



April 16, 2018

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. / Stephen Clout

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance  
Agreement No. 04.27-01(15)  
HazMat Inspection – Bridge Nos. 01456, 01457, 01459, 01460 & 06289, Wethersfield, CT  
ConnDOT Assignment No. 514-5700  
ConnDOT Project No. 159-191  
TRC Project No. 222165.5700.0710

Dear Mr. Fox:

TRC performed a limited survey for hazardous building materials associated with the rehabilitations of Bridge Nos. 01456, 01457, 01459, 01460 & 06289 in Wethersfield, Connecticut. Results of the survey identified lead paint to be present on the structural steel/metal bridge components at Bridge Nos. 01456, 01457, 01459 & 01460. Results obtained from TCLP waste stream sampling analysis for leachable lead from the paint on the structural steel/metal bridge components at Bridge Nos. 01456, 01457, 01459, 01460, characterized the paint waste streams as CTDEEP/RCRA hazardous waste. No detectable amounts of lead were identified on the steel box girders/metal bridge components at Bridge No. 06289, therefore any paint waste debris generated would be non-hazardous, non-RCRA waste. At Bridge No. 01459, hard grey/tan caulking where the abutment meets the main bridge (southside) and presumed ACM caulking around storm drains in concrete deck of Bridge No. 01460 were identified as asbestos-containing materials (ACM). Light grey caulking at the abutments of Bridge No. 01456 was also identified as ACM, however it is not projected to be impacted by the rehabilitations. Other various caulking, tar coatings, and bearing pad paper at Bridge Nos. 01456, 01457, 01459, 01460 & 06289 were sampled and found to be non-ACM. Potential Universal Waste (UW)/Connecticut Regulated Waste (CRW) in the forms of fluorescent/mercury vapor/halogen bulbs with ballasts were observed at Bridge Nos. 01459 & 01460 and will be impacted by the rehabilitation work. Bird/pigeon guano accumulations were observed in accessible areas of Bridge Nos. 01459, 01460 & 06289 only. No other hazardous/regulated items or bloodborne pathogen (BBP) concerns were identified at any of the 5 bridges. Associated laboratory data, project descriptions, inspector notes and site maps are attached.

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

Very Truly Yours,

TRC

Reviewed by:

A handwritten signature in black ink, appearing to read "Stephen R. Arienti".

Stephen R. Arienti, CHMM  
Senior Project Manager– Program Manager

A handwritten signature in black ink, appearing to read "Erik R. Plimpton".

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: ConnDOT - Bridge Nos. 01456, 01457, 01459, 01460 & 06289, Wethersfield, CT  
 Project #: 22165.5700.0710  
 Date(s): 12/29/17 & 3/21/2018  
 Inspectors: Zac Smith & David Heelon

Number	Interior/ Exterior	Location	Bridge No.	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm <sup>2</sup> )	Precision (mg/cm <sup>2</sup> )	Depth Index	Duration (sec)	Date/Time
1			<b>Self Calibration</b>										152.5	12/29/2017 10:34
2			0.0 Calibration							0.0	0.0	1.0	1.6	12/29/2017 10:37
3					VOID									
4			<b>0.3 Calibration</b>							0.3	0.1	1.1	4.8	12/29/2017 10:37
5	Exterior	Wethersfield	Bridge 01460		BEAM		Metal	Grey	Defective	20.4	2.3	10.0	5.9	12/29/2017 10:50
6	Exterior	Wethersfield	Bridge 01460		BEAM		Metal	Grey	Defective	10.1	9.6	3.8	0.7	12/29/2017 10:50
7	Exterior	Wethersfield	Bridge 01460		BEAM		Metal	Grey	Defective	8.8	10.6	5.5	0.9	12/29/2017 10:50
8	Exterior	Wethersfield	Bridge 01460		BEAM		Metal	Grey	Defective	10.1	9.3	2.1	0.5	12/29/2017 10:51
9	Exterior	Wethersfield	Bridge 01460		BEAM		Metal	Grey	Defective	14.0	2.8	2.0	3.5	12/29/2017 10:51
10	Exterior	Wethersfield	Bridge 01460		CROSS BEAM		Metal	Grey	Defective	14.8	6.2	2.0	1.8	12/29/2017 10:52
11	Exterior	Wethersfield	Bridge 01460		BEARING		Metal	Grey	Defective	0.0	0.0	1.0	3.4	12/29/2017 10:54
12	Exterior	Wethersfield	Bridge 01460		BEARING		Metal	Grey	Defective	0.0	0.0	1.0	1.8	12/29/2017 10:54
13	Exterior	Wethersfield	Bridge 01460		PATCHING		Concrete	Grey	Defective	0.0	0.0	1.3	4.1	12/29/2017 11:31
14			<b>Self Calibration</b>										150.5	12/29/2017 11:44
15			0.0 Calibration							0.0	0.0	1.0	1.8	12/29/2017 12:03
16					VOID									
17			<b>1.6 Calibration</b>							1.8	0.2	1.2	7.5	12/29/2017 12:04
18	Exterior	Wethersfield	Bridge 01459		BEAM		Metal	Darkgrey	Defective	5.7	0.9	1.9	12.8	12/29/2017 12:07
19	Exterior	Wethersfield	Bridge 01459		BEAM		Metal	Darkgrey	Defective	7.4	1.0	2.0	11.6	12/29/2017 12:11
20	Exterior	Wethersfield	Bridge 01459		BEAM		Metal	Darkgrey	Defective	4.7	0.6	3.3	6.6	12/29/2017 12:11
21	Exterior	Wethersfield	Bridge 01459		BEAM		Metal	Grey	Defective	7.2	0.9	2.6	14.0	12/29/2017 12:14
22	Exterior	Wethersfield	Bridge 01459		BEAM		Metal	Grey	Defective	0.0	0.0	1.0	4.6	12/29/2017 12:15
23	Exterior	Wethersfield	Bridge 01459		BEARING		Metal	Grey	Defective	0.0	0.0	1.0	0.9	12/29/2017 12:17
24	Exterior	Wethersfield	Bridge 01459		BEARING		Metal	Grey	Defective	0.0	0.0	1.0	4.3	12/29/2017 12:18
25	Exterior	Wethersfield	Bridge 01459		BEARING		Metal	Grey	Defective	0.0	0.0	1.0	3.0	12/29/2017 12:18
26	Exterior	Wethersfield	Bridge 01459		RAILING SUPPORT BEAM		Metal	Grey	Defective	9.9	4.2	2.2	2.5	12/29/2017 12:37
27	Exterior	Wethersfield	Bridge 01459		RAILING SUPPORT BEAM		Metal	Grey	Defective	13.9	2.2	2.1	4.8	12/29/2017 12:37
28	Exterior	Wethersfield	Bridge 01459		RAILING		Metal	Grey	Defective	2.9	0.6	1.5	3.4	12/29/2017 12:38
29	Exterior	Wethersfield	Bridge 01459		RAILING		Metal	Grey	Defective	9.4	2.1	2.2	3.9	12/29/2017 12:38
30			<b>0.0 Calibration</b>							0.0	0.0	1.0	1.6	12/29/2017 12:51
31					VOID									
32			<b>1.6 Calibration</b>							1.5	0.3	1.1	2.5	12/29/2017 12:51
1			<b>Self Calibration</b>										86.3	3/21/2018 10:17
2			0.0 Calibration							0.0	0.0	1.0	3.2	3/21/2018 10:20
3			<b>0.3 Calibration</b>							0.3	0.1	1.0	3.2	3/21/2018 10:20
4										1.5	0.2	1.1	3.4	3/21/2018 10:21
5	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.0	1.9	4.7	3/21/2018 10:25
6	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.0	1.0	3.1	3/21/2018 10:26
7	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.0	1.0	3.1	3/21/2018 10:26
8	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.0	1.0	3.4	3/21/2018 10:27

Lead paint includes paint found to contain **any detectable** amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).

Side A = Street side; Sides B,C,D follow clockwise





## Lead Based Paint Measurement Summary Table

Device(s): Niton XLP301-A (Serial #24792) X Ray Fluorescence (XRF) Spectrum Analyzer  
 Site: ConnDOT - Bridge Nos. 01456, 01457, 01459, 01460 & 06289, Wethersfield, CT  
 Project #: 222165.5700.0710  
 Date(s): 12/29/17 & 3/21/2018  
 Inspectors: Zac Smith & David Heelon

