |
| P0077-MV03-01 | 787309 | Microvacuum | 03/18/2014 | Asbestos TEM |
| **SDG No.: P0073-MV01-01/Sampling Date: 3/19/2014** | | | | |
| P0073-MV01-01 | 787412 | Microvacuum | 03/19/2014 | Asbestos TEM |
| P0073-MV02-01 | 787413 | Microvacuum | 03/19/2014 | Asbestos TEM |
| P0073-MV03-01 | 787414 | Microvacuum | 03/19/2014 | Asbestos TEM |
| **SDG No.: P0046-MV01-01/Sampling Date: 3/21/2014** | | | | |
| P0046-MV01-01 | 787612 | Microvacuum | 03/21/2014 | Asbestos TEM |
| P0046-MV02-01 | 787613 | Microvacuum | 03/21/2014 | Asbestos TEM |
| P0046-MV03-01 | 787614 | Microvacuum | 03/21/2014 | Asbestos TEM |

| Client ID No. | Laboratory ID No: | Matrix | Sampling Date | Analysis |
|---|---|---|---|---|
| **SDG No.: P0004-MV01-01/Sampling Date: 3/24/2014** | | | | |
| P0004-MV01-01 | 787690 | Microvacuum | 03/24/2014 | Asbestos TEM |
| P0004-MV02-01 | 787691 | Microvacuum | 03/24/2014 | Asbestos TEM |
| P0004-MV03-01 | 787692 | Microvacuum | 03/24/2014 | Asbestos TEM |
| P0079-MV01-01 | 787693 | Microvacuum | 03/24/2014 | Asbestos TEM |
| P0079-MV02-01 | 787694 | Microvacuum | 03/24/2014 | Asbestos TEM |
| P0079-MV03-01 | 787695 | Microvacuum | 03/24/2014 | Asbestos TEM |
| **SDG No.: FB-B-032514/Sampling Date: 3/25/2014** | | | | |
| FB-B-032514 | 787742 | Field Blank | 03/25/2014 | Asbestos TEM |
| P0005-MV01-01 | 787743 | Microvacuum | 03/25/2014 | Asbestos TEM |
| P0005-MV02-01 | 787744 | Microvacuum | 03/25/2014 | Asbestos TEM |
| P0005-MV03-01 | 787745 | Microvacuum | 03/25/2014 | Asbestos TEM |
| P0049-MV01-01 | 787746 | Microvacuum | 03/25/2014 | Asbestos TEM |
| P0049-MV02-01 | 787747 | Microvacuum | 03/25/2014 | Asbestos TEM |
| P0049-MV03-01 | 787748 | Microvacuum | 03/25/2014 | Asbestos TEM |
| **SDG No.:P0186-MV01-01/Sampling Date: 3/26/2014** | | | | |
| P0186-MV01-01 | 787847 | Microvacuum | 03/26/2014 | Asbestos TEM |
| P0186-MV02-01 | 787848 | Microvacuum | 03/26/2014 | Asbestos TEM |
| P0186-MV03-01 | 787849 | Microvacuum | 03/26/2014 | Asbestos TEM |
| P0187-MV01-01 | 787850 | Microvacuum | 03/26/2014 | Asbestos TEM |
| P0187-MV02-01 | 787851 | Microvacuum | 03/26/2014 | Asbestos TEM |
| P0187-MV03-01 | 787852 | Microvacuum | 03/26/2014 | Asbestos TEM |
| P0188-MV01-01 | 787853 | Microvacuum | 03/26/2014 | Asbestos TEM |
| P0188-MV02-01 | 787854 | Microvacuum | 03/26/2014 | Asbestos TEM |
| P0188-MV03-01 | 787855 | Microvacuum | 03/26/2014 | Asbestos TEM |
| **SDG No.: P0189-MV01-01/Sampling Date: 3/27/2014** | | | | |
| P0189-MV01-01 | 787905 | Microvacuum | 03/27/2014 | Asbestos TEM |
| P0189-MV02-01 | 787906 | Microvacuum | 03/27/2014 | Asbestos TEM |
| P0189-MV03-01 | 787907 | Microvacuum | 03/27/2014 | Asbestos TEM |

**Asbestos analysis of Microvacuum via TEM ASTM Method D5755-09:**

A total of 103 microvacuum samples, including five field blanks and two lot blank, were analyzed by ASTM Method D5755-09 for asbestos structure number surface loading by TEM. Data was reported as asbestos s/cm$^2$.

A total of 103 samples were collected, including five field blanks and two lot blank samples. Chrysotile asbestos was detected in 65 of 103 field samples, Actinolite asbestos was detected in eight samples and Amosite asbestos was detected in one sample. All field samples concentrations were reported between <176.2 s/cm$^2$ to 12,728,000 s/cm$^2$. Field blank samples and non-detected samples were reported below the analytical sensitivity.

Laboratory reported that due to heavy particulate and serial dilutions, the sensitivity of some samples as required by the method was not reached.

For QC purposes, the laboratory analyzed one lab blank with every batch of samples, and no asbestos structures were detected. Laboratory also analyzed one replicate samples with every batch of

samples, daily and monthly report for calibration standards. All QC results are acceptable.

**TEM Equipment Performance Check**

The laboratory performed monthly report for TEM calibrations which includes Chrysotile Beam Dose sensitivity (quarterly), Camera Constant calibrations, Plasma Asher Calibration, Magnification Calibrations, Spot Size Measurements (Quarterly), K Factors (Semi-annually), Detector Resolution (Semi-annually/Quarterly), Significant Na and resolvable Mg-Si Peaks (Quarterly), and daily TEM Calibrations. All calibrations met the "pass" criteria. No qualifiers were applied based upon this parameter.

The results presented for the wipe samples are acceptable as reported. No qualifications were required.

**A.2.3 Contract Problem/Non-Compliance:**

None

Contractor Reviewer: Signature: Date: 4/24/14

Verified by: Signature: Date: 4/24/14

# TABLE 1

**Project: Puerto Rico Olefins Asbestos Site**

**Standard Test Methods for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Surface Loading - ASTM D5755-09**

| Client Sample ID Number | Laboratory Sample ID Number | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Type Detected | Analytical Sensitivity ($s/cm^2$) | Limit of detection ($s/mm^2$) | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
|---|---|---|---|---|---|---|---|---|---|
| **SDG No.: FB-B-030414/Sampling Date: 3/4/2014** | | | | | | | | | |
| FB-B-030414 | 786549 | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | <30.77 |
| LB-B-030414 | 786550 | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | <30.77 |
| P0006-MV01-01 | 786551 | 100 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | <246.7 | <15.38 |
| P0006-MV02-01 | 786552 | 100 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | <246.7 | <15.38 |
| P0006-MV03-01 | 786553 | 100 | 0.7410 | 55 | Chrysotile | 259.6 | 5.4 | 14280.7 | 74.22 |
| P0047-MV01-01 | 786554 | 100 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | <246.7 | <15.38 |
| P0047-MV02-01 | 786555 | 100 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | <246.7 | <15.38 |
| P0047-MV03-01 | 786556 | 100 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | <246.7 | <15.38 |
| **SDG No.: P0050-MV01-01/Sampling Date: 3/5/2014** | | | | | | | | | |
| P0050-MV01-01 | 786581 | 100 | 0.1560 | 2 | Chrysotile Actinolite | 246.7 | 25.6 | 493.3 | <25.64 |
| P0050-MV02-01 | 786582 | 100 | 0.1560 | 12 | Chrysotile Actinolite | 246.7 | 25.6 | 2960.0 | 76.92 |
| P0050-MV03-01 | 786583 | 100 | 0.1560 | 3 | Chrysotile | 246.7 | 25.6 | 740.0 | <25.64 |
| **SDG No.: P0009-MV01-01/Sampling Date: 3/6/2014** | | | | | | | | | |
| P0009-MV01-01 | 786623 | 100 | 0.1300 | 0 | None Detected | 246.7 | 30.8 | <246.7 | <30.77 |
| P0009-MV02-01 | 786624 | 100 | 0.1300 | 0 | None Detected | 246.7 | 30.8 | <246.7 | <30.77 |
| P0009-MV03-01 | 786625 | 100 | 0.1300 | 0 | None Detected | 246.7 | 30.8 | <246.7 | <30.77 |
| P0069-MV01-01 | 786626 | 100 | 0.2210 | 102 | Chrysotile Actinolite | 870.6 | 18.1 | 88,800.0 | 461.54 |
| P0069-MV02-01 | 786627 | 100 | 0.7540 | 60 | Actinolite Chrysotile Amosite | 255.2 | 5.3 | 15,310.3 | 79.58 |
| P0069-MV03-01 | 786628 | 100 | 0.3770 | 22 | Chrysotile Actinolite | 255.2 | 10.6 | 5,613.80 | 58.36 |
| **SDG No.: FB-B-030814/Sampling Dates: 3/7-8/2014** | | | | | | | | | |
| FB-B-030814 | 786863 | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | <30.77 |
| P0008-MV01-01 | 786864 | 100 | 0.1300 | 33 | Chrysotile | 246.7 | 30.8 | 8,140.0 | 253.85 |
| P0008-MV02-01 | 786865 | 100 | 0.3770 | 72 | Chrysotile | 255.2 | 10.6 | 18,372.4 | 190.98 |
| P0008-MV03-01 | 786866 | 100 | 0.1820 | 108 | Chrysotile | 1057.1 | 22.0 | 114,171.4 | 593.41 |
| P0057-MV01-01 | 786867 | 100 | 0.1300 | 3 | Chrysotile | 246.7 | 30.8 | 740.0 | <30.77 |
| P0057-MV02-01 | 786868 | 100 | 0.1040 | 4 | Chrysotile | 231.3 | 38.5 | 925.0 | 38.46 |
| P0057-MV03-01 | 786869 | 100 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | <231.3 | <38.46 |
| P0058-MV01-01 | 786870 | 100 | 0.3770 | 46 | Chrysotile | 255.2 | 10.6 | 11,737.9 | 122.02 |
| P0058-MV02-01 | 786871 | 100 | 0.2470 | 0 | None Detected | 259.6 | 16.2 | <259.6 | <16.19 |
| P0058-MV03-01 | 786872 | 100 | 0.2600 | 19 | Chrysotile | 246.7 | 15.4 | 4,686.7 | 73.08 |

