



June 22, 2015

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

Attention: Adam Fox, P.E. / Stephen Clout

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 08.24-03(11)
HazMat Inspection - Bridge No. 00368, Boston Post Road over Niantic River, East
Lyme, CT
ConnDOT Assignment No. 504-5079
ConnDOT Project No. 44-147
TRC Project No. 183572.5090.00710

Dear Mr. Bonsignore:

TRC performed a limited survey for hazardous building materials associated with the planned replacement of Bridge No. 00368 in East Lyme, Connecticut. Results of the survey identified lead paint to be present on the structural steel/metal bridge components (3.9-7.6 mg/cm²) of Bridge No. 00368. Results obtained from TCLP waste stream sampling and analysis for leachable lead from the paint on the structural steel and metal bridge surfaces, characterized the paint waste stream at Bridge No. 00368 as EPA RCRA/CTDEEP hazardous waste (300 mg/l). The cloth gasket under the railing pads was sampled for asbestos content, and was found to contain no asbestos. No bird/pigeon guano accumulations were identified in accessible areas of the bridge. Associated laboratory data is attached.

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

Very Truly Yours,

TRC

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

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

A handwritten signature in black ink, appearing to read "E. Burke".

E. Burke, P.E.
Engineer in Charge



Lead Based Paint Measurement Summary Table

Device(s): Niton XLP301-A (Serial #24792) X Ray Fluorescence (XRF) Spectrum Analyzer
 Site: CT DOT - Bridge No. 00368, East Lyme, CT
 Project #: 163572.5094.0710
 Date(s): 4/27/2015
 Inspector: Bryce Aston (CT Lead Inspector/RA #001838)

Number	Interior/ Exterior	Location	Bridge #	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
1												147.2	4/27/2015 9:15
2			Self Calibration						0.0	0.0	1.0	4.2	4/27/2015 9:18
3			0.0 Calibration						1.5	0.1	1.1	8.3	4/27/2015 9:19
4			1.6 Calibration						0.7	0.1	1.1	6.1	4/27/2015 9:19
5	Exterior	East Lyme	Bridge No. 00368	Rocker pad		Metal	Grey	Defective	3.9	0.4	1.7	6.7	4/27/2015 12:22
6	Exterior	East Lyme	Bridge No. 00368	Rocker pad		Metal	Grey	Defective	4.1	0.4	1.8	6.7	4/27/2015 12:22
7	Exterior	East Lyme	Bridge No. 00368	Girder		Metal	Grey	Defective	7.6	1.0	2.0	13.6	4/27/2015 12:23
8	Exterior	East Lyme	Bridge No. 00368	Girder		Metal	Grey	Defective	7.1	1.2	1.9	9.2	4/27/2015 12:23
9	Exterior	East Lyme	Bridge No. 00368	Girder		Metal	Grey	Defective	6.7	1.0	1.9	13.0	4/27/2015 12:24
10			0.0 Calibration						0.0	0.0	1.0	3.4	4/27/2015 12:40
11			1.6 Calibration						1.5	0.1	1.1	8.3	4/27/2015 12:40
12			0.7 Calibration						0.7	0.1	1.1	12.2	4/27/2015 12:41

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

80 Lupes Drive
Stratford, CT 06615



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# 5040723

Report Date: May 01, 2015
Project: CTDOT
Project Number: 183572.5071.00710

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



New York Certification: 11982
Rhode Island Certification: 199

CET # : 5040723
 Project: CTDOT
 Project Number: 183572.5071.00710

SAMPLE SUMMARY

The sample(s) were received at 18.2°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
1 Bridge 00368	5040723-01	Paint Chip	4/27/2015 12:30	04/29/2015
2 Bridge 00886	5040723-02	Paint Chip	4/27/2015 11:30	04/29/2015
3 Bridge 00883	5040723-03	Paint Chip	4/27/2015 9:10	04/29/2015
4 Bridge 01599	5040723-04	Paint Chip	4/27/2015 10:30	04/29/2015

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
5040723-01	1 Bridge 00368	300	0.013	mg/L	1	B5D3034	04/30/2015	04/30/2015 20:42	
5040723-02	2 Bridge 00886	400	0.013	mg/L	1	B5D3034	04/30/2015	04/30/2015 20:47	
5040723-03	3 Bridge 00883	400	0.013	mg/L	1	B5D3034	04/30/2015	04/30/2015 20:51	
5040723-04	4 Bridge 01599	420	0.013	mg/L	1	B5D3034	04/30/2015	04/30/2015 20:55	

CET # : 5040723

Project: CTDOT

Project Number: 183572.5071.00710

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

Sincerely,



David Ditta
Laboratory Director

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.