Number	Interior/ Exterior	Location	Bridge No.	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm <sup>2</sup> )	Precision (mg/cm <sup>2</sup> )	Depth Index	Duration (sec)	Date/Time
9	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.0	1.0	2.9	3/21/2018 10:28
10	Exterior	Wethersfield	Bridge 06289		SUPPORT PAD		Metal	Blue	Intact	0.0	0.0	1.7	3.4	3/21/2018 10:29
11	Exterior	Wethersfield	Bridge 06289		SUPPORT PAD		Metal	Blue	Intact	0.0	0.1	5.5	4.2	3/21/2018 10:30
12	Exterior	Wethersfield	Bridge 06289		INSIDE BEAM		Metal	White	Intact	0.0	0.0	2.6	3.4	3/21/2018 10:44
13	Exterior	Wethersfield	Bridge 06289		INSIDE BEAM		Metal	White	Intact	0.0	0.8	2.7	5.5	3/21/2018 10:45
14	Exterior	Wethersfield	Bridge 06289		INSIDE BEAM		Metal	White	Intact	0.0	0.0	1.7	3.9	3/21/2018 10:46
15	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.1	3.9	3.1	3/21/2018 10:48
16	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.1	6.3	6.3	3/21/2018 10:49
17	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.0	2.5	3.4	3/21/2018 10:50
18	Exterior	Wethersfield	Bridge 06289		BEAM		Metal	Blue	Intact	0.0	0.0	1.0	3.4	3/21/2018 10:52
19	Exterior	Wethersfield	Bridge 06289		ROCKER PAD SUPPORT		Metal	Blue	Intact	0.0	0.0	1.0	4.5	3/21/2018 10:52
20	Exterior	Wethersfield	Bridge 06289		ROCKER PAD SUPPORT		Metal	Blue	Intact	0.0	0.0	1.7	6.3	3/21/2018 10:53
21	Exterior	Wethersfield	Bridge 01456		SUPPORT BEAM		Concrete	Grey	Intact	0.0	0.0	1.0	4.5	3/21/2018 11:21
22	Exterior	Wethersfield	Bridge 01456		SUPPORT BEAM		Concrete	Grey	Intact	0.0	0.0	1.2	4.2	3/21/2018 11:22
23	Exterior	Wethersfield	Bridge 01456		SUPPORT BEAM		Concrete	Grey	Intact	0.0	0.0	1.0	5.0	3/21/2018 11:23
24	Exterior	Wethersfield	Bridge 01456		BEAM		Steel	Orange	Intact	21.2	4.7	2.3	2.6	3/21/2018 11:27
25	Exterior	Wethersfield	Bridge 01456		BEAM		Steel	Orange	Intact	19.5	4.6	2.2	2.6	3/21/2018 11:30
26	Exterior	Wethersfield	Bridge 01456		ROCKER PAD SUPPORT		Steel	Orange	Defective	0.0	0.0	2.3	3.1	3/21/2018 11:30
27	Exterior	Wethersfield	Bridge 01456		ROCKER PAD SUPPORT		Steel	Orange	Defective	0.0	0.0	1.4	3.1	3/21/2018 11:31
28	Exterior	Wethersfield	Bridge 01456		BEAM		Steel	Orange	Intact	26.6	5.0	2.1	2.9	3/21/2018 11:33
29	Exterior	Wethersfield	Bridge 01456		BEAM		Steel	Orange	Intact	14.0	4.0	2.0	2.6	3/21/2018 11:34
30	Exterior	Wethersfield	Bridge 01456		ROCKER PAD SUPPORT		Steel	Orange	Intact	0.0	0.1	2.3	1.6	3/21/2018 11:35
31	Exterior	Wethersfield	Bridge 01456		ROCKER PAD SUPPORT		Steel	Orange	Intact	0.0	0.0	3.2	5.0	3/21/2018 11:35
32	Exterior	Wethersfield	Bridge 01457		BEAM		Steel	Orange	Defective	17.2	4.0	2.1	2.9	3/21/2018 11:49
33	Exterior	Wethersfield	Bridge 01457		BEAM		Steel	Orange	Defective	16.8	4.0	2.2	2.9	3/21/2018 11:49
34	Exterior	Wethersfield	Bridge 01457		BEAM		Steel	Grey	Defective	15.6	3.9	10.0	2.9	3/21/2018 11:50
35	Exterior	Wethersfield	Bridge 01457		BEAM		Steel	Grey	Defective	22.0	4.8	10.0	2.6	3/21/2018 11:51
36	Exterior	Wethersfield	Bridge 01457		ROCKER PAD SUPPORT		Steel	Grey	Intact	0.0	0.1	1.0	0.5	3/21/2018 11:53
37	Exterior	Wethersfield	Bridge 01457		ROCKER PAD SUPPORT		Steel	Grey	Intact	0.0	0.1	2.2	3.1	3/21/2018 11:53
38	Exterior	Wethersfield	Bridge 01457		ROCKER PAD SUPPORT		Steel	Grey	Intact	0.0	0.0	1.6	3.2	3/21/2018 11:54
39	Exterior	Wethersfield	Bridge 01457		BEAM		Steel	Orange	Defective	26.2	2.3	2.2	5.3	3/21/2018 11:55
40	Exterior	Wethersfield	Bridge 01457		BEAM		Steel	Orange	Defective	25.3	2.6	2.2	4.2	3/21/2018 11:56
41	Exterior	Wethersfield	Bridge 01457		ROCKER PAD SUPPORT		Steel	Grey	Defective	0.1	0.1	3.0	3.1	3/21/2018 11:57
42	Exterior	Wethersfield	Bridge 01457		BEAM		Steel	Grey	Defective	14.4	1.9	9.8	4.7	3/21/2018 11:58
43	Exterior	Wethersfield	Bridge 01457		BEAM		Steel	Grey	Defective	16.2	3.9	6.8	2.9	3/21/2018 11:58
44			0.0 Calibration							0.0	0.0	2.7	3.1	3/21/2018 12:16
45			0.3 Calibration							0.4	0.1	1.1	3.1	3/21/2018 12:17
46														
47			1.6 Calibration		VOID					1.6	0.2	1.2	3.7	3/21/2018 12:17

Lead paint includes paint found to contain any detectable amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).

Side A = Street side; Sides B,C,D follow clockwise

80 Lupes Drive  
Stratford, CT 06615



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# 8010034**

Report Date: January 08, 2018  
Project: CTDOT, Bridge  
Project Number: 222165.2700.0710, Bridge 01459, Wethersfield

Connecticut Laboratory Certificate: PH 0116  
Massachusetts laboratory Certificate: M-CT903



New York NELAP Accreditation: 11982  
Rhode Island Certification: 199

CET # : 8010034

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 01459, Wethersfield

### SAMPLE SUMMARY

The sample(s) were received at 22.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
1 Bearings	8010034-01	Paint Chip	12/29/2017 11:30	01/02/2018
3 Beam	8010034-02	Paint Chip	12/29/2017 11:40	01/02/2018
4 Railing	8010034-03	Paint Chip	12/29/2017 11:50	01/02/2018

**Analyte: Total Lead [EPA 6010C]**

**Analyst: SS**

**Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8010034-01	1 Bearings	ND	0.10	%	1	B8A0526	01/05/2018	01/08/2018 11:46	

**Analyte: TCLP Lead [EPA 6010C]**

**Analyst: SS**

**Prep: EPA 3005A-1311**

**Matrix: Extract**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8010034-02	3 Beam	130	0.013	mg/L	1	B8A0815	01/08/2018	01/08/2018 12:20	
8010034-03	4 Railing	110	0.013	mg/L	1	B8A0815	01/08/2018	01/08/2018 12:33	



CET # : 8010034

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 01459, Wethersfield

### QUALITY CONTROL SECTION

#### Batch B8A0526 - EPA 6010C

Analyte	Result (%)	RL (%)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B8A0526-BLK1)					Prepared: 1/5/2018 Analyzed: 1/8/2018				
Lead	ND	0.10							

CET # : 8010034

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 01459, Wethersfield

**Batch B8A0815 - EPA 6010C**

Analyte	Result (mg/L)	RL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Blank (B8A0815-BLK1)</b>					Prepared: 1/8/2018 Analyzed: 1/8/2018				
Lead	ND	0.013							
<b>LCS (B8A0815-BS1)</b>					Prepared: 1/8/2018 Analyzed: 1/8/2018				
Lead	0.183	0.013	0.200		91.6	80 - 120			

CET #: 8010034

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 01459, Wethersfield



80 Lupes Drive  
Stratford, CT 06615

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

### Quality Control Definitions and Abbreviations

Internal Standard (IS)	An Analyte added to each sample or sample extract. An internal standard is used to monitor retention time, calculate relative response, and quantify analytes of interest.
Surrogate Recovery	The % recovery for non-target organic compounds that are spiked into all samples. Used to determine method performance.
Continuing Calibration Batch	An analytical standard analyzed with each set of samples to verify initial calibration of the system. Samples that are analyzed together with the same method, sequence and lot of reagents within the same time period.
ND	Not detected at or above the specified reporting limit.
RL	Reporting Limit
Dilution	Multiplier added to detection levels (MDL) and/or sample results due to interferences and/or high concentration of target compounds.
Duplicate	Result from the duplicate analysis of a sample.
Result	Amount of analyte found in a sample.
Spike Level	Amount of analyte added to a sample
Matrix Spike Result	Amount of analyte found including amount that was spiked.
Matrix Spike Dup	Amount of analyte found in duplicate spikes including amount that was spike.
Matrix Spike % Recovery	% Recovery of spiked amount in sample.
Matrix Spike Dup % Recovery	% Recovery of spiked duplicate amount in sample.
RPD	Relative percent difference between Matrix Spike and Matrix Spike Duplicate.
Blank	Method Blank that has been taken through all steps of the analysis.
LCS % Recovery	Laboratory Control Sample percent recovery. The amount of analyte recovered from a fortified sample.
Recovery Limits	A range within which specified measurements results must fall to be compliant.
CC	Calibration Verification

#### Flags:

- H- Recovery is above the control limits
- L- Recovery is below the control limits
- B- Compound detected in the Blank
- P- RPD of dual column results exceeds 40%
- #- Sample result too high for accurate spike recovery.



Connecticut Laboratory Certification PH0116  
Massachusetts Laboratory Certification M-CT903

New York NELAP Accreditation 11982  
Rhode Island Certification 199

Complete Environmental Testing, Inc.