N/A - Not Applicable

$s/cm^2$ - Structure/Centimeter Square

$s/mm^2$ - Structure/Milimeter Square

# TABLE 1

**Project: Puerto Rico Olefins Asbestos Site**

**Standard Test Methods for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Surface Loading - ASTM D5755-09**

| Client Sample ID Number | Laboratory Sample ID Number | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Type Detected | Analytical Sensitivity ($s/cm^2$) | Limit of detection ($s/mm^2$) | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
|---|---|---|---|---|---|---|---|---|---|
| **SDG No.: P0008-MV01-04/Sampling Date: 3/10/2014** | | | | | | | | | |
| P0008-MV04-01 | 786913 | 100 | 0.0260 | 344 | Chrysotile | 37,000.0 | 153.8 | 12,728,000.0 | 13,230.77 |
| P0008-MV05-01 | 786914 | 100 | 0.2470 | 21 | Chrysotile | 259.6 | 16.2 | 5,452.6 | 85.02 |
| P0008-MV06-01 | 786915 | 100 | 0.2600 | 104 | Chrysotile | 370.0 | 15.4 | 38,480.0 | 400.00 |
| P0076-MV01-01 | 786916 | 100 | 0.1560 | 0 | None Detected | 246.7 | 25.6 | <246.7 | <25.64 |
| P0076-MV02-01 | 786917 | 100 | 0.1560 | 1 | Chrysotile | 246.7 | 25.6 | 246.7 | <25.64 |
| P0076-MV03-01 | 786918 | 100 | 0.1560 | 4 | Chrysotile | 246.7 | 25.6 | 986.7 | 25.64 |
| **SDG No.: LB-B-031114/Sampling Date: 3/11/2014** | | | | | | | | | |
| LB-B-031114 | 787009 | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | <30.77 |
| P0007-MV01-01 | 787010 | 100 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | <231.3 | <38.46 |
| P0007-MV02-01 | 787011 | 100 | 0.1040 | 3 | Chrysotile | 231.3 | 38.5 | 693.8 | <38.46 |
| P0007-MV03-01 | 787012 | 100 | 0.1170 | 37 | Chrysotile | 234.9 | 34.2 | 8,692.1 | 316.24 |
| P0051-MV01-01 | 787013 | 100 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | <231.3 | <38.46 |
| P0051-MV02-01 | 787014 | 100 | 0.1560 | 36 | Chrysotile | 246.7 | 25.6 | 8,880.0 | 230.77 |
| P0051-MV03-01 | 787015 | 100 | 0.1040 | 26 | Chrysotile | 231.3 | 38.5 | 6,012.5 | 250.00 |
| **SDG No.: P0054-MV01-01/Sampling Date: 3/12/2014** | | | | | | | | | |
| P0054-MV01-01 | 787063 | 100 | 0.1040 | 5 | Chrysotile | 231.3 | 38.5 | 1,156.3 | 48.08 |
| P0054-MV02-01 | 787064 | 100 | 0.1170 | 2 | Chrysotile | 234.9 | 34.2 | 469.8 | <34.19 |
| P0054-MV03-01 | 787065 | 100 | 0.0910 | 3 | Chrysotile | 234.9 | 44.0 | 704.8 | <43.96 |
| P0055-MV01-01 | 787066 | 100 | 0.0910 | 1 | Chrysotile | 234.9 | 44.0 | 234.9 | <43.96 |
| P0055-MV02-01 | 787067 | 100 | 0.0910 | 4 | Chrysotile | 234.9 | 44.0 | 939.7 | 43.96 |
| P0055-MV03-01 | 787068 | 100 | 0.1560 | 10 | Chrysotile | 246.7 | 25.6 | 2,466.7 | 64.10 |
| FB-B-031214 | 787069 | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | <30.77 |
| **SDG No.: P0065-MV01-01/Sampling Date: 3/13/2014** | | | | | | | | | |
| P0065-MV01-01 | 787204 | 100 | 0.1560 | 7 | Chrysotile | 246.7 | 25.6 | 1,726.7 | 44.87 |
| P0065-MV02-01 | 787205 | 100 | 0.1950 | 5 | Chrysotile | 246.7 | 20.5 | 1,233.3 | 25.64 |
| P0065-MV03-01 | 787206 | 100 | 0.1560 | 2 | Chrysotile | 246.7 | 25.6 | 493.3 | <25.64 |
| P0067B-MV01-01 | 787207 | 100 | 0.1560 | 0 | None Detected | 246.7 | 25.6 | <246.7 | <25.64 |
| P0067B-MV02-01 | 787208 | 100 | 0.1950 | 83 | Chrysotile | 246.7 | 20.5 | 20,473.3 | 425.64 |
| P0067B-MV03-01 | 787209 | 100 | 0.1300 | 35 | Chrysotile | 246.7 | 30.8 | 8,633.3 | 269.23 |

N/A - Not Applicable

$s/cm^2$ - Structure/Centimeter Square

$s/mm^2$ - Structure/Milimeter Square

# TABLE 1

## Project: Puerto Rico Olefins Asbestos Site

### Standard Test Methods for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Surface Loading - ASTM D5755-09

| Client Sample ID Number | Laboratory Sample ID Number | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Type Detected | Analytical Sensitivity ($s/cm^2$) | Limit of detection ($s/mm^2$) | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
|---|---|---|---|---|---|---|---|---|---|
| **SDG No.: P0056A-MV01-01/Sampling Dates: 3/14-15/2014** | | | | | | | | | |
| P0056A-MV01-01 | 787228 | 100 | 0.7410 | 6 | Chrysotile | 259.6 | 5.4 | 1,557.9 | 8.10 |
| P0056A-MV02-01 | 787229 | 100 | 0.7410 | 55 | Chrysotile | 259.6 | 5.4 | 14,280.7 | 74.22 |
| P0056A-MV03-01 | 787230 | 100 | 0.1040 | 2 | Chrysotile | 231.3 | 38.5 | 462.5 | <38.46 |
| P0056B-MV01-01 | 787231 | 100 | 0.1040 | 5 | Chrysotile | 231.3 | 38.5 | 1,156.3 | 48.08 |
| P0056B-MV02-01 | 787232 | 100 | 0.1950 | 2 | Chrysotile | 246.7 | 20.5 | 493.3 | <20.51 |
| P0056B-MV03-01 | 787233 | 100 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | <231.3 | <38.46 |
| P0067A-MV01-01 | 787234 | 100 | 0.1170 | 70 | Chrysotile | 234.9 | 34.2 | 16,444.4 | 598.29 |
| P0067A-MV02-01 | 787235 | 100 | 0.1040 | 1 | Chrysotile | 231.3 | 38.5 | 231.3 | <38.46 |
| P0067A-MV03-01 | 787236 | 100 | 0.1040 | 2 | Chrysotile | 231.3 | 38.5 | 462.5 | <38.46 |
| P0074-MV01-01 | 787237 | 100 | 0.1300 | 18 | Chrysotile | 246.7 | 30.8 | 4,440.0 | 138.46 |
| P0074-MV02-01 | 787238 | 100 | 0.1040 | 20 | Chrysotile | 231.3 | 38.5 | 4,625.0 | 192.31 |
| P0074-MV03-01 | 787239 | 100 | 0.1560 | 10 | Chrysotile | 246.7 | 25.6 | 2,466.7 | 64.10 |
| **SDG No.: FB-B-031814/Sampling Date: 3/18/2014** | | | | | | | | | |
| FB-B-031814 | 787303 | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | <30.77 |
| P0068-MV01-01 | 787304 | 100 | 0.1040 | 0 | None Detected | 205.6 | 38.5 | <205.6 | <38.46 |
| P0068-MV02-01 | 787305 | 100 | 0.1560 | 0 | None Detected | 246.7 | 25.6 | <246.7 | <25.64 |
| P0068-MV03-01 | 787306 | 100 | 0.2210 | 0 | None Detected | 217.6 | 18.1 | <217.6 | <18.10 |
| P0077-MV01-01 | 787307 | 100 | 0.1560 | 0 | None Detected | 176.2 | 25.6 | <176.2 | <25.64 |
| P0077-MV02-01 | 787308 | 100 | 0.1170 | 0 | None Detected | 205.6 | 34.2 | <205.6 | <34.19 |
| P0077-MV03-01 | 787309 | 100 | 0.0910 | 0 | None Detected | 234.9 | 44.0 | <234.9 | <43.96 |
| **SDG No.: P0073-MV01-01/Sampling Date: 3/19/2014** | | | | | | | | | |
| P0073-MV01-01 | 787412 | 100 | 0.1040 | 5 | Chrysotile | 231.3 | 38.5 | 1,156.3 | 48.08 |
| P0073-MV02-01 | 787413 | 100 | 0.1170 | 0 | None Detected | 205.6 | 34.2 | <205.6 | <34.19 |
| P0073-MV03-01 | 787414 | 100 | 0.1820 | 0 | None Detected | 211.4 | 22.0 | <211.4 | <21.98 |
| **SDG No.: P0046-MV01-01/Sampling Date: 3/21/2014** | | | | | | | | | |
| P0046-MV01-01 | 787612 | 100 | 0.1300 | 0 | None Detected | 246.7 | 30.8 | <246.7 | <30.77 |
| P0046-MV02-01 | 787613 | 100 | 0.0910 | 0 | None Detected | 234.9 | 44.0 | <234.9 | <43.96 |
| P0046-MV03-01 | 787614 | 100 | 0.0910 | 0 | None Detected | 234.9 | 44.0 | <234.9 | <43.96 |
| **SDG No.: P0004-MV01-01/Sampling Date: 3/24/2014** | | | | | | | | | |
| P0004-MV01-01 | 787690 | 100 | 0.1300 | 12 | Chrysotile | 246.7 | 30.8 | 2,960.0 | 92.31 |
| P0004-MV02-01 | 787691 | 100 | 0.1170 | 11 | Chrysotile | 234.9 | 34.2 | 2,584.1 | 94.02 |
| P0004-MV03-01 | 787692 | 100 | 0.0910 | 6 | Chrysotile | 234.9 | 44.0 | 1,409.5 | 65.93 |
| P0079-MV01-01 | 787693 | 100 | 0.0910 | 1 | Chrysotile | 234.9 | 44.0 | 234.9 | <43.96 |
| P0079-MV02-01 | 787694 | 100 | 0.1040 | 1 | Chrysotile | 231.3 | 38.5 | 231.3 | <38.46 |
| P0079-MV03-01 | 787695 | 100 | 0.1300 | 6 | Chrysotile | 246.7 | 30.8 | 1,480.0 | 46.15 |