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 the specified detection 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 # : 5040723

Project: CTDOT

Project Number: 183572.5071.00710

CERTIFICATIONS

Certified Analyses included in this Report

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

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2016
NY	New York Certification (NELAC)	11982	04/01/2015

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0045755
Project #: 183572.5090.0710
Date Received: 04/28/2015
Date Analyzed: 04/29/2015

Site: Bridge, East Lyme, 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	Brown	Yes	No	--	80% cellulose	ND	None
02	Brown	Yes	No	--	80% cellulose	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, negative results must 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), and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes 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, 2015. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through October 1, 2016. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the 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: *Amanda Parkins* Reviewed by: *K. Williamson* Date Issued: 04/29/2015
Amanda Parkins, Laboratory Analyst Kathleen Williamson, Laboratory Manager

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 #L-09-004 NJ #CT004 CA #2907
CO# AL-15020 PHIL# 461 PA#68-03387

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

m e m o r a n d u m

subject: Hazardous/Contaminated
Materials Screening
State Project No. 44-H018
Town: East Lyme
date: August 28, 2007

to: Mr. Gregory M. Dorosh
Environmental Compliance
Bureau of Engineering and
Highway Operations

from: Julie Georges
Princ. Engr.-Consult. Design
Bureau of Engineering and
Highway Operations

153-3571

Hazardous/Contaminated Materials Screening

This project consists of the full replacement of the US Route 1 bridge over Niantic River. Excavation will be required for work on both abutments.

Attached is a location plan and project scope.

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

A reply by September 20, 2007 would be appreciated. If you have any questions, please contact Mr. James Cavanaugh, the Project Engineer, at ext. 3209.

Attachment

cc: Julie Georges-Gary Abramowicz

REV. 05/25/04



Sep 6, 2007

**Scope of Services for
State Project No. 44-H018
Replacement US Route 1 over
Niantic River
Bridge No. 00368
East Lyme, CT**

Project Design

This project will be designed in accordance with Connecticut Department of Transportation (ConnDOT) and Federal Highway Administration (FHWA) design standards, including ConnDOT Form 816, and the ConnDOT Consultant Design Manual. The structure will be designed utilizing the Load and Resistance Factor Design (LRFD) Code. Contract documents will be prepared using English Units of measurement. Reference is made to the project Assignment Meeting held on December 18, 2006.

