## Town of Windsor Housing Rehabilitation Loan Program

Lead Inspection/Risk Assessment 25 Highland Avenue, Windsor, CT

December 12, 2020

EnviroPlan LLC 27 Trotwood Dr. West Hartford, CT 06117 December 12, 2020

Flavia Rey de Castro Community Development Specialist Town of Windsor 275 Broad Street Windsor, CT 06095

RE: Lead Based Paint Inspection/Risk Assessment 25 Highland Avenue, Windsor, CT

EnviroPlan Project No. 2019-152-7

Dear Ms. Rey de Castro:

A lead paint inspection and dust and soil hazard evaluation (risk assessment) were performed at the above-referenced facility by EnviroPlan on November 19, 2020. The inspection was conducted in accordance with the protocol outlined in the attached document: Testing Procedures and Equipment.

The property is a single family, two story wood frame house with an unfinished basement and attic constructed circa 1924. . Some window systems are original to the structure and constructed of wood, whereas others are vinyl replacement. The exterior has vinyl siding. There is a detached garage..

Toxic levels of lead paint in a intact (lead safe) and in a deteriorated condition (lead hazard) were found in both the interior and on the exterior of the house. These are listed in Attachment A.

The specific testing results and their locations are provided as Exhibit 1 in this report. The attached document entitled, Action Items, is included as a part of this report. Only those items that are initialed apply to this property.

### **DUST WIPE SAMPLES**

At the time of the XRF testing, dust wipe samples were collected to evaluate whether a dust lead hazard existed in the house. Sample results were compared to the HUD and Connecticut Department of Public Health (CTDPH) standards for dust as follows:

40 micrograms of lead per square foot ( $\mu g/ft^2$ ) for floors 250  $\mu g/ft^2$  for windowsills

Dust wipe samples were collected from the locations delineated on our sample log.

Lead Wipe Sampling Method:

### **Data Collection**

- A. A description of the sample location is recorded.
- B. Surface type (floor, window sill, window well) is noted.
- C. Surface area measurements are recorded.

### Wipe Sampling Method

- A. The area to be wiped is identified and the corners demarcated with masking tape.
- B. A disposable glove is put on and the ASTM wipe package is opened.
- C. Without touching any other surface, the wipe is opened and placed flat down on the surface. Using firm, consistent pressure, a wipe is taken in a single "S" motion.
- D. Next the wipe is folded in half with the contaminated side facing inward and another wipe is taken. On floors, the second pass is taken at 90 degrees to the first "S" wipe. On floors, the wipe is folded in half again, and the perimeter of the area is wiped. On window sills and wells, the second pass is taken in the same direction as the first one. On these surfaces, there is no third pass.
- E. The wipe is folded again with the contaminated side inward. Without touching any other surface, the wipe is placed into a plastic centrifuge tube. The tube is sealed and labeled. The sample number indicates the date and sampler's identity.
- F. The samples are submitted to a NLLAP approved laboratory. Date and time of transfer is recorded to ensure proper chain of custody. Blanks are submitted in accordance with EPA and state protocols.

Sample 11-19-20-NBF-03 exceeded its respective standard and a dust lead hazard does exist in the house. The attached chain of custody which accompanies the laboratory results indicates the locations of the samples which were collected. Sample 11-6-20-NBF-06 was a blank disguised as being taken from a location in the house. Blanks are required to evaluate the integrity of the sample collection and analysis procedures.

#### SOIL SAMPLES.

Under HUD/EPA risk assessment protocols, composite soil samples from bare areas should be collected to ascertain if hazardous levels of soil exist on the property. Samples should be collected from the dripline, within 3 feet from the foundation and from the midyard. If there is a play area and/or a vegetable garden, samples should also be collected from these areas as well.

Our inspector collected samples from the locations depicted on the chain of custody and associated diagram in accordance with the attached sampling protocols. Sample results were compared to the HUD/EPA standard for bare soil in residential sites in non-play areas which is 1200 mg/kg. Sample results were also compared to the state of Connecticut's standard for bare residential soil of 400 mg/kg which is identical to EPA's standard for children's play areas. It is Connecticut's position that any area of bare soil is a potential play area on a residential property. Samples were collected from the dripline on the A and B sides of the house and on the C side midyard. All samples were below the stricter Connecticut standard. A soil lead hazard does not exist on the property.

A copy of this summary must be provided to new lessees (tenants) and purchasers of this property under Federal law (24 CFR part 35 and 40 CFR part 745, the "Disclosure Rule") before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet approved by the U. S. Environmental Protection Agency and include standard warning language in their leases or sales contracts to ensure that parents have the information they need to protect their children from lead-based paint hazards.

If you have any questions, please do not hesitate to contact me at 860-977-5171. Thank you.

Mess S. Fred

Neal B. Freuden

President

Connecticut Certified Lead Inspector Risk Assessor 000152

Connecticut Certified Lead Planner Project Designer 000989

## STANDARD OPERATING PROCEDURES EPA AND STATE OF CONNECTICUT LEAD-BASED PAINT INSPECTIONS

### TESTING PROCEDURES AND EQUIPMENT

The USEPA lead inspection protocols were consulted for this lead evaluation. EPA is the agency at the federal level with responsibility for the establishment of national lead-based paint standards for testing and abatement. The State of Connecticut Department of Public Health's current lead regulations, Lead Poisoning Prevention and Control (19a-111-1 through 19a-111-11) were also consulted.

This lead evaluation was comprehensive. A comprehensive inspection means that representative painted surfaces were systematically evaluated on a room by room basis in accordance with EPA and the State of Connecticut regulations.

Lead-based paint surfaces and components were identified by utilizing an on-site x-ray fluorescence (XRF) instrument. The instrument is operated in accordance with state and federal and manufacturer standards on the use of the instrument. State and federal protocols provide, with the exception of wall surfaces, one reading with the instrument on a representative component in each room, i.e., baseboard, chair rail, etc., as sufficient to establish the lead paint classification of all the representatives of that component type in a room. In the case of walls, because of the large spaces involved and the variability in lead content in paint over such large areas, the federal and state governments want a reading on each wall surface in a room. Therefore, representative testing is not permitted for walls.

The federal government has developed a Performance Characteristic Sheet (PCS) for each type of XRF instrument. The instrument must be calibrated in accordance with the PCS on a 1.0 milligram lead standard.

Each of the types of instruments has federal government-determined positive and negative ranges for the definition of lead-based paint. In addition, some instruments also have inconclusive ranges in some of their reading modes. XRF results are classified using either the threshold or the inconclusive range. For the threshold, results are classified as positive if they are greater than or equal to the threshold and negative if they are less than the threshold. There is no inconclusive classification when using the threshold. For the inconclusive range, results are classified as positive if they are greater than the upper limit of the inconclusive range and negative if they are less than the lower limit of the inconclusive range. EnviroPlan uses both the Radiation Monitoring Device (RMD) LPA Analyzer 1 or the Niton XL 300. The PCS for each instrument provides the following:

Radiation Monitoring Device LPA Analyzer 1

30-Second Standard Mode Reading Description	Substrate	Threshold (mg/cm²)
Results corrected for substrate bias on metal	Brick	1.0
substrate only.	Concrete	1.0
substrace only.	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0

Quick Mode Reading Description	Substrate	Threshold (mg/cm²)
Readings not corrected for substrate	Brick	1.0
bias on any substrate.	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

### Niton XL 300

1 1100	11 1111 000	
Standard Mode Reading Description	Substrate	Threshold (mg/cm²)
Results not corrected for substrate bias on any	Brick	1.0
substrate.	Concrete	1.0
Substitute	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

If a reading falls in the inconclusive range, either the lead inspector should be authorized by the client to take a paint chip sample to determine whether the final result is either positive or negative after laboratory analysis, or the result can be categorized as suspect positive and treated accordingly. If it is not confirmed with laboratory analysis, it cannot be assumed to be negative for toxic levels of lead. If it is assumed to be positive, it can either be abated as a positive if the condition of the surface and/or location of the component requires this treatment under Connecticut and/or EPA regulations, or it can be managed in place as a positive component in accordance with the requirements of Connecticut and EPA regulations.

Prior to the start of any testing, a sketch of the building is drawn, and side designations are given to help identify exactly where readings were taken. Drawings depicting the room numbering scheme are located on the cover page(s) for the building(s) inspected. Each side of the building was labeled A, B, C, or D. The wall "A" side of the unit is generally the side of primary entrance into a dwelling, and this room is always Room 1. Areas in the units include rooms, hallways and closets. Areas are numbered in a clockwise fashion as building construction allows. This allows the inspector to indicate which substrate surface was tested. The condition of the surface is described by a check mark in the appropriate column, under the heading "condition of surface" on the testing form.

When more than one surface type was present on a side, the component tested was indicated with a number. If two windows were present on a building side, they were numbered left to right. Closet shelves and shelf supports were numbered top to bottom.

It is understood that the room layouts presented in the report are in conformance with the conditions that exist at the time the testing is performed. EnviroPlan avoids labeling a room solely by its current functional use (i.e., living room,

bedroom, etc.) since this use can change over time. Similarly, room layouts can change dramatically as dwellings are renovated and additions are built, incorporating existing rooms, or existing interior walls are moved or eliminated altogether.

### ENVIROPLAN LLC LEAD IN SOIL COMPOSITE SAMPLING PROTOCOL

### Linear Transect Method:

For use around roadways, buildings, and other structures such as painted fencing, concrete walls, etc. Each side of the building is labeled with a letter. The 'A' side of the building is the street side. The remaining sides are labeled B, C, and D, clockwise around the building. Fencing and concrete walls are similarly labeled if there is a street side. Otherwise, along with roadways, these structures can be labeled using the directional points North, South, East and West.

- 1. Linear transects are established parallel to the building, wall, fence or roadway at 2, 6, and 12-foot intervals. Note: the 2-foot (or dripline) interval is essential for buildings since this is the area where the highest lead in soil levels are likely to be found. The 6 and 12-foot intervals provide additional information as to the extent of the contamination. This is also true for roadways, walls and fencing.
- 2. Three (3) to ten (10) distinct locations roughly equidistant from one another along the transect line are selected as sample points. As a general rule, we would like to see five sampling points for each 100 feet of transect line, but sample points should be at least 2 feet apart, so in smaller areas (less than 10 feet), fewer samples may be collected.
- 3. Samples of the top one-half inch (.5") of soil should be taken using a metal spoon or stainless-steel scoop. Collect soil until a circular hole of approximately 2 inches in diameter (0.5" deep) has been created. Samples from each of the sampling points should be composited into a 24-ounce plastic bag of at least 3 mil in weight. The bags should be either zip-locked or foldable with puncture proof tabs.
- 4. After each composite sample is collected, the sampling spoon or scoop should be thoroughly cleaned with a disposable wipe to prevent cross contamination of other composite samples to be collected in other areas on the site.
- 5. The soil samples are dried, weighed out and digested in nitric acid according to EPA Method 3050. Analysis is performed by direct aspiration flame atomic absorption spectrophotometry according to EPA Method 7420. Results are expressed in milligrams per kilogram (mg/kg), or parts-per-million (ppm).

### Grid Method:

In other areas, such as play areas and other open spaces, an X shaped axis should be developed with directional reference points of North, South, East and West. At least five, but not more than ten sampling points should be designated along each axis. The sampling points should be equidistant from one another and should be at least one foot distant from each other.

The sampling and compositing procedures outlined in the linear transect method should be followed for each axis.

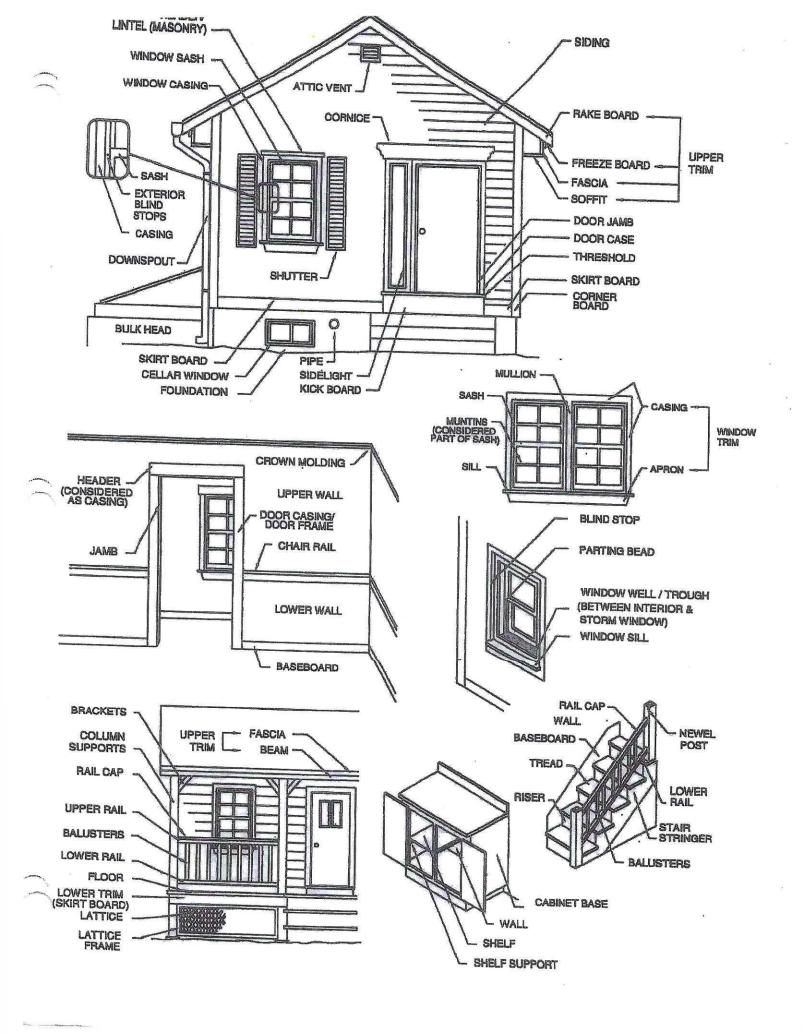
For all soil sampling, a property sketch should be drawn. It is recommended that you use the space provided on the back of the lead in soil sample log.

ATTACHMENT A

### LIST OF BUILDING COMPONENTS WHERE LEAD-BASED PAINT OR LEAD COATING WAS FOUND AT 25 HIGHLAND AVENUE, WINDSOR, CONNECTICUT

Location	Component	Defective?
INTERIOR		
FIRST FLOOR		
R1-Porch	A-D Walls	No
R1-Porch	C Door Casing	No
R1-Porch	Window Trim	No
R1-Porch	C Door Threshold	Yes
R2 Living Room	B Window Well	Yes
R3-Dining Room	B Window Wells	Yes
R4-Kitchen	B Window Wells	Yes
R4-Kitchen	Walls	Yes
R5-Pantry	B Window Well	Yes
Hall 1	A, B and D Walls	Yes
R12-Rear Porch	A Wall (Original Exterior Siding incorporated into porch when enclosed).	Yes
R6-Bedroom	C and D Window Wells	Yes
Hall 2	Closet Shelves (Note: 3 lower shelves. Top shelf not coated).	Yes
BASEMENT		
R10-Main Basement	Steel Support Column	Yes
EXTEROR		
Side B	B Wood Window Sashes	Yes
Side B	B Basement Window Sashes	Yes
Side D	D Wood Window Sashes	Yes
Side D	D Basement Window Sashes	Yes
Z		

# DRAWINGS OF TYPICAL BUILDING COMPONENTS IN A RESIDENTIAL PROPERTY



## **ACTION ITEMS**

		ACTION ITEMS	RESIDENCE
Proper	y Location: 25 Highlan	d Avenue	Project #: 2017-182-7
	ems that are initialed in the space		erty.
1.	No toxic levels of lead were found i	n the paint in the areas tested,	and no further action is required.
of.	Toxic levels of lead in a defective* of not currently reside here. No further certified Renovation, Repair, and Pahttp://cfpub.epa.gov/flpp/searchri	er action required. However, r unting firm. A certified firm c	roperty, but a child under the age of six does epair of the paint is advisable using an EPA a an be found at
ness.	Intact paint with toxic levels of lead currently reside here. No further act EPA certified Renovation, Repair, a http://cfpub.epa.gov/flpp/searchro	tion is required. If this paint mend Painting firm. A certified fi	ut a child under the age of six does not nust be disturbed, it is advisable to use an arm can be found at
4.	Defective* toxic paint was found or require abatement of toxic, defective	n this property, and a child und e* paint.	ler the age of six lives here. State regulations
5.	Since a child resides here and lead a and Control Regulations require levels of lead are also found in any	interior dust, drinking water ar	of Connecticut Lead Poisoning Prevention ad exterior bare soil be assessed. If hazardous o be addressed.
6.	During the initial lead inspection, drisk assessment standards. The dust cleaning methods.	ust samples were collected and levels dust levels should be	found to contain lead in excess of the State reduced to a safe level using appropriate
7.	During the initial lead inspection, b State standard. The bare soil must documented on a lead abatement p	be abated since a child resides	and found to contain lead in excess of the here. The abatement method must be
8.	During the initial lead inspection, d the state standard. Appropriate rer implemented.	rinking water samples were conedial action approved by the	llected and found to contain lead in excess of local director of health should be
_ 9.	within 20 working days of the initial necessary prior to abatement, all su methodologies utilized, how surfact clearance testing prior to reoccupan	nd identification of the lead haze rfaces and soil areas containing es and soil areas requiring abat ney. The plan shall state estima	and submit it to the local director of health ard. The plan shall describe repair work toxic levels of lead, the sampling and testing ement will be abated, clean up procedures, and ted starting and completion dates for the within 90 working days of receipt of the

\_ 10. Since the property is at least 50 years old, the owner must, within five working days after receiving the report, send it and a good quality photograph of the property to the Connecticut Historical Commission (CHC). The CHC will determine within 10 working days whether the property has historic status and may recommend special lead abatement techniques.

\_\_11. Prior to beginning the lead abatement project, the property owner shall give the resident who will be affected by the abatement a minimum of five working days written notice of the date the abatement will begin. This notice shall inform the residents of their rights and responsibilities in accordance with general statutes section 19a-111 and sections 19a-111-1 through 19a-111-11 of the regulations of Connecticut State Agencies and state which surfaces or soil areas shall be abated.. EnviroPlan can assist you in this activity if you wish.

### **ACTION ITEMS**

RESIDENCE

	Proper	ty Location:	Project #:
	Only it	tems that are initialed in the space provided apply to the proper	ty.
•	12.	Since a child resides here, and there are intact, toxic surfaces that are surfaces should be documented on a the lead management plan. The within 60 days of receipt of this report. The lead management plan is and transferred with ownership upon transfer of title. The management lead surfaces and describe how these intact surfaces will be monitored that if they become defective*, the surfaces will be identified and about the surfaces will be identified and about the surfaces will be identified and about the surfaces.	e lead management plan must be developed hall be implemented and kept by the owner ent plan shall identify the location of intact ed on a regular basis by the owner to ensure
	13.	The owner will provide a summary report of the lead inspection and abatement inspection report to the residents. This summary inspection based surface testing and will include a description of the testing menthe residents with information prescribed by the department concernshould be taken to avoid exposure.	on report will contain the results of lead- thods used. The owner shall also provide

\*Defective means peeling, flaking, chalking, scaling, or chipping. It also applies to plaster and other substrates that are crumbling.

## LABORATORY RESULTS



### EMSL Analytical, Inc.

**200 Route 130 North, Cinnaminson, NJ 08077** Phone/Fax: (856) 303-2500 / (856) 786-5974

http://www.EMSL.com

cinnaminsonleadlab@emsl.com

EMSL Order:

202010896

CustomerID:

ENVP25

CustomerPO: ProjectID:

in: Neal Freuden
EnviroPlan, LLC
27 Trotwood Drive
West Hartford, CT 06117

Phone:

(860) 977-5171

Fax:

11/24/20 11:15 AM

Received: Collected:

11/19/2020

Project: 2019-152-7 / Windsor Cooper LIRA / 25 Highland Ave. Windsor, CT

### Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)\*

Client Sample Description	Lab ID	Collected	Analyzed	Area Sampled	Lead <b>Concentration</b>
11-19-20-NBF-01	202010896-0001 Site: R1 - Porch		11/30/2020	156 in²	<9.2 µg/ft²
11-19-20-NBF-02	202010896-0002 Site: R1 - Porch		11/30/2020	87 in²	43 µg/ft²
11-19-20-NBF-03	202010896-0003 Site: R2 - Living	AND SOCIED THE MAN TO THE	11/30/2020	84 in²	710 µg/ft²
11-19-20-NBF-04	202010896-0004 Site: R4 - Kitche	VII. 2000 VII. 2010 VII. 2000 VII. 2010 VII. 2	11/30/2020	144 in²	<10 µg/ft²
11-19-20-NBF-05	202010896-0005 Site: Hall 1 - Floo		11/30/2020	144 in²	<10 µg/ft²
11-19-20-NBF-06	202010896-0006 Site: R9 - Bedroo		11/30/2020	117 in²	 <12 µg/ft²

Phillip Worby, Lead Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. 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 or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Analysis following Lead in Dust by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 10 ug/wipe. Ug/wipe = ug/ft2 x area sampled in ft2. Unless noted, results in this report are not blank corrected. The lab is not responsible for data reported in ug/ft2 which is dependent upon the area provided by non-lab pesonnel. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. 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 11/30/2020 17:39:13

OrderID: 202010896

## 202010896

EnviroPlan LLC 27 Trotwood Dr. West Hartford, CT 06117

mple ID Number	Sample Location/Building	Surface Component	Sq. Ft	Result (ug/ft)	Lab Number
11-19-20- NEE-01	RI-Parch	Floor	management and a	"X 13"	CAROST
1-19-20-	RI-Parch	A3 WS	3	"x29"	
NEP-03	P2-Livig Por	BWS	3	"X28"	
1-19-20-	Ry-Kitchen	Floor	12	S 1 X 1 2	1
11-19-20- DEF-05	Hall	+144	-	2" × 12"	
1-19-20-		700/100/		11 1 15 11	
WER-06			-		
Vipe Media seed on the turnarou	PA-SW-846-3050(MOD.)  ASTM Non ASTA  and time indicated above, analyses of freuden@comcast.net. Please cal	are due to EnviroPlan	on or be	be late.	2 h out
Samples Rec'd/Sen		ate: 11/19/22 ate: 11/24	20	Time:	15 am



### EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077 (856) 303-2500 / (856) 786-5974 Phone/Fax:

http://www.EMSL.com

cinnaminsonleadlab@emsl.com

EMSL Order:

202010897

CustomerID:

ENVP25

CustomerPO: ProjectID:

**Neal Freuden** 

EnviroPlan, LLC 27 Trotwood Drive West Hartford, CT 06117 Phone:

(860) 977-5171

Fax:

Received:

11/24/20 11:15 AM

Collected:

11/19/2020

Project: 2019-152-7 / Windsor Cooper LIRA / 25 Highland Ave. Windsor, CT

### Test Report: Lead in Soils by Flame AAS (SW 846 3050B/7000B)\*

Client Sample Description	Lab ID	Collected	Analyzed	Weight	Lead <b>Concentration</b>
11-19-20-NBF-07	202010897-0001 Site: A Dripline	11/19/2020	11/27/2020	0.5102 g	240 mg/Kg
11-19-20-NBF-08	202010897-0002 Site: C Midyard	11/19/2020	11/27/2020	0.5320 g	<40 mg/Kg
11-19-20-NBF-09	202010897-0003 Site: B Dripline	11/19/2020	11/27/2020	0.5159 g	290 mg/Kg

Phillip Worby, Lead Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. 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 or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling doctions, etc.) provided by the client on the Chain of Custody. Samples are within quality ontrol criteria and met method specifications unless otherwise noted. Analysis following Lead in Soil/Solids by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 40 mg/kg based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request

Samples analyzed by EMSL. Analytical, Inc. Cinnaminson, NJ Method SW 846 7000B replaces EPA 7420 for lead analysis and is an equivalent method. NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, CA 1877, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

OrderID: 202010897

202010897

EnviroPlan LLC 27 Trotwood Dr. West Hartford, CT 06117

### SAMPLE LOG FOR LEAD SOIL

mple ID Number	Sample Location/Building	Soil Condition	Result (%)	Lab Number
11-19-20-	A Droptice			
NEF-08	- Chidyaed			
11-19-21	B Dripline			
nalysis Method: EP	PA-SW-846-3050-7420		rnaround Time Z	
	Date:		Time:	
	nd time indicated above, analyses are due freuden@comcast.net. Please call 860-	977-5171 if analyses will b		
pecial Instructions:				
	y: N. Freuden Date:	11/19/20	Time:	

### SITE DIAGRAM

Lead in Soil Sample Locations Fence Garage 11-19-20- NBF- 07

B

A Highland Avenue