N/A - Not Applicable

$s/cm^2$ - Structure/Centimeter Square

$s/mm^2$ - Structure/Milimeter Square

# TABLE 1

**Project: Puerto Rico Olefins Asbestos Site**

**Standard Test Methods for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Surface Loading - ASTM D5755-09**

| Client Sample ID Number | Laboratory Sample ID Number | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Type Detected | Analytical Sensitivity ($s/cm^2$) | Limit of detection ($s/mm^2$) | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
|---|---|---|---|---|---|---|---|---|---|
| **SDG No.: FB-B-032514/Sampling Date: 3/25/2014** | | | | | | | | | |
| FB-B-032514 | 787742 | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | <30.77 |
| P0005-MV01-01 | 787743 | 100 | 0.1560 | 9 | Chrysotile Actinolite | 246.7 | 25.6 | 2,220.0 | 57.69 |
| P0005-MV02-01 | 787744 | 100 | 0.1950 | 33 | Chrysotile Actinolite | 246.7 | 20.5 | 8,140.0 | 169.23 |
| P0005-MV03-01 | 787745 | 100 | 0.0780 | 0 | None Detected | 256.9 | 51.3 | <256.9 | <51.28 |
| P0049-MV01-01 | 787746 | 100 | 0.1170 | 2 | Chrysotile | 234.9 | 34.2 | 469.8 | <34.19 |
| P0049-MV02-01 | 787747 | 100 | 0.1950 | 3 | Chrysotile | 246.7 | 20.5 | 740.0 | <20.51 |
| P0049-MV03-01 | 787748 | 100 | 0.1300 | 3 | Chrysotile | 246.7 | 30.8 | 740.0 | <30.77 |
| **SDG No.:P0186-MV01-01/Sampling Date: 3/26/2014** | | | | | | | | | |
| P0186-MV01-01 | 787847 | 100 | 0.0520 | 101 | Chrysotile | 925.0 | 76.9 | 93,425.0 | 1,942.31 |
| P0186-MV02-01 | 787848 | 100 | 0.1300 | 20 | Chrysotile | 246.7 | 30.8 | 4,933.30 | 153.85 |
| P0186-MV03-01 | 787849 | 100 | 0.3770 | 6 | Chrysotile | 255.2 | 10.6 | 1,531.0 | 15.92 |
| P0187-MV01-01 | 787850 | 100 | 0.2470 | 6 | Chrysotile Actinolite | 259.6 | 16.2 | 1,557.9 | 24.29 |
| P0187-MV02-01 | 787851 | 100 | 0.2470 | 16 | Chrysotile | 259.6 | 16.2 | 4,154.4 | 64.78 |
| P0187-MV03-01 | 787852 | 100 | 1.2350 | 30 | Chrysotile | 259.6 | 3.2 | 7,789.5 | 24.29 |
| P0188-MV01-01 | 787853 | 100 | 0.1170 | 0 | None Detected | 234.9 | 34.2 | <234.9 | <34.19 |
| P0188-MV02-01 | 787854 | 100 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | <231.3 | <38.46 |
| P0188-MV03-01 | 787855 | 100 | 0.1170 | 0 | None Detected | 234.9 | 34.2 | <234.9 | <34.19 |
| **SDG No.: P0189-MV01-01/Sampling Date: 3/27/2014** | | | | | | | | | |
| P0189-MV01-01 | 787905 | 100 | 0.0780 | 4 | Chrysotile | 246.7 | 51.3 | 986.7 | 51.28 |
| P0189-MV02-01 | 787906 | 100 | 0.1040 | 4 | Chrysotile | 231.3 | 38.5 | 925.0 | 38.46 |
| P0189-MV03-01 | 787907 | 100 | 0.1300 | 0 | None Detected | 246.7 | 30.8 | <246.7 | <30.77 |

N/A - Not Applicable

$s/cm^2$ - Structure/Centimeter Square

$s/mm^2$ - Structure/Milimeter Square

# Batta Data Package Checklist

| | | | |
|---|---|---|---|
| **Company:** | Batta Laboratories, Inc. | **EPA ID#:** | DE 004 |
| **EPA CASE#:** | RFP 279 & 279A | **LAB PROJ#:** | L6888F & L6888G |
| **EPA SDG#:** | MULTIPLE | **Date Received:** | MULTIPLE |
| **Total Units:** | 103 | **Revision #:** | INITIAL |

**Data Package Type:** ☐ Particle Size ☐ Moisture ☐ PLM ☐ PCM ☒ TEM

**Sample Matrix:** ☐ Bulk ☒ Soil ☐ Air ☐ Water

| | | | | | |
|---|---|---|---|---|---|
| X | COC | X | Prep Sheet | See narrative | EDD |
| X | QA Data | X | Bench Sheet | NA | MISC. |

**Case Narrative:**

This data package is pertinent to 103 samples received under the EPA orders RFP# 279 and 279A through Weston Solutions, Inc. for TEM analysis by the ASTM D 5755-09 method. Date of sample receiving and sample conditions, together with sample matrix information are documented on the client provided COC (s), EPA Region 2 SDG forms and/or custody forms.

The method utilized for the analysis is ASTM D 5755-09: Standard Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Surface Loading. The project target sensitivity of this analysis is 260 s/cm$^2$; however, due to heavy particulate loading (>50% filter coverage regardless of particulate thickness) and serial dilutions, the sensitivity of some samples could not be practically met. Please refer to the Data Validation section of this data package for stopping rules used for the analysis.

The data package contains one hardcopy report. Data CDs or DVDs that contain both hard copies and EDDs (in EPA Region 2 format) will be sent separately in a later package. This hardcopy data package is organized with sections in the following manner: EPA Region 2 DC-2 Form, Batta Check List (w/ case narratives), SDG Cover Sheet, Summary Report of Analysis, EPA Region 2 DC-1 Form, Lab Prep Sheet, Reanalysis and Blank Analysis, Data Validation, Calibrations and Routines, and Analytical Sheets For information on terminology, standard analysis and the March and April TEM routine calibrations, please refer to the previous data packages received for TEM NIOSH 7402 and ISO 13794 analyses.

