

January 22, 2019

Mr. Adam Fox, P.E.
Principal Engineer
Environmental Compliance Section
Bureau of Engineering and Construction
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546

Attention:

Jason Coite, P.E. / Mandy Socolosky

Subject:

On-Call Asbestos, Lead, Air Quality & Demolition Compliance

Agreement No.: 8.07-01 (18)

HazMat Inspection – Bridge Nos. 01218 & 04180, I-84 EB & WB over Housatonic River,

Newtown/Southbury, CT

ConnDOT Assignment No. 519-5769

ConnDOT Project No. 96-201 TRC Project No. 289951.5769.0710

Dear Mr. Fox:

TRC performed a limited survey for hazardous building materials associated with the replacement of Bridge Nos. 01218 & 04180, I-84 EB & WB over Housatonic River in Newtown/Southbury, Connecticut. Results of the survey identified lead paint to be present on the structural steel/metal bridge components of Bridge Nos. 01218 and 04180. Waste stream sampling results of the structural steel/metal bridge components of Bridge No. 01218 characterized that paint waste stream as non-hazardous, non-RCRA waste. Waste stream sampling results of the structural steel/metal bridge components of Bridge No. 04180 characterized that paint waste stream as CTDEEP/RCRA hazardous waste. At Bridge No. 01218, grey brittle caulking at the base of the walkway safety fencing supports was sampled and found to contain asbestos. Expansion joint caulkings, black expansion joint fillers and other various caulkings at Bridge Nos. 01218 and 04180 were sampled and found to be non-ACM. No bird/pigeon guano accumulations, bloodborne pathogen concerns or other hazardous/regulated items were identified in accessible areas of the two bridges. Associated laboratory data, TRC Mobile Data Solution's report, project description and site maps are attached.

If you have any questions, please call TRC at (860) 298-9692.

Very Truly Yours,

**TRC** 

Stephen R. Arienti, CHMM

Za Z. Cini

Senior Project Manager – Program Manager

Reviewed by:

Find RM

Erik R. Plimpton, P.E., CHMM, CMC

Vice President – Engineer In Charge



## Lead Based Paint Measurement Summary Table

Device(s): Niton XLP301-A (Serial #24792) X Ray Fluorescence (XRF) Spectrum Analyzer Site:

Bridge No. 01218 & 04180, Newtown/Southbury, CT

Project #: 289951.5769.0710

Date(s): 12/24/18 & 12/31/2018

Inspectors: Patrick Schaffner (CT Lic. No. 001330)

