Preliminary Plan Enclosures
VOLUME III

- Phase I Environmental Site Assessment, 4/16/21
- Phase II Limited Subsurface Investigation, 10/22/21
- Site Investigation Report Addendum, 8/1/22

FUSS & O'NEILL

Phase I Environmental Site Assessment

4/16/21

PHASE I ENVIRONMENTAL SITE ASSESSMENT

ROBIN RUG MILL PROPERTY

TAX MAP 10, LOTS 42, 60, 61, 62, 73 (Mill Parcels)
TAX MAP 10, LOTS 32, 41, 43, 44, 68, 74, 76 (Parking Lot Parcels)
125 THAMES STREET

TAX MAP 10, LOTS 49 and 50
60 AND 70 THAMES STREET
BRISTOL, RHODE ISLAND

Prepared For:

Brady Sullivan Properties, LLC
670 N. Commercial Street, Suite #303
Manchester, New Hampshire 03101

BY
NOBIS GROUP®
18 CHENELL DRIVE
CONCORD, NH 03301

(603) 224-4182

Nobis Project No. 095560.260
April 16, 2021

April 16, 2021
File No. 095560.260

Mr. Shane Brady
President
Brady Sullivan Properties
670 N. Commercial Street
Manchester, New Hampshire 03101

Re: Transmittal of Phase I Environmental Site Assessment
125 Thames Street
Bristol, Rhode Island

Dear Mr. Brady:

Nobis Engineering, Inc. d/b/a Nobis Group® (Nobis) is pleased to present this Phase I Environmental Site Assessment (ESA) report for the above-referenced property. This work was performed within the context of ASTM International (ASTM) E 1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process".

In the signing of this document, we declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 Code of Federal Regulations (CFR) 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. This report is subject to the limitations in Appendix A.

Thank you for the opportunity to be of service to you. Please do not hesitate to contact us if you have any questions.

Sincerely,

NOBIS GROUP®

Clarence "Tim" Andrews, PG
Sr. Project Manager
Director of Environmental Services | Associate

Attachment

c: File No. 095560.260

Nobis Group®
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SUMMARY

Nobis Engineering, Inc. d/b/a Nobis Group® (Nobis) completed a Phase I Environmental Site Assessment (ESA) of the Robin Rug Manufacturing Facility located at 125 Thames Street in Bristol, Bristol County, Rhode Island in support of due diligence and prior to potential acquisition by Brady Sullivan Properties, LLC. This assessment was performed in accordance with ASTM E 1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". Any exceptions to, or deviations from, this practice are described in Sections 1.4 and 10.0.

The target property is comprised of 14 parcels (collectively referred to as the "target property") totaling approximately 3.47± acres of land and includes industrial, commercial, residential, parking lot and undeveloped land use. The target property includes the main Mill Building property (5 parcels) and 8 parcels located on adjacent Thames Street. These parcels are identified on the Town of Bristol Tax Map 10 as follows:

- *Robin Rug Mill Building Property* - includes parcels 10-42, 10-60, 10-61, 10-62, and 10-73. Robin Rug is a braided rug manufacturing facility. The building is made up of several interconnected buildings with industrial and commercial use.
- *Mill Parking Lots* - located on Thames Street east of the Mill Building and includes parcels 10-41, 10-44 and 10-68. These parcels are used as a parking lot for the mill.
- *Lot 10-32* – located at the corner of Church and Thames Street is a seasonal parking lot rented from the property owner by the Town of Bristol.
- *Lot 10-76, 10-43 and 10-74* - located between Hope Street and Thames Street and consists of a gravel parking lot.
- *Lot 10-49* – located at 60 Thames Street. This property is a single-family residence.
- *Lot 10-50* – located at 70 Thames Street. This property is a two-family residence.

The target property is located along the waterfront of Bristol Harbor within the Town's Waterfront Planned Unit Development zone. The target property is abutted by mostly residential properties (some commercial properties) to the north and east, by the Bristol Elks lodge to the southwest, and by the Maritime Welcome Center (former armory and community center) to the northwest. The parcels located east of Thames Street are located in the Downtown and Residential R-6 zones.

According to Nobis' historical review, the Mill was originally developed as a textile mill producing cottons and yarns in the late 1800s though the mid-1900s. In circa 1975, Robin Rug purchased the property who operated the mill for the production of braided rugs. Residential

properties at 60 and 70 Thames Street were historically residential and used as single or double-family homes. Prior to the 1960s, green houses were reportedly present on Lot 10-76. The Mill paved and gravel parking lots have historically been undeveloped, while the Church and Thames Parking Lot (lot 10-32) appears to have previously been developed as a residence, store and boarding house.

Based upon Nobis' site observations on February 19 and 20, 2021, historical, former, and current operations involve materials, structures and/or equipment which included the use, storage or generation of petroleum and/or hazardous substances. Parking lot parcel 10-41 formerly contained two (2) 20,000-gallon No. 6 oil USTs, which stored oil for the boilers in the mill building. Except for lot 10-41, Nobis observed no potential sources of petroleum and/or hazardous materials on the mill parking lot parcels or the two residential. Interviews and a review of records at the wastewater treatment plant revealed Robin Rug had a local permit for sewer discharge for wastewater related to rug dyeing operations. No violations of the sewer discharge permit were noted. However, the permit-related reporting submittals did indicate the generation of heavy metals and chlorinated volatile organic compounds (CVOCs) in the wastewater discharge.

The target property (125 Thames Street) was listed in three environmental database records searched through EDR – registered UST Facilities, RCRA Non-Generator/FINDS/ECHO and Rhode Island Air databases. The UST record was for the removal of the two (2) 20,000-gallon No. 6 oil USTs in 2012. The two USTs were not identified to be leaking, however no information of removal of the piping is known. The FINDS record indicated the target property was listed in the RIDEM regulatory programs for permits, licenses or other vital records. The RCRA record indicated the facility as a non-generator of hazardous waste.

No adjoining properties or nearby area properties were identified to pose a potential environmental concern to the target property. Two "high risk historical dry cleaner" (one at 301 Hope Street and a second at 76 State Street) were found within 600 feet of the target property both with a record of operation from 1969 through 1993. The dry cleaner property at 76 State Street (County Cleansers) is still an active and registered dry cleaner but shows no RCRA violations, releases or spills.

Nobis has completed a Phase I Environmental Site Assessment of the Robin Rug Mill and properties, Bristol, Rhode Island. This work was performed within the context of ASTM E 1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". Any exceptions to, or deviations from, this practice are described in Sections 1.4 and 10.0. This Phase I assessment identified *nine (9) RECs, two historical REC (HRECs),*

one (1) de minimis condition (DMC) and several Business Environmental Risks (BERs) associated with the target property, and which are as follows:

RECs identified included:

REC-1 - Historical Use as Textile Mill and Rug Manufacturing

The main mill buildings have a long history of storage, usage of petroleum (mostly oils) and hazardous substances (chemicals including solvents and dyes containing metals) and residual wastes associated with textile manufacturing (cotton and wool) and later braided rug manufacturing. The property contains several pieces of original equipment (i.e., transformers) and many original subsurface structures associated with former mill operations (i.e., a large cistern/water holding tank, trenches/floor drains in dye house). Several historical operations included use of petroleum and/or hazardous substances in various areas throughout the mill and included: a transformer storage, electrical repair shop, machine shop, machine oil shop, boiler room and dye room. Historical uses and management of petroleum and hazardous substances from the period between 1839 and circa 1975 are undocumented and therefore is considered a REC.

REC-2 – Historical Gasoline USTs

A 1920 Sanborn Map shows a 1,200-gallon buried gasoline tank associated with a former structure that is now in the present-day location of Building 7/7A. A 1911 Sanborn Map shows a 230-gallon UST at the southwest corner of Building 7A associated with a former auto station. GZA's 2005 report indicates this tank may have been removed during prior construction. However, no documentation on these suspect UST removals is known. Due to lack of information, this is considered a REC.

REC-3 - Hydraulic Lift

Hydraulic lift observed in sidewalk on east side (Thames Street) of building. Nobis observed an oil reservoir in basement of Building 1 and staining in this area. This observation is considered a REC.

REC-4- Chemical/Waste Drums

Drums containing suspect oils and waste oils were observed in several locations within the mill building. Two drums were observed in basement of Building 3 (one 30-gallon and one 55-gallon) adjacent to out of use piping for the former 20,000-gallon No. 6 oil USTs, which were located on Lot 10-41 across Thames Street. The 55-gallon drum was observed to be leaking oil. Cracks were observed in the concrete floor in this area and oil was observed on standing water located adjacent to drums. Drums with a frozen water/No. 6 oil mixture were observed in the boiler room in

Building 6. Several drums and 5-gallon buckets containing used lubricating oil were observed along west side of Building 6. The concrete floor appeared to be in condition and without overt evidence of cracking. The drums and buckets appeared to be in good condition and without leaks. The presence of accumulated waste remaining on the target property represents a risk of release to the property and is therefore considered a REC.

REC-5 – Floor Staining Mill Basement

Drums reportedly containing lubricant oil were observed in the basement of Building 7. Considerable dark black-brown staining was observed over a large area on concrete floor in basement of Mill Building 7 & 7A. The concrete floor appeared to be in good condition and without overt evidence of cracking. Drums appeared to be in good condition and without evidence of leaking. West of Building No.2, staining was observed on the concrete floors but no substantial cracks were observed. Concrete staining indicative of machinery or equipment releases is considered a REC.

REC-6 – Historical Oil Leaks from Cable Weighted Elevators Mill Buildings

The mechanical workings, located in a room on the roof of Building 4, for one of the five cable weighted elevators was observed. Reportedly 2 to 3 gallons of gear oil is contained in a gear box inside the room. It appeared that there was oil leaking when the elevators were in use. The mechanical workings in the room were observed to be stained with oil and a pan, presumably to catch drips, was filled with oil and observed beneath the gear box. The elevator shaft bottoms were not observed for oil leakage and thus this data gap could be significant. The release of oil from the mechanical workings with potential to impact soil or groundwater is considered a REC.

REC-7 – Suspect PCB-Containing Transformers/Historical Transformer Room

Three (3) transformers were observed to be stored on the east side of the basement in Mill Building 1. Labels indicated they were made by General Electric and are dated from the early 1900s. Labels did not identify whether they contained PCB containing oil, but based on their age, they are suspected to contain PCB oil. The presence of these transformers and the historical transformer room in Mill Building 1 are considered a REC based upon age of this area and lack of information on transformer-related activities.

REC-8 –Former Continuous Dye Process Area

Two floor drain trenches were observed in the continuous dyeing process room in Building 6 and in the Building addition. After yarn was dyed it would go through dryer machines. Trenches would catch dye that dripped from yarn during drying. Effluent from the trenches reportedly went to sanitary sewer and WWTP. VOCs were reported in effluent wastewater lab results from 1990 through 2016 observed at Bristol WWTP. The known conveyance of waste liquids containing

VOCs through the series of concrete drainage trenches associated with the continuous dyeing process room constitutes a REC.

REC-9 – Older Stock Kettle Dye Room with Trenches/Floor Drains

One floor drain/trench and one floor drain associated with the old dye kettle room was observed in Building 5. The trench reportedly drained to a UST before being discharged to the sanitary sewer. The owner stated the trench would drain very slowly when connected directly to the sanitary sewer, so a UST was installed as a holding tank for the effluent from the dye kettle. Afterwards, water would flow from the trench into the UST and then discharge to the sanitary sewer. This revised setup allowed the water in the trench area to drain more quickly and not slow down the dye process. The UST (holding tank) is reportedly located on the northwest exterior of Building 5. All effluent reportedly went to sanitary sewer and WWTP. VOCs were reported in effluent wastewater lab results from 1990 through 2016 observed at Bristol WWTP. The known conveyance of waste liquids containing VOCs through the series of concrete drainage trenches associated with the old kettle dye room constitutes a REC.

Historical REC (HRECs) identified included:

HREC-1 Former 20,000-gallon No. 6 oil USTs

On Lot 10-41, two (2) 20,000-gallon No. 6 oil USTs were removed from the ground in 2012, the results of which were submitted to the Rhode Island Department of Environmental Management (RIDEM). The two 20,000-gallon USTs used for storage of No. 6 fuel oil were not identified to be leaking. These USTs were removed and closed out in association with local fire department and RIDEM in 2005. These tanks were consumptive use and therefore were exempt from UST Closure Assessment activities per RIDEM. Because some stained soil was observed, four (4 part) composite samples pf soil were collected and analyzed from the tank grave for TPH by Method 8100. TPH was not detected in soil (<20 mg/kg). Ordinarily, soil samples for volatile should not be composited and thus these results may be biased low. Additionally, no information on whether the pipe chases from the USTs (which ran under Thames Street to the Mill Building) were removed and/or if subsurface sampling was done.

HREC-2 – Historical LUST Petroleum Release - Adjacent Properties

Two historical petroleum releases occurred on adjacent properties – a release from a 2,275-gallon #2 heating oil LUST in 2010/2011 at the Maritime Welcome Center (adjacent to Mill Lot 10-42) and a release from a 1,000-gallon gasoline LUST at a former bank/325 Hope Street (adjacent to Lot 10-43). Both of these releases involved soil removal and were closed out with no further action by RIDEM. However, available sources did not indicate whether shallow groundwater was impacted.

DMCs identified included:

DMC-1 Floor Staining Mill Buildings 3, 4 and 5

Minor staining was observed on and beneath machinery (on hard wood floors) used in inactive work areas located on some of the upper floors of the Mill Building.

BERs identified included:

BER-1 -Suspect Hazardous Building Materials

Lead-based paint in interior and exterior (western exterior wall of Building 1). Suspect ACM – asbestos floor tiles in Mill office area Building 4, ACMs on piping insulation in the basement of Mill Building 3, ACM in bags (numerous estimated 5 to 75 bags) in the basement of Mill Building 1, ACM on boiler face plates (4 boilers). Suspect PCBs in equipment (old transformers) and building materials (windowsills, caulk, doors, painted surfaces).

BER -2 – Old Cistern Structure

This subsurface structure is located on the exterior/west side of the Mill Building 1. The cistern is located beneath a former water tower, which was removed. Little is known about its origin or use. The age of this subsurface structure is not clear but may be associated with the former washroom in Mill Building 2 as shown on the 1903 Sanborn Map.

BER-3 – Flood Zone Designation

Mill property located adjacent to Bristol Harbor which is tidally influenced buildings are located within a VE-14 flood zone. Basement areas are susceptible to flooding.

BER -4 – Unknown Metal Pipes Lot 10-76

Unknown metal pipes were observed on the northern edge of Lot 10-76 adjacent to a carriage house/garage type structure. It is unclear what these pipes are for and/or whether this piping is on the subject property or is associated with the adjacent lot to north or related to the former greenhouses which were located on this lot.

BER-5 – Filling of Land

According to historical topographic maps and aerial photos, portions of the target property (the mill) was filled in to enlarge the land area for development along the harbor in the early 1900s. The chemical nature and source of the fill materials is unknown. Future redevelopment activities that require soil excavation/removal from the target property may require off-site management.

BER-6 –Former Heating Oil AST Overfill Mill Building 6

According to the 2005 GZA Phase I ESA report, 2,830 pounds of "oil-contaminated soil" was removed from the boiler room/basement area circa 1987 when a 5,000-gal. AST containing No. 6 oil was replaced. It is believed the "soil" was in fact "oil-impacted sand" within a concrete block berm that existed around the then in use AST. The sand was placed beneath the AST up to the bottom of the AST to catch and contain small incidental spills and/or overfills. The property owner believes the AST was "not leaking" and that the sand-filled berm was a form of secondary containment to catch overfills. Nobis observed the concrete floor near the AST to be in good condition and no cracks or staining were observed. There is currently a 5,000-gal. AST containing approximately 300-gals. of No. 6 oil located in the same location. The building is no longer heated with No. 6 oil.

BER-7 – Boiler Room Trenches/Former Machine Shop

A trench filled with water was observed beneath the No. 6 oil boiler room. A maintenance person once incorrectly installed a filter on the boiler and a small amount of No. 6 oil leaked into this trench before it was discovered and corrected. This room adjacent to the former engine room was involved with usage and management of oil. The long history of oil use to the boiler room and historical handling and management of oil in these areas constitute a BER.

A Phase II Investigation is recommended at the target property due to the long-term (100+years) history of use for rug manufacturing and other textile mill operational activities (cotton and worsted wool spinning), particularly on the Main Mill Parcel.

1.0 INTRODUCTION

Nobis Engineering, Inc. d/b/a Nobis Group® (Nobis) has completed a Phase I Environmental Site Assessment (ESA) for the properties identified by the Town of Bristol's Assessor's office as Lots 10-32, 10-41, 10-42, 10-43, 10-44, 10-49, 10-50, 10-60, 10-61, 10-62, 10-68, 10-73, 10-74 and 10-76 on Tax Plat 10 located in Bristol, Bristol County, Rhode Island (target properties). This work was performed within the context of ASTM E 1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". This Phase I ESA was completed as part of due diligence requirements in association with a property transaction.

1.1 Purpose

The objective of this Phase I ESA was to assess environmental conditions at the target property and vicinity for Recognized Environmental Conditions (RECs), historical RECs (HRECs), Controlled RECs (CRECS) and de minimis conditions associated with the presence of *petroleum products* or *hazardous substances* in conformance with ASTM E 1527-13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process". The ASTM Standard Practice E 1527-13 defines these terms as follows:

> *RECs are the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.*
>
> *HRECs are a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls.*
>
> *CRECs are a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.*

De minimis conditions (DMCs) are those situations that do not present a material risk of harm to public health or the environment and generally would not be subject to enforcement action if brought to the attention of the regulating authority.

No ASTM non-scope items are included as part of this Phase I ESA.

1.2 Detailed Scope-of-Services

To meet the objectives of the Phase I ESA, Nobis performed the following tasks:

- Reviewed Rhode Island Department of Environmental Management Services (RIDEM) and United States Environmental Protection Agency (USEPA) regulatory database listings concerning environmental conditions at, and in the vicinity of the target property, as provided by Environmental Data Resources, Inc. (EDR).
- Contacted municipal officials of the Town of Bristol, Rhode Island to obtain information pertaining to present and historical environmental conditions at the target property and adjacent properties.
- Reviewed available history of ownership and land usage records and interviewed persons with knowledge of the target property to obtain past usage information.
- Reviewed historical aerial photographs and/or topographic maps to aid in assessing local geology and in assessing past and present land use at the target property and vicinity.
- Conducted a reconnaissance of the target properties on February 17 and 18, 2021 to assess surficial and general environmental for evidence of RECs associated with past or present *petroleum product* or *hazardous substance* handling or storage activities. Adjacent properties were viewed from the public street or sidewalk or from the target property.
- Preparation of this report summarizing the results of the assessment.

1.3 Significant Assumptions

It is assumed that federal, state, and local records are generally complete and current. The preparer assumes that all individuals contacted and/or interviewed during the preparation of this Phase I ESA have responded in good faith. Nobis is entitled to rely on all information gathered during this scope of work.

1.4 Limitations and Exceptions

This Phase I ESA is intended to assess the target property for significant environmental issues. It is not intended as a guidance document for potential future remedial action. In addition, this ESA is subject to the limitations included in Appendix A.

1.5 Special Terms and Conditions

No special terms or conditions apply to this project.

1.6 User Reliance

This Phase I ESA has been prepared exclusively for the use of Brady Sullivan Properties, LLC. With the exception of release to any third party by Nobis or Brady Sullivan Properties, LLC, reliance on this report is for informational purposes only. Nobis makes no warranties to person(s) or entity(ies) other than Brady Sullivan Properties, LLC to rely on the information provided in this report. Any person(s) or entity(ies) wishing to use this information shall do so with the written permission of Nobis and the contract for which it is intended. Prior approval from Nobis is required for disclosure of information obtained in this report.

Continued viability of this report is subject to ASTM E 1527-13 Sections 4.6 and 4.8. If this ESA will be used by a different user(s) (third party) than the user(s)for whom the ESA was originally prepared, the third party must also satisfy the user(s) responsibilities in Section 6 of ASTM E 1527-13.

1.7 User Obligations

As defined in ASTM E 1527-13, the user responsibilities are as follows:

- Check title records for environmental liens and activity and use restrictions.
- Disclose specialized knowledge and experience.
- Explain why the purchase price is below market value, if it is discounted.
- Answer interview questions in good faith.
- Provide information as outlined in Section 6 of ASTM E 1527-13 including completing the User Questionnaire attached in Appendix B.

For the purpose of this ESA, the *User* is defined as Brady Sullivan Properties, LLC. A representative of the *User* provided the information required under Section 3.0, as well as responses to the User Questionnaire.

1.8 Data Gaps

Efforts were made by Nobis to obtain *user* provided information and review all reasonably ascertainable resources to determine historical uses of the target property and surrounding properties to identify the possibility of RECs in connection with the target property. Objectives are completed within the framework of research outlined above; however, data failure may be

encountered. As defined by ASTM, data failure or data gaps occur when historical research is reasonably ascertained and reviewed, but the intended objectives have not been met. This ESA was limited by the following:

- A title search was not conducted as part this Phase I ESA because this review was out of scope. However, both the User (Arthur Sullivan of Brady Sullivan Properties) and the property owner were not aware of environmental liens that have been placed on the target property.

- Not all standard historical sources, as defined per ASTM E1527-13, were reviewed as part of this assessment. In addition to recorded land title records, building department records were not reviewed. Based on information provided from the remaining standard historical sources, additional historical information obtained from building department records would not likely have assisted in meeting the historical use requirement; therefore, this data gap is not expected to impact the results of this assessment.

- Within the mill buildings, not all areas could be visually assessed due to conditions or safety concerns. For example, the bottom of the shafts of the elevators (which are cable weighted) were not closely inspected. However, Nobis was able to (using flashlights) observe oil on the cables and oil drips extending to the bottom of the shaft. Based upon these limited observations, Nobis could not confirm the extent of oil drippings at the shaft bottom. Therefore, this data gap is expected to impact the results of this assessment.

- Per ASTM E1527-13, past owners, operators, and occupants of the subject property who are likely to have material information regarding the potential for contamination at the subject property shall be contacted to the extent that they can be identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. Nobis was able to interview the current owner (Russell Karian) owner of the target property. Mr. Karian's father previously owned the mill under the name Robin Rug since 1975. From the period 1839 through 1975 (over 100+), little detailed information about mill operations is known. Thus, a complete history of mill operations at the target property, including management of petroleum and hazardous substances, is not fully documented. This data gap has significant impacts on the findings of this assessment.

- A Freedom of Information Act (FOIA) Request was made to the Town of Bristol Fire Department to determine if they have files related to a historical hazardous materials release that may have occurred at the subject property. As of the date of this report, a

response to Nobis' FOIA request has not been received. Based on Nobis' research to date, Nobis does not anticipate the lack of a response from Town of Bristol Fire Department will significantly alter the conclusions or recommendations of this report. However, if information is received from this FOIA request that significantly impacts the conclusions of this report, this information will be forwarded upon receipt.

It is the opinion of the Environmental Professionals (EP) writing this report that one or more of the data gaps noted above have some impact on Nobis' ability to identify *RECs* in association with the target property.

2.0 TARGET PROPERTY DESCRIPTION

2.1 Location and Legal Description

The target properties are located at 125 Thames Street, 60 Thames Street, 70 Thames Street, and 317 Hope Street in Bristol, Bristol County, Rhode Island and are identified by the Town of Bristol on Plat 10 as follows:

125 Thames Street Lots:	Lots 10-42, 10-60, 10-61, 10-62, 10-73
60 Thames Street:	Lot 10-49
70 Thames Street:	Lot 10-50
317 Hope Street:	Lot 10-43
Other Lots:	Lots 10-32, 10-41, 10-44, 10-68, 10-74 and 10-76.

According to the Town of Bristol's records the properties, totaling 3.87 acres of land, are owned by either Russ-Russ Realty Co. or Karian Realty Co., owned by Mr. Russell Karian, or owned by Mr. Karian outright. A Locus Plan is provided as Figure 1 and a Site Plan is provided as Figure 2. Photographs taken during the inspection are provided on Figure 3.

2.2 Previous Environmental Investigations

The User provided Nobis with a 2005 Phase I ESA prepared by GZA GeoEnvironmental, Inc. (GZA). Copies of pertinent documents from this report are provided in Appendix C. The 2005 GZA Phase I identified historic uses of the mill buildings at 125 Thames Street as potential environmental concerns. The presence of floor staining, containers of hydraulic, lubricating and waste oil, and evidence of dye-stained areas were also noted as concerns. Two 20,000-gallon underground storage tanks (USTs) containing No. 6 heating oil were observed on the Site and were considered a REC in GZA's report. Closure of the USTs was recommended.

The GZA report also noted 2,830 lbs of oil-contaminated soil was removed from the boiler room in 1987. The soil was removed from a secondary container, along with the concrete cinder block berm, during the replacement of the 5,000-gallon No. 6 oil Above-Ground Storage Tank (AST). Additionally, the Phase I ESA report identified the probability of lead-based paint (LBP) within the manufacturing buildings and a limited survey of asbestos materials identified potential asbestos in pipe insulation and tiles within the offices. *Note: In 2021 as part of this assessment, the property owner clarified that the "2,830 lbs of oil-contaminated soil" was in fact not soil but rather oil-contaminated sand from inside a concrete berm constructed around the then heating oil AST. The sand-filled berm was used as a form of secondary containment likely for overfills.*

Along with the Phase I ESA, GZA preformed a Phase II subsurface investigation of soil and groundwater. GZA advanced three borings up to approximately 15-feet below ground surface

(bgs) and installed three groundwater monitoring wells (GZ-1, GZ-2 and GZ-3). Nobis did not observe these monitoring wells at the time of our reconnaissance in February 2021. GZA's report indicated there was no visible staining or evidence of contamination in the soil borings and groundwater samples did not have concentrations of VOCs or TPH that exceeded applicable values.

2.3 Site and Vicinity General Characteristics

The target properties are located along Thames Street, between Church Street and Hope Street and includes the Mill complex, residences, paved parking areas and vacant lots of land. The target properties in total consist of approximately 3.47-acres of land in Bristol, Bristol County, Rhode Island. The target property area is generally flat with local topography sloping slightly westward toward Bristol Harbor.

Residential and commercial properties are situated to the north and east of the target property area. Recreational land is also located to the north of the target property area and is directly adjacent to the north.

Based on the Town of Bristol Zoning Map (source: www.bristolri.gov), the Mill parcels lie within the Waterfront Planned Unit Development zone (downtown waterfront area). The Church and Thames Parking Lot, Mill Parking Lot, and the properties at 60 and 70 Thames Street lie within the Waterfront Zone, while the Gravel Parking Lot parcels lie within the Downtown Zone. Properties to the north lie within the Waterfront Zone and properties to the east lie within the Downtown or Residential R-6 Zone. Properties to the south also lie in the Residential R-6 Zone. A copy of the zoning map is provided in Appendix D.

2.4 Current Use of the Site

Currently, the target properties are in use for industrial purposes (braided rug factory mill), residential purposes (house lots east of Thames Street) including paved and unpaved gravel parking.

2.5 Descriptions of Structures, Roads, Other Improvements on Site

The mill parcels contain a large mill building complex, comprised of several interconnected buildings, and asphalt paved access on the north and south sides of the Mill. Residential structures are present at the 60 and 70 Thames Street (Lot 10-49 and Lot 10-50). The area behind Lot 10-49 (70 Thames Street) includes a paved parking lot. The Mill Parking Lot and Church and Thames Parking Lots are paved with bituminous asphalt and have no structures present. The

Gravel Parking Lot is undeveloped and consists of a mix of gravel, sand, and grass. Three groundwater monitoring wells are known to be present near the Mill building from the previous Phase I ESA and subsurface investigation by GZA, however these were not observed during site reconnaissance.

2.6 Current Use of Adjoining Properties

Properties to the north, south and east are residential in the immediate vicinity. Directly north, adjacent to the Mill, is a public park and town dock area with ferry services. Further to the north and east of the target properties are commercial properties that include restaurants and small shops. To the southwest, adjacent to the target property is the Bristol County Elks lodge, to the northwest is the Maritime Welcome Center and Harbormaster's offices. Directly to the south is a U.S. Coastguard base. Further to the south and immediately west is Bristol Harbor.

2.7 Target Property Physical Setting

The target property is depicted on the U.S. Geological Survey (USGS) Bristol, Rhode Island 7.5-minute topographic quadrangle at an elevation of approximately ±10 to 20 feet (depending on the target parcel) referenced to the North American Datum of 1983 (NAD 83). Bedrock beneath the target property is comprised of the Granites of Southeastern Rhode Island, a Late Proterozoic granite igneous rock that is generally massive, coarse-grained and equigranular, but is locally foliated and lineated (Hermes, O.D., Gromet, L.P., and Murray, D.P., 1994, Bedrock Geologic Map of Rhode Island: Rhode Island Geologic Survey, scale 1:100000).

According to the Unites State Department of Agriculture's Natural Resource Conservation Service (NRCS) Web Soil Survey (http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx), soil beneath the target property consists of a Newport-Urban land complex, 1 to 15 percent slopes and well drained on the east side of the Thames Street, and Urban land on the west side of Thames Street. Distribution of the different soil types across the target property are depicted in the NRCS Soil Map included in Appendix E.

As shown in Appendix E, the target property is located on the National Flood Insurance Program Flood Insurance Rate Map (FIRM) for the Town of Bristol, Bristol County, Rhode Island - Map Number 44001C0014H, effective July 7, 2014. The FIRM image was available in the Federal Emergency Management Agency (FEMA) online database and was reviewed as part of this assessment and is included in Appendix E. The map depicts the Mill area of the target property in Zones, AE and VE, special flood hazard areas without a base flood elevation or depth and the Parking Lot and Residence areas of the target property in Zone X, where there is a 0.2% annual change of flood hazard.

3.0 USER PROVIDED INFORMATION

Mr. Arthur W. Sullivan, a representative of Brady Sullivan Properties, LLC responded to a User Questionnaire. The completed questionnaire is attached in Appendix D.

3.1 Environmental Liens

The *User* is not aware of any environmental liens for the target property.

3.2 Activity and Use Restrictions

The *User* is not aware of activity and use limitations for the target property.

3.3 Specialized Knowledge

The *User* does not possess any specialized knowledge of the target property.

3.4 Valuation Reduction for Environmental Issues

The *User* is not aware of or provide information concerning any value reduction of the target property due to environmental concerns. This is consistent with the Town of Bristol Tax Assessor Cards which do not indicate any reduction in real estate value due to environmental reasons.

3.5 Commonly Known or Reasonably Ascertainable Information

The *User* indicated that they are aware of the past use of the target property but are not aware of chemicals that were once present, releases or cleanups that have taken place.

3.6 Obviousness of Presence of Contamination

The *User* indicated that they are not aware of any obvious indicators of the presence or likely presence of contamination but area aware that the target property had previous environmental investigations and a closure/removal was completed for the two (2) No. 6 20,000-gallon oil USTs.

3.7 Reason for Performing Phase I

The *User* cited due diligence in support of potential purchase of the property as the reason for performing this Phase I ESA.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

As part of this ESA, state and federal environmental records were reviewed in the form of an environmental database report provided by EDR. A copy of the database report is included as Appendix F. Information was also obtained from other local municipal and state records. The following is a summary of significant findings from this review:

Federal and State Regulatory Agencies

EPA National Priority List (NPL)

The EPA's NPL is a list of confirmed or proposed Superfund facilities. The target property was not identified as an NPL facility. No NPL facilities were identified within a ±1.0-mile radius of the target property.

Federal Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List

The CERCLIS database is a listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the CERCLIS Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities. The target property was not identified as a CERCLIS facility. No CERCLIS facilities were identified within a ±0.5-mile radius of the target property.

Comprehensive Environmental Response, Compensation and Liability Information System Archived Sites (CERCLIS-NFRAP)

The CERCLIS-NFRAP database is a database of archived CERCLIS facilities at which, to the best of the EPA's knowledge, assessment has been completed and the EPA has determined that no further steps will be taken to list this site on the NPL. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site. The target property was not identified in the CERCLIS-NFRAP database. No CERCLIS-NFRAP facilities were identified within a ±0.5-mile radius of the target property.

Emergency Response Notification System (ERNS) Releases

The ERNS database is the EPA's database of emergency response actions. The target property was not identified as an ERNS site. No ERNS sites were identified within a ±0.5-mile radius of the target property.

Federal Resource Conservation and Recovery Act (RCRA) Handlers

The RCRA database is the EPA's database of registered hazardous waste generators and Treatment, Storage or Disposal Facilities (TSDF). The target property was not identified as a TSD facility, corrective action (CORRACTS) facility, RCRA Large Quantity Generator (RCRA-LQG), RCRA Small Quantity Generator (RCRA-SQG), or RCRA Very Small Quantity Generator (RCRA-VSQG). The target property was identified as a RCRA NonGen/NLR, indicated no waste is currently being generated.

The database report did not identify any RCRA CORRACTS facilities within a ±1.0-mile radius of the target property, or any RCRA TSD facilities within a ±0.5-mile radius of the target property. Additionally, there were no RCRA-LQG identified within a ±0.25-mile radius of the target property.

The data base report identified three (3) RCRA-SQG within a ±0.25-mile radius of the target property. The listed facilities were identified as Photo World and County Cleansers, located north-northeast of the target property, and the US Coast Guard Bristol Station, located southeast of the target property. The database report also identified one (1) RCRA-VSQG within a ±0.25-mile radius of the target property. The listed facility was identified as Michael J. Allen, DM (dentist). and is located to the north of the target property. Given the lack of violations, documented waste streams, and/or distance from the target property, the listed facilities are unlikely to have impacted the target property.

Federal Institutional Control / Engineering Control Sites

The Federal Institutional Control / Engineering Control (IC / EC) registry is the EPA's database of Superfund or RCRA sites that have either institutional or engineering controls in place as part of the remedial action to achieve or maintain protection of human health and the environment. The target property was not identified as a Federal IC/EC. No Federal IC/EC sites were identified within a ±0.5-mile radius of the target property.

State Institutional / Engineering Control Sites

The State IC/EC database consists of state-maintained databases which contain information on sites with Activity and Use Restrictions (AURs or RI AUL) where remedial action relies on the restriction of site activities and uses to achieve or maintain protection of human health and the environment. The target property was not identified as a State IC/EC site. Three (3) State IC/EC sites (J.T. O'Connell Site, Bristol Furniture, and the National Grid Thames Street MGP Site) were identified within a ±0.5-mile radius of the target property. ICs at these off-site properties have no impact on the target property.

State and Tribal Hazardous Waste Site Inventory (SHWS) Sites

The SHWS Sites database is a database of confirmed disposal sites, locations to be investigated, waived, deleted, and reserved sites. The target property was not identified by the database report as a SHWS site with RIDEM.

Five (5) SHWS sites were identified within a ±0.5-mile radius of the target property. According to the report, four of the five listed sites are inactive. Based on the locations and status of these sites they are unlikely to have impacted the target property.

According to the report, the remaining listed active site, National Grid Thames Street Manufactured Gas Plant, is situated to the north relative to the target property. At the same address, Premier Thread and Coats America is listed with a facility status of "monitoring".

Seven (7) additional SHWS sites were identified by the database report greater than 0.5-mile radius of the target property. Three (3) of the seven facilities are listed as inactive. Active sites are identified as Tanyard Reservoir, Buttonwood Industrial Complex and National Grid Hope Street Manufactured Gas Plant (Guiteras Middle School). The remaining site is identified as Hope Street Gas Station and has a facility status of "monitoring".

RIDEM and Tribal Spill Reports

The SPILLS database contains surface, groundwater, and hazardous materials spills as reported to RIDEM. Additionally, SPILLS 90 records were obtained from FirstSearch, and includes spill and release records pertaining to chemical, oil and/or hazardous substances spills. The target property was not identified as a SPILL site by the EDR report.

Two (2) SPILLS sites were identified by the database report within a ±0.25-mile radius of the target property. These sites were identified as National Grid Thames Street Manufactures Gas Plant (MGP) and Premier Threads and Coats America at the same address, which had a No. 6 oil spill in 1989, and the Estate of Eva M. Formisano, which reported a diesel oil spill in 1997.

State and Tribal Landfill and/or Solid Waste Disposal Sites (SWF/LF)

State/Tribal SWF/LF type records contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet certain RCRA criteria for solid waste landfills or disposal sites. The target property was not identified as a current or former SWF/LF. No State or Tribal SWF/LF sites were identified within a ±0.5-mile radius of the target property.

State and Tribal Leaking Underground/Above-ground Storage Tank (LUST/LAST) List

The LUST/LAST list is a database of sites where leaking underground and above-ground storage tanks have been identified/reported and is maintained by the Rhode Island Department of Environmental Management. The database report did not identify the target property as a LUST/LAST site.

The database report did not identify any LAST sites within ±0.50-mile radius of the target property. However, the database report identified twelve (12) LUST sites within ±0.50-mile radius of the target property. Each of the listed sites have either been listed as having soil removed only with no further action required or listed as inactive by RIDEM.

Two (2) of the nearest LUST sites are identified as Bristol Community Center (adjacent to Lot 10-42) and the former Fleet National Bank at 315 Hope Street (adjacent to Lot 10-43). The Bristol Community Center is located at the present day Maritime Welcome Center and had a 1,000-gallonn No. 2 heating oil LUST and contaminated soil removed in 1992. At the former Fleet National Bank property, a 1,000-gallon leaking gasoline UST and contaminated soil was removed in 1990. Both of these adjacent LUST sites were closed out and have a status of No Further Action. However, no information about impacts to groundwater (which is shallow) were noted. Given the lack of historical groundwater impacts (now over 30 years old) is unknown.

The remaining sites are located further away and are listed as the Bristol Welfare Department, Thames Street Landing, U.S. Post Office Building, First Congregational Church, Former Bank of America, Our Lady of Mt. Carmel School, the Estate of Eva M. Formisano, Barnacle Bills Restaurant, Matos Associates, LLC., and Lobster Pot Restaurant.

State and Tribal Underground Storage Tank (UST) and Aboveground Storage Tank (AST) List

The UST/AST list is a database of registered underground and aboveground storage tanks maintained by the Rhode Island Department of Environmental Management. The target property was identified as a UST/AST facility.

The EDR report listed the target property as a UST facility. The report indicates the target property facility to have contained two (2) 20,000-gallon No. 6 heating oil USTs, installed in 1984, and are listed as permanently closed. These USTs were not listed as leaking in the database.

The database report identified nineteen (19) UST and three (3) AST registered tank facilities within a ±0.25-mile radius of the target property. Of the listed UST facilities, fifteen (15) have the tanks listed as permanently closed and/or are considered inactive. One UST is listed as abandoned. The remaining listed UST facilities are identified as Bristol Town Hall, County

Cleansers and Walley School which have in-use USTs. According to the report, no violations have been reported to date. Given the lack of violations and regulatory status, the listed UST facilities are unlikely to have impacted the target property.

The listed AST facilities are identified as Bristol/Warren School District-Reynolds School, U.S. Coast Guard ANT Bristol and Coats American-Bristol Plant (Premier Thread Company). The Bristol/Warren School District-Reynolds School and U.S. Coast Guard ANT Bristol ASTs are listed as in-use. The remaining AST has a listed status of "Other".

Federal Brownfields Sites

The Federal Brownfields Sites database assists EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield Grant Programs. The target property was not identified as a Federal Brownfields site. No Federal Brownfield sites were identified within a ±0.5-mile radius of the target property.

State and Tribal Brownfields Sites

The RIDEM maintains a database of Brownfields sites that are registered with the agency. The database may not include the federal Brownfields sites. The target property was not identified as a site. No State or Tribal Brownfield sites were identified within a ±0.5-mile radius of the target property.

U.S Brownfields Sites

This database is an EPA listing of Brownfields properties from the Cleanups-In-My-Community program from where Brownfields properties information is reported to the EPA including areas under the Brownfields grant programs. The target property was not identified as a U.S. Brownfield site. The database report identified two (2) U.S. Brownfields facilities within a ±0.5-mile radius of the target property. The sites are listed as Buttonwood Industrial Complex and Bristol Industrial Park.

Tribal Lands

The Tribal Lands database is a Department of Interior/Bureau of Indian Affairs database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The target property was not identified as a Tribal Land site. The database did not identify Tribal Land sites within a ±1.0-mile radius of the target property.

RI Dry Cleaners

The RI Dry Cleaners database is a record of information regarding properties that have been or currently are now a dry-cleaning facility. The target property was not listed in the RI Dry Cleaner database.

The database report identified one (1) RI Dry Cleaner within a ±0.25-mile radius of the target property. The listed facility is identified in the EDR report as County Cleansers and is located 0.1-mile (528 feet) north/northeast of the target property on State Street. Although, the dry cleaner is inferred to be hydrogeologically upgradient relative to the target property, there have been no reported spill or releases.

Orphan Summary Sites

According to EDR, unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the target property. There were thirteen (13) unmapped facilities in the database report.

4.2 Additional Environmental Sources

Nobis reviewed information available online via the RIDEM Online Database and files provided by Town of Bristol Municipal Offices

RIDEM Online Database

Limited information was available on the RIDEM online database. Lists providing CERCLIS, State Sites in RI, Land Use Restrictions, USTs, and LUSTs information were reviewed, but no further information than what was included in the EDR Database Report was available.

Town of Bristol Municipal Records

Nobis staff visited the Town of Bristol's Municipal offices on February 18, 2021 and reviewed files at the assessor's office, building department and sewer/wastewater treatment plant (WWTP) department). Online databases were reviewed for the planning/zoning office.