80 Lupes Drive, Stratford, CT 06615 • Tel: 203-377-9984 • Fax: 203-377-9952 • www.cetlabs.com



CET #: 8010034

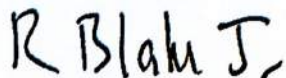
Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 01459, Wethersfield

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



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- 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 # : 8010034

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 01459, Wethersfield

#### CERTIFICATIONS

##### Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 6010C in Solid</i>	
Lead	CT
<i>EPA 6010C in Water</i>	
Lead	CT,NY

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2018
NY	New York Certification (NELAC)	11982	04/01/2018

Complete Environmental Testing, Inc.

80 Lupes Drive, Stratford, CT 06615 • Tel: 203-377-9984 • Fax: 203-377-9952 • [www.cetlabs.com](http://www.cetlabs.com)





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e-mail: cet1@cetlabs.com

Client: Mr. Erik Plimpton  
TRC Environmental Consultants  
21 Griffin Rd., North  
Windsor, CT 06095

## **Analytical Report**

### **CET# 8010035**

Report Date: January 08, 2018  
Project: CTDOT, Bridge  
Project Number: 222165.2700.0710, Bridge 1460, Wethersfield

Connecticut Laboratory Certificate: PH 0116  
Massachusetts laboratory Certificate: M-CT903



New York NELAP Accreditation: 11982  
Rhode Island Certification: 199

CET # : 8010035

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 1460, Wethersfield

### SAMPLE SUMMARY

The sample(s) were received at 22.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
1 Bearings	8010035-01	Paint Chip	12/29/2017 10:30	01/02/2018
3 Beam	8010035-02	Paint Chip	12/29/2017 10:05	01/02/2018

**Analyte: Total Lead [EPA 6010C]**

**Analyst: SS**

**Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8010035-01	1 Bearings	ND	0.10	%	1	B8A0526	01/05/2018	01/08/2018 11:50	

**Analyte: TCLP Lead [EPA 6010C]**

**Analyst: SS**

**Prep: EPA 3005A-1311**

**Matrix: Extract**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8010035-02	3 Beam	320	0.013	mg/L	1	B8A0815	01/08/2018	01/08/2018 12:38	

CET # : 8010035

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 1460, Wethersfield

## QUALITY CONTROL SECTION

### Batch B8A0526 - EPA 6010C

Analyte	Result (%)	RL (%)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	---------------	-----------	----------------	------------------	-------	-----------------	-----	--------------	-------

Blank (B8A0526-BLK1)

Prepared: 1/5/2018 Analyzed: 1/8/2018

Lead ND 0.10



CET # : 8010035

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 1460, Wethersfield

**Batch B8A0815 - EPA 6010C**

Analyte	Result (mg/L)	RL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Blank (B8A0815-BLK1)</b>					Prepared: 1/8/2018 Analyzed: 1/8/2018				
Lead	ND	0.013							
<b>LCS (B8A0815-BS1)</b>					Prepared: 1/8/2018 Analyzed: 1/8/2018				
Lead	0.183	0.013	0.200		91.6	80 - 120			

CET #: 8010035

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 1460, Wethersfield



80 Lupes Drive  
Stratford, CT 06615

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

### Quality Control Definitions and Abbreviations

Internal Standard (IS)	An Analyte added to each sample or sample extract. An internal standard is used to monitor retention time, calculate relative response, and quantify analytes of interest.
Surrogate Recovery	The % recovery for non-target organic compounds that are spiked into all samples. Used to determine method performance.
Continuing Calibration Batch	An analytical standard analyzed with each set of samples to verify initial calibration of the system. Samples that are analyzed together with the same method, sequence and lot of reagents within the same time period.
ND	Not detected at or above the specified reporting limit.
RL	Reporting Limit
Dilution	Multiplier added to detection levels (MDL) and/or sample results due to interferences and/or high concentration of target compounds.
Duplicate	Result from the duplicate analysis of a sample.
Result	Amount of analyte found in a sample.
Spike Level	Amount of analyte added to a sample
Matrix Spike Result	Amount of analyte found including amount that was spiked.
Matrix Spike Dup	Amount of analyte found in duplicate spikes including amount that was spike.
Matrix Spike % Recovery	% Recovery of spiked amount in sample.
Matrix Spike Dup % Recovery	% Recovery of spiked duplicate amount in sample.
RPD	Relative percent difference between Matrix Spike and Matrix Spike Duplicate.
Blank	Method Blank that has been taken through all steps of the analysis.
LCS % Recovery	Laboratory Control Sample percent recovery. The amount of analyte recovered from a fortified sample.
Recovery Limits	A range within which specified measurements results must fall to be compliant.
CC	Calibration Verification

#### Flags:

- H- Recovery is above the control limits
- L- Recovery is below the control limits
- B- Compound detected in the Blank
- P- RPD of dual column results exceeds 40%
- #- Sample result too high for accurate spike recovery.



Connecticut Laboratory Certification PH0116  
Massachusetts Laboratory Certification M-CT903

New York NELAP Accreditation 11982  
Rhode Island Certification 199

Complete Environmental Testing, Inc.

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CET #: 8010035

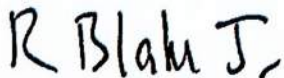
Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 1460, Wethersfield

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



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- 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 # : 8010035

Project: CTDOT, Bridge

Project Number: 222165.2700.0710, Bridge 1460, Wethersfield

#### CERTIFICATIONS

##### Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 6010C In Solid</i>	
Lead	CT
<i>EPA 6010C In Water</i>	
Lead	CT,NY

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2018
NY	New York Certification (NELAC)	11982	04/01/2018

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**Edition: November 2013**  
**Supersede Previous Edition**

**LAB ID#.**

## TURNAROUND TIME

## MATERIAL

[illegible]

Page 1 of 1

RBC

80 Lupes Drive  
Stratford, CT 06615



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

Client: Mr. David Heelon  
TRC Environmental Consultants  
21 Griffin Rd., North  
Windsor, CT 06095

## Analytical Report

### CET# 8030582



Report Date: March 26, 2018  
Project: CTDOT, Bridge  
Project Number: Bridges 06289, 01456, 01457, Wethersfield  
PO Number: 222165.5613.0710

Connecticut Laboratory Certificate: PH 0116  
Massachusetts laboratory Certificate: M-CT903



New York NELAP Accreditation: 11982  
Rhode Island Certification: 199



CET # : 8030582

Project: CTDOT, Bridge

Project Number: Bridges 06289, 01456,01457, Wethersfield

### SAMPLE SUMMARY

The sample(s) were received at 22.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
1 Bridge 06289 Under Bridge	8030582-01	Paint Chip	3/21/2018 10:25	03/22/2018
3 Bridge 06289 Under Bridge	8030582-02	Paint Chip	3/21/2018 10:55	03/22/2018
5 Bridge 01456 Under Bridge	8030582-03	Paint Chip	3/21/2018 11:32	03/22/2018
6 Bridge 01457 Under Bridge	8030582-04	Paint Chip	3/21/2018 11:48	03/22/2018

**Analyte: Total Lead [EPA 6010C]**

**Analyst: SS**

**Prep: EPA 3051A**

**Matrix: Paint Chip**

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
8030582-01	1 Bridge 06289 Under Bridge	ND	0.10	%	1	B8C2623	03/26/2018	03/26/2018 15:31	
8030582-02	3 Bridge 06289 Under Bridge	ND	0.10	%	1	B8C2623	03/26/2018	03/26/2018 15:35	

**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
8030582-03	5 Bridge 01456 Under Bridge	120	0.013	mg/L	1	B8C2323	03/23/2018	03/26/2018 14:17	
8030582-04	6 Bridge 01457 Under Bridge	71	0.013	mg/L	1	B8C2323	03/23/2018	03/26/2018 14:22	

CET # : 8030582

Project: CTDOT, Bridge

Project Number: Bridges 06289, 01456,01457, Wethersfield

### QUALITY CONTROL SECTION

#### Batch B8C2323 - EPA 6020A

Analyte	Result (mg/L)	RL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Blank (B8C2323-BLK1)</b>					Prepared: 3/23/2018 Analyzed: 3/26/2018				
Lead	ND	0.013							
<b>LCS (B8C2323-BS1)</b>					Prepared: 3/23/2018 Analyzed: 3/26/2018				
Lead	0.187	0.013	0.200		93.5	80 - 120			

CET # : 8030582

Project: CTDOT, Bridge

Project Number: Bridges 06289, 01456,01457, Wethersfield

**Batch B8C2623 - EPA 6010C**

Analyte	Result (%)	RL (%)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	---------------	-----------	----------------	------------------	-------	-----------------	-----	--------------	-------

**Blank (B8C2623-BLK1)**

Prepared: 3/26/2018 Analyzed: 3/26/2018

Lead	ND	0.10							
------	----	------	--	--	--	--	--	--	--



CET # : 8030582

Project: CTDOT, Bridge

Project Number: Bridges 06289, 01456, 01457, Wethersfield



80 Lupes Drive  
Stratford, CT 06615

Tel: (203) 377-9984  
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email: cet1@cetlabs.com

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CET #: 8030582

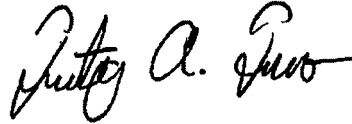
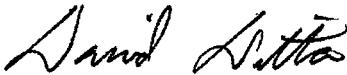
Project: CTDOT, Bridge

Project Number: Bridges 06289, 01456, 01457, Wethersfield

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



David Ditta  
Laboratory Director

Project Manager

Report Comments:

Sample Result Flags:

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RL is the Reporting Limit

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CET # : 8030582

Project: CTDOT, Bridge

Project Number: Bridges 06289, 01456,01457, Wethersfield

#### CERTIFICATIONS

##### Certified Analyses included in this Report

Analyte	Certifications
<b><i>EPA 6010C in Solid</i></b>	
Lead	CT
<b><i>EPA 6020A in Water</i></b>	
Lead	NY,CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2018
NY	New York Certification (NELAC)	11982	04/01/2018





**Edition: November 2013**  
**Supersede Previous Edition**

# TCLP CHAIN OF CUSTODY

**LAB ID#.**

PROJECT NAME

Bridges 06289, 01456, 01457  
Wethersfield, CT

**(PRINTED)**

David Heelson

PROJECT NUMBER		PROJECT NAME		PARAMETERS		TURNAROUND TIME						
202165, 5613, 0710		Bridges 06289, 01456, 01457 Wethersfield, CT				24hr	48hr	3day	5day			
INSPECTOR: (SIGNATURE)		(PRINTED)				24hr	48hr	3day	5day			
David Heelsn		David Heelsn										
FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPL Pb	Total Lead	MATERIAL
			COMP	GRAB								
1	3/21/18	1035		✓	Bridge 06289, under bridge						✓	Blue paint on horizontal steel beam
2	✓	1035		✓	Bridge 06289, under bridge				✓			Blue paint on horizontal steel beam
3	✓	1055		✓	Bridge 06289, under bridge						✓	White paint from inside steel girder
4	✓	1055		✓	Bridge 06289, under bridge				✓			White paint from inside steel girder
5	✓	1132		✓	Bridge 01456, under bridge				✓			Mix of orange & gray paint on steel beam
6	✓	1148		✓	Bridge 01457, under bridge				✓			Mix of orange & gray paint on steel beam
											</	

Page 8 of 8

Received by: (Signature)

Accepted by: (D)B

(Printed)

Page 1 of 1




*Edition: October 2009  
Supersedes Previous Edition*

# ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

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

LAB ID #. 51748

PROJECT NUMBER 222165.5700.0710		PROJECT NAME Bridge 1459 + 1460 Wethersfield CT		INSPECTOR Zachary Smith		TURNAROUND TIME											
SIGNATURE 		DATE 12/29/17		TIME		PLM: 8hr 24hr 48hr 3day 5day TEM: 24hr 48hr 3day 5day											
FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION Bridge 1459	PARAMETERS											
			COMP	GRAB		PLM EPA 600/R93/I16 (POSITIVE STOP)	PLM EPA 600/R93/I16 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 1984 (IF PLM SERIES NEG)							
01	12/29/17	1130		X	where bridge meets abutment	X											
02		1132		X	"					X							
03		1135		X	where abutment meets bridge - under	X											
04		1137		X	"					X							
05		1140		X	around conduit pipe	X											
06		1142		X	"					X							
07		1120		X	under rubber pad on bearing	X											
08		1125		X	"									X			
09		1150		X	under bridge bearings	X											
10		1152		X	"					X							

Relinquished by: (Signature) <i>[Signature]</i>	Date: 12/29/17	Received by: (Signature) <i>[Signature]</i>	12/29/17	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Zachary Smith	Time: 1400	(Printed) <i>[Signature]</i>	1400	(Printed)	Time:	(Printed)
Remarks: Send results to SA Smith, @TRCSolutions, LLC				Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Comments:		



**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: CT Department of Transportation

Lab Log #: 0051748  
Project #: 222165.5700.0710  
Date Received: 12/29/2017  
Date Analyzed: 01/03/2018

Site: Bridge 1459, Wetherfield, CT

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
01	Grey (caulk)	Yes	No	--	---	ND	None
02	Grey (caulk)	Yes	No	--	---	ND	None
03	Grey/Tan (caulk)	Yes	No	--	---	5%	Chrysotile
04	--	--	--	--	--	NA/PS	--
05	Grey (caulk)	Yes	No	--	---	ND	None
06	Grey (caulk)	Yes	No	--	---	ND	None
07	Grey (pad)	Yes	No	--	---	ND	None
08	Grey (pad)	Yes	No	--	---	ND	None
09	Orange (pad)	Yes	No	--	10% synthetic fiber	ND	None
10	Orange (pad)	Yes	No	--	10% synthetic fiber	ND	None

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0 AIHA-LAP, LLC #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411  
RI #AAL-007 TX #300354 VT #AL014538 LA#05011 VA #3333 000283 AZ #A20944 HI #1-09-004 NJ #CT004 CA #2907  
CO# AL-15020 PHIL# 461 PA#68-03387





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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
------------	-------	------------	---------------	-----------	------------------------	------------	---------------

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, 2018. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. 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:

Cathryn Lemire, Laboratory Analyst

Reviewed by:

Kathleen Williamson, Laboratory Manager

Date Issued

01/03/2018

#### TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0  
RI #AAL-007 TX #300354  
CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426  
VT #AL014538 LA#05011 VA #3333 000283  
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052  
AZ #A20944 HI #L-09-004

NY #10980 WV# LT000411  
NJ #CT004 CA #2907

NT 16919

Date: 01/03/17

							For Lab Use Only	
Client ID #	Lab ID#	Description	Location	Acceptable on Receipt	Comments			
2	51748	Caulk	See COC					
6	51748	Caulk						
8	51748	Pad						
10	51748	Pad						
For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported	Comments		

# ProScience Analytical Services, Inc.

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

## Laboratory Report

Client Project #: 222165.5700.0710  
Client Reference: CT DOT - Bridge 1459, Wethersfield, CT  
PO #: C222165  
Client #: 297  
Client Name: TRC Environmental Corp. (CT)

Batch: NT 16979  
Method: NOB  
Date Received: 1/5/2018  
Date Analyzed: 1/10/2018  
Date of Report: 1/10/2018

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Preped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE						
NT128326	2	Flexible Grey Caulk		.5472	.00	.00	.00	.00	.00	.00	43.11	36.48	20.41	ND	Yes	No
NT128327	6	Grey Pipe Dope Caulking		.1560	.00	.00	.00	.00	.00	.00	4.55	50.83	44.62	ND	Yes	No
NT128328	8	Flexible Pad - Grey		.2571	.00	.00	.00	.00	.00	.00	47.26	33.06	19.68	ND	Yes	No
NT128329	10	Orange Canvas-like Pad		.3256	.00	.00	.00	.00	.00	.00	32.87	52.36	14.77	ND	Yes	No

### Comments:

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

  
Mark Derosier, Analyst



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

LAB ID # 51749

PROJECT NUMBER	PROJECT NAME	INSPECTOR	PARAMETERS				TURNAROUND TIME				
			PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF > 1% & < 10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM:	8hr	24hr	48hr	3day
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	COMP	GRAV	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF > 1% & < 10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	12/29/17	1000	X			ceement caulk on South side	X				C1 - Hard grey caulk
02		1004	X			"				X	"
03		1006	X			Around conduit on side of bridge	X				C2 - grey pipe dope caulking
04		1010	X			"				X	"
05		1040	X			Scars along bridge barrier wall	X				C3 - Hard white caulk
06		1042	X			"				X	"
07		1025	X			where abutment meets bridge	X				C4 - Silver-like flexible grey caulk
08		1030	X			"				X	"
			X								
			X								

Relinquished by: (Signature) <i>[Signature]</i>	Date: 12/29/17	Received by: (Signature) <i>[Signature]</i>	Date: 12/29/17
(Printed) Zachary Smith	Time: 1400	(Printed) 1400	Time:
Remarks: Send results to SARientis@TRCSolutions.com	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Comments:		
		Received by: (Signature)	Page 1 of 7





**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: CT Department of Transportation

Lab Log #: 0051749  
Project #: 222165.5700.0710  
Date Received: 12/29/2017  
Date Analyzed: 01/03/2018

Site: Bridge 1460, Wethersfield, CT

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
01	Grey (caulk)	Yes	No	--	---	ND	None
02	Grey (caulk)	Yes	No	--	---	ND	None
03	Grey (caulk)	Yes	No	--	---	ND	None
04	Grey (caulk)	Yes	No	--	---	ND	None
05	White (caulk)	Yes	No	--	---	ND	None
06	White (caulk)	Yes	No	--	---	ND	None
07	Grey (caulk)	Yes	No	--	---	ND	None
08	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, 2018. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. 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:

Cathryn Lemire, Laboratory Analyst

Reviewed by:

Kathleen Williamson, Laboratory Manager

Date Issued

01/03/2018

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0  
RI #AAL-007 TX #300354  
CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426  
VT #AL014538 LA#05011 VA #3333 000283  
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411  
AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907

NT 16918

Date: 01/03/17

						For Lab Use Only	
Client ID #	Lab ID#	Description	Location	Acceptable on Receipt	Comments		
2	51749	Caulk	See COC				
4	51749	Caulk					
6	51749	Caulk					
8	51749	Caulk					
For Lab Use Only		# Spies	Total	Client #	Batch #	Results Reported	Comments

Analysis Type:	Chatfield	EPA N.O.B	Qualitative
----------------	-----------	-----------	-------------

# 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 #: 222165.5700.0710  
Client Reference: CT DOT - Bridge 1460, Wethersfield, CT  
PO #: C222165  
Client #: 297  
Client Name: TRC Environmental Corp. (CT)

Batch: NT 16978  
Method: NOB  
Date Received: 1/5/2018  
Date Analyzed: 1/10/2018  
Date of Report: 1/10/2018

