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REMOVAL SUPPORT TEAM 3
EPA CONTRACT EP-S2-14-01

RST 3-05-F-0068

TRANSMITTAL MEMO

To:	Mr. Thomas Budroe, On-Scene Coordinator Removal Action Branch U.S. EPA, Region II
From:	Smita Sumbaly, Data Reviewer RST 3, Region II
Subject:	Tonawanda Coke Site Data Validation Assessment
Date:	March 18, 2019

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

- Data validation results for the following parameters:

  Asbestos PLM 6 Sample

- Matrices and Number of Samples

  Bulk/Insulation 6 Samples

- Sampling Date: January 23, 2019

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

cc:	RST 3 SPM:	Lionel Montanez
	RST 3 SITE FILE TDD #:	TO-0370-0100
	RST 3 ANALYTICAL TDD #:	TO-0370-0107
	TASK#:	5107

U.S. ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

DATE: **March 18, 2019**

TO: **Thomas Budroe, On-Scene Coordinator**
U.S. EPA, Region II

FROM: **Smita Sumbaly**
RST 3 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 U.S. Environmental Protection Agency (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 PLM Calibrations
Monthly Report TEM Calibrations

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

Summary of Results

	Asbestos PLM
Acceptable as Submitted	X
Acceptable with Comments	
Unacceptable, Action Pending	
Unacceptable	

Data Reviewed by: Smita Sumbaly Date: 3/18/2019

Approved By: Date: 3/18/2019

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

NARRATIVE

Task No. 5107

SITE NAME: **Tonawanda Coke Site**
Tonawanda, Erie County, New York

Laboratory Name: EMSL Analytical, Inc., 490 Rowley Road, Depew, New York 14043.

INTRODUCTION:

The laboratory's portion of this case consisted of six bulk presumed asbestos-containing material (PACM) samples. Samples were collected on January 23, 2019. The EMSL Order number is 141900301.

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

The laboratory reported No problems with the analyses of Asbestos PLM samples.

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 #: 509/Task#: 5107 **Site: Tonawanda Coke Site**

Contractor: Weston Solutions, Inc., Removal Support Team 3 (RST 3)

Reviewer: SMITA SUMBALY **Matrix/No. of Samples:** Bulk/Insulation-6

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.

On January 23, 2019, U.S. Environmental Protection Agency (EPA) Region II and RST 3 personnel collected six bulk presumed asbestos-containing material (PACM) samples from the Tonawanda Coke Site located at Tonawanda, Erie County, New York. On the same day of collection, samples were hand-delivered to EMSL Analytical, Inc. located at 490 Rowley Road, Depew, New York 14043. The laboratory verified that the samples were received intact and properly custody sealed.

Out of the six samples, three friable bulk PACM samples were analyzed by Polarized Light Microscopy (PLM) using the procedures from the PLM New York State (NYS) environmental laboratory approval program (ELAP) 198.1 Method. The PACM samples were found to contain asbestos and subject to a stratified point count method. Data was reported as percent (%) asbestos. The quantification limit for the method is less than (<) 1.0% (stratified point count/400 point count).

Out of the six samples, three non-friable bulk PACM samples were analyzed by PLM using gravimetric reduction procedures from the PLM NYS ELAP 198.6 Method. Data was reported as % asbestos. The quantification limit for the method is <1.0% (visual estimation/stratified point count).

As per NYS ELAP 198.6 Method, any sample found to be <1.0% or inconclusive were then analyzed by Transmission Electron Microscopy (TEM) using the procedure from TEM NYS ELAP Method 198.4. The quantification limit for the method is <1.0% (visual estimation calculated with percent residue).

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

Client ID No.	Laboratory ID No.	Matrix	Sampling Date	Analysis
EMSL Order ID: 141900301				
TCBP-BULK032	141900301-0001	Bulk	1/23/2019	Asbestos PLM
TCBP-BULK033	141900301-0002	Bulk	1/23/2019	Asbestos PLM
TCBP-BULK034	141900301-0003	Bulk	1/23/2019	Asbestos PLM
TCBP-BULK035	141900301-0004	Bulk	1/23/2019	Asbestos PLM
TCBP-BULK036	141900301-0005	Bulk	1/23/2019	Asbestos PLM
TCBP-BULK037	141900301-0006	Bulk	1/23/2019	Asbestos PLM

Asbestos PLM analysis of Bulk by NY State ELAP 198.1:

Out of the six bulk PACM samples, three friable insulation samples were analyzed by PLM using the procedures from the PLM NYS ELAP 198.1 Method. PLM data were reported on a percent asbestos basis. The samples were reported to contain 13% to 75% Amosite asbestos and 11% to 25% Chrysotile asbestos.