Fire Department: Nobis contacted the Bristol Fire Department but did not receive further information. During the initial call to the department, Mr. Robert Ferguson briefly stated he did not believe there were significant, if any, records of environmentally relevant information.

Health Department: The Town of Bristol does not have a local health department.

Tax Assessor: Files found for the parcels included in the target properties at the Assessor's office were former and current property cards listing the owners name and date of transfer. All

information was consistent with information provided to Nobis regarding current property owners.

Building Department: The Building Department did not have files readily available for records before the 1990s. There were also no records for undeveloped lots. File were reviewed for Lots 10-42, 10-60, 10-61, 10-62, 10-73, 10-49 and 10-50. No files were available for the 70 Thames Street Property, and the 60 Thames Street property had records related to general construction but none of relevance to environmental investigations. Files for parcels comprising the Mill included general construction and electrical work, fire alarm system updates, permitting for demolition of the former water towers, smokestack replacement, a boiler replacement that took place in 1998, along with a permit for the newly added dye house construction, including the floor drains, and 1981 coastal regulations for extending land to the west of the Mill building. No files of significance to an environmental investigation were observed.

Wastewater Treatment Plant: A 1991 record reviewed mentioned dye discharge from the mill to the sewer was discolored and the WWTP notified Bristol Yarn to correct this issue. WWTP records were reviewed for information of discharge sampling analytical results. Sampling of the effluent from the Mill was conducted as part of the pre-treatment system that began in the mid 1990's. Prior to that, the only regulations of discharge were from the EPA after treatment by the town. Records from sampling analytical results from Robin Rug and Bristol Yarn were available from approximately 2016 to the late 1980s. Analytical results show detected concentrations of volatile organic compounds (VOCs) and chlorinated VOCs (CVOCs), metals and oil and grease were detected consistently throughout the time sampling was ongoing. Metals (cadmium, chromium and zinc) and oil & grease did not appear to be detected at significantly high concentrations. PCBs were not detected. Biological oxygen demand and pH were at values outside the acceptable limit and/or range at points during the monitoring period but the issues were addressed and resolved.

Historical and environmental documentation compiled for this report are provided in Appendix C.

4.3 Historical Use Information on the Site

The Church and Thames Parking Lot (Lot 10-32) and the Mill parking lots (Lots 10-41, 10-44, 10-68) were previously developed as residences but have been undeveloped since approximately 1947. The Gravel Parking Lot (Lot 10-43) previously had been part of land used for greenhouses. The properties at 60 and 70 Thames Street have been developed as residences since the early 1800's.

Review of the historical information included in the database report indicates the following:

Topographic Maps

Readily available historic United States Geological Survey topographic maps dated 1888/1890, 1892/1893, 1919, 1939, 1943/1944, 1955, 1970, 1975/1979, and 2012 were provided by EDR, and were reviewed to ascertain area conditions.

The 1888/1890 and 1892/1893 maps show the coastline father inland then it is currently, depicting around half of the target property as water. Roads are shown in the downtown Bristol area to the north and east of the target property with fewer roads further to the north and east. A railroad is illustrated starting from a point north of the target property and extending to the northwest across the northern part of Popasquash Neck. Few buildings are shown in the downtown area to the south-southeast of the target property. Other small buildings are show to the north of the target property on either side of a road leading to the downtown area.

The 1919 topographic map shows a portion of the target property as water. A greater number of buildings are visible to the north, south and east of the target property area as well as on Popasquash Neck. More roads are shown further to the northeast of the target property. A pond is shown to the northeast of the target property, with a stream going south-southwest to Bristol Harbor. Wetland areas are shown to the north of the target property area and downtown.

The 1939, 1943/1944, and 1955 map shows the area of the target property filled in and a large building is shown in the location of the Mill with smaller buildings within the boundary of the target property. Many buildings are shown in the downtown area and infrastructure has increased. To the northeast of the target property, there are other large buildings illustrated on the map. Outside of the downtown area, to the southeast of the target property an area is illustrated with a green overlay and is labeled 'sewage disposal'. Wetland areas are shown to the north of the target property area and along the east border of Bristol Neck.

The 1970 and 1975/1979 topographic map shows a purple addition to the Mill building location on the south side of the building. Docks directly to the west of the building are also shown. Large buildings depicted in purple are shown in the northern portion of the downtown area and many smaller buildings are shown to the east of the target property and downtown area, becoming more populated. Many smaller buildings are also shown to the northeast of the target property in the northeaster area of Bristol Neck. A road connecting main roads in the central area and along western border of Bristol Neck is also shown on the southern portion of the peninsula.

The 2012 topographic map does not show any buildings. The target property is shown fully on land, as it has been previously. Roads are labeled and there are additional roads shown to the east

of the waterfront downtown area. The railroad tracks are not shown, along with wetland areas. The area labeled sewage disposal on earlier maps is labeled Bristol Neck. Roadways and labeled locations are similar to current conditions.

Sanborn Fire Insurance Maps

During the late 19th Century, companies such as the Sanborn Company began preparing maps of central business districts for use by fire insurance companies. These maps were updated and expanded geographically periodically through the 20th Century. Fire insurance maps often indicate construction materials, specific property use, and the location of other features such as gasoline storage tanks. EDR, a licensed Sanborn provider, produced maps from 1884, 1891, 1896, 1903, 1911, 1920, 1947, and 1960 for the target property area and vicinity. Features on the Sanborn maps are documented in list version below.

The 1884 Sanborn map shows the following:

- Mill building area labeled as "Reynolds Manufacturing Co. Cotton Mill;
- North area where present day Building 4 and the new dye house are located are labeled "storage of cotton" and "ruins";
- Building 1 appears to be present along with a smaller connected building just to the north;
- Areas of the current day residences and parking lots are either empty space or dwellings;
- A brick chimney is located to the north of the center of Building 1;
- A fire pump is located between Building 1 and the smaller building to the north;
- Southern portion of the mill is not built and has smaller buildings including a boat, building shed, dwellings, and wagon shed;
- A greenhouse is located in the approximate location of parcel 10-74 or 10-49;
- A grocery store and boarding house is located in the approximate location of parcel 10-32;
- A water tank is located to the northeast of the target property area, further north is a blacksmiths shop;
- A coal shed is located to the southwest of the target area and an old rubber storage area is located to the northwest;
- Standpipes labeled HYD are located along Thames Street;
- Buildings to the north, south and east are mostly dwellings;
- Two boilers are located to the north of the target property area, on the street side of Sprague's Wharf; and,
- Public water service pipes are depicted on Thames Street and Constitution Street.

The 1891 Sanborn map shows the following:

- "Reynolds Manufacturing Co. Cotton Mill has a description that says it has not been in operation since 1888, machinery has been partly removed and city water pressure is on the premises;
- Old rubber storage is not labeled;
- Grocery store is not labeled and Church Street House near parcel 10-32 is larger;
- No greenhouse is depicted;
- Features are otherwise similar to 1884 Sanborn map within the target property area;
- Pumping station located to the north of the target property area has a description saying it pumps salt water to the rubber mill for condensing steam for the engines;
- Public water service pipes are now depicted on Church Street and Hope Street;
- The wharf to the north of the target property area, adjacent to the pumping station is labeled Nation India Rubber Co's Property and the end of the wharf has a building labeled store house.

The 1896 Sanborn map shows the following:

- Mill area is labeled Cranston Worsted Mill and described as powered by heat, steam, fuel, coal, electric, and has Grinnell auto sprinklers through city water;
- Building 1 area is labeled "combing 1st, spinning 2nd, twisting 3rd, and storage 4th, and an elevator is located along the eastern wall;
- Building 4 area has a structure labeled Store House 2, and a passage is in the area of Building 3;
- The area of Building 5 has a dye room in the eastern half and an engine room in the western half;
- Two boilers are located in the Building 5 area;
- A boat shop, sawmill, and paint shop are located on the southern portion of the Mill area;
- An upright boiler is located in the sawmill building;
- Triple hydrants are located to the south of Building 1, to the north of the Mill area, and along Thames Street;
- The area near parcel 10-32 is labeled Eureka Hand Laundry 1st Boarding;
- De Wolf Hotel, a bowling alley and fire engine house is located to the north of the target property area while areas to the east remain similar to the 1884 and 1891 maps,
- A building labeled armory is located west of the target property area, adjacent to the location of the current new dye house; and,
- Parcel boundaries appear to be present on the map.

The 1903 Sanborn map shows the following:

- Building 1 is labeled "Drawing 1st, Spinning 2nd, Twisting 3rd;
- Building 2 is labeled Combing Room on the east site and Wash Room on the west side. An office area is labeled along the eastern wall and the building is described as having cement floors;
- Building 4 is labeled Carding 1st, Storage and Gilling 2nd and Storage Attic, adjacent to the structures is a smaller structure labeled Dust House, also adjacent is a small room labeled Engine;
- The southern portion of the Mill area has a structure labeled Store House, in the location of present day building;
- Three boilers are located in the area of Building 5, along with a dye room and area labeled engine;
- To the north of the dye room is another room labeled "Dye Rinse 1st, Dry 2nd", a brick chimney and fire pump are also depicted;
- A partially constructed area of Building 3 is labeled "Drawing 1st Machine Shop 2nd, Spooling 3rd, Shipping 4th";
- A coal pile is located to the west of the mill buildings adjacent to a small building;
- A water tank with a 30,000-gal. capacity is located between the coal pile and a wagon house on the western boundary of the target property area;
- A boat building, dwelling sand shed are located on the southern portion of the current day Mill area;
- A green house is located along the eastern border of the target property area. A florist shop is located on the same property along Hope Street;
- A building labeled N.Y.N.H&H.R.R. Passenger Station is located on the corner of Constitution and Water Street; and
- The pumping station to the north of the target property area has an area labeled coal bin.

The 1911 Sanborn map shows the following:

- Buildings 1, 2, and 5 have similar features to the 1903 Sanborn Map;
- Cranston Worsted Mill includes buildings in the present-day areas of Buildings 1, 2, 3, 4, 5, and 7;
- The southern portion of Building 3 is labeled "Shipping 1st, Drawing 2nd, Spooling 3rd, Drawing 4th", while the northern portion of Building 3 is labeled as 'being built';
- Building 4 is labeled as "Carding 1st Machine Shop and Storage Above" and an electric motor is labeled in a small room adjacent to Building 4 and the room labeled Dust House;
- The coal pile area is not depicted;

- Two water tanks are shown, one next to the electric motor room next to Building 4 and is labeled "rain water for dye house" and the other is between Buildings 3 and 5;
- The area of Building 7 is labeled as wool sorting and storage;
- The southern portion of the target property area has a building labeled Boat Building 1st and Paint Loft 2nd. Storage and Office is also labeled on the same building;
- A buried 12,000-gallon gasoline tank is located to the east of the boat building and a 230-gallon buried gasoline tank is located in the area of the southwest corner of Building 7A;
- The area of Building 7A has a structure labeled shed and an auto station with a gasoline engine on the west side and a dwelling on the east side;
- To the south of the target property area a building labeled Bristol Reading Room and a building labeled Confy & Cigars is located across Constitution Street;
- On the eastern side of the target property area, several greenhouses are depicted and implied based on structures with glass roofs. A label near the greenhouses reads "asbestos, [illegible], heat hot water"; and,
- The general vicinity to the north and east is mostly dwellings along with small shops labeled on buildings.

The 1920 Sanborn map shows the following:

- Building 6 was constructed and labeled as "boiler room 1st, drawing 2nd, spooling 3rd". Two boilers are shown perpendicular to the boilers in Building 5;
- An engine room is located on the southeastern side of Building 6;
- A room between Building 6 and Building 2 is labeled as "Oil [illegible]";
- The Building 5 dye room is extended further towards Building 3;
- The water tank between Building 5 and Building 3 is not depicted, while the water tank near at the corner of Building 4 is shown;
- The northern half of Building 3 is labeled "Office 1st, Drawing 2nd, Twisting 3rd, Spinning 4th";
- The area of the current new dye house has a building with rooms labeled Carpenter, Electrical Repair Shop, Storage and Machine Shop;
- A building to the south of the mill, formerly labeled Boat Building is labeled as Wool Storage;
- The buried gasoline tank at the southwest corner of the area of Building 7A is not shown, while the 12,000-gal. tank near the wool storage building is;
- The greenhouse area is labeled as Samuel Kinder Bro. Green Houses; and,
- Three boilers appear to be depicted adjacent to the long greenhouse.

The 1947 Sanborn map shows the following:

- All buildings except the new dye house are depicted and labeled with current numbers;
- The Mill is labeled as Collins & Aikman Corporation Cranston Worsted Mills Plant H;
- Building 6 is labeled as Machine Shop 1st, Boiler Room 1st, Drawing 2nd, Spooling 3rd" and an oil room is noted as located in the basement;
- Building 7 is labeled as a combing mill and Building 7A is labeled as a factory building;
- A small area to the west and adjacent to Building 1 is labeled as a soap house.
- Elevators are present on the south side of Building 4, between the combing room and office of Building 2, in the western half of Building 7 and on the south side of Building 7A;
- A steam pipe is shown between Building 4 and Building 5 area labeled as dye room on the north side;
- In the northwest corner of the Mill area, a room is labeled "Transformers";
- A 50,000-gal. steel water tower is located at the corner of Building 7 and 7A;
- There are no buried gasoline tanks depicted;
- The parcel in the area of Lot 10-32 has no structures shown;
- The area of the parcels 10-41, 10-44, and 10-68 do not have any structures shown, and previously had small dwellings shown;
- The armory has a boiler room shown in the northeast corner;
- The property to the south of the Mill building on the corner of Thames and Constitution Street is labeled as U.S Department of Commerce Lighthouse Service and has a repair shop in the southeast corner. The wharf extending from the property is labeled as a wood pier on wood piles;
- Adjacent to Building 7A to the west is the Bristol Yacht Club clubhouse.
- North of the target property area, recreational land has been extended and includes the former National India Rubber Co. property and former hotel; and
- The pumping station to the north is not illustrated.

The 1960 Sanborn Map shows:

- The Mill buildings are labeled as owned by Bristol Development Co. and are described as loft buildings;
- Buildings 1, 2, 3, 4, 5, 7 and 7A are labeled as loft;
- A portion of Building 1 on the east wall is labeled as an office;
- Building 6 is labeled as "Boiler Room 1st and Oil Room in basement" with an engine room shown on the southeastern wall;

- The building in the location of the current new dye house is labeled as storage;
- An area labeled transformers is shown on the northern boundary of the Mill;
- An 80' steel tank is located adjacent to the northern wall of Building 6, between the building and the 30,000-gal water tank;
- A faded area within a circle in between the Mill and public park is also labeled transformers;
- The Church and Thames Parking Lot and Mill Parking lot is labeled as parking;
- A portion of the armory is labeled as State of R.I Fish and Game Department Equipment Storage;
- The property adjacent to the Mill to the southwest is labeled B.P.O.E Clue House;
- Greenhouses are still present; and,
- Properties in the vicinity to the north and east are a mix of residences and shops.

Buildings shown as residences appear to be present in all Sanborn maps provided by EDR for the properties of 70 and 60 Thames Street, located on parcels 10-49 and 10-50, respectively.

Aerial Photographs

Readily available historical aerial photographs supplied by EDR were reviewed for the target property to obtain pertinent target property information concerning the history of development on and in the vicinity of the target property. Evaluation of these aerial photographs may be limited by the quality and scale of the image. Aerial photographs from 1939, 1951, 1960, 1962, 1970, 1975, 1980, 1985, 1995, 2005, 2008, 2012, and 2016 were reviewed and summarized below.

All of the aerial images show relatively similar images of the target property and surrounding area. Images from 1939 to 2016 show the mill building in its entirety and a generally residential vicinity. A baseball field and park area are present from 1939 to 2016 to the north east of the target properties, along with green space to the north, near the boundary of the aerial images. Overall, the target properties and surrounding area does not change greatly in the timespan of the aerial imagery.

Images from 1939 to 1980 show the Mill and smaller structures in the vicinity to the north, south and east that appear to be residential or commercial, which is consistent with present day conditions. Docks and boat slips on the shoreline to the west appear in the 1951 and 1960 aerial images.

Directly west of the Mill, the shoreline appears to have been filled in to create a greater amount of land between Bristol Harbor and the Mill in the 1985 image. The construction of more boat slips to the northwest begins in 1985 and is completed in the 1995 image. Further north, more

docks are constructed in the harbor and appear in the 2005 aerial image. The surrounding area is consistently mostly residential, with more structures and trees appearing in the images from 2005, 2008, 2012 and 2016.

Local City Directories

The city directories used in this study were made available through EDR and were reviewed at approximate 5-year intervals, if readily available for historic target property usage. City directories for the years 1963, 1966, 1971, 1975, 1980, 1985, 1989, 1992, 1995, 2000, 2005, 2010, 2014 and 2017 were reviewed.

- 1963 lists Thames Corp. Snow Blowers, Huyck Systems Co. Electronics at on Constitution Street where Building 7A is located. Listings for 125 Thames Street include Bristol Textile Printers Inc., Dormate Inc, Jewels by April, Magic Carpet Factory Outlet, Morris-Penkala Enterprises Inc., Sol Fab, and Robin Rug. The listing for 60 Thames Street is James D Rielly and the listing for 70 Thames Street is Raymond Paiva and John Andrade;
- 1966 lists Huyck Systems Co. Electronics and Thames Manufacturing Corp. Snow Blowers at Building 7A on Constitution Street. Bristol Textile Printers Inc., Dormate Inc Doors, Magic Carpet Factory Outlet and Robin Rug Inc., are listed at 125 Thames Street. The listings for 60 and 70 Thames Street are the same as the 1966 directory. Magic Carpet Factory Outlet, and Robin Rugs Inc is listed at 125 Thames Street. 60 Thames street is listed as Raymond J. Graham and Jon Andrade and 70 Thames Street is not listed;
- 1971 lists Hartman Systems Co., Control Power Industries, and Bristol Flocking Inc. along Constitution Street. Magic Carpet Canteen, M&R Sportswear Inc., Bristol Flocking.
- 1975 lists Hartman Systems Co., and Bristol Flocking Inc., along Constitution Street. Bristol Fashions, Magic Carpet Factory Outlet and Robin Rug Inc. are listed at 125 Thames Street. 70 Thames Street is listed as John A. Miranda and Vincent Amillotto;
- 1966 to 2000 lists Raymond J. Graham at 60 Thames Street;
- 1980 lists Hartman Systems Inc. and Bristol Yarn Corp., along Constitution Street and Magic Carpet Factory Outlet and Robin Rug Inc., at 125 Thames Street. 70 Thames Street is listed as John A. and Deborah Miranda;
- 1985 lists Hartman Systems Inc., Bristol Yarn Corp., and Industrial Packaging Overflow along Constitution Street. The listing at 125 Thames Street says Building 1 Magic Carpet Factory Outlet Building 2 Stair Building Control Power Room Bristol Rug Outlet Russ-Russ Realty and Robin Rug Inc. The listing at 70 Thames Street is for Carl Mulhoman;
- 1989 lists Bristol Yarn Corp., and Mill Yarn Store on Constitution Street. 125 Thames street has the same listing as the 1985 directory, with the exception of Bristol Rug Outlet. 70 Thames Street is listed as Jose Quitero and Gloria Escobar;

- 1992-2017 does not list anything along Constitution Street at the target property;
- 1992 lists Bristol Rug Outlet, Bristol Yarn Corp., Magic Carpet Rug Factory Outlet, Robin Rug, and Russ-Russ Realty at 125 Thames Street and Gloria Escobar at 70 Thames Street;
- 1995 lists Bristol Yarn and Robin Rug at 125 Thames Street, while 70 Thames Street is not listed;
- 2000 lists the 1995 directory for 125 Thames Street and lists Mary A. Graham at 60 Thames Street and Ronald Melvin and A. Delacruz at 70 Thames Street;
- 2005 directory does not have 125 Thames Street listed and has listings for Mauricio Betancur and Miroslav Babic at 60 and 70 Thames Street, respectively;
- 2010 lists Bristol Yarn Corp. and Robin Rug at 125 Thames Street. 60 Thames Street is not listed, and 70 Thames Street is listed as Manuel C. Mirco;
- 2014 and 2017 directories list 125 Thames Street as Robin Rug Inc. and lists Mario Gamez and Manual C. Mirco at 60 and 70 Thames Street, respectively; and
- 1963 to 2017 properties in the vicinity along Thames Street and Constitution are listed as a mix of residential and commercial properties.

Date of Development

Based on the information compiled for the assessment, it appears that the target property was developed as a mill in the early-mid1800s and has been used for cotton and textile mill purposes for a majority of the site's history. The other parcels included in the target property area have been used for residential purposes only.

4.4 Historical Use Information on Adjoining Properties

Based upon information reviewed, it appears that properties in the vicinity of the target property were historically utilized for residential and commercial purposes. Some industrial properties are located further to the north-northeast. Currently, conditions are similar and properties in the vicinity are residential or small commercial buildings; however, the following environmental issues were noted on the abutting property to the northwest:

Former Heating Oil UST Release -Maritime Welcome Center Building

A former 1,000-gal. #2 heating oil UST was identified at the Bristol Community Center (current Maritime Welcome Center) adjacent to the northwest corner of Mill Building 1. EDR states there was a soil removal, and no further action was required. The RIDEM website had no additional information. According to the Harbor Master, a 2,275-gallon UST was removed in 2010/2011 upon connection of the building to natural gas.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

Nobis visited the property on February 17 and 18, 2021 to observe general site conditions. Most portions of the target property were made accessible during the site visit. General site features for the target property are shown on Figure 2. Site photographs are provided on Figure 3.

5.2 General Site Setting

The target property is located with an area along Thames Street and between Thames Street and Hope Street along the Waterfront adjacent to Bristol Harbor.

The target property area is located in the downtown, waterfront area of Bristol and the Mill building sits directly on the waterfront. The target property area is generally level with area topography sloping slightly west toward Bristol Harbor. The target property has an approximate elevation of ±10 to 20 feet above mean sea level.

Residential properties are situated to the north, east and south with commercial properties located further in each of those directions. These properties include restaurants, small shops, and stores. To the west is the Bristol Maritime Welcome Center and Harbormaster Offices, adjacent to the Mill to the northwest, and Bristol County Elks Lodge, adjacent to the Mill to the southwest.

5.3 Exterior Observations

Refer to Section 2.5 for a general description of site development and features.

Mill Building

The Mill building is made up of several interconnected buildings that have brick exteriors. Building 1, near the center of the Mill complex, appears to have a concrete layer over the brick that is painted red. The Thames Street side of Building 1 has been recently painted, while the Bristol Harbor side has original paint that is peeling and flaking off the brick. The original paint on the west side of Building 1 is suspected to be lead-based paint (LBP), based on the building age. The buildings have an asphalt-gravel roof, with the exception of the newest addition dye house, which has a rubber roof. The most recent addition dye house, is made of concrete cinderblocks and painted brownish red.

Mill Building West Side

On the west side of the Mill building, a fenced in area extends from Building 2 to the end of corner of Building 6, adjacent to the Maritime Welcome Center. Within the fenced area is an

underground cistern, with an unknown history. A concrete lined rectangular structure filled with water was observed closest to the building and Nobis staff recorded 95 inches of water and a total depth to bottom of 132 inches. Two other openings in the ground were observed also to contain water. Closest to the fence, there was 52 inches of water and a depth to bottom of 93 inches. The northern-most hole contained 46 inches of water and had a depth to bottom of 77 inches. The history and former use of the suspect cisterns is unknown and it unknown if the three opening represent one system or separate underground cisterns.

Along the west side of the building, approximately 50 feet from the Mill is a seawall separating land from Bristol Harbor. No outfall pipes or former pier structures were observed. Reportedly three (3) groundwater monitoring wells, installed by GZA, are located in this area.

Mill Building East Side

A hydraulic lift was observed on the sidewalk between Thames Street and Building 1 in front of a loading dock door. Further north along the Thames Street side of the Mill, a fire hydrant is present on the exterior of Building 3.

Mill Building North Side

On the north end of the building, in the area between Buildings 5 and 6 and Building 4, some debris and items to be disposed of are present along with two (2) dumpsters near the new dye house. A loading dock and ramp extend from Building 5 and the concrete cover of a former effluent holding tank is present next to the loading dock ramp. In the alleyway on the north end of the building, sewar manholes were observed where the municipal sewar most likely connects to the Mill plumbing system. Additionally, the seawall on the north side of the building has two outfall pipes that appear to extend to the northeast, away from the Mill. It is unclear where they originate from or what their purpose is.

Residential Lots

The property at 70 Thames Street is a two-level residence with a blue shingled exterior and a stone foundation. A concrete pad is located at the back of the house for parking and did not appear to be significantly stained. An unpaved driveway goes between 70 Thames Street and 60 Thames Street leading to the Gravel Parking lot.

The property at 60 Thames street is a two-level residence with an orange shingled exterior and a concrete foundation. The shingles may contain asbestos based on the limited survey provided in GZA's Phase I report and information provided by the property owner.

Parking Lots

The Church and Thames Parking Lot and the Mill Parking Lot are both paved with bituminous asphalt and do not have any structures on them. The asphalt appears to be in fair condition with no obvious staining observed in either parking lot.

The northwest corner of the Mill Parking Lot, near Thames Street on parcel 10-41 has a section of filled area with gravel millings from the removal of the two (2) 20,000-gal No. 6 oil USTs that were previously there. Additionally, in the southeast corner of Lot 10-41, or the northeast corner of Lot 10-44, there are two (2) unidentified capped steel pipes, approximately 1.5 inch in diameter sticking out of the ground. They are directly next to a carriage house (belonging to the adjacent property), but the exact location is not clear because they are very close to property lines. The history and use of the pipes are unknown. Concrete barrier blocks, painted white, separate Lot 10-41 from 10-44.

The Gravel Parking Lot is unpaved and did not have any cars present at the time of the site visit. The ground appeared to be well packed and was either gravel, sand, or grass. No obvious staining or areas concern were observed.

5.4 Interior Observations

Nobis observed the interior and exterior of the target property on February 17 and 18, 2021 in the accompaniment of Mr. Russell Karian, the property owner and manager of Robin Rug. On the day of the reconnaissance, Nobis observed the mill to be operating at a much-reduced production with a majority of the operations taking place in a few sections of the Mill. Other areas are used for the storage of materials while other areas are vacant. The Mill is made of seven (7) main buildings with Building 4 being the northern-most building and Building 7A the southern-most building. Basement floors and first floor buildings are concrete while other upper floors are wooden. The entirety of the mill building walls are painted as well as ceilings and columns all suspected to contain lead-based paint (LBP). Observations of each building are described below.

Mill Building 1

Building 1 is a four-story building with the second and first floor mostly vacant. The third floor held previously used braiding machines, used to wind dyed yarn to make rug materials, and is storage for braided yarn drummed in cardboard storage containers. The fourth floor holds winding machines used to wind raw wool and nylon staple fiber into yarn, before being braided. Upper floors of Building 1 are wooden and had minimal staining. The basement of Building 1 had a concrete floor and had multiple notable observations. Three transformers are located in the northeast corner of the basement, in the corner along Thames Street where Building 1 and Building 3 share a wall. One transformer was larger than the other two and labels appear to show

dates from the early 1900's. No leaking or staining was observed on or around the transformers but based on their age are suspected to contain PCB oil. Located in the same corner as the transformers is the natural gas connection for the building, used to power ceiling mounted Modine heaters installed to prevent the sprinkler system from freezing. Along the western wall of the Building 1 basement, is the pump for the hydraulic lift. The pump is one cylinder and operates with the pump to call the lift up and then weighted by gravity with hydraulic fluid being pushed back into the reservoir to go down. Staining was observed on the wooden platform the pump was on. Additionally, a rusting, approximately 1,000-gallon water tank was observed along the basement wall between Building 1 and Building 5. Also, of note in the basement of Building 1 is the presence of approximately 20 to 40 bags of potential asbestos material, most likely from pipe insulation.

Mill Building 2

Building 2 is a single-story building that previously contained spun yarn and fiber bale storage made of wool, nylon, and polyester. An elevator is located in the northwest corner along the wall of Building 2 and Building 1. In the most western part of Building 2, a sperate room contains a reverse compressor vacuum stripping pump against the southern wall and a steam setter is located in the center of the room. The floor is concrete and staining around the compressor was visible. The room with stained concrete is currently used for maintenance storage. An air compressor is located in the basement of Building 2 along the southern wall.

Mill Building 3

Building 3 is a four-story building where some of the current operations of Robin Rug takes place. The first floor is the former retail store, Magic Carpet, where braided rug products manufactured in the Mill were sold. The first floor also previously had lamb knitters used in part of the manufacturing process and sewing machine oil was used. The second floor contains the current packaging inspection area for outgoing product and formerly had the same use during full-scale production. The basement of Building 3 is of particular concern due to observed leaking oil. Formerly, the USTs previously located on Lot 10-41 came into the Mill building on the eastern basement wall of Building 3. The area where the pipes came into the building is patched with concrete, but detached piping remains in the room, and leaking oil is visible on the concrete floor. Two pans of oil were observed along with a leaking 55-gallon drum and leaking 30-gallon drum, which were both in poor condition. Both of the drums were rusty, and oil appeared to be leaking out of the bottom. Standing water in the middle of the basement of Building 3 and in the doorway into the basement of Building 4 had small amounts of visible oil in it. The property owner was made aware of the leaking drums and will make plans to remove the oil. Additionally, in the basement of Building 3, fire suppression systems are present and a Bristol Yarn sampling point for the site's effluent discharge permit is located near the leaking drums.

Mill Building 4

Building 4 is a four-story building with offices on the second floor, including a dye sample room containing small amounts of various chemicals and small bottles of solution. Tiles in the office building appear to be suspect asbestos containing tiles based upon age, appearance and size. The fourth floor contains seven (7) braiding machines and holds yarn storage. No dyes were used in this portion of the Mill and minimal staining on the wooden floor was observed where machines used to be. Building 4 has an elevator shaft and observations made in the 'penthouse' on the roof where mechanical workings can be seen revealed oil-stained mechanics of the cable weighted elevator and a pan to catch drips filled with oil beneath the gear box. According to the site owner, there is approximately 2 to 3 gallons of gear oil within the gear box.

Mill Building 5

Building 5 is a two-story building that contained the boiler room and the location of former stock kettle (original) dye processes. The eastern half of the building has a floor drain in the concrete floor where drips and effluent from the dying process were captured. A level above the floor drain, there is a large opening in the concrete where the kettle used for dying was formerly located. Below the opening is a concrete floor on the level where the floor drain is located. Minimal staining was observed on the concrete floor. An additional smaller, square floor drain is located on the upper level to the west of the kettle area. There are currently approximately 5 black plastic drums stored in the former stock kettle dye area and labels appear to show they are colorants used in the dying process. The second floor is used for storage and packaging and minimal staining was observed on the wooden floors where machinery used to be present.

Building 5 also contains a parts room where gears and machinery parts were stored and repaired. In the basement of Building 5 is the boiler room that extends into the basement of Building 6. Building 5 holds a large Kewanne Boiler Corporation boiler that was used to heat the building when it was exclusively heated with low pressure steam. Directly in front of the boiler is a trench filled with water. Although the origin and pathway of the water is unclear, the property owner explained at one time a boiler filter was installed incorrectly and a small amount of No. 6 oil leaked into the trench and was remediated after discovery. Next to the boiler is an approximately 1000-gal water condensate holding tank that completed the closed system for the steam heating system. The boiler was fueled with No. 6 oil, used to light the pilot, that came from the former USTs on Lot 10-41 and was held in a 5000-gal AST on the northern wall of Building 6. The basement of Building 5 also contains an approximately 275-gal AST that holds No. 2 home heating oil that is currently used to fuel space heaters placed around the Mill buildings to maintain the sprinkler system. No leaking was observed around the AST. Additionally, several drums were observed between the boiler and 275-gal. AST containing what appeared to be water and a small amount of No. 6 oil. The drums were in good condition and seemed mostly frozen.

Mill Building 6

Building 6 is a three-story building that contains the western half of the boiler room and the former continuous dye range area. The boiler room of Building 5 continues into Building 6 and Building 6 contains two boilers that were used for dye processes. The 5,000-gal AST holding No. 6 oil is located on the northern wall next to the boilers and currently contains less than 300 gallons of residual No. 6 fuel oil. Leaking was not observed although same staining was noted at the top of the tank. The current AST is in the same location as a former 5,000-gallon AST that was replaced due to age and potential small leaks, although it may have been staining from small overfills. During the replacement, potentially contaminated sand and cinderblocks from the secondary containment walls were removed. Currently, the present AST is on a concrete floor that appears to be in good condition without staining.

To the west of the boiler room in Building 6 is the former continuous dye area that extended into the newly added dye house, although a wall now separates them buildings. Nobis observed one shorter floor trench drain and two longer floor trench drains extending into the new dye house. Steel and plastic drums, 5-gallon buckets, and smaller containers of various sizes, reportedly containing waste lubricant oil are stored along the western wall of Building 6. The drums, buckets and containers are in good condition and do not appear to be leaking. The concrete floor below them does not have evidence of cracking and is also in good condition. The rest of the room where drums are stored is used to store heavy equipment and various tools for Mill maintenance. Some debris was also observed. The second floor of Building 6 is used for yarn storage and is currently mostly vacant. The third floor is the former braiding machinery area with minimal staining observed on the wooden floor where machinery used to be present.

Mill Building 7/7A

Building 7 and 7A are four-story buildings that connect to one another and are not separated by a wall. The basement of the buildings was formerly the woolen carting room where spinning and twisting took place and has concrete floors where staining was observed. Stained areas are generally in the same areas as where machinery was once present, and staining is heavy in some areas. A puddle located in the center portion of Building 7 has standing water with a slight sheen. Drums reportedly containing lubricant oil are located in Building 7 and are in good condition with no obvious leaks. The second floor is the current sewing/rug production area where a single employee sews braided yarn into braided rugs with a sewing machine and air table. The rest of the second floor has air tables not in use throughout and the floors and cardboard drums of braided yarn. Three (3) drums of lubricating oil, two (2) full and one (1) empty are used for the sewing machine. A bailing machine is also located on the second floor of Building 7 but does not use any hydraulic mechanics. A mezzanine in Building 7A contains five (5) drums of unused dye. The third floor of Buildings 7 and 7A are currently empty with the exception of some dye storage

and have wooden floors. The fourth floor is the former braiding area and minimal staining is observed on the wooden floors.

Mill New Dye House Addition

The "new" dye house constructed in the early 1980's is a single-story building that connected to Building 6 at one time. The two longer floor drains extend from Building 6 into the dye house. Previously, machinery used as part of the continuous dye process was housed in the new addition. No staining was observed on the floor or around the floor drains. The location of the current bathroom was a sampling location for effluent monitoring. Currently, the building is operating as a seafood distribution business, Fishtails, LLC.

Residential Lots 10-49 and 10-50

The interior of the residences was observed on February 18, 2021. The 60 Thames Street property had no noteworthy observations in the living space. A natural gas heater was present on the second floor and is in use. A gas heated hot water tank and a boiler were observed in the basement. A stone structure filled with dirt was identified but is purpose and origin are unknown. The floor was concrete with no evidence of staining. The 70 Thames Street Property had no notable observations in the living areas and the basement was similar to the 60 Thames Street Property. Two (2) gas heated hot water tanks were present and an active sump-pump was observed. The concrete floor was in good condition without any cracks or obvious staining.

6.0 INTERVIEWS

6.1 Interview with Current Property Owner

An interview with current property owner, Mr. Russell Karian was conducted as part of this assessment. Mr. Karian completed the owner questionnaire for the properties and indicated he was not aware of any litigation, administrative proceedings or notice from the government relevant to hazardous substances and violation of environmental laws or possible liability. Mr. Karian also provided some historical information of the mill, details of which are provided in Appendix C and summarized below:

- The mill was first constructed in 1839 as the Pokanoket Steam Mill and produced cotton textiles. The Pokanoket Steam Mill burnt down in 1856 but was rebuilt under the same name and expanded to the north. From 1870 to 1891 - Reynolds Manufacturing Company took ownership and operated in the mill producing sheeting and yarns. In 1880, Reynolds Manufacturing Company stopped production and the property was vacant until 1891 when in that year Cranston Worsted Mill bought the buildings and mill operations. Significant expansions were made to the buildings under the Cranston Worsted Mill ownership. In 1927, Cranston Mills merged with the Collins & Aikman Corporation to produce automotive upholstery. In 1955, Collins & Aikman Corporation sold the property to Bristol Development for leasing purposes. In 1975, Robin Rug, the current owners and operators of the Mill bought the property and began producing machine made braided rugs.
- According to Russell Karian, the current property owner, Robin Rug was a manufacturer of flat and tubular braided rugs. The manufacturing process includes making yarn, which consists of receiving raw wool in bale form and nylon staple fiber in waste form, spinning the wool and nylon into yarn form, followed by winding and twisting, dyeing, braiding, and sewing and finishing processes to create braided rugs. Additional processes include air entangling and knitting. Full capacity operations were from approximately 1985 to 1891. Chemicals (mostly acid dyes) were used as part of the dyeing operations. A list of the various chemical dyes used is provided in Appendix C.
- Mr. Karian further explained the GZA Phase I reported oil contaminated soil from the 1987 AST replacement. He explained he believed the AST was not leaking and that “oil contaminated soil” reported in the GZA report was sand from the secondary containment that had caught overfills and drips from the 5,000-gallon AST. The former 5,000-gallon AST was replaced with the current one of the same size due to its age.
- Mr. Karian indicated he was aware of the previous environmental investigation and provided Nobis with the GZA Phase I report along with documentation of the UST closures. The UST closure report for the two (2) 20,000-gallon USTs located on parcel 10-

41 indicated some stained soil was observed and a four-part composite sample was collected from the tank grave for analyses of TPH by Method 8100. TPH was not detected in the soil sample.

- Mr. Karian provided further information about the leaking UST at the Bristol Community Center, the abutting property to the northwest. Based on information from the Harbormaster for the Town of Bristol, the tank was a 2,275-gallon UST and was removed in 2010/2011 when the building was converted to natural gas. No analyses of soil or groundwater was done at the time.

6.2 Interviews with Occupants

The target property is currently occupied by the current property owner, Mr. Karian, manager of Robin Rug Manufacturing. A questionnaire completed by the property owner is provided in Appendix D.

6.3 Interviews with Local Government Officials

Refer to Section 4.2 for additional information collected from representatives of the Town of Bristol, Rhode Island.

6.4 Interviews with Others

Nobis did not interview others.

7.0 FINDINGS

The Findings of the ASTM E 1527-13 Phase I ESA identify the known or suspected *RECs, Controlled RECs, Historical RECs,* and/or *de minimis* conditions at the target property. The Opinion (Section 8.0) will discuss the impact to the target property (*i.e.*, *REC*, *Controlled REC, Historical REC*, or *de minimis* conditions) and present the logic and reasoning for making that determination. Based on the information collected during a Phase I ESA of target property, Nobis presents the findings detailed below.

The target property is comprised of 14 tax parcels totaling 3.47± acres that contain a mill building, residential properties, paved parking lots and an unpaved parking lot. The mill has been present since the early-mid 1800's and has expanded to its current size throughout the sites history. Other parcels in the target property have historically been residential. The target property area is within the Waterfront Planned Unit Development, Residential R-6, and Downtown zones according to the Town of Bristol zoning map.

1) The mill building comprised of interconnected buildings and under ownership of Robin Rug Inc., has significantly downsized operations in recent years and the has some machinery and material from former full-scale production. Floor staining was observed in areas on concrete and wooden floors throughout the building, generally where machinery was previously present. Floor staining in Building 7 was also in an area where drums of lubricating oil was stored. Various areas are used for storage, including storage for waste drums of chemicals and oil, while other areas are vacant. Stored drums of No. 6 oil in the boiler room of Building 5 and lubricant oil in Building 6 appeared to be in good condition, but two leaking drums of oil were observed in the basement of Building 3 in the area where former UST pipes entered the building.

2) A hydraulic lift is located on the east side of the mill building in the sidewalk along Thames Street. An oil reservoir and stained area was observed in the basement of Building 1 below the lift. Cable-weighted elevators are also present in the mill and oil leaks and drips, along with a catch pan filled with oil, was observed in the "penthouse" on the roof of Building 4 where the mechanical workings for the elevator are located. A gear box is reported to contain approximately 2 to 3 gallons of gear oil.

3) Additional notable observations included three (3) electric transformers stored in the northeast corner of Building 1. Labels indicate they were made by General Electric and are dated from the early 1900's, indicating potential PCB oil. A trench was observed beneath the Kewanee No. 6 oil boiler located in the boiler room of Building 5. Water was observed in the trench and information provided by the property owner indicated that a maintenance person incorrectly installed a filter on the boiler and a small amount of No. 6 oil leaked into the trench before it was corrected and remediated.

4) Areas of the mill in the Building 6, the New Dye House, and stock kettle dye area in Building 5 were locations where yarn dyeing processes previously took place. The stock kettle area in Building 5 was used to dye yarn in a large kettle and a floor drain is present where effluent was discharged to the sanitary sewer. A UST was installed outside the northwest wall of Building 5 as a holding tank for effluent to prevent slowing down the dyeing process when the floor drain would drain slowly. The continuous dye process area in Building 6 and the New Dye House has two floor drains that were observed that were used to catch drips during the yarn drying process after it had been dyed. Both floor drain systems in Buildings 5, 6 and the New Dye House are connected to the sanitary sewar and wastewater treatment plant. A review of Bristol WWTP records showed that monitoring of effluent took place from the late 1990 through 2016 and VOCs and CVOCs were reported.