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types					% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Preped / Charged
					CHR	AMO	ACT	CRO	ANT	TRE					
NT128322	2	Hard Gray Caulk		.1293	.00	.00	.00	.00	.00	.00	49.50	7.73	ND	Yes	No
NT128323	4	Grey Pipe Dope Caulking		.1646	.00	.00	.00	.00	.00	.00	4.49	48.97	ND	Yes	No
NT128324	6	Hard White Caulk		.2931	.00	.00	.00	.00	.00	.00	7.85	83.45	ND	Yes	No
NT128325	8	Silicon-like Flexible Grey Caulk		.9966	.00	.00	.00	.00	.00	.00	51.44	17.23	ND	Yes	No

### Comments:

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

  
Mark Derosier, Analyst





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

LAB ID #. 50028

PROJECT NUMBER		PROJECT NAME		PARAMETERS				TURNAROUND TIME						
222154.5613.0710		CT DOT- Bridges 01456 and 01457 Wethersfield, CT		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM:	8hr	24hr	48hr	3day	5day
SIGNATURE <i>David Webster</i>		INSPECTOR D Webster, D Heelon							TEM:	24hr	X	48hr	3day	5day
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION		MATERIAL								
1	3-21-18	1140	X	Guardrail pedestal 01457		X								
2	3-21-18	1141	X	Guardrail pedestal 01457		X			X					
3	3-21-18	1126	X	Parapet wall 01457		X								
4	3-21-18	1127	X	Parapet wall 01457		X			X					
5	3-21-18	1220	X	Abutment wall 01456		X								
6	3-21-18	1221	X	Abutment wall 01456		X			X					
7	3-21-18	1205	X	Penetrations 01457		X								
8	3-21-18	1206	X	Penetrations 01457		X			X					
9	3-21-18	1210	X	Parapet wall 01456		X								
10	3-21-18	1212	X	Parapet wall 01456		X			X					
11	3-21-18	1121	X	Expansion joint on embankment wall 01457		X								

Relinquished by: (Signature) <i>David Webster</i>	Date: 3-21-18	Received by: (Signature) <i>David Webster</i>	Date: 3/21/18	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) David Webster	Time: 1400	(Printed) <i>David Webster</i>	Time: 1400	(Printed)	Time:	(Printed)
Remarks:				Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Comments:		





21 GRIFFIN ROAD NORTH

WINDSOR, CONNECTICUT 06095

TELEPHONE (860) 298-9692

FAX (860) 298-6380

## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009  
Supersedes Previous Edition

LAB ID #. 52028

PROJECT NUMBER 222154.5613.0710		PROJECT NAME CT DOT- Bridges 01456 and 01457 Wethersfield, CT		PARAMETERS				TURNAROUND TIME						
SIGNATURE <i>David Webster</i>		INSPECTOR D Webster, D Heelon		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF > 1% & < 10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM: TEM:	8hr 24hr	24hr 48hr	48hr 3day	3day 5day	
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION		MATERIAL								
12	3-21-18	1122	X	Expansion joint on embankment wall 01457		X		X						EJ1- White rubbery expansion joint
13	3-21-18	1135	X	Pillar 01456		X								T1- Black tar
14	3-21-18	1136	X	Pillar 01456		X		X						T1- Black tar

Relinquished by: (Signature) <i>David Webster</i>	Date: 3-21-18	Received by: (Signature) <i>Calvin Lemire</i>	3/21/18	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) David Webster	Time: 1400	(Printed) Calvin Lemire	1400	(Printed)	Time:	(Printed)
Remarks:				Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Comments:		
				Page 2 of 2		



**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: CT Department of Transportation

Lab Log #: 0052028  
Project #: 222165.5613.0710  
Date Received: 03/21/2018  
Date Analyzed: 03/23/2018

Site: Bridges 01456 and 01457, Wethersfield, CT

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
1	Black (caulk)	Yes	No	--	40% synthetic fiber	ND	None
2	Black (caulk)	Yes	No	--	40% synthetic fiber	ND	None
3	Grey (caulk)	Yes	No	--	---	ND	None
4	Grey (caulk)	Yes	No	--	---	ND	None
5	Light Grey (caulk)	Yes	No	--	---	5%	Chrysotile
6	--	--	--	--	--	NA/PS	--
7	White (caulk)	Yes	No	--	---	ND	None
8	White (caulk)	Yes	No	--	---	ND	None
9	Grey (caulk)	Yes	No	--	---	ND	None
10	Grey (caulk)	Yes	No	--	---	ND	None
11	White (expansion joint)	Yes	No	--	---	ND	None
12	White (expansion joint)	Yes	No	--	---	ND	None
13	Black (tar)	Yes	No	--	---	ND	None
14	Black (tar)	Yes	No	--	---	ND	None

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0  
RI #AAL-007 TX #300354  
CO# AL-15020

AIHA-LAP,LLC #100122 CT #PH-0426  
VT #AL014538 LA#05011 VA #3333 000283  
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052 NY #I0980 WV# LT000411  
AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907



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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
------------	-------	------------	---------------	-----------	------------------------	------------	---------------

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, 2018. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. 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.

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Analyzed by:

K. Williamson

Kathleen Williamson, Laboratory Manager

Reviewed by:

Cathryn Lemire

Cathryn Lemire, Approved Signatory

Date Issued

03/23/2018

#### TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0  
RI #AAL-007 TX #300354  
CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426  
VT #AL014538 LA#05011 VA #3333 000283  
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411  
AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907

NT 17125

22 Cummings Park, Woburn, MA 01801 Ph. 781-935-3212 Fax 781-932-4857

Date: 03/23/18

**PO#:** C222165

Client: TRC

Client Job#: 222165.5613.0710

Client Job Ref./Loc.: CT DOT-Bridges 01456 & 01457, Wethersfield, CT

Relinquished by: **K. Williamson- KWilliamson@trcsolutions.com**

Received by:

Report to:

**Samplers Name:**

Analysis Type:	Chatfield	EPA N.O.B	Qualitative
Analysis Type:	Chatfield	EPA N.O.B	Qualitative

Turnaround Time:

**<12 Hour**

<24 Hour

## <48 Hour

✓3 Day

5 Day

Other:

For Lab Use Only						
Client ID #	Lab ID#	Description	Location	Acceptable on Receipt	Comments	
2	52028	Caulk	See COC			
4	52028	Caulk				
8	52028	Caulk				
10	52028	Caulk				
12	52028	Expansion Joint				
14	52028	Tar				

# 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 #: 222165.5613.0710  
Client Reference: CT DOT - Bridges 01456 & 01457, Wethersfield, CT  
PO #: C222165  
Client #: 297  
Client Name: TRC Environmental Corp. (CT)

Batch: NT 17125  
Method: NOB  
Date Received: 3/26/2018  
Date Analyzed: 3/28/2018  
Date of Report: 3/28/2018

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types					% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Prepared / Charged
					CHR	AMO	ACT	CRO	ANT	TRE					
NT129090	2	Black hard rubbery caulk		.1716	.00	.00	.00	.00	.00	.00	75.76	4.31	ND	Yes	No
NT129091	4	Grey rubbery caulk		.2741	.00	.00	.00	.00	.00	.00	32.69	20.32	ND	Yes	No
NT129092	8	White brittle caulk		.0693	.00	.00	.00	.00	.00	.00	3.75	95.24	ND	Yes	No
NT129093	10	Grey rubbery caulk		.4783	.00	.00	.00	.00	.00	.00	33.62	16.75	ND	Yes	No
NT129094	12	White rubbery expansion joint		.2081	.00	.00	.00	.00	.00	.00	85.01	2.64	ND	Yes	No
NT129095	14	Black tar		.1022	.00	.00	.00	.00	.00	.00	82.88	9.69	ND	Yes	No

### Comments:

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

  
Mark Derosier, Analyst





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

## ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009  
Supersedes Previous Edition

LAB ID #: 52027

PROJECT NUMBER		PROJECT NAME		PARAMETERS					TURNAROUND TIME					
222165.5613.0710		CT DOT- Bridge 06289 Wethersfield, CT		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF > 1% & < 10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM:	8hr	24hr	48hr	3day	5day
SIGNATURE <i>David Webster</i>		INSPECTOR D Webster, D Heelon							TEM:	24hr	X	48hr	3day	5day
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION		MATERIAL								
			COMP	GRAB										
1	3-21-18	0952		X	Parapet wall joint	X								
2	3-21-18	0954		X	Parapet wall joint	X			X					
3	3-21-18	0943		X	Guardrail pedestal	X								
4	3-21-18	0945		X	Guardrail pedestal	X			X					
5	3-21-18	0952		X	Drain pipe	X								
6	3-21-18	0954		X	Drain pipe	X			X					
7	3-21-18	1022		X	Rocker pad	X								
8	3-21-18	1023		X	Rocker pad	X			X					

Relinquished by: (Signature)	Date:	Received by: (Signature)	Date:	Relinquished by: (Signature)	Date:	Received by: (Signature)
<i>David Webster</i>	3-21-18	<i>David Webster</i>	3/21/18			
(Printed)		(Printed)				
David Webster	1340	<i>David Webster</i>	1354			
Remarks:		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
		Comments:				Page 1 of 1



**BULK ASBESTOS ANALYSIS REPORT**

CLIENT: CT Department of Transportation

Lab Log #: 0052027  
Project #: 222165.5613.0710  
Date Received: 03/21/2018  
Date Analyzed: 03/23/2018