Mumbon	Interior/		C. Marchine	1	ä					Reading	Precision	Depth	Duration	
Mulliper	Exterior	Location	Bridge No.	Side	Structure	Feature	Material	Color	Condition	(mg/cm <sup>2</sup> )	(mg/cm²)	Index	(sec)	Date/Time
1			Self Calibration										130.3	12/24/2018 11:44
5			1.6 Calibration							1.6	0.2	1.2	4.9	12/24/2018 11:54
က			3.6 Calibration							3.7	0.3	1.3	0.9	12/24/2018 11:55
4			0.7 Calibration							0.8	0.1	1.1	8.2	12/24/2018 11:56
5						QIOA								
9	Exterior	Newtown/Southbury	Bridge No. 01218		south end girder		Metal	Blue	Defective	5.7	0.8	6.	11.6	12/24/2018 12:06
7	Exterior	Newtown/Southbury	Bridge No. 01218		south end girder	structure to wing wall	Metal	Grey	Defective	3.0	0.3	1.8	5.8	12/24/2018 12:08
8	Exterior	Newtown/Southbury	Bridge No. 01218		south end girder	t cross struture	Metal	Grey	Defective	4.5	0.3	1.7	7.9	12/24/2018 12:12
6	Exterior	Newtown/Southbury	Bridge No. 01218		south end girder	bearing structure	Metal	Grey	Defective	8.0	1.6	9.8	3.7	12/24/2018 12:16
10	Exterior	Newtown/Southbury	Bridge No. 01218		south end beam		Metal	Blue	Defective	3.3	6.0	1.8	1.4	12/24/2018 12:19
11	Exterior	Newtown/Southbury	Bridge No. 01218		south end beam		Metal	Blue	Defective	3.3	0.2	1.5	6.5	12/24/2018 12:20
12			1.6 Calibration							1.5	0.3	1.2	3.2	12/24/2018 13:18
13			0.7 Calibration							0.7	0.1	1.1	5.5	12/24/2018 13:19
14			0.3 Calibration							0.3	0.1	1.2	3.9	12/24/2018 13:19
-			Self Calibration										130.5	12/31/2018 11:39
2			3.6 Calibration							3.8	0.2	1.3	9.1	12/31/2018 11:49
က			1.6 Calibration							1.5	0.1	1.1	6.9	12/31/2018 11:50
4		$\rightarrow$	0.3 Calibration							0.3	0.0	1.1	11.3	12/31/2018 11:51
2	Exterior		Bridge No. 04180		rocker		Metal	Blue	Defective	2.6	0.1	1.3	14.3	12/31/2018 12:23
9	Exterior		Bridge No. 04180		beam		Metal	Blue	Defective	3.6	0.3	1.5	4.3	12/31/2018 12:25
7	Exterior	Newtown/Southbury	Bridge No. 04180		beam		Metal	Blue	Defective	2.9	9.0	1.4	1.2	12/31/2018 12:26
8	Exterior	Newtown/Southbury	Bridge No. 04180	BANK TO	end gusset		Metal	Blue	Defective	5.9	1.0	1.6	7.8	12/31/2018 12:28
6	Exterior	Newtown/Southbury	Bridge No. 04180		cross t beam		Metal	Blue	Defective	2.5	0.2	1.4	5.8	12/31/2018 12:29
10			3.6 Calibration							3.8	0.2	1.3	8.0	12/31/2018 12:48
=			1.6 Calibration							1.6	0.1	1.2	8.2	12/31/2018 12:49
12			0.3 Calibration							0.3	0.0	1.0	15.5	12/31/2018 12:50



Tel: (203) 377-9984 Fax: (203) 377-9952 e-mail: cet1@cetlabs.com

Client:

Mr. Erik Plimpton

TRC Environmental Consultants

21 Griffin Rd., North Windsor, CT 06095

### Analytical Report CET# 8120742



Report Date:December 28, 2018 Project: CT DOT, Bridge 1218 Project Number: 222165.5768.0710





CET#: 8120742

Project: CT DOT, Bridge 1218 Project Number: 222165.5768.0710

#### SAMPLE SUMMARY

The sample(s) were received at 6.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
Bridge 1218	8120742-01	Solid	12/24/2018 13:00	12/26/2018

Analyte: TCLP Lead [EPA 6020A]

**Analyst: CED** 

Prep: EPA 3005A-1311

Matrix: Extract

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8120742-01	Bridge 1218	0.39	0.013	mg/L	1	B8L2717	12/27/2018	12/27/2018 15:14	

CET#: 8120742

Project: CT DOT, Bridge 1218 Project Number: 222165.5768.0710

All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

This technical report was reviewed by Timothy Fusco

to a. Theo-

David Ditta

Laboratory Director

Project Manager

#### Report Comments:

Sample Result Flags:

E- The result is estimated, above the calibration range.

David Setta

- H- The surrogate recovery is above the control limits.
- L- The surrogate recovery is below the control limits.
- B- The compound was detected in the laboratory blank.
- P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
- D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
- +- The Surrogate was diluted out.
- \*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
- \*C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
- \*F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
- \*F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
- I- The Analyte exceeds %RSD limits for the Initial Calibration. This is a non-directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit

RL is the Reporting Limit.

All analyses were performed in house unless a Reference Laboratory is listed.

Samples will be disposed of 30 days after the report date.