Asbestos PLM analysis of Bulk by NY State ELAP 198.6:

Out of the six bulk PACM samples, three non-friable bulk samples were analyzed by PLM using the procedures from the PLM NYS ELAP 198.6 Method. All PLM data were reported on a percent asbestos basis. Samples were reported to contain 1.3% to 61% Chrysotile asbestos and 3.8% to 17% Amosite asbestos.

Method 198.6 PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing material (non-ACM). Samples with inconclusive results must not be interpreted as being non-ACM.

Asbestos TEM analysis of Bulk by NY State ELAP 198.4:

All three non-friable samples were detected greater than (>) 1.0%. Therefore, TEM NYS ELAP 198.4 Method was not followed.

Quality Control (QC) Analysis

For QC purposes, the laboratory analyzed one inter-analyst via PLM NYS ELAP 198.1, and one inter-analyst via TEM NYS ELAP 198.6. Laboratory performed all QC in compliance with their Quality Assurance Manual. The laboratory also submitted PLM Analyst accuracy form and PLM calibration and contamination record.

A.2.3 Contract Problem/Non-Compliance:

Laboratory failed to report non-fibrous percentage on test report for samples TCBP-BULK032, TCBP-BULK036, and TCBP-BULK037. Data reviewer manually entered the non-fibrous percentage on test report and initialed it.

Contractor Reviewer: _____ Signature: 3/18/19 Date:

Verified by: _____ Signature: 3/18/19 Date:

ASBESTOS DATA FOR BULK

Project: Tonawanda Coke Site
Sampling Date: January 23, 2019

PLM NYS Method 198.1 - Friable and 198.6 - Non-Friable							
Client Sample ID Number	Laboratory Sample ID Number	Color	Non-Asbestos		Asbestos PLM NYS 198.1 Friable	Asbestos PLM NYS 198.6 NOB	Asbestos TEM NYS 198.4 NOB
			Fibrous	Non-Fibrous			
TCBP-BULK032	141900301-0001	Black/Yellow	-	94.90% Non-fibrous (other)	Not Analyzed	1.3% Chrysotile 3.8% Amosite 5.1% Total	Not Analyzed
TCBP-BULK033	141900301-0002	Gray	-	0.00% Non-fibrous (other)	75.00% Amosite 25.00% Chrysotile 100% Total	Not Analyzed	Not Analyzed
TCBP-BULK034	141900301-0003	Gray	-	89.00% Non-fibrous (other)	11.00% Chrysotile	Not Analyzed	Not Analyzed
TCBP-BULK035	141900301-0004	Gray	-	74.00% Non-fibrous (other)	13.00% Amosite 13.00% Chrysotile 26% Total	Not Analyzed	Not Analyzed
TCBP-BULK036	141900301-0005	Black	-	77.00% Non-fibrous (other)	Not Analyzed	5.7% Chrysotile 17% Amosite 23% Total	Not Analyzed
TCBP-BULK037	141900301-0006	Black	-	39.00% Non-fibrous (other)	Not Analyzed	61% Chrysotile 61% Total	Not Analyzed

NOB - non–friable organically bound

2. Narrative

PLM Narrative

PLM Samples were prepped and analyzed via the NYSDOH-ELAP 198.1 method.

Samples were prepped for analysis using scalpel and forceps as well as appropriate RI Oil. Suspect asbestos fibers were identified using dispersion staining and the samples were quantified using visual estimation. NYS Stratified Point Count was performed according to NYSDOH-ELAP 198.1.

QA/QC for this method is 10% total sample load, there was 1 sample picked for QC from this sample set.

There were no problems encountered in the course of this project and no corrective actions taken.

PLM NOB Narrative

PLM NOB samples were prepped and analyzed via the NYSDOH-ELAP 198.6 method.