Please direct all technical inquiries to: Bo Li, Ph. D., Batta Laboratories, Inc., Delaware Industrial Park, 6 Garfield Way, Newark, DE 19713; or at E-mail: bo.li@battaenv.com.

| | | | |
|---|---|---|---|
| **Signature:** | | **Title:** | Manager |
| **Print Name:** | Bo Li | **Date:** | 04/12/2014 |

# SUMMARY REPORT OF ANALYSIS

## BY

## ASTM D 5755-09

Dedicated to a Cleaner Environment Since 1982

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E.P.A. LAB ID# DE004

A.I.H.A./NLLAP #100448

NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Test Method: ASTM D 5755-09

Report Date: 3/7/2014

## Sampling Data

**BLI Project #:** L6888F
**Project Name:** Weston Solutions
**Date Sampled:** 3/4/2014
**Sampling Location:** Site 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/6/2014

## Analytical Data

**Date Received:** 3/6/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.22 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/6/2014 **Prepped By:** BL **Date Analyzed:** 3/6/2014 **Analyzed By:** JX

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity (s/$cm^2$) | Limit of Detection (s/$mm^2$) * | Reported Concantration (s/$cm^2$) | Reported Density (s/$mm^2$) |
| 786549 | FB-B-030414 | ASTM | N/A | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | < 30.77 |
| 786550 | LB-B-030414 | ASTM | N/A | N/A | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | < 30.77 |
| 786551 | P0006-MV01-01 | ASTM | N/A | 100.0 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | < 246.7 | < 15.36 |
| 786552 | P0006-MV02-01 | ASTM | N/A | 100.0 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | < 246.7 | < 15.36 |
| 786553 | P0006-MV03-01 | ASTM | N/A | 100.0 | 0.7410 | 55 | Chrysotile | 259.6 | 5.4 | 14,280.7 | 74.22 |
| 786554 | P0047-MV01-01 | ASTM | N/A | 100.0 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | < 246.7 | < 15.38 |
| 786555 | P0047-MV02-01 | ASTM | N/A | 100.0 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | < 246.7 | < 15.36 |
| 786556 | P0047-MV03-01 | ASTM | N/A | 100.0 | 0.2600 | 0 | None Detected | 246.7 | 15.4 | < 246.7 | < 15.38 |

**ANALYST:** J. Xu **REVIEWED BY:** _____

Some samples may have involved serial dilutions to yield satisfactory loading for analysis, which results in different concentrations for the same amount of structures detected.

Electronic versions of the certificate of analysis (i.e. Excel files, PDF files, Word files, etc.) are not under the warranty of authenticity and accuracy of the original analytical results kept on file by the Batta Laboratories, Inc. (BLI). Under all circumstances BLI should be notified in writing for any changes made to these electronic certificates of analysis. Under no circumstances will BLI be liable for changes made to the electronic certificate of analysis without BLI's prior consent in writing.

* For this method used, the limit of detection (LD) is defined as, at a minimum, the counting of four asbestos structures during the TEM analysis. If less than four asbestos structures are counted, a "less than" sign (<) appears before the calculated concentration or density. ASTM method recommends that the analytical sensitivity be less than 1000 structures per centimetar squared. The actual reported sensitivity is calculated based on sampling area, filter size, dilution series, number of grids analyzed, etc.

Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

Areas provided by the client. Batta Laboratories does not accept liability for results reported in s/cc. This report pertains only to the items tested and does not constitute endorsement by NVLAP or other U.S. government agencies. T:\TEM Analysis\Microvacs\MicroVac Reports\Current Version ASTM Reports\T5242\5242ASTM-(v.4d)pREV1.xls

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E.P.A. LAB ID# DE004

A.I.H.A./NLLAP #100448

NVLAP® NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



**Test Method:** ASTM D 5755-09

**Report Date:** 3/7/2014

## Sampling Data

**BLI Project #:** L6888F
**Project Name:** Weston Solutions
**Date Sampled:** 3/5/2014
**Sampling Location:** Site 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/7/2014

## Analytical Data

**Date Received:** 3/7/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.22 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/7/2014 **Prepped By:** AY **Date Analyzed:** 3/7/2014 **Analyzed By:** AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 786581 | P0050-MV01-01 | ASTM | N/A | 100.0 | 0.1560 | 2 | Chrysotile Actinolite | 246.7 | 25.6 | 493.3 | < 25.64 |
| 786582 | P0050-MV02-01 | ASTM | N/A | 100.0 | 0.1560 | 12 | Chrysotile Actinolite | 246.7 | 25.6 | 2,960.0 | 76.92 |
| 786583 | P0050-MV03-01 | ASTM | N/A | 100.0 | 0.1560 | 3 | Chrysotile | 246.7 | 25.6 | 740.0 | < 25.64 |

**ANALYST:** AY **REVIEWED BY:**

Some samples may have involved serial dilutions to yield satisfactory loading for analysis, which results in different concentrations for the same amount of structures detected.

Electronic versions of the certificate of analysis (i.e. Excel files, PDF files, Word files, etc.) are not under the warranty of authenticity and accuracy of the original analytical results kept on file by the Batta Laboratories, Inc. (BLI). Under all circumstances BLI should be notified in writing for any changes made to these electronic certificates of analysis. Under no circumstances will BLI be liable for changes made to the electronic certificate of analysis without BLI's prior consent in writing.

* For this method used, the limit of detection (LD) is defined as, at a minimum, the counting of four asbestos structures during the TEM analysis. If less than four asbestos structures are counted, a "less than" sign (<) appears before the calculated concentration or density. ASTM method recommends that the analytical sensitivity be less than 1000 structures per centimeter squared. The actual reported sensitivity is calculated based on sampling area, filter size, dilution series, number of grids analyzed, etc.

Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

Areas provided by the client. Batta Laboratories does not accept liability for results reported in s/cc. This report pertains only to the items tested and does not constitute endorsement by NVLAP or other U.S. government agencies.

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E.P.A. LAB ID# DE004

A.I.H.A./NLLAP #100448

NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



**Test Method:** ASTM D 5755-09

**Report Date:** 3/10/2014

## Sampling Data

**BLI Project #:** L6888F
**Project Name:** WESTON SOLUTIONS, INC. - RST 2 RFP NO. 27
**Sampling Location:** 0029-0122
**Date Sampled:** 3/6/2014
**Sampled By:** CLIENT
**Date Received:** 3/8/2014

## Analytical Data

**Date Received:** 3/8/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/8/2014 **Prepped By:** BL **Date Analyzed:** 3/9/2014 **Analyzed By:** JX/AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 786623 | P0009-MV01-01 | ASTM | ~~0029-0122~~ NA | 100.0 | 0.1300 | 0 | None Detected | 246.7 | 30.8 | < 246.7 | < 30.77 |
| 786624 | P0009-MV02-01 | ASTM | ~~0029-0122~~ NA | 100.0 | 0.1300 | 0 | None Detected | 246.7 | 30.6 | < 246.7 | < 30.77 |
| 786625 | P0009-MV03-01 | ASTM | ~~0029-0122~~ NA | 100.0 | 0.1300 | 0 | None Detected | 246.7 | 30.8 | < 246.7 | < 30.77 |
| 786626 | P0069-MV01-01 | ASTM | ~~0029-0122~~ NA | 100.0 | 0.2210 | 102 | Chrysotile Actinolite | 870.6 | 18.1 | 88,800.0 | 461.54 |
| 786627 | P0069-MV02-01 | ASTM | ~~0029-0122~~ NA | 100.0 | 0.7540 | 60 | Actinolite Chrysotile Amosite | 255.2 | 5.3 | 15,310.3 | 79.58 |
| 786626 | P0069-MV03-01 | ASTM | ~~0029-0122~~ NA | 100.0 | 0.3770 | 22 | Chrysotile Actinolite | 255.2 | 10.6 | 5,613.8 | 58.36 |

Rev. #1: Total number of fibers corrected, sample 786626, changed from 103 to 102.

**ANALYST:** JX/ AY **REVIEWED BY:**

Some samples may have involved serial dilutions to yield satisfactory loading for analysis, which results in different concentrations for the same amount of structures detected.

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Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

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E.P.A. LAB ID# DE004

A.I.H.A./NLLAP #100448

NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Test Method: ASTM D 5755-09

Report Date: 3/12/2014

## Sampling Data

**BLI Project #:** L6888F
**Project Name:** Weston Solutions
**Date Sampled:** 3/7-3/8/14
**Sampling Location:** Site 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/11/2014