5) The Church and Thames Parking Lot is undeveloped with no staining or areas of concern observed. The Mill Parking Lot is the former location of two (2) 20,000-gal. USTs that contained No. 6 oil used to light the pilots of the boilers in Buildings 5 and 6. They were installed in 1984 and removed in 2005, listed as permanently closed by RIDEM. According to the closure report, stained soil was observed but samples from the tank grave did not have detections of TPH. The Mill Parking Lot also had two (2) steel pipes of unknown origin located on the eastern boundary of parcel 10-41. It is unclear if the pipes, which are approximately 1.5" in diameter are on a target property parcel or what their origin is.

6) Observations made in the residential properties of 60 and 70 Thames street did not reveal any staining on the concrete floors in the basement. Boilers and water tanks heated by natural gas were observed.

7) Residential and commercial properties are situated to the north and east of the target property. Adjacent to the mill building to the southwest is the Bristol Elks lodge. Adjacent to the mill building to the northwest is a former armory and Bristol Community Center and current Maritime Welcome Center. At the time during which the property was Bristol Community Center a leaking UST was reported, and soil was removed with no further action required per the RIDEM website and EDR report. The UST was reported as a 1,000-gal No. 2 heating oil UST but information from the harbor master clarified it was a 2,275-gallon tank that was removed in 2010 or 2011.

8) Historical data including topographic maps, aerial photographs, directories, Sanborn Maps, and municipal records suggest that the target property was as a steam mill originally and was a generally a textile mill throughout its history, although other manufacturing processes took place at sometimes. Other parcels within the target property have been historically residential. A review of the historical data suggests that processes of textile and rug manufacturing included operations that included the use of petroleum and/or hazardous substances. This includes repair shops, machine shops, boiler rooms, dye rooms, engine rooms, and a historic auto repair shop that was in the location of Building 7A. Historical data also shows a 12,000-gallon buried gasoline tank in the location of Building 7A on the 1911 and 1920 Sanborn maps. An additional 230-gallon buried gasoline tank was located in the southwest corner of Building 7A, according to a 1911 Sanborn Map.

9) The target property had a previous Phase I ESA performed by GZA in 2005. According to the report, approximately 2,280 lbs. of "oil contaminated soil" was removed from the boiler

room in Buildings 5/6 in 1987 during the replacement of the 5000-gal. AST. The property owner explained during the site visit that he did not believe the AST was leaking and the supposedly contaminated oil was sand within the secondary containment that had caught incidental overfills and spills. Currently, the concrete floor beneath the AST is in good condition with no cracks or staining. The current AST contains less than 300 gal. of No. 6 oil, in the same location of the one that was replaced. No leaking AST or UST was reported for the mill buildings property in the RIDEM website or EDR report.

10) Observations of out-of-scope environmental concerns include potential asbestos in the shingles of 70 Thames Street, the tiles in the office area of Building 4, and numerous bags of suspected pipe insulation in the basement of Building 1. Potential lead-based paint was observed throughout the interior of the mill buildings and on the exterior of Building 1. Additionally, an old cistern (a subsurface structure) was observed outside on the west side of mill Building 1. The cistern is reported to contain water and there is little known about its history and former use. In 2005, GZA reported samples of water collected from within the cistern indicated no contamination.

8.0 OPINION

The Opinion of the ASTM E 1527-13 Phase I ESA defines the environmental professional's determination of the impact to the target property (i.e., RECs, Controlled RECs, Historical RECs, or de minimis condition) of the conditions identified in the Findings and presents the logic and reasoning for making that determination. Based on review of the documentation available for the preparation of this Phase I ESA and the observations made on the target property, it is the opinion of the Environmental Professionals who prepared this assessment that *RECs, De Minimis Conditions and Business Environmental Risk (BERs)* do exist relative to the target property. Nobis' opinions regarding the findings of this ESA are detailed below.

Recognized Environmental Conditions: Nobis' identified nine (9) RECs associated with the target property.

REC-1 - Historical Use as Textile Mill and Rug Manufacturing

The main mill buildings have a long history of storage, usage of petroleum (mostly oils) and hazardous substances (chemicals including solvents and dyes containing metals) and residual wastes associated with textile manufacturing (cotton and wool) and later braided rug manufacturing. The property contains several pieces of original equipment (i.e., transformers) and many original subsurface structures associated with former mill operations (i.e., a large cistern/water holding tank, trenches/floor drains in dye house). Several historical operations included use of petroleum and/or hazardous substances in various areas throughout the mill and included: a transformer storage, electrical repair shop, machine shop, machine oil shop, boiler room and dye room. Historical uses and management of petroleum and hazardous substances from the period between 1839 and circa 1975 are undocumented and therefore is considered a REC.

REC-2 – Historical Gasoline USTs

A 1920 Sanborn Map shows a 1,200-gallon buried gasoline tank associated with a former structure that is now in the present-day location of Building 7/7A. A 1911 Sanborn Map shows a 230-gallon UST at the southwest corner of Building 7A associated with a former auto station. GZA's 2005 report indicates this tank may have been removed during prior construction. However, no documentation on these suspect UST removals is known. Due to lack of information, this is considered a REC.

REC-3 - Hydraulic Lift

Hydraulic lift observed in sidewalk on east side (Thames Street) of building. Nobis observed an oil reservoir in basement of Building 1 and staining in this area. This observation is considered a REC.

REC-4- Chemical/Waste Drums

Drums containing suspect oils and waste oils were observed in several locations within the mill building. Two drums were observed in basement of Building 3 (one 30-gallon and one 55-gallon) adjacent to out of use piping for the former 20,000-gallon No. 6 oil USTs, which were located on Lot 10-41 across Thames Street. The 55-gallon drum was observed to be leaking oil. Cracks were observed in the concrete floor in this area and oil was observed on standing water located adjacent to drums. Drums with a frozen water/No. 6 oil mixture were observed in the boiler room in Building 6. Several drums and 5-gallon buckets containing used lubricating oil were observed along west side of Building 6. The concrete floor appeared to be in condition and without overt evidence of cracking. The drums and buckets appeared to be in good condition and without leaks. The presence of accumulated waste remaining on the target property represents a risk of release to the property and is therefore considered a REC.

REC-5 – Floor Staining Mill Basement

Drums reportedly containing lubricant oil were observed in the basement of Building 7. Considerable dark black-brown staining was observed over a large area on concrete floor in basement of Mill Building 7 & 7A. The concrete floor appeared to be in good condition and without overt evidence of cracking. Drums appeared to be in good condition and without evidence of leaking. West of Building No.2, staining was observed on the concrete floors but no substantial cracks were observed. Concrete staining indicative of machinery or equipment releases is considered a REC.

REC-6 – Historical Oil Leaks from Cable Weighted Elevators Mill Buildings

The mechanical workings, located in a room on the roof of Building 4, for one of the five cable weighted elevators was observed. Reportedly 2 to 3 gallons of gear oil is contained in a gear box inside the room. It appeared that there was oil leaking when the elevators were in use. The mechanical workings in the room were observed to be stained with oil and a pan, presumably to catch drips, was filled with oil and observed beneath the gear box. The elevator shaft bottoms were not observed for oil leakage and thus this data gap could be significant. The release of oil from the mechanical workings with potential to impact soil or groundwater is considered a REC.

REC-7 – Suspect PCB-Containing Transformers/Historical Transformer Room

Three (3) transformers were observed to be stored on the east side of the basement in Mill Building 1. Labels indicated they were made by General Electric and are dated from the early 1900s. Labels did not identify whether they contained PCB containing oil, but based on their age, they are suspected to contain PCB oil. The presence of these transformers and the historical transformer room in Mill Building 1 are considered a REC based upon age of this area and lack of information on transformer-related activities.

REC-8 –Former Continuous Dye Process Area

Two floor drain trenches were observed in the continuous dyeing process room in Building 6 and in the Building addition. After yarn was dyed it would go through dryer machines. Trenches would catch dye that dripped from yarn during drying. Effluent from the trenches reportedly went to sanitary sewer and WWTP. VOCs were reported in effluent wastewater lab results from 1990 through 2016 observed at Bristol WWTP. The known conveyance of waste liquids containing VOCs through the series of concrete drainage trenches associated with the continuous dyeing process room constitutes a REC.

REC-9 – Older Stock Kettle Dye Room with Trenches/Floor Drains

One floor drain/trench and one floor drain associated with the old dye kettle room was observed in Building 5. The trench reportedly drained to a UST before being discharged to the sanitary sewer. The owner stated the trench would drain very slowly when connected directly to the sanitary sewer, so a UST was installed as a holding tank for the effluent from the dye kettle. Afterwards, water would flow from the trench into the UST and then discharge to the sanitary sewer. This revised setup allowed the water in the trench area to drain more quickly and not slow down the dye process. The UST (holding tank) is reportedly located on the northwest exterior of Building 5. All effluent reportedly went to sanitary sewer and WWTP. VOCs were reported in effluent wastewater lab results from 1990 through 2016 observed at Bristol WWTP. The known conveyance of waste liquids containing VOCs through the series of concrete drainage trenches associated with the old kettle dye room constitutes a REC.

Historical Recognized Environmental Conditions: Nobis identified two (2) Historical RECs associated with the target property.

HREC-1 Former 20,000-gallon No. 6 oil USTs

On Lot 10-41, two (2) 20,000-gallon No. 6 oil USTs were removed from the ground in 2012, the results of which were submitted to the Rhode Island Department of Environmental Management (RIDEM). The two 20,000-gallon USTs used for storage of No. 6 fuel oil were not identified to be leaking. These USTs were removed and closed out in association with local fire department and RIDEM in 2005. These tanks were consumptive use and therefore were exempt from UST Closure Assessment activities per RIDEM. Because some stained soil was observed, four (4 part) composite samples pf soil were collected and analyzed from the tank grave for TPH by Method 8100. TPH was not detected in soil (<20 mg/kg). Ordinarily, soil samples for volatile should not be composited and thus these results may be biased low. Additionally, no information on whether the pipe chases from the USTs (which ran under Thames Street to the Mill Building) were removed and/or if subsurface sampling was done.

HREC-2 – Historical LUST Petroleum Release - Adjacent Properties

Two historical petroleum releases occurred on adjacent properties – a release from a 2,275-gallon #2 heating oil LUST in 2010/2011 at the Maritime Welcome Center (adjacent to Mill Lot 10-42) and a release from a 1,000-gallon gasoline LUST at a former bank/325 Hope Street (adjacent to Lot 10-43). Both of these releases involved soil removal and were closed out with no further action by RIDEM. However, available sources did not indicate whether shallow groundwater was impacted.

***De Minimis* Conditions:** Nobis identified one (1) *de minimis conditions* associated with the target property.

DMC-1 Floor Staining Mill Buildings 3, 4 and 5

Minor staining was observed on and beneath machinery (on hard wood floors) used in inactive work areas located on some of the upper floors of the Mill Building.

Business Environmental Risks (BERs): Nobis identified several BECs associated with the target property.

BER-1 -Suspect Hazardous Building Materials

Lead-based paint in interior and exterior (western exterior wall of Building 1). Suspect ACM – asbestos floor tiles in Mill office area Building 4, ACMs on piping insulation in the basement of Mill Building 3, ACM in bags (numerous estimated 5 to 75 bags) in the basement of Mill Building 1, ACM on boiler face plates (4 boilers). Suspect PCBs in equipment (old transformers) and building materials (windowsills, caulk, doors, painted surfaces).

BER -2 – Old Cistern Structure

This subsurface structure is located on the exterior/west side of the Mill Building 1. The cistern is located beneath a former water tower, which was removed. Little is known about its origin or use. The age of this subsurface structure is not clear but may be associated with the former washroom in Mill Building 2 as shown on the 1903 Sanborn Map.

BER-3 – Flood Zone Designation

Mill property located adjacent to Bristol Harbor which is tidally influenced buildings are located within a VE-14 flood zone. Basement areas are susceptible to flooding.

BER -4 – Unknown Metal Pipes Lot 10-76

Unknown metal pipes were observed on the northern edge of Lot 10-76 adjacent to a carriage house/garage type structure. It is unclear what these pipes are for and/or whether this piping is

on the subject property or is associated with the adjacent lot to north or related to the former greenhouses which were located on this lot.

BER-5 – Filling of Land

According to historical topographic maps and aerial photos, portions of the target property (the mill) was filled in to enlarge the land area for development along the harbor in the early 1900s. The chemical nature and source of the fill materials is unknown. Future redevelopment activities that require soil excavation/removal from the target property may require off-site management.

BER-6 –Former Heating Oil AST Overfill Mill Building 6

According to the 2005 GZA Phase I ESA report, 2,830 pounds of "oil-contaminated soil" was removed from the boiler room/basement area circa 1987 when a 5,000-gal. AST containing No. 6 oil was replaced. It is believed the "soil" was in fact "oil-impacted sand" within a concrete block berm that existed around the then in use AST. The sand was placed beneath the AST up to the bottom of the AST to catch and contain small incidental spills and/or overfills. The property owner believes the AST was "not leaking" and that the sand-filled berm was a form of secondary containment to catch overfills. Nobis observed the concrete floor near the AST to be in good condition and no cracks or staining were observed. There is currently a 5,000-gal. AST containing approximately 300-gals. of No. 6 oil located in the same location. The building is no longer heated with No. 6 oil.

BER-7 – Boiler Room Trenches/Former Machine Shop

A trench filled with water was observed beneath the No. 6 oil boiler room. A maintenance person once incorrectly installed a filter on the boiler and a small amount of No. 6 oil leaked into this trench before it was discovered and corrected. This room adjacent to the former engine room was involved with usage and management of oil. The long history of oil use to the boiler room and historical handling and management of oil in these areas constitute a BER.

A Phase II Investigation is recommended at the target property due to the long-term (100+years) history of use for rug manufacturing and other textile mill operational activities (cotton and worsted wool spinning), particularly on the Main Mill Parcel.

Vapor Encroachment Screening

As specified in the ASTM E1527-13 standard, Nobis completed a vapor encroachment screening (VES) for the target property. The screening was conducted in general compliance with ASTM E2600-15, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*. The objective of the VES was to determine if a vapor encroachment condition (VEC) exists or does not exist relative to the target property. A vapor encroachment condition (VEC) is defined as

> "*the presence or likely presence of chemical(s) of concern (COC) vapors in the vadose zone of the target property caused by the release of vapors from contaminated soil and/or groundwater either on or near the target property.*"

On Site: On-site sources of chemicals (i.e., VOCs and CVOCs), if released to the subsurface, which could result in vapor intrusion into the building were used as part of former rug dyeing process at the target property. Although, no reported releases of such chemicals have been reported since 1975 (Robin Rug ownership years), undocumented releases of volatiles prior to 1975 may have occurred.

Off-Site: Based upon Nobis' review of environmental database records, two historic dry cleaner facilities (which use CVOCs) are located within 1,750 feet of the target property and two petroleum releases (LUST sites with soil removal) occurred at adjacent properties located within 525 feet of the target property. These off-site properties are located upgradient of the target property.

Based upon Nobis' on-site and off-site findings and this preliminary screening, a VEC cannot be ruled out.

9.0 CONCLUSIONS

In accordance with ASTM Practice E 1527-13 requirements, the Environmental Professionals that prepared this Phase I ESA provide the following Statement of Conclusion:

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 of the parcels identified by the Town of Bristol, Rhode Island on Plat 10 Lots 10-32, 10-41, 10-42, 10-43, 10-44, 10-49, 10-50, 10-60, 10-61, 10-62, 10-68, 10-73, 10-74 and 10-76. Any exceptions to, or deletions from, this practice are described in Sections 1.4 and 10.0 of this report.

This assessment has revealed evidence of several RECs, two HRECs, de minimis conditions, and BERs in connection with the target property. A Phase II subsurface investigation of soil, soil vapor and groundwater, including an assessment of hazardous building materials is warranted prior to purchase of the target property.

10.0 DEVIATIONS

No substantive deviations from ASTM E 1527-13 were encountered during performance of this Phase I ESA. Limitations of this Phase I ESA are detailed in Section 1.4.

11.0 ADDITIONAL SERVICES

Additional Services are assessments, recommendations, or other details beyond the scope of ASTM Practice E 1527-13. No additional services were conducted as part of this assessment.

12.0 REFERENCES

Mr. Russell Kairan, Property Owner Robin Rug Facility, February 2021.

ASTM E1527-15, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, dated 2015. www.astm.org

EDR, Historical Topo Map Report with QuadMatch, February 11, 2021.

EDR, Aerial Photo Decade Package, February 11, 2021.

EDR, City Directory Image Report, February 12, 2021.

EDR, Radius Map with GeoCheck, February 11, 2021.

EDR, Certified Sanborn Map Report, February 11, 2021.

Google earth website, www.googlearth.com. Date.

GZA, 2005, Phase I Environmental Site Assessment Report, Robin Rug Facility, Bristol Rhode Island.

RIDEM Online Database http://dem.ri.gov/programs/wastemanagement/inventories.php

Town of Bristol, Rhode Island, Tax Assessor Parcel Information, www.nereval.com, February 2021.

Town of Bristol, Rhode Island, Building Department, February 18, 2021, Desk Staff.

Town of Bristol, Rhode Island, Fire Department, February 15-16, 2021, Robert Ferguson, Fire Marshall, via email.

Town of Bristol, Rhode Island, Water Pollution Control Facility, February 18, 2021, Glenn Conway, Chemist/Pre-Treatment Coordinator.

13.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

In accordance with ASTM Practice E 1527-13 12.13, Nobis provides the following statements of qualification:

> *I/We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professionals as defined in §312.10 of 40 CFR 312. I/We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the target property. I/We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.*

The qualifications of the *environmental professionals* who prepared, or supervised the preparation of, this report, and who are signatories of this report, are provided below.

Clarence "Tim" Andrews, P.G.
Director of Environmental Services

- State of New Hampshire Professional Geologist.

- 24 years of experience conducting various investigations to identify the extent of airborne, soil, and groundwater organic and inorganic contamination at residential, commercial, and industrial sites. Researched historical federal, state, local, and commercial records to collect background information for numerous environmental projects.

- Performed or overseen numerous Phase I ESAs and other environmental projects involving research, investigation, and data assessment of historical and current site conditions on current or former residential, commercial, and industrial properties. Investigations have included identification, assessment, and delineation of petroleum and hazardous substances released to the environment or with the potential for release to the environment.

- Project responsibilities have included interaction with clients and regulators; coordination and oversight of subcontractors; data collection, interpretation and presentation; and report preparation. Acts as technical lead or senior project manager on numerous water quality assessment projects and long-term monitoring projects.

Bettina Eames, P.G.
Senior Project Manager

- 30 years of experience conducting various investigations to identify the extent of airborne, soil, and groundwater organic and inorganic contamination at residential, commercial, and industrial sites. Researched historical federal, state, local, and commercial records to collect background information for numerous environmental projects.

- Performed or overseen numerous Phase I ESAs and other environmental projects involving research, investigation, and data assessment of historical and current site conditions on current or former residential, commercial, and industrial properties. Investigations have included identification, assessment, and delineation of petroleum and hazardous substances released to the environment or with the potential for release to the environment.

- Project responsibilities have included interaction with clients and regulators; coordination and oversight of subcontractors; data collection, interpretation and presentation; and report preparation. Acts as technical lead or senior project manager on numerous water quality assessment projects and long-term monitoring projects.

Richard Rizzo, P.G.
Project Geologist

- Over 16 years of experience as an environmental scientist responsible for supporting various investigations to identify the extent of airborne, soil, and groundwater organic and inorganic contamination at residential, commercial, and industrial sites. Researched historical federal, state, local, and commercial records to collect background information for multiple environmental projects.

- Conducted numerous environmental investigations and sampling events requiring oversight of subsurface drilling and sampling, groundwater and drinking water sample collection, and data assessment and reporting for regulatory agencies.

- Performed numerous Phase I ESAs and other environmental projects involving research and investigation, data assessment of historic and current site conditions, interviews with property owners, and report preparation.

FIGURES

FIGURES

USGS Topographic Map
Bristol, RI-Mass
Revised 1955

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FIGURE 1

SITE LOCUS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RI

PREPARED BY: SKP	CHECKED BY: BE
PROJECT NO. 95560.26	DATE: MARCH 2021

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Notes:

1. Locations of site features depicted hereon are approximate and given for illustrative purposes only.

2. Aerial Imagery provided by ArcGIS online database from RHGIS Aerial Photographs, Spring 2018.

Legend

- Floor Drains
- Stained Floor Area
- Transformer
- Former UST Piping Into Building
- Sewer Manhole
- Pipe Stickups
- Waste Oil Drum
- Leaking Oil Drum
- Cable-Weighted Elevator
- Former Stock Dye Kettle
- Former Water Tower
- Hydraulic Lift
- Trench Around Boiler
- Boilers
- Water Tanks
- Active AST
- Former UST
- Former AST
- Target Property Boundary
- 10-42 Tax Map Parcel ID

N

0 50 100 200

Feet
1 inch = 100 feet

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FIGURE 2

SITE PLAN
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: MARCH 2021

1.Looking South at the northern end of the Robin Rug Mill Facility located at 125 Thames Street

2. Looking Northwest at the East side of Robin Rug Mil facility.

3. Looking North at the West side of the Robin Rug Mill Facility.

4. Hydraulic lift observed in sidewalk on east side of building.

5. Oil reservoir for hydraulic lift and staining observed in basement of Building 1.

6. Drums observed in the basement of Building 3. 55-gal. drum was observed to be leaking oil.

7. Oil observed on standing water located adjacent to leaking drums in the basement of Buildign 3.

8. Drums containing 1 to 2 inches of No. 6 oil and water observed in the Boiler Room.

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FIGURE 3A

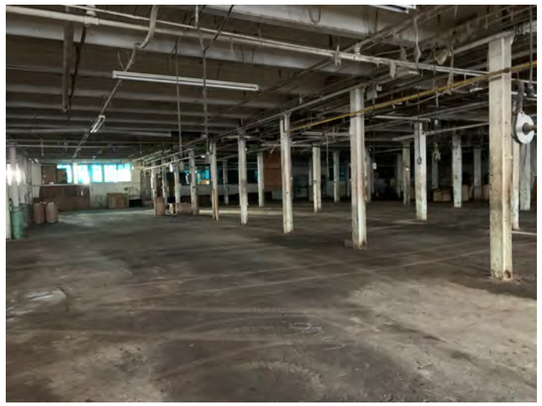
SITE PHOTOGRAPHS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: MARCH 2021

9. 5-Gallon buckets containing No. 6 oil observed in the Boiler Room.

10. Numerous 55-gallon drums and 5-gallon buckets containing used lubricating oil stored along west side of Building 6.

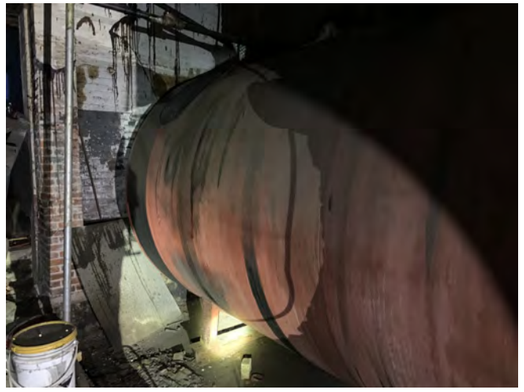
11. Drums containing lubricating oil stored in the basement of Building 7. Staining observed on the concrete floor.



12. Staining observed on concrete floor in Building 7 & 7A.

13. Staining observed on concrete floor in Building 7 & 7A.

14. Staining observed on concrete floor and footing in building located west of Building 2.



15. Fmr No. 6 oil AST location in Boiler Room. Current 5,000-gal. AST contains approx. 300-gals. of No. 6 oil.

16. Fmr No. 6 oil AST location in Boiler Room where oil-contaminated soil was removed circa 1987.

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FIGURE 3B

SITE PHOTOGRAPHS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: MARCH 2021

17. Mechanical workings of cable weighted elevator. Staining and a pan filled with oil were observed beneath the gear box.

18. Suspect PCB-containing transformers stored in the basement in Building 1.

19. No. 6 oil boiler and trench filled with water located in Boiler Room where reportedly a small leak occurred.

20. Floor drain trench observed in Dye House - Building 6.

21. Floor drain trench observed in new addition building located north of Building 6.

22. Floor drain trench associated with dye kettle observed in Building 5.

23. Floor drain associated with dye kettle observed in Building 5.

24. Former location of 20,000-gallon No. 6 USTs on Lot 41.

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FIGURE 3C

SITE PHOTOGRAPHS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: MARCH 2021

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25. Minor staining observed on floors beneath inactive machinery on upper floors.

26. Minor staining observed on floors beneath inactive machinery on upper floors.

27. Possible lead-based paint observed on interior walls.

28. Possible lead-based paint observed on exterior wall on west side of Building 1.

29. Possible asbestos containing floor tiles observed in office area located in Building 4.

30. Possible asbestos containing pipe insulation observed in the basement of Building 3.

31. Numerous bags of asbestos containing pipe insulation observed in the basement of Building 1.

32. Location of underground cistern likely containing water on west side of Building 2-A.

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FIGURE 3D

SITE PHOTOGRAPHS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

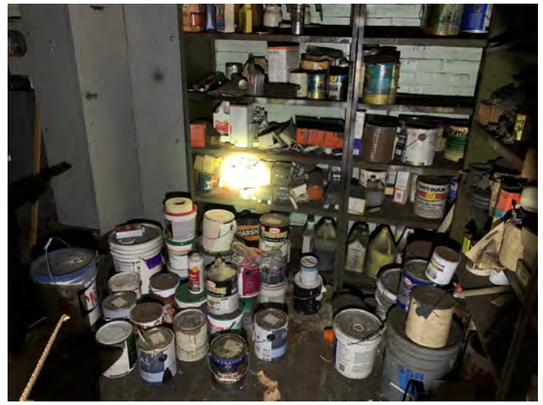
PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: MARCH 2021

33. Unknown metal pipes observed on northern edge of Lot 10-76.

34. Chemicals and Dyes stored on upper floors in Building 1.

35. Chemicals associated with dye kettle in Building 5.

36. No. 6 oil staining observed on floor in Boiler Room.



37. Small quantities of paints, stains, enamels, etc. observed in basement of Building 5.

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FIGURE 3E

SITE PHOTOGRAPHS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: MARCH 2021

APPENDIX A

LIMITATIONS

1) These environmental services were performed in accordance with generally accepted practices of other consultants undertaking similar assessments at the same time and in the same geographical area. The results of this assessment are based on our professional judgment and are not scientific certainties. Specifically, Nobis Group® does not and cannot represent that the site contains no hazardous wastes, oil, or other latent conditions beyond those observed during this assessment. No other warranty, express or implied, is made.

2) The observations and conclusions presented in this report were made solely on the basis of conditions described in the report and not on scientific tasks or procedures beyond the scope of described services or the budgetary and time constraints imposed by the client. The work described in this report was performed in accordance with the terms and conditions of our contract. No other warranty, express or implied, is made.

3) Observations were made of the site as indicated in this report. Where access to portions of the site was unavailable or limited, Nobis Group® renders no opinion as to the presence of hazardous wastes or the presence of indirect evidence of hazardous wastes in that portion of the site.

4) No property boundary, site feature, or topographic surveys of the site were performed by Nobis Group® unless specifically indicated in the text of the report.

5) No sampling or testing was performed for the presence of dioxins, furans, pesticides, herbicides, radon, lead paint, urea-formaldehyde, asbestos, or polychlorinated biphenyls (PCBs) at the site unless specifically indicated in the text of the report.

6) Except as noted within the text of the report, no quantitative laboratory testing was performed as part of this assessment. Where such analyses have been conducted by an outside laboratory, Nobis Group® has relied upon the data provided and has not conducted an independent evaluation of the reliability of these data.

7) Chemical analyses have been performed for specific parameters during this site assessment, as described in the text of the report. Additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the site.

8) This report has been prepared for the exclusive use by Brady Sullivan Properties, LLC solely for use in an environmental evaluation of the site. This report shall not, in whole or in part, be conveyed to any other party, other than those authorized by Brady Sullivan Properties, LLC without prior written consent of Nobis Group®.

FUSS & O'NEILL

Phase II Limited Subsurface Investigation

10/22/21

PHASE II LIMITED SUBSURFACE INVESTIGATION

ROBIN RUG MANUFACTURING FACILITY
BRISTOL, RHODE ISLAND

TAX MAP 10, LOTS 42 and 60
(Main Mill Parcels)
125 Thames Street

TAX MAP 10, LOTS 32, 41, 43, 44, 61, 62, 68, 73, 74, 76
(Parking Lot Parcels)
125 Thames Street

TAX MAP 10, LOTS 49 and 50
60 and 70 Thames Street

FOR

BRADY-SULLIVAN PROPERTIES
670 North Commercial Street
Manchester, NH 03101

BY
NOBIS GROUP®

(800)-394-4182

Nobis Project No. 095560.260

22 October 2021

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LIMITED PHASE II SUBSURFACE INVESTIGATION
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET, BRISTOL, RHODE ISLAND

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ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET, BRISTOL, RHODE ISLAND

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FIGURES

APPENDICES

EXECUTIVE SUMMARY

Nobis Engineering, Inc., dba Nobis Group® (Nobis) conducted a limited Phase II Limited Subsurface Investigation (Phase II) at the Robin Rug Manufacturing facility property (the subject property) located at 125 Thames Street in Bristol, Rhode Island. The subject property consists of fourteen (14) parcels of land totaling approximately 3.47± acres of developed commercial/ industrial land located on the east and west sides of Thames Street between Church Street and Constitution Street. The subject property is located along the Bristol Harbor waterfront in a mixed-use area abutted by Maritime Welcome Center and Marina entrance, the Bristol Elks Club, a park, parking lots and several single-family and two-family residential properties.

The two main Mill parcels (Lots 10-42 and 10-60) were originally developed as a textile mill producing cottons and yarns, including operation of a dye house, in the late 1800s though the mid-1900s. In circa 1975, Robin Rug purchased the property who operated the mill to produce braided rugs. Residential properties at 60 and 70 Thames Street were historically residential and used as single or double-family homes. Prior to the 1960s, green houses were reportedly present on Lots 10-43 and 10-76. The Mill paved and gravel parking lots have historically been undeveloped, while the Church and Thames Parking Lot (lot 10-32) appears to have previously been developed as a residence, store, and boarding house.

The Phase II was conducted to assess the Recognized Environmental Conditions (RECs) which were identified in the ASTM Phase I ESA completed in April 2021 by Nobis (see Section 1.4.2). The Phase II was conducted to provide Brady Sullivan Properties with information on subsurface condition at the subject property in support of further due diligence and prior to potential acquisition and redevelopment of the Robin Rug facility into residential condominiums/apartments.

The Phase II field activities were performed between May 27 and June 30, 2021. The Phase II consisted of a limited subsurface investigation that included: development of existing groundwater monitoring wells, a geophysical survey, drilling of eleven (11) soil borings including installation of two (2) groundwater monitoring wells, excavation of sixteen (16) test pits, installation of four (4) soil vapor points in the basement of the mill building and sampling and analysis of various environmental media (soil, groundwater, soil vapor and wipe samples) and a well elevation survey. Samples were analyzed for a combination of analytes (i.e., VOCs, SVOCs, PAHs, RCRA eight metals, hexavalent chromium, pesticides, PCBs, and cyanide).

Based upon the findings of the limited Phase II, Nobis concludes the following:

- Subsurface soil consists of fill overlying native marine deposits consisting of alternating layers of sand, silt, and clay. Fill consists of fine to coarse sand with debris consisting of crushed stone/rock, concrete, brick, ash, slag, glass, plastic, and wire fragments. Fill is present in several area of the site, including west of the main mill, the central northern interior (SB-6/SB-7 area) and in the parking lots parcels east of Thames Street. Fill ranged in thickness from approximately 3 to 8 feet. The thickest amount of fill (≈8 feet) las encountered in TP-6 on Lot 10-43.

- Except for one reading (65 ppmV in TP-6), PID readings of TVOCs in soil were generally less than 1 ppmv in most locations. Petroleum odors were encountered at the groundwater table at 8 feet below grade (fbg) in TP-6 only. No dark brown or black-stained soils were encountered in the subsurface. No sheen or free product was encountered in groundwater monitoring locations.

- A UST, which was suspected to exist based upon GPR results, was not encountered during test pit explorations at TP-7 on Lot 10-76. The past and/or current use of the two unknown metal pipes in this location remains unclear. Lead was detected at 4,600 mg/kg at TP-7 in soil at a depth of 0 to 3.5 feet and is suspected to be related to the presence of ash.

- In soil, contaminants detected included primarily PAHs, TPH and metals (primarily arsenic and lead). The contaminants may be related to the presence of anthropogenic fill (placed by man) or pyrogenic fill (burn residue or produced by fire) and/or possibly by undocumented releases from historic mill activities and operations. Other contaminants such as VOCs, pesticides, PCBs, cyanide, and hexavalent chromium were reported at relatively low concentrations and/or not detected. Several constituents detected in soil exceed the Rhode Island Residential DEC and/or the Industrial/Commercial DEC. Exceedance of the DECs indicates that a potential increased risk to human health exists via the direct contact pathway.

- In groundwater, VOCs and TPH were not detected in groundwater samples from monitoring wells located on the Main Mill Building parcels (Lots 10-42 and 10-60) and or in NB-3 installed on parking lot parcel Lot 10-43. PAHs were detected at low concentrations in GZA-3 primarily located on the downgradient site of the subject property. Based upon the groundwater sampling data, groundwater quality does not appear to be significantly impacted and is consistent with groundwater quality in GB areas.

- In subslab soil vapor, VOCs are present at varying concentrations. VOCs reported include various types of gasoline related compounds and several CVOCs. Total VOC vapor concentrations (772.05 ug/m3) in SG-4 located beneath Mill Bldg#7 was much higher than in other locations. Most of the total VOC concentration in SG-4 soil vapor consisted of trichlorofluoromethane (Freon 11) and PCE. The State of Rhode Island does not have a stand-alone guidance dedicated to vapor intrusion and/or standards (like CTDEEP) or vapor screening values (like MassDEP). For comparison only, the PCE concentration of 260 ug/m3 in SG-4 exceeds the MassDEP Subslab Soil Gas Screening Value for Residential Use. Per MassDEP guidance, this exceedance indicates that the vapor intrusion pathway may be of concern under future residential use conditions. However, the PCE soil vapor detection was in only 1 of 4 sample locations and was in portion of the main mill building proposed as open-air garage space (below first residential living floor). Additionally, PCE was not detected in either soil or groundwater and thus the presence of PCE in soil vapor may be indicative of background conditions and from an unknown off-site source. Thus, this single PCE soil vapor detection beneath the subslab is not considered to have an impact on proposed future use.

- In wipe samples, low to trace levels of PCBs are present. Wipe samples indicated that low level PCBs are associated with some elevator oils and in some stained concrete surfaces (from past spills) in the basement. Total PCB wipe concentrations were less than 1 ug/100 cm2 which is below the reporting notification threshold per State of Rhode Island and federal (TSCA) requirement of 10 ug/100 cm2. However, wipe sampling is "qualitative" and only indicates that PCBs are present or absent on the surface and does not provide a "quantitative" measure or concentration of PCBs on the wiped surface. Additionally, as noted in the lab report, the PCB wipe analytical results were biased low.

Nobis provides the following recommendations:

1. Management of fill material is advised during future redevelopment of the property. Soils should be characterized in accordance with a soil management plan and in coordination with a qualified environmental professional.

2. Soil concentrations exceeding the RDEC and/or the I/C DEC (coupled with notification exemption criteria not met) constitutes a "release" in accordance with RIDEM Remediation Regulations (250-RICR-140-30-1). The release is required to be reported by a Responsible Party, which per the regulations is defined as the Property Owner. A summary of the results of soil exceedance to be reported to RIDEM are summarized in Table 8. Brady Sullivan should notify Mr. Russel Kairan, the property owner, of his

obligation to notify the RIDEM. The Property Owner should notify RIDEM in writing (both hard copy and electronic via email) in accordance with state regulations.

1.0 INTRODUCTION

1.1 Purpose

Nobis Engineering, Inc., dba Nobis Group® (Nobis) conducted a limited Phase II Limited Subsurface Investigation (Phase II) at the Robin Rug Manufacturing facility property (the subject property) located at 125 Thames Street in Bristol, Rhode Island. The Phase II was conducted to further assess the Recognized Environmental Conditions (RECs) which were identified in the ASTM Phase I ESA completed in April 2021 by Nobis (see Section 1.4.2). The Phase II was conducted to provide Brady Sullivan Property (the User as defined ASTM) information on subsurface condition at the subject property in support of further due diligence and prior to potential acquisition and redevelopment of the property. The Phase II is subject to the limitations described in Appendix A.

1.2 Site Description

The target property is comprised of 14 parcels (collectively referred to as the "target property") totaling approximately 3.47± acres of land and includes industrial, commercial, residential, parking lot and undeveloped land use. The location of the subject property is shown on Figure 1 - Locus Map. Pertinent site features are shown on Figure 2 – Site Plan.

The target property includes the Main Mill Building property (5 parcels) and 8 parcels located on adjacent Thames Street. These parcels are identified on the Town of Bristol Tax Map 10 as follows:

- **Robin Rug Mill Building Property** - includes parcels 10-42, 10-60, 10-61, 10-62, and 10-73. Robin Rug is a braided rug manufacturing facility. The building is made up of several interconnected buildings with industrial and commercial use.
- **Mill Parking Lots** - located on Thames Street east of the Mill Building and includes parcels 10-41, 10-44 and 10-68. These parcels are used as a parking lot for the mill.
- **Lot 10-32** – located at the corner of Church and Thames Street is a seasonal parking lot rented from the property owner by the Town of Bristol.
- **Lots 10-76, 10-43, and 10-74** - located between Hope Street and Thames Street and consists of a gravel parking lot.
- **Lot 10-49** – located at 60 Thames Street. This property is a single-family residence.
- **Lot 10-50** – located at 70 Thames Street. This property is a two-family residence.

The target property is located along the waterfront of Bristol Harbor within the Town's Waterfront Planned Unit Development zone. The target property is abutted by mostly residential properties (some commercial properties) to the north and east, by the Bristol Elks lodge to the southwest, and by the Maritime Welcome Center (former armory and community center) to the northwest. The parcels located east of Thames Street are in the Downtown and Residential R-6 zones.

1.3 Site History

The Mill building was originally developed as a textile mill producing cottons and yarns in the late 1800s though the mid-1900s. Circa 1975, Robin Rug purchased the property and operated the mill to produce braided rugs. Residential properties at 60 and 70 Thames Street were historically residential and used as single or double-family homes. Prior to the 1960s, green houses were reportedly present on Lot 10-76. The Mill paved and gravel parking lots have historically been undeveloped, while the Church and Thames Parking Lot (lot 10-32) appears to have previously been developed as a residence, a store and boarding house.

1.4 Previous Investigations

Two previous environmental assessment have been conducted at the subject property. The findings of these previous investigations in 1995 (by GZA GeoEnvironmental) and in 2021 (by Nobis) are summarized below.

1.4.1 Phase I and II ESA, GZA 2005

In 2005, GZA conducted a Phase I and II ESA at the subject property.[1] The GZA Phase I ESA identified historic uses of the mill buildings at 125 Thames Street as potential environmental concerns. The presence of floor staining, containers of hydraulic, lubricating and waste oil, and evidence of dye-stained areas were also noted as concerns. Two 20,000-gallon underground storage tanks (USTs) containing No. 6 heating oil were observed on the Site and were considered a REC in GZA's report. Closure of the two 20,000-gallon USTs was recommended.

The GZA report also noted 2,830 lbs. of oil-contaminated soil was removed from the boiler room (in Mill 5) in 1987. The soil was removed from a secondary container, along with the concrete cinder block berm, during the replacement of the 5,000-gallon No. 6 oil Above-Ground Storage Tank (AST). In 2021, Nobis clarified with the property owner clarified that the "2,830 lbs. of oil-contaminated soil" was in fact not soil but rather oil-contaminated sand from inside a concrete

[1] GZA GeoEnvironmental, Inc, 2005, Phase I and II Environmental Site Assessment, Robin Rug, Bristol, RI.

berm constructed around the then heating oil AST. The sand-filled berm was used as a form of secondary containment likely for overfills (Nobis, 2021, Phase I ESA).

GZA's Phase II included advancement of three (3) soil borings completed as groundwater monitoring wells (GZA-1, GZA-2 and GZA-3) to depths of approximately 15 feet below grade. The GZA borings/wells were advanced on the west side of the mill building in the locations shown on Figure 2. GZA also field screened soils and submitted soil and groundwater samples for lab analysis for VOCs and TPH. GZA described soils as consisting of fine sand, gravel, and some evidence of fill. GZA reported no visual or olfactory evidence of soil staining or gross petroleum contamination in GZA-1, GZA-2, or GZA-3. VOC field readings were below 5 ppmv and detected in only 3 of the 18 samples screened.

Groundwater sampling indicated water at 5 to 7 feet below grade and no presence of a sheen or free phase product. In groundwater, two compounds, methyl-tert butyl ether (MTBE) and naphthalene, were detected at low concentrations in two of the three wells. Total petroleum hydrocarbons (TPH) were detected between 470 and 850 microgram per liter (ug/L) below the Rhode Island Upper Concentration Limit for Category GB groundwater. There are no Method 1 GB Objectives for TPH. GZA also collected a water sample from inside the cistern located west of Building 2A (concrete holding tank) for VOC analysis. No VOCs were detected in the water from inside the cistern.