CET #: 8120742

Project: CT DOT, Bridge 1218

Project Number: 222165.5768.0710

#### CERTIFICATIONS

Certified Analyses included in this Report

Analyte Certifications

EPA 6020A in Water

Lead

CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2020



21 GRIFFIN ROAD NORTH

WINDSOR, CONNECTICUT 06095 TELEPHONE (860) 298-9692 FAX (860) 298-6380

8120742

TCLP CHAIN OF CUSTODY

PROJECT NUMBER  222/65, 5769.07/0  INSPECTOR: (SIGNATURE)	98-6380 NUMBER 55.57	(3.0711)		PROJECT I	PROJECT NAME  POT BRIDGE # 1218  (PRINTED)	2.		PARAMETERS	CERS			TURNAROUND TIME  24hr X 4  24hr 4	LAB UND 24hr		LAB ID #.  JND TIME  24hr	TIME  48hr 3day  48hr 3day
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SAMPLE NUMBER	DATE	TIME	COMP GRAB		SAMPLE LOCATION	RCRA I		8 RCF	TC	SP	· · · · · · · · · · · · · · · · · · ·		1	\	\ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
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Page 1 of 1

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Date:

Received by: (Signature)

(Printed)

Date:

Edition: November 2013 Supersede Previous Edition



Tel: (203) 377-9984 Fax: (203) 377-9952 e-mail: cet1@cetlabs.com

Client:

Mr. Stephen Arienti

TRC Environmental Consultants

21 Griffin Rd., North Windsor, CT 06095

### **Analytical Report CET# 9010017**

Report Date:January 07, 2019 Project: CTDOT, Bridge

Project Number: 1-84 West Bound Bridge 04180

PO Number: 289951-5769-0710

Connecticut Laboratory Certificate: PH 0116 Massachusetts Laboratory Certificate: M-CT903 Rhode Island Laboratory Certificate: 199



New York NELAP Accreditation: 11982 Pennsylvania Certificate: 68-02927 CET #: 9010017

Project: CTDOT, Bridge

Project Number: 1-84 West Bound Bridge 04180

#### **SAMPLE SUMMARY**

The sample(s) were received at 22.5°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
Bridge 4180	9010017-01	Solid	12/31/2018 11:30	01/02/2019

Analyte: TCLP Lead [EPA 6020A]

**Analyst: CED** 

Prep: EPA 3005A-1311

Matrix: Extract

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9010017-01	Bridge 4180	24	0.013	mg/L	1	B9A0701	01/07/2019	01/07/2019 14:23	

CET#:9010017

Project: CTDOT, Bridge

Project Number: 1-84 West Bound Bridge 04180

All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

This technical report was reviewed by Robert Blake

R Blah T

David Sitta

David Ditta Laboratory Director Project Manager

#### Report Comments:

#### Sample Result Flags:

- E- The result is estimated, above the calibration range.
- H- The surrogate recovery is above the control limits.
- L- The surrogate recovery is below the control limits.
- B- The compound was detected in the laboratory blank.
- P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
- D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
- +- The Surrogate was diluted out.
- \*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
- \*C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
- \*F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
- \*F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
- \*I- Analyte exceeds method limits from second source standard in Initial Calibration Verification (ICV). No directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit

Reporting Limit (RL) is the limit of detection for an analyte after any adjustment made for dilution or percent moisture.

All analyses were performed in house unless a Reference Laboratory is listed.

Samples will be disposed of 30 days after the report date.

CET #: 9010017

Project: CTDOT, Bridge

Project Number: 1-84 West Bound Bridge 04180

#### CERTIFICATIONS

Certified Analyses included in this Report

Analyte Certifications

EPA 6020A in Water

Lead

CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2020

33265 5769 07-1500 TELEPHONE (860) 298-9692 FAX (860) 298-6380 21 GRIFFIN ROAD NORTH PROJECT NUMBER WINDSOR, CONNECTICUT 06095 INSPECTOR: (SIGNATURE) NUMBER SAMPLE FIELD and a DATE TIME COMP TYPE (PRINTED) POST SINGSBOOK 1-84 West BOUND PROJECT NAME GRAB dime CNHO # SAMPLE LOCATION TCLP CHAIN OF CUSTODY ROTICE OF Bridge RCRA Pb RCRA Pb, AS, CR, CD PARAMETERS 8 RCRA Metals TCLP Pb **SPLP Pb** TURNAROUND TIME 24hr 24hr | X LAB ID# 48hr 48hr 3day 3day 5day 5day

Bridge 4180

12-31-18

メ

150 dags 4180

Email results to: 5	Chime Kobinson	(Printed)	Jame Joh	Relinquished by: (Signature)
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Supersede Previous Edition



21 GRIFFIN ROAD NORTH WINDSOR, CONNECTICUT 06095 TELEPHONE (860) 298-9692 FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009 Supersede Previous Edition