## Analytical Data

**Date Received:** 3/11/2014 **Secondary EFA (mm²):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area (mm²):** 0.013
**Date Prepped:** 3/11/2014 **Prepped By:** AY **Date Analyzed:** 3/11-3/12/2014 **Analyzed By:** JX/AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled (cm²) | Area Analyzed (mm²) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity (s/cm²) | Limit of Detection (s/mm²) * | Reported Concentration (s/cm²) | Reported Density (s/mm²) |
| 786863 | FB-B-030814 | ASTM | n/a | 0.0 | 0.1300 | 0 | None Detected | n/a | 30.8 | n/a | < 30.77 |
| 786864 | P0008-MV01-01 | ASTM | n/a | 100.0 | 0.1300 | 33 | Chrysotile | 246.7 | 30.8 | 8,140.0 | 253.85 |
| 786865 | P0008-MV02-01 | ASTM | n/a | 100.0 | 0.3770 | 72 | Chrysotile | 255.2 | 10.8 | 18,372.4 | 190.98 |
| 786866 | P0008-MV03-01 | ASTM | n/a | 100.0 | 0.1820 | 108 | Chrysotile | 1,057.1 | 22.0 | 114,171.4 | 593.41 |
| 786867 | P0057-MV01-01 | ASTM | n/a | 100.0 | 0.1300 | 3 | Chrysotile | 246.7 | 30.8 | 740.0 | < 30.77 |
| 786868 | P0057-MV02-01 | ASTM | n/a | 100.0 | 0.1040 | 4 | Chrysotile | 231.3 | 38.5 | 925.0 | 38.46 |
| 786869 | P0057-MV03-01 | ASTM | n/a | 100.0 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | < 231.3 | < 38.46 |
| 786870 | P0058-MV01-01 | ASTM | n/a | 100.0 | 0.3770 | 46 | Chrysotile | 255.2 | 10.6 | 11,737.9 | 122.02 |
| 786871 | P0058-MV02-01 | ASTM | n/a | 100.0 | 0.2470 | 0 | None Detected | 259.6 | 16.2 | < 259.6 | < 16.19 |
| 786872 | P0058-MV03-01 | ASTM | n/a | 100.0 | 0.2600 | 19 | Chrysotile | 246.7 | 15.4 | 4,686.7 | 73.08 |

**ANALYST:** JX/ AY **REVIEWED BY:**

Some samples may have involved serial dilutions to yield satisfactory loading for analysis, which results in different concentrations for the same amount of structures detected.

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Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

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E.P.A. LAB ID# DE004
A.I.H.A./NLLAP #100448
NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Test Method: ASTM D 5755-09

Report Date: 3/14/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/10/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/12/2014

## Analytical Data

**Date Received:** 3/12/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/12-13/2014 **Prepped By:** BL/JX/AY **Date Analyzed:** 3/13-14/2014 **Analyzed By:** JX/ AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 786913 | P0008-MV04-01 | ASTM | n/a | 100.0 | 0.0260 | 344 | Chrysotile | 37,000.0 | 153.8 | 12,728,000.0 | 13,230.77 |
| 786914 | P0008-MV05-01 | ASTM | n/a | 100.0 | 0.2470 | 21 | Chrysotile | 259.6 | 16.2 | 5,452.6 | 85.02 |
| 786915 | P0008-MV06-01 | ASTM | n/a | 100.0 | 0.2600 | 104 | Chrysotile | 370.0 | 15.4 | 38,480.0 | 400.00 |
| 786916 | P0076-MV01-01 | ASTM | n/a | 100.0 | 0.1560 | 0 | None Detected | 246.7 | 25.6 | < 246.7 | < 25.64 |
| 786917 | P0076-MV02-01 | ASTM | n/a | 100.0 | 0.1560 | 1 | Chrysotile | 246.7 | 25.6 | 246.7 | < 25.64 |
| 786918 | P0076-MV03-01 | ASTM | n/a | 100.0 | 0.1560 | 4 | Chrysotile | 246.7 | 25.6 | 986.7 | 25.64 |

**ANALYST:** JX/ AY **REVIEWED BY:**

Some samples may have involved serial dilutions to yield satisfactory loading for analysis, which results in different concentrations for the same amount of structures detected.

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Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

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E.P.A. LAB ID# DE004
A.I.H.A./NLLAP #100448
NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Test Method: ASTM D 5755-09

Report Date: 3/14/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/11/2014
**Sampling Location:** Site 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/13/2014

## Analytical Data

**Date Received:** 3/13/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/13/2014 **Prepped By:** AY **Date Analyzed:** 3/14/2014 **Analyzed By:** AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity (s/$cm^2$) | Limit of Detection (s/$mm^2$) * | Reported Concentration (s/$cm^2$) | Reported Density (s/$mm^2$) |
| 787009 | LB-B-031114 | ASTM | n/a | 0.0 | 0.1300 | 0 | None Detected | n/a | 30.8 | n/a | < 30.77 |
| 787010 | P0007-MV01-01 | ASTM | n/a | 100.0 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | < 231.3 | < 38.46 |
| 787011 | P0007-MV02-01 | ASTM | n/a | 100.0 | 0.1040 | 3 | Chrysotile | 231.3 | 38.5 | 693.8 | < 38.46 |
| 787012 | P0007-MV03-01 | ASTM | n/a | 100.0 | 0.1170 | 37 | Chrysotile | 234.9 | 34.2 | 8,692.1 | 316.24 |
| 787013 | P0051-MV01-01 | ASTM | n/a | 100.0 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | < 231.3 | < 38.46 |
| 787014 | P0051-MV02-01 | ASTM | n/a | 100.0 | 0.1560 | 36 | Chrysotile | 246.7 | 25.6 | 8,880.0 | 230.77 |
| 787015 | P0051-MV03-01 | ASTM | n/a | 100.0 | 0.1040 | 26 | Chrysotile | 231.3 | 38.5 | 6,012.5 | 250.00 |

ANALYST: AY REVIEWED BY: _____

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Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

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A.I.H.A./NLLAP #100448

NVLAP® NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Test Method: ASTM D 5755-09

Report Date: 3/17/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/12/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/14/2014

## Analytical Data

**Date Received:** 3/14/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/15/2014 **Prepped By:** AY **Date Analyzed:** 3/17/2014 **Analyzed By:** AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787063 | P0054-MV01-01 | ASTM | n/a | 100.0 | 0.1040 | 5 | Chrysotile | 231.3 | 38.5 | 1,156.3 | 48.08 |
| 787064 | P0054-MV02-01 | ASTM | n/a | 100.0 | 0.1170 | 2 | Chrysotile | 234.9 | 34.2 | 469.8 | < 34.19 |
| 787065 | P0054-MV03-01 | ASTM | n/a | 100.0 | 0.0910 | 3 | Chrysotile | 234.9 | 44.0 | 704.8 | < 43.96 |
| 787066 | P0055-MV01-01 | ASTM | n/a | 100.0 | 0.0910 | 1 | Chrysotile | 234.9 | 44.0 | 234.9 | < 43.96 |
| 787067 | P0055-MV02-01 | ASTM | n/a | 100.0 | 0.0910 | 4 | Chrysotile | 234.9 | 44.0 | 939.7 | 43.96 |
| 787068 | P0055-MV03-01 | ASTM | n/a | 100.0 | 0.1560 | 10 | Chrysotile | 246.7 | 25.6 | 2,466.7 | 64.10 |
| 787069 | FB-B-031214 | ASTM | n/a | 0.0 | 0.1300 | 0 | None Detected | n/a | 30.8 | n/a | < 30.77 |

**ANALYST:** AY **REVIEWED BY:**

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NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Test Method: ASTM D 5755-09

Report Date: 3/18/2014

## Sampling Data

**BLI Project #:** L6868G
**Project Name:** Weston Solutions
**Date Sampled:** 3/13/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/17/2014

## Analytical Data

**Date Received:** 3/17/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/17/2014 **Prepped By:** AY **Date Analyzed:** 3/18/2014 **Analyzed By:** AY

| | Client-Suppliad Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787204 | P0065-MV01-01 | ASTM | n/a | 100.0 | 0.1560 | 7 | Chrysotile | 246.7 | 25.6 | 1,726.7 | 44.87 |
| 787205 | P0065-MV02-01 | ASTM | n/a | 100.0 | 0.1950 | 5 | Chrysotile | 246.7 | 20.5 | 1,233.3 | 25.64 |
| 787206 | P0065-MV03-01 | ASTM | n/a | 100.0 | 0.1560 | 2 | Chrysotile | 246.7 | 25.6 | 493.3 | < 25.64 |
| 787207 | P0067B-MV01-01 | ASTM | n/a | 100.0 | 0.1560 | 0 | None Detected | 246.7 | 25.6 | < 246.7 | < 25.64 |
| 787208 | P0067B-MV02-01 | ASTM | n/a | 100.0 | 0.1950 | 83 | Chrysotile | 246.7 | 20.5 | 20,473.3 | 425.64 |
| 787209 | P0067B-MV03-01 | ASTM | n/a | 100.0 | 0.1300 | 35 | Chrysotile | 246.7 | 30.8 | 8,633.3 | 269.23 |

**ANALYST:** AY **REVIEWED BY:**

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NVLAP® NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS

Test Method: ASTM D 5755-09



Report Date: 3/19/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/14-15/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/18/2014

## Analytical Data

**Date Received:** 3/18/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/18-19/2014 **Prepped By:** MH/AY **Date Analyzed:** 3/19-20/2014 **Analyzed By:** AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787228 | P0056A-MV01-01 | ASTM | n/a | 100.0 | 0.7410 | 6 | Chrysotile | 259.6 | 5.4 | 1,557.9 | 8.10 |
| 787229 | P0056A-MV02-01 | ASTM | n/a | 100.0 | 0.7410 | 55 | Chrysotile | 259.6 | 5.4 | 14,280.7 | 74.22 |
| 787230 | P0056A-MV03-01 | ASTM | n/a | 100.0 | 0.1040 | 2 | Chrysotile | 231.3 | 38.5 | 462.5 | < 38.46 |
| 787231 | P0056B-MV01-01 | ASTM | n/a | 100.0 | 0.1040 | 5 | Chrysotile | 231.3 | 38.5 | 1,156.3 | 48.08 |
| 787232 | P0056B-MV02-01 | ASTM | n/a | 100.0 | 0.1950 | 2 | Chrysotile | 246.7 | 20.5 | 493.3 | < 20.51 |
| 787233 | P0056B-MV03-01 | ASTM | n/a | 100.0 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | < 231.3 | < 38.46 |
| 787234 | P0067A-MV01-01 | ASTM | n/a | 100.0 | 0.1170 | 70 | Chrysotile | 234.9 | 34.2 | 16,444.4 | 598.29 |
| 787235 | P0067A-MV02-01 | ASTM | n/a | 100.0 | 0.1040 | 1 | Chrysotile | 231.3 | 38.5 | 231.3 | < 38.48 |
| 787236 | P0067A-MV03-01 | ASTM | n/a | 100.0 | 0.1040 | 2 | Chrysotile | 231.3 | 38.5 | 462.5 | < 38.46 |

ANALYST: AY REVIEWED BY:

Some samples may have involved serial dilutions to yield satisfactory loading for analysis, which results in different concentrations for the same amount of structures detected.