GZA's Phase I and II ESA included a preliminary survey for hazardous materials (asbestos and lead) which identified the probability of lead-based paint (LBP) within the manufacturing buildings and potential asbestos in pipe insulation and tiles within the offices.

1.4.2 UST Removal, RIDEM 2005

As part of the Phase I ESA, Nobis obtained copies of state file documents which confirmed permanent closure of the two 20,000-gallon No. 6 heating oil USTs. These USTs were in the northwest corner of Lot 10-41 adjacent to Thames Street. According to RIDEM records, the two USTs were removed from the ground in September 2005 and were transported to and disposed of at a scrap metal/recycling facility. Four (4) composite soil samples collected from the tank grave were analyzed for TPH by EPA method 8100. TPH in soil was not detected and below acceptable state limits. The tank graves were backfilled with soil provided by the property owner.

1.4.3 Phase I ESA, Nobis 2021

In April 2021, Nobis conducted an ASTM Phase I ESA of the subject property for Brady Sullivan Properties in support of initial due diligence efforts prior to potential acquisition of the subject property. The 2021 Nobis Phase I identified nine (9) RECs, which included:

REC-1 - Historical Use as Textile Mill/Rug Manufacturing
The main mill complex has a long history of storage, usage of petroleum (mostly oils) and hazardous substances (chemicals including solvents and dyes containing metals) and residual wastes associated with textile manufacturing (cotton and wool) and later braided rug manufacturing. The property contains several pieces of original mill equipment (i.e., transformers) and other subsurface structures including a large cistern/water holding tank and trenches/floor drains associated with the dyeing areas. Petroleum and/or hazardous substances were stored and/or used in the transformer area, the electrical repair shop, machine shop, machine oil shop, boiler room and dye room.

REC-2 – Historical Gasoline USTs
A 1920 Sanborn Map shows a 1,200-gallon buried gasoline tank associated with a former structure that is now in the present-day location of Building 7/7A. A 1911 Sanborn Map shows a 230-gallon UST at the southwest corner of Building 7A associated with a former auto station. GZA's 2005 report indicates this tank may have been removed during prior construction. However, no documentation on these suspect UST removals is known.

REC-3 - Hydraulic Lift
A hydraulic lift is located in the sidewalk on the east side of Building #1 (Adjacent to Thames Street). Nobis observed an oil reservoir in the basement of Building #1 and stained concrete floors in this area.

REC-4- Chemical/Waste Drums
Drums containing suspect oils and waste oils were observed in several locations within the mill building. Two drums (one of which was leaking) were observed in the basement of Building 3 adjacent to out-of-use piping. The piping led to two former 20,000-gallon No. 6 oil UST on Lot 10-41 located east of Thames Street that were removed in September 2005. Cracks were observed in the concrete floor in this area and oil was observed on standing water located adjacent to the drums. Drums with a frozen water/No. 6 oil mixture were observed in the boiler room in Building 6. Several drums and 5-gallon buckets containing used lubricating oil were observed in good condition along the west side of Building 6. The concrete floor appeared to be in good condition

and had no overt evidence of cracking. Drums suspected to contain lubricant oil were observed in the basement of Building 7.

REC-5 – Floor Staining in Mill Basement

Considerable dark black-brown staining was observed over a large area on the concrete floor in the basement of Mill Building 7 & 7A. Concrete staining is indicative of past machinery or equipment oil releases.

REC-6 – Historical Oil Leaks from Cable Weighted Elevators in Mill Buildings

The mechanical workings of one of the five cable weighted elevators were observed; The mechanical area was in a room on the roof of Building 4. Reportedly 2 to 3 gallons of gear oil is contained in a gear box inside the room. It appeared that there was oil leaking when the elevators were in use. The mechanical workings in the room were observed to be stained with oil and a pan, presumably to catch drips, was filled with oil and observed beneath the gear box. The elevator shaft bottoms could not be observed for oil leakage and was considered a significant data gap.

REC-7 – Suspect PCB-Containing Transformers/Historical Transformer Room

Three (3) transformers were observed to be stored on the east side of the basement in Mill Building 1. Labels indicated they were made by General Electric and are dated from the early 1900s. Labels did not identify whether they contained PCB containing oil, but based on their age, they are suspected to contain PCB oil.

REC-8 –Former Continuous Dye Process Area

Two floor drains/trenches were observed in the continuous dyeing process room in Building 6 and in the New Dye House Building. After yarn was dyed it would go through dryer machines. Trenches would catch dye that dripped from yarn during drying. Effluent from the trenches reportedly went to the sanitary sewer for treatment by the wastewater treatment plant (WWTP). VOCs were reported in effluent wastewater collected at the site from 1990 through 2016 at the Bristol WWTP. The known conveyance of waste liquids associated with the continuous dyeing process area and containing VOCs through the series of concrete drainage trenches to the sanitary sewer constitutes a REC.

REC-9 – Older Stock Kettle Dye Room with Trenches/Floor Drains

One floor drain/trench associated with the old dye kettle room was observed in Building 5. The trench reportedly drained to a UST before being discharged to the sanitary sewer. The owner stated the trench would drain very slowly when connected directly to the sanitary sewer, so a UST was installed as a holding tank for the effluent from the dye kettle. Afterwards, water would flow from the trench into the UST and then discharge to the sanitary sewer. This revised setup allowed

the water in the trench area to drain more quickly and not slow down the dye process. The UST (holding tank) is reportedly located on the northwest exterior of Building 5. All effluent reportedly went to sanitary sewer and WWTP. VOCs were reported in effluent wastewater lab results from 1990 through 2016 observed at Bristol WWTP. The known conveyance of waste liquids containing VOCs through the series of concrete drainage trenches associated with the old kettle dye room constitutes a REC.

HREC-1 – Former No. 6 Oil USTs

Nobis also identified a Historical REC (HREC) associated with the target property which included: two (2) former 20,000-gallon No. 6 oil USTs on Lot 10-41 (HREC-1). These USTs were removed from the ground in 2012. Some stained soil was observed but soil sampling of the tank grave reported total petroleum hydrocarbons (TPH) was not detected (<20 mg/kg). No groundwater analysis was conducted. The USTS were not reported to be leaking USTs (LUSTs) and closure documents were submitted to the Rhode Island Department of Environmental Management (RIDEM). The property owner indicated to Nobis that the UST system pipe chases ran under Thames Street to the Mill Building were removed. Nobis identified that the subsurface beneath the pipes or coming into the building were not assessed. Nobis identified an oil leak in the basement of the Mill where the former UST piping entered the building (see REC-4)

Adjacent Off-Site HRECs

Nobis also identified two (2) off-site HRECs on adjacent properties known to have had petroleum releases. In 2010/2011, a petroleum release from a 2,275-gallon #2 heating oil LUST occurred at the Maritime Welcome Center (adjacent to Mill Lot 10-42). In 1985, a release from a 1,000-gallon gasoline LUST occurred at 315 Hope Street (adjacent to Lot 10-43). These off-site releases involved soil removal and were closed out with no further action by RIDEM. However, available sources did not indicate whether shallow groundwater was impacted.

Business Environmental Risks

Nobis also identified several business environmental risks (BERs) associated with: hazardous building materials, including but not limited to suspect asbestos and lead-based paint (BER-1), an old subsurface cistern (BER-2), flood zone designation (BER-3), unknown metal pipes and suspect UST on Lot 10-76 (BER-4), presence of fill located primarily on the west side of the mill (BER-5), former heating oil AST in Mill 6 (BER-6), and boiler room trenches in the former machine shop (BER-7).

2.0 PHASE II FIELD ACTIVITIES

The Phase II limited site investigation was performed in accordance with Nobis's proposal dated March 29, 2021. The subsurface field investigation was conducted to assess for possible

contamination in various Areas of Concern (AOCs) identified by the RECs. The subsurface investigation included: a geophysical survey, drilling of shallow borings and installation of groundwater monitoring wells, test pit exactions, groundwater elevation survey and chemical testing of soil, soil vapor and groundwater and wipe sampling for polychlorinated biphenyls (PCBs). Field activities were conducted under a Nobis Health and Safety Plan (HASP). Drilling activities were DigSafed as required by state law. Select drilling locations in adjacent streets were conducted in accordance with a street opening permit obtained from the City of Bristol. A description of the Phase II subsurface investigation, which were performed between May 27 and June 30, 2021, is summarized in this section.

2.1 Geophysical Survey and Results

On May 27, 2021, Nobis oversaw a geophysical survey using ground penetrating radar (GPR) equipment of select locations performed by Geophysical Applications of Holliston, MA. Surveyed locations (total of 4) were selected based on proposed subsurface investigation locations related to areas of concern and potential historical utilities and/or USTs as identified in the Phase I ESA (Nobis, 2021). The four GPR survey areas are shown on Figure 2 and were as follows:

- **GPR Area 1** -The courtyard area within the Mill complex between Building #4, Building #6, and the new dye house, GPR Area 1 was surveyed to clear the area of underground utilities or other structures to assess subsurface conditions adjacent to the floor drain trenches located within the Mill (REC-8).

- **GPR Area 2** - The exterior corridor between Building #3 and Building #5. GPR Area 2 was surveyed to determine if historical utilities were present, based on the location of hydrants and manhole covers in the vicinity of soil borings proposed in the area to assess subsurface conditions related to the stock kettle dye room and associated UST (REC-9).

- **GPR Area 3** - The area around the unknown pipe stickups on Lot 10-76. GPR Area 3 was surveyed around the unknown pipe stickups to assess whether a potential buried UST was present.

- **GPR Area 4** - The concrete pad and roadway in the vicinity of proposed SB-1/NB-1 at the southwest corner of the Main Mill Building. Attempts were made to survey the interior of the Building #7A but reinforced rebar in the floor prevented GPR equipment from getting accurate readings. GPR Area 4 was surveyed to determine if subsurface utilities were present prior to installation of SB-1/NB-1 which was proposed to assess potential impacts relating to historical gasoline USTs (REC-2).

A copy of Geophysical Application's GPR survey report is provided in Appendix B. The results of Geophysical Applications GPR survey was used to better select drilling locations (to avoid subsurface utilities) and to further explore certain areas for presence of subsurface structures. The GPR survey findings were as follows:

- In **GPR Area 1**, two locations for location of SB-4 were cleared for drilling. Drilling was able to proceed in this location without additional equipment.

- In **GPR Area 2**, the GPR survey identified the building's fire suppression system which contained many subsurface linear objects present in the vicinity of SB-6 and SB-7. The use of air vacuum excavation to the top 5 feet was recommended if access allowed. However, due to the presence of numerous utilities and limited rig access, Nobis opted to complete SB-6 and SB-7 manually by removing a small section of the concrete with a jackhammer and digging with a shovel and hand auger. Soil samples were then collected manually from a depth of 2 feet below grade (fbg).

- In **GPR Area 3**, the GPR survey identified the presence of a possible UST near the two unknown metal pipes on Lot 10-76 near proposed test pit TP-7. Thus, TP-7 was moved closer to the line of hedges and where the subsurface anomaly was identified to better assess if a UST was present. As discussed in Section 3.0, a UST was not found to be present in this location.

- In **GPR Area 4**, the GPR survey identified a linear object (possible pipe) in the sidewalk in close proximity to proposed boring SB-1/NB-1. A gas line was observed and marked in adjacent Constitution Street. SB-1/NB-1 was moved in a slight eastern direction and was drilled to refusal at 4 fbg. Refusal was suspected to be a large boulder.

2.2 Soil Boring Advancement and Sampling

On June 8, 2021, prior to the start of drilling, GeoSearch Inc., of Sterling, MA, conducted a field cleared soil boring advancement/well installation and test pitting locations. GeoSearch used a pipe utility locator and GPR survey equipment to clear and/or relocate locations of soil borings and test pits in the field only (no report was prepared). GeoSearch's survey was limited to the exterior of the site at proposed locations of soil borings and test pits. The additional pre-clear was conducted in locations within the property boundaries not covered by routine DIGSAFE procedures.

On June 8, 9, and 10, 2021, a Nobis field geologist oversaw the advancement of eleven (11) soil borings (SB-1 through SB-11), including the installations of two (2) groundwater monitoring wells at SB-5 and SB-8 which were designated NB-2 and NB-3, respectively. Soil boring/groundwater well locations are shown on Figure 2. Drilling was conducted using a direct-push (hydraulic) drilling method with a low-profile track-mounted Geoprobe®. Based upon GPR survey findings and presence of potential utilities, air vacuum extraction was used in the top 5 feet in soil borings SB-1, SB-2, and SB-3.

Soil borings were advanced around the exterior of the Mill and on the paved and unpaved parking lots associated with the property to assess subsurface conditions in the identified REC locations per the Phase I and various AOCs as follows:

- **SB-1/NB-1** was advanced at the southern end of the Mill Building along Constitution Street in an area of known former gasoline USTs identified on historical Sanborn maps (REC-2). This boring was terminated at a shallow depth of 4 feet due to refusal on a suspect boulder or building footing. Consequently, groundwater monitoring well NB-1 was not able to be installed.

- **SB-2** was advanced in the sidewalk along Thames Street to assess subsurface conditions adjacent to the suspect leaking hydraulic lift (REC-3).

- **SB-3** was advanced in the sidewalk along Thames Street to assess subsurface conditions where the pipes for the former No. 6 heating oil USTs (REC-4).

- **SB-4** was advanced at the north entrance to the Mill (from Church Street extension) to assess subsurface conditions related to a former transformer area (REC-7).

- **SB-5/NB-2** was advanced between Building #4 and the new dye house to assess subsurface conditions related to floor drain trenches and the new dye house aera (REC-8) and was completed as groundwater monitoring well NB-2.

- **SB-6 and SB-7**– Drilling using the GeoProbe® was not possible in these locations due to access and presence of numerous subsurface utilities (water, gas, sewer). Instead, a small 2 ft by 2 ft section of pavement was removed and the soil beneath the pavement was manually accessed using a hand shovel and hand auger to a depth of 2 fbg.

- **SB-8 /NB-3** was advanced in the unpaved parking lot on Lot 10-76 and was completed as a groundwater monitoring well NB-3. The purpose of this boring/well was to assess

subsurface conditions related to a historical off-site gasoline release on Hope Street (Additional HREC).

- **SB- 9** was advanced in the paved parking lot on Lot 10-44 at the request of Brady Sullivan to assess general subsurface conditions (and to check for the presence of fill) in an area proposed for a new parking lot.

- **SB-10** was advanced on Lot 10-32 within the unpaved parking lot in a location considered upgradient of the Mill.

- **SB-11** was advanced in the paved parking lot on Lot 10-68 at the request of Brady Sullivan to assess general subsurface conditions (and to check for the presence of fill) in an area proposed for a new parking lot.

The borings/monitoring well installations were performed to assess subsurface soil and groundwater quality in these areas. Except at SB-1 (refusal at 4 fbg), soil borings were advanced to depths ranging from 12 feet to 15 feet below ground surface (fbg). As noted above, drilling was limited at SB-6 and SB-7 and subsurface soils were thus obtained manually using a hand shovel and hand auger. Soil samples were collected continuously to the bottom of the boring and were field screened for total VOCs using a hand-held photoionization detector (PID) equipped with a 10.6 eV lamp. Photos of subsurface soil conditions are shown on the Photolog in Appendix C. Soil observations and PID readings are summarized on the soil boring logs included in Appendix D.

Select soil samples based on location, PID readings and field observations were submitted to a State-certified laboratory for analysis. Soil Sampling results are discussed in Section 3.4.1. Eight (8) soil samples collected from varying depths were submitted for laboratory analysis to Eastern Analytical of Concord, New Hampshire. Soil boring samples were analyzed for volatile organic compounds (VOCs) by Method 8260, semi-volatile organic compounds (SVOCs) by Method 8270, total petroleum hydrocarbons (TPH) by Method 8100, pesticides via Method 8081, polychlorinated biphenyls (PCBs) via Method 8082, total cyanide, and RCRA 8 Metals. Additionally, three (3) select soil samples from borings advanced within the Mill Building area at locations SB-4, SB-6 and SB-7 near the former dye house area were also analyzed for Hexavalent Chromium (Cr+6). Additionally, two (2) soil samples collected from SB-6 and SB-7 from 2 fbg which contained lead greater 100 mg/kg (TCLP 20x Rule) were also analyzed for TCLP lead.

2.3 Groundwater Monitoring Well Installation and Development

As described in Section 2.2, monitoring wells NB-2 (installed in SB-5) and NB-3 (installed in SB-8) were completed as 2-inch diameter polyvinyl chloride (PVC) wells. NB-2 and NB-3 were set at depths of 13 fbg and 15 fbg, respectively and screened across the groundwater table. The annular space around the screen was completed using #00 filter screen followed by a minimum 2-foot bentonite chip seal and native soil to ground surface. Each well was completed with protective road boxes flush mounted with the ground surface. Because NB-2 is located closer to Bristol Harbor, groundwater is tidally influenced and thus the screened interval was set slightly shallower than at NB-3 located further inland. *Note: Originally, three monitoring wells were proposed for the Phase II exploration. Monitoring well NB-1 (at SB-1) located near the southwest corner of building #7A could not be installed due to an obstruction at 4 fbg and other limitations (property lines and presence of subsurface utilities) for re-drilling in the same location. SB-1 was back-filled with soil cuttings and the surface was concreted.*

Following installation, the groundwater monitoring wells were developed by purging a minimum of five well volumes utilizing a surge block and inertial pump. Existing GZA wells were previously developed using the same methods in preparation for sampling, in concurrence with GPR Survey and Digsafe pre mark field activities on May 27, 2021. No investigation derived waste (either soil or groundwater) was generated during the Phase II subsurface drilling and well installation activities.

2.4 Soil Vapor Probe Installation and Sampling

On July 9 and 10, 2021, vapor probes were installed by GeoSearch under the oversight of Nobis within the basements of Mill Buildings #1, #3, #7, and #7A. Soil vapor sampling points were installed to obtain information on potential vapor intrusion issues, if any. The soil vapor probes (designated SG-1, SG-2, SG-4, and SG-5) locations are shown on Figure 2.

Soil vapor locations were chosen based on evidence of potential contamination such as staining on the floor, historical information from Sanborn Maps and locations proposed for future residential use. SG-1 was installed in Mill building #3 near the leaking oil drums and former UST piping into the building associated with REC-4. SG-2 was installed in Mill building #1. SG-4 was installed in building #7 in the vicinity of the paint shop noted on the 1896 Sanborn Map and staining on the floor. SG-5 was installed in building #7A near floor staining. *Note: SG-3 was not installed. The drilling subcontractor, GeoSearch cored through approximately eight (8) inches of concrete. When the core was removed, empty space was observed below, with a concrete wall on one side and wood below it, and a wooden beam and visible water several feet below in the open space. It appears part of*

Building #7 was built on piers before the area was filled in. A photo of the SG-3 location is included in the photolog in Appendix C.

Soil vapor pins were installed to depths of approximately 3 feet below the concrete slab in various locations in the Main Mill Building basement. The soil vapor pins were constructed of approximately 6-inch stainless steel ports with screens and 0.25-inch LDPE tubing. The sampling points were closed with a valve and finished as 4-inch flush mounted road boxes. Prior to sample collection, a tightness test was conducted by purging 2L of vapor at a rate of 0.2 L/minute to simulate the flow rate under vacuum conditions from the SUMMA cannisters. Vapor was purged into Tedlar bags and screened using a PID and 4-gas meter to assess conditions compared to ambient air readings. Higher levels of CO_2 and/or total VOCs and/or lower levels of O_2 indicated the soil vapor pins were pulling sub slab soil vapor as opposed to ambient air.

On June 30, 201, Nobis collected four (4) soil vapor samples from SG-1, SG-2, SG-4 and SG-5. Samples were collected a 30-minute air sample using a 6-liter Summa Cannister at a flow rate of 0.2 L/min. Samples were submitted to Con-Test, a Pace Analytical Laboratory for analysis for VOCs via Method TO-15.

2.5 Test Pitting and Soil Sampling

On June 10 and 11, 2021, GeoSearch excavated fifteen (15) test pits (TP-1 through TP-14 and TP-17) under the oversight of a Nobis field geologist. Test pits were excavated by using a John Deere Model 60G compact excavator to depths ranging from approximately 5 to 10 fbg. Excavated soil and debris material were temporarily stockpiled and were backfilled into the test pit after completion.

Test pits were excavated in primarily two general areas - west side of the Mill Building and in the parking lots on Thames Street. Test Pit locations are shown on Figure 2. Test Pits TP-15 and TP-16 were not completed. TP-15 could not be completed due to access and safety issues associated with the presence of numerous subsurface utilities. Similarly, TP-16 (former water tower location) could not be completed due to excessive overgrown vegetation and safety issues associated with the presence of an active underground water line.

Test pit soil samples were field screened for total VOCs using a hand-held photoionization detector (PID) equipped with a 10.6 eV lamp. Photos of subsurface soil conditions in test pit locations are shown on the photolog in Appendix C. Soil observations and PID readings are summarized on the test pit logs included in Appendix E.

Select soil samples based on location, PID readings and field observations were submitted to a State-certified laboratory for analysis. Eight (8) soil samples collected from varying depths were submitted for laboratory analysis to Eastern Analytical of Concord, New Hampshire. Test pit samples were analyzed for a combination of the following analytes: volatile organic compounds (VOCs) by Method 8260, PAHs only by Method 8270, TPH by Method 8100, pesticides, and PCBs via Method 8081/8082 and RCRA 8 Metals. Additionally, three (3) soil test pit samples collected from TP-2, TP-7 and TP-14 which contained lead greater 100 mg/kg (TCLP 20x Rule) were also analyzed for TCLP lead. Soil test pit sampling results are discussed in Section 3.4.2. The laboratory report is provided in Appendix F.

2.6 Groundwater Sampling and Well Survey

On July 29, 2021. Nobis samples groundwater samples from the three existing GZA wells (GZA-1, GZA-2, and GZA-3) and the two newly installed wells NB-2 and NB-3. Groundwater monitoring sampling locations are shown on Figure 2.

Prior to sample collection, groundwater levels were measured in each groundwater monitoring well using a Solinst electronic water level indicator. Water quality meters with flow-through cells, bladder pumps, and appropriate tubing were used to purge the wells, collect aquifer stabilization data, and collect samples in general accordance with EPA Region 1 Low-Stress/Low-Flow sampling techniques. Prior to use, the instruments were calibrated in accordance with the manufacturer's instructions. The groundwater samples were collected into appropriate pre-preserved sample containers supplied by the laboratory and placed in an ice-filled cooler for delivery to the laboratory under chain-of-custody control.

Groundwater samples were analyzed for VOCs by Method 8260, SVOCs by Method 8270, and TPH by Method 8100. Based upon the soil analytical results for pesticides, PCBs, RCRA 8 metals, cyanide and hexavalent chromium, analysis of these parameters in groundwater was not warranted due to either non- or low detectable levels. Groundwater samples were submitted to and analyzed by Eastern Analytical of Concord, New Hampshire. A copy of the groundwater laboratory analytical report is provided in Appendix F.

On July 30, 2021, Nobis conducted a well elevation survey of the five (5) monitoring wells. The temporary benchmark (Elevation = 100 feet) was identified as the southeast corner of a concrete pad located on Church Street. Monitoring well elevations were measured to the top of the PVC casing. The elevation survey information is used to determine groundwater depth and general direction of flow (See Figure 3).

2.7 PCB Wipe Sampling

On June 28, 2021, Nobis collected a total of thirteen (13) wipe samples from various locations within the main mill building. Wipe sample locations are shown on Figure 2.

Four (4) wipe samples (designated WS-series) were collected from the gear oil from each of the four cable-weighted elevators. WS-series wipe samples were collected from an oil reservoir in contact with the cables located on the roof or penthouse above each elevator. Nine (9) wipe samples (designated CW-Series) were located on a concrete floor. For the CW-series, samples were collected by 1) first blotting a 10cm square area horizontally with one side of the wipe and then vertically with the other side of the wipe, and then 2) blotting uniformly at least five times in each direction, and then 3) the wipe was carefully rolled into a lab container with the wet exposed to the inside. Wipe samples were preserved with hexane. Samples were submitted to Con-test, a Pace Analytical Lab and were analyzed for PCBs via EPA Method 8082 using Soxhlet extraction.

3.0 PHASE II FINDINGS

3.1 Soil Observations and Field Screening Results

Soils consisted of primarily sandy fill overlying native soil consisting of alternating layers of hardpacked marine deposits of sand, silt, clay. Crushed seashells were observed in the native soils at shallow depths in explorations advanced west of the Main Mill Building (TP-1 through TP-3 and TP-17) and in SB-9 on parking Lot 10-44.

Secondary debris observed in the fill layer included: crushed rock/stone, crushed brick and concrete pieces, glass fragments, asphalt shingles, ash and pieces of slag and pieces of steel rebar. Slag was particularly abundant at TP-3 and TP-17 (west of Mill Bldg#6A) and was the majority component of the soil excavated. Fill thickness ranged from approximately 4 to 8.5 feet in thickness. Fill was observed in several soil borings and most test pits as follows: SB-1 (4 ft) , SB-4 (4.5 ft), SB-8, (0.5 ft), SB-9 (1 ft), SB-10 (4.5 ft), TP-1, TP-2, TP-3 (3.5 ft), TP-4 (2.5 ft), TP-6 (8.5 ft), TP-7 (3 ft), TP-8 (3 ft), TP-9 (3 ft), TP-10 (2 ft), TP-11 (2 ft), TP-12 (2.5 ft), TP-13 (2 ft), TP-14 (4 ft), TP-17 (7 ft). The greatest thickness of fill was observed in TP-6 excavated in the parking area on Lot 10-43. The fill in TP-6 extended to 8.5 feet and was underlain by a brown-grey layer of moist to wet fine to medium sand. A petroleum odor was encountered at the groundwater table at approximately 9.5 fbg.

West of the Main Mill Building, moderate to difficult excavation conditions were encountered at test pit locations TP-1 and TP-2. Excavation at TP-3 and TP-17 was easy to moderate as extensive fill was encountered to depths of approximately 7 to 7.5 fbg. The 2015 GZA Phase I report noted

that soils in GZA-1 through GZA-3 (in the same area) consisted of a mixture of fill and quarry gravel. The source of the fill was unspecified and contains very dense materials with a high frequency of large cobbles and small boulders. The latter prevented installation of a well at SB-1/NB-1.

Soil PID readings of total VOCs (TVOCs) were detected (>1 ppmv) in several soil borings but in only one test pit location. PID readings are summarized by depth in Table 1. PID readings measured above 1 ppmV were as follows:

- **Main Mill Parcel** – PID readings were detected in SB-2, SB-3, SB-4, SB-5, SB-7, SB-8, SB-10. PID readings were obtained from various depths from 0 to depths up to 15 fbg. The highest PID reading (26 ppmv) was measured in SB-10 (Lot 10-32 parking lot) at 5 to 7 fbg.
- **Parking Lot Parcels** (**East of Thames Street**) – A PID reading of 65 ppmv was detected in TP-6 at depth of 9 to 10 at the groundwater table. PID readings in all other test pits were less than 1 ppmv.

No staining or dark colored (black or brown, black) soils was observed in the subsurface. Petroleum odors were noted at TP-6 at 9 to 10 fbg at the groundwater table. No sheen or free product was observed on groundwater during drilling or excavation activities.

3.2 Groundwater Elevations and Flow Directions

The well elevations and groundwater gauging data as measured on June 30, 2021, are summarized in Table 1. Depth to groundwater measured from 5.40 feet (in NB-2) to 7.71 feet (in GZA-1). Corresponding groundwater elevations ranged from 89.22 feet 9in GZA-1) to 103.34 feet (in NB-3). Groundwater elevations measured on June 30, 2021, were used to prepare the potentiometric map as shown on **Figure 3.** Based upon the groundwater contour, groundwater is inferred to flow to the southwest towards Bristol Harbor. This direction of flow is consistent with local topography and location of area surface water.

3.3 Laboratory Analytical Results

3.3.1 Soil

Soil analytical results from soil borings and test pits are shown in Tables 3 and 4, respectively.

VOCs

VOCs were detected in SB-6, SB-7, SB-5 (northern mill area) and in TP-3 (downgradient of northern mill area). Tetrachloroethene (PCE) was detected at 0.40 mg/kg in the 2 fbg soil sample from SB-7. Naphthalene was detected at 0.10 mg/kg in the 2 fbg soil sample from SB-6. Both SB-6 and SB-7 are in the northern mill building area adjacent to the old dye house. Styrene was detected at 5.1 mg/kg in a 2-to-3-foot sample at TP-3 (west of Main Mill Building).

SVOCs

SVOCs consisted of primarily PAHs (16 compounds) and were detected in: SB-6, SB-7 and SB-5 (northern main parcel), test pits TP-1, TP-2, TP-3 (west of main mill building) and in test pits TP-6 and TP-8 in the parking lots parcels east of Thames Street. The highest total PAH compound concentrations were detected in SB-6/2 ft (265.3 mg/kg) and SB-7 (46.67 mg/kg) on the northern mill parcel. Total PAHs were lower in TP-1 (7.42 mg/kg) and TP-2 (14.17 mg/kg), TP-3 (6.30 mg/kg) on the main mill parcel west of the building. Total PAHs were also low in TP-7 (3.47 mg/kg) and in TP-14 (4.01 mg/kg) on the parking lot parcels.

Metals and TCLP Lead

Seven of the eight RCRA 8 metals were detected in one or more of the 16 soil samples analyzed. The highest metals concentrations were as follows:

Summary Metals in Soil (All Locations) – mg/kg

Metal	Frequency Detection	Min	Max	Location Max	Soil Depth
Arsenic	16/16 = 100%	1.5	8.5	SB-8	7 – 9 ft
Barium	16/16 = 100%	2.3	1,500	TP-7	0 – 3.5 ft
Cadmium	2/16 = 13%	0.59	1.2	TP-3	2 - 3 ft
Chromium, Total	16/16 = 100%	7.1	25	TP-2	3 – 4 ft
Lead	16/16 = 100%	5.7	4,600	TP-7	0 - 3.5 ft
Mercury	6/16 = 38%	0.13	0.60	SB-6	2 ft
Selenium	7/16 = 44%	0.52	2.4	TP-3	2-3 ft

Note: Based upon 8 soil boring samples and 8 test pit soil samples (n=16 samples). Detected concentrations shown.

Silver and hexavalent chromium were not detected above laboratory detection limits in the four (4) soil boring samples. Total lead was greater than the RCRA 20x Rule (20 x 5 mg/L =100 mg/k) in four soil samples: SB-6/0-2 ft (310 mg/kg), SB-7/0-2 ft (260 mg/kg), TP-2/3-4 ft (130 mg/kg) and TP-7/0-3.5 ft (4,600 mg/kg). These samples were further analyzed by the toxicity characteristic leaching procedure (TCLP) for lead. TCLP Lead was detected in only one of the four samples

analyzed – TP-7 TCLP lead at 1.4 mg/L, which is below the maximum concentration for the lead toxicity characteristic of 5 mg/L and thus is not considered hazardous.

Petroleum

Petroleum (as TPH) was detected above laboratory analytical results in three test pit samples (SB-5/NB-1, SB-6 and SB-7) and six test pit samples (TP-1, TP-2, TP-3, TP-6, TP-7, and TP-14. TPH was highest at SB-6 (800 mg/kg) in the north mill area, TP-3 (230 mg/kg) west of the main mill and in TP-6 (580 mg/kg) in the parking lot east of Thames Street. TPH in other locations was less than 100 mg/kg or not detected.

Pesticides and PCBs

Pesticides were detected test pit samples TP-7 and TP-14. Analytes detected in one or more samples were 4,4'-DDT, 4,4'-DDE, and 4,4'-DDD. Pesticides were not detected in any soil boring samples, or the three other test pit samples analyzed for pesticides. One PCB analyte, PCB-1260, was detected in the sample from TP-1. PCBs were not detected above laboratory detection limits in any other sample.

Cyanide

Total cyanide was detected at 0.54 mg/kg in the 2-foot soil sampling from soil boring SB-6. Cyanide was not detected in other locations sampled.

3.3.2 Groundwater

Groundwater analytical results are summarized in Table 5.

Groundwater pH ranged between approximately 6.6 and 7.6, which is within the range of natural waters. Groundwater temperature ranged between 18 and 23 degrees Celsius (64- and 73-degrees Fahrenheit) and was consistent with seasonal summer temperature. Specific conductivity values ranged from 245.43 microsiemens per centimeter (uS/cm) in NB-3 to 42,867 µS/cm in GZA-3. High specific conductivity (<20,000 µS/cm) was observed at NB-2, GZA-1, GZA-2, and GZA-3 and is inferred to be due to the proximity to the harbor and influence from brackish water.

No VOCs or petroleum were detected in the five groundwater monitoring wells. PAHs were detected primarily in monitoring well GZA-1 (7 compounds) and to a lesser extent in GZA-3 (1 compound). PAHs detected included: phenanthrene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene and benzo[a]pyrene.

3.3.3 Soil Vapor

Soil vapor analytical results are summarized in Table 6.

Fourteen (14) VOCs were detected in soil vapor sampling locations. Analytes present above laboratory detection limits included petroleum compounds such as benzene, toluene, ethylbenzene, xylenes (BTEX) and 1,2,4-trimethylbenzene (1,2,4-TMB) and several chlorinated VOCs (CVOCs) detected included: chloroform, 1,4-dichlorobenzene, 1,1,1, -trichloroethane (1,1,1, -TCA), trichlorethylene (TCE) and tetrachloroethylene (PCE).

3.3.4 PCB Wipes

PCB wipe analytical results are summarized in Table 7.

PCBs were detected in standard wipe samples collected from six of the thirteen locations sampled. PCBs included Aroclor 1254 and Aroclor 1260. Total PCBs were detected at concentrations ranging from 0.25 ug/100 cm2 to 0.75 ug/100 cm2. The PCB wipe concentrations are below the RIDEM Notification Limit of 10 ug/m3 and does not constitute "release" as defined under the RIDEM Remediation Rules, which is consistent with the definition under Toxic Substances Control Act (TSCA) 40 CFR 761.243. TSCA requires reporting of greater than 10 ug/100 cm2 for low and high-concentration spill occurrences[2].

4.0 DISCUSSION OF RESULTS

4.1 Comparison to State Soil Standards

Currently, the subject property consists of parcels which are used for both residential (Lots 49 and 50 at 60 and 70 Thames Street) and industrial/commercial purposes (Main Mill parcel and parking lot parcels). In the future, the Main Mill parcel may be used for residential purposes (condominiums) upon development by Brady Sullivan.

Based upon the identified existing and potential uses, the soil analytical results were compared to the Method 1 Soil Objectives codified in the Rhode Island Department of Management (RIDEM) *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (250-RICR-140-30-1) in Table 1 – Residential Direct Exposure Criteria (RDEC), and Industrial/Commercial Exposure Criteria (I/C-DEC) and Table 2 - Leachability Criteria for GB

[2] USEPA, June 23, 1987, Revised/Clarified April 18, 1991, Wipe Sampling and Double Wash/Rinse Cleanup as recommended by the EPA PCB Spill Cleanup Policy. See Tables 1 – Low Concentration Spills (<270 gallons of Untreated Mineral Oi with <500 ppm PCBs) and Table 2 - High Concentrations Spills (>270 gallons of Untreated Mineral Oil with <500 ppm PCBs).

Groundwater. The RDEC standards are more stringent than the I/C DEC standards. Note: There are no reportable concentrations for TPH. However, RIDEM Remediation Rules do have Method 1 Cleanup Objectives for TPH in soil which are as follows: Residential DEC of 500 ppm, Industrial/Commercial DEC of 2,500 ppm and GB TPH Leachability criterion of 2,500 ppm (Source: RIDEM 250-RICR-140-30-1 Subsection 1.9.2 Soil Objectives).

As shown in Tables 3 and 4, one or more exceedances of the RDEC and/or of the I/C DEC were observed in samples collected from three general locations:

- Main Mill Parcels (West of Building) – TP-1, TP-2, and TP-3 (Lots 10-42 and 10-60)
- Main Mill Parcels (Central Mill Exterior) – SB-6 and SB-7 (Lot 10-42)
- Parking Lot Parcels (Thames Street) – SB-8 and TP-6 (Lot 10-43) and TP-7 (Lot 10-76)

PAHs, arsenic, and lead in shallow soils (0 to 4 fbg) at TP-1, TP-2, and TP-3 exceeded the RDEC and/or I/C DEC. These constituents maybe related to the presence of historical fill which is co-mingled with quarry fill and is known to have been placed in the land area between the Main Mill and Bristol Harbor to expand the developable land area.

Several PAHs, TPH and lead in soils at SB-6 and SB-7 (at 2 fbg) exceeds the RDEC and/or IDEC within the central exterior Mill Parcel area. These constituents may be related in part to fill but may be related to releases from historical mill operations, which in this location included a boiler house, a mechanical room and dye house. SB-6 and SB-7 are in the vicinity of the floor drains and former stock dye kettle associated with REC-9, which were identified in the Phase I (Nobis, 2021). The geophysical survey also identified many subsurface utilities (water, sewer, drains) in the vicinity of SB-5, SB-6, and SB-7.

Arsenic in soils at 7 to fbg in SB-8 (on Lot 10-43) exceeds the RDCE and IDEC of 7.0 mg/kg. Lot -10-42 does contain a structure that is used for residential purposes. The arsenic may be related to presence of fill. Also on Lot 10-43, TPH in soil at TP-6 (9 – 10 fbg) contained TPH above the RDEC of 500 mg/kg. The TPH concentration at depth is likely related to an old off-site gasoline UST release at 318 Hope Steet. Nobis also observed petroleum odors at the groundwater table in TP-6.

Lead in soil was detected at 4,600 mg/kg in a 0 to 3.5 fbg sample at TP-7 on Lot 10-76 above the RDEC of 150 mg/kg and the I/CDEC of 500 mg/kg. Nobis has conducted a geophysical survey around the two unknown metal pipes which identified a potential UST to be present. However, test pits excavated around TP-7 did not find a UST to be present. Nobis believe the source of the high lead in shallow soil may be related to the presence of fill (black/grey ash like material) which was reported at depth in this sample as PID readings were asl less than 1 ppmv to a depth of 8 fbg.

4.2 Comparison to State Groundwater Standards

Groundwater beneath the subject property is classified by RIDEM as a GB designation. Groundwater category GB applies to areas where pollution has degraded the underlying aquifer, and the aquifer is not a current or potential drinking water source. In Rhode Island, the GB groundwater designation is typical for urban locations. The subject property is also serviced be a municipal water supply system. The nearest GA (drinking water) groundwater area is located approximately ¼ mile (1,320 feet) to the north of the subject property.

The groundwater analytical results were compared to the Method 1 Groundwater Objectives codified in the Rhode Island Department of Management (RIDEM) *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (250-RICR-140-30-1) in Table 4 –GB Groundwater Objectives.

As shown in Table 5, concentrations of VOCs, PAHs and TPH were below the applicable RIDEM Method 1 GB Groundwater Objectives.

4.3 Comparison to Soil Vapor Standards

Soil vapor pins were installed, and vapor samples were collected to assess the subject property for the potential for vapor intrusion of volatiles into the building. The State of Rhode Island does not have a stand-alone guidance dedicated to vapor intrusion; however, the vapor intrusion and inhalation pathway is addressed in remediation regulations prepared by the Office of Waste Management of the Rhode Island Department of Environmental Management (DEM), entitled "Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases," last amended in November 2011. In addition, the Office of Waste Management has published a guidance document entitled "School Siting Guidance for the Evaluation of Vapor Intrusion Potential in Proposed Rhode Island School Sites," dated September 19, 2012. The latter guidance is not applicable to the current use of the subject property.

Thus, for reference purposes only, the soil vapor data was compared to soil vapor criteria values published by the Connecticut Department of Energy and Environmental Protection (CTDEEP) and subslab soil gas screening values published by the Massachusetts Department of Environmental Protection (MassDEP). The CTDEEP Volatilization Criteria are regulated and enforceable values in the State of Connecticut whereas the MassDEP has screening values only. Both states have values for residential and industrial/commercial scenarios. These criteria/values

can be used to screen VOC air concentrations from soil vapor (gas) to assess the potential for vapor intrusion into indoor air.

As shown in Table 6, fourteen (14) VOCs were detected in soil vapor beneath the basement slab. VOCs detected included both gasoline compounds (i.e., benzene, ethylbenzene, toluene, xylenes or BTEX and 1,2,4-trimethybenzene) and several chlorinated VOCs or CVOCs. The CVOCs detected in subslab soil vapor included: 1,4-dichlrobenzene, tetrachloroethylene [PCE], 1,1,1-trichloroethane [1,1,1-TCA] and trichloroethylene [TCE]. Total VOCs ranged from 45.64 microgram per cubic meter (ug/m3) in SG-5 (Mill Bldg#7A) to 772.05 ug/m3 (Mill Bldg#7). In SG-4, most of the total VOCs (772.05 ug/m3) in soil vapor consisted of trichlorofluoromethane (Freon 11) and PCE.

There are no screening values for Freon 11. In SG-4 (Mill Bldg#7), the PCE concentration of 260 ug/m3 exceeded the MassDEP Residential Subslab Soil Gas Screening Value of 98 ug/m3. This concentration did not exceed (but was just below) the MassDEP Industrial/Commercial Subslab Soil Gas Screening Value of 290 ug/m3. PCE, is a solvent used in the dry-cleaning process and was also a compound detected in the waste stream generated by the Robin Rug and discharged to the City of Bristol sewer via a permit.