FAX (860) 298-6380	298-6380					(					I AB ID #	V	からんり	σ	
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222165-5769-0710	69-0710			I 84	I 84 East Bound bridge #04180, Dock	-	<b>PARAMETERS</b>	ETER	S		PLM: 8hr 24hr	r X	48hr	3day	ay
(Kra)				Dr,	Dr, Sandy Hook, CT						TEM: 24hr 48hr	ır	3day	5day	ay
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FIELD SAMPLE NUMBER	DATE	TIME	COMP	СВАВ	SAMPLE LOCATION	PLM EPA 6 (POSITIVI	PLM EPA 60 (w/ gravimetri (POSITIVI	VALUE E E	POINT C (IF >1 % 8	(IE FLM SEI	MATERIAL	RIAL			
90	12/24/2018	11:37		X	Pedestrian walk	×				×	C1 - Grey flex caulk				T
05	12/24/2018	12:04	12	X	Pedestrian walk way	X				Ť	C1 - Grey flex caulk				T
10	12/24/2018	11:47		X	Walk way safety fence	×				×	C2 - Grey brittle caulk				
0.8	12/24/2018	11:48		X	Walkway safety wall	×				+	C2 - Grey brittle caulk				
60	12/24/2018	12:04		X	Pedestrian walk way	×				×	C3 - Black soft grey caulk				
10	12/24/2018	12:06		X	Pedestrian walk way	×					C3 - Black soft grey caulk				
01	12/24/2018	11:09		X	Wing wall foundation on SW side	×				×	EJ1 - Expansion joint material	al			
02	12/24/2018	11:10		×	Wing wall foundation SW side	X				I	EJ1 - Expansion joint material	al			
03	12/24/2018	11:31		×	Top west side	X				X	EJ2 - White flexible expansion joint material	on joir	ut material		
0.4	12/24/2018	11:32		×	Top west side	X					EJ2 - White flexible expansion joint material	on joir	ıt materia	_	

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Industrial Hygiene Laboratory 21 Griffin Road North Windsor, CT 06095 (860) 298-6308



#### **BULK ASBESTOS ANALYSIS REPORT**

CLIENT:

CT Department of Transportation

Lab Log #:

0053199

Project #:

289951.5769.0710

Date Received:

12/26/2018

Date Analyzed:

12/26/2018

Site:

I 84 E, Bridge #04180; Dock Drive, Sandy Hook, CT

#### POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi- Layered	Layer No.		ther Matrix Materials	Asbestos %	Asbestos Type
06	Grey (caulk)	Yes	No				ND	None
05	Grey (caulk)	Yes	No				ND	None
07	Grey (caulk)	Yes	No		·		5%	Chrysotile
08							NA/PS	
09	Black (caulk)	Yes	No				ND	None
10	Black (caulk)	Yes	No				ND	None
01	Black (expansion joint)	Yes	No		10%	cellulose	ND	None
02	Black (expansion joint)	Yes	No		10%	cellulose	ND	None
03	White (expansion joint)	Yes	No				ND	None
04	White (expansion joint)	Yes	No				ND	None



#### POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No. Color Homogenous Layer		Other Matrix Materials	Asbestos %	Asbestos Type
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Reporting limit- asbestos present at 1%

ND - asbestos was not detected

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop

SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2019. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2019. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by:

Kathleen Williamson, Laboratory Manager

Reviewed by:

Date Issued

12/27/2018

NTIPERS

EPA N.O.B Qualitative

Analysis Type: Chatfield

Proscience Analytical Services, Inc.