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Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

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E.P.A. LAB ID# DE004
A.I.H.A./NLLAP #100448
NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS

Test Method: ASTM D 5755-09



Report Date: 3/20/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/14-15/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/18/2014

## Analytical Data

**Date Received:** 3/18/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/18-19/2014 **Prepped By:** MH/AY **Date Analyzed:** 3/20/2014 **Analyzed By:** AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787237 | P0074-MV01-01 | ASTM | n/a | 100.0 | 0.1300 | 18 | Chrysotile | 246.7 | 30.8 | 4,440.0 | 138.46 |
| 787238 | P0074-MV02-01 | ASTM | n/a | 100.0 | 0.1040 | 20 | Chrysotile | 231.3 | 38.5 | 4,625.0 | 192.31 |
| 787239 | P0074-MV03-01 | ASTM | n/a | 100.0 | 0.1560 | 10 | Chrysotile | 246.7 | 25.6 | 2,466.7 | 64.10 |

ANALYST: AY REVIEWED BY: _____

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A.I.H.A./NLLAP #100448

NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Rev.#: 1 Test Method: ASTM D 5755-09 Report Date: 3/24/2014

## Sampling Data

**BLI Project #:** L8888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/18/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/20/2014

## Analytical Data

**Date Received:** 3/20/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/20/2014 **Prepped By:** AY **Date Analyzed:** 3/21/2014 **Analyzed By:** JX

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787303 | FB-B-031814 | ASTM | n/a | 0.0 | 0.1300 | 0 | None Detected | n/a | 30.8 | n/a | < 30.77 |
| 787304 | P0068-MV01-01 | ASTM | n/a | 100.0 | 0.1040 | 0 | None Detected | 205.6 | 38.5 | < 205.6 | < 38.46 |
| 787305 | P0068-MV02-01 | ASTM | n/a | 100.0 | 0.1560 | 0 | None Detected | 246.7 | 25.6 | < 246.7 | < 25.64 |
| 787306 | P0088-MV03-01 | ASTM | n/a | 100.0 | 0.2210 | 0 | None Detected | 217.6 | 18.1 | < 217.6 | < 18.10 |
| 787307 | P0077-MV01-01 | ASTM | n/a | 100.0 | 0.1560 | 0 | None Detected | 176.2 | 25.6 | < 176.2 | < 25.64 |
| 787308 | P0077-MV02-01 | ASTM | n/a | 100.0 | 0.1170 | 0 | None Detected | 205.6 | 34.2 | < 205.6 | < 34.19 |
| 787309 | P0077-MV03-01 | ASTM | n/a | 100.0 | 0.0910 | 0 | None Detected | 234.9 | 44.0 | < 234.9 | < 43.96 |

Rev 1. : The result of sample 787304 was revised. The change has no impact on the structrues (if any) detected.

**ANALYST:** JX **REVIEWED BY:**

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A.I.H.A./NLLAP #100448

NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



**Test Method:** ASTM D 5755-09

**Report Date:** 3/24/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/19/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/21/2014

## Analytical Data

**Date Received:** 3/21/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/21/2014 **Prepped By:** BL/ AY **Date Analyzed:** 3/23/2014 **Analyzed By:** JX

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity (s/$cm^2$) | Limit of Detection (s/$mm^2$) * | Reported Concentration (s/$cm^2$) | Reported Density (s/$mm^2$) |
| 787412 | P0073-MV01-01 | ASTM | n/a | 100.0 | 0.1040 | 5 | Chrysotile | 231.3 | 38.5 | 1,156.3 | 48.08 |
| 787413 | P0073-MV02-01 | ASTM | n/a | 100.0 | 0.1170 | 0 | None Detected | 205.6 | 34.2 | < 205.6 | < 34.19 |
| 767414 | P0073-MV03-01 | ASTM | n/a | 100.0 | 0.1820 | 0 | None Detected | 211.4 | 22.0 | < 211.4 | < 21.98 |

**ANALYST:** JX **REVIEWED BY:**

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E.P.A. LAB ID# DE004

A.I.H.A./NLLAP #100446

NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS

**Test Method:** ASTM D 5755-09



**Report Date:** 3/26/2014

## Sampling Data

**BLI Project #:** L6668G
**Project Name:** Weston Solutions
**Date Sampled:** 3/21/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/25/2014

## Analytical Data

**Date Received:** 3/25/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/25/2014 **Prepped By:** MH/ AY **Date Analyzed:** 3/26/2014 **Analyzed By:** AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 767612 | P0046-MV01-01 | ASTM | n/a | 100.0 | 0.1300 | 0 | None Detected | 246.7 | 30.6 | < 246.7 | < 30.77 |
| 767613 | P0046-MV02-01 | ASTM | n/a | 100.0 | 0.0910 | 0 | None Detected | 234.9 | 44.0 | < 234.9 | < 43.96 |
| 767614 | P0046-MV03-01 | ASTM | n/a | 100.0 | 0.0910 | 0 | None Detected | 234.9 | 44.0 | < 234.9 | < 43.96 |

**ANALYST:** AY **REVIEWED BY:**

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NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Rev. #: 1 Test Method: ASTM D 5755-09 Report Date: 3/27/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/24/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/26/2014

## Analytical Data

**Date Received:** 3/26/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/26/2014 **Prepped By:** MH/JX **Date Analyzed:** 3/26-3/27/14 **Analyzed By:** JX/AY

| Client-Supplied Data | | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787690 | P0004-MV01-01 | ASTM | n/a | 100.0 | 0.1300 | 12 | Chrysotile | 246.7 | 30.8 | 2,960.0 | 92.31 |
| 787691 | P0004-MV02-01 | ASTM | n/a | 100.0 | 0.1170 | 11 | Chrysotile | 234.9 | 34.2 | 2,584.1 | 94.02 |
| 787692 | P0004-MV03-01 | ASTM | n/a | 100.0 | 0.0910 | 6 | Chrysotile | 234.9 | 44.0 | 1,409.5 | 65.93 |
| 787693 | P0079-MV01-01 | ASTM | n/a | 100.0 | 0.0910 | 1 | Chrysotile | 234.9 | 44.0 | 234.9 | < 43.96 |
| 787694 | P0079-MV02-01 | ASTM | n/a | 100.0 | 0.1040 | 1 | Chrysotile | 231.3 | 38.5 | 231.3 | < 38.46 |
| 787695 | P0079-MV03-01 | ASTM | n/a | 100.0 | 0.1300 | 6 | Chrysotile | 246.7 | 30.8 | 1,480.0 | 46.15 |

Rev. 1: Total number of structures detected for sample 787692 was revised. No significant impact on the final result.

**ANALYST:** JX/ AY **REVIEWED BY:**

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E.P.A. LAB ID# DE004

A.I.H.A./NLLAP #100448

NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Test Method: ASTM D 5755-09

Report Date: 3/28/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Sampling Location:** 0029-0122
**Dete Sampled:** 3/25/2014
**Sampled By:** CLIENT
**Date Received:** 3/27/2014

## Analytical Data

**Date Received:** 3/27/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/27/2014 **Prepped By:** MH/JX **Date Analyzed:** 3/27-28/2014 **Analyzed By:** JX

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787742 | FB-B-032514 | ASTM | n/a | 0.0 | 0.1300 | 0 | None Detected | N/A | 30.8 | N/A | < 30.77 |
| 787743 | P0005-MV01-01 | ASTM | n/a | 100.0 | 0.1560 | 9 | Chrysotile Actinolite | 246.7 | 25.6 | 2,220.0 | 57.69 |
| 787744 | P0005-MV02-01 | ASTM | n/a | 100.0 | 0.1950 | 33 | Chrysotile Actinolite | 246.7 | 20.5 | 8,140.0 | 169.23 |
| 787745 | P0005-MV03-01 | ASTM | n/a | 100.0 | 0.0780 | 0 | None Detected | 256.9 | 51.3 | < 256.9 | < 51.28 |
| 787746 | P0049-MV01-01 | ASTM | n/a | 100.0 | 0.1170 | 2 | Chrysotile | 234.9 | 34.2 | 469.8 | < 34.19 |
| 787747 | P0049-MV02-01 | ASTM | n/a | 100.0 | 0.1950 | 3 | Chrysotile | 246.7 | 20.5 | 740.0 | < 20.51 |
| 787748 | P0049-MV03-01 | ASTM | n/a | 100.0 | 0.1300 | 3 | Chrysotile | 246.7 | 30.8 | 740.0 | < 30.77 |