Project Description

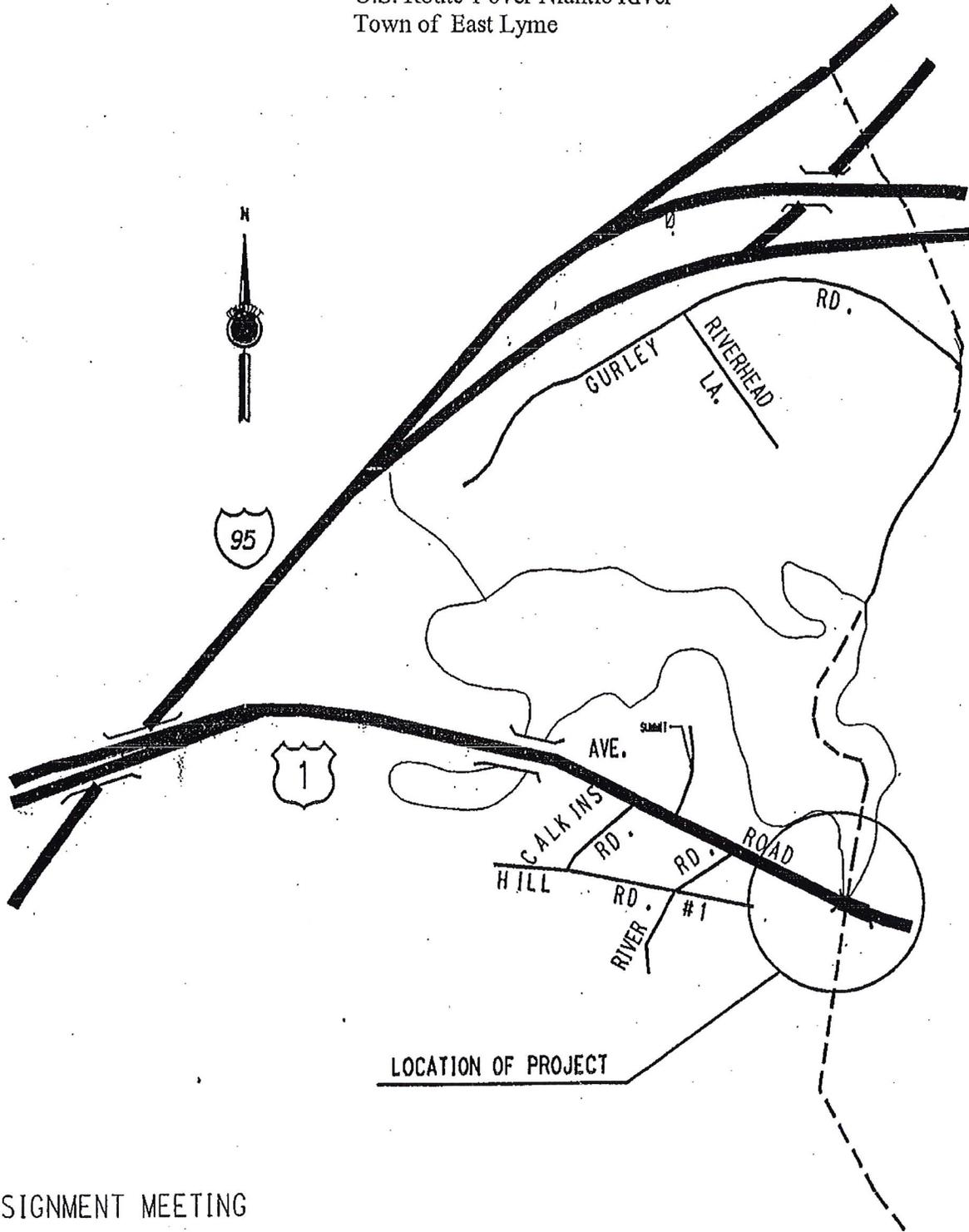
Bridge No. 00368 is a single span structure that carries two lanes of US Route 1 over the Niantic River in East Lyme, CT. The river crossing is approximately 60 feet from abutment to abutment. The structure requires replacement due to the poor condition of the substructure, which results in a classification of 'structurally deficient'. The masonry portion of the abutments exhibit significant voids, and the concrete sections exhibit severe scale at the base of the abutment. In addition, the bridge is classified as 'scour critical'. The bridge is also classified as 'functionally obsolete' due to its poor deck geometry.

The nature of the deficiencies of the bridge requires a complete structure replacement in order to properly rehabilitate the structure. For the purpose of this scope, it is assumed that the following criteria will apply to the replacement structure:

- Full structure replacement
- Single span configuration
- Structure type to be determined during Preliminary Design phase
- Pile supported cast-in-place concrete abutments, to be verified during Preliminary Design phase
- HL-93 live loading
- Permit vehicle live load per ConnDOT Bridge Design Manual
- Seismic design per ConnDOT Bridge Design Manual
- Constructed with two stages of alternating one-way traffic (MPT plans and specifications by ConnDOT)
- All survey to be completed by ConnDOT (Stantec to determine extent of survey)

3. LOCATION PLAN

Bridge No. 00368
U.S. Route 1 over Niantic River
Town of East Lyme



ASSIGNMENT MEETING

PROJECT NOS. 44-H018, 92-H127, 96-H023

111-H010 & ~~151-H078~~

DATE: DECEMBER 18, 2006