4.4 Notification to RIDEM

In accordance with RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (250-RICR-140-30-1) *Subsection 1.6.1 – Notification of a Release*, a Responsible Party shall notify the RIDEM, in writing in both hard copy and electronic format (as specified by the Department), of the discovery of any Release in accordance with the Remediation Rules within 15 days after discovery of the Release. Releases related to underground injection control (UIC), or underground storage tanks (USTs) are exempt from reporting under the Remediation Regulations.

Under the RIDEM Remediation Regulations, notification is required if: 1) concentrations of hazardous substances in soil which exceed the soil objectives in Tables 1 and 2, Subsection 1.9.2 (C) (2) or (3) of the RIDEM Remediation Regulations are considered to present a "significant potential to cause an acute or chronic adverse effect on human health or the environment", and 2) because the following conditions are not met:

RIDEM 250-RICR-140-30-1 Subsection 1.6.1 (C) – Condition	Reason for Notification
2.(a). The release has impacted an area currently limited to Industrial or Commercial Activity	Arsenic in SB-8 and TPH in TP-6 > RDEC and/or I/C DEC (for arsenic) on Lot 10-76 which is a residential property. Lead in TP-7 > RDEC and I/CDEC on Lot 10-76 which is a residential property.
2.(b). The reasonably foreseeable future use of the property impacted by the Release is limited to Industrial/Commercial Activity	Lots 10-42 and 10-60 (the Main Mill parcels) are proposed for redevelopment as residential condominium apartments. Parcels east of Thames Street are proposed for use as a paved parking lot.
2.(e). The Hazardous Substances of concern are listed in Table 1 and 1, Subsection 1.9.2(C)(2) and (3) of this Part, and are at concentrations which are below the industrial or commercial DEC, and below the GB leachability criteria as listed in those tables, respectively	PAHs, arsenic, and lead exceed the I/C DEC on the Lot 10-42 and Lot 10-60 (the Main Mill parcels). TPH, arsenic and lead on the parking lot parcels Lot 10-43 and 10-76 exceed the RDEC and/or I/CDEC.
2.(g). The abutting properties are used for Industrial/Commercial Activity	Abutting properties include residential properties (east and south) and a park (north side).
2. (h). There is no physical boundary of any wetland or surface water within 500 feet of the Release	Bristol Harbor abuts Lots 10-42 and 10-60 (the Mina Mill parcels) to the west. Most of the subject property is located within 500 feet of surface water.

The summary of exceedances in Soil Requiring Notification to RIDEM are summarized in Table 8.

5.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Based upon the findings of the limited Phase II, Nobis concludes the following:

- Subsurface soil consists of fill overlying native marine deposits consisting of alternating layers of sand, silt, and clay. Fill consists of fine to coarse sand with debris consisting of crushed stone/rock, concrete, brick, ash, slag, glass, plastic, and wire fragments. Fill is present in several area of the site, including west of the main mill, the central northern interior (SB-6/SB-7 area) and in the parking lots parcels east of Thames Street. Fill ranged in thickness from approximately 3 to 8 feet. The greatest amount of fill (≈8 feet) was encountered in TP-6 on Lot 10-43.

- Except for one reading (65 ppmv in TP-6), PID readings of TVOCs in soil were generally low less than 1 ppmv in most locations. Petroleum odors were encountered at the groundwater table at 8 fbg in TP-6 only. No dark brown or black-stained soils were encountered in the subsurface. No sheen or free product was encountered in groundwater monitoring locations.

- A UST, which was suspected to exist based upon GPR, was not encountered during test pit explorations at TP-7 on Lot 10-76. The past and/or current use of the two unknown metal pipes in this location remains unclear. Lead was detected at 4,600 mg/kg in TP-7 at depth of 0 to 3.5 feet and is suspected to be related to the presence of ash.

- In soil, contaminants detected included primarily PAHs, TPH and metals (primarily arsenic and lead). The contaminants may be related to the presence of anthropogenic fill (placed by man) or pyrogenic fill (burn residue or produced by fire) and/or possibly by undocumented releases from historic mill activities and operations. Other contaminants such as VOCs, pesticides, PCBs, cyanide, and hexavalent chromium were low and/or not detected. Several constituents detected in soil exceed the Rhode Island Residential DEC and/or the Industrial/Commercial DEC. Exceedance of the DECs indicates that a potential increased risk to human health exists via the direct contact pathway.

- In groundwater, VOCs and TPH were not detected in groundwater monitoring wells located on the Main Mill Building parcels (Lots 10-42 and 10-60) and or in NB-3 installed on parking lot parcel Lot 10-43. PAHs were detected at low concentrations in GZA-3 primarily located on the downgradient site of the subject property. Based upon the groundwater sampling data, groundwater quality does not appear significantly negatively impacted and is consistent with groundwater quality in GB areas.

- In subslab soil vapor, VOCs are present at varying concentrations. VOCs reported include various types of gasoline related compounds and several CVOCs. Total VOC vapor concentrations (772.05 ug/m3) in SG-4 located beneath Mill Bldg#7 was much higher than in other locations. Most of the total VOC concentration in SG-4 soil vapor consisted of trichlorofluoromethane (Freon 11) and PCE. The State of Rhode Island does not have a stand-alone guidance dedicated to vapor intrusion and/or standards (like CTDEEP) or vapor screening values (like MassDEP). For comparison only, the PCE concentration of 260 ug/m3 in SG-4 exceeds the MassDEP Subslab Soil Gas Screening Value for Residential Use. Per MassDEP guidance, this exceedance indicates that the vapor intrusion pathway may be of concern under future residential use conditions. However, the PCE soil vapor detection was in only 1 of 4 sample locations and was in portion of the main mill building

proposed as open-air garage space (below first residential living floor). Additionally, PCE was not detected in either soil or groundwater and thus the presence of PCE in soil vapor may be indicative of background conditions and from an unknown off-site source. Thus, this single PCE soil vapor detection beneath the subslab is not considered to have an impact on proposed future use.

- In wipe samples, low to trace levels of PCBs are present. Wipe samples indicated that low level PCBs are associated with some elevator oils and in some stained concrete surfaces (from past spills) in the basement. Total PCB wipe concentrations were less than 1 ug/100 cm2 which is below the reporting notification threshold per State of Rhode Island and federal (TSCA) requirement of 10 ug/100 cm2. However, wipe sampling is "qualitative" and only indicates that PCBs are present or absent on the surface and does not provide a "quantitative" measure or concentration of PCBs on the wiped surface. Additionally, as noted in the lab report, the PCB wipe analytical results were biased low.

Nobis provides the following recommendations:

- Management of fill material is advised during future redevelopment of the property. Soils should be characterized in accordance with a written soil management plan and in coordination with a qualified environmental professional.

- Soil concentrations exceeding the RDEC and/or the I/C DEC (coupled with exemption criteria not met) constitute a "release" in accordance with RIDEM Remediation Regulations (250-RICR-140-30-1). The release is required to be reported by a Responsible Party, which per the regulations is defined as the Property Owner. A summary of the results of soil exceedance to be reported to RIDEM are summarized in Table 8. The Property Owner should notify RIDEM in writing (both hard copy and electronic via email) in accordance with state regulations.

6.0 REFERENCES

CTDEEP, 2021, Remediation Standards Regulations (RSRs) 22a-133k-3. Appendix F - Volatilization Criteria for Soil Vapor.

GZA GeoEnvironmental, Inc., 2005, *Phase I and Phase II Environmental Site Assessment Report,* Robin Rug Facility, 125 Thames Street, Bristol, Rhode Island.

MassDEP, December 20, 2011, Revised February 22, 2013, and March 7, 2013, *Interim Final Vapor Intrusion Guidance, WSC# 11-435,* Table II.1 -Residential Sub-Slab Soil Gas Screening Values and Table II.2 – Commercial/Industrial Sub-Slab Soil Gas Screening Values.

Nobis Group, June 2021, *Phase I Environmental Site Assessment Report*, Robin Rug, 125 Thames Street, Bristol, Rhode Island.

Rhode Island Department of Environmental Management (RIDEM) Title 250, Chapter 140 – Waste and Materials Management, Subchapter 30 – *Site Remediation, Part 1 - Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases* (250-RICR-140-30-1) effective April 22, 2020.

USEPA, June 23, 1987, Revised and Clarified 18, 1991, Wipe Sampling and Double Wash/Rinse Cleanup as Recommended by The Environmental Protection Agency PCB Spill Cleanup Policy.

USEPA, November 2005, Polychlorinated Biphenyls (PCBs) Site Revitalization Guidance Under the Toxic Substances Control Act (TSCA).

TABLES

Table 1
Soil PID Readings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Location	Sample Number	Sample Depth (ft)	PID Reading (ppmV)
SB-1	-	0 to 4	No readings collected
SB-2	S-1	5 to 7	1.7
SB-2	S-1	7 to 10	3.7
SB-2	S-2	10 to 11	3.8
SB-2	S-2	12 to 13	1.2
SB-2	S-2	15	<1
SB-3	S-1	5 to 7	3.0
sB-3	S-1	7 to 10	4.5
SB-3	S-2	10 to 12	1.0
SB-3	S-2	12 to 15	2.4
SB-4	S-1	0 to 4	3.0
SB-4	S-1	4 to 5	7.3
SB-4	S-2	5 to 9	<1
SB-4	S-2	9 to 10	<1
SB-4	S-3	10 to 13	<1
SB-4	S-3	13 to 15	<1
SB-5	S-1	0 to 3	8.9
SB-5	S-1	3 to 5	<1
SB-5	S-2	5 to 7	7.6
SB-5	S-2	7 to 9	1.6
SB-5	S-2	9 to 10	14.5
SB-5	S-3	10 to 15	<1
SB-6	--	0 to 1	<1
SB-6	--	1 to 2	<1
SB-7	--	0 to 2.5	2.3
SB-8	S-1	0 to 4	8.0
SB-8	S-1	4 to 5	<1
SB-8	S-2	5 to 8	<1
SB-8	S-2	8 to 10	<1
SB-8	S-3	10 to 12	3.7
SB-8	S-3	12 to 15	<1
SB-9	S-1	0 to 3	<1
SB-9	S-1	3 to 5	<1
SB-9	S-2	5 to 7	<1
SB-9	S-2	7 to 9	<1
SB-9	S-2	9 to 10	<1
SB-9	S-3	10 to 13	<1
SB-9	S-3	13 to 15	<1

Table 1
Soil PID Readings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Location	Sample Number	Sample Depth (ft)	PID Reading (ppmV)
SB-10	S-1	0 to 5	4.3
SB-10	S-2	5 to 7	26
SB-10	S-2	7 to 9	1.1
SB-10	S-2	9 to 10	16.4
SB-10	S-3	10 to 13	3.8
SB-10	S-3	13 to 15	14.5
SB-11	S-1	0 to 3	<1
SB-11	S-1	3 to 5	<1
SB-11	S-2	5 to 7	<1
SB-11	S-2	7 to 10	<1
SB-11	S-3	10 to 11	<1
SB-11	S-3	11 to 15	<1
TP-1	--	0 to 1	<1
TP-1	--	1 to 2	<1
TP-1	--	2 to 3	<1
TP-1	--	3 to 4	<1
TP-1	--	4 to 5	<1
TP-2	--	0 to 1	<1
TP-2	--	1 to 2	<1
TP-2	--	2 to 3	<1
TP-2	--	3 to 4	1.1
TP-2	--	4 to 5	<1
TP-2	--	5 to 6	<1
TP-2	--	6 to 7	<1
TP-3	--	0 to 1	<1
TP-3	--	1 to 2	<1
TP-3	--	2 to 3	<1
TP-3	--	3 to 4	<1
TP-3	--	4 to 5	<1
TP-3	--	5 to 6	<1
TP-3	--	6 to 7	<1
TP-4	--	0 to 2	<1
TP-4	--	2 to 4	<1
TP-4	--	4 to 6	<1
TP-4	--	6 to 8	<1
TP-4	--	8 to 9	<1
TP-4	--	9 to 10	<1
TP-5	--	0 to 2	<1
TP-5	--	2 to 4	<1
TP-5	--	4 to 6.5	<1

Table 1
Soil PID Readings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Location	Sample Number	Sample Depth (ft)	PID Reading (ppmV)
TP-6	--	0 to 3	<1
TP-6	--	3 to 6	<1
TP-6	--	6 to 8	<1
TP-6	--	8 to 10	65.6
TP-7 (1)	--	0 to 3	<1
TP-7 (1)	--	3 to 5	<1
TP-7 (1)	--	5 to 7	<1
TP-7 (2)	--	0 to 2	<1
TP-7 (2)	--	2 to 4	<1
TP-7 (2)	--	4 to 6	<1
TP-7 (2)	--	6 to 7	<1
TP-7 (2)	--	7 to 8	<1
TP-8	--	0 to 2	<1
TP-8	--	2 to 4	<1
TP-8	--	4 to 6	<1
TP-9	--	0 to 2	<1
TP-9	--	2 to 4	<1
TP-9	--	4 to 6	<1
TP-9	--	4 to 6	<1
TP-10	--	0 to 1	<1
TP-10	--	1 to 2	<1
TP-10	--	2 to 4	<1
TP-10	--	4 to 5	<1
TP-10	--	5 to 7	<1
TP-10	--	7 to 8	<1
TP-10	--	8 to 9	<1
TP-10	--	9 to 10	<1
TP-11	--	0 to 3	<1
TP-11	--	3 to 5	<1
TP-11	--	5 to 7	<1
TP-12	--	0 to 2	<1
TP-12	--	2 to 4	<1
TP-12	--	4 to 6	<1
TP-12	--	6 to 7	<1
TP-13	--	0 to 2	<1
TP-13	--	2 to 4	<1
TP-13	--	4 to 5	<1
TP-13	--	5 to 6.5	<1

Table 1
Soil PID Readings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Location	Sample Number	Sample Depth (ft)	PID Reading (ppmV)
TP-14	--	0 to 1	<1
TP-14	--	1 to 2	<1
TP-14	--	2 to 3	<1
TP-14	--	3 to 4	<1
TP-14	--	4 to 5	<1
TP-14	--	5 to 6	<1
TP-14	--	6 to 7	<1
TP-14	--	7 to 8	<1
TP-14	--	8 to 9	<1
TP-19	--	0 to 1	<1
TP-19	--	1 to 2	<1
TP-19	--	2 to 3	<1
TP-19	--	3 to 4	<1
TP-19	--	4 to 5	<1
TP-19	--	5 to 6	<1
TP-19	--	6 to 7.5	<1

Notes:

1. Soil boring PID headspace readings were recorded during drilling operations on June 8, 9 and 10, 2021.
2. Soil test pit PID headspace readings were recorded during excavation on June 10 and 11, 2021.
3. PIDs were calibrated and used in accordance with Nobis SOP FS-007 Vapor and Air Screening with PID and FID.

Table 2
Groundwater Elevation Data
Robin Rug
125 Thames Street
Bristol, Rhode Island

Well No.	Date	Reference Elevation (ft.)	Depth to Groundwater (ft.)	Groundwater Elevation (ft.)
NB-2	6/30/2021	98.90	5.40	93.50
NB-3	6/30/2021	109.78	6.44	103.34
GZA-1	6/30/2021	96.93	7.71	89.22
GZA-2	6/30/2021	96.35	7.09	89.26
GZA-3	6/30/2021	96.14	6.57	89.57

Notes:

1. Well elevations were surveyed on June 30, 2021. The reference elevation is based on a temporary benchmark located at the southeast corner of a conrete pad on Church Street Extension, with a given elevation of 100 ft.

2. Groundwater level measurements were obtained by Nobis Group on the dates indicated, using an electronic water level indicator.

Table 3
Soil Analytical Results - Soil Borings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Parameter	Units	Soil Boring/Sample Depth								RIDEM Soil Standards [1][2]		
		SB-3 7-9 ft	SB-2 12-14 ft	SB-4 7-9 ft	SB-5/NB-1 10-12 ft	SB-6 2 ft	SB-7 2 ft	SB-8/NB-2 7-9 ft	SB-11 8-10 ft	RDEC	I/C DEC	Leachability Criteria (GB)
VOCS (EPA 8260C):												
Tetrachloroethene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	**0.40**	<0.5	<0.5	12	110	4.2
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	**0.10**	<0.1	<0.1	<0.1	NS	NS	NS
SVOCs (8270D):												
Carbazole	mg/kg	< 0.08	< 0.08	< 0.08	<0.08	**3.10**	**0.57**	< 0.07	< 0.08	NS	NS	NS
Dibenzofuran	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.20**	**0.31**	< 0.07	< 0.08	NS	NS	NS
Naphthalene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.60**	**0.35**	< 0.07	< 0.08	54	10,000	NS
2-Methylnaphthalene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**0.73**	**0.12**	< 0.07	< 0.08	123	10,000	NS
1-Methylnaphthalene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**0.55**	**0.13**	< 0.07	< 0.08	NS	NS	NS
Acenaphthylene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.8**	**0.57**	< 0.07	< 0.08	23	10,000	NS
Acenaphthene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.4**	**0.41**	< 0.07	< 0.08	43	10,000	NS
Fluorene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.6**	**0.40**	< 0.07	< 0.08	28	10,000	NS
Phenanthrene	mg/kg	< 0.08	< 0.08	< 0.08	**0.11**	**30**	**4.90**	< 0.07	< 0.08	40	10,000	NS
Anthracene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**8.1**	**1.40**	< 0.07	< 0.08	35	10,000	NS
Fluoranthene	mg/kg	< 0.08	< 0.08	< 0.08	**0.14**	**57**	**7.20**	< 0.07	< 0.08	28	10,000	NS
Pyrene	mg/kg	< 0.08	< 0.08	< 0.08	**0.12**	**37**	**6.80**	< 0.07	< 0.08	13	10,000	NS
Benzo[a]anthracene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**25**	**4.60**	< 0.07	< 0.08	0.9	7.8	NS
Chrysene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**22**	**4.20**	< 0.07	< 0.08	0.4	780	NS
Benzo[b]fluoranthene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**27**	**6.10**	< 0.07	< 0.08	0.9	7.8	NS
Benzo[k]fluoranthene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**7.8**	**2.30**	< 0.07	< 0.08	0.9	78	NS
Benzo[a]pyrene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**22**	**4.60**	< 0.07	< 0.08	0.4	0.8	NS
Indeno[1,2,3-cd]pyrene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**9.2**	**1.30**	< 0.07	< 0.08	0.9	7.8	NS
Dibenz[a,h]anthracene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.2**	**0.31**	< 0.07	< 0.08	0.4	0.8	NS
Benzo[g,h,i]perylene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**6.3**	**0.98**	< 0.07	< 0.08	0.8	10,000	NS
Total SVOCs	mg/kg	<0.08	<0.08	<0.08	**0.37**	**270.58**	**47.55**	<0.07	<0.08	n/a	n/a	n/a
Total PAHs	mg/kg	<0.08	<0.08	<0.08	**0.37**	**265.28**	**46.67**	<0.07	<0.08	n/a	n/a	n/a
TPH (8100 Modified):												
C9 - C40 Hydrocarbons	mg/kg	<30	<30	<30	**90**	**800**	**190**	<30	<30	500	2,500	2,500
Pesticides (EPA 8081B):	mg/kg	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	NS	NS	NS
PCBs (8082A):	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	10	10	10.0
Metals:												
Arsenic	mg/kg	**4.1**	**4.0**	**1.5**	**4.2**	**6.1**	**4.7**	**8.50**	**4.5**	7.00	7.00	NS
Barium	mg/kg	**19**	**11**	**2.3**	**8.5**	**92**	**62**	**16**	**18**	5500	10000	NS
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	39	1000	NS
Chromium, Total	mg/kg	**14**	**7.7**	**6.1**	**24**	**25**	**17**	**12**	**12**	1790	20000	NS
Chromium, Hexavalent	mg/kg	NA	NA	<0.43	<0.41	<0.44	<0.44	NA	NA	390	10000	NS
Lead	mg/kg	**6.7**	**5.7**	**2.3**	**19**	**310**	**260**	**6.60**	**7.7**	150	500	NS
Mercury	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	**0.60**	**0.16**	<0.1	< 0.1	23	610	NS
Selenium	mg/kg	< 0.5	< 0.5	< 0.5	**0.52**	< 0.5	< 0.5	**0.57**	< 0.5	390	10000	NS
Silver	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	200	10000	NS
TCLP, Lead:	mg/L	NA	NA	NA	NA	<0.5	<0.5	NA	NA	n/a	n/a	NS
Cyanide, Total:	mg/kg	<0.5	<0.5	<0.5	<0.5	**0.54**	<0.5	<0.5	<0.5	200	10,000	NS

Notes:
Samples were collected on June 8, 9 and 10, 2021.
Samples were analyzed by Eastern Analytical, Inc. of Concord, NH.
Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260C. Only analaytes detected at least once shown above.
Samples were analyzed for Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270D. Only analytes detected at least once shown above.
NA = Not analyzed for parameter shown.

<0.5	Concentration is less than laboratory detection limit. Analyte not detected.
57	Concentration in **BOLD/Yellow** exceeds Residential Direct Exposure Criteria (RDEC)
9.2	Concentration in **BOLD/Blue** exceeds both Residential Direct Exposure Criteria (RDEC) and Industrial/Commercial DEC (IC/DEC)

(1) Source: Rhode Island Department of Environmental Management (RIDEM) - Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.9.2 - Soil Objectives Table 2 : Direct Exposure Criteria for Residential (REDEC) and Industrial/Commercial (I/CDEC) and Table 2 - Leachability Criteria for GA Groundwater and GB Groundwater.

(2) Source RIDEM Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.92 Soil Objectives, Subsection B.4. (a) Soil Objectives for Total Petroleum Hydrocarbons (TPH).
NS = indicates no standard is established for parameter group and/or analyte.

Table 4
Soil Analytical Results - Test Pits
Robin Rug
125 Thames Street
Bristol, Rhode Island

Parameter	Units	Test Pit No./Sample Depth								RIDEM Standards [1] [2]		
		TP-1 0-2 ft	TP-2 3-4 ft	TP-3 2-3 ft	TP-4 9 ft	TP-5 6 ft	TP-6 9-10 ft	TP-7 0-3.5 ft	TP-14 1-2 ft	RDEC	I/C DEC	Leachability Criteria (GB)
VOCS (EPA 8260C):												
Styrene	mg/kg	<0.5	--	**5.1**	--	<0.5	<0.5	<0.8	<0.5	13	190	64
SVOCS/PAHs (EPA 8270D):												
Naphthalene	mg/kg	< 0.07	**0.086**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	54.00	10000	NS
Acenaphthylene	mg/kg	**0.10**	**0.19**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	23.00	10000	NS
Acenaphthene	mg/kg	< 0.07	**0.13**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	43.00	10000	NS
Fluorene	mg/kg	**0.07**	**0.19**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	28.00	10000	NS
Phenanthrene	mg/kg	**0.75**	**1.50**	**0.57**	< 0.08	< 0.07	< 0.08	**0.17**	**0.38**	40.00	10000	NS
Anthracene	mg/kg	**0.22**	**0.46**	**0.12**	< 0.08	< 0.07	< 0.08	< 0.09	**0.12**	35.00	10000	NS
Fluoranthene	mg/kg	**1.30**	**2.40**	**0.95**	< 0.08	< 0.07	< 0.08	**0.53**	**0.71**	28.00	10000	NS
Pyrene	mg/kg	**1.10**	**2.10**	**0.79**	< 0.08	< 0.07	< 0.08	**0.61**	**0.59**	13.00	10000	NS
Benzo[a]anthracene	mg/kg	**0.71**	**1.30**	**0.70**	< 0.08	< 0.07	< 0.08	**0.44**	**0.37**	0.90	7.80	NS
Chrysene	mg/kg	**0.69**	**1.30**	**0.75**	< 0.08	< 0.07	< 0.08	**0.40**	**0.38**	0.40	780	NS
Benzo[b]fluoranthene	mg/kg	**0.83**	**1.60**	**0.93**	< 0.08	< 0.07	< 0.08	**0.40**	**0.47**	0.90	7.80	NS
Benzo[k]fluoranthene	mg/kg	**0.33**	**0.54**	**0.35**	< 0.08	< 0.07	< 0.08	**0.14**	**0.16**	0.90	78.00	NS
Benzo[a]pyrene	mg/kg	**0.68**	**1.30**	**0.65**	< 0.08	< 0.07	< 0.08	**0.35**	**0.36**	0.40	0.80	NS
Indeno[1,2,3-cd]pyrene	mg/kg	**0.32**	**0.58**	**0.28**	< 0.08	< 0.07	< 0.08	**0.21**	**0.26**	0.90	7.80	NS
Dibenz[a,h]anthracene	mg/kg	**0.08**	**0.15**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	0.40	0.80	NS
Benzo[g,h,i]perylene	mg/kg	**0.24**	**0.43**	**0.21**	< 0.08	< 0.07	< 0.08	**0.22**	**0.22**	0.80	10000	NS
Total PAHs	mg/kg	**7.42**	**14.17**	**6.30**	<0.08	<0.07	<0.08	**3.47**	**4.02**	n/a	n/a	n/a
TPH (8100 Modified):												
C9 - C40 Hydrocarbons	mg/kg	**69**	**93**	**230**	< 30	< 30	**580**	**69**	**59**	500	2500	2500
Pesticides (EPA 8081B):												
4,4'-DDT	mg/kg	< 0.005	NA	< 0.006	NA	NA	**0.040**	**0.014**	< 0.006	NS	NS	NS
4,4'-DDE	mg/kg	< 0.005	NA	< 0.006	NA	NA	< 0.006	**0.012**	< 0.006	NS	NS	NS
4,4'-DDD	mg/kg	< 0.005	NA	< 0.006	NA	NA	**0.063**	< 0.006	< 0.006	NS	NS	NS
PCBs (8082A):												
PCB-1260	mg/kg	**0.040**	NA	< 0.02	NA	NA	< 0.02	< 0.02	< 0.02	10	10	10.0
Metals:												
Arsenic	mg/kg	**8.4**	**6.9**	**18**	**4.9**	**2.9**	**2.3**	**6.6**	**4.2**	7	7	NS
Barium	mg/kg	**29**	**43**	**120**	**20**	**11**	**8.3**	**1,500**	**72**	5500	10000	NS
Cadmium	mg/kg	< 0.5	**0.59**	**1.2**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	39	1000	NS
Chromium, Total	mg/kg	**14**	**25**	**15**	**13**	**8.4**	**7.1**	**13**	**15**	1790	20000	NS
Chromium, Hexavalent	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	390	10000	NS
Lead	mg/kg	**55**	**130**	**63**	**7.7**	**6.0**	**8.4**	**4,600**	**99**	150	500	NS
Mercury	mg/kg	< 0.1	**0.28**	**0.13**	< 0.1	< 0.1	< 0.1	**0.28**	**0.22**	23	610	NS
Selenium	mg/kg	**0.65**	**0.66**	**2.4**	< 0.5	< 0.5	**0.82**	**1.3**	**0.54**	390	10000	NS
Silver	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	200	10000	NS
TCLP, Lead:	mg/L	NA	<0.5	NA	NA	NA	NA	**1.4**	<0.5	n/a	n/a	NS

Notes:
Samples were collected on June 10 and 11, 2021.
Samples were analyzed by Eastern Analytical, Inc. of Concord, NH.
Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260C. Only analytes detected at least once shown above.
Samples were analyzed for Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270D analyzed for PAHs only. Only analytes detected at least once shown above.
NA = Not analyzed for parameter shown.

<0.5	Concentration is less than laboratory detection limit. Analyte not detected.
57	Concentration in **BOLD/Yellow** exceeds Residential Direct Exposure Criteria (RDEC)
9.2	Concentration in **BOLD/Blue** exceeds both Residential Direct Exposure Criteria (RDEC) and Industrial/Commercial DEC (IC/DEC)

(1) Source: Rhode Island Department of Environmental Management (RIDEM) - Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.9.2 - Soil Objectives Table 2 : Direct Exposure Criteria for Residential (REDEC) and Industrial/Commercial (I/CDEC) and Table 2 - Leachability Criteria for GA Groundwater and GB Groundwater.
(2) Source RIDEM Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.92 Soil Objectives, Subsection B.4. (a) Soil Objectives for Total Petroleum Hydrocarbons (TPH).
NS = indicates no standard is established for parameter group and/or analyte.

Table 5
Groundwater Sampling Results
Robin Rug
125 Thames Street
Bristol, Rhode Island

Parameter	Units	Sample Location					RIDEM Site Remediation - Method 1 Groundwater Objective (1)
		NB-2	NB-3	GZA-1	GZA-2	GZA-3	GB Category
VOCs (EPA 8260):	mg/L	<0.5 to <30	<0.5 to <30	<0.5 to <30	<0.5 to <30	<0.5 to <30	varies
PAHs (EPA Method 8270):							
Phenanthrene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.13**	NS
Fluoranthene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.28**	NS
Pyrene	mg/L	<0.1	<0.1	**0.14**	<0.1	**0.24**	NS
Benzo[a]anthracene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.18**	NS
Chrysene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.12**	NS
Benzo[b]fluoranthene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.18**	NS
Benzo[a]pyrene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.14**	NS
TPH (EPA 8100 Modified):							
C9 - C40 Hydrocarbons	mg/L	<0.4	<0.5	<0.5	<0.4	<0.4	NS

Notes:
Samples were collected on 6/29/21. NB-2 was sampled on 6/30/21.
Samples were analyzed by Eastern Analytical, Inc. of Concord, NH.
Samples were analyzed by EPA Method 8270 for PAHs only.

<0.5	Concentration is less than laboratory detection limit. Analyte not detected.
0.14	Concentrations in **BOLD** indicate analytes detected above laboratory detection limits.

(1) Source: Rhode Island Department of Environmental Management (RIDEM) - Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.9.3 - Groundwater Objectives Table 4: GB Groundwater Objectives.
NS = indicates no standard is established for parameter group and/or analyte.

Table 6
Subslab Soil Vapor Sampling Results
Robin Rug
125 Thames Street
Bristol, Rhode Island

Parameter	Units	Sample Location				Soil Vapor Screening Values [1]			
						CT DEEP 2021 [2]		MassDEP - 2013 [3]	
		SG-1	SG-2	SG-4	SG-5	Volatilization Criteria		Sub-Slab Soil Gas Screening Values	
		Bldg #3	Bldg #1	Bldg#7	Bldg#7A	Residential	I/C	Residential	I/C
VOCs (EPA Method TO-15):									
Acetone	ug/m^3	**12**	**12**	**13**	**28**	140,000	690,000	6,400	50,000
Benzene	ug/m^3	**0.95**	<0.32	<0.32	**0.61**	2,500	4,600	160	770
Chloroform	ug/m^3	**0.74**	**1.80**	<0.49	**0.81**	380	690	130	210
1,4-Dichlorobenzene	ug/m^3	**9.90**	**2.70**	**1.10**	<0.60	18,000	33,000	35	120
Ethanol	ug/m^3	**20**	**62**	**44**	<7.5	-	-	-	-
Ethylbenzene	ug/m^3	**0.89**	**0.59**	<0.43	**0.52**	40,000	400,000	520	62,000
Styrene	ug/m^3	<0.43	**0.43**	<0.43	**0.53**	39,000	400,000	98	1,400
Tetrachloroethylene (PCE)	ug/m^3	**9.60**	**18**	**260**	**11**	3,800	6,900	98	290
Toluene	ug/m^3	**4.80**	**1.60**	**0.93**	**2.30**	160,000	690,000	3,800	310,000
1,1,1-Trichloroethane (1,1,1-TCA)	ug/m^3	<0.55	<0.55	**2.30**	<0.55	380,000	690,000	210	320,000
Trichloroethylene (TCE)	ug/m^3	<0.54	**1.20**	**19**	<0.54	760	1,400	28	130
Trichlorofluoromethane (Freon 11)	ug/m^3	**13**	<2.2	**430**	<2.2	-	-	-	-
1,2,4-Trimethylbenzene	ug/m^3	**2.80**	<0.49	<0.49	<0.49	-	-	-	-
Xylenes, Total	ug/m^3	**2.38**	**1.56**	**1.72**	**1.87**	170,000	690,000	1,400	6,200
Total VOCs	ug/m3	**77.06**	**101.88**	**772.05**	**45.64**	-	-	-	-

Notes:
Vapor (air) samples were collected on 6/30/21.
Samples were analyzed by Con-Test, a Pace Analytical Laboratory.
Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method TO-15

<0.5	Concentration is less than laboratory detection limit. Analyte not detected.
0.14	Concentration in **BOLD** indicate analytes detected above laboratory detection limits.
260	Concentration in **BOLD/Yellow** exceeds MassDEP Residenital Use Subslab Soil Gas Screening Value.

(1) Source: Rhode Island Department of Environmental Management (RIDEM) has no screening values or standards for soil vapor. Screening values shown from CTDEEP and MassDEP are for reference only.
(2) Source: State of Connecticut Regulations - Volatilization Criteria for Soil Vapor, Appendix F to RSRs 22a-133k-3.
(3) Source: Massachusetts Department of Environmental Protection (MassDEP) Interim Final Vapor Intrusion Guidance WSC#-11-435, Dec 2011, Revised February 22, 2013, Appendix II (Sub-Slab Soil Gas Screening Values)
(-) = indicates no screening value or standard established for analyte.

Table 7
PCB Wipe Sampling Results
Robin Rug
125 Thames Street
Bristol, Rhode Island

Sample ID	Location	PCBs (ug/Wipe)		
		Aroclor-1254	Aroclor-1260	Total PCBs
WS-1	Elevator cables in Building #4 "Penthouse"	**0.25**	<0.20	**0.25**
WS-2	Elevator cables in Building #2 "Penthouse"	<0.20	<0.20	<0.20
WS-3	Elevator cables in Building #7 "Penthouse"	<0.20	<0.20	<0.20
WS-4	Elevator cables in Building #7A "Penthouse"	<0.20	**0.20**	**0.20**
CW-1	Concrete floor in NW corner of Building #4 basement	**0.32**	<0.20	**0.32**
CW-2	Concrete floor in Building #5 basement next to waste oil drum storage	<0.20	<0.20	<0.20
CW-3	Concrete floor in Building #3 basement next to leaking drum and former UST piping	<0.20	<0.20	<0.20
CW-4	Stained area on concrete floor in Building #2A	<0.20	<0.20	<0.20
CW-5	Concrete floor between base of back two transformers in basement of Building #1	<0.20	<0.20	<0.20
CW-6	Concrete slab in Building #6 near elevator	**0.27**	<0.20	**0.27**
CW-7	Concrete floor between base of first two transformers in basement of Building #1	**0.47**	<0.20	<0.20
CW-8	Metal floor in Building #7A in front of elevator doors	**0.40**	**0.35**	**0.75**
CW-9	Surface of transformer, near base, in basement of Building #1	<0.20	<0.20	<0.20
			RIDEM Reportable Notification	10 ug/100 cm2

Notes:
Samples collected on 6/30/2021.
Samples were analyzed by Con-Test, a Pace Analytical Laboratory.
Polychlorinated Biphenyls (PCBs) SW-846 8082A
Wipe Area = 10 cm x 10 cm square = 100 cm2.

Table 8

Summary of Soil DEC Exceedances

Robin Rug

125 Thames Street

Bristol, RI

Parcel No.	Current Use	Future Use	Location/Depth	Constituent	Soil Concentration (mg/kg) > RIDEM Standard	RIDEM Soil Standard [1]
10-42 Main Mill Parcel (Robin Rug)	Industrial/ Commercial	Residential	SB-6 2 feet	Fluoranthene	57	RDEC = 28 mg/kg
				Pyrene	37	RDEC = 13 mg/kg
				Benzo(a)anthracene	25	RDEC = 0.9 mg/kg; I/C DEC = 7.8 mg/kg
				Chrysene	22.0	RDEC = 0.4 mg/kg
				Benzo(b)fluoranthene	27.0	RDEC = 0.9 mg/kg; I/C DEC = 7.8 mg/kg
				Benzo(k)fluoranthene	7.8	RDEC = 0.9 mg/kg; I/C DEC = 0.8 mg/kg
				Benzo(a)pyrene	22.0	RDEC = 0.4 mg/kg; I/C DEC = 0.8 mg/kg
				Indeno[1,2,3-cd]pyrene	9.2	RDEC = 0.9 mg/kg; I/C DEC =7.8 mg/kg
				Dibenzo[a,h]anthracene	2.2	RDEC = 0.4 mg/kg; I/C DEC = 0.8 mg/kg
				Benzo[g,h,i]perylene	6.3	RDEC = 0.8 mg/kg
				TPH	800	RDEC = 500 mg/kg
				Lead	310	RDEC = 150 mg/kg
			SB-7 2 feet	Benzo(a)anthracene	4.6	RDEC = 28 mg/kg
				Chrysene	4.2	RDEC = 0.4 mg/kg
				Benzo(b)fluoranthene	6.1	RDEC = 0.9 mg/kg
				Benzo(k)fluoranthene	2.3	RDEC = 0.9 mg/kg
				Benzo(a)pyrene	4.6	RDEC = 0.4 mg/kg; I/C DEC = 0.8 mg/kg
				Indeno[1,2,3-cd]pyrene	1.3	RDEC = 0.9 mg/kg
				Benzo[g,h,i]perylene	0.98	RDEC = 0.8 mg/kg
				Lead	260	RDEC = 150 mg/kg
			TP-2 3 - 4 feet	Benzo(a)anthracene	1.30	RDEC = 28 mg/kg
				Chrysene	1.30	RDEC = 0.4 mg/kg
				Benzo(b)fluoranthene	1.60	RDEC = 0.9 mg/kg
				Benzo(a)pyrene	1.30	RDEC = 0.4 mg/kg; I/C DEC = 0.8 mg/kg
			TP-3 2 - 3 feet	Chrysene	0.75	RDEC = 0.4 mg/kg
				Benzo(b)fluoranthene	0.93	RDEC = 0.9 mg/kg
				Benzo(a)pyrene	0.65	RDEC = 0.4 mg/kg
				Arsenic	18	RDEC = 7.0 mg/kg
10-60 Main Mill Parcel (Robin Rug)	Industrial/ Commercial	Residential	TP-1 0 - 2 feet	Chrysene	0.69	RDEC = 0.4 mg/kg
				Benzo(a)pyrene	0.68	RDEC = 0.4 mg/kg
				Arsenic	8.4	RDEC = 7.0 mg/kg; I/C DEC = 7.0 mg/kg
10-43 Parking Lot Parcel	Residential	Industrial/ Commercial (Parking Lot for Condos)	SB-8 7 - 9 feet	Arsenic	8.5	RDEC = 7.0 mg/kg; I/C DEC = 7.0 mg/kg
			TP-6 9 - 10 feet	TPH	580	RDEC = 500 mg/kg
10-76 Parking Lot Parcel	Residential	Industrial/ Commercial (Parking Lot for Condos)	TP-7 0 - 3.5 feet	Lead	4,600	RDEC = 150 mg/kg; I/C DEC = 500 mg/kg

Note:

(1) Source: Rhode Island Department of Environmental Management (RIDEM) - Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.9.2 - Soil Objectives Table 1 : Direct Exposure Criteria for Residential (REDEC) and Industrial/Commercial

FIGURES

USGS Topographic Map
Bristol, RI-Mass
Revised 1955

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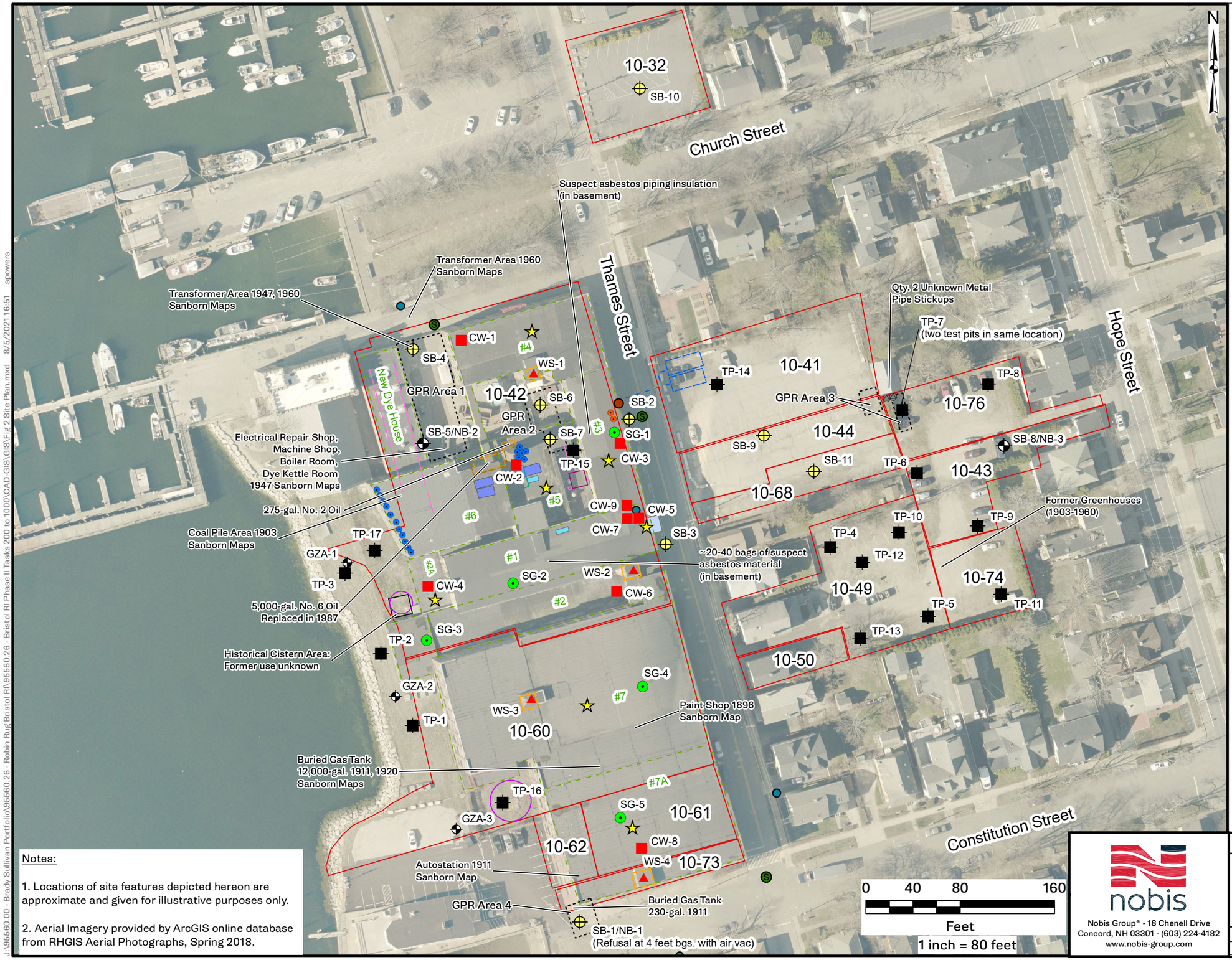
FIGURE 1