**ANALYST:** JX/ AY **REVIEWED BY:**

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NVLAP #101032



## CERTIFICATE OF TEM ANALYSIS

**Test Method:** ASTM D 5755-09

**Report Date:** 3/31/2014

### Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/26/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/28/2014

### Analytical Data

**Date Received:** 3/28/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (μm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/28/2014 **Prepped By:** AY **Date Analyzed:** 3/30-3/31/14 **Analyzed By:** AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787847 | P0186-MV01-01 | ASTM | n/a | 100.0 | 0.0520 | 101 | Chrysotile | 925.0 | 76.9 | 93,425.0 | 1,942.31 |
| 787848 | P0186-MV02-01 | ASTM | n/a | 100.0 | 0.1300 | 20 | Chrysotile | 246.7 | 30.8 | 4,933.3 | 153.85 |
| 787849 | P0186-MV03-01 | ASTM | n/a | 100.0 | 0.3770 | 6 | Chrysotile | 255.2 | 10.6 | 1,531.0 | 15.92 |
| 787850 | P0187-MV01-01 | ASTM | n/a | 100.0 | 0.2470 | 6 | Chrysotile Actinolite | 259.6 | 16.2 | 1,557.9 | 24.29 |
| 787851 | P0187-MV02-01 | ASTM | n/a | 100.0 | 0.2470 | 16 | Chrysotile | 259.6 | 16.2 | 4,154.4 | 64.78 |
| 787852 | P0187-MV03-01 | ASTM | n/a | 100.0 | 1.2350 | 30 | Chrysotile | 259.6 | 3.2 | 7,789.5 | 24.29 |
| 787853 | P0188-MV01-01 | ASTM | n/a | 100.0 | 0.1170 | 0 | None Detected | 234.9 | 34.2 | < 234.9 | < 34.19 |
| 787854 | P0188-MV02-01 | ASTM | n/a | 100.0 | 0.1040 | 0 | None Detected | 231.3 | 38.5 | < 231.3 | < 38.46 |
| 787855 | P0188-MV03-01 | ASTM | n/a | 100.0 | 0.1170 | 0 | None Detected | 234.9 | 34.2 | < 234.9 | < 34.19 |

**ANALYST:** AY **REVIEWED BY:**

Some samples may have involved serial dilutions to yield satisfactory loading for analysis, which results in different concentrations for the same amount of structures detected.

Electronic versions of the certificate of analysis (i.e. Excel files, PDF files, Word files, etc.) are not under the warranty of authenticity and accuracy of the original analytical results kept on file by the Batta Laboratories, Inc. (BLI). Under all circumstances BLI should be notified in writing for any changes made to these electronic certificates of analysis. Under no circumstances will BLI be liable for changes made to the electronic certificate of analysis without BLI's prior consent in writing.

* For this method used, the limit of detection (LO) is defined as, at a minimum, the counting of four asbestos structures during the TEM analysis. If less than four asbestos structures are counted, a "less than" sign (<) appears before the calculated concentration or density. ASTM method recommends that the analytical sensitivity be less than 1000 structures per centimeter squared. The actual reported sensitivity is calculated based on sampling area, filter size, dilution series, number of grids analyzed, etc.

Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

Areas provided by the client. Batta Laboratories does not accept liability for results reported in s/cc. This report pertains only to the items tested and does not constitute endorsement by NVLAP or other U.S. government agencies.

Dedicated to a Cleaner Environment Since 1982

batta LABORATORIES

BATTA LABORATORIES, INC.
A Certified MBE Company

Delaware Industrial Park - 8 Garfield Way - Newark, DE 19713-5817
(302) 737-3376 - Fax (302) 737-5764
Web: www.battaenv.com E-mail: battaenv@battaenv.com

E.P.A. LAB ID# DE004

A.I.H.A./NLLAP #100448

NVLAP #101032

# CERTIFICATE OF TEM ANALYSIS



Test Method: ASTM D 5755-09

Report Date: 3/31/2014

## Sampling Data

**BLI Project #:** L6888G
**Project Name:** Weston Solutions
**Date Sampled:** 3/27/2014
**Sampling Location:** 0029-0122
**Sampled By:** CLIENT
**Date Received:** 3/31/2014

## Analytical Data

**Date Received:** 3/31/2014 **Secondary EFA ($mm^2$):** 962 **Media:** MCE **Pore Size (µm):** 0.2 **Grid Area ($mm^2$):** 0.013
**Date Prepped:** 3/31/2014 **Prepped By:** AY/ JX **Date Analyzed:** 3/31/2014 **Analyzed By:** AY

| | Client-Supplied Data | | | | Analytical Data | | | | | Results | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Sample # | Client Sample # | Sample Type | Sample Location | Area Sampled ($cm^2$) | Area Analyzed ($mm^2$) | Number of Structures Detected | Asbestos Types Detected | Analytical Sensitivity ($s/cm^2$) | Limit of Detection ($s/mm^2$) * | Reported Concentration ($s/cm^2$) | Reported Density ($s/mm^2$) |
| 787905 | P0189-MV01-01 | ASTM | n/a | 100.0 | 0.0780 | 4 | Chrysotile | 246.7 | 51.3 | 986.7 | 51.28 |
| 787906 | P0189-MV02-01 | ASTM | n/a | 100.0 | 0.1040 | 4 | Chrysotile | 231.3 | 38.5 | 925.0 | 38.46 |
| 787907 | P0189-MV03-01 | ASTM | n/a | 100.0 | 0.1300 | 0 | None Detected | 246.7 | 30.8 | < 246.7 | < 30.77 |

ANALYST: AY

REVIEWED BY: _____

Some samples may have involved serial dilutions to yield satisfactory loading for analysis, which results in different concentrations for the same amount of structures detected.

Electronic versions of the certificate of analysis (i.e. Excel files, PDF files, Word files, etc.) are not under the warranty of authenticity and accuracy of the original analytical results kept on file by the Batta Laboratories, Inc. (BLI). Under all circumstances BLI should be notified in writing for any changes made to these electronic certificates of analysis. Under no circumstances will BLI be liable for changes made to the electronic certificate of analysis without BLI's prior consent in writing.

* For this method used, the limit of detection (LD) is defined as, at a minimum, the counting of four asbestos structures during the TEM analysis. If less than four asbestos structures are counted, a "less than" sign (<) appears before the calculated concentration or density. ASTM method recommends that the analytical sensitivity be less than 1000 structures per centimeter squared. The actual reported sensitivity is calculated based on sampling area, filter size, dilution series, number of grids analyzed, etc.

Significance and use: This test method provides an index of the concentration of asbestos structures in the dust per unit surface area analyzed as derived from a quantitative TEM analysis. This method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these terminations (cited from ASTM D5755-95). BLI strongly recommends users of the above reported results consult with adequate regulatory agencies for interpretation and actions.

Areas provided by the client. Batta Laboratories does not accept liability for results reported in s/cc. This report pertains only to the items tested and does not constitute endorsement by NVLAP or other U.S. government agencies.

T:\TEM Analysis\Microvacs\MicroVac Reports\Current Version ASTM Reports\T5280\5280ASTM-(v.4d)_rev1.xls

# FIELD COC

**USEPA**
DateShipped: 3/5/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-030514-143815-0022**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 786549 | FB-B-030414 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Blank | 3/4/2014 | 08:16 | 1 | MCE Cassette | None | | | | N |
| 550 | LB-B-030414 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Blank | 3/4/2014 | 08:15 | 1 | MCE Cassette | None | | | | N |
| 551 | P0006-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/4/2014 | 09:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 552 | P0006-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/4/2014 | 09:53 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 553 | P0006-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/4/2014 | 09:56 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 554 | P0047-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/4/2014 | 11:05 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 555 | P0047-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/4/2014 | 11:08 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 556 | P0047-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/4/2014 | 11:11 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RSTJ | 3/5/14 1600 | Bonnie M. BATTA LABORATORIES, INC. | 3/6/14 0955 | |
| | | | | | |
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USEPA
DateShipped: 3/6/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-030614-131902-0024**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 786581 | P0050-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/5/2014 | 10:22 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 582 | P0050-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/5/2014 | 10:25 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 583 | P0050-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/5/2014 | 10:28 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaiy@WestonSoitulons.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RSTJ | 3/6/14 1430 | Bonnie Mc: BATTA LABORATORIES | 3/7/14 @ 0948 | |
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RFP# 279 & 279A DATA PACKAGE: TEM ANALYSIS BY ASTM D 5755-09

BATT LABORATORIES, INC.