Organic reduction is performed on the sample by ashing (using a muffle furnace) followed by acid digestion to remove the carbonate mineral. Mass determinations are recorded after each step – determining the % loss for each type of matrix materials. The reduced sample is analyzed for asbestos following PLM analysis.

QA/QC for this method is 10% total sample load, there were samples picked for QC from this sample set.

There were no problems encountered in the course of this project and no corrective actions taken.

Type of scopes used are Leica DM 750P and Leica DM EP

PLM Quantification

The point count result was arrived at by superimposing a point count graticule into the field of view of the sample. Points were then counted on each of 4 preps until 1 positive (asbestos) point was reached. The number of totals points counted was then recorded as well as the type of asbestos. The three remaining preps are counted in the same manner. All data is then combined and the number of positive points is then divided by the total number of points counted to reach the final result.

Calculations:

Prep 1 - 1 chrysotile point in 2 total points
Prep 2 - 1 amosite point in 2 total points
Prep 3 - 1 chrysotile point in 2 total points
Prep 4 - 1 amosite point in 5 total points

Results

2 chrysotile points in 11 total points = 2/11 * 100 = 18% chrysotile
2 amosite points in 11 total points = 2/11 * 100 = 18% amosite.

PLM NOB Quantification

The point count result was arrived at by superimposing a point count graticule into the field of view of the sample. Points were then counted on each of 4 preps until 1 positive (asbestos) point was reached. The number of totals points counted was then recorded as well as the type of asbestos. The three remaining preps are counted in the same manner. All data is then combined and the number of positive points is then divided by the total number of points counted then it is multiplied by the residue which is changed to a decimal. This is how to reach the final result.

Calculations:

Prep 1 - 1 chrysotile point in 2 total points
Prep 2 - 1 chrysotile point in 2 total points
Prep 3 - 1 chrysotile point in 2 total points
Prep 4 - 1 chrysotile point in 5 total points

Results

2 chrysotile points in 11 total points = 4/11 * 100 = 36% * .10 (residue) = 3.6%

1. Report

EMSL Analytical, Inc.
490 Rowley Road, Depew, NY 14043
Phone/Fax: (716) 651-0030 / (716) 651-0394
http://www.EMSL.com buffalolab@emsl.com

EMSL Order:	141900301
CustomerID:	RFWE53
CustomerPO:	
ProjectID:	RFP 509

Attn: **Smita Sumbaly**
Weston Solutions (King Georges Post)
1090 King Georges Post Road
Suite 201
Edison, NJ 08837

Phone: (732) 585-4400
Fax:
Received: 01/24/19 9:33 AM
Analysis Date: 1/30/2019
Collected: 1/23/2019

Project: RFP No. 509 / TDD # TO-0370-0100

Test Report:Asbestos Analysis of Bulk Material

Test	Analyzed Date	Color	Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID TCBP-BULK032 *141900301-0001*		**Description** BULK032 **Homogeneity** Heterogeneous			
PLM NYS 198.1 Friable					Not Analyzed
PLM NYS 198.6 VCM					Not Analyzed
PLM NYS 198.6 NOB	1/30/2019	Black/Yellow		94.90% Non-fibrous (other)	1.3% Chrysotile 3.8% Amosite 5.1% Total
TEM NYS 198.4 NOB	1/30/2019				Not Analyzed
Sample ID TCBP-BULK033 *141900301-0002*		**Description** BULK033 **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	1/29/2019	Gray		0.00% Non-fibrous (other)	75.00% Amosite 25.00% Chrysotile 100% Total
PLM NYS 198.6 VCM					Not Analyzed
PLM NYS 198.6 NOB					Not Analyzed
TEM NYS 198.4 NOB					Not Analyzed
Sample ID TCBP-BULK034 *141900301-0003*		**Description** BULK034 **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	1/29/2019	Gray		89.00% Non-fibrous (other)	11.00% Chrysotile
PLM NYS 198.6 VCM					Not Analyzed
PLM NYS 198.6 NOB					Not Analyzed
TEM NYS 198.4 NOB					Not Analyzed
Sample ID TCBP-BULK035 *141900301-0004*		**Description** BULK035 **Homogeneity** Homogeneous			
PLM NYS 198.1 Friable	1/29/2019	Gray		74.00% Non-fibrous (other)	13.00% Amosite 13.00% Chrysotile 26% Total
PLM NYS 198.6 VCM					Not Analyzed
PLM NYS 198.6 NOB					Not Analyzed
TEM NYS 198.4 NOB					Not Analyzed