SITE LOCUS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RI

PREPARED BY: SKP	CHECKED BY: BE
PROJECT NO. 95560.26	DATE: MARCH 2021

J:\95560.00 - Brady Sullivan Portfolio\Environmental\95560.26 - Bristol RI Phase I ESA\05 Deliverable-Report\Figures\Figure 1_Site Locus.mxd 2/15/2021 13:23 spowers



- Test Pit (TP-15 and TP-16 not excavated)
- PCB Wipe (elevator cable) WS-series (total = 4)
- PCB Wipe (concrete floor) CW-series (total =9)
- Soil Gas Vapor Point (SG-3 not installed)
- Soil Boring (total=11)
- Groundwater Monitoring Well
- Stained Floor
- Transformer(Qty. 3 out of use)
- Former UST Piping Into
- Sewer Manhole
- Pipe Stickups
- Waste Oil
- Leaking Oil
- Floor
- GPR Exploration Location
- Cable-Weighted
- Former Stock Dye Kettle
- Former Water
- Hydraulic
- Trench Around
- Water
- Active
- Former UST (20,000 gal. #6 oil)
- Former
- Parcel Boundary (Total = 14)

10-42 = Tax Map and Lot Number

Notes:

1. Locations of site features depicted hereon are approximate and given for illustrative purposes only.

2. Aerial Imagery provided by ArcGIS online database from RHGIS Aerial Photographs, Spring 2018.

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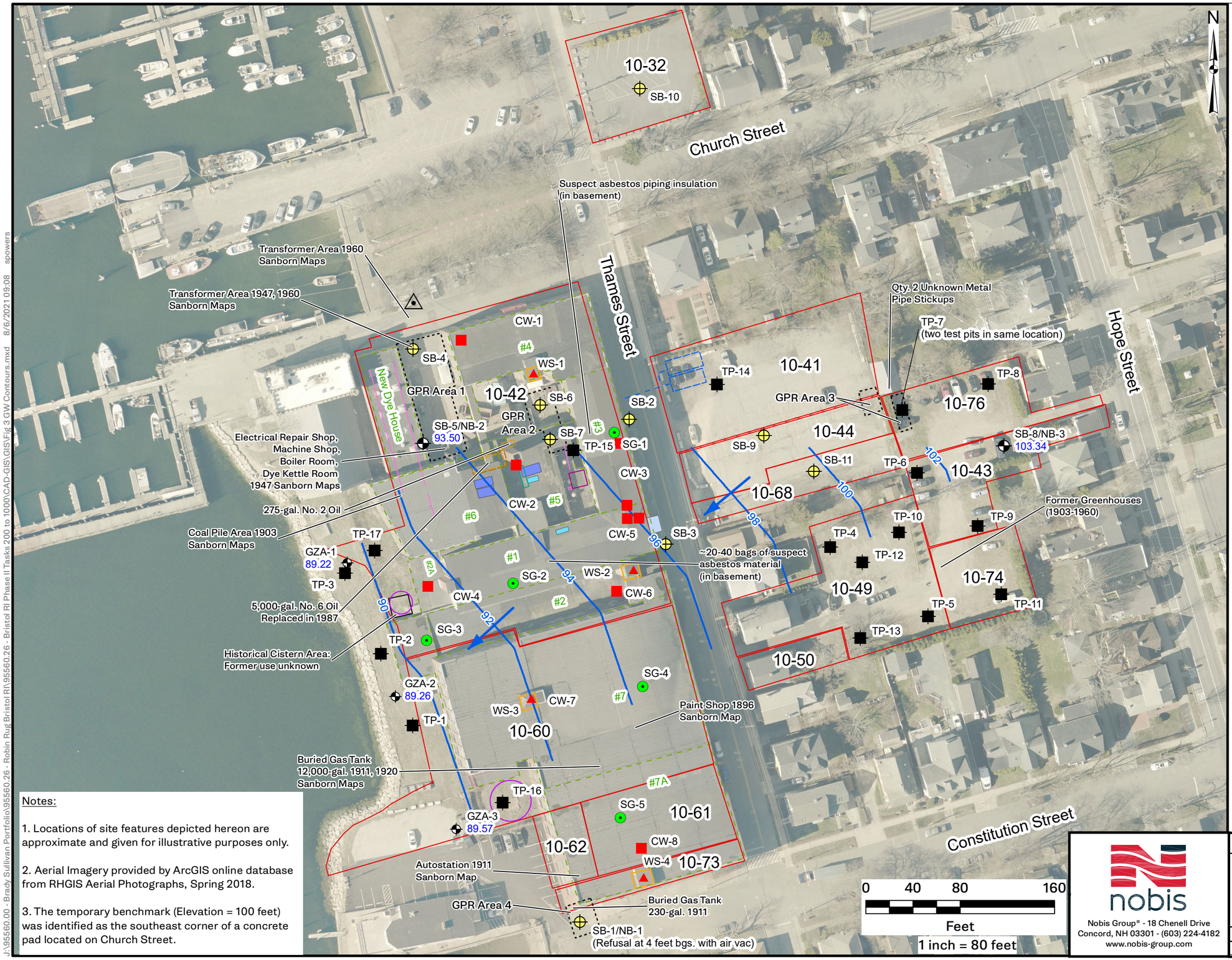
FIGURE 2

SITE PLAN
ROBIN RUG FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: AUGUST 2021



Legend

- Test Pit (TP-15 and TP-16 not excavated)
- PCB Wipe (elevator cable) WS-series (total = 4)
- PCB Wipe (concrete floor) CW-series (total =9)
- Soil Gas Vapor Point (SG-3 not installed)
- Soil Boring
- Groundwater Monitoring Well with Groundwater Elevation 93.50 (on 6/30/21)
- Temporary Benchmark
- Floor Drains
- Groundwater Elevation Contour
- Groundwater Flow Direction
- GPR Exploration Location
- Cable-Weighted Elevator
- Former Stock Dye Kettle
- Former Water Tower
- Hydraulic Lift
- Trench Around Boiler
- Boilers
- Water Tanks
- Active AST
- Former UST (20,000 gal. #6 oil)
- Former AST
- Parcel Boundary (Total =14)

10-42 = Tax Map Parcel ID

Notes:

1. Locations of site features depicted hereon are approximate and given for illustrative purposes only.

2. Aerial Imagery provided by ArcGIS online database from RHGIS Aerial Photographs, Spring 2018.

3. The temporary benchmark (Elevation = 100 feet) was identified as the southeast corner of a concrete pad located on Church Street.

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FIGURE 3

GROUNDWATER POTENTIOMETRIC MAP
ROBIN RUG FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: AUGUST 2021

APPENDICES

APPENDIX A

APPENDIX A
LIMITATIONS

1. These environmental services were performed in accordance with generally accepted practices of other consultants using the degree of skill and care exercised in undertaking similar services at the same time and in the same geographical area. The results of these services are based on our professional judgment and are not scientific certainties. Specifically, Nobis Engineering, Inc. d/b/a as Nobis Group® (Nobis) does not and cannot represent that the site contains no hazardous wastes, oil or other latent conditions beyond those observed during this assessment. No other warranty, express or implied, is made.

2. The observations and conclusions presented in this report were made solely on the basis of conditions described in the report and not on scientific tasks or procedures beyond the scope of described services or the budgetary and time constraints imposed by the client. Nobis shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the investigation was performed. The work described in this report was performed in accordance with the terms and conditions of our contract. No other warranty, express or implied, is made.

3. Observations were made of the site as indicated in this report. Where access to portions of the site was unavailable or limited, Nobis renders no opinion as to the presence of hazardous wastes or the presence of indirect evidence of hazardous wastes in that portion of the site.

4. No property boundary, site feature or topographic surveys of the site were performed by Nobis unless specifically indicated in the text of the report.

5. No sampling or testing was performed for the presence of herbicides, radon, lead paint, urea-formaldehyde, or asbestos at the site.

6. The purpose of this investigation was to assess the physical characteristics of the subject site with respect to the presence of hazardous wastes in the environment within the context of Rhode Island Department of Environmental Management (RIDEM) per the Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases (250-RICR-140-30-1). No attempt was made to check the compliance of present or past owners of the site with federal, state or local laws.

7. The observations and conclusions contained in this report are based in part upon data obtained from widely spaced subsurface explorations. The nature and extent of variations

between these explorations may not become evident until further exploration is performed. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

8. Water level readings have been made in the monitoring wells at the times and under the conditions stated in this report. Fluctuations in groundwater levels will occur due to variations in rainfall, tide fluctuations and other factors different from those prevailing at the time measurements were made.

9. Except as noted within the text of the report, no quantitative laboratory testing was performed as part of this assessment. Where analyses have been conducted by an outside laboratory or engineering firm, Nobis has relied upon the data provided and has not conducted an independent evaluation of the reliability of these data.

10. Chemical analyses have been performed for specific parameters during these environmental services, as described in the text of the report. Additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the site.

11. These environmental services have been prepared for the exclusive use of Brady Sullivan solely for use in an environmental evaluation of the site. This report shall not, in whole or in part, be conveyed to any other party without prior written consent of Nobis. This report shall not be construed to create any warranty or representation that the real property on which the investigation was conducted is free of pollution or complies with any or all applicable regulatory or statutory requirements, or that the property is fit for any particular purpose. No third party is entitled to rely upon any information or opinions contained in the report.

APPENDIX B

Geophysical Survey Report
125 Thames Street
Bristol, Rhode Island

prepared for
NOBIS GROUP
June 2021

GEOPHYSICAL
APPLICATIONS
INCORPORATED

June 4, 2021

Ms. Bettina Eames, P.G.
NOBIS GROUP
18 Chenell Drive
Concord, NH 03301

Office: 603-513-7328
e-mail: beames@nobis-group.com

Subject: Geophysical Survey Report
125 Thames Street
Bristol, Rhode Island

Dear Ms. Eames:

Geophysical Applications, Inc. recently completed geophysical surveys designed to locate buried utilities and other obstacles to drilling and test pits, and to locate a possible underground storage tank (UST) near two visible pipes.

We completed this survey using ground penetrating radar (GPR) profiling and a pipe locator as described below. The survey regions were designated by Nobis' onsite representative.

PROPOSED WORK SCOPE

Survey Grid

We established reference grids throughout each survey area prior to geophysical data acquisition. The grids were denoted at ten-foot intervals with chalk and pink spray paint marks, and were referenced by taped distance measurements to nearby fences, the building, and other semi-permanent features.

Geophysical Techniques

Ground Penetrating Radar Profiling

GPR data were obtained with a GSSI model SIR-4000 radar instrument coupled to a 400-megahertz antenna. Data was acquired at a slow walking pace while the operator dragged the antenna or pushed a survey cart along pre-marked traverses. GPR data was displayed on a color monitor to facilitate preliminary, on-site data interpretation. Digital GPR data was also downloaded to a computer and transferred to digital media for archival purposes.

GPR can typically identify pipes, USTs or other large objects, at depths up to 8 to 10 feet below ground surface in granular soils. In urban areas, GPR signal depth penetration may be reduced to 5 or 6 feet (or sometimes less). GPR signal-penetration depths may be further reduced by shallow or brackish groundwater, concrete pavement (especially if reinforced), or electrically conductive materials (especially clay or residual deicing salts). Note that GPR signals cannot penetrate standing water (i.e. puddles) or metal objects (manholes, hatches, etc.).

GPR profiles are typically acquired along perpendicular traverses located 2.5 or 5 feet apart to help characterize the approximate size and burial depth of observed reflections. Five-foot

traverse spacing is generally sufficient to detect laterally-extensive pipes and 1,000-gallon capacity (or larger) USTs. Smaller objects and USTs (down to approximately 200-gallons) generally require a traverse spacing of 2.5 feet. We used a 2.5-foot traverse spacing throughout the designated survey areas.

USTs, pipes, or other discrete objects typically produce inverted U-shaped GPR reflections. We interpreted buried objects' dimensions directly from GPR records. Inferred objects' burial depths were estimated using GPR signal velocities from similar sites.

Data interpretation was performed in our office following the survey's completion, using GSSI's RADAN for Windows software to enhance faint or small GPR reflections. GPR interpretations are shown on Figures 1 and 2.

Pipe Locator

The Radiodetection model RD7100 instrument, when used in the passive and radio modes, can detect cables carrying an active electric current under load or re-radiating ambient radio signals. We used this instrument in both modes throughout the survey areas. In some instances, this method can also detect water lines, steam lines or other metallic pipes in the presence of nearby buried electric lines under load.

This instrument has separate transmitting and receiving units that can trace weak electrical signals induced in electrically-continuous metallic pipes or cables. Current induction is achieved by connecting the transmitter to a visible portion of the desired pipe or cable (for example a vent pipe), or (in suitable conditions) placing the transmitter on the ground surface above the subject pipe or cable. The induced current is subsequently traced with a handheld receiver unit.

SURVEY LIMITATIONS

GPR antennas require a relatively smooth surface (e.g. mowed grass, flat dirt, asphalt, concrete, etc.) to differentiate reflections produced by buried objects from those caused by topographic variations. Areas with irregular ground surfaces (e.g. tall grass and plants, rough ground surface, etc.) may hinder or prevent GPR data acquisition. At this site the ground surface was relatively smooth.

GPR is most likely to detect concrete or metallic objects. Plastic or vitreous clay pipes, or fiberglass tanks, are less likely to be detected with GPR. GPR signal penetration is site specific, determined by dielectric properties of the materials through which GPR signals are propagating. Objects deeper than the GPR signal's maximum penetration depth remain undetected.

GPR interpretations are based on identifying reflection patterns that may not uniquely represent a subsurface object. Recording data along perpendicular traverses helps to determine the size and shape of subsurface objects. GPR data interpretation is more subjective than most geophysical survey methods, and careful confirmation of interpreted GPR results via cores or test pits is recommended.

Note that a pipe's diameter must generally increase approximately one inch for every foot below ground surface in order for the GPR technique to detect that pipe. For instance, a pipe buried 8 feet below ground surface must typically be at least 8 inches in diameter to produce a recognizable GPR reflection. Note that the shallowest buried object in any given location (i.e. closest to the ground surface) is most likely to be detected, and deeper objects directly below will be more difficult to detect. Therefore, if pipes are situated on top of one another, only the shallowest may be identified unless the deeper pipe is considerably wider.

Horizontal locations of interpreted objects are generally accurate to $\pm$ 1 to 2 feet for the 400 MHz antenna. The vertical scale for GPR data is in units of time (nanoseconds). Interpreted object locations must be converted to depth using a conversion factor. Unless access to a buried pipe

(e.g. an open catch basin) exists in the survey area to calibrate the raw GPR data, depths must be calculated from a range of industry standards for the media type. Calculated depths may therefore be off, either shallower or deeper, by some small amount. Care should be taken when drilling or digging near interpreted objects until their actual depth is determined by physical methods or visible observation.

RESULTS

Figures 1 and 2 shows the GPR traverses, geophysical interpretations, and visible above-ground features.

Depths to inferred objects noted on Figures 1 and 2 are in units of feet below ground surface. GPR signal penetration varied depending the ground surface. Over grass, GPR signal penetration was approximately 6 to 7 feet. Over asphalt and concrete the GPR signal penetration was 1 to 3 feet, but sometimes reaching down to 7 feet. This variance in signal penetration over asphalt and concrete is probably due to years of applying de-icing salts. We suggest that Nobis consider using vacuum excavation to at least five feet deep in areas limited GPR signal penetration.

On Figure 1 two proposed borings cleared for drilling are shown as green borehole symbols. On Figure 2, the area with many PIVs has many subsurface linear objects. We could not give a recommended "clear" drilling location in that area. The test pit location near the GPR-inferred UST is clear to dig. SB-1 is not clear to drill, based on the possible pipe locator-inferred linear object. GPR could not see below the steel-reinforced concrete slab and did not detect the nearby gas line.

A GPR-inferred possible UST was detected near the proposed test pit.

Many GPR-inferred linear objects are shown as dark blue lines on Figures 1 and 2. Pipe locator-inferred linear objects are shown as thin red lines on Figures 1 and 2. The GPR and pipe locator-inferred linear objects are dashed where less certain.

Numerous GPR reflections were observed that could not be traced to adjacent traverses. These reflections are interpreted to represent discrete objects such as rocks, boulders, rubble, pipe segments, possibly drums, changes in subsurface layering, or other discrete buried objects. The largest of these reflections are identified on Figures 1 and 2 as magenta dots and lines.

* * * * *

Please call the undersigned at 508/429-2430 if you have questions regarding our report. We appreciate this opportunity to provide geophysical services to Nobis and we welcome inquiries regarding this project or future surveys.

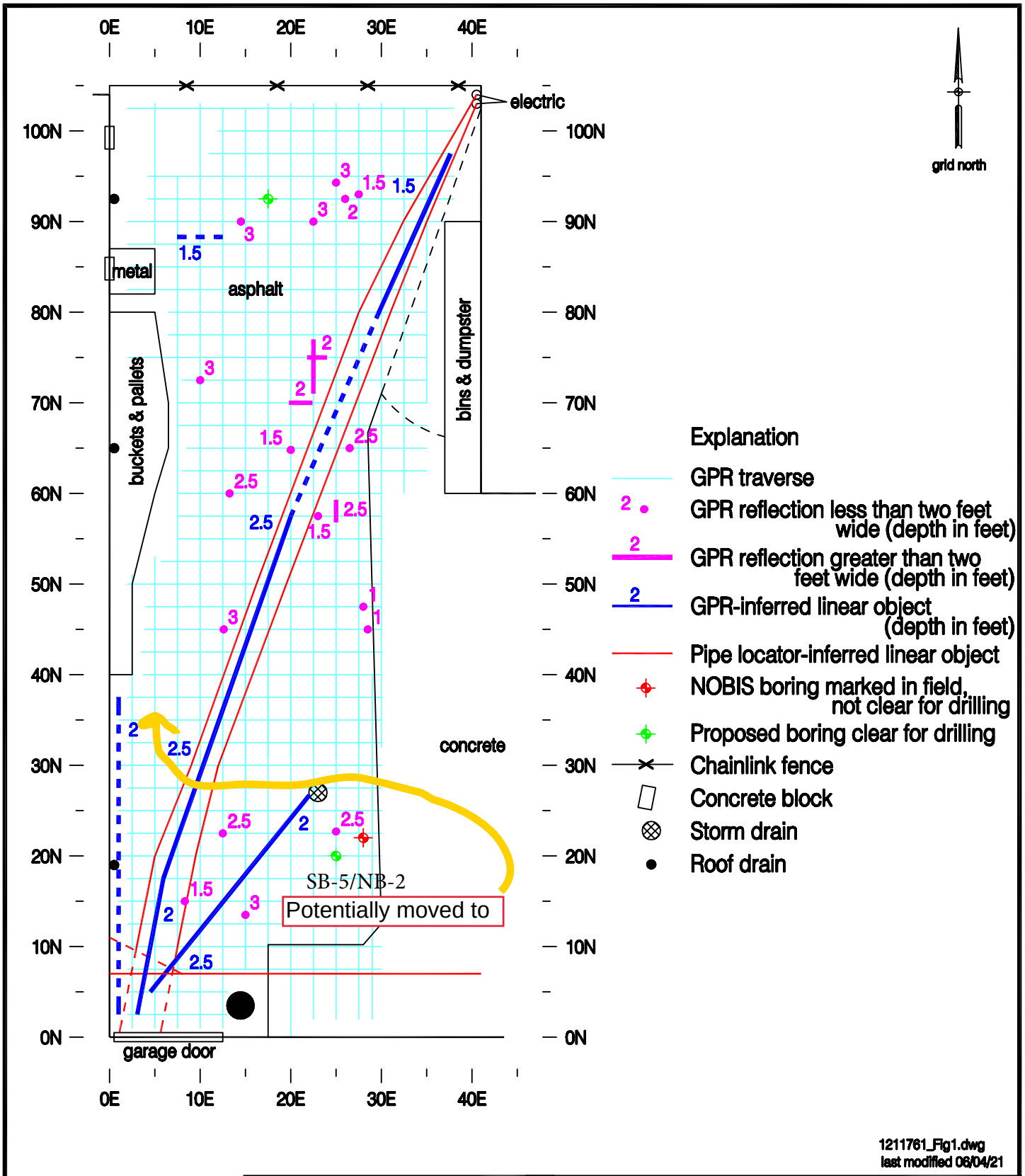
Regards,

GEOPHYSICAL APPLICATIONS, INC.

Peter Giger
Geophysicist

Mark E. Blackey
Principal and Geophysicist

1211761



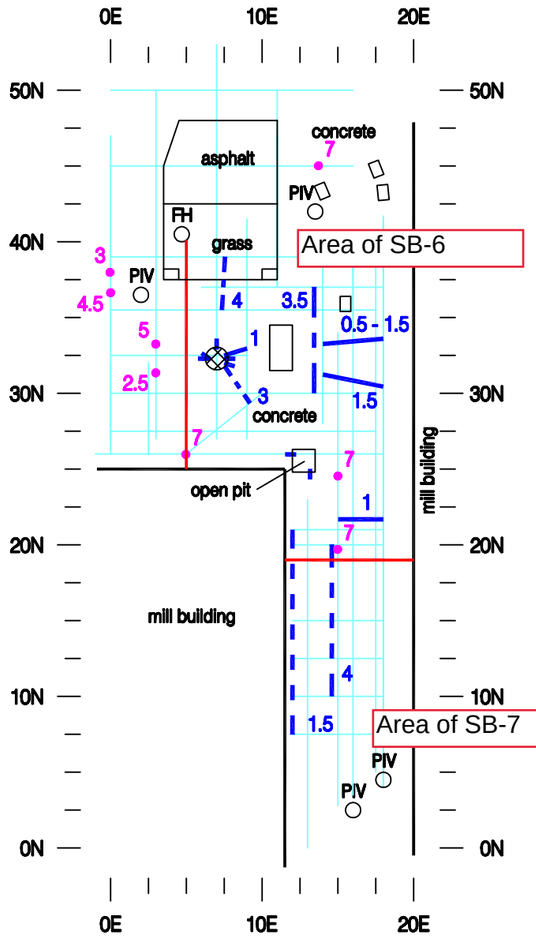
1211761_Fig1.dwg
last modified 06/04/21

0 15
feet

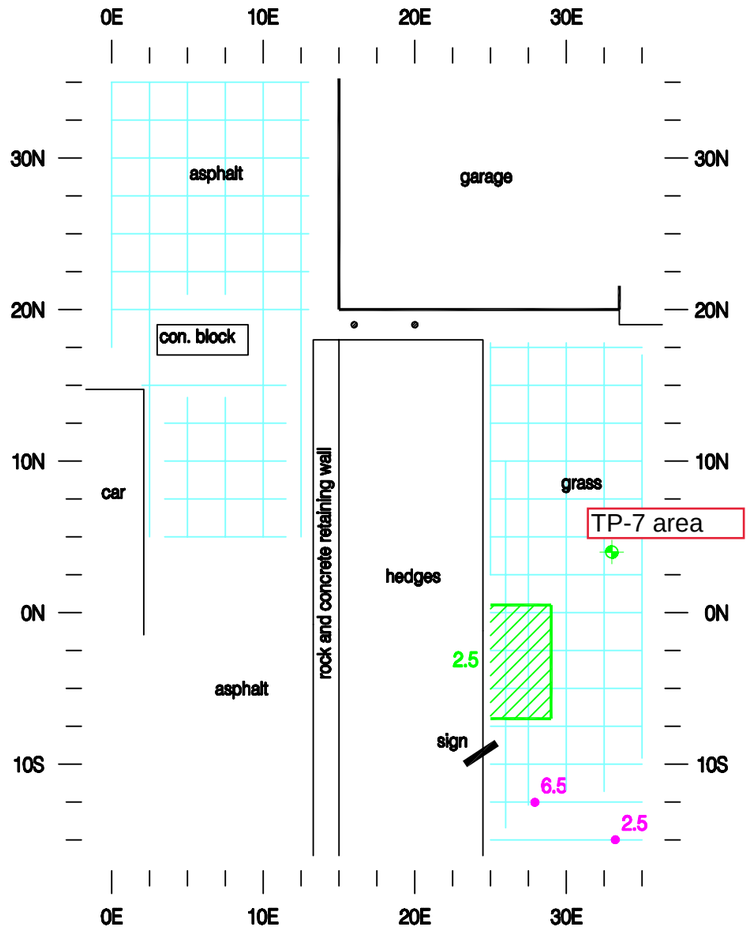
Note: Drawing from field notes.

GEOPHYSICAL APPLICATIONS INCORPORATED

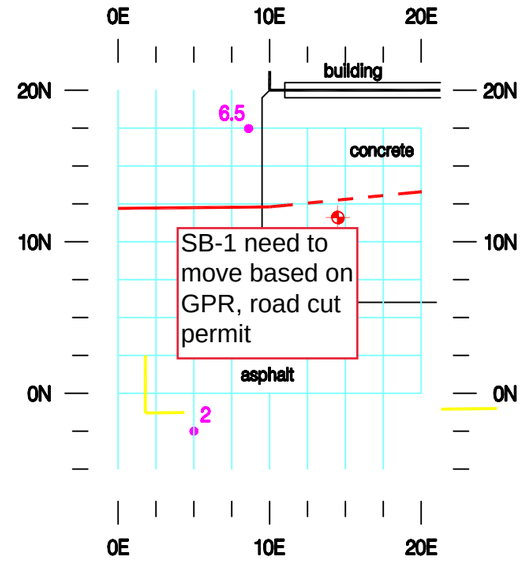
Figure 1
GPR Traverses and Interpretations
125 Thames Street
Bristol, Rhode Island
prepared for
NOBIS GROUP



Test Pit



SB-1



Explanation

- GPR traverse
- 2 — GPR reflection less than two feet wide (depth in feet)
- 2 — GPR-inferred linear object (depth in feet)
- 2.5 — GPR-inferred possible UST (depth in feet)
- NOBIS proposed test pit location clear for digging
- NOBIS proposed boring not clear for drilling
- Pipe locator-inferred linear object
- Gas marked by others
- Manhole
- FH — Fire hydrant
- PIV — PIV
- concrete blocks

0 5 10
feet

Note: Drawing from field notes.

1211721_Fig2.dwg
last modified 06/03/21

GEOPHYSICAL APPLICATIONS INCORPORATED

Figure 2
GPR Traverses and Interpretations
125 Thames Street
Bristol, Rhode Island
prepared for
NOBIS GROUP

APPENDIX C

SITE PHOTOGRAPHS
PHASE II ENVIRONMENTAL SITE ASSESSMENT
ROBIN RUG
125 THAMES STREET, BRISTOL, RHODE ISLAND

Photo 1: SB-2 from 5'-10' bgs. Fine to coarse sand with trace silt.

Photo 2: SB-2 from 10'-15' bgs. Gray hardpacked sand and trace silt and clay.

Photo 3: SB-3 from 5'-10' bgs. Fine to coarse sand with trace silt and few brick fragments.

Photo 4: SB-3 from 10'-15' bgs. Gray fine to coarse sand and hardpacked silt at depth.

Photo 5: SB-4 from 0'-5' bgs. Fill with asphalt, fine to coarse sand and trace crushed stone.

Photo 6: SB-4 from 10'-15' bgs. Fine to coarse sand with gray silt and little sand at depth.

Photo 7: SB-5 from 0'-5' bgs. Fill with asphalt, fine to coarse sand and trace silt and ash.

Photo 8: SB-5 from 5'-10'. Fine to coarse sand and trace silt. Gravel at 5' depth.

Photo 9: SB-8 from 0-5' bgs. Fill with asphalt, sand, crushed stone and trace silt and gravel.

Photo 10: SB-8 from 10'-15' bgs. Fine to medium sand and silt with trace coarse sand.

Photo 11: SB-9 from 0'-5' bgs. Fill with asphalt, sand with little silt. Trace shells, ash, and glass.

Photo 12: SB-9 from 5-10' bgs. Fine to coarse sand and trace silt and clay.

Photo 13: SB-10 from 0'-5' bgs. Fill with crushed brick and stone, fine sand, and little silt.

Photo 14: SB-10 from 10'-15' bgs. Fine to coarse sand and gray clayey silt with trace gravel

Photo 15: SB-11 from 0'-5' bgs. Fill with asphalt, fine to coarse sand, trace silt and cobbles.

Photo 16: SB-11 from 10'-15' bgs. Alternating sand and clayey silt.

Photo 17: TP-1 Fill observed from 0' to 3' bgs.

Photo 18: TP-3 Fill observed from 0' to 7' bgs.

Photo 19: TP-6 Fill observed from 0' to 8.5' bgs.

Photo 20: TP-8 Fill observed from 0' to 3' bgs.

Photo 21: SG-3 location looking into cored hole and open space beneath.

APPENDIX D

BORING LOG

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-1/NB-1**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 10, 2021

Date Finish: June 10, 2021

Contractor: Geosearch, Inc.

Driller: E. Belsky

Nobis Rep.: S. Powers

Rig Type / Model: Geoprobe 6610

Hammer Type: N/A

Hammer Hoist: N/A

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler
Type	Vacuumed	N/A
Size ID (in.)		N/A
Advancement	Vacuumed	N/A

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
06/10/21	00:00	Not Encountered			while drilling

Depth (ft.)	SAMPLE INFORMATION: Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	Ground Water	LITHOLOGY: Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1								(FILL). Large cobbles, piled wood, large rocks.	
2							FILL		
3									
4								Boring terminated at 4 feet.	
5									

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) The bottom of the 4 ft. deep hole was obstructed. Due to utility clearance, property lines, and time, B. Eames decided to abandon the location. No well was installed, the hole was filled ith the soil cuttings, and the surface was concreted.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

nobis

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-2**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 10, 2021

Date Finish: June 10, 2021

Contractor: Geosearch, Inc.

Driller: E. Belsky

Nobis Rep.: S. Powers

Rig Type / Model: Geoprobe 6610

Hammer Type: N/A

Hammer Hoist: N/A

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler
Type	Geoprobe	Macro-Core Liners
Size ID (in.)		2
Advancement	Direct Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼ 06/10/21	01:00	7			while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1								NOT SAMPLED	No sample collected.	
2										
3										
4										
5										
6	S-1	34	5-10						S-1A (5"): Brown, fine to coarse SAND, little Silt. Dry. S-1B (15"): Fine SAND & SILT, trace Clay, trace medium to coarse Sand. Dry.	
7					1.7	▼			S-1C (14"): Brown, fine to coarse SAND, trace Silt. Dry.	
8										
9					3.7			SAND		
10										
11	S-2	50	10-15		3.8				S-2A (20"): Gray, fine to coarse SAND, trace Silt. Dry.	
12									S-2B (13"): Gray, fine to medium SAND, trace Silt, trace coarse Sand. Wet.	
13					1.2				S-2C (3"): Hard, gray, SILT, trace fine to coarse Sand. Wet.	
14								SILT SAND CLAY	S-2D (4"): Gray, fine to coarse SAND. Wet. S-2E (3"): Gray, fine SAND, trace Silt. Wet. S-2F (3"): Gray, Clayey SILT. Wet.	
15					<1			SILT	S-2G (4"): Gray, SILT and coarse Sand. Wet.	
16									Boring terminated at 15 feet.	
17										
18										
19										
20										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) 0 - 6 ft. bgs cleared with Air Vac. No sample was collected and no water was observed in the hole. Geoprobe used 5 - 15 ft. bgs. Located near hydraulic lift.
2) Sample collected 12 - 14 ft. bgs.
3) End of exploration at 15 ft bgs. No refusal encountered.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-3**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 10, 2021

Date Finish: June 10, 2021

Contractor: Geosearch, Inc.

Driller: E. Belsky

Nobis Rep.: S. Powers

Rig Type / Model: Geoprobe 6610

Hammer Type: N/A

Hammer Hoist: N/A

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler
Type	Geoprobe	Macro-Core Liners
Size ID (in.)		2
Advancement	Direct Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼ 06/10/21	10:00	6			while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1								NOT SAMPLED	No sample collected.	
2										
3										
4										
5										
6	S-1	44	5-10		3.0	▼		SAND	S-1A (4"): Brown, fine to medium SAND, little Silt. Dry.	
								SILT	S-1B (2"): Brown, fine to coarse SAND. Dry.	
								SAND	S-1C (3"): Hard, gray, SILT, trace fine to coarse Sand. Dry.	
7								SILT	S-1D (6"): Brown, fine to coarse SAND, trace Silt. Wet.	
									S-1E (29"): Hard, gray, SILT, little fine to coarse Sand, few Brick fragments, few Cobbles. Wet.	
8										
9					4.5			SAND		
10										
	S-2	39	10-15						S-2A (9"): Gray, fine to coarse SAND, trace Silt, trace Clay. Wet.	
11					1.0				S-2B (30"): Hard, gray, SILT, trace fine to coarse Sand. Wet.	
12										
13								SILT		
14					2.4					
15										
16									Boring terminated at 15 feet.	
17										
18										
19										
20										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) 0 - 6 ft. bgs cleared with Air Vac and no sample was collected. Geoprobe used 5 - 15 ft. bgs.
2) Sample collected 7 - 9 ft. bgs.
3) End of exploration at 15 ft bgs. No refusal encountered.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-4**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 9, 2021

Date Finish: June 9, 2021

Contractor: Geosearch, Inc.

Driller: D. Freeman

Nobis Rep.: S. Powers

Rig Type / Model: Geoprobe 6610

Hammer Type: N/A

Hammer Hoist: N/A

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler
Type	Geoprobe	Macro-Core Liners
Size ID (in.)		2
Advancement	Direct Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼ 06/09/21	22:45	7			while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
0	S-1	29	0-5					ASPHALT	S-1A (3"): Gray, Dry. (ASPHALT). Crushed asphalt.	
1									S-1B (7"): Gray, fine to coarse SAND, trace Silt. Dry.	
2									S-1C (12"): Gray, fine to coarse SAND, trace Silt, trace crushed stone, trace brick fragments. Dry.	
3					3.0			FILL	S-1D (2"): Gray, Crushed/cored stone. Dry.	
4									S-1E (1"): Brown, fine to coarse SAND, trace Silt. Dry.	
5					7.3			SAND	S-1F (2"): Brown, fine to coarse SAND, trace Silt, some weathered crushed rock. Dry. Iron staining.	
6	S-2	28	5-10					COBBLES	S-1G (2"): Brown, fine to coarse SAND, trace Silt. Dry.	
7						▼			S-2A (3"): Gray, Crushed cobble. Dry.	
8					<1				S-2B (25"): Tan, fine to coarse SAND. Wet.	
9										
10					<1			SAND		
11	S-3	46	10-15						S-3A (22"): Tan, medium to coarse SAND, trace coarse Sand, trace Silt. Wet.	
12					<1				S-3B (6"): Fine to medium SAND, trace coarse Sand, trace Silt. Wet.	
13									S-3C (18"): Gray, SILT, little fine Sand. Wet.	
14								SILT		
15					<1					
16									Boring terminated at 15 feet.	
17										
18										
19										
20										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) Sample collected at 7 - 9 ft. bgs.
3) End of exploration at 15 ft bgs. No refusal encountered.
2) Boring performed at 1100 during falling tide. Low tide occured at 0100.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-5/NB-2**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 9, 2021

Date Finish: June 9, 2021

Contractor: Geosearch, Inc.	Rig Type / Model: Geoprobe 6610	Ground Surface Elev.:
Driller: D. Freeman	Hammer Type: N/A	Top of Riser Elev.: 0
Nobis Rep.: S. Powers	Hammer Hoist: N/A	Datum:

	Drilling Method	Sampler
Type	Geoprobe	Macro-Core Liners
Size ID (in.)		2
Advancement	Direct Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
06/09/21	12:00	Not Encountered			while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	WELL DETAIL	NOTES
0	S-1	18	0-5					ASPHALT	S-1A (7"): Dry. (ASPHALT). Crushed asphalt.	FLUSH MOUNT ROADBOX	
1									S-1B (4"): Brown, fine to coarse SAND, trace Silt. Dry.		
2					8.9				S-1C (2"): Tan, fine to coarse SAND. Dry. S-1D (2"): Brown, fine to coarse SAND, little Silt. Dry.	PVC RISER	
3								SAND	S-1E (3"): Brown, fine to coarse SAND, Trace ash. Dry.	BENTONITE	
4					<1						
5											
6	S-2	18	5-10		7.6			GRAVEL	S-2A (5"): GRAVEL. Dry. S-2B (6"): Brown, fine to coarse SAND, trace Silt. Dry.		
7									S-2C (6"): Gray, fine to coarse SAND, trace Silt. Dry. S-2D (1"): Gray, CLAY & SILT. Dry. Iron staining.		
8					1.6			SAND		SCREENED PVC - 2" FILTER SAND - SIZE 2	
9											
10					14.5			CLAY			
11	S-3	22	10-15						S-3A (10"): Gray, fine to coarse SAND. Dry.		
12								SAND	S-3B (12"): Hard, gray, SILT, trace fine Sand. Dry.		
13					<1						
14								SILT			
15									Boring terminated at 15 feet.		
16											
17											
18											
19											
20											

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) Void with sand falling into open space at 3'-7" bgs.
2) Void with gravel falling into open space 5 ft. bgs.
3) Sample collected at 10 - 12 ft bgs.
5) End of exploration at 15 ft bgs. No refusal encountered.
4) Boring performed during low tide.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-6**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 11, 2021

Date Finish: June 11, 2021

Contractor: Geosearch, Inc.

Driller: D. Freeman

Nobis Rep.: S. Powers

Rig Type / Model: N/A

Hammer Type: N/A

Hammer Hoist: N/A

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler
Type		N/A
Size ID (in.)		2
Advancement	Augered	N/A

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
06/11/21	10:30	Not Encountered			while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1					<1			SILT	Dense, gray, SILT, trace fine to coarse Sand. Moist.	
2					<1					
									Boring terminated at 2 feet.	
3										
4										
5										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) Sample collected at 2 ft. bgs.
2) End of exploration at 2 ft bgs. No refusal encountered.
3) Sample collected with hand auger method.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-7**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 11, 2021

Date Finish: June 11, 2021

Contractor: Geosearch, Inc.

Driller: D. Freeman

Nobis Rep.: S. Powers

Rig Type / Model: N/A

Hammer Type: N/A

Hammer Hoist: N/A

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler
Type		N/A
Size ID (in.)		2
Advancement	Augered	N/A

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
06/11/21	11:30	Not Encountered			while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
								CONCRETE	Concrete.	
1									Gray, Clayey SILT, trace fine to coarse Sand. Wet.	
2					2.3			CLAYEY SILT		
3									Boring terminated at 2.5 feet.	
4										
5										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) Sample collected at 2 ft. bgs.
2) Refusal at 2.5 ft. bgs. Refusal potentially caused by metal.
3) Sample collected with hand auger method.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug		Boring No.: **SB-8/NB-3**
		Boring Location: See Site Sketch
Location: Bristol, RI		Checked by: B. Eames
Nobis Project No.: 95560.26		Date Start: June 8, 2021
		Date Finish: June 8, 2021
Contractor: Geosearch, Inc.	Rig Type / Model: Geoprobe 6610	Ground Surface Elev.:
Driller: D. Freeman	Hammer Type: N/A	
Nobis Rep.: S. Powers	Hammer Hoist: N/A	Datum:

	Drilling Method	Sampler
Type	Geoprobe	Macro-Core Liners
Size ID (in.)		2
Advancement	Direct Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼ 06/08/21	12:30	6.5	15		while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	WELL DETAIL	NOTES
1	S-1	33	0-5					SAND ASPHALT FILL COBBLES	S-1A (5"): Brown, fine to coarse SAND, trace Silt, trace fine Gravel. Dry. S-1B (1"): Dry. (ASPHALT). Sticky, black cold patch asphalt. S-1C (6"): Brown, fine to coarse SAND, trace Silt. Dry. (FILL). Crushed stone and asphalt. S-1D (5"): Cobbles. Dry.	FLUSH MOUNT ROADBOX PVC RISER	
2											
3					8.0				S-1E (8"): Brown, fine to medium SAND, some Silt, trace coarse Sand, trace fine Roots. Dry.		
4										BENTONITE	
5					<1				S-1F (4"): Hard, grey, fine to medium SAND and Silt, trace coarse Sand. Dry. S-1G (4"): Brown, fine to medium SAND, some Silt, trace coarse Sand. Dry.		
6	S-2	46	5-10					SAND	S-2A (11"): Brown, fine to medium SAND, some Silt, trace coarse Sand, crushed Brick. Dry.		
7					<1	▼			S-2B (35"): Grey, fine to medium SAND and Silt, trace coarse Sand, fine Gravel. Wet. Spots of iron staining.		
8											
9					<1						
10										FILTER SAND - SIZE 2	
11	S-3	55	10-15		3.7			CLAY	S-3A (45"): Dense, gray, SILT & CLAY, little fine to coarse Sand, trace fine Gravel. Wet.	SCREENED PVC - 2"	
12											
13					<1						
14								SAND	S-3B (7"): Gray, fine to coarse SAND & SILT. Wet. S-3C (3"): Yellow, fine to coarse SAND. Wet.		
15											
16									Boring terminated at 15 feet.		
17											
18											
19											
20											

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

2) Static water level is likely influenced by the tide. Water level was measured at low tide (12:30).
1) Sampled collected at 7 - 9 ft. bgs.
3) End of exploration at 15 ft bgs. No refusal encountered.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-9**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 9, 2021

Date Finish: June 9, 2021

Contractor: Geosearch, Inc.