Site: Bridge 06289, Wethersfield, CT

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
1	Grey (caulk)	Yes	No	--	---	ND	None
2	Grey (caulk)	Yes	No	--	---	ND	None
3	Black (caulk)	Yes	No	--	---	ND	None
4	Black (caulk)	Yes	No	--	---	ND	None
5	Black (pipe tar)	Yes	No	--	---	ND	None
6	Black (pipe tar)	Yes	No	--	---	ND	None
7	Grey (rocker bearing paper)	Yes	No	--	---	ND	None
8	Grey (rocker bearing paper)	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, 2018. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. 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:

Cathryn Lemire, Approved Signatory

Date Issued

03/23/2018

**TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS**

NVLAP Lab Code 101424-0  
RI #AAL-007 TX #300354  
CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426  
VT #AL014538 LA#05011 VA #3333 000283  
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411  
AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907

6717124

Date: 03/23/18

Client: TRC

Client Job Ref./Loc.: CT DOT- Bridge 06289, Wethersfield, CT

Received by:  
Vivian Hewitt - Lolc 3/26/18 9:57  
www.hewittlaw.com

**Samplers Name:** D. Webster

**EPA N.O.B Qualitative**

Other:

For Lab Use Only						
Client ID #	Lab ID#	Description	Location	Acceptable on Receipt	Comments	
2	52027	Caulk	See COC			
4	52027	Caulk				
6	52027	Tar				
8	52027	Rocker Bearing Paper				

# 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 #: 222165.5613.0710  
Client Reference: CT DOT - Bridge 06289, Wethersfield, CT  
PO #: C222165  
Client #: 297  
Client Name: TRC Environmental Corp. (CT)

Batch: NT 17124  
Method: NOB  
Date Received: 3/26/2018  
Date Analyzed: 3/28/2018  
Date of Report: 3/28/2018

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types				TRE	% Other		% Carb.	Total % Asbestos	Analyzed / Charged	Prepared / Charged
					CHR	AMO	ACT	CRO		Non-asb.	Organic				
NT129086	2	Grey Rubbery Caulk		.7657	.00	.00	.00	.00	.00	51.57	32.95	15.48	ND	Yes	No
NT129087	4	Black Rubbery Caulk		.1991	.00	.00	.00	.00	.00	15.26	79.11	5.63	ND	Yes	No
NT129088	6	Black Drain Pipe Tar		.1098	.00	.00	.00	.00	.00	4.00	91.99	4.01	ND	Yes	No
NT129089	8	Rocker Bearing Paper		.0401	.00	.00	.00	.00	.00	20.20	66.33	13.47	ND	Yes	No

### Comments:

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

*Aimee L Cormier*  
Aimee Cormier, Analyst



SUBJECT \_\_\_\_\_

SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_  
PROJECT NO. 202165.57000710  
DATE 12/28/17  
BY CL+ZS  
CHK'D \_\_\_\_\_

Bridge 1460 - 91 over walking path in park

- 64 Bearings
- No visible ACM underneath bridge. Rubber gaskets + bearings
- Piping along bridge has some fiberglass wrapping
- C<sub>1</sub> - remnant caulk on side of concrete 1Lf
- C<sub>2</sub> - Caulking around fiberglass insulation on piping 2Lf
- Quano hazard
- possible mercury light bulbs over river
- C<sub>3</sub> - white caulking along barrier concrete wall on 91 175Lf
- C<sub>4</sub> - Grey flexible caulking where abutment meets bridge 20Lf
- Possible ACM caulking around storm drains - inaccessible

Bridge 1459

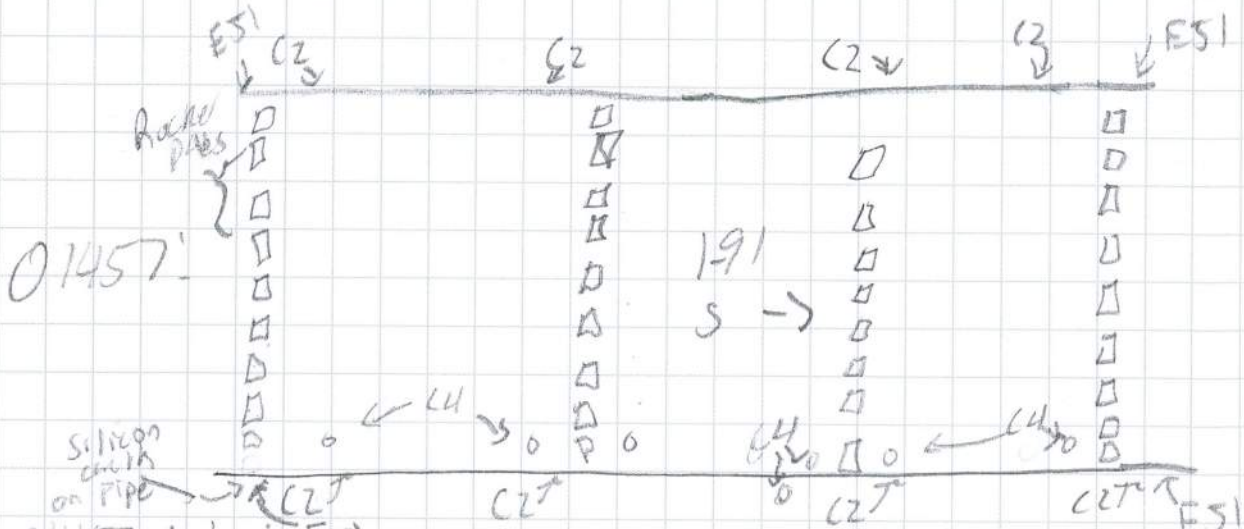
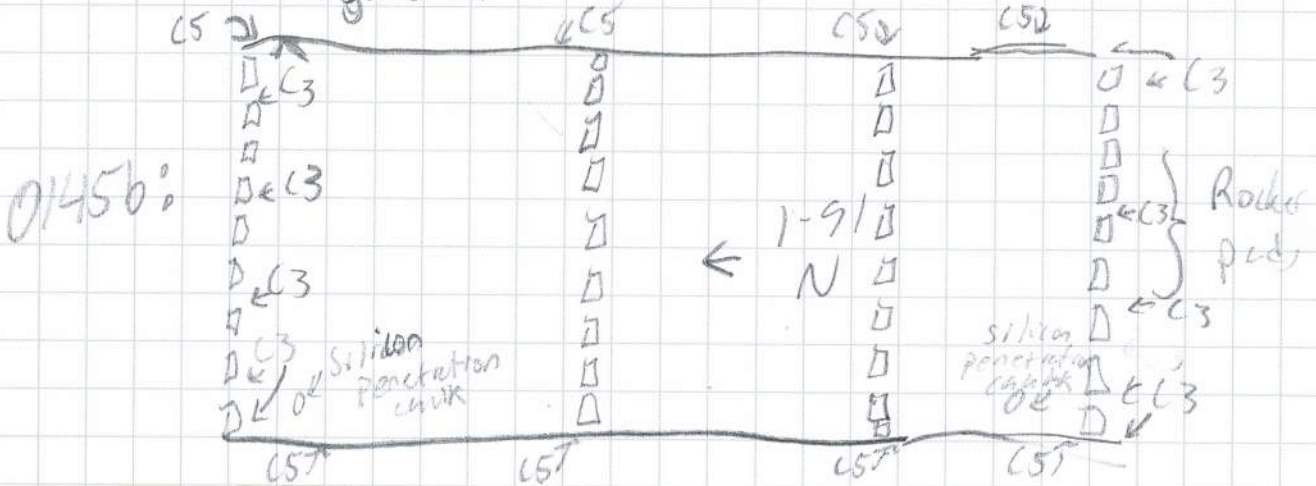
- Bearings without rubber have orange canvas pad (17 Bearings) (North side)
- Quano hazard / Birds nests
- flexible grey caulk where abutment meets Bridge C<sub>1</sub> (25Lf)
- C<sub>2</sub> - Hard Grey/Tan caulk where abutment meets bridge South side (est. 2Lf)
- C<sub>3</sub> - Grey pipe dope around conduit (5Lf)
- P<sub>1</sub> - Pad under rubber pad and bearing. only visible on 1 assumed on rest
- P<sub>2</sub> - orange canvas pad on bearings without rubber





SUBJECT Bridge 01457 / 01456

01456 Notes: \* 9 steel girders \* (+) TLLP  
 \* 3b rocker pads supports that are rubberized / metal  
 \* 8 support pillars  
 \* C3 at abutment joints (6Lft per joint) \* C5 on parapet walls  
 \* No guardrails 6Lft per joint.



