

REPORT

Limited Lead Based Paint Inspection

Manasquan High School Principal's Office, Vice Principal's Office Principal's Secretary's Office, Rooms 201,214, 218,114, 112 and the Auditorium 167 Broad St, Manasquan, NJ 08736

Prepared For:

Manasquan Board of Education 169 Broad Street Manasquan, New Jersey 08736

Prepared By:

Environmental Connection, Inc. 120 North Warren Street Trenton, New Jersey 08608

June 5, 2020

EC Project #: 20156-01



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SECTION 1.0 EXECUTIVE SUMMARY

Environmental Connection, Inc., (EC) was contracted by the Manasquan Board of Education to perform an limited Lead Based Paint (LBP) inspection at the Manasquan High School in Manasquan, New Jersey. The purpose of the inspection was to identify LBP in areas of the building where unit ventilator replacements were scheduled. The inspection was performed on April 20, 2020 and May 15, 2020, by EC's United States Environmental Protection Agency (USEPA) and State of New Jersey, Department of Health licensed Lead Based Paint Inspector.

LBP was detected on plaster walls and wood trim work behind and around unit ventilators. The LBP paint chip sample analytical data is located in Appendix I and the inspection data sheets are included in Appendix II.

The following sections detail the findings of our environmental assessment.

SECTION 2.0 LEAD BASED PAINT INSPECTION

Lead based paint (LBP) was used extensively before 1960 because it was more durable than other paints available at the time. Due to the potential hazards of lead in paint, especially to children, lead-based paint was banned in 1977.

The United States Department of Housing and Urban Development (HUD) and the USEPA define leadbased paint as a coating which contains greater than 0.5% lead by weight or greater than 1.0 milligram of lead per square centimeter (mg/cm²). The disturbance or dislocation of lead-based paint or lead containing paint from building materials may cause lead dust to be released into the building's atmosphere, thereby creating a potential health hazard to workers and/or building occupants. To mitigate health hazards, demolition and other construction related work is regulated by the United States Department of Labor, Occupational Safety and Health Administration, (OSHA). Under OSHA's regulation, 29 CFR, Part 1926.62, "Lead in Construction Standard", which defines construction work as work for alteration and/or repair, including demolition or salvage of structures, removal or encapsulation of materials containing lead.

New Jersey Administrative Code (N.J.A.C.) 5:17, defines any film which contains greater than 1.0 milligram of lead per square centimeter (mg/cm²) as lead-based paint. EC performed the screening to characterize the surfaces and building components within the structures and to determine if any coatings are lead based. EC grouped similar building components with the like paint histories for testing purposes.

EC utilized a portable X-Ray Fluorescence (XRF) device manufactured by Heuresis, Inc., of Burlington, Massachusetts (Serial #2320), to detect the presence of lead within the paint films and other finished surfaces (stains, varnishes, and shellacs). The device bombards the testing surface with X-ray energy, generated by a radioactive source. The energy excites electrons in the testing surface causing them to emit X-Ray energy. The X-Ray energy emitted by the electrons is analyzed by the XRF device. Based on analysis of the X-ray energy emitted by the electrons, the device is able to determine the presence and concentration of an element, in this case Lead, in the testing surface. Results are reported in milligrams per square centimeter. Lead based paint containing films were detected during the inspection.



Manasquan Board of Education Manasquan High School Limited Lead Based Paint Inspection Page 3 of 3

ENVIRONMENTAL CONNECTION INC

Components with Lead Based Paint and approximate quantities are listed in Table 3. The lead-based paint analytical data sheets are included in Appendix II of this report.

Table 3 – Lead Based Paint Inspection Summary Manasquan High School 167 Broad Street Manasquan, NJ						
Material	Material Substrate Location					
Plaster Walls	Plaster	Vice Principal's Office, Principal's Secretary's Office, Rooms 201,214, 218 and 114				
Wood Trim	Wood	Principal's Office, Vice Principal's Office Principa'ls Secretary's Office, Rooms 114, 112 and the Auditorium				
Door Frame	Wood	Auditorium				

SECTION 3.0 PROJECT LIMITATIONS/DISCLAIMERS

This inspection was limited to the areas requested by the Manasquan Board of Education.

SECTION 4.0 CONCLUSIONS AND RECOMMENDATIONS

The limited Lead Based Paint inspection performed at the Manasquan High School revealed various building components coated with Lead Based Paint. Based on the results of the inspection, EC offers the following recommendations.

• Lead safe work practices specifications should be included in the renovation design documents. As per OSHA, the Contractor is required to have a site-specific Lead Health and Safety Plan. The Lead Health and Safety Plan shall include worker protection, engineering controls and decontamination procedures, as outlined in 29 CFR, Part 1926.62. In addition, as required by OSHA, individuals who will disturb LBP shall be provided exposure monitoring by the Contractor.

Should you have any questions or require additional information, please contact the undersigned at your convenience.

Respectfully Submitted: ENVIRONMENTAL CONNECTION, INC.

Mar Many

Dominick Dercole Project Manager APPENDIX I

PAINT CHIP ANALYTICAL REPORTS AND CHAIN OF CUSTODY



Attn:

ProjectID:

Phone:

Fax:

(609) 392-4200 Received: Collected:

04/16/20 9:00 AM 4/15/2020

Project: Manasquan H.S.

Brian Brill

Environmental Connection, Inc.

120 North Warren Street

Trenton, NJ 08608

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

				Lead
Client Sample Description	on Lab ID Collected	Analyzed	Weight	Concentration
PC01041520	202003771-0001 4/15/202	0 4/16/2020	0.2906 g	2.2 % wt
	Site: Room 201			
PC02041520	202003771-0002 4/15/202	0 4/16/2020	0.2899 g	2.6 % wt
	Site: Room 201			

Min and add

Phillip Worby, Lead Laboratory Manager or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 04/16/2020 15:07:14



Lead (Pb) Chain of Custody EMSL Order ID (Lab Use Only):

202003771

PHONE: () FAX: ()

Company : ENV. CONNECTIO	a) inte					Bill to: Sa			
	IN INC	<i>.</i>		Th					artu
Street: 120 N. WATVEN	Ctata /D	mandingan (equires written		tation from third p	arty
		rovince: N-	T	Zip/Postal Code: Country:					
Report To (Name): BRIAN BRI				Telephone #: 609 392 4208					
Email Address: bbrill@v	TINR.	com		Fax #: 609 392 12.16 Purchase Order:					:
Project Name/Number: MANASO	EVAN,	H.5.	Sec. 14	Please P	rovide Results	s: 🗌 Fax	💽 Em	ail	
U.S. State Samples Taken: NJ				CT Samp	les: 🗌 Comm	ercial/Taxab		Residential/Tax	k Exempt
		Irnaround T	ime (TA	T) Option	s* - Please C	Check			
🗌 3 Hour 🛛 📓 6 Hour	24	Hour 🗌	48 Hour		2 Hour	96 Hour		Week	2 Week
	complete		the second s	L's Terms a	nd Conditions lo		_		
Matrix		N	lethod		Instru	ment	Rep	orting Limit	Check
Chips 📓 % by wt. 🗌 mg/cm² 🗌 ppm	(mg/kg)	SW	846-7000E	3	Flame Atomic	Absorption		0.01%	
Air		NIC	OSH 7082		Flame Atomic	Absorption	and the second second second second	µg/filter	
A STATE AND A STATE AND			OSH 7105		Graphite Fu)3 µg/filter	
		NIOSH 73	00M/NIOS	SH 7303	ICP-C	DES		5 µg/filter	
Wipe* ASTM non ASTM		SW	846-7000E	3	Flame Atomic	Absorption	10) µg/wipe	
*if no box checked, non-ASTM Wipe assumed	Ц	SW84	6-6010B c	or C	ICP-C	DES	1.	0 µg/wipe	
TCLP		SW846-131	1/7000B/S	M 3111B	Flame Atomic	Absorption	0.4	mg/L (ppm)	
		SW846-1311	/SW846-6	010B or C	ICP-C	DES		mg/L (ppm)	
SPLP		SW846-131	2/7000B/S	M 3111B	Flame Atomic	Absorption	0.4	mg/L (ppm)	
SFLF		SW846-1312	/SW846-6	010B or C	ICP-OES		0.1 mg/L (ppm)		
TTLC		22 CCR A	op. II, 7000	DB/7420	Flame Atomic Absorption		40 mg/kg (ppm)		
1120		22 CCR App. I					2 mg/kg (ppm)		
STLC		22 CCR A			Flame Atomic Absorption		0.4 mg/L (ppm)		
	1995	22 CCR App. I			ICP-C		_	mg/L (ppm)	
Soil			846-7000		Flame Atomic			ng/kg (ppm)	
			6-6010B c		ICP-C			ig/kg (ppm)	
Wastewater Unpreserved			B/SW846-				0.4 mg/L (ppm)		
Preserved with HNO ₃ pH < 2			PA 200.9 PA 200.7	Graphite Furnace AA ICP-OES		0.003 mg/L (ppm)			
			PA 200.7	-	ICP-DES		0.020 mg/L (ppm) 0.001 mg/L (ppm)		
			PA 200.9		Graphite Fu		0.003 mg/L (ppm)		
Preserved with $HNO_3 pH < 2$			PA 200.5		ICP-C		0.003 mg/L (ppm)		
			CFR Part 5	0	ICP-C		12 µg/filter		
TSP/SPM Filter		40 0	CFR Part 5	0	Graphite Fu	Irnace AA	3.6 µg/filter		
Other:	1.4	14 14 14		14. 6 34		1			
Name of Sampler:				Signa	ture of Sam	oler: M	hhi	ll	
	Locati	on		10.9.1	Volume//		pp	Date/Time	Sampled
	m 20							4-15-2020	1330
	m 201		1					4-15-2020	1330
Client Sample #s	-			1.8 5 8	Т	otal # of Sa	amples		1000
Relinquished (Client): B. Br.	ill 1	ENV. CONN INC.	Date:	4-1	5-2020	Time:			
00	21-	A	2.00					5:350	
Received (Lab): Comments:	pap	JOOX	Date:	9/18	512020	Time:		9.330	
	-					1.			

Controlled Document --- COC-25 Lead (Pb) - R8- 7/19/2017

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APPENDIX II

LEAD BASED PAINT INSPECTION DATA

120 North Warren Street • Trenton, New Jersey 08608 • tel: 609-392-4200



Date:	<u>May 15, 2020</u>
Client:	Manasquan Board of Education
Building:	High School
Address:	
120020550	

Page:	1	of	3
Unit #:	1		
Job#:	05-15-2	0-900	
XRF Serial #:	2330		
EC#:	20156-0	1	

XRF LEAD BASED PAINT INSPECTION DATA SHEET

Sample #	Test Location/Room Equivalent	Substrate	Component	XRF Value	Classification (pos., neg., inc.)	Condition/ Comments
1	Calibration	-	-	1.1	-	-
2	Calibration	-	-	1.1	-	-
3	Zero Calibration	-	-	0.0	-	-
4	Principal's Office Wall C	Plaster	Wall	0.1	Neg.	Behind Univent
5	Principal's Office Wall C	Wood	Trim	3.1	Pos.	
6	Principal's Office Wall C	Plaster	Wall	0.1	Neg.	Dark Blue
7	Principal's Secretary's Office Wall C	Plaster	Wall	2.78	Pos.	
8	Principal's Secretary's Office Wall C	Wood	Trim	3.1	Pos.	
9	Principal's Secretary's Office Wall C	Plaster	Wall	2.4	Pos.	
10	Vice Principal's Outer Office Wall A	Plaster	Wall	2.9	Pos.	
11	Vice Principal's Outer Office Wall A	Wood	Trim	1.8	Pos.	
12	Vice Principal's Outer Office Wall A	Plaster	Wall	3.0	Pos.	
13	Vice Principal's Office Wall A	Plaster	Wall	4.0	Pos.	

Lead Inspector/Risk Assessor: Dominick Dercole

<u>Substrate</u>: SR = Sheetrock C = concrete B = Brick W = Wood PL = Plaster CB = Cinderblock M = Metal

Component: W = Wall F = Floor C = Ceiling Wd = Window WF = Window Frame WC = Window Casing WM = Window Mullion WS = Window Sill WSH = Window Sash D = Door DF = Door Frame DC = Door Casing DJ = Door Jamb H = Header CB = Covebase T = Trim CR = Chair Rail S = Stairs Ri = Riser Ru = Runner SM Stair Mullion



Date:	<u>May 15, 2020</u>	_
Client:	Manasquan Board of Education	_
Building:	High School	_
Address:	_	_

Page:	2	of	3
Unit #:	1		
Job#:	05-15-2	0-900	
XRF Serial #:	2330		
EC#:	20156-0	1	

XRF LEAD BASED PAINT INSPECTION DATA SHEET

Sample #	Test Location/Room Equivalent	Substrate	Component	XRF Value	Classification (pos., neg., inc.)	Condition/ Comments
14	Vice Principal's Office Wall A	Wood	Trim	2.1	Pos.	
15	Vice Principal's Office Wall A	Plaster	Wall	4.1	Pos.	
16	Room 214 Wall B	Plaster	Wall	2.5	Pos.	Univent
17	Room 214 Wall B	Plaster	Wall	0.1	Neg.	Right of Vent
18	Room 214 Wall B	Plaster	Wall	1.6	Pos.	Left of Vent
19	Room 218 Wall B	Plaster	Wall	2.1	Pos.	Univent
20	Room 218 Wall B	Plaster	Wall	0.6	Neg.	Right of Vent
21	Room 218 Wall B	Plaster	Wall	0.3	Neg.	Left of Vent
22	Auditorium Stage Wall B	Plaster	Wall	0.3	Neg.	
23	Auditorium Stage Wall B	Wood	Trim	0.7	Neg.	White
24	Auditorium Stage Wall B	Wood	Trim	1.7	Pos.	Dark Blue
25	Auditorium Stage Wall C	Wood	Door Frame	3.6	Pos.	Dark Blue
26	Room 114 Wall C	Plaster	Wall	1.6	Pos.	

Lead Inspector/Risk Assessor: <u>Dominick Dercole</u>

<u>Substrate</u>: SR = Sheetrock C = concrete B = Brick W = Wood PL = Plaster CB = Cinderblock M = Metal

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Date:	May 15, 2020	Page:	3	of	3
Client:	Manasquan Board of Education	Unit #:	1		
Building:	High School	Job#:	05-15-2	0-900	
Address:		XRF Serial #:	2330		
		EC#:	20156-0	1	

XRF LEAD BASED PAINT INSPECTION DATA SHEET

Sample #	Test Location/Room Equivalent	Substrate	Component	XRF Value	Classification (pos., neg., inc.)	Condition/ Comments
27	Room 112 Wall A	Plaster	Wall	0.3	Neg.	
28	Calibration	-	-	1.2	-	-
29	Calibration	-	-	1.1	-	-
30	Zero Calibration	-	-	0.0	-	-

Lead Inspector/Risk Assessor: Dominick Dercole

<u>Substrate</u>: SR = Sheetrock C = concrete B = Brick W = Wood PL = Plaster CB = Cinderblock M = Metal

<u>Component</u>: W = Wall F = Floor C = Ceiling Wd = Window WF = Window Frame WC = Window Casing WM = Window Mullion WS = Window Sill WSH = Window Sash D = Door DF = Door Frame DC = Door Casing DJ = Door Jamb H = Header CB = Covebase T = Trim CR = Chair Rail S = Stairs Ri = Riser Ru = Runner SM Stair Mullion

120 North Warren Street • Trenton, New Jersey 08608 • tel: 609-392-4200 • fax: 609-392-1216

APPENDIX III

CERTIFICATIONS/ACCREDITATIONS





Accredited Laboratory

A2LA has accredited

EMSL ANALYTICAL, INC. Cinnaminson, NJ

for technical competence in the field of

Environmental Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. This laboratory also meets the requirements of A2LA R207 – Specific Requirements - Environmental Lead Testing Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 8th of May 2017.

President and CEO For the Accreditation Council Certificate Number 2845.01 Valid to May 31, 2019

For the tests to which this accreditation applies, please refer to the laboratory's Environmental Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

EMSL ANALYTICAL, INC. 200 Route 130 North Cinnaminson, NJ 08077 Oommen Kappil Phone: 856 303 2550

ENVIRONMENTAL

Valid To: May 31, 2019

Certificate Number: 2845.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform recognized EPA methods using the following testing technologies and in the analyte categories identified below; for the test methods applicable to the National Environmental Lead Laboratory Accreditation Program (NLLAP).

ENVIRONMENTAL LEAD		
Test	Test Method(s)	
Total Lead (Pb) in Soil	EMSL Analytical, Inc. LM-007A (Modified EPA 7000B - (FLAA), 3050 Hotblock Digestion)	
Total Lead (Pb) in Paint Chips	EMSL Analytical, Inc. LM-007B (Modified EPA 7000B - (FLAA), 3050 Hotblock Digestion)	
Total Lead (Pb) in Dust Wipes	EMSL Analytical, Inc. LM-007C (Modified EPA 7000B - (FLAA), 3050 Hotblock Digestion)	
AIR MA	TRIX*	
Test	Test Method(s)	
Total Lead (Pb) in Air	NIOSH 7082 - (FLAA)	
Total Lead (Pb) in Air	NIOSH 7105 - (GFAA)	
Total Metals in Air	EMSL Analytical, Inc. LM-003 (Modified NIOSH 7300 for ICP/ICP-MS)	
Inorganic Fibrous Particles by SEM method	German VDI 3492	
Inorganic Fibrous Particles by SEM method	ISO 14966	
Combustion-by-Products (black carbon/soot, char, and ash	ASTM D6602	

(A2LA Cert. No. 2845.01) 05/08/2017

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BULK MATRIX*		
Test	Test Method(s)	
Determination of Asbestos in Technical Products by SEM method	German VDI 3866 Part 5	
Combustion-by-Products (black carbon/soot, char and ash	ASTM D6602	

*Not NLLAP program

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on <u>Children's Products:</u> ⁽¹⁾

CHEMICAL		
Test	Test Method(s)	
Lead in Paint and Surface Coatings	16 CFR 1303 (using ASTM E1613 and E1645); CPSC-CH-E1003-09.1	
Total Lead in Children's Metal Jewelry	CPSC-CH-E1001-08.1	
Total Lead in Children's Metal Products	CPSC-CH-E1001-08.1	
Total Lead in Children's Non-Metal Products	CPSC-CH-E1002-08	
Phthalates	CPSC-CH-C1001-09.3 (using EPA SW-846 8270)	
Soluble Heavy Metals Content (As, Ba, Cd, Cr, Pb, Hg, Sb, Se)	ASTM F 963-11 Section 4.3.5.1 & Section 4.3.5.2	
Total Cadmium in Children's Metal Products Including Children's Metal Jewelry	EMSL Analytical, Inc. LM-016, (Modified CPSC-CH-E1001-08.1)	
Total Cadmium in Children's Non Metal Products	EMSL Analytical, Inc. LM-016, (Modified CPSC-CH-E1002-08)	

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on <u>Brake Friction Materials</u>:

ASBESTOS ANALYSIS		
Test	Test Method(s)	
Sample Preparation by Drilling	SAE J2975	
Polarized Light Microscopy	SAE J2975, EPA 600/R-93/116	
Transmission Electron Microscopy	ISO 10312 (direct method)	
Transmission Electron Microscopy	ISO 13794 (indirect method)	

¹ The Consumer Product Safety Improvement Act (CPSIA) requires that every children's product subject to a federal consumer product safety requirement be tested by a Consumer Product Safety Commission (CPSC) accepted laboratory for compliance with the applicable federal children's product safety requirements. Accreditation by A2LA does not infer acceptance by the CPSC. Please verify this organization's acceptance status by using the CPSC's searchable database, located at <u>http://www.cpsc.gov/cgi-bin/labsearch/</u>.

(A2LA Cert. No. 2845.01) 05/08/2017

Inter