Driller: D. Freeman

Nobis Rep.: S. Powers

Rig Type / Model: Geoprobe 6610

Hammer Type: N/A

Hammer Hoist: N/A

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler
Type	Geoprobe	Macro-Core Liners
Size ID (in.)		2
Advancement	Direct Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼ 06/09/21	08:00	8			while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
1	S-1	26	0-5					ASPHALT FILL	S-1A (3"): Dry. (ASPHALT). Crushed asphalt. S-1B (7"): Brown, fine to coarse SAND. Dry. (FILL). Trace asphalt.	
2					<1			COBBLES	S-1C (11"): Brown, fine to medium SAND, little Silt. Dry. (FILL). Trace crushed seashells, trace ash, glass fragments and pieces. S-1D (5"): Crushed Cobble. Dry.	
3										
4					<1					
5										
6	S-2	44	5-10		<1			SAND	S-2A (1"): Crushed Cobble. Dry. S-2B (1"): Cobble. Dry. S-2C (10"): Grey, fine to medium SAND, trace Silt. Dry. S-2D (16"): Brown, fine to coarse SAND, trace Silt. Dry.	
7										
8					<1	▼			S-2E (16"): Gray, medium to coarse SAND, trace fine Sand, trace Silt. Wet.	
9										
10					<1					
11	S-3	40	10-15					CLAY	S-3A (13"): Gray, fine to coarse SAND, trace Silt. Wet. S-3B (6"): Gray, Clayey SILT and fine to medium Sand, trace coarse Sand. Wet.	
12					<1					
13										
14					<1			SAND	S-3C (21"): Gray, fine to coarse SAND, trace Silt. Wet.	
15										
16									Boring terminated at 15 feet.	
17										
18										
19										
20										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

2) Sample collected 10 - 12 ft. bgs.

1) End of exploration at 15 ft bgs. No refusal encountered.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug

Location: Bristol, RI

Nobis Project No.: 95560.26

Boring No.: **SB-10**

Boring Location: See Site Sketch

Checked by: B. Eames

Date Start: June 8, 2021

Date Finish: June 8, 2021

Contractor: Geosearch, Inc.

Driller: D. Freeman

Nobis Rep.: S. Powers

Rig Type / Model: Geoprobe 6610

Hammer Type: N/A

Hammer Hoist: N/A

Ground Surface Elev.:

Datum:

	Drilling Method	Sampler
Type	Geoprobe	Macro-Core Liners
Size ID (in.)		2
Advancement	Direct Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼ 06/08/21	09:00	10			while drilling

Depth (ft.)	SAMPLE INFORMATION Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	LITHOLOGY Graphic	Stratum Elev. / Depth (ft.)	SAMPLE DESCRIPTION AND REMARKS (Classification System: Modified Burmister)	NOTES
0	S-1	20	0-5					ASPHALT	S-1A (6"): Dry. (ASPHALT).	
1									S-1B (7"): Dry. (FILL). Crushed brick.	
2									S-1C (4"): Crushed white/grey stone. Dry.	
3								FILL	S-1D (3"): Brown, fine SAND, little Silt, trace Clay, trace Ash. Dry.	
4										
5					4.3			COBBLES		
	S-2	43	5-10						S-2A (6"): Fine to medium SAND, crushed Brick. Dry.	
6					26				S-2B (20"): Brown, fine to medium SAND, trace coarse Sand, little Silt, trace fine Gravel. Dry.	
7										
8					1.1				S-2C (8"): Grey, fine to coarse SAND, little Silt. Dry.	
9								SAND	S-2D (9"): Brown, fine to coarse SAND, trace Silt. Dry.	
10					16.4	▼				
	S-3	60	10-15						S-3A (16"): Brown, fine to coarse SAND, trace Brick. Wet.	
11										
12								CLAYEY SILT	S-3B (1"): Brown, SILT & CLAY, little fine to medium Sand. Wet.	
									S-3C (5"): Brown, fine to coarse SAND. Wet.	
13					3.8				S-3D (1"): Grey, Clayey SILT, little fine to coarse Sand. Wet.	
									S-3E (9"): Brown, fine to coarse SAND, trace fragments Gravel. Wet.	
14								SAND	S-3F (28"): Hard, grey, Clayey SILT, trace fine to medium Sand. Wet.	
15					14.5					
									Boring terminated at 15 feet.	
16										
17										
18										
19										
20										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) Sampled collected at 10 - 12 ft. bgs. No odors observed.
2) End of exploration at 15 ft bgs. No refusal encountered.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

BORING LOG

Project: Robin Rug		Boring No.: **SB-11**
		Boring Location: See Site Sketch
Location: Bristol, RI		Checked by: B. Eames
Nobis Project No.: 95560.26		Date Start: June 9, 2021
		Date Finish: June 9, 2021
Contractor: Geosearch, Inc.	Rig Type / Model: Geoprobe 6610	Ground Surface Elev.:
Driller: D. Freeman	Hammer Type: N/A	
Nobis Rep.: S. Powers	Hammer Hoist: N/A	Datum:

	Drilling Method	Sampler
Type	Geoprobe	Macro-Core Liners
Size ID (in.)		2
Advancement	Direct Push	Push

Groundwater Observations

Date	Time	Depth Below Ground (ft.)	Depth of Casing (ft.)	Depth to Bottom of Hole (ft.)	Stabilization Time
▼ 06/09/21	07:30	6.5			while drilling

Depth (ft.)	Sample Info: Type & No.	Rec (in.)	Depth (ft.)	Blows/ 6 in.	PID (ppm)	Ground Water	Lithology: Graphic	Lithology: Stratum Elev. / Depth (ft.)	Sample Description and Remarks (Classification System: Modified Burmister)	Notes
1	S-1	29	0-5					ASPHALT	S-1A (4"): Yellow, fine to coarse SAND. Dry. (ASPHALT). Crushed asphalt.	
								SAND		
								COBBLES	S-1B (1"): Tan, fine to coarse SAND. Dry.	
2								SILT	S-1C (7"): Brown, fine to coarse SAND, trace Silt, trace fine Gravel. Dry.	
								COBBLES	S-1D (2"): Gray, Cobble. Dry.	
								SILT AND CLAY	S-1E (3"): Brown, SILT, little fine to coarse Sand, trace brick fragments. Dry.	
3					<1				S-1F (1"): Gray, Cobble/crushed rock. Dry.	
									S-1G (5"): Brown, SILT & CLAY, trace fine Sand. Dry.	
4									S-1H (4"): Gray, fine SAND, trace Silt. Dry. Iron oxidation staining.	
									S-1I (2"): Brown, fine to coarse SAND, trace Silt. Dry. Iron oxidation staining.	
5					<1					
	S-2	39	5-10					SAND	S-2A (20"): Brown, fine to coarse SAND, trace Silt. Dry.	
6										
					<1	▼				
7									S-2B (2"): GRAVEL. Wet.	
									S-2C (4"): Coarse SAND, little fine to medium Sand, trace Silt. Wet.	
8								COBBLES	S-2D (2"): Fine to medium SAND, trace coarse Sand, trace Silt. Wet.	
					<1				S-2E (11"): Gray, fine to medium SAND, little Silt, trace coarse Sand, crushed rock. Wet.	
9										
								SAND		
10										
	S-3	43	10-15		<1				S-3A (11"): Gray, medium to coarse SAND, trace fine Sand. Wet.	
11										
									S-3B (4"): Gray, Clayey SILT, little fine Sand. Wet.	
12								CLAYEY SILT	S-3C (21"): Brown, fine to coarse SAND. Wet.	
					<1					
13								SAND		
									S-3D (7"): Gray, CLAY & SILT, trace fine Sand. Wet.	
14										
15								CLAY AND SILT		
									Boring terminated at 15 feet.	
16										
17										
18										
19										
20										

Soil	Percentage	Non-Soil
trace	5 - 10	very few
little	10 - 20	few
some	20 - 35	several
and	35 - 50	numerous

NOTES:

1) Wet at 6.5 - 7 ft. bgs during high tide.
2) Sample collected 8 - 10 ft. bgs.
3) End of exploration at 15 ft bgs. No refusal encountered.

Soil descriptions, and lithology, are based on visual classifications and should be considered approximate. Stratification lines are approximate boundaries between stratums; transitions may be gradual.

APPENDIX E

TEST PIT LOG

nobis

PROJECT			
Robin Rug		TEST PIT NO.	TP-1
125 Thames St.		SHEET	1 of 1
Bristol, RI		FILE NO.	095560.260
		DATE	6/11/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	0950
Weather	70's, sunny	Reach	12 ft.	Time End	1030

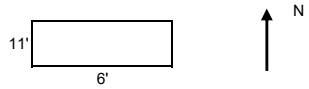
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 3': Brown, Fine SAND and Silt, trace medium to coarse Sand, little fine Gravel, trace coarse Gravel, some cobbles, trace Class A Boulders, Dry. FILL: Very few red bricks and glass, several Seashell fragments.	M/D	A	Fill
<1	2					
<1	3					
<1	4		3 - 5': Brown/grey, SILT and fine Sand, trace medium to coarse Sand, little fine Gravel, trace coarse Gravel, trace Cobbles, Dry.			Native
<1	5					
	6		Excavation terminated at 5 feet below ground surface. No refusal.			
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: 5' bgs.

2) Sample depth: Ranged from 0 to 2 ft bgs, sampled at 1015.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis	**PROJECT** Robin Rug 125 Thames St. Bristol, RI	TEST PIT NO.	TP-2
		SHEET	1 of 1
		FILE NO.	095560.260
		DATE	6/11/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1030
Weather	70's, sunny	Reach	12'	Time End	1115

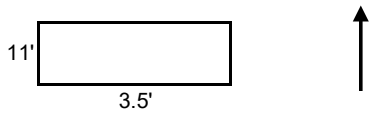
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 5': Brown, fine SAND and Silt, trace medium to coarse Sand, little fine Gravel, trace coarse, Gravel, some Cobbles, trace Class A Boulders, Dry. FILL: Very few red Brick fragments, Glass, Seashell fragments.	M/D	A	Fill
<1	2					
<1	3					
1.1	4					
<1	5					
<1	6		5 - 7': Brown/grey, SILT and fine Sand, little medium to coarse Sand, little fine Gravel, trace coarse Gravel, trace Cobbles, Moist/Wet.			Possible Native or Fill
<1	7					
	8		Exploration terminated 7 feet below ground surface. No refusal.			
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: 7' bgs.

2) Sample depth: Ranged from 3 to 4 ft bgs, sampled at 1055.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED

0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT		TEST PIT NO.	TP-3
Robin Rug		SHEET	1 of 1
125 Thames St.		FILE NO.	095560.260
Bristol, RI		DATE	6/11/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1115
Weather	70's, sunny	Reach	12'	Time End	1150

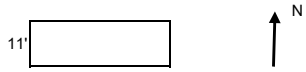
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 7': Brown, fine SAND, little Silt, trace medium to coarse Sand, trace, Cobbles. Dry (0-6 ft bgs). Mostly Fill, very little soil.	M		Fill
<1	2		0 - 3': Numerous Seashells.			
<1	3		FILL: Very few red and yellow Brick fragments, very few fragments to pieces of Clay Pipe, numerous fine fragments to pieces of Slag,			
<1	4		few fine to coarse fragments Concrete.			
<1	5					
<1	6					
<1	7		6 - 6.5': Wet			
	8		Exploration terminated 7 feet below ground surface. No refusal.			
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: 6.5' bgs.

2) Sample depth: Ranged from 2 to 3 ft bgs, sampled at 1140.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED

0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT
Robin Rug
125 Thames St.
Bristol, RI

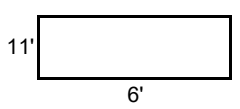
TEST PIT NO. TP-4
SHEET 1 of 1
FILE NO. 095560.260
DATE 6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1425
Weather	80's, sunny	Reach	12'	Time End	1505

PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
	1		0 - 2.5': Dark brown, fine SAND, some Silt, trace medium to coarse sand, trace fine Gravel, trace cobbles, trace Class A Boulders, Dry. FILL: Very few red Brick fragments.	E	A	Fill
<1	2					
	3		2.5 - 7': Dark grey/grey, SILT, little fine Sand, little medium to coarse Sand, little fine Gravel, trace coarse Gravel, Dry.			Native
<1	4			M	NA	
	5					
<1	6					
	7			M/D	Very few A	
<1	8		7 - 8.5': Brown, fine to medium SAND, some Silt, little coarse Sand, little fine Gravel, trace coarse Gravel, trace Cobbles, Moist.			
<1	9		8.5 - 10': Gray/brown, SILT, little fine Sand, trace medium to coarse Sand, little fine Gravel, trace coarse Gravel, trace Cobbles, Moist/Wet at 9.5'	M/D	Very few A	
<1	10					
	11		Exploration terminated 10 feet below ground surface. No refusal.			
	12					
	13					
	14					
	15					

REMARKS:
1) Groundwater: 10' bgs.
2) Sample depth: 9 ft bgs, sampled at 1450.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED

0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy
M = Moderate
D = Difficult

TEST PIT LOG

nobis

PROJECT		TEST PIT NO.	TP-5
Robin Rug		SHEET	1 of 1
125 Thames St.		FILE NO.	095560.260
Bristol, RI		DATE	6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1245
Weather	80's, sunny	Reach	12'	Time End	1315

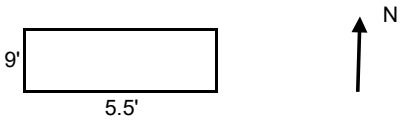
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
	1		0 - 3': Brown, fine SAND and Silt, trace medium to coarse sand, little fine and coarse Gravel, Dry.	E	NA	Native
<1	2					
	3			E	NA	Native
<1	4		3 - 6.5': Grey/Dark brown, fine SAND, little Silt, little medium Sand, trace coarse Sand, little fine and coarse Gravel, trace Cobbles, Dry.			
	5					
<1	6			E	NA	Native
	7					
	8		Exploration terminated 6.5 feet below ground surface. No refusal.			
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: Not encountered.

2) Sample depth: 6 ft bgs, sampled at 1300.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT
Robin Rug
125 Thames St.
Bristol, RI

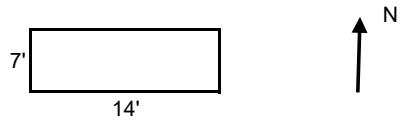
TEST PIT NO. TP-6
SHEET 1 of 1
FILE NO. 095560.260
DATE 6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1025
Weather	80's, sunny	Reach	12'	Time End	1125

PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
	1		0 - 8.5': Brown, fine SAND, some Silt, trace medium to coarse sand, trace fine Gravel, very few Class A boulders, Dry. FILL: Few red Bricks, few pieces to block size Concrete, very few fragmetns of Glass, very few Metal Bars, very few 2" Steel Pipe, 1" diameter black plastic tubing, very few poly-sheeting, Fiberglass, metal Chicken Wire, ashphalt shingles, wood, Plastic flower pots.	M	A	Fill
<1	2					
	3					
	4					
<1	5					
	6					
<1	7					
	8					
	9		8.5 - 10': Brown/grey, fine to medium SAND, little Silt, trace to coarse Sand, trace fine and coarse Gravel, Moist/Wet at 9.5 ft bgs. Petroleum odor observed.			Native
65.6	10					
	11		Exploration terminated 10 feet below ground surface. No refusal.			
	12					
	13					
	14					
	15					

REMARKS:
1) Groundwater: 9.5' bgs.
2) Sample depth: 9-10 ft bgs, sampled at 1115.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED

0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT
E = Easy
M = Moderate
D = Difficult

TEST PIT LOG

nobis

PROJECT		TEST PIT NO.	TP-7 (1)
Robin Rug		SHEET	1 of 1
125 Thames St.		FILE NO.	095560.260
Bristol, RI		DATE	6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	0830
Weather	70's - 80's, sunny	Reach	12'	Time End	0935

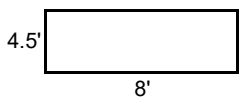
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 1': Topsoil 0 - 3.5': Dark brown, fine SAND and Silt, trace medium to coarse sand, trace fine and coarse Gravel, trace Class A Boulders, Dry FILL: very few red Bricks, black/grey ash-like material, burnt wood, very few concrete pieces.	E	A	Fill
	2					
	3					
	4			M		Native
			3.5 - 6': Brown/grey, SILT, some fine Sand, trace Clay, trace medium to coarse Sand, trace fine and coarse Gravel, trace Class A Cobbles, Dry.			
<1	5			M		
	6			M	A	Native
<1	7		6 - 8': Dark brown/grey, SILT, some fine Sand,little medium Sand, trace coarse Sand, trace fine Gravel, Dry.			
	8			M		Native
	9		Exploration terminated 8 feet below ground surface. No refusal.			
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: Not encountered.

2) Sample depth: Ranged from 0 to 3.5 ft bgs, sampled at 0900.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT		TEST PIT NO.	TP-7 (2)
Robin Rug		SHEET	1 of 1
125 Thames St.		FILE NO.	095560.260
Bristol, RI		DATE	6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1600
Weather	70's - 80's, sunny	Reach	12'	Time End	1640

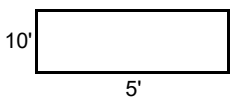
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
	1		0 - 3': Dark brown, fine SAND and Silt, trace medium to coarse sand, trace fine and coarse Gravel, trace Class A Boulders, very few red Bricks, Dry.	E	A	Fill
<1	2					
	3					
<1	4			M		Native
	5		3.5 - 6': Brown/grey, SILT, some fine Sand, trace Clay, trace medium to coarse Sand, trace fine and coarse Gravel, trace Class A Cobbles, Dry.			
<1	6			M/D		
<1	7		6 - 8': Dark brown/grey, SILT, some fine Sand,little medium Sand, trace Sand, trace fine Gravel, Dry.			
<1	8					
	9		Exploration terminated 8 feet below ground surface. No refusal.			
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: Not encountered.

2) Sample depth: No laboratory soil samples collected.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT		TEST PIT NO.	TP-8
Robin Rug		SHEET	1 of 1
125 Thames St		FILE NO.	095560.260
Bristol, RI		DATE	6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	0935
Weather	70's - 80's, sunny	Reach	12'	Time End	1025

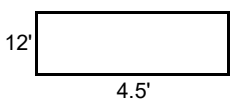
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 3': Brown, fine SAND, some Silt, trace medium to coarse Sand, trace fine and coarse Gravel, little Class A Boulders, Dry. FILL: Very few red Bricks and Glass, Piece of steel rebar observed, not attached to anything.	M	A	Fill
	2					
	3					
<1	4		3 - 5': Brown/grey, fine SAND and Silt, trace medium to coarse sand, trace fine Gravel, few Class A Boulder, very few Class B Boulder, Dry.	M	A, very few B	Native
	5					
<1	6		5 - 6.5': Dark brown, SILT, little fine Sand, little medium Sand, trace coarse SAND, trace fine and coarse Gravel, Dry.			
	7		Exploration terminated 6.5 feet below ground surface. No refusal.			
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: Not encountered.

2) Sample depth: No laboratory soil samples collected.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT		TEST PIT NO.	TP-9
Robin Rug		SHEET	1 of 1
125 Thames St.		FILE NO.	095560.260
Bristol, RI		DATE	6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1315
Weather	80's, sunny	Reach	12'	Time End	1340

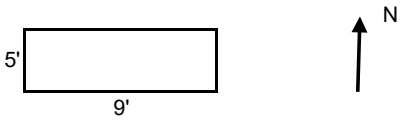
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
	1		0 - 3': Brown, fine SAND and SILT, trace medium to coarse sand, trace fine and coarse Gravel, Dry.	E	NA	Fill
<1	2		FILL: Very few red Bricks and Glass fragments to pieces.			
	3		Observed one Brick in sidewall at 3' bgs. Very little Fill.			
<1	4		3 - 6': Grey/brown, fine SAND and Silt, trace Clay, trace medium to coarse			Native
	5		sand, trace fine and coarse gravel, trace Cobbles, Dry.			
<1	6					
	7		Exploration terminated 6 feet below ground surface. No refusal.			
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: Not encountered.

2) Sample depth: No laboratory soil samples collected.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT
Robin Rug
125 Thames St.
Bristol, RI

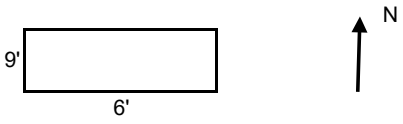
TEST PIT NO. TP-10
SHEET 1 of 1
FILE NO. 095560.260
DATE 6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1530
Weather	80's, sunny	Reach	12'	Time End	1600

PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 2': Brown, fine SAND, some Silt, little medium to coarse sand, some fine and coarse Gravel, trace cobbles, trace Class A Boulders, Dry. FILL: Very few red Brick fragments.	E	A	Fill
<1	2					
	3		2 - 3': Brown, fine SAND, some Silt, little medium to coarse sand, trace fine and coarse Gravel, Dry.	E	NA	Native
<1	4		3 - 8': Brown, fine SAND, little Silt, trace medium to coarse sand, trace fine Gravel, Dry/Moist.			
<1	5					
	6			E	NA	Native
<1	7					
	8					
<1	9		8 - 10': Brown, fine SAND, trace Silt, little medium Sand, trace soarse Sand, trace fine and coarse Gravel, Moist (8 - 9.5'), Wet (9.5 - 10').	E/M	NA	
<1	10			E/M	NA	
	11		Exploration terminated 10 feet below ground surface. No refusal.			
	12					
	13					
	14					
	15					

REMARKS:
1) Groundwater: 10' bgs.
2) Sample depth: No laboratory soil samples collected.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED

0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy
M = Moderate
D = Difficult

TEST PIT LOG

nobis

PROJECT	
Robin Rug	
125 Thames St.	
Bristol, RI	
TEST PIT NO.	TP-11
SHEET	1 of 1
FILE NO.	095560.260
DATE	6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1125
Weather	80's, sunny	Reach	12'	Time End	1150

PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
	1		0 - 2': Brown, fine SAND, some Silt, trace medium to coarse sand, trace fine and coarse Gravel, Dry.	E	NA	Fill
<1	2		FILL: Very few red Bricks.	E	NA	Native
	3		2 - 7': Grey/brown, SILT, some fine Sand, trace medium to coarse sand, little fine to coarse Gravel, Dry.			
	4					
<1	5					
	6					
<1	7					
	8		Exploration terminated 7 feet below ground surface. No refusal.			
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: Not encountered.

2) Sample depth: No laboratory soil samples collected.

TEST PIT PLAN

BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT
E = Easy
M = Moderate
D = Difficult

TEST PIT LOG

nobis

PROJECT		TEST PIT NO.	TP-12
Robin Rug		SHEET	1 of 1
125 Thames St.		FILE NO.	095560.260
Bristol, RI		DATE	6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1505
Weather	80's, sunny	Reach	12'	Time End	1530

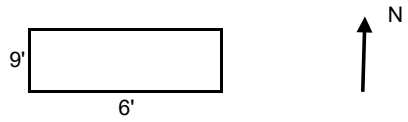
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 2.5': Brown, fine SAND, some Silt, trace medium to coarse sand, trace fine and coarse Gravel, trace cobbles, trace Class A Boulders, Dry. FILL: Very few red Brick fragments and Ceramic Tile.	E	A	Fill
	2					
<1	3		2.5 - 7': Dark grey/grey, SILT, little fine Sand, little medium to coarse Sand, little fine Gravel, trace coarse Gravel, Dry.			Native
	4					
<1	5					
	6					
<1	7					
	8		Exploration terminated 7 feet below ground surface. No refusal.			
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: Not encountered.

2) Sample depth: No laboratory soil samples collected.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT			
Robin Rug		TEST PIT NO.	TP-13
125 Thames St.		SHEET	1 of 1
Bristol, RI		FILE NO.	095560.260
		DATE	6/10/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1340
Weather	80's, sunny	Reach	12'	Time End	1425

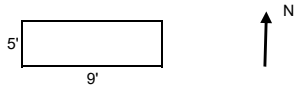
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 2': Brown, fine SAND and Silt, trace medium to coarse sand, trace fine gravel ,trace cobbles, Dry.	E		Fill
	2		FILL: Very few red Brick fragments, glass, and plastic.			
<1	3		2 - 6.5': Grey/brown, SILT, some fine Sand, trace medium to coarse Sand, trace fine and coarse Gravel, Dry.			Native
	4		Very dense, Native material. Possible Till.	M/D		
<1	5					
<1	6					
	7		Exploration terminated 6.5 feet below ground surface due to dense soil and difficulty excavating.			
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: Not encountered.

2) Sample depth: No laboratory soil samples collected.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT			
Robin Rug		TEST PIT NO.	TP-14
125 Thames St.		SHEET	1 of 1
Bristol, RI		FILE NO.	095560.260
		DATE	6/11/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	0820
Weather	70's, sunny	Reach	12'	Time End	0945

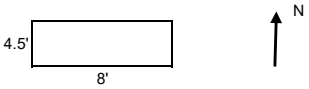
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 1': Brown, fine SAND, some Silt, little medium to coarse Sand, some fine Gravel, little coarse Gravel, very few red and yellow Bricks, Dry	E	A	Fill
<1	2		1 - 3': Brown/grey, fine SAND and Silt, little medium to coarse Sand, little fine Gravel, trace coarse Gravel, very few red Brick fragments, Dry			
<1	3				NA	
<1	4		3 - 4': Brown/grey, SILT, little fine Sand, trace medium to coarse Sand, trace fine and coarse Gravel, trace Cobbles, very few red Brick fragments, Moist.			
<1	5		4 - 5': Tan/grey, fine SAND, little Silt, Moist.	M		
<1	6		5 - 6': Brown/grey, CLAY and Silt, trace fine to coarse Sand, trace fine and coarse Gravel, trace Cobbles, Moist/Wet.			
<1	7		6 - 9': Brown/grey, CLAY and Silt, little fine Sand, trace medium to coarse sand, trace fine and coarse Gravel, trace Cobbles, Wet.			
<1	8					
<1	9					
	10		Exploration terminated 9 feet below ground surface. No refusal.			
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: 8.5 - 9' bgs.

2) Sample depth: Ranged from 1 to 2 ft bgs, sampled at 0830.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

TEST PIT LOG

nobis

PROJECT			
Robin Rug		TEST PIT NO.	TP-17
125 Thames St.		SHEET	1 of 1
Bristol, RI		FILE NO.	095560.260
		DATE	6/11/2021

Engineer	Richard Rizza	Make	Deere	Ground El.	
Contractor	Geosearch	Model	60 G	Datum	
Operator	Shawn Preston	Capacity	0.3 cu. yd.	Time Start	1215
Weather	70's, sunny	Reach	12'	Time End	1310

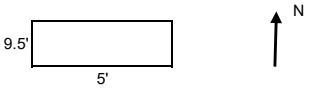
PID (ppm)	Depth Below Grade (ft)	Strata Change & Water Level	Subsurface Description	Excavation Effort	Boulder Qty/Class	Remarks
<1	1		0 - 7.5': Brown, fine SAND, little Silt, trace medium to coarse Sand, Dry trace coarse, Gravel, some Cobbles, trace Class A Boulders, Dry.	E/M		Fill
<1	2		0 - 3': Numerous Seashells.			
<1	3		FILL: very few red and yellow fine to coarse Brick fragments, very few coarse fragments Clay Pipe and Electrical Wire, very few pieces block size concrete, numerous fine fragments to pieces of Slag.			
<1	4					
<1	5					
<1	6					
<1	7					
	8		Exploration terminated 7.5 feet below ground surface. No refusal.			
	9					
	10					
	11					
	12					
	13					
	14					
	15					

REMARKS:

1) Groundwater: 7 - 7.5' bgs.

2) Sample depth: No laboratory soil samples collected.

TEST PIT PLAN



BOULDER	CLASS
6"-8"	A
18"-36"	B
>36"	C

PROPORTIONS USED	
0-10%	Trace (Tr.)
10-20%	Little (Li.)
20-35%	Some (So.)
35-50%	And

EXCAVATION EFFORT

E = Easy

M = Moderate

D = Difficult

APPENDIX F

Eastern Analytical, Inc.

professional laboratory and drilling services

Bettina Eames
Nobis Group
18 Chenell Drive
Concord , NH 03301

Laboratory Report for:

Eastern Analytical, Inc. ID: 227592
Client Identification: Robin Rug | 095560.260
Date Received: 6/14/2021

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:

- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 6.22.21 Date | 33 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Temperature upon receipt (°C): 3.3 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
227592.01	SB-10 (10-12')	6/14/21	6/8/21	10:15	soil		Sample canceled at customer's request
227592.02	SB-8/NB-2 (7-9')	6/14/21	6/8/21	14:20	soil	96.4	Adheres to Sample Acceptance Policy
227592.03	SB-11 (8-10')	6/14/21	6/9/21	08:30	soil	90.1	Adheres to Sample Acceptance Policy
227592.04	SB-9 (10-12')	6/14/21	6/9/21	09:30	soil		Sample canceled at customer's request
227592.05	SB-4 (7-9')	6/14/21	6/9/21	12:25	soil	85.1	Adheres to Sample Acceptance Policy
227592.06	SB-5/NB-1 (10-12')	6/14/21	6/9/21	13:25	soil	89.2	Adheres to Sample Acceptance Policy
227592.07	SB-3 (7-9')	6/14/21	6/10/21	15:35	soil	88.3	Adheres to Sample Acceptance Policy
227592.08	SB-2 (12-14')	6/14/21	6/10/21	16:35	soil	87.5	Adheres to Sample Acceptance Policy
227592.09	SB-6 (2.0')	6/14/21	6/11/21	13:30	soil	86.2	Adheres to Sample Acceptance Policy
227592.1	SB-7 (2.0')	6/14/21	6/11/21	11:50	soil	84.1	Adheres to Sample Acceptance Policy
227592.11	Trip Blank	6/14/21	6/8/21	07:00	soil	100.0	Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	< 0.1	< 0.1	< 0.1	< 0.1
Chloroethane	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	< 2	< 2	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	< 2	< 2	< 2	< 2
Methylene chloride	< 0.1	< 0.1	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.1	< 0.1	< 0.1
Isopropyl ether(DIPE)	< 0.1	< 0.1	< 0.1	< 0.1
tert-amyl methyl ether(TAME)	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
2,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone(MEK)	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	< 0.05	< 0.05	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dioxane	< 1	< 1	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
2-Hexanone	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.02
Chlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.05

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
mp-Xylene	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	< 0.05	< 0.05	< 0.05	< 0.05
IsoPropylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
n-Propylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
sec-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
p-Isopropyltoluene	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
n-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	**88 %R**	**87 %R**	**87 %R**	**89 %R**
1,2-Dichlorobenzene-d4 (surr)	**103 %R**	**103 %R**	**103 %R**	**102 %R**
Toluene-d8 (surr)	**96 %R**	**95 %R**	**96 %R**	**97 %R**
1,2-Dichloroethane-d4 (surr)	**102 %R**	**104 %R**	**104 %R**	**104 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	< 0.1	< 0.1	< 0.1	< 0.1
Chloroethane	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	< 2	< 2	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	< 2	< 2	< 2	< 2
Methylene chloride	< 0.1	< 0.1	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.1	< 0.1	< 0.1
Isopropyl ether(DIPE)	< 0.1	< 0.1	< 0.1	< 0.1
tert-amyl methyl ether(TAME)	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
2,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone(MEK)	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	< 0.05	< 0.05	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dioxane	< 1	< 1	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
2-Hexanone	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.05	< 0.05	**0.40**
1,3-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.02
Chlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.05

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
mp-Xylene	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	< 0.05	< 0.05	< 0.05	< 0.05
IsoPropylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
n-Propylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
sec-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
p-Isopropyltoluene	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
n-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	< 0.1	< 0.1	**0.10**	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	**86 %R**	**86 %R**	**88 %R**	**91 %R**
1,2-Dichlorobenzene-d4 (surr)	**103 %R**	**103 %R**	**102 %R**	**101 %R**
Toluene-d8 (surr)	**95 %R**	**95 %R**	**95 %R**	**93 %R**
1,2-Dichloroethane-d4 (surr)	**105 %R**	**105 %R**	**105 %R**	**105 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank
Lab Sample ID:	227592.11
Matrix:	soil
Date Sampled:	6/8/21
Date Received:	6/14/21
Units:	mg/kg
Date of Analysis:	6/15/21
Analyst:	JAK
Method:	8260C
Dilution Factor:	1

Dichlorodifluoromethane	< 0.1
Chloromethane	< 0.1
Vinyl chloride	< 0.02
Bromomethane	< 0.1
Chloroethane	< 0.1
Trichlorofluoromethane	< 0.1
Diethyl Ether	< 0.05
Acetone	< 2
1,1-Dichloroethene	< 0.05
tert-Butyl Alcohol (TBA)	< 2
Methylene chloride	< 0.1
Carbon disulfide	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1
Isopropyl ether(DIPE)	< 0.1
tert-amyl methyl ether(TAME)	< 0.1
trans-1,2-Dichloroethene	< 0.05
1,1-Dichloroethane	< 0.05
2,2-Dichloropropane	< 0.05
cis-1,2-Dichloroethene	< 0.05
2-Butanone(MEK)	< 0.5
Bromochloromethane	< 0.05
Tetrahydrofuran(THF)	< 0.5
Chloroform	< 0.05
1,1,1-Trichloroethane	< 0.05
Carbon tetrachloride	< 0.05
1,1-Dichloropropene	< 0.05
Benzene	< 0.05
1,2-Dichloroethane	< 0.05
Trichloroethene	< 0.05
1,2-Dichloropropane	< 0.05
Dibromomethane	< 0.05
Bromodichloromethane	< 0.05
1,4-Dioxane	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5
cis-1,3-Dichloropropene	< 0.05
Toluene	< 0.05
trans-1,3-Dichloropropene	< 0.05
1,1,2-Trichloroethane	< 0.05
2-Hexanone	< 0.1
Tetrachloroethene	< 0.05
1,3-Dichloropropane	< 0.05
Dibromochloromethane	< 0.05
1,2-Dibromoethane(EDB)	< 0.02
Chlorobenzene	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank
Lab Sample ID:	227592.11
Matrix:	soil
Date Sampled:	6/8/21
Date Received:	6/14/21
Units:	mg/kg
Date of Analysis:	6/15/21
Analyst:	JAK
Method:	8260C
Dilution Factor:	1
Ethylbenzene	< 0.05
mp-Xylene	< 0.05
o-Xylene	< 0.05
Styrene	< 0.05
Bromoform	< 0.05
IsoPropylbenzene	< 0.05
Bromobenzene	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05
1,2,3-Trichloropropane	< 0.05
n-Propylbenzene	< 0.05
2-Chlorotoluene	< 0.05
4-Chlorotoluene	< 0.05
1,3,5-Trimethylbenzene	< 0.05
tert-Butylbenzene	< 0.05
1,2,4-Trimethylbenzene	< 0.05
sec-Butylbenzene	< 0.05
1,3-Dichlorobenzene	< 0.05
p-Isopropyltoluene	< 0.05
1,4-Dichlorobenzene	< 0.05
1,2-Dichlorobenzene	< 0.05
n-Butylbenzene	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05
1,3,5-Trichlorobenzene	< 0.05
1,2,4-Trichlorobenzene	< 0.05
Hexachlorobutadiene	< 0.05
Naphthalene	< 0.1
1,2,3-Trichlorobenzene	< 0.05
4-Bromofluorobenzene (surr)	**89 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**
Toluene-d8 (surr)	**95 %R**
1,2-Dichloroethane-d4 (surr)	**103 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/16/21	6/14/21	6/14/21	6/16/21
Date of Analysis:	6/17/21	6/15/21	6/15/21	6/17/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
alpha-Terpineol	< 0.34	< 0.4	< 0.4	< 0.4
Phenol	< 0.07	< 0.08	< 0.08	< 0.08
2-Chlorophenol	< 0.07	< 0.08	< 0.08	< 0.08
2,4-Dichlorophenol	< 0.07	< 0.08	< 0.08	< 0.08
2,4,5-Trichlorophenol	< 0.07	< 0.08	< 0.08	< 0.08
2,4,6-Trichlorophenol	< 0.07	< 0.08	< 0.08	< 0.08
Pentachlorophenol	< 0.34	< 0.4	< 0.4	< 0.4
2-Nitrophenol	< 0.34	< 0.4	< 0.4	< 0.4
4-Nitrophenol	< 0.34	< 0.4	< 0.4	< 0.4
2,4-Dinitrophenol	< 0.7	< 0.7	< 0.8	< 0.7
2-Methylphenol	< 0.07	< 0.08	< 0.08	< 0.08
3/4-Methylphenol	< 0.07	< 0.08	< 0.08	< 0.08
2,4-Dimethylphenol	< 0.34	< 0.4	< 0.4	< 0.4
4-Chloro-3-methylphenol	< 0.07	< 0.08	< 0.08	< 0.08
4,6-Dinitro-2-methylphenol	< 0.34	< 0.4	< 0.4	< 0.4
Benzoic Acid	< 3.4	< 4	< 4	< 4
N-Nitrosodimethylamine	< 0.07	< 0.08	< 0.08	< 0.08
n-Nitroso-di-n-propylamine	< 0.04	< 0.04	< 0.05	< 0.04
n-Nitrosodiphenylamine	< 0.07	< 0.08	< 0.08	< 0.08
bis(2-Chloroethyl)ether	< 0.07	< 0.08	< 0.08	< 0.08
bis(2-chloroisopropyl)ether	< 0.07	< 0.08	< 0.08	< 0.08
bis(2-Chloroethoxy)methane	< 0.07	< 0.08	< 0.08	< 0.08
1,3-Dichlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
Acetophenone	< 0.7	< 0.7	< 0.8	< 0.7
1,4-Dichlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
1,2-Dichlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
1,2,4-Trichlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
2-Chloronaphthalene	< 0.07	< 0.08	< 0.08	< 0.08
4-Chlorophenyl-phenylether	< 0.07	< 0.08	< 0.08	< 0.08
4-Bromophenyl-phenylether	< 0.07	< 0.08	< 0.08	< 0.08
Hexachloroethane	< 0.07	< 0.08	< 0.08	< 0.08
Hexachlorobutadiene	< 0.07	< 0.08	< 0.08	< 0.08
Hexachlorocyclopentadiene	< 0.34	< 0.4	< 0.4	< 0.4
Hexachlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
4-Chloroaniline	< 0.07	< 0.08	< 0.08	< 0.08
2,3-Dichloroaniline	< 0.07	< 0.08	< 0.08	< 0.08
2-Nitroaniline	< 0.34	< 0.4	< 0.4	< 0.4
3-Nitroaniline	< 0.34	< 0.4	< 0.4	< 0.4
4-Nitroaniline	< 0.34	< 0.4	< 0.4	< 0.4
Aniline	< 0.07	< 0.08	< 0.08	< 0.08
Benzyl alcohol	< 0.7	< 0.7	< 0.8	< 0.7
Nitrobenzene	< 0.07	< 0.08	< 0.08	< 0.08
Isophorone	< 0.07	< 0.08	< 0.08	< 0.08
2,4-Dinitrotoluene	< 0.14	< 0.2	< 0.2	< 0.2
2,6-Dinitrotoluene	< 0.14	< 0.2	< 0.2	< 0.2
Benzidine (estimated)	< 0.34	< 0.4	< 0.4	< 0.4
3,3'-Dichlorobenzidine	< 0.07	< 0.08	< 0.08	< 0.08