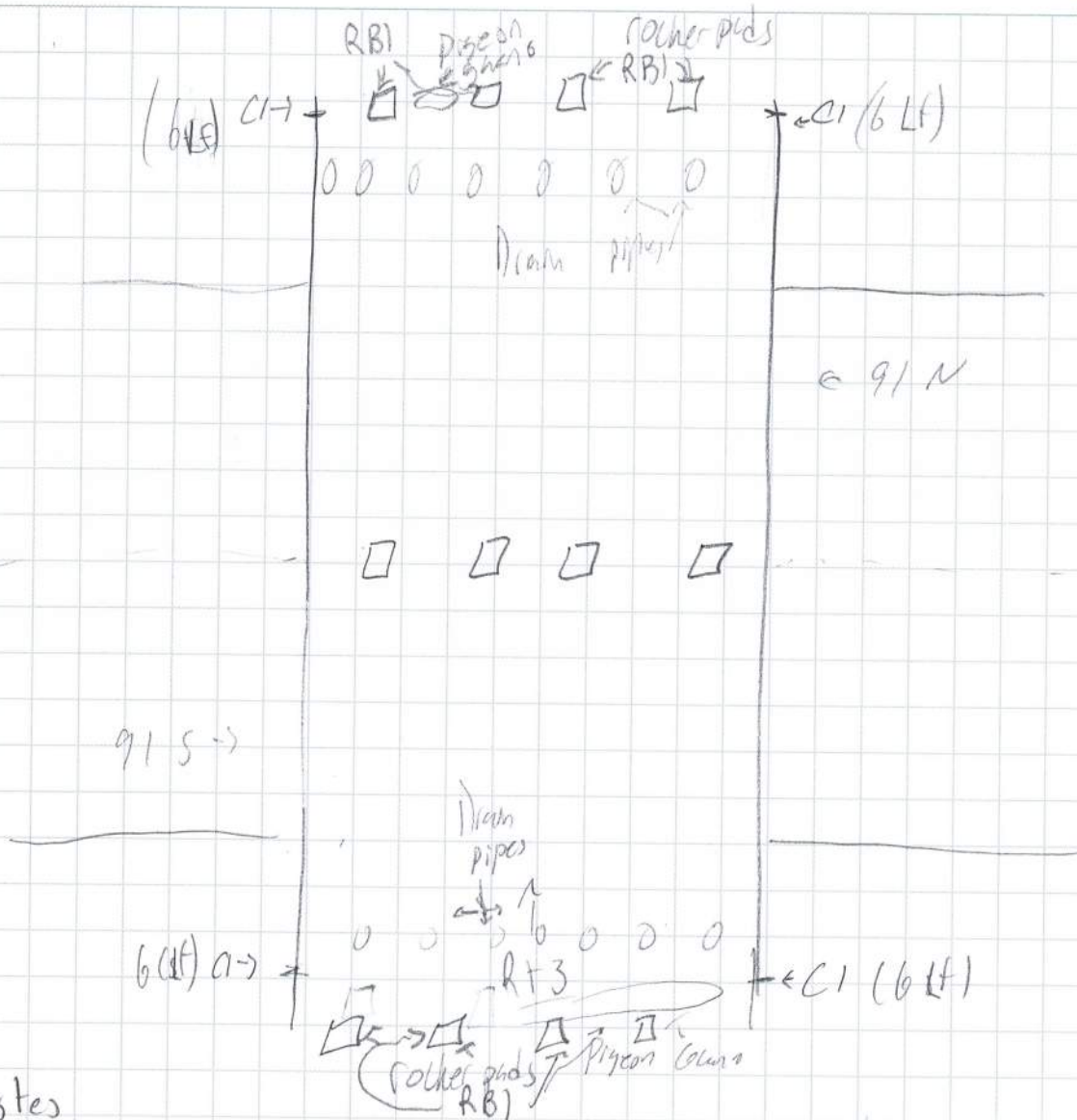
01457 Notes: ESI  
 \* 9 steel girders  
 \* 3b rubberized / metal support rocker pads  
 \* 22 guard rail pedestals w/ C1  
 \* 8 sections on parapet wall where C2 is over expansion joints (6Lft per joint)  
 \* ESI on sides of embankment walls joints (6Lft per section)  
 \* 8 support pillars  
 \* (+) TLLP



SUBJECT

Bridge 06289

SHEET NO. 1 OF  
PROJECT NO. 222165.5613.0710  
DATE 3-21-18  
BY J.W/DH  
CHK'D



### Notes

- \* 160 pedestals for guard rails - (2 under pedestals)
- \* 4 6 ft wide girders
- \* CI at expansion joint on top of piers
- \* 11 in drain pipes (6 in diameter pipes) - 94 total
- \* 12 rocker pads w/ rubber bearing and a rocker bearing plate - RBI (3 st per pad)
- \* (-) TULPS

**Listing of Special Provisions**

Red font indicates Specs used ONLY for 159-191

Site Numbers listed are from 63-703; need direction on Site numbers for all 5 Bridges in 159-191

**159-191**

**16.02 Bridge No. 01459 (Site No. XX)**

0406277A – Removal of Existing Wearing Surface (CTDOT Owned)

0520035A – Silicone Expansion Joint System

0520036A – Asphaltic Plug Expansion Joint System (CTDOT Owned)

0601044A – Bridge Parapet Cap

0601192A – Surface Patch

0601270A – Full Depth Patch (High Early Strength Concrete) (CTDOT Owned)

0601318A – Partial Depth Patch (CTDOT Owned)

0602936A – Drilling and Grouting Reinforcing Bars

0707009A – Membrane Waterproofing (Cold Liquid Elastomer) (CTDOT Owned)

1507000A – Protection & Support of Existing Utilities

**16.03 Bridge No. 01460 (Site No. XX)**

0406277A – Removal of Existing Wearing Surface (CTDOT Owned)

0520035A – Silicone Expansion Joint System

0520041A – Preformed Joint Seal

0601192A – Surface Patch

0601270A – Full Depth Patch (High Early Strength Concrete) (CTDOT Owned)

0601318A – Partial Depth Patch (CTDOT Owned)

0601995A – Concrete Filled Bags

0602936A – Drilling and Grouting Reinforcing Bars

0707009A – Membrane Waterproofing (Cold Liquid Elastomer) (CTDOT Owned)

1507000A – Protection & Support of Existing Utilities

**63-703**

**06.02 Bridge No. 02555 (Site No. 1)**

NA

**06.03 Bridge No. 03244 (Site No. 2)**

NA

**06.04 Bridge No. 00813 (site no. 3)**

0406277A – Removal of Existing Wearing Surface (CTDOT Owned)

0520032A – Elastomeric Concrete Header

0520041A – Preformed Joint Seal



**0601044A – Bridge Parapet Cap**

0601270A – Full Depth Patch (High Early Strength Concrete) (CTDOT Owned)  
0601318A – Partial Depth Patch (CTDOT Owned)  
0602936A – Drilling and Grouting Reinforcing Bars  
0707009A – Membrane Waterproofing (Cold Liquid Elastomer) (CTDOT Owned)

X

**06.05 Bridge No. 03613 (Site No. 4)**

NA

X

**06.06 Bridge No. 03614 (Site No. 5)**

NA

None

**06.07 Bridge No. 01466 (Site No. 6)**

0406277A – Removal of Existing Wearing Surface (CTDOT Owned)  
0520032A – Elastomeric Concrete Header  
0520035A – Silicone Expansion Joint System  
0520041A – Preformed Joint Seal

**0601044A – Bridge Parapet Cap**

0601270A – Full Depth Patch (High Early Strength Concrete) (CTDOT Owned)  
0601318A – Partial Depth Patch (CTDOT Owned)  
0602936A – Drilling and Grouting Reinforcing Bars  
0707009A – Membrane Waterproofing (Cold Liquid Elastomer) (CTDOT Owned)

None

**06.08 Bridge No. 00480 (site no. 7)**

0406277A – Removal of Existing Wearing Surface (CTDOT Owned)  
0520036A – Asphaltic Plug Expansion Joint System (CTDOT Owned)

**0601044A – Bridge Parapet Cap**

0601270A – Full Depth Patch (High Early Strength Concrete) (CTDOT Owned)  
0601318A – Partial Depth Patch (CTDOT Owned)  
0602936A – Drilling and Grouting Reinforcing Bars  
0707009A – Membrane Waterproofing (Cold Liquid Elastomer) (CTDOT Owned)

X

**06.09 Bridge No. 06654 (Site No. 8)**

NA

X

**06.10 Bridge No. 05922 (Site No. 9)**

NA

X

**06.11 Bridge No. Proposed Bridge (Site No. 10)**

NA


X

**06.12 Bridge No. 06000A (Site No. 11)**

Resurfacing, bridge & Safety Improvements  
I-91 Wethersfield / Hartford  
Project No. 159-191

2017-07-25

NA

 **06.13 Bridge No. 06000C (Site No. 12)**

NA

 **06.14 Bridge No. 06000B (Site No. 13)**


NA

 **06.15 Bridge No. 06043A (Site No. 14)**

NA

 **06.16 Bridge No. 06043B (Site No. 15)**

NA

 **06.17 Bridge No. 05796 (Site No. 16)**

NA



## Plimpton, Erik

---

**From:** Arienti, Stephen  
**Sent:** Thursday, March 8, 2018 1:47 PM  
**To:** Clout, Stephen E.  
**Cc:** Plimpton, Erik  
**Subject:** RE: RFA request project 159-191 to be combined with 63-703

Hi Steve,

I see that 1456/1457 also talks about wingwall/parapet modifications in which case there could be some suspect asbestos caulking in these areas that could get impacted like at 1459/1460. We will check it out. Looks like we plenty of money under 514-5613 and 514-5700 to complete the investigations and any spec modifications.

Thanks,

Stephen Arienti, CHMM  
Senior Project Manager



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---

**From:** Clout, Stephen E. [mailto:Stephen.Clout@ct.gov]  
**Sent:** Wednesday, March 7, 2018 10:37 AM  
**To:** Arienti, Stephen <SArienti@trcsolutions.com>  
**Cc:** Plimpton, Erik <EPlimpton@trcsolutions.com>  
**Subject:** RE: RFA request project 159-191 to be combined with 63-703

Steve,

06947 is a new bridge, and I have attached some references for the others.

It appears there won't be any lead impacts on 1456/1457, as the only work is a fire suppression system, but we can still do a quick drive by to confirm.

Again let me know if you need anything additional.

-Steve

---

**From:** Arienti, Stephen [mailto:SArienti@trcsolutions.com]  
**Sent:** Wednesday, March 07, 2018 10:00 AM  
**To:** Clout, Stephen E.  
**Cc:** Plimpton, Erik  
**Subject:** RE: RFA request project 159-191 to be combined with 63-703

I highlighted the 4 bridges that weren't part of our investigations. We will check to see if we need any additional funding.

Thanks

Stephen Arienti, CHMM  
Senior Project Manager



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**From:** Clout, Stephen E. [<mailto:Stephen.Clout@ct.gov>]  
**Sent:** Wednesday, March 7, 2018 9:21 AM  
**To:** Arienti, Stephen <[SArienti@trcsolutions.com](mailto:SArienti@trcsolutions.com)>  
**Cc:** Plimpton, Erik <[EPlimpton@trcsolutions.com](mailto:EPlimpton@trcsolutions.com)>  
**Subject:** RE: RFA request project 159-191 to be combined with 63-703

Agree on second part, and yes we should get out there and supplement the original investigation.

Here are a list of structure on the 90% review for 159-191 and 63-703:

**159-191**

01459  
01460  
00813  
01466  
00480  
06289  
01456  
01457

**63-703**

02555  
03244  
00813  
03613  
03614  
01466  
00480  
06654  
05922  
06947

*New construction*

06000 A; B; C;  
06043 A; B;  
05796

Let me know if you guys need more funding to complete the additional investigation.

Thanks,  
Steve

---

**From:** Arienti, Stephen [<mailto:SArienti@trcsolutions.com>]  
**Sent:** Tuesday, March 06, 2018 4:39 PM  
**To:** Clout, Stephen E.  
**Cc:** Plimpton, Erik  
**Subject:** RE: RFA request project 159-191 to be combined with 63-703

In response to the lead portion. First, I believe we never inspected Bridge No. 06289. Never saw this Bridge call out in any of the scopes and don't see it in our inspection reports.

Second, just because the contract plans say 1992 doesn't mean there isn't some level of lead in the paint. They still put lead in paint for commercial/industrial paints. OSHA cares about any level of lead in the paint, so drilling holes through girders with lead containing paint would be an issue and would have to be done by lead trained people. Let us know if we need to go out and check this Bridge out.

Thanks,

Stephen Arienti, CHMM  
Senior Project Manager



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**From:** Clout, Stephen E. [<mailto:Stephen.Clout@ct.gov>]  
**Sent:** Friday, March 2, 2018 11:43 AM  
**To:** Arienti, Stephen <[SArienti@trcsolutions.com](mailto:SArienti@trcsolutions.com)>  
**Subject:** FW: RFA request project 159-191 to be combined with 63-703

Steve,

See highlights below from our electrical department. Red writing is me, green writing is designer.

I think that should give you everything you need, but if you have any other questions don't hesitate to ask.

Thanks,  
Steve

---

**From:** Andrews, Meredith L  
**Sent:** Thursday, March 01, 2018 2:20 PM  
**To:** Clout, Stephen E.  
**Cc:** Cannamela, Sebastian A; Wexell, Stephen ([swexell@hwlochner.com](mailto:swexell@hwlochner.com))  
**Subject:** FW: RFA request project 159-191 to be combined with 63-703

Steve – let me know please if you have any other questions.



Thanks,  
Meredith  
860-594-3224

---

**From:** Bear, Mark S.  
**Sent:** Thursday, March 01, 2018 2:18 PM  
**To:** Andrews, Meredith L  
**Cc:** Cannamela, Sebastian A  
**Subject:** RE: RFA request project 159-191 to be combined with 63-703

Underbridge pendant lights under 01459 will be replaced with LED. Existing surface conduit/conductors to remain.

Luminaires on light poles mounted to 01460 to be replaced with LED. Light standards to remain

Mark S. Bear  
Connecticut Dept. of Transportation  
Tel: 860-594-2796

---

**From:** Andrews, Meredith L  
**Sent:** Thursday, March 01, 2018 1:52 PM  
**To:** Bear, Mark S.  
**Cc:** Cannamela, Sebastian A  
**Subject:** FW: RFA request project 159-191 to be combined with 63-703

Mark, can you please answer question #3 for Environmental Compliance?

Thanks,  
Meredith  
860-594-3224

---

**From:** Wexell, Steve [<mailto:swexell@hwlochner.com>]  
**Sent:** Tuesday, February 27, 2018 3:34 PM  
**To:** Andrews, Meredith L  
**Cc:** Cannamela, Sebastian A; Verge, Carl; Geissert, David  
**Subject:** FW: RFA request project 159-191 to be combined with 63-703

Meredith,  
See responses below for TRC.  
Steve

---

**From:** Geissert, David  
**Sent:** Monday, February 26, 2018 1:44 PM  
**To:** Wexell, Steve <[swexell@hwlochner.com](mailto:swexell@hwlochner.com)>  
**Cc:** Verge, Carl <[cverge@hwlochner.com](mailto:cverge@hwlochner.com)>  
**Subject:** RE: RFA request project 159-191 to be combined with 63-703

Steve  
My response below.

1. Are there any lead paint impacts to these bridges (01459 & 01460), specifically ABC, and if so are there square footages of areas to be blasted?

No. I did not see anything called out in the structure drawings or the estimate.

We have no steel repairs.

We are proposing to field drill through the steel box girder at Bridge 06289 to attach the Standpipe. The original Contract Plans are dated 1992.

I assume that:

1. Lead paint was not used at that time, and/or,
2. Drilling two holes through the web is not an issue if it is in fact lead paint.

Both of these assumptions should be confirmed.

2. There was some caulking around the storm drains in the concrete deck of the bridge (01460) that was inaccessible and we presumed to be asbestos containing. Any impact to that?

**Not sure.**

We are milling off all of the bituminous wearing surface, and presumably this caulking would be removed as well.

3. There are halogen light fixtures underneath 01459 and light poles on the top of 01460. Are those being impacted at all?

**Not sure on 1459, but yes on 1460 (6 total)? Did not see anything on 1459.**

We are not calling out any work to be done, but as CTDOT Electrical is responsible for Electrical on this project, I would defer to them.

**Dave Geissert, P.E.**  
*Senior Structural Engineer*

**LOCHNER**

55 Hartland Street, Suite 401

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[dgeissert@hwlochner.com](mailto:dgeissert@hwlochner.com)

[www.hwlochner.com](http://www.hwlochner.com)

**From:** Wexell, Steve  
**Sent:** Monday, February 26, 2018 1:14 PM  
**To:** Geissert, David  
**Cc:** Verge, Carl  
**Subject:** FW: RFA request project 159-191 to be combined with 63-703

Dave,  
Can you answer these questions please?  
Thanks,  
Steve

**From:** Andrews, Meredith L [<mailto:Meredith.Andrews@ct.gov>]  
**Sent:** Monday, February 26, 2018 1:02 PM  
**To:** Wexell, Steve <[swexell@hwlochner.com](mailto:swexell@hwlochner.com)>  
**Cc:** Cannamela, Sebastian A <[Sebastian.Cannamela@ct.gov](mailto:Sebastian.Cannamela@ct.gov)>; Verge, Carl <[cverge@hwlochner.com](mailto:cverge@hwlochner.com)>  
**Subject:** FW: RFA request project 159-191 to be combined with 63-703

Steve, can you please answer these?



Also – I talked to the Environmental Compliance unit about the specs that were sent by Mark in this e-mail. Don't use those specs because they're outdated – Steve Clout said they'll address in their unit and send specs that will have both projects 159-191 and 63-703 combined shortly.

Thanks,  
Meredith  
860-594-3224

---

**From:** Clout, Stephen E.  
**Sent:** Monday, February 26, 2018 11:59 AM  
**To:** Andrews, Meredith L  
**Cc:** Cannamela, Sebastian A  
**Subject:** FW: RFA request project 159-191 to be combined with 63-703

Meredith,

Please see questions for 159-191 below.

Please confirm/correct my answers if you can.

Thanks,  
Steve

## Stephen Clout

Department of Transportation  
Environmental Compliance  
2800 Berlin Tpke.  
Newington, CT 06111  
(860)594-3392

---

**From:** Arienti, Stephen [<mailto:SArienti@trcsolutions.com>]  
**Sent:** Friday, February 23, 2018 3:30 PM  
**To:** Clout, Stephen E.  
**Subject:** RE: RFA request project 159-191 to be combined with 63-703

Got 1 more. Sorry I should of just waited to the end to ask all the questions but I made the mistake of going spec by spec. I have summarized it into 1 email to make it easier for you and/or the designer.

1. Are there any lead paint impacts to these bridges (01459 & 01460), specifically ABC, and if so are there square footages of areas to be blasted?  
**No. I did not see anything called out in the structure drawings or the estimate.**
2. There was some caulking around the storm drains in the concrete deck of the bridge (01460) that was inaccessible and we presumed to be asbestos containing. Any impact to that?  
**Not sure.**
3. There are halogen light fixtures underneath 01459 and light poles on the top of 01460. Are those being impacted at all?  
**Not sure on 1459, but yes on 1460 (6 total)? Did not see anything on 1459.**

Thanks Steve.

Stephen Arienti, CHMM  
Senior Project Manager



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