22 Cummings Park, Woburn. MA 01801 Ph. 781-935-3212 Fax 781-932-4857 TEM Bulk Chain of Custody Record

Date: 12/27/18

PO#:

**C289951** TRC

Client:

Client Job#:

289951.5769.0710

31218 (SE)

CTDOT - 184 E, Bridge #04180, Dock Drive, Sandy Hook, CT Client Job Ref./Loc.:

Relinquished by:

Received by:

KAWilliamson-KWilliamson@trcsolutions.com fact 方はひげんをし、19/36/18 9・うこ E. Plimpton- <u>EPlimpton@trcsolutions.com</u> & SArienti@trcsolutions.com

P. Schaffner Samplers Name:

Report to:

<12 Hour Turnaround Time:

<24 Hour

<48 Hour

<3 Day

5 Day

Other:

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For Lab Use Only	Comments																Comments	
	Acceptable on Receipt																	
	Location	See COC															Results Reported	
	u			oint	oint												Batch #	
	Description	Caulk	Caulk	Expansion J	Expansion Joint												Client #	
	Lab ID#	53199	199	53199	53199												Total	
	Lab	53	53	53	53												# Spies	
	Client ID#	90	60	10	03												For Lab Use Only	

# ProScience Analytical Services, Inc.

22 Cummings Park, Woburn, Massachusetts 01801 781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail general@proscience.net

Laboratory Report

Client Project #: Client Reference: Po #: Client #:		289951.5769.0710	, Sandy I	Hook, CT									<b>ທ</b> ີ່ຂໍ້ດີດີດີ	Batch: Method: Date Received: Date Analyzed: Date of Report:	<b>Z</b> 21	NT 17625 NOB 12/28/2018 1/2/2019 1/2/2019
LAB ID Fie	Field ID D	Description:	Color	Initial Weight	SH R	AMO	% Asbestos Types AMO ACT CRO	% Asbestos Types	₽N7	TRE N	% Other Non-asb,	% Organic	Carb.	Total %	% Other % % Total % Analyzed / Preped / Non-asb, Organic Carb. Ashestos Charged Charged	Preped / Charged
NT132773 06	Grey Flex Caulk	×	E. Videlini	1.0391	00.	00.		8	8.	8	14.56	36.22	49.22	Q	Yes	S O
NT132774 09	Black Soft Grey Caulk	y Caulk		1.2862	.00	<u>6</u>	8	8.	8	00	27.44	28.82	43.74	Q.	Yes	Š
NT132775 01	Expansion Joint Material	it Material		5577	Ŧ.	8	00	8.	00	90	22.54	70.43	7.03	표	Yes	Š
NT132776 03	White Flexible E	White Flexible Expansion Joint Material		4889	90.	9 <u>0</u>	00	8	00	8	9.03	83.10	78.7	Ñ	Yes	S S

## Comments:

Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

Mark Derosier, Analyst

Edition: October 2009 Supersede Previous Edition ASBESTOS BULK SAMPLING 21 GRIFFIN ROAD NORTH

CHAIN OF CUSTODY

WINDSOR, CONNECTICUT 06095 TELEPHONE (860) 298-9692 FAX (860) 298-6380

				_										
5		3day	5day											
7														
53213	TURNAROUND TIME	48hr	3day				\ \							
4.	IND 1	X	•		;	KIAL	=							
D#.	ROL	24hr	48hr			MATERIAL								
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FAX (860) 298-6380	PROJECTN	275075	اما معم	SIGNATURE Abel		FIELD SAMPLE NUMBER		R						

Relinquished by: (Signature)	Date:	Received by: (Signature) // / /	Relinquished by: (Signature)	Date:	Received by: (Signature)	_
Jaime Wolf	19-31-18	the state of				
(Printed)	Time:	(Printed) 0900 (Printed)	(Printed)	Time:	(Printed)	_
Chim Robinson	1340	VI Marson				
Remarks:			Condition of Samples:			_
			Acceptable: Yes // No Comments:		Page of	
						_

Industrial Hygiene Laboratory 21 Griffin Road North Windsor, CT 06095 (860) 298-6308



#### **BULK ASBESTOS ANALYSIS REPORT**

CLIENT:

CT Department of Transportation

Lab Log #:

0053213

Project #:

289951.5769.0710

Date Received:

01/02/2019

Date Analyzed:

01/03/2019

Site:

I-84 W, Bridge #04180, Southbury, CT

#### POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi- Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
11	Grey (caulk)	Yes	No			ND	None
12	Grey (caulk)	Yes	No			ND	None

Reporting limit- asbestos present at 1%

ND - asbestos was not detected

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop

SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2019. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2019. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by:

Kathleen Williamson, Laboratory Manager

Reviewed by:

**Date Issued** 

01/03/2019

EPA N.O.B Qualitative

Analysis Type: Chatfield

## Proscience Analytical Services, Inc.

22 Cummings Park, Woburn, MA 01801 Ph. 781-935-3212 Fax 781-932-4857 TEM Bulk Chain of Custody Record

Date: 01/03/19

**C289951** TRC PO#:

Client:

289951.5769.0710 Client Job#:

Client Job Ref./Loc.: CTDOT- I- 84 W, Bridge #04180

Relinquished by:

Received by:

K. Williamson-KWilliamson@trcsolutions.com | fuels / jet.u.-kl - (ムし 1/4/19 9.こう) E. Plimpton-<u>EPlimpton@trcsolutions.com</u> & SArienti@trcsolutions.com Report to:

Jaime Robinson & Patrick Schaffner Samplers Name:

<12 Hour Turnaround Time:

Other: 5 Day <3 Day <48 Hour <24 Hour

Γ	Τ	1	_	_	_	т—	_	т—	T	_	 	т	 T	·		
For Lab Use Only	Comments														Comments	
	Acceptable on Receipt															
	Location	See COC													Results Reported	
															Batch #	
	Description	Caulk													Client #	
	D#	3	-												Total	
	Lab ID#	53213													# Spics	
	Client ID#	12													For Lab Use Only	

# ProScience Analytical Services, Inc.

781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail general@proscience.nel 22 Cummings Park, Woburn, Massachusetts 01801

289951.5769.0710 CT DOT - 1-84 W, Bridge #04180 Client Reference: Client Project #:

C289951

297

Client #:

PO #:

TRC Environmental Corp. (CT) Client Name:

Total % Analyzed / Preped / Asbestos Charged Charged Asbestos 2 71.01 Carb. CHR AMO ACT CRO ANT TRE Non-asb. Organic 23.69 % Other 5.30 8 8 % Asbestos Types 8 8 8 8 Initial Weight 3305 Color Description: Gray Brittle Caulk Field ID NT132816 12 LAB ID

1/8/2019

Date of Report:

Date Received: Date Analyzed: ž

Yes

1/8/2019 1/4/2019

NT 17631 NOB

Batch: Method:

Laboratory Report

Comments:

Key: CHR = Chrysotlle AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

#### ConnDOT, I 84 East Bound bridge #01218 1 84 West Bound bridge #04180, Fairfield, , Sandy Hook, 06482, CT, US, Dock Dr,

Created	2018-12-24 15:50:19 UTC by Tyler MacGillivray
Updated	2018-12-31 18:54:10 UTC by Jaime Robinson
Location	41.4380450779958, -73.246499206939
Status	Survey Complete

#### Job Information

Job illiorillation	
Site Name	I 84 East Bound bridge #01218 1 84 West Bound bridge #04180
Address	Dock Dr Sandy Hook, CT 06482
TRC Project Number	289951-5769-0710
Project Manager	Erik Plimpton, Stephen Arienti
Inspector(s)	Pat Schaffner, Tyler Macgillivray, Tom Martin, Jaime Robinson
Client	ConnDOT
Type of Asbestos Survey	Reno/Demo
Additional Analysis for NOB Materials (Calc)	TEM NY NOB 198.4
PLM Turnaround Time (TAT)	48-hour
Date	2018-12-31
General Notes	West Bound bridge survey completed on December 31, 2018
	No homeless activity noted No guano Very little litter

Overview Photo



#### Bearing structure

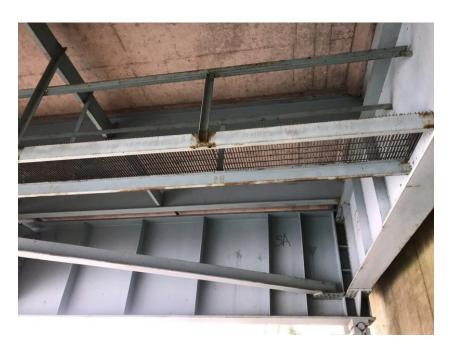








Westbound bridge facing east



Westbound bridge facing east



Westbound bridge facing east



Westbound bridge facing north



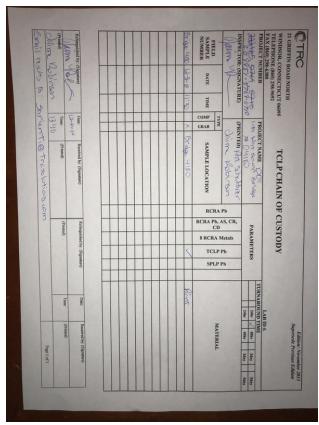
Westbound bridge facing south

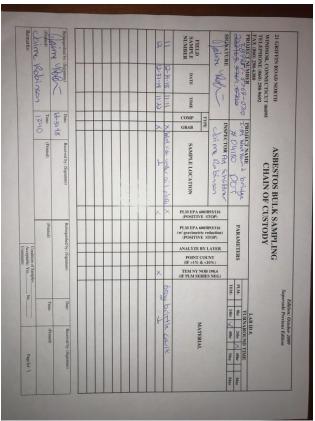












Surveys Performed

Asbestos, Hazardous Materials Inventory, XRF

#### **Asbestos Section**

#### ( 2 ), EJ1, Expansion joint material

Representative Photos



#### 1, Wing wall foundation on SW side

Sample Number	1
Sample Location	Wing wall foundation on SW side
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	11:09

#### Sample Location Photo



#### 2, Wing wall foundation SW side

Sample Number	2
Sample Location	Wing wall foundation SW side
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	11:10



#### **Material Information**

Sampled or Assumed?	Sampled
Material Acronym	EJ1
Material Description	Expansion joint material
Is Material a Non-Friable Organically Bound (NOB)	Yes
Homogeneous Area	East/ West side wing wall foundation
Total Approximate Quantity	100 SF
Notes	None visible on north west side
Total Count	(2)

#### (2), EJ2, White flexible expansion joint material

Representative Photos





#### 3, Top west side

Sample Location	Top west side
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	11:31

Sample Location Photo



#### 4, Top west side

·	
Sample Number	4
Sample Location	Top west side
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	11:32

#### Sample Location Photo



#### **Material Information**

Sampled or Assumed?	Sampled
Material Acronym	EJ2
Material Description	White flexible expansion joint material
Is Material a Non-Friable Organically Bound (NOB)	Yes
Homogeneous Area	Top side
Total Approximate Quantity	220 LF
Notes	Also present on top side between concrete sections
Total Count	(2)

#### ( 2 ), C, 1, Grey flex caulk



#### 06, Pedestrian walk

Sample Number	06
Sample Location	Pedestrian walk
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	11:37

#### 05, Pedestrian walk way

Sample Number	05
Sample Location	Pedestrian walk way
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	12:04

#### **Material Information**

Sampled or Assumed?	Sampled
Material Acronym	C, 1
Material Description	Grey flex caulk
Is Material a Non-Friable Organically Bound (NOB)	Yes

Homogeneous Area	Between the concrete slabs of the walkway
Total Approximate Quantity	40 Inft
Total Count	(2)

#### (2), C, 2, Grey brittle caulk

Representative Photos



#### 7, Walk way safety fence

Sample Number	7
Sample Location	Walk way safety fence
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	11:47

#### 8, Walkway safety wall

Sample Number	8
Sample Location	Walkway safety wall
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	11:48

#### **Material Information**

Sampled or Assumed?	Sampled
Material Acronym	C, 2
Material Description	Grey brittle caulk
Is Material a Non-Friable Organically Bound (NOB)	Yes
Homogeneous Area	Below the brackets for the walkway barrier.

Total Approximate Quantity	522 Inft
Total Count	(2)

#### (2), C, 3, Black soft grey caulk

Representative Photos



#### 09, Pedestrian walk way

Sample Number	09
Sample Location	Pedestrian walk way
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	12:04

#### 10, Pedestrian walk way

Sample Number	10
Sample Location	Pedestrian walk way
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-24
Time	12:06

#### **Material Information**

Sampled or Assumed?	Sampled

Material Acronym	C, 3
Material Description	Black soft grey caulk
Is Material a Non-Friable Organically Bound (NOB)	Yes
Homogeneous Area	Walkway drain
Total Approximate Quantity	20 Inft
Total Count	(2)

#### (2), C, 4, Gray brittle caulk

#### 11, Westbound bridge west side railing

Sample Number	11	
Sample Location	Westbound bridge west side railing	
Analyze by Layer	No	
Asbestos Bulk Analysis	PLM EPA 600/R93/116	
Grab or Composite	Grab	
Date	2018-12-31	
Time	11:11	

#### 12, Westbound bridge west side railing

Sample Number	12
Sample Location	Westbound bridge west side railing
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-31
Time	11:22

#### **Material Information**

Sampled or Assumed?	Sampled
Material Acronym	C, 4
Material Description	Gray brittle caulk
Is Material a Non-Friable Organically Bound (NOB)	Yes
Homogeneous Area	Below the brackets for the walkway barrier.
Notes	Under rail plates
Total Count	(2)

#### **XRF Section**

Niton XRF Model No.	24792
XRF Survey Completed	Yes
XRF Data Downloaded	Yes
XRF Shots >1.0 on non-metallic building materials	No
Date Data Downloaded	2018-12-24

#### **General Information**



Asbestos Samples Submitted to TRC Lab	Yes
Date Submitted to Lab	2018-12-31
App Name	WinBSI HBM Survey 1.0

#### **Generate Report Documentation**

Cloud-based reporting is still actively being developed, but some features that are at an advanced stage of development may be used with the understanding that unexpected errors may occur occasionally. Please report any difficulties or errors to Justin Coleman.

What documents should be generated?	Asbestos chain-of-custody
Where should the document(s) be sent?	jbrobinson@trcsolutions.com
Generate Documents	N/A

#### STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

subject:

State Bridge Program
State Project No. 96-201
Bridge Nos. 01218 and 04180
I-84 over Housatonic River
Newtown and Southbury

#### memorandum

date:

August 22, 2017

to:

Mr. Adam G. Fox Transportation Principal Engineer Bureau of Engineering and Construction from:

Andrew Cardinali Ou-Consultant E Cardinali Ou-Consultant E Cardinali Ou-Consultant E Cardinali Ou-Consultant E Cardinali

Andrew J. Cardinali
Transportation Supervising Engineer
Bureau of Engineering and Construction

#### Hazardous/Contaminated Materials Screening

This project consists of the following repairs:

• Superstructure replacement with a weathering steel multi-girder superstructure

- Addition of a concrete pier cap on top of the existing piers to support the new girder configuration
- Installation of new bearings at all locations and finger joints at the abutments
- Modification or reconstruction of the abutments to provide a longer bridge seat
- Construction of a drainage structure, which has an access door and connects to the storm drainage system, behind the backwall
- Repairs to areas of deteriorated concrete on all existing substructure units which are to remain
- Placement of riprap on the embankment in front of the south abutment of Bridge No. 01218
- Removal of debris that is collecting around the piers
- Installation of new approach slabs
- Replacement of navigation light conduit and junction boxes
- Repairs to the footings of Bridge No. 04180 Piers 2 and 3

A temporary work trestle in the I-84 median is proposed as a means of construction access. The proposed work trestle would be supported on temporary piles. In-water work includes the driving and removal of piles for the work trestle, and of cofferdam sheeting around Bridge No. 04180 Piers 2 and 3.

A crossover of traffic is the proposed method of maintenance and protection of traffic during construction. Excavation in the median and roadway is anticipated between the bridge carrying I-84 over Alpine Drive (south of Bridge Nos. 01218 and 04180) and the bridge carrying River Road over I-84 (north of Bridge Nos. 01218 and 04180).

Additional information is attached for your use in generating the screening evaluation for the subject bridges:

- Location Maps
- Limits of Work (2 sheets)

Please provide this office with the results of the screening evaluation for use in developing and advancing this project.

A reply by September 21, 2017 would be appreciated. Should a lead investigation or other hazardous material investigation be required, please provide the results, including all special provisions by February 6, 2019. The construction of this project will be funded with 100% State funds. Time expended for the completion of these activities should be charged to Project No. 96-201. If you have any questions or require additional information, please contact Ms. Dobieslawa A. Kania, Transportation Engineer III, at Ext. 3389.

#### Attachments

Tracey A. Brais/tab/dak

cc: Rabih M. Barakat – Andrew J. Cardinali – Dobieslawa A. Kania Donald P. Wurst – Anand Seshadri – Tracey A. Brais (CME)