Initial Report From 01/30/2019 08:36:07

EMSL Analytical, Inc.
490 Rowley Road, Depew, NY 14043
Phone/Fax (716) 651-0030 / (716) 651-0394
http://www.EMSL.com buffalolab@emsl.com

EMSL Order:	141900301
CustomerID:	RFWE53
CustomerPO:	
ProjectID:	RFP 509

Test Report:Asbestos Analysis of Bulk Material

Test		Color	Non Asbestos Fibrous	Non Asbestos Non-Fibrous	Asbestos
Sample ID TCBP-BULK036 *141900301-0005*		**Description**	BULK036		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/30/2019	Black		77.00% non-fibrous (other)	**5.7% Chrysotile** **17% Amosite** **23% Total**
TEM NYS 198.4 NOB	1/30/2019				**Not Analyzed**
Sample ID TCBP-BULK037 *141900301-0006*		**Description**	BULK037		
		Homogeneity	Homogeneous		
PLM NYS 198.1 Friable					**Not Analyzed**
PLM NYS 198.6 VCM					**Not Analyzed**
PLM NYS 198.6 NOB	1/30/2019	Black		39.00% non-fibrous (other)	**61% Chrysotile** **61% Total**
TEM NYS 198.4 NOB	1/30/2019				**Not Analyzed**

Analyst(s)
Tom Hanes

Rhonda McGee

Rhonda McGee, Laboratory Manager
or other approved signatory

NOB = Non Friable Organically Bound N/A = Not Applicable VCM = Vermiculite Containing Material

-In New York State, TEM is currently the only method that can be used to determine if NOB materials can be considered or treated as non-asbestos containing.
All samples examined for the presence of vermiculite when analyzed via NYS 198.1.
-NYS Guidelines for Vermiculite containing samples are available at http://www.wadsworth.org/labcert/elapcert/forms/VermiculiteInterimGuidance_Rev070913.pdf
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This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. This report may contain data that is not covered by the NVLAP accreditation.

Samples analyzed by EMSL Analytical, Inc. Depew, NY NYS ELAP 11606

3/11/19.

3. Chain of Custody

141900301

USEPA
DateShipped: 1/24/2019
CarrierName: Hand Delivered
AirbillNo:

CHAIN OF CUSTODY RECORD
[redacted] RFP 509
Contact Name: Lionel Montanez
Contact Phone: (908) 2171270

No: 2-012419-080714-0022
Cooler #: 1
Lab: EMSL Analytical
Lab Phone: 716-651-0030

Lab #	Sample #	Location	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	TCBP-BULK032	BULK032	PLM198.1 and 198.6, TEM198.4 if PLM is <1%	Insolation	1/23/2019	14:05	1	Poly Bag	None	
	TCBP-BULK033	BULK033	PLM198.1 and 198.6, TEM198.4 if PLM is <1%	Insolation	1/23/2019	14:15	1	Poly Bag	None	
	TCBP-BULK034	BULK034	PLM198.1 and 198.6, TEM198.4 if PLM is <1%	Insolation	1/23/2019	14:22	1	Poly Bag	None	
	TCBP-BULK035	BULK035	PLM198.1 and 198.6, TEM198.4 if PLM is <1%	Insolation	1/23/2019	14:38	1	Poly Bag	None	
	TCBP-BULK036	BULK036	PLM198.1 and 198.6, TEM198.4 if PLM is <1%	Insolation	1/23/2019	14:52	1	Poly Bag	None	
	TCBP-BULK037	BULK037	PLM198.1 and 198.6, TEM198.4 if PLM is <1%	Insolation	1/23/2019	15:00	1	Poly Bag	None	

Special Instructions: All samples are been analyzed for Asbestos PML198.1 and 198.6, TEM 198.6 if PLM is <1% . Please email all results to S.Sumbaly@westonsolutions.com and lionel.montanez@westonsolutions.com TAT: STANDARD

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

1/28/19 ~~2 weeks~~ 1 week per client 1/29/19

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
SAMPLES	L Montanez (WESTON)	01-24-19 09:33			

RECEIVED
JAN 24 2019
9:33am
WI
BY: