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# REPORT

September 2020

# Immediate Response Action Status Report No. 1

RTN 3-36304 618R Waverly Street Framingham, MA

# IRA Status Report No. 1

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# 1.0 INTRODUCTION

Weston & Sampson Engineers, Inc. (Weston & Sampson) has prepared this Immediate Response Action (IRA) Status Report – No. 1 for Release Tracking Number (RTN) 3-36304. This IRA Status Report has been prepared on behalf of the City of Framingham, Massachusetts (the City), the current owner of 618R Waverly Street in Framingham, Massachusetts (the Site). This IRA Status Report is being submitted in accordance with section 310 CMR 40.0425(3) of the Massachusetts Contingency Plan (MCP).

As detailed in Section 1.4 of this Report, RTN 3-36304 is associated with the detection of lead in shallow soil at concentrations indicative of an Imminent Hazard (IH); this finding is referred to as a "release", as described by the Massachusetts Contingency Plan (MCP) at 310 CMR 40.0950. The Massachusetts Department of Environmental Protection (MassDEP) was verbally notified of the 2-hour release condition on June 3, 2020. MassDEP subsequently issued RTN 3-36304 to the Site and approved an IRA including temporarily fencing the area around the two locations that constituted the IH condition with a 6-foot high fence, and placing warning signs on the fence. MassDEP also noted in additional comments at the end of the Release Log Form (Section H.16) that exposed soil should be covered with high-density polyethylene sheeting to prevent airborne dust. However, due to heavy vegetation (including trees, brush, and weeds/grasses) in the release area, installation of polyethylene sheeting on the ground surface to prevent airborne dust was not feasible or necessary. This was also discussed with MassDEP (Allison Williams) at the time of Notification on June 3, 2020.

An IRA Plan for RTN 3-36304 was submitted to the MassDEP on July 31, 2020. Installation of approximately 320 linear feet of 6-foot-tall, temporary chain-link fencing was installed around the two locations that constituted the IH was completed on June 15, 2020 and signs were posted in three languages (English, Spanish, Portuguese) warning of lead in the soil as a potential hazard inside the fenced area. Based on the sampling data, the IH area is estimated to encompass approximately 500 square feet around two sample locations with elevated lead concentrations. Temporary fencing was installed to prevent access to a larger area of the site (approximately 5,900 square feet) until further assessment activities are completed and the limits of the IH area can be better delineated.

# 1.1 Site Description

The Site consists of two parcels: a larger parcel with Tax ID 134-64-7867 (currently known and numbered as 618R Waverly Street) and a smaller parcel with Tax ID 134-64-9905 (no address) located in Framingham, MA. The City owns the two parcels, which together cover approximately 2.04 acres of vacant land comprised primarily of woodlands and wetland, with a paved area to the north and a paved area to the west.

The release area with elevated lead concentrations in shallow soil consists of an approximately 500square-foot area of the Site. The property at 618R Waverly Street is a vacant property owned by City comprising approximately 1.66 acres. The adjacent approximately 0.38-acre parcel to the east is also owned by the City and identified as Parcel 134-64-9905; the release area covers a portion of each parcel. Figure 1 shows the Site and general surroundings. Figure 2 depicts the Site in more detail, and includes soil boring locations, property boundaries, and other pertinent information.

The release area is primarily woodlands, with areas of wetland abutting to the south and parking lot abutting to the north. A small path-like area that local residents that may use as way to enter areas of



Cedar Woods bisects the Site north-to-south. During response actions described below, personal belongings of a trespasser were observed outside of the IH area, indicating likely use/occupation of the property by at least one person experiencing housing insecurity.

Waverly Street and commercial businesses are located north of the Site, to the east is undeveloped land with mixed commercial and residential properties along Cedar Street, to the south are wetlands and wooded parcels owned by the City (generally referred to as "Cedar Woods"), and to the west is Mellen Street with residential properties beyond the street to the west. There are no surface water bodies in the immediate vicinity of the Site; Farm Pond is located approximately 600 feet north of the Site. The Site boundary is not fenced and is accessible to the public as open space.

# 1.2 Oil and Hazardous Materials (OHM) Usage and Storage

Weston & Sampson has not observed any evidence of the existence, past or present, of underground storage tanks (USTs). No other current or historical OHMs storage has been identified at the Site. The source of the elevated lead levels is unknown but is likely associated with fill material and/or past uses of the property and surrounding properties.

# 1.3 Area Receptors

As presented in Figure 3, Area Receptors Map, the Site is not located within a Zone II or Interim Well Protection Area (IWPA) for a public water supply. The Site is also not located in a potentially productive aquifer or within a Current or Potential Drinking Water Source Area. In addition, there are no known drinking water wells within 500 feet of the Site. No portion of the Site is listed as Natural Heritage and Endangered Species Protected (NHESP) Wetlands Habitats for Rare or Endangered Species. The majority of the Site, except for the paved western portion of the Site and the eastern half of the Waverly Street – paper road parcel, is identified as an area of Protected Open Space. The closest surface water body to the Site is Farm Pond, which is located 600 feet north of the Site.

# 1.4 Release Description

On April 6, 7 and 8, 2020, Weston & Sampson oversaw the advancement of 15 soil borings (SB-101 through SB-115) on the two above-mentioned City-owned parcels. The work was completed as part of a US EPA Brownfields-funded environmental assessment. The soil borings were advanced by New England Geotech of Jamestown, Rhode Island (NE Geotech) using a mix of direct-push technology and hand tooling. Soil samples were collected from each soil boring at the 0-1 foot (ft) and 0-3 ft depths below grade. Additional samples were collected at varying depths, depending on field evidence of impacts, to a maximum depth of 14 ft below grade. Soil samples were transported via courier under chain-of-custody to Absolute Resource Associates of Portsmouth, New Hampshire (ARA). ARA laboratory analytical reports for the samples discussed were previously included with the IRA Plan.

An initial set of soil samples, including 0-3 ft samples from all locations, were analyzed by ARA for Massachusetts Compendium of Analytical Methods (CAM)-14 Metals (antimony, arsenic, barium, beryllium, cadmium, chromium (III), chromium (VI), lead, mercury, nickel, silver, thallium, vanadium, zinc), extractable petroleum hydrocarbons (EPH) with target polycyclic aromatic hydrocarbons (PAHs), volatile petroleum hydrocarbons (VPH) with target volatile organic compounds (VOCs), and/or VOCs by



state or US EPA methods. Soil samples collected for metals analysis from the 0-1 ft depth interval were held by the laboratory pending the receipt and review of the initial dataset of soil from the 0-3 ft depth interval.

Laboratory analytical results for the initial dataset identified lead at concentrations in excess of the MCP Method 1 S-1 Cleanup Standard of 200 mg/kg in 5 of the 0-3 foot samples collected from unpaved locations (SB-105, SB-107, SB-108, SB-109 and SB-111). The Method 1 S-1 Cleanup Standard was used as a conservative action level to evaluate whether activation of the remaining shallow soil samples collected from unpaved locations was necessary. Concentrations of lead in the 0 to 3 feet sampling intervals ranged from 630 to 1,300 mg/kg. Based on these results, it was unclear if a potential IH condition was present; therefore, on May 15, 2020, Weston & Sampson instructed ARA to activate the remaining shallow (0-1 ft) soil samples.

Eight (8), 0-1 foot samples from the locations where access to the soil is not prevented by means of a physical barrier, such as pavement (SB-102, SB-106, SB-107, SB-108, SB-109, SB-110, SB-111, and SB-112), were activated for laboratory analysis of lead. The resulting concentrations of lead in soil from the 0-1 foot interval ranged from 11 to 900 mg/kg. Two samples, SB-108 (0-1) and SB-109 (0-1), from the wooded area in approximately the center of the Site, had concentrations of 900 and 790 mg/kg, respectively, which were an order of magnitude greater than lead in the surrounding samples, ranging from 11 to 73 mg/kg. Due to the presence of lead in exposed surface soil (0-1 foot) at concentrations approximately an order of magnitude above the surrounding samples, SB-108 and SB-109 were considered to be a "Hot Spot," as defined by the MCP, and were further considered in an IH Evaluation as described below.

## IH Evaluation

Weston & Sampson received the laboratory report and reviewed the results for the eight (8) 0-1' soil samples on June 2, 2020, and performed an Imminent Hazard Evaluation for the Site.

## Potential Human Receptors

Potential human receptors at the Site include the following:

- Park Visitors Adults and children may be exposed to impacted Site soil via incidental ingestion and dermal exposure.
- Utility Workers Adults conducting potential repairs/maintenance activities may be exposed to impacted Site soil via incidental ingestion, dermal contact, and inhalation of fugitive dust.
- Construction Adults conducting potential future subsurface construction activities may be exposed to impacted Site soil via incidental ingestion, dermal contact, and inhalation of fugitive dust.

MassDEP's spreadsheets (ShortForms) for assessing potential risks to human health were used to evaluate the data for the lead results. These ShortForms use various exposure scenarios to determine whether or not the Site conditions meet the MCP definition of a potentially significant risk to human health. Weston & Sampson discussed with the City two ShortForm scenarios for the IH evaluation at the Site, either using the "Park Visitor" exposure (younger children present at the property) or the "Trespasser" (older children and adults) exposure scenario. The City, in discussion with Weston & Sampson, recommended evaluating the potential exposure at the Site using the Park Visitor scenario since the Site is mapped as "open space;" in addition, there is a small path-like area that local residents



that may use as way to access areas of Cedar Woods at the property, evidence of persons experiencing housing insecurity at this location, and the potential for unrestricted use by nearby residents or visitors. This approach was very conservative to protect potential public health exposures, even though the Site does not currently contain any park amenities and is not considered an active park.

# Exposure Point Concentrations (EPC)

For potential park visitor (the most sensitive of the receptors identified) exposures to lead in the two locations sampled in the release area, the average concentration of SB-108 and SB-109, 845 mg/kg, was used to represent potential exposures.

# Risk Calculations

Local residents that may use this portion of Cedar Woods for recreation or as way to enter other areas of Cedar Woods were assumed to be exposed to the lead EPC via dermal contact and incidental ingestion of soil. Conservatively, the MassDEP Shortform (October 2012 with updates March 2015) for park visitor exposure to soil was used to evaluate local residential exposures to soil and included standard exposure assumptions. The risk characterization tables were previously included with the IRA Plan.

The estimated risks for the park visitor age 1 to 2 years (noncancer, imminent hazard exposure) were greater than MassDEP risk limit of 1 (2.4). Since the Imminent Hazard Limit for lead is also 1, the results of this Imminent Hazard evaluation indicate that there is a potential Imminent Hazard associated with exposure to soil in the release area.

# 1.5 Reason for IRA

In accordance with 310 CMR 40.0412(1) through (4), an IRA is required at the Site because a release of OHM occurred which required notification to MassDEP under both the "2 hour" notification provision of the Massachusetts Contingency Plan (MCP) and because the release was assessed to pose an IH. Pursuant to MCP Section 40.0412, IRAs shall be conducted at the following sites:

- (1) Sites or vessels where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the "Two-Hour" notification provisions of 310 CMR 40.0311 or 40.0312;
- (2) Sites where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the "72-Hour" notification provisions of 310 CMR 40.0313 or 40.0314;
- (3) Sites where a release of oil and/or hazardous material has resulted in conditions which have been determined to pose an Imminent Hazard pursuant to 310 CMR 40.0950; and
- (4) Any other site or vessel where the Department determines that immediate or accelerated response actions are necessary to prevent, eliminate, or minimize damage to health, safety, public welfare or the environment.



As described in detail above, the results of an IH Evaluation indicated that Site conditions (i.e., lead concentrations in shallow soil) did pose an IH because access to the lead-impacted Site soil was unrestricted.

In accordance with the MCP requirements for release notification, the MassDEP was initially notified of the IH condition on June 3, 2020, within 2 hours of the owner first having knowledge of the site conditions. The MassDEP subsequently assigned RTN 3-36304 to this reportable condition, and verbally approved an IRA including temporarily fencing the area around the two locations that constituted the IH condition (SB-108 and SB-109) with a 6-foot high fence and placing warning signs on the fence.

In accordance with the MCP requirements specified at 310 CMR 40.0426(2), an IH Evaluation was initiated within fourteen days of obtaining knowledge of such a condition. As previously mentioned, the risk calculations utilizing MassDEP Short Forms for park visitors confirmed that an IH condition existed at the Site.

# 1.6 Person(s) undertaking the IRA

Dr. Yvonne M. Spicer, Mayor City of Framingham 150 Concord Street Framingham, Massachusetts 01702 mayor@framinghamma.gov (508) 532-5400

# 1.7 Previous IRA Activities

Since the June 3, 2020 IRA notification, Weston & Sampson and/or the City has overseen installation of approximately 320 linear feet of 6-foot-tall, temporary chain-link fencing around the two locations that constituted the IH was completed on June 15, 2020 and signs were posted in three languages (English, Spanish, Portuguese) warning of lead in the soil as a potential hazard inside the fenced area. Based on the sampling data, the IH area is estimated to encompass approximately 500 square feet around two sample locations with elevated lead concentrations. Temporary fencing was installed to prevent access to a larger area of the site (approximately 5,900 square feet) until further assessment activities are completed and the limits of the IH area can be better delineated.

# 1.8 Future MCP Response Actions

Weston & Sampson is evaluating the need to conduct additional Response Actions as part of IRA activities. Additional Response Actions may include the collection and analysis of additional soil samples to assess the extent of the Disposal Site, the excavation of shallow lead-impacted soil surrounding SB-108 and SB-109, and/or the emplacement of clean fill in the area surrounding SB-108 and SB-109.

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# 2.0 STATUS OF IRA ACTIVITIES

The MCP requirements for an IRA Status Report, promulgated by the MCP at 310 CMR 40.0425(3), are shown in *bold, italic text* and responses to these requirements are shown in normal text.

# (a) status of assessment and/or remedial actions

IRA activities performed prior to the current monitoring period are discussed in Section 1.7.

# (b) significant new site information or data

On June 18, 2020, Allison Williams of the MassDEP conducted an inspection of the temporary chainlink fencing and signs installed on June 15, 2020, around the IH area. Ms. Williams noted two holes in the fence that required repair and/or replacement. On June 19, 2020, Brian Smith of the Framingham Department of Public Health repaired the two holes by weaving wire through the fencing. The two damaged panels of fencing at the 618R Waverly Street IH area were then replaced on August 6, 2020.

# (c) details of and/or plans for the management of Remediation Waste, Remedial Wastewater and/or Remedial Additives

Investigation Derived Waste (IDW), generated during the installation of the soil borings in April 2020, was managed as Remediation Waste due to the presence of RCS-1 exceedances as described above. During the course of drilling activities, approximately 0.2 cubic yards of surplus drill cuttings were placed in a labeled and secured 55-gallon steel drum and stored on-Site. The IDW was generated in small volumes from each of the boring locations depicted on the attached Figure 2; as such, it is represented by the laboratory analytical results described above.

Subsequent to the April subsurface investigation, on June 15, 2020, Weston & Sampson collected one composite sample from the drummed soil (IDW-1) and submitted it to ARA for analysis of arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver by Toxicity Characteristic Leaching Procedures (TCLP) methods. Copies of the laboratory analytical reports were previously included with the IRA Plan.

On July 29, 2020, the drummed IDW was transported under a Bill of Lading by Strategic Environmental Services of Sutton, Massachusetts (SES) to Northland Environmental in Providence, Rhode Island (Northland), an appropriately permitted disposal facility in Rhode Island. This facility will temporarily store the IDW, combine it with similar material, and dispose of it at a licensed landfill, which is an appropriate disposal option based on the representative analytical data. Supporting documentation for the transportation and disposal of the IDW is included in Appendix A.

Additional response actions may require the management, transportation, and off-Site disposal of additional Remediation Waste. Details on Remediation Waste management, if necessary, will be included in a Modified IRA Plan.

(d) any other information required by the Department in its approval of the Immediate Response Action Plan



Not applicable.

# (e) an LSP Opinion as to whether the Immediate Response Action is being conducted in conformance with the Immediate Response Action Plan and any conditions of approval established by the Department

The IRA is being conducted in conformance with the IRA Plan and conditions of approval established by the Department. The LSP Opinion included with the BWSC-105 Transmittal Forms has been uploaded via eDEP with this IRA Status Report.



### 3.0 LIMITATIONS

This report was prepared for the use by the City of Framingham exclusively. The findings provided by Weston & Sampson in this report are based solely on the information reported in this document and previous documents prepared for the Site. Future investigations, and/or information that was not available to Weston & Sampson at the time of the investigation, may result in a modification of the findings stated in this report.

Additional information that becomes available concerning this Site or neighboring properties, which could directly impact the Site in the future, should be made available to Weston & Sampson for review so that, if necessary, conclusions presented in this report may be modified. The conclusions of this report are based on Site conditions observed by Weston & Sampson personnel at the time of the investigation, information provided by the City of Framingham, and samples collected and analyzed on the dates shown or stated in this report. This report has been prepared in accordance with generally accepted engineering and geological practices. No other warranty, express or implied, is made.

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# IRA Status Report No. 1

FIGURES

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# IRA Status Report No. 1

APPENDIX A

IDW Disposal Documentation

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# IRA Status Report No. 1

APPENDIX A

IDW Disposal Documentation

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Date:	7/29/20				e e e e e e e e e e e e e e e e e e e		Project	Number: 🐊	1-0020
CLIENT / S	ITE INFORMA	TION V	Ves	star	14	San	pan		
Name:	Ledas,	WZZI	ds		~				
Address:	618	mure	14.	SF3	- Pr	<u>an</u> i	<u>nchar</u>	n /n/f	
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	<u> </u>						Client's Sign	ature:	



Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030)

**BWSC 112** 

ReleaseTracking Number3-36304

A. LOCATION OF SITE OR D	ISPOSAL SITE WHERE F	REMEDIATION WAS	TE WAS	S GENERATED:	
1. Release Name/Location Aid:	PROPERTY TO EAST OF	WAVERLY & MELLEN STS	5		
2. Street Address: 618RW	AVERLY STREET				
3. City/Town: FRAMINGHA	M	4. Zip C	Code:	017020000	
5. Check here if the dispo	sal site that is the source of th Tier ID T c. Tier II	e release is Tier Classifi	ed. Checl	k the current Tier Classification Category.	
B. THIS FORM IS BEING US	ED TO: (check one: B1-B4):				
<ul> <li>I. Submit a Bill of Lading (Be Response Actions associat</li> </ul>	DL) to transport Remediation ed with this BOL (check all t	Waste to Temporary Sto hat apply):	brage or a	Receiving Facility.	
🔽 a. Immediate Response	e Action (IRA)	🔽 e. Comprehensi	ve Respo	onse Actions	
☐ b. Release Abatement	Measure (RAM)	f. Limited Remova	al Action	(LRA): (must be	
C. Downgradient Prope	erty Status (DPS)	submitted via eDE	to 310 CM EP)	MR 40.0034(6); can't be	
d. Utility Release Abat	ement Measure (URAM)	g. Other			
<ul> <li>3. Submit an Attestation of Control 1</li> <li>4. Certify that Remediation W</li> <li>5. Date Bill of Lading submitted to</li> </ul>	ompletion of Shipment to a R aste Was Not Shipped, and the Department:	ecciving Facility (Section the Bill of Lading is Void, b. cDE	ons C, F and . (Sections EP Transa	nd J are not required): s C, D, E, and F are not required) ction ID:	
6 Period of Constantion Associator	(J t with this Dill of I at a	un/dd/yyyy)			
0. I CHOU OF CENERATION ASSOCIATE	with this bill of Lating	4/6/2020 (mm/dd/vvvv)	to <u>4/8/20</u>	imm/dd/vvvv)	
(All sect The Bill of Lading is not co	tions of this transmittal form onsidered complete until the A	must be filled out unles	s otherwi	ise noted above) nent is received by the Department.	
C. DESCRIPTION OF WASTE	AND WASTE SOURCE:	34			
1. Contaminated Media/Debris (ch	eck all that apply):				
🔽 a. Soil 🦵 b. Groundwa	ater 🖵 c. Surface Wate	r 🦵 d. Sediment		e. Vegetation or Organic Debris	
f. Demolition/Construction	Waste 🦵 g. Inorganic Ab	sorbent Materials	h. Other:		
2. Uncontainerized Waste (check a	ll that apply):			2	
a. Inorganic Absorbent Mat	erials $\Gamma$ b. Other:		2		



# BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

 3
 36304

C. DESCRIPTION OF WASTE AND WASTE SOURCE (cont.):	
3. Containerized Waste (check all that apply):	
a. Tank Bottoms/Sludges $\overline{\Gamma}$ b. Containers $\overline{\Gamma}$ c. Drums	d. Engineered Impoundments
e. Other:	
4. Estimated Quantity: 0.2 Tons 🔽 Cu. Yds	s. T Gallons
5. Contaminant Source (check one):	
a. Transportation Accident	C. Brownfields Redevelopment
d. Other: URBAN FILL/IMPACTED FILL MATERIAL	
6. Type of Contaminant (check all that apply):	
Ta. Gasoline Tb. Diesel Fuel Tc. #2 Fuel Oil Td. #4 Fuel	Oil 🦵 c. #6 Fuel Oil 🦵 f. Jet Fuel
Г g. Waste Oil Г h. Kerosene Г i. Chlorinated Solvents 反 j. Urban F	ill [ k. Other:
7. Constituents of Concern (check all that apply):	
😿 a. As 🕼 b. Cd 🕼 c. Cr 🕼 d. Pb 😿 e. Hg	🔽 f. EPH/TPH 🛱 g. VPH
h. PCBs 🔽 i. VOCs 😰 j. SVOCs 😰 k. Other: ZN, SB	
8. If applicable, check the box for the Reportable Concentration Category of the si	te:
🛱 a. RCS-1 🧮 b. RCS-2 🧮 c. RCGW-1 🐺 d. RCGW-2	2
9. Remediation Waste Characterization Documentation (check at least one):	
	Procedures 🔽 c. Laboratory Data
T d. Field Screening Data T e. Characterization Documentation prev	iously submitted to the Department
i. Date submitted: ii. Type of Documentation:	
(mm/dd/yyyy)	
D. TRANSPORTER OR COMMON CARRIER INFORMATION:	
1. Transporter/Common Carrier Name: STRATEGIC ENVL SERVICES	
2. Contact First Name: ALISA 3. Last N	Name: SEELEY
4. Street: 27 KREIGER LANE UNIT 10 5.	Title: WASTE DISPOSAL COORDINATOR
6. City/Town: GLASTONBURY 7. State	: <u>CT</u> 8. Zip Code: <u>060330000</u>
9. Telephone: 8602662616 10. Ext: 11. Ems	il: aseeley@strategic-es.com



# BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number 3 - 36304

<b>E.</b> (	RECEIVING	FACIL	ITY/TEMP	ORARY	STORAGE	LOCATION:
-------------	-----------	-------	----------	-------	---------	-----------

1. Operator/Facility Name: STERICYCLE/NORTHLAND ENVLLLC			
2. Contact First Name: ANTONIO 3. Last Na	me: BOIA	NO	
4. Street: 275 ALLENS AVENUE	5. Title:	FACILITY MANAG	ER
6. City/Town: PROVIDENCE	7. State:	RI 8.	Zip Code: 029050000
9. Telephone: 4017816340 10. Ext:	11. Email:	antonio.boiano@	estericycle.com
12. Type of facility: (check one)	-	<del></del>	
a. Temporary Storage i. Period of Temporary Storage	8/3/2020		to 12/4/2020
ii. Reason for Temporary Storage: SOIL TO BE COMBINED WITH LIKE	(mn MATERIAL AN	1/dd/yyyy) D SENT TO LICENS	(mm/dd/yyyy) ED LANDFILL BY STERICYCLE
Гb. Asphalt Batch/Hot Mix Гс. Landfill/Disposal Г	d. Landfill/	Structural Fill	Te. Landfill/Daily Cover
T. f. Asphalt Batch/Cold Mix T. g. Thermal Processing T. h. H	ncinerator	i. Other:	
13. Division of Hazardous Waste/Class A Permit Number:			
14. Division of Solid Waste Permit Number:			
15. EPA Identification Number: RID040098352			

### F. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this submittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief, the assessment action(s) undertaken to characterize the Remediation Waste which is (are) the subject of this submittal for acceptance at the facility identified in this submittal comply with applicable provisions of 310 CMR 40.0000, and such facility is permitted to accept Remediation Waste having the characteristics described in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #:	5586			
2. First Name:	FRANCIS M		3. Last Name:	RICCIARDI
4. Telephone:	9785321900	5. Ext:	6. Emai	l: ricciarf@wseinc.com
7. Signature:	FRANCIS M RICCIARDI			9. LSP Stamp:
8. Date:	7/28/2020 (mm/dd/yyyy)			Electronic Seal Barrow Site Profession



**Massachusetts Department of Environmental Protection** Bureau of Waste Site Cleanup

**BWSC 112** 

**Release Tracking Number** 

36304

G.	PERSON	SUBMIT	TING BII	LOF	LADING:

1. Check all that apply:	a. change in contact name	b. chang	e of addres	ss 🔽 c. change in the person undertaking response actions
2. Name of Organization:	CITY OF FRAMINGHAM			
3. Contact First Name:	THATCHER	4. Last Nam	KEZEF	RII
5. Street: 150 CONCORD	STREET		6. Title:	CHIEF OPERATING OFFICER
7. City/Town: FRAMING	IAM		8. State:	MA 9. Zip Code: 017020000
10. Telephone: 50853254	400 11. Ex	t:	12. Email:	tkezer@framinghamma.gov
H. RELATIONSHIP TO	SITE OF PERSON SUBMIT	TING BILL OF	LADING:	Check here to change relationship
▼ 1. RP or PRP	₩ a. Owner Γb.	Operator	□ c. Ger	enerator I d. Transporter
Ce. Other RP or PRP	Specify:			
2. Fiduciary, Secured L	ender or Municipality with Exem	pt Status (as define	d by M.G.I	.L. c. 21E, s. 2)
3. Agency or Public U	tility on a Right of Way (as defin	ed by M.G.L. c. 21	E, s. 5(j))	
4. Any Other Person	Undertaking Response Actions:	Specify Re	lationship:	· ·

### L REQUIRED ATTACHMENT AND SUBMITTALS:

- 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approvals issued by DEP or EPA. If the box is checked, you must attach a statement identifying the applicable provisions thereof.
- 2. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to BWSC.eDEP@state.ma.us
- 🔽 3. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

### J. CERTIFICATION OF PERSON SUBMITTING BILL OF LADING:

1. I, THATCHER W. KEZ	<b>ER H</b>
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, attest under the pains and penalties or perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: THATCHER W. KEZER III 3. Title: CHIEF OPERATING OFFICER

4. For: **CITY OF FRAMINGHAM** 

(Name of person or entity recorded in Section G)

5. Date: 7/28/2020

(mm/dd/yyyy)



Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup

**BWSC 112** 

3

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

- 36304

## J. CERTIFICATION OF PERSON SUBMITTING BILL OF LADING (cont.) :

6. Check here if the address of the person providing certification is different from address recorded in Section G.

7. Street:				
8. City/Town:		9. State:	10. Zip Code:	
11. Telephone:	12. Ext:	13. Email:		

## YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (MassDEP USE ONLY):

Received by DEP on 7/28/2020 6:19:08 PM	

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55 Walkers Brook Drive, Suite 100, Reading, MA 01867 Tel: 978.532.1900

July 24, 2020

Massachusetts Department of Environmental Protection Northeast Regional Office Bureau of Waste Site Cleanup 205B Lowell Street Wilmington, Massachusetts 01887

Re: LSP Opinion - Soil Disposal 618R Waverly Street Framingham, Massachusetts RTN 3-36304

Dear Sir/Madam:

Weston & Sampson has prepared this Licensed Site Professional (LSP) Opinion letter for the disposal of one 55-gallon drum of soil that was generated during assessment activities at the above-referenced property, located in Framingham, Massachusetts (the Site). See Figure 1 for the general location of the Site.

The Site is regulated under the Massachusetts Contingency Plan (MCP), and the subject soil was generated during Site assessment activities conducted under the City of Framingham's US EPA Brownfields Grant. Based on the data obtained during Site assessment activities, a 2-hour Notification Condition was identified due to elevated concentrations of lead identified in a small area (approximately 500 sf) of shallow soil. On June 3, 2020, the City reported the Release to MassDEP, and MassDEP assigned Release Tracking Number (RTN) 3-36304 to the Release.

### Current and Former Site Use

The Site consists of approximately 2.08 acres of vacant land, comprised of woodlands, wetland, and paved parking lot. The 618R Waverly Street parcel (parcel ID: 134-64-7867) was initially part of a larger parcel (with current day 618 Waverly Street formerly known comprehensively as 612 Waverly Street), that was formerly occupied by Silton Glass Co. Historical operations on the property included an auto parts retailer, filling station, and auto glass facility.

An ASTM Phase I ESA in 2009, ASTM Phase II ESA in 2010, and cleanup/reuse planning was conducted for the former Silton Glass property (612 Waverly Street). An Activity and Use Limitation (AUL), for release tracking number (RTN) 3-29744, was filed in 2012 for the property by the then current property owner Charles L. Silton, Inc. Contaminants of concern at the property included metals, Extractable Petroleum Hydrocarbons (EPH) and Polycyclic Aromatic Hydrocarbons (PAHs). These impacts were associated with historic fill materials and point source releases of petroleum from past operations as a gasoline station and salvage facility. The AUL restricts the use of the property to commercial / industrial uses only and requires a Soil Management Plan and Health and Safety Plan prior to any soil disturbance.

The Silton Glass property was acquired in 2015 by the City of Framingham through tax title taking, and the property was subsequently subdivided to support sale of the existing facility structure as a commercial property (currently addressed as 618 Waverly St). Ownership of the remainder of the Silton Glass property (currently addressed as 618R Waverly Street), was retained by the City of Framingham.

## Soil Generation and Sampling

From April 6 through 8, 2020, Weston & Sampson oversaw the advancement of 15 soil borings (SB-101 through SB-115) at locations depicted in Figure 2, Site Plan. During the course of drilling activities, approximately 40 gallons of surplus drill cuttings were placed in a labeled and secured 55-gallon steel drum and stored on-Site (see Figure 2 for location of drum). The soil was generated in small volumes from each of

the boring locations depicted on the attached Figure 2. Thirty-five soil samples were collected from discrete depth intervals, as shown on Tables 1A-1C and Table 2. Samples were submitted to Absolute Resource Associates of Portsmouth, NH (ARA) for analysis of antimony, arsenic, barium, beryllium, cadmium, chromium (III), chromium (VI), lead, mercury, nickel, silver, thallium, vanadium, zinc, extractable petroleum hydrocarbons (EPH) with target polycyclic aromatic hydrocarbons (PAHs), volatile petroleum hydrocarbons (VPH) with target volatile organic compounds (VOCs), and/or VOCs.

On June 15, 2020, Weston & Sampson collected one composite sample from the drummed soil (IDW-1) and submitted it to ARA for analysis of arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver by Toxicity Characteristic Leaching Procedures (TCLP) methods. Copies of the laboratory analytical reports are included as an attachment.

# Analytical Results

Data in the attached tables were compared to applicable MCP Reportable Concentrations criteria (RCS-1).

# <u>Metals</u>

All metals, excepting selenium, were detected above laboratory reporting limits in at least one of the 35 soil samples submitted for analysis. Antimony, arsenic, lead, and zinc were detected at concentrations exceeding the applicable RCS-1 threshold in multiple samples. The result of the TCLP analysis for the subject sample showed concentrations below levels indicative of a characteristic hazardous waste.

# EPH/PAHs

EPH aliphatic and aromatic fractions, as well as target PAHs were detected above the laboratory reporting limits at multiple boring locations. The PAHs benzo(a)pyrene and dibenz(a,h)anthracene were detected at concentrations exceeding the respective MCP RCS-1 in multiple samples.

# VPH/VOCs

VPH aliphatic and aromatic fractions, as well as target petroleum VOCs were detected above the laboratory reporting limits, but below the respective RCS-1 threshold at three locations.

In addition, including two chlorinated VOCs (cis-1,2-dichloroethylene and trichloroethylene) were detected in sample SB-108 (6-9) at concentrations above the respective RCS-1 threshold.

## **Closure Statement**

Due diligence was used to characterize the soil for the presence of listed hazardous waste and characteristic hazardous waste in accordance with DEP Policy # HW93-01. Historical Site review and chemical testing performed on the soil did not indicate the presence of a listed hazardous waste nor did the soil exhibit a characteristic of hazardous waste. Importantly, there is no known history of activities involving cis-1,2-dichloroethylene and trichloroethylene that indicate the presence of these contaminants constitute a hazardous waste.

In consideration of the Site history and current conditions at the Site from which the soil proposed for disposal has been generated, it is our opinion that the samples collected to characterize the soil were sufficient in terms of sampling methods, sampling dates, analytes tested for, QA/QC criteria, number of samples, sampling depth, and sampling locations to provide analytical data which are representative of the soil proposed for such disposal/re-use.



Weston & Sampson has completed an evaluation of the laboratory analytical QA/QC data accompanying the laboratory reports and this submittal contains data which are judged to be useable and representative. Based on our review of the chemical soil testing data obtained during this sampling program, the soils represented by this submittal are suitable for disposal as non-hazardous waste at a landfill. If you have any questions or comments regarding this letter or need any additional information, please do not hesitate to contact our office at (978) 532-1900.

Sincerely,

WESTON & SAMPSON ENGINEERS, INC.

h.P

Frank M. Ricciardi, PE, LSP Vice President

Attachments: Figures Tables Stericycle Waste Profile Sheet Laboratory Analytical Reports







Lege	end
$\land$	SURFACE WATER SAMPLE
	GROUNDWATER MONITORING WELL
	SOIL BORING
	30' NO ALTERATION ZONE (2014)
	BORDERING VEGETATED WETLANDS (2014)
	TEMP FENCE
	AREA SUBJECT TO AUL (RTN 3-29744)
	PARCEL BOUNDARY

### Table 1A Summary of Soil Analytical Results - April 2020 Soil Borings Cedar Woods Framingham, Massachusetts

Parameter	Units	Reportable Concentrations	Method 1 Cleanu	ıp Standards (1)											
		DCS 4	S 4/CM/ 2	S 4/0W 2	SB	-101	SB-	102		SB-103		SB	-104	SB-	105
		K03-1	3-1/6W-2	3-1/GW-3	0-3 feet 4/6/2020	9-12 feet 4/6/2020	0-3 feet 4/6/2020	11-14 feet 4/6/2020	0-3 feet 4/6/2020	3-5 feet 4/6/2020	7-10 feet 4/6/2020	0-3 Feet 4/7/2020	8-10 Feet 4/7/2020	0-3 feet 4/6/2020	5-8 feet 4/6/2020
EPH C9-C18 Aliphatics C19-C36 Aliphatics C11-C22 Aromatics	mg/kg mg/kg mg/kg	1000 3000 1000	1000 3000 1000	1000 3000 1000	<21 <b>35</b> <21	<25 82 41	<20 130 50	<46 <b>80</b> <46	NT NT NT	NT NT NT	NT NT NT	<20 34 25	<22 100 <22	<24 280 130	<22 23 <22
Acenaphthene Acenaphthylene Anthracene Benzo(A)Anthracene Benzo(A)Pyrene Benzo(B)Fluoranthene Benzo(G,H,I)Perylene Benzo(K)Fluoranthene Chrysene Dibenz(A,H)Anthracene Fluoranthene Fluorene Indeno(1,2,3-Cd)Pyrene 2-Methylnaphthalene Naphthalene Phenanthrene Pyrene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	4 1 1000 7 2 7 1000 70 0.7 1000 1000 7 0.7 4 10 1000	$ \begin{array}{c} 1000\\ 600\\ 1000\\ 7\\ 2\\ 7\\ 1000\\ 70\\ 1\\ 1000\\ 1000\\ 7\\ 80\\ 20\\ 500\\ 1000 \end{array} $	$     \begin{array}{r}       1000\\       10\\       1000\\       7\\       2\\       7\\       1000\\       70\\       70\\       1\\       1000\\       1000\\       7\\       300\\       500\\       500\\       1000     \end{array} $	<0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 <0.21 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VPH C5-C8 Aliphatics C9-C12 Aliphatics C9-C10 Aromatics Target VOCs Benzene Ethylbenzene Methyl tert-Butyl Ether (MTBE) Naphthalene Toluene m+p Xylene o-Xylene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	100 1000 100 2 40 0.1 4 30 100 100	100 1000 100 40 500 100 20 500 100 100	100 1000 40 500 100 500 500 500 500 500	NT NT NT NT NT NT NT NT NT	<6.3 <6.3 <0.13 <0.13 <0.13 <0.31 <0.13 <0.13 <0.13 <0.13	NT NT NT NT NT NT NT NT	<16 <16 <0.31 <0.31 <0.31 <0.31 <0.31 <0.31 <0.31 <0.31 <.31	NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT	<5.8 <5.8 <5.8 <0.12 <0.12 <0.12 <0.12 <0.29 <0.12 <0.12 <0.12 <0.12	NT NT NT NT NT NT NT NT NT	<4.9 <4.9 <4.9 <0.097 <0.097 <0.24 <0.097 <0.24 <0.097 <0.097 <0.097	NT NT NT NT NT NT NT NT NT	<4.3 <4.3 <4.3 <0.087 <0.087 <0.087 <0.22 <0.087 <0.087 <0.087
Metals Antimony Arsenic Barium Beryllium Chromium (III) Chromium (VI) Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	20 20 1000 90 70 1000 200 20 20 600 400 100 8 400 1000	20 20 1000 90 70 1000 200 20 600 400 100 8 400 1000	20 20 1000 90 70 1000 200 20 600 400 100 8 400 1000	<0.52 3.3 18 <0.52 <0.52 NT 7.3 8.7 <0.15 7.4 <5.2 <2.6 <0.52 11 17	2.7 28 140 <0.68 1.3 51 3.8 230 0.58 14 <6.8 <3.4 <0.68 15 220	<0.54 3.3 27 <0.54 <0.54 NT 17 16 <0.13 23 <5.4 <2.7 <0.54 20 31	<1.1 10 56 <1.1 <1.1 41 <1.00 190 <0.31 64 <11 <5.6 <1.1 17 530	<0.51 3.5 25 <0.51 0.51 NT 6.9 22 <0.15 6.3 <5.1 <2.5 <0.51 10 19	3.7 13 250 <0.62 4.9 9.4 <0.49 710 0.58 12 <6.2 <3.1 <0.62 10.0 920	<0.60 3.3 36 <0.60 0.60 NT 18 8.4 <0.17 13 <6.0 <3.0 <0.60 25 18	<0.54 <2.7 17 <0.54 <0.54 NT <5.4 16 <0.15 5.4 <5.4 <5.4 <2.7 <0.54 8.3 16	<0.57 3.1 27 <0.57 <0.57 16 <0.47 5.5 <0.16 17 <5.7 <2.8 <0.57 22 18	4.7 7.3 310 <0.60 2.0 18 <0.48 650 2.9 18 <6.0 <3.0 <0.60 19 770	<0.55 3.0 23 <0.55 0.55 NT 11 5.0 <0.15 14 <5.5 <2.7 <0.55 14 69
VOCs Benzene Sec-Butylbenzene Cis-1,2-Dichloroethylene Ethylbenzene Isopropylbenzene (Cumene) P-Isopropyltoluene (p-Cymene) Naphthalene N-Propylbenzene Toluene Trichloroethylene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Xylenes	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	2 ~ 0.1 40 1000 4 100 30 0.3 1000 10 100	40 ~ 0.1 500 ~ 20 ~ 500 0.3 ~ 100	40 ~ 100 500 ~ 500 30 ~ 500 30 ~ 500	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT

# QC by JMR 5/8/2020

### Abbreviations:

EPH and VPH= Extractable and Volatile Petroleum Hydrocarbons VOCs and SVOCs = Volatile and Semivolatile Organic Compounds

PAH = Polycyclic Aromatic Hydrocarbons

NT = Not Tested

BDL = Below Detection Limit

MCP = Massachusetts Contingency Plan mg/kg = milligram per killiogram

<u>Notes:</u> ~ = No standard available

< = indicates parameter not detected above laboratory method reporting limit, shown

BOLD Parameter detected above laboratory detection limit

BOLD Parameter equals or exceeds the MCP Method 1, RCS-1 standard (NS Tapley & NWS Bay only)

Parameter exceeds the most stringent MCP Method 1, S-1 standard BOLD

**BOLD** Parameter exceeds the applicable MCP Method 1, S-2/3 standard 1 = Standards are from Massachusetts Contingency Plan (MCP), 310 CMR 40, April 2014.

### Table 1B Summary of Soil Analytical Results - April 2020 Soil Borings Cedar Woods Framingham, Massachusetts

Parameter	Units	Reportable Concentrations	Method 1 Cleanu	1 Cleanup Standards (1) Sample Location, Depth, and Date												
		PCS 1	S.1/CWI-2	8.1/GW 2		SB-106		SB-	107	SB-	108		SB-109		SB-	110
		KG3-1	3-1/6W-2	3-1/GW-3	0-3 feet 4/6/2020	3-4 feet 4/6/2020	5-8 feet 4/6/2020	0-3 Feet 4/7/2020	10-11 Feet 4/7/2020	0-3 Feet 4/7/2020	6-9 Feet 4/7/2020	0-3 Feet 4/7/2020	5-8 Feet 4/7/2020	DUP-1 4/7/2020	0-3 Feet 4/7/2020	5-8 Feet 4/7/2020
EPH C9-C18 Aliphatics C19-C36 Aliphatics C11-C22 Aromatics Target PAHS Acenaphthene Acenaphthylene Anthracene Benzo(A)Anthracene Benzo(A)Pyrene Benzo(B)Fluoranthene Benzo(B)Fluoranthene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1000 3000 1000 4 1 1000 7 2 7 1000	1000 3000 1000 1000 600 1000 7 2 7 1000	1000 3000 1000 1000 10 1000 7 2 7 1000	<21 91 44 <0.21 <0.21 <0.21 0.42 0.40 0.35 0.46	NT NT NT NT NT NT NT NT NT NT	<240 570 290 <0.47 <0.47 <0.47 <0.47 <0.47 <0.47 <0.47	<23 36 <23 <0.23 <0.23 <0.23 <0.23 <0.23 <0.23 <0.23 <0.23	34 410 76 <0.23 <0.23 <0.23 <0.23 <0.23 <0.23 <0.23 <0.23	<26 <b>39</b> <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26	92 1900 350 <0.24 <0.24 0.46 0.79 0.79 0.70 0.64	<28 42 <28 <0.28 <0.28 <0.28 <0.28 <0.28 <0.28 <0.28 <0.28 <0.28	<78 290 100 <0.78 <0.78 <0.78 0.78 0.78 0.78 0.91 0.89 <0.78	<83 390 300 <0.83 <0.83 0.92 4 4 4.4 4.4 3.2	<22 68 53 <0.22 <0.22 <0.22 0.22 0.59 0.63 0.57 0.42	<110 <b>140</b> <110 <1.1 <1.1 <1.1 <1.1 <1.1 <1.1 <1.1
Benzo(K),Fluoranthene Chrysene Dibenz(A,H)Anthracene Fluoranthene Fluorene Indeno(1,2,3-Cd)Pyrene 2-Methylnaphthalene Naphthalene Phenanthrene Pyrene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	70 70 0.7 1000 1000 7 0.7 4 10 1000	70 70 1 1000 1000 7 80 20 500 1000	70 70 1 1000 1000 7 300 500 500 1000	0.40 0.39 0.52 <0.21 0.81 <0.21 0.36 <0.21 0.44 0.88	NT NT NT NT NT NT NT NT	<0.47 <0.47 <0.47 <0.47 <0.47 <0.47 <0.47 <0.47 <0.47 <0.47 <0.47 <0.47	<ul> <li><ul> <li><ul< td=""><td><ul> <li>&lt;0.23</li> </ul></td><td>&lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26 &lt;0.26</td><td>0.57 0.87 &lt;0.24 1.9 0.37 0.36 0.57 0.50 2.1 2.1</td><td><ul> <li>&lt;0.28</li> &lt;</ul></td><td>&lt;0.78</td>0.780.96&lt;0.78</ul<></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul></li></ul>	<ul> <li>&lt;0.23</li> </ul>	<0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26 <0.26	0.57 0.87 <0.24 1.9 0.37 0.36 0.57 0.50 2.1 2.1	<ul> <li>&lt;0.28</li> &lt;</ul>	<0.78	3.7 5.3 <0.83 9.2 <0.83 2.9 <0.83 0.86 5.7 9	0.42 0.53 0.74 <0.22 1.3 <0.22 0.36 <0.22 <0.22 <1.1 1.4	रा.। रा.1 रा.1 रा.1 रा.1 रा.1 रा.1 रा.1 रा.1
C5-C8 Aliphatics C9-C12 Aliphatics C9-C10 Aromatics <b>Target VOCs</b> Benzene Ethylbenzene Methyl tert-Butyl Ether (MTBE) Naphthalene Toluene m+p Xylene o-Xylene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	100 1000 100 2 40 0.1 4 30 100 100	100 1000 100 40 500 100 20 500 100 100	100 1000 100 500 100 500 500 500 500 500	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT	<5.5 <5.5 <5.5 <0.11 <0.11 <0.11 <0.28 <0.11 <0.11 <0.11	7.6 <5.4 <5.4 <0.11 <0.11 <0.11 <0.27 <0.11 <0.11 <0.11	26 22 39 <0.094 0.48 <0.094 1.3 <0.094 1.6 <0.094	NT NT NT NT NT NT NT NT NT	30 24 67 0.30 0.49 <0.11 1.9 0.42 2.7 0.45	NT NT NT NT NT NT NT NT NT NT	<29 <29 <29 <0.59 <0.59 <0.59 <1.5 <0.59 <0.59 <0.59 <0.59	<29 <29 <29 <0.59 <0.59 <0.59 <1.5 <0.59 <0.59 <0.59 <0.59	NT NT NT NT NT NT NT NT NT	<42 <42 <42 <0.83 <0.83 <0.83 <2.1 <0.83 <0.83 <0.83
Metals Antimony Arsenic Barium Beryllium Chromium (III) Chromium (VI) Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	20 20 1000 90 70 1000 200 20 20 600 400 100 8 400 1000	20 20 1000 90 70 1000 200 20 600 400 100 8 400 1000	20 20 1000 90 70 1000 200 20 600 400 100 8 400 1000	0.9 4 200 <0.56 0.56 NT 16 120 0.17 12 <5.36 <2.8 <0.56 17 190	NT NT NT NT NT <b>0.50</b> NT NT NT NT NT NT	0.78 3.2 <0.59 <0.59 NT 23 150 <0.15 9.8 <5.9 <3.0 <0.59 12 91	55 8.0 280 <0.63 4.4 33 <0.51 1200 0.60 76 <6.3 32 <0.63 20 2900	5.9 3.5 48 <0.49 2.0 NT 19 300 <0.14 16 <4.9 <2.5 <0.49 12 250	51 8.1 430 ⊲0.65 5.8 NT 70 1200 0.18 88 <6.5 7.3 <0.65 10 2900	10 7.1 470 <0.60 11 25 <0.48 970 0.47 40 <6.0 <3.0 <0.60 18 2400	64 23 300 <0.67 3.6 NT 64 1300 <0.19 100 <6.7 12 <0.67 8.1 4000	<b>3.5</b> <b>15</b> <b>78</b> <2.0 <2.0 <2.0 <1.6 <b>180</b> <0.58 <20 <20 <9.9 <2.0 <20 <20 <b>270</b>	2.1 20 86 <2.0 <2.0 NT <20 250 0.99 <20 <10 <2.0 <20 <20 <20 <20 <20 <20 <20 <2	NT <0.51 2.9 41 <0.51 <0.51 NT 10 8.1 <0.16 12 <5.1 <2.5 <0.51 16 19	3.5 <14 160 <2.8 <2.8 <2.8 <2.2 280 <0.78 <28 <28 <14 <2.8 <28 <14 <2.8 <28 230
VOCs Benzene Sec-Butylbenzene Cis-1,2-Dichloroethylene Ethylbenzene Isopropylbenzene (Cumene) P-Isopropyltoluene (p-Cymene) Naphthalene N-Propylbenzene Toluene Trichloroethylene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Xylenes	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	2 ~ 0.1 40 1000 100 4 100 30 0.3 1000 10 100	40 ~ 0.1 500 ~ 20 ~ 500 0.3 ~ 100	40 ~ 100 500 ~ 500 ~ 500 30 ~ 500	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	0.19 0.26 0.59 0.34 0.30 1.8 0.93 0.46 0.36 6.9 2.3 3.43	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT

QC by JMR 5/8/2020

### Abbreviations:

EPH and VPH= Extractable and Volatile Petroleum Hydrocarbons VOCs and SVOCs = Volatile and Semivolatile Organic Compounds PAH = Polycyclic Aromatic Hydrocarbons NT = Not Tested BDL = Below Detection Limit MCP = Massachusetts Contingency Plan mg/kg = milligram per killiogram

<u>Notes:</u> ~ = No standard available

< = indicates parameter not detected
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 1 = Standards are from Massachuset

### Table 1C Summary of Soil Analytical Results - April 2020 Soil Borings Cedar Woods Framingham, Massachusetts

Parameter	Units	Reportable Concentrations	Method 1 Cleanu	p Standards (1)												
		PCS-1	S-1/GW-2	S-1/GWI-3		SB-111		SB-	112		SB-113		SB·	-114	SB-	115
		KG0-1	3-1/3W-2	3-1/3W-3	0-1 feet 4/8/2020	0-3 feet 4/8/2020	4-7 feet 4/8/2020	0-3 Feet 4/7/2020	5-8 Feet 4/7/2020	0-3 feet 4/8/2020	5-8 feet 4/8/2020	DUP-2 4/8/2020	0-3 feet 4/8/2020	5-8 feet 4/8/2020	0-3 feet 4/8/2020	5-8 feet 4/8/2020
EPH C9-C18 Aliphatics C19-C36 Aliphatics C11-C22 Aromatics Target PAHS Acenaphthene Acenaphthylene	mg/kg mg/kg mg/kg mg/kg mg/kg	1000 3000 1000 4 1	1000 3000 1000 1000 600	1000 3000 1000 1000 10	<20 85 62 <0.20 <0.20	<19 <b>40</b> <19 <0.19 <0.19 <0.19	<97 340 200 0.24 <0.19	<21 50 22 <0.21 <0.21	<38 190 140 <0.38 <0.38	<97 <b>450</b> 97 <0.19 <0.19	<19 <19 <19 <19 <0.19 <0.19	<20 <20 <20 <0.20 <0.20 <0.20	<19 40 220 <0.19 0.77	<19 55 33 <0.19 <0.19	<19 <19 <19 <19 <0.19 <0.19	<20 57 75 <0.20 <0.20
Anthracene Benzo(A)Anthracene Benzo(A)Pyrene Benzo(B)Fluoranthene Benzo(G,H,I)Perylene Benzo(K)Fluoranthene Chrysene Dibenz(A,H)Anthracene Fluoranthene Fluorene Indeno(1,2,3-Cd)Pyrene 2-Methylnaphthalene Naphthalene Phenanthrene Pyrene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	1000 7 2 7 1000 70 0.7 1000 1000 7 0.7 4 10 1000	1000 7 2 7 1000 70 70 1 1000 1000 7 80 20 500 1000	1000 7 2 7 1000 70 1 1000 1000 7 300 500 500 500	<0.20 1.5 2 2.3 2 1.7 1.8 0.51 2.2 <0.20 1.7 <0.20 <0.20 0.57 1.9	<0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19	1.3 4.1 3.9 3 3.4 4.4 0.95 8.5 0.43 2.7 0.22 0.35 5.1 6.7	<0.21 0.39 0.4 0.37 0.25 0.38 0.42 <0.21 0.8 <0.21 0.21 <0.21 <0.21 <0.21 <0.21 0.21 0.21 0.21 0.21	0.84 3 2.8 2 2.7 3.6 0.62 6.8 0.43 1.7 <0.38 <0.38 <0.38 4.7 5.8	<0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19	<0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19	<0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20	0.61 4.9 4.4 3.6 3.4 5.7 0.78 9.3 <0.19 2.7 <0.19 <0.19 <0.19 4.1 11	<0.19 0.33 0.37 0.29 0.34 0.31 0.38 <0.19 0.77 <0.19 0.25 <0.19 0.25 <0.19 0.54 0.69	<0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19 <0.19	0.33 1.6 1.7 1.8 1.5 1.4 1.9 0.38 3.3 0.2 1.2 <0.20 0.26 2.2 3.5
VPH C5-C8 Aliphatics C9-C12 Aliphatics C9-C10 Aromatics Target VOCs Benzene Ethylbenzene Methyl tert-Butyl Ether (MTBE) Naphthalene Toluene m+p Xylene o-Xylene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	100 1000 100 2 40 0.1 4 30 100 100	100 1000 40 500 100 20 500 100 100	100 1000 100 40 500 100 500 500 500 500	NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	<5.4 <5.4 <0.11 <0.11 <0.11 <b>0.3</b> <0.11 <0.11 <0.11	NT NT NT NT NT NT NT NT NT	<10 <10 <10 <0.21 <0.21 <0.21 <0.52 <0.21 <0.21 <0.21	NT NT NT NT NT NT NT NT NT	<4.5 <4.5 <4.5 <0.090 <0.090 <0.090 <0.23 <0.090 <0.090 <0.090	<4.5 <4.5 <4.5 <0.090 <0.090 <0.090 <0.23 <0.090 <0.090 <0.090	<3.9 <3.9 <3.9 <0.078 <0.078 <0.078 <0.20 <0.078 <0.078 <0.078	NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT	<7.3 <7.3 <7.3 <0.15 <0.15 <0.15 <0.37 <0.15 <0.15 <0.15 <0.15
Metals Antimony Arsenic Barium Beryllium Cadmium Chromium (III) Chromium (VI) Lead Mercury Nickel Selenium Silver Thallium Vanadium Zinc	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	20 20 1000 90 70 1000 100 200 20 600 400 100 8 400 1000	20 20 1000 90 70 1000 100 200 20 600 400 100 8 400 1000	20 20 1000 90 70 1000 100 200 20 600 400 100 8 400 1000	0.45 <1.7 51 <0.34 <0.34 NT 12 21 <0.14 11 <3.4 <1.7 <0.34 19 42	29 12 260 <0.48 3.8 NT 43 630 0.26 52 <4.8 4.5 0.48 12 1500	4.6 8.2 80 0.44 0.7 13 2 460 <0.16 18 <4.0 <2.0 0.4 14 330	NT <0.50 <b>5.0</b> <b>38</b> <0.50 <0.50 NT <b>18</b> <b>66</b> <0.15 <b>18</b> <5.0 <2.5 <0.50 <b>21</b> <b>51</b>	4.2 16 130 ⊲0.95 1.1 21 1.3 470 0.80 17 <9.5 <4.8 <0.95 26 300	<0.56 3.7 48 0.69 <0.56 NT 15 36 <0.16 <5.6 <5.6 <5.6 <2.8 <0.56 16 43	<0.42 2.1 26 <0.42 <0.42 5.7 <0.40 3.2 <0.15 6.2 <4.2 <2.1 <0.42 7.8 18	<0.44 <2.2 26 <0.044 0.44 NT 6.3 3.4 <0.14 5.9 <4.4 <2.2 <0.44 8.3 18	<0.48 <2.4 17 <0.48 <0.48 NT <4.8 21 <0.15 <4.8 <2.4 <0.48 <2.4 <0.48 <4.8 4.8 4.8 4.8 4.8	0.66 <15 210 <0.59 <0.59 <29 <0.59 270 <0.21 <29 <29 <29 <29 <29 <29 <29 <29 <29 <29	<0.40 2.6 30 0.56 <0.40 NT 8 14 <0.13 5.4 <4.0 <2.0 <0.40 11 28	1.7 8.3 94 <0.64 15 <0.59 330 <0.21 9.9 <6.4 <3.2 <0.64 16 210