**USEPA**
DateShipped: 3/7/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-030714-125913-0027**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 786623 | P0009-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/6/2014 | 08:53 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 24 | P0009-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/6/2014 | 08:56 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 25 | P0009-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/6/2014 | 09:00 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 26 | P0069-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/6/2014 | 09:40 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 27 | P0069-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/6/2014 | 09:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 28 | P0069-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/6/2014 | 09:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltulons.com

**SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/7/14 1400 | | | |
| | | | Bo Li | 02/08/14 16:00 | Acceptable |
| | | | | | |
| | | | | | |

**USEPA**
DateShipped: 3/10/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-031014-112158-0029**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 786863 | FB-B-030814 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Blank | 3/8/2014 | 08:12 | 1 | MCE Cassette | None | | | | N |
| 864 | P0008-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/8/2014 | 08:21 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 865 | P0008-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/8/2014 | 08:24 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 866 | P0008-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/8/2014 | 08:27 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 867 | P0057-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/7/2014 | 09:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 868 | P0057-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/7/2014 | 09:53 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 869 | P0057-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/7/2014 | 09:56 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 870 | P0058-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/7/2014 | 08:35 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 871 | P0058-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/7/2014 | 08:38 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 872 | P0058-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/7/2014 | 08:41 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/10/14 1230 | Bonnie Mei BATTA LABORATORIES | 3/11/14 @ 1040 | |
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| | | | | | |
| | | | | | |

**USEPA**
DateShipped: 3/11/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-031114-112923-0032**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 86913 | P0008-MV04-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/10/2014 | 09:00 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 914 | P0008-MV05-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/10/2014 | 09:05 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 915 | P0008-MV06-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/10/2014 | 09:10 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 916 | P0076-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/10/2014 | 08:05 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 917 | P0076-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/10/2014 | 08:08 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 918 | P0076-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/10/2014 | 08:11 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/11/14 1400 | Bonnie Mei Batta Laboratories | 3/12/14 0930 | |
| | | | | | |
| | | | | | |
| | | | | | |

**USEPA**
DateShipped: 3/12/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-031214-124740-0034**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 787009 | LB-B-031114 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Blank | 3/11/2014 | 08:06 | 1 | MCE Cassette | None | | | | N |
| 010 | P0007-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/11/2014 | 08:40 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 011 | P0007-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/11/2014 | 08:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 012 | P0007-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/11/2014 | 08:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 013 | P0051-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/11/2014 | 10:00 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 014 | P0051-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/11/2014 | 10:05 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 015 | P0051-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/11/2014 | 10:10 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/12/14 1400 | Bonni. M. Batta Laboratories | 3/13/14 @ 0936 | |
| | | | | | |
| | | | | | |
| | | | | | |

USEPA
DateShipped: 3/13/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-031314-083702-0036**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 78063 | P0054-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/12/2014 | 08:15 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 064 | P0054-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/12/2014 | 08:20 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 065 | P0054-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/12/2014 | 08:25 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 066 | P0055-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/12/2014 | 08:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 067 | P0055-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/12/2014 | 08:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 068 | P0055-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/12/2014 | 09:00 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 069 | FB-B-031214 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Blank | 3/12/2014 | 08:07 | 1 | MCE Cassette | None | | | | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSolutions.com

**SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/13/13 1430 | Bom. Mi BATTA LABORATORIES | 3/14/14 0917 | |
| | | | | | |
| | | | | | |
| | | | | | |

**USEPA**
DateShipped: 3/14/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-031414-123221-0038**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 787204 | P0065-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/13/2014 | 08:35 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 205 | P0065-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/13/2014 | 08:40 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 206 | P0065-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/13/2014 | 08:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 207 | P0067B-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/13/2014 | 09:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 208 | P0067B-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/13/2014 | 09:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 209 | P0067B-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/13/2014 | 09:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/14/14 1400 | Bonnie M. BATTA LABORATORIES | 3/17/14 @ 1042 | |
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USEPA
DateShipped: 3/17/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-031714-132944-0040**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 228 | P0056A-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/15/2014 | 08:43 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 229 | P0056A-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/15/2014 | 08:47 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 230 | P0056A-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/15/2014 | 08:53 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 231 | P0056B-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/14/2014 | 05:25 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 232 | P0056B-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/14/2014 | 05:30 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 233 | P0056B-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/14/2014 | 05:35 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 234 | P0067A-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/14/2014 | 06:25 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 235 | P0067A-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/14/2014 | 06:30 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 236 | P0067A-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/14/2014 | 06:35 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 237 | P0074-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/15/2014 | 07:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/17/14 1530 | Bonnie Mui BATTA LABORATORIES | 3/18/14 @0943 | |
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**USEPA**
DateShipped: 3/17/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-031714-132944-0040**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 787288 | P0074-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/15/2014 | 07:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| ↓ 289 | P0074-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/15/2014 | 07:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples ultanalyzes | Joel Petty RSTJ | 3/17/14 1530 | Bonnie Mui BATTA LABORATORIES | 3/18/14 @ 0943 | |
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**USEPA**
DateShipped: 3/19/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-031914-111812-0042**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 78303 | FB-B-031814 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Blank | 3/18/2014 | 07:16 | 1 | MCE Cassette | None | | | | N |
| 304 | P0068-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/18/2014 | 08:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 305 | P0068-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/18/2014 | 08:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 306 | P0068-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/18/2014 | 09:00 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 307 | P0077-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/18/2014 | 07:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 308 | P0077-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/18/2014 | 07:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 309 | P0077-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/18/2014 | 07:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/19/14 1500 | Bonnie Mc Batta Laboratories | 3/20/14 0945 | |
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USEPA
DateShipped: 3/20/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-032014-111349-0044**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 78742 | P0073-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/19/2014 | 07:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 43 | P0073-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/19/2014 | 07:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 44 | P0073-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/19/2014 | 07:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/20/14 1400 | | | |
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USEPA
DateShipped: 3/24/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-032414-132026-0046**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 78612 | P0046-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/21/2014 | 08:35 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 613 | P0046-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/21/2014 | 08:40 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 614 | P0046-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/21/2014 | 08:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/24/14 1430 | Bonnie Mei Batta Laboratories | 3/25/14@0940 | |
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**USEPA**
DateShipped: 3/25/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-032514-124807-0049**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 787690 | P0004-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/24/2014 | 09:35 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 691 | P0004-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/24/2014 | 09:40 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 692 | P0004-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/24/2014 | 09:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 693 | P0079-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/24/2014 | 08:15 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 694 | P0079-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/24/2014 | 08:20 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 695 | P0079-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/24/2014 | 08:25 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltulons.com

**SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/25/14 1330 | Bonnie Mei BATTA LABORATORIES | 3/26/14 0930 | |
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USEPA
DateShipped: 3/26/2014
RFP# 279

CHAIN OF CUSTODY RECORD
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

No: 2-032614-130240-0051
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 78742 | FB-B-032514 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Blank | 3/25/2014 | 08:16 | 1 | MCE Cassette | None | | | | N |
| 743 | P0005-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/25/2014 | 08:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 744 | P0005-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/25/2014 | 08:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 745 | P0005-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/25/2014 | 08:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 746 | P0049-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/25/2014 | 09:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 747 | P0049-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/25/2014 | 09:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 748 | P0049-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/25/2014 | 09:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/26/14 1400 | Bonnie Mc: Batta Laboratories | 3/27/14 @ 1000 | |
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**USEPA**
DateShipped: 3/27/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-032714-112206-0054**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 78847 | P0186-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 08:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 848 | P0186-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 08:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 849 | P0186-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 08:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 850 | P0187-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 09:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 851 | P0187-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 09:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 852 | P0187-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 09:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 853 | P0188-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 10:30 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 854 | P0188-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 10:35 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 855 | P0188-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/26/2014 | 10:40 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| | Joel Petty | | | | | | | | | | | | |

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RSTJ | 3/27/14 1330 | Bernie Mai Batta Laboratories | 3/28/14 @ 1026 | |
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**USEPA**
DateShipped: 3/28/2014
RFP# 279

**CHAIN OF CUSTODY RECORD**
Site #: 0029 - 0122
Contact Name: Joel Petty
Contact Phone: 732-570-4943

**No: 2-032814-101418-0056**
Cooler #: 1
Lab: Batta Environmental Associates, Inc.
Lab Phone: 302-737-3376

| Lab # | Sample # | Analyses | Matrix | Collection Method | Collected | Sample Time | Numb Cont | Container | Preservative | Area Width | Area Length | Vol Units | Lab QC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 78905 | P0189-MV01-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/27/2014 | 10:45 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 906 | P0189-MV02-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/27/2014 | 10:50 | 1 | MCE Cassette | None | 10 | 10 | cm | N |
| 907 | P0189-MV03-01 | Asbestos TEM (ASTM D-5755-09) | Microvacuum | Grab | 3/27/2014 | 10:55 | 1 | MCE Cassette | None | 10 | 10 | cm | N |

Joel Petty

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSoltuions.com

**SAMPLES TRANSFERRED FROM**
**CHAIN OF CUSTODY #**

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt |
|---|---|---|---|---|---|
| all samples all analyses | Joel Petty RST2 | 3/28/14 1130 | Bonnie Mei Batta Laboratories | 3/31/14 1025 | |
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