VOCs Benzene Sec-Butylbenzene Cis-1,2-Dichloroethylene Ethylbenzene Isopropylbenzene (Cumene) P-Isopropyltoluene (p-Cymene) Naphthalene N-Propylbenzene Toluene Trichloroethylene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Xylenes	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	2 ~ 0.1 40 1000 100 4 100 30 0.3 1000 10 100	40 ~ 0.1 500 ~ 20 ~ 500 0.3 ~ ~ 100	40 ~ 100 500 ~ 500 30 ~ 500 30 ~ 500	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT	NT NT NT NT NT NT NT NT NT NT NT

### Abbreviations:

EPH and VPH= Extractable and Volatile Petroleum Hydrocarbons VOCs and SVOCs = Volatile and Semivolatile Organic Compounds PAH = Polycyclic Aromatic Hydrocarbons NT = Not Tested BDL = Below Detection Limit

MCP = Massachusetts Contingency Plan mg/kg = milligram per killiogram

<u>Notes:</u> ~ = No standard available

< = indicates parameter not detected BOLD Parameter detecte BOLD Parameter equals BOLD Parameter exceed BOLD Parameter exceed 1 = Standards are from Massachuset

## Table 2 Summary of Soil Analytical Results - Shallow Lead Concentrations Cedar Woods 618R Waverly Street Framingham, Massachusetts

Parameters	Units	MCP - Method 1 Cleanup Standards <sup>1</sup>		Sample Location, Date, and Depth										
		S-1/GW-3	SB-102 4/6/2020 0-1 feet	SB-106 4/6/2020 0-1 feet	SB-107 4/7/2020 0-1 feet	SB-108 4/7/2020 0-1 feet	SB-109 4/7/2020 0-1 feet	SB-110 4/7/2020 0-1 feet	SB-111 4/8/2020 0-1 feet	SB-112 4/7/2020 0-1 feet				
Metals LEAD	mg/Kg	200	73	68	67	900	790	11	21	25				

### Abbreviations:

MCP = Massachusetts Contingency Plan mg/kg = milligram per killiogram

### Notes:

< = indicates parameter not detected above laboratory method reporting limit, shown

1 = Standards are from Massachusetts Contingency Plan (MCP), 310 CMR 40, April 2014.

BOLD BOLD



Parameter detected above laboratory detection limit Parameter exceeds the MCP Method 1, S-1/GW-3 Cleanup Standard

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Cedar Woods 618R Waverly FRAMINGHAM > Contact TSDF App	Street 1, MA <b>017</b> 02 proval List No	Sub Part	EI N/ PI P No	PA E AICS 5 none (	EXE 531190 508) 532-5	<b>Nesha</b> 5470	pNF S	STRATEGIC I PO BOX 676 SHREWSBUF	ENVIRONMI RY, MA 0154	ENTAL S	ERVIC ES, Inc.	
C: WASTE INFC Waste Name Process Unused Comm	DRMATION SOIL/WATER BORINGS. SO STATION. SEE hercial Product	URCE OF SO ANALYTICAL No <b>S</b>	On File > LVENTS IS UNI pill Residue N	N WOWX	<b>ISDS</b> No N. FORME	Anal	ysis Y D GLAS	ves Sam SS COMPAN	ple No Y, AUTO PA	Form	ulary No Aller, Filling	3
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METALS MET	HOD TCLP Arsenic Barium	<5 <100	Cadmium < Merc TCLP < Lead <	<1 <0.2 <5	Chr Sele Mer	omium enium c Tot	<5 <1 <260	Silver Nickel Thalliu	<5 0 um 0	Z C C	inc 0 opper 0 brome-6	ingi kani
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### **GENERATOR CERTIFICATION**

To the best of my knowledge and belief, I hereby warrant and represent that the information contained and submitted in this waste profile and all attached documents is true, accurate, and complete and that no material fact has been omitted as to make this misleading. I understand that others may rely on this information in the handling and processing of the waste material described herein. By signing this waste profile, I am certifying that I am authorized to sign such documentation on behalf of the generator.

Atra /	1 Min	Thatcher W. Kezer, III	Chief Operating Officer	7/23/2020
Signature	0	Printed Name	Title	Date

In accordance with 40 CFR 264.12(b), Northland Environmental, LLC has the appropriate permits for, and will accept the waste the generator is shipping as described in this profile.