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/16/21	6/14/21	6/14/21	6/16/21
Date of Analysis:	6/17/21	6/15/21	6/15/21	6/17/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Pyridine	< 0.34	< 0.4	< 0.4	< 0.4
Azobenzene	< 0.07	< 0.08	< 0.08	< 0.08
Carbazole	< 0.07	< 0.08	< 0.08	< 0.08
Dimethylphthalate	< 0.07	< 0.08	< 0.08	< 0.08
Diethylphthalate	< 0.34	< 0.4	< 0.4	< 0.4
Di-n-butylphthalate	< 0.34	< 0.4	< 0.4	< 0.4
Butylbenzylphthalate	< 0.34	< 0.4	< 0.4	< 0.4
bis(2-Ethylhexyl)phthalate	< 0.34	< 0.4	< 0.4	< 0.4
Di-n-octylphthalate	< 0.34	< 0.4	< 0.4	< 0.4
Dibenzofuran	< 0.07	< 0.08	< 0.08	< 0.08
Naphthalene	< 0.07	< 0.08	< 0.08	< 0.08
2-Methylnaphthalene	< 0.07	< 0.08	< 0.08	< 0.08
1-Methylnaphthalene	< 0.07	< 0.08	< 0.08	< 0.08
Acenaphthylene	< 0.07	< 0.08	< 0.08	< 0.08
Acenaphthene	< 0.07	< 0.08	< 0.08	< 0.08
Fluorene	< 0.07	< 0.08	< 0.08	< 0.08
Phenanthrene	< 0.07	< 0.08	< 0.08	**0.11**
Anthracene	< 0.07	< 0.08	< 0.08	< 0.08
Fluoranthene	< 0.07	< 0.08	< 0.08	**0.14**
Pyrene	< 0.07	< 0.08	< 0.08	**0.12**
Benzo[a]anthracene	< 0.07	< 0.08	< 0.08	< 0.08
Chrysene	< 0.07	< 0.08	< 0.08	< 0.08
Benzo[b]fluoranthene	< 0.07	< 0.08	< 0.08	< 0.08
Benzo[k]fluoranthene	< 0.07	< 0.08	< 0.08	< 0.08
Benzo[a]pyrene	< 0.07	< 0.08	< 0.08	< 0.08
Indeno[1,2,3-cd]pyrene	< 0.07	< 0.08	< 0.08	< 0.08
Dibenz[a,h]anthracene	< 0.07	< 0.08	< 0.08	< 0.08
Benzo[g,h,i]perylene	< 0.07	< 0.08	< 0.08	< 0.08
n-Decane	< 0.34	< 0.4	< 0.4	< 0.4
n-Octadecane	< 0.34	< 0.4	< 0.4	< 0.4
2-Fluorophenol (surr)	**68 %R**	**58 %R**	**68 %R**	**62 %R**
Phenol-d6 (surr)	**71 %R**	**61 %R**	**72 %R**	**67 %R**
2,4,6-Tribromophenol (surr)	**84 %R**	**74 %R**	**88 %R**	**83 %R**
Nitrobenzene-D5 (surr)	**77 %R**	**67 %R**	**77 %R**	**70 %R**
2-Fluorobiphenyl (surr)	**80 %R**	**70 %R**	**83 %R**	**75 %R**
p-Terphenyl-D14 (surr)	**82 %R**	**76 %R**	**83 %R**	**76 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/16/21	6/16/21	6/16/21	6/14/21
Date of Analysis:	6/17/21	6/17/21	6/17/21	6/15/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	6	1
alpha-Terpineol	< 0.4	< 0.4	< 2	< 0.4
Phenol	< 0.08	< 0.08	< 0.4	< 0.08
2-Chlorophenol	< 0.08	< 0.08	< 0.4	< 0.08
2,4-Dichlorophenol	< 0.08	< 0.08	< 0.4	< 0.08
2,4,5-Trichlorophenol	< 0.08	< 0.08	< 0.4	< 0.08
2,4,6-Trichlorophenol	< 0.08	< 0.08	< 0.4	< 0.08
Pentachlorophenol	< 0.4	< 0.4	< 2	< 0.4
2-Nitrophenol	< 0.4	< 0.4	< 2	< 0.4
4-Nitrophenol	< 0.4	< 0.4	< 2	< 0.4
2,4-Dinitrophenol	< 0.8	< 0.8	< 4	< 0.8
2-Methylphenol	< 0.08	< 0.08	< 0.4	< 0.08
3/4-Methylphenol	< 0.08	< 0.08	< 0.4	< 0.08
2,4-Dimethylphenol	< 0.4	< 0.4	< 2	< 0.4
4-Chloro-3-methylphenol	< 0.08	< 0.08	< 0.4	< 0.08
4,6-Dinitro-2-methylphenol	< 0.4	< 0.4	< 2	< 0.4
Benzoic Acid	< 4	< 4	< 20	< 4
N-Nitrosodimethylamine	< 0.08	< 0.08	< 0.4	< 0.08
n-Nitroso-di-n-propylamine	< 0.04	< 0.05	< 0.2	< 0.05
n-Nitrosodiphenylamine	< 0.08	< 0.08	< 0.4	< 0.08
bis(2-Chloroethyl)ether	< 0.08	< 0.08	< 0.4	< 0.08
bis(2-chloroisopropyl)ether	< 0.08	< 0.08	< 0.4	< 0.08
bis(2-Chloroethoxy)methane	< 0.08	< 0.08	< 0.4	< 0.08
1,3-Dichlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
Acetophenone	< 0.8	< 0.8	< 4	< 0.8
1,4-Dichlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
1,2-Dichlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
1,2,4-Trichlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
2-Chloronaphthalene	< 0.08	< 0.08	< 0.4	< 0.08
4-Chlorophenyl-phenylether	< 0.08	< 0.08	< 0.4	< 0.08
4-Bromophenyl-phenylether	< 0.08	< 0.08	< 0.4	< 0.08
Hexachloroethane	< 0.08	< 0.08	< 0.4	< 0.08
Hexachlorobutadiene	< 0.08	< 0.08	< 0.4	< 0.08
Hexachlorocyclopentadiene	< 0.4	< 0.4	< 2	< 0.4
Hexachlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
4-Chloroaniline	< 0.08	< 0.08	< 0.4	< 0.08
2,3-Dichloroaniline	< 0.08	< 0.08	< 0.4	< 0.08
2-Nitroaniline	< 0.4	< 0.4	< 2	< 0.4
3-Nitroaniline	< 0.4	< 0.4	< 2	< 0.4
4-Nitroaniline	< 0.4	< 0.4	< 2	< 0.4
Aniline	< 0.08	< 0.08	< 0.4	< 0.08
Benzyl alcohol	< 0.8	< 0.8	< 4	< 0.8
Nitrobenzene	< 0.08	< 0.08	< 0.4	< 0.08
Isophorone	< 0.08	< 0.08	< 0.4	< 0.08
2,4-Dinitrotoluene	< 0.2	< 0.2	< 0.8	< 0.2
2,6-Dinitrotoluene	< 0.2	< 0.2	< 0.8	< 0.2
Benzidine (estimated)	< 0.4	< 0.4	< 2	< 0.4
3,3'-Dichlorobenzidine	< 0.08	< 0.08	< 0.4	< 0.08

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/16/21	6/16/21	6/16/21	6/14/21
Date of Analysis:	6/17/21	6/17/21	6/17/21	6/15/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	6	1
Pyridine	< 0.4	< 0.4	< 2	< 0.4
Azobenzene	< 0.08	< 0.08	< 0.4	< 0.08
Carbazole	< 0.08	< 0.08	**3.1**	**0.57**
Dimethylphthalate	< 0.08	< 0.08	< 0.4	< 0.08
Diethylphthalate	< 0.4	< 0.4	< 2	< 0.4
Di-n-butylphthalate	< 0.4	< 0.4	< 2	< 0.4
Butylbenzylphthalate	< 0.4	< 0.4	< 2	< 0.4
bis(2-Ethylhexyl)phthalate	< 0.4	< 0.4	< 2	< 0.4
Di-n-octylphthalate	< 0.4	< 0.4	< 2	< 0.4
Dibenzofuran	< 0.08	< 0.08	**2.2**	**0.31**
Naphthalene	< 0.08	< 0.08	**2.6**	**0.35**
2-Methylnaphthalene	< 0.08	< 0.08	**0.73**	**0.12**
1-Methylnaphthalene	< 0.08	< 0.08	**0.55**	**0.13**
Acenaphthylene	< 0.08	< 0.08	**2.8**	**0.57**
Acenaphthene	< 0.08	< 0.08	**2.4**	**0.41**
Fluorene	< 0.08	< 0.08	**2.6**	**0.40**
Phenanthrene	< 0.08	< 0.08	**30**	**4.9**
Anthracene	< 0.08	< 0.08	**8.1**	**1.4**
Fluoranthene	< 0.08	< 0.08	**57**	**7.2**
Pyrene	< 0.08	< 0.08	**37**	**6.8**
Benzo[a]anthracene	< 0.08	< 0.08	**25**	**4.6**
Chrysene	< 0.08	< 0.08	**22**	**4.2**
Benzo[b]fluoranthene	< 0.08	< 0.08	**27**	**6.1**
Benzo[k]fluoranthene	< 0.08	< 0.08	**7.8**	**2.3**
Benzo[a]pyrene	< 0.08	< 0.08	**22**	**4.6**
Indeno[1,2,3-cd]pyrene	< 0.08	< 0.08	**9.2**	**1.3**
Dibenz[a,h]anthracene	< 0.08	< 0.08	**2.2**	**0.31**
Benzo[g,h,i]perylene	< 0.08	< 0.08	**6.3**	**0.98**
n-Decane	< 0.4	< 0.4	< 2	< 0.4
n-Octadecane	< 0.4	< 0.4	< 2	< 0.4
2-Fluorophenol (surr)	**57 %R**	**61 %R**	**59 %R**	**66 %R**
Phenol-d6 (surr)	**62 %R**	**65 %R**	**64 %R**	**70 %R**
2,4,6-Tribromophenol (surr)	**80 %R**	**79 %R**	**83 %R**	**88 %R**
Nitrobenzene-D5 (surr)	**62 %R**	**69 %R**	**68 %R**	**74 %R**
2-Fluorobiphenyl (surr)	**70 %R**	**74 %R**	**76 %R**	**81 %R**
p-Terphenyl-D14 (surr)	**79 %R**	**78 %R**	**80 %R**	**83 %R**

Deviations from the Report:
SB-6 (2.0'): Parameter: Fluoranthene Date of Analysis: 6/18/2021 Dilution Factor: 30

SB-6 (2.0'): Detection limits elevated due to sample matrix causing internal standard failure in initial extraction.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	< 30	< 30	< 30	**90**
p-Terphenyl-D14 (surr)	**78 %R**	**77 %R**	**77 %R**	**85 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	11	2
TPH (C9-C40)	< 30	< 30	**800**	**190**
p-Terphenyl-D14 (surr)	**55 %R**	**69 %R**	**DOR**	**118 %R**

DOR: Diluted out of range.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	96.4	90.1	85.1	89.2
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/14/21	6/14/21	6/14/21
Date of Analysis:	6/18/21	6/18/21	6/18/21	6/18/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8081B	8081B	8081B	8081B
Dilution Factor:	1	1	1	1
Aldrin	< 0.005	< 0.005	< 0.006	< 0.006
alpha-BHC	< 0.005	< 0.005	< 0.006	< 0.006
beta-BHC	< 0.005	< 0.005	< 0.006	< 0.006
Lindane(gamma-BHC)	< 0.005	< 0.005	< 0.006	< 0.006
delta-BHC	< 0.005	< 0.005	< 0.006	< 0.006
Chlordane	< 0.02	< 0.02	< 0.02	< 0.02
4,4'-DDT	< 0.005	< 0.005	< 0.006	< 0.006
4,4'-DDE	< 0.005	< 0.005	< 0.006	< 0.006
4,4'-DDD	< 0.005	< 0.005	< 0.006	< 0.006
Dieldrin	< 0.005	< 0.005	< 0.006	< 0.006
Endosulfan I	< 0.005	< 0.005	< 0.006	< 0.006
Endosulfan II	< 0.005	< 0.005	< 0.006	< 0.006
Endosulfan Sulfate	< 0.005	< 0.005	< 0.006	< 0.006
Endrin	< 0.005	< 0.005	< 0.006	< 0.006
Endrin Aldehyde	< 0.005	< 0.005	< 0.006	< 0.006
Endrin Ketone	< 0.005	< 0.005	< 0.006	< 0.006
Heptachlor	< 0.005	< 0.005	< 0.006	< 0.006
Heptachlor Epoxide	< 0.005	< 0.005	< 0.006	< 0.006
Methoxychlor	< 0.005	< 0.005	< 0.006	< 0.006
Toxaphene	< 0.05	< 0.05	< 0.06	< 0.06
TMX (surr)	**64 %R**	**57 %R**	**62 %R**	**61 %R**
DCB (surr)	**46 %R**	**45 %R**	**41 %R**	**41 %R**

Clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	88.3	87.5	86.2	84.1
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/18/21	6/18/21	6/18/21	6/18/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8081B	8081B	8081B	8081B
Dilution Factor:	1	1	1	1
Aldrin	< 0.006	< 0.006	< 0.006	< 0.006
alpha-BHC	< 0.006	< 0.006	< 0.006	< 0.006
beta-BHC	< 0.006	< 0.006	< 0.006	< 0.006
Lindane(gamma-BHC)	< 0.006	< 0.006	< 0.006	< 0.006
delta-BHC	< 0.006	< 0.006	< 0.006	< 0.006
Chlordane	< 0.02	< 0.02	< 0.02	< 0.02
4,4'-DDT	< 0.006	< 0.006	< 0.006	< 0.006
4,4'-DDE	< 0.006	< 0.006	< 0.006	< 0.006
4,4'-DDD	< 0.006	< 0.006	< 0.006	< 0.006
Dieldrin	< 0.006	< 0.006	< 0.006	< 0.006
Endosulfan I	< 0.006	< 0.006	< 0.006	< 0.006
Endosulfan II	< 0.006	< 0.006	< 0.006	< 0.006
Endosulfan Sulfate	< 0.006	< 0.006	< 0.006	< 0.006
Endrin	< 0.006	< 0.006	< 0.006	< 0.006
Endrin Aldehyde	< 0.006	< 0.006	< 0.006	< 0.006
Endrin Ketone	< 0.006	< 0.006	< 0.006	< 0.006
Heptachlor	< 0.006	< 0.006	< 0.006	< 0.006
Heptachlor Epoxide	< 0.006	< 0.006	< 0.006	< 0.006
Methoxychlor	< 0.006	< 0.006	< 0.006	< 0.006
Toxaphene	< 0.06	< 0.06	< 0.06	< 0.06
TMX (surr)	**57 %R**	**57 %R**	**36 %R**	**39 %R**
DCB (surr)	**45 %R**	**43 %R**	**35 %R**	**33 %R**

Clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	96.4	90.1	85.1	89.2
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/14/21	6/14/21	6/14/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8082A	8082A	8082A	8082A
Dilution Factor:	1	1	1	1
PCB-1016	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1221	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1232	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1242	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1248	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1254	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1260	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1262	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1268	< 0.02	< 0.02	< 0.02	< 0.02
TMX (surr)	**94 %R**	**85 %R**	**99 %R**	**98 %R**
DCB (surr)	**98 %R**	**97 %R**	**99 %R**	**84 %R**

Acid clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	88.3	87.5	86.2	84.1
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/16/21	6/16/21	6/16/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8082A	8082A	8082A	8082A
Dilution Factor:	1	1	1	1
PCB-1016	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1221	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1232	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1242	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1248	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1254	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1260	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1262	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1268	< 0.02	< 0.02	< 0.02	< 0.02
TMX (surr)	**97 %R**	**85 %R**	**51 %R**	**56 %R**
DCB (surr)	**108 %R**	**96 %R**	**52 %R**	**56 %R**

Acid clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10 -12')					
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06					
Matrix:	soil	soil	soil	soil					
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21		Analysis			
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21	**Units**	**Date**	**Time**	**Method**	**Analyst**
Cyanide Total	< 0.5	< 0.5	< 0.5	< 0.5	mg/kg	06/16/21	8:55	9010/9014	RB

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')					
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1					
Matrix:	soil	soil	soil	soil					
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21		Analysis			
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21	**Units**	**Date**	**Time**	**Method**	**Analyst**
Cyanide Total	< 0.5	< 0.5	**0.54**	< 0.5	mg/kg	06/16/21	8:55	9010/9014	RB

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')					
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06					
Matrix:	soil	soil	soil	soil					
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21					
Arsenic	**8.5**	**4.5**	**1.5**	**4.2**	SolTotDry	mg/kg	6/15/21	6020	DS
Barium	**16**	**18**	**2.3**	**8.5**	SolTotDry	mg/kg	6/15/21	6020	DS
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Chromium	**12**	**12**	**6.1**	**24**	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**6.6**	**7.7**	**2.3**	**19**	SolTotDry	mg/kg	6/15/21	6020	DS
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	SolTotDry	mg/kg	6/15/21	6020	DS
Selenium	**0.57**	< 0.5	< 0.5	**0.52**	SolTotDry	mg/kg	6/15/21	6020	DS
Silver	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS

Sample ID:	SB-3 (7-9')	SB-2 (12-14')						
Lab Sample ID:	227592.07	227592.08						
Matrix:	soil	soil						
Date Sampled:	6/10/21	6/10/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**	
Date Received:	6/14/21	6/14/21						
Arsenic	**4.1**	**4.0**	SolTotDry	mg/kg	6/15/21	6020	DS	
Barium	**19**	**11**	SolTotDry	mg/kg	6/15/21	6020	DS	
Cadmium	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS	
Chromium	**14**	**7.7**	SolTotDry	mg/kg	6/15/21	6020	DS	
Lead	**6.7**	**5.7**	SolTotDry	mg/kg	6/15/21	6020	DS	
Mercury	< 0.1	< 0.1	SolTotDry	mg/kg	6/15/21	6020	DS	
Selenium	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS	
Silver	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS	

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-6 (2.0')	SB-7 (2.0')					
Lab Sample ID:	227592.09	227592.1					
Matrix:	soil	soil					
Date Sampled:	6/11/21	6/11/21					
Date Received:	6/14/21	6/14/21					
			Analytical Matrix	**Units**	**Date of Analysis**	**Method**	**Analyst**
Arsenic	**6.1**	**4.7**	SolTotDry	mg/kg	6/15/21	6020	DS
Barium	**92**	**62**	SolTotDry	mg/kg	6/15/21	6020	DS
Cadmium	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Chromium	**25**	**17**	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**310**	**260**	SolTotDry	mg/kg	6/15/21	6020	DS
Mercury	**0.60**	**0.16**	SolTotDry	mg/kg	6/15/21	6020	DS
Selenium	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Silver	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	< 0.5	< 0.5	TCLPsolid	mg/L	6/18/21	6020	DS

PHOENIX
Environmental Laboratories, Inc.

Tuesday, June 22, 2021

Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Project ID: 227592
SDG ID: GCI54779
Sample ID#s: CI54779 - CI54782

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

June 22, 2021

SDG I.D.: GCI54779

Project ID: 227592

Client Id	Lab Id	Matrix
SB-4 (7-9`)	CI54779	SOIL
SB-6 (2.0`)	CI54780	SOIL
SB-7 (2.0`)	CI54781	SOIL
SB-5/NB-1 (10-12`)	CI54782	SOIL

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2021

FOR: Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		06/09/21	12:25
Location Code:	EASTANAL-NH	Received by:	SW	06/15/21	11:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	55122				

Laboratory Data

SDG ID: GCI54779
Phoenix ID: CI54779

Project ID: 227592
Client ID: SB-4 (7-9`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	84		%		06/15/21	AR	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.43	0.43	mg/Kg	1	06/17/21	BJA	SW7196A
pH at 25C - Soil	7.15	1.00	pH Units	1	06/16/21 12:37	DJ/EG	SW846 9045D
Redox Potential	231		mV	1	06/16/21	DJ/EG	SM2580B-09

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 22, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2021

FOR: Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		06/11/21	13:30
Location Code:	EASTANAL-NH	Received by:	SW	06/15/21	11:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	55122				

Laboratory Data

SDG ID: GCI54779
Phoenix ID: CI54780

Project ID: 227592
Client ID: SB-6 (2.0`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	85		%		06/15/21	AR	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.44	0.44	mg/Kg	1	06/17/21	BJA	SW7196A
pH at 25C - Soil	7.38	1.00	pH Units	1	06/16/21 12:37	DJ/EG	SW846 9045D
Redox Potential	314		mV	1	06/16/21	DJ/EG	SM2580B-09

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 22, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2021

FOR: Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		06/11/21	11:50
Location Code:	EASTANAL-NH	Received by:	SW	06/15/21	11:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	55122				

Laboratory Data

SDG ID: GCI54779
Phoenix ID: CI54781

Project ID: 227592
Client ID: SB-7 (2.0`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		06/15/21	AR	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.44	0.44	mg/Kg	1	06/18/21	BJA/QH	SW7196A
pH at 25C - Soil	7.93	1.00	pH Units	1	06/16/21 12:37	DJ/EG	SW846 9045D
Redox Potential	338		mV	1	06/16/21	DJ/EG	SM2580B-09

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 22, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2021

FOR: Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		06/09/21	13:25
Location Code:	EASTANAL-NH	Received by:	SW	06/15/21	11:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	55122				

Laboratory Data

SDG ID: GCI54779
Phoenix ID: CI54782

Project ID: 227592
Client ID: SB-5/NB-1 (10-12`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		06/15/21	AR	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.41	0.41	mg/Kg	1	06/18/21	BJA/QH	SW7196A
pH at 25C - Soil	7.39	1.00	pH Units	1	06/16/21 12:37	DJ/EG	SW846 9045D
Redox Potential	320		mV	1	06/16/21	DJ/EG	SM2580B-09

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 22, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

June 22, 2021

QA/QC Data

SDG I.D.: GCI54779

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 579920 (mg/kg), QC Sample No: CI54469 40X (CI54779, CI54780)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.39	<0.42	NC	94.1						85 - 115	30	
Chromium, Hexavalent (Ins)						95.1			92.8			85 - 115	30	
Chromium, Hexavalent (Sol)						93.4			90.8			85 - 115	30	
QA/QC Batch 580132 (mg/kg), QC Sample No: CI57461 40X (CI54781, CI54782)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.42	<0.42	NC	95.1						85 - 115	30	
Chromium, Hexavalent (Ins)						103			94.3			85 - 115	30	
Chromium, Hexavalent (Sol)						92.2			56.7			85 - 115	30	m

m = This parameter is outside laboratory MS/MSD specified recovery limits.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

June 22, 2021

QA/QC Data

SDG I.D.: GCI54779

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 579781 (PH), QC Sample No: CI54731 (CI54779, CI54780, CI54781, CI54782)													
pH at 25C - Soil			7.50	7.46	0.50	99.7						85 - 115	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
June 22, 2021

Sample Criteria Exceedances Report

GCI54779 - EASTANAL-NH

State: RI

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
*** No Data to Display ***								

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

June 22, 2021

SDG I.D.: GCI54779

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

CHAIN-OF-CUSTODY RECORD

4.7°wc 1Q

Eastern Analytical, Inc.
professional laboratory and drilling services

EAI ID# 227592 Page 1

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
SB-4 (7-9')	6/9/2021 12:25	soil	Subcontract - Hexavalent Chromium Soil 3060/7196	54779
SB-6 (2.0')	6/11/2021 13:30	soil	Subcontract - Hexavalent Chromium Soil 3060/7196	54780
SB-7 (2.0')	6/11/2021 11:50	soil	Subcontract - Hexavalent Chromium Soil 3060/7196	54781
SB-5/NB-1 (10-12')	6/9/2021 13:25	soil	Subcontract - Hexavalent Chromium Soil 3060/7196	54782

Rush - 1 8oz jar per sample.

EAI ID# 227592 **Project State: RI**

Project ID: 0

Company Phoenix Environmental Labs
Address 587 East Middle Turnpike
Address Manchester , CT 06040
Account #
Phone # (860) 645-1102

Results Needed: Preferred Date: Standard

RUSH Due Date: _____

QC Deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

PO #:55122 **EAI ID# 227592**

Data Deliverable (circle)

Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by:

Relinquished by	Date/Time	Received by
[signature]	6/14/21	1500 UPS
UPS [signature]	6/15/21	11:33

Chain-of-Custody Record

Bold Fields Required. Please Circle Requested Analysis.

227592

32

BEE 6/14/21

Sample I.D.	Sampling Date/Time	Matrix	Grab/*Composite	VOC 8260/624	SVOC 8270	SVOC 8270 PAH	PCB 8082	Total Cyanide	RCRA 8 Metals	Hexavalent Cr	# of Containers	Notes MeOH Vial #	
~~SB-10 (10-12')~~	~~6/8/21 1015~~	~~S~~	~~G~~	✓	✓	✓	✓	✓	✓	✓	5	53817	DNA
SB-8/NB-2 (7-9')	6/8/21 1420	S	G	✓	✓	✓	✓	✓	✓		5	53822	BEE 6/14/21
SB-11 (8-10')	6/9/21 0830	S	G	✓	✓	✓	✓	✓	✓		5	53828	
~~SB-9 (10-12')~~	~~6/9/21 0930~~	~~S~~	~~G~~	✓	✓	✓	✓	✓	✓	✓	5	53831	DNA
SB-4 (7-9')	6/9/21 1225	S	G	✓	✓	✓	✓	✓	✓	✓	5	53823	BEE
SB-5/NB-1 (10-12')	6/9/21 1325	S	G	✓	✓	✓	✓	✓	✓	✓	5	53833	6/14/21
SB-3 (7-9')	6/10/21 1535	S	G	✓	✓	✓	✓	✓	✓		5	53829	
SB-2 (12-14')	6/10/21 1635	S	G	✓	✓	✓	✓	✓	✓		5	53821	
SB-6 (2.0')	6/11/21 1330	S	G	✓	✓	✓	✓	✓	✓	✓	5	53832	*TCLP lead & perchlorate 6/16/21
SB-7 (2.0')	6/11/21 1150	S	G	✓	✓	✓	✓	✓	✓	✓	5	53830	

Matrix: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste Water

Preservative: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH — M

Project Manager: Bettina Eames
Company: Nobis
Address: 18 Chenell Drive
City: Concord **State:** NH **Zip:** 03301
Phone: (603) 224-4182 **Ext.:**
Fax:
E-mail: beames@nobis-group.com
Site Name: Robin Rug
Project #: 095560.200
State: NH MA ME VT (Other) RI
Regulatory Program: NPDES: RGP POTW Stormwater or GWP, Oil Fund, Brownfield or Other:
Quote #: **PO #:**

Date Needed: Standard TAT

Temp. 3.3 °C
Ice? (Yes) No

QA/QC Reporting Level Rhode Island
A B C
OR
MA MCP

Reporting Options
Prelims: Yes or (No)

Electronic Options
(E-mail) (PDF) Equis (Excel)

Metals: (8 RCRA) 13 PP Fe, Mn Pb, Cu
Other Metals:
Samples Field Filtered? ☐ Yes ☐ No
Notes: (ie: Special Detection Limits, Billing Info, If Different)
* DNA = Do Not Analyze
Cr+6 samples SB-5/NB-1, SB-4, SB-6, SB-7 only
BEE 6/14/21
Site History: Textile Mill
Suspected Contamination:
Field Readings: <10 ppm PID

Sampler(s): S. Powers

Relinquished By	Date	Time	Received By
Darrah Powers	6/11/21	1910	
	6/14/21	9:04	[signature]
[signature]	6/14/21	8:16	
[signature]	6/14/21	0835	[signature]

Page 2 of 2

CHAIN-OF-CUSTODY RECORD

227592

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 524.2 BTEX; 524.2 MTBE ONLY; 624 VTICS; 624 + OXYGENATE; 8021 BTEX HALOS; 8015 GRO MAPH	SVOC: 8270 625 SVTICS EDB DBCP ABN A BN 2AH; 8100 LI L2; 8015 DRO MAEPH; PEST 608 PCB 608 PEST 8082 PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 TOC ABN Metals PEST Hers; DISSOLVED METALS (LAST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. COND.; Cl F SO4 NO3 NO2; BOD COOD T-ALK; TKN NH3 T. PHOS. O. PHOS.; pH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY; MICRO: TOTAL COLIFORM FECAL COLIFORM E. COLI; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	# OF CONTAINERS	NOTES MeOH Vial #
Trip Blank	6/8/21 0700	SW	G	✓				1	538210

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

M

PROJECT MANAGER: Bethina Eames

COMPANY: Nobis

ADDRESS: 18 Chenell Drive

CITY: Concord STATE: NH ZIP: 03301

PHONE: (603) 224-4182 EXT:

FAX:

E-MAIL: beames@nobis-group.com

SITE NAME: Robin Rug

PROJECT #: 095560.260

STATE: NH MA ME VT (OTHER) RI

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED: standard TAT

QA/QC REPORTING LEVEL: A B C OR MA MCP

REPORTING OPTIONS: PRELIMS: YES OR (NO)

ELECTRONIC OPTIONS: (E-MAIL) (PDF) EQUIS (EXCEL)

TEMP. 3.3 °C ICE? (YES) NO

SAMPLER(S): S. Powers

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Samantha Powers	6/11/21	1910	
	6/14/21	8:04	
	6/14/21	8:16	
FedEx	6/14	0835	

METALS: 8 RCRA 13 PP Fe, Mn Pb, Cu

OTHER METALS:

SAMPLES FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY: Textile Mill

SUSPECTED CONTAMINATION:

FIELD READINGS: <10 ppm PID

Eastern Analytical, Inc.
professional laboratory and drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL. 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTICAL.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Eastern Analytical, Inc.

professional laboratory and drilling services

Bettina Eames
Nobis Group
18 Chenell Drive
Concord , NH 03301

Laboratory Report for:

Eastern Analytical, Inc. ID:	227591
Client Identification:	Robin Rug | 095560.260
Date Received:	6/14/2021

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:
- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

[signature] for	6·21·21	16
Lorraine Olashaw, Lab Director	Date	# of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Temperature upon receipt (°C): 2.9 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
227591.01	Trip Blank	6/14/21	6/10/21	08:00	soil	100.0	Adheres to Sample Acceptance Policy
227591.02	TP-7 0-3.5'	6/14/21	6/10/21	09:00	soil	82.1	Adheres to Sample Acceptance Policy
227591.03	TP-6 9-10'	6/14/21	6/10/21	11:15	soil	86.7	Adheres to Sample Acceptance Policy
227591.04	TP-5 6'	6/14/21	6/10/21	13:00	soil	93.9	Adheres to Sample Acceptance Policy
227591.05	TP-4 9'	6/14/21	6/10/21	14:50	soil	89.5	Adheres to Sample Acceptance Policy
227591.06	Trip Blank	6/14/21	6/11/21	07:00	soil	100.0	Adheres to Sample Acceptance Policy
227591.07	TP-14 1-2'	6/14/21	6/11/21	08:30	soil	90.3	Adheres to Sample Acceptance Policy
227591.08	TP-1 0-2'	6/14/21	6/11/21	10:15	soil	92.1	Adheres to Sample Acceptance Policy
227591.09	TP-2 3-4'	6/14/21	6/11/21	10:55	soil	92.0	Adheres to Sample Acceptance Policy
227591.1	TP-3 2-3'	6/14/21	6/11/21	11:40	soil	81.6	Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	TP-7 0-3.5'	TP-6 9-10'	TP-5 6'
Lab Sample ID:	227591.01	227591.02	227591.03	227591.04
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/10/21	6/10/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/14/21	6/14/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	2	1	1
Dichlorodifluoromethane	< 0.1	< 0.2	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.2	< 0.1	< 0.1
Vinyl chloride	< 0.02	< 0.03	< 0.02	< 0.02
Bromomethane	< 0.1	< 0.2	< 0.1	< 0.1
Chloroethane	< 0.1	< 0.2	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.2	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.08	< 0.05	< 0.05
Acetone	< 2	< 3	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.08	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	< 2	< 3	< 2	< 2
Methylene chloride	< 0.1	< 0.2	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.2	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.2	< 0.1	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.2	< 0.1	< 0.1
Isopropyl ether(DIPE)	< 0.1	< 0.2	< 0.1	< 0.1
tert-amyl methyl ether(TAME)	< 0.1	< 0.2	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.08	< 0.05	< 0.05
1,1-Dichloroethane	< 0.05	< 0.08	< 0.05	< 0.05
2,2-Dichloropropane	< 0.05	< 0.08	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.08	< 0.05	< 0.05
2-Butanone(MEK)	< 0.5	< 0.8	< 0.5	< 0.5
Bromochloromethane	< 0.05	< 0.08	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.8	< 0.5	< 0.5
Chloroform	< 0.05	< 0.08	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.08	< 0.05	< 0.05
Carbon tetrachloride	< 0.05	< 0.08	< 0.05	< 0.05
1,1-Dichloropropene	< 0.05	< 0.08	< 0.05	< 0.05
Benzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dichloroethane	< 0.05	< 0.08	< 0.05	< 0.05
Trichloroethene	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dichloropropane	< 0.05	< 0.08	< 0.05	< 0.05
Dibromomethane	< 0.05	< 0.08	< 0.05	< 0.05
Bromodichloromethane	< 0.05	< 0.08	< 0.05	< 0.05
1,4-Dioxane	< 1	< 2	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.8	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.08	< 0.05	< 0.05
Toluene	< 0.05	< 0.08	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.08	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.08	< 0.05	< 0.05
2-Hexanone	< 0.1	< 0.2	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.08	< 0.05	< 0.05
1,3-Dichloropropane	< 0.05	< 0.08	< 0.05	< 0.05
Dibromochloromethane	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.02	< 0.03	< 0.02	< 0.02
Chlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.08	< 0.05	< 0.05

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	TP-7 0-3.5'	TP-6 9-10'	TP-5 6'
Lab Sample ID:	227591.01	227591.02	227591.03	227591.04
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/10/21	6/10/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/14/21	6/14/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	2	1	1
Ethylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
mp-Xylene	< 0.05	< 0.08	< 0.05	< 0.05
o-Xylene	< 0.05	< 0.08	< 0.05	< 0.05
Styrene	< 0.05	< 0.08	< 0.05	< 0.05
Bromoform	< 0.05	< 0.08	< 0.05	< 0.05
IsoPropylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
Bromobenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.08	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.05	< 0.08	< 0.05	< 0.05
n-Propylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
2-Chlorotoluene	< 0.05	< 0.08	< 0.05	< 0.05
4-Chlorotoluene	< 0.05	< 0.08	< 0.05	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
tert-Butylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
sec-Butylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
p-Isopropyltoluene	< 0.05	< 0.08	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
n-Butylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05	< 0.08	< 0.05	< 0.05
1,3,5-Trichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
Hexachlorobutadiene	< 0.05	< 0.08	< 0.05	< 0.05
Naphthalene	< 0.1	< 0.2	< 0.1	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	**92 %R**	**90 %R**	**140 %R**	**88 %R**
1,2-Dichlorobenzene-d4 (surr)	**100 %R**	**102 %R**	**92 %R**	**102 %R**
Toluene-d8 (surr)	**95 %R**	**95 %R**	**88 %R**	**96 %R**
1,2-Dichloroethane-d4 (surr)	**101 %R**	**102 %R**	**108 %R**	**101 %R**

TP-7 0-3.5': Reporting limits are elevated due to the % solids content of the sample or the sample mass used for analysis.
TP-6 9-10': Non target interference in the sample resulted in recovery high outside of the acceptance control limits of 70-130%R for the surrogate 4-Bromofluorobenzene (surr).

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	TP-14 1-2'	TP-1 0-2'	TP-3 2-3'
Lab Sample ID:	227591.06	227591.07	227591.08	227591.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/11/21	6/11/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	2
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1	< 0.2
Chloromethane	< 0.1	< 0.1	< 0.1	< 0.2
Vinyl chloride	< 0.02	< 0.02	< 0.02	< 0.04
Bromomethane	< 0.1	< 0.1	< 0.1	< 0.2
Chloroethane	< 0.1	< 0.1	< 0.1	< 0.2
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1	< 0.2
Diethyl Ether	< 0.05	< 0.05	< 0.05	< 0.1
Acetone	< 2	< 2	< 2	< 4
1,1-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.1
tert-Butyl Alcohol (TBA)	< 2	< 2	< 2	< 4
Methylene chloride	< 0.1	< 0.1	< 0.1	< 0.2
Carbon disulfide	< 0.1	< 0.1	< 0.1	< 0.2
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1	< 0.2
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.1	< 0.1	< 0.2
Isopropyl ether(DIPE)	< 0.1	< 0.1	< 0.1	< 0.2
tert-amyl methyl ether(TAME)	< 0.1	< 0.1	< 0.1	< 0.2
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.1
1,1-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.1
2,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.1
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.1
2-Butanone(MEK)	< 0.5	< 0.5	< 0.5	< 1
Bromochloromethane	< 0.05	< 0.05	< 0.05	< 0.1
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.5	< 1
Chloroform	< 0.05	< 0.05	< 0.05	< 0.1
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.1
Carbon tetrachloride	< 0.05	< 0.05	< 0.05	< 0.1
1,1-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.1
Benzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.1
Trichloroethene	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.1
Dibromomethane	< 0.05	< 0.05	< 0.05	< 0.1
Bromodichloromethane	< 0.05	< 0.05	< 0.05	< 0.1
1,4-Dioxane	< 1	< 1	< 1	< 2
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.5	< 1
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.1
Toluene	< 0.05	< 0.05	< 0.05	< 0.1
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.1
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.1
2-Hexanone	< 0.1	< 0.1	< 0.1	< 0.2
Tetrachloroethene	< 0.05	< 0.05	< 0.05	< 0.1
1,3-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.1
Dibromochloromethane	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.04
Chlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.1

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	TP-14 1-2'	TP-1 0-2'	TP-3 2-3'
Lab Sample ID:	227591.06	227591.07	227591.08	227591.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/11/21	6/11/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	2
Ethylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
mp-Xylene	< 0.05	< 0.05	< 0.05	< 0.1
o-Xylene	< 0.05	< 0.05	< 0.05	< 0.1
Styrene	< 0.05	< 0.05	< 0.05	**5.1**
Bromoform	< 0.05	< 0.05	< 0.05	< 0.1
IsoPropylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
Bromobenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.1
1,2,3-Trichloropropane	< 0.05	< 0.05	< 0.05	< 0.1
n-Propylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
2-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.1
4-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.1
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
tert-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
sec-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
p-Isopropyltoluene	< 0.05	< 0.05	< 0.05	< 0.1
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
n-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dibromo-3-chloropropane	< 0.05	< 0.05	< 0.05	< 0.1
1,3,5-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
Hexachlorobutadiene	< 0.05	< 0.05	< 0.05	< 0.1
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.2
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
4-Bromofluorobenzene (surr)	**88 %R**	**88 %R**	**89 %R**	**103 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**	**102 %R**	**102 %R**	**95 %R**
Toluene-d8 (surr)	**96 %R**	**95 %R**	**95 %R**	**95 %R**
1,2-Dichloroethane-d4 (surr)	**101 %R**	**102 %R**	**103 %R**	**102 %R**

TP-3 2-3': Reporting limits are elevated due to the % solids content of the sample or the sample mass used for analysis.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-6 9-10'	TP-5 6'	TP-4 9'
Lab Sample ID:	227591.02	227591.03	227591.04	227591.05
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/10/21	6/10/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Naphthalene	< 0.09	< 0.08	< 0.07	< 0.08
2-Methylnaphthalene	< 0.09	< 0.08	< 0.07	< 0.08
1-Methylnaphthalene	< 0.09	< 0.08	< 0.07	< 0.08
Acenaphthylene	< 0.09	< 0.08	< 0.07	< 0.08
Acenaphthene	< 0.09	< 0.08	< 0.07	< 0.08
Fluorene	< 0.09	< 0.08	< 0.07	< 0.08
Phenanthrene	**0.17**	< 0.08	< 0.07	< 0.08
Anthracene	< 0.09	< 0.08	< 0.07	< 0.08
Fluoranthene	**0.53**	< 0.08	< 0.07	< 0.08
Pyrene	**0.61**	< 0.08	< 0.07	< 0.08
Benzo[a]anthracene	**0.44**	< 0.08	< 0.07	< 0.08
Chrysene	**0.40**	< 0.08	< 0.07	< 0.08
Benzo[b]fluoranthene	**0.40**	< 0.08	< 0.07	< 0.08
Benzo[k]fluoranthene	**0.14**	< 0.08	< 0.07	< 0.08
Benzo[a]pyrene	**0.35**	< 0.08	< 0.07	< 0.08
Indeno[1,2,3-cd]pyrene	**0.21**	< 0.08	< 0.07	< 0.08
Dibenz[a,h]anthracene	< 0.09	< 0.08	< 0.07	< 0.08
Benzo[g,h,i]perylene	**0.22**	< 0.08	< 0.07	< 0.08
p-Terphenyl-D14 (surr)	**71 %R**	**79 %R**	**76 %R**	**70 %R**

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-14 1-2'	TP-1 0-2'	TP-2 3-4'	TP-3 2-3'
Lab Sample ID:	227591.07	227591.08	227591.09	227591.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/11/21	6/11/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Naphthalene	< 0.08	< 0.07	**0.086**	< 0.09
2-Methylnaphthalene	< 0.08	< 0.07	< 0.08	< 0.09
1-Methylnaphthalene	< 0.08	< 0.07	< 0.08	< 0.09
Acenaphthylene	< 0.08	**0.10**	**0.19**	< 0.09
Acenaphthene	< 0.08	< 0.07	**0.13**	< 0.09
Fluorene	< 0.08	**0.073**	**0.19**	< 0.09
Phenanthrene	**0.38**	**0.75**	**1.5**	**0.57**
Anthracene	**0.12**	**0.22**	**0.46**	**0.12**
Fluoranthene	**0.71**	**1.3**	**2.4**	**0.95**
Pyrene	**0.59**	**1.1**	**2.1**	**0.79**
Benzo[a]anthracene	**0.37**	**0.71**	**1.3**	**0.70**
Chrysene	**0.38**	**0.69**	**1.3**	**0.75**
Benzo[b]fluoranthene	**0.47**	**0.83**	**1.6**	**0.93**
Benzo[k]fluoranthene	**0.16**	**0.33**	**0.54**	**0.35**
Benzo[a]pyrene	**0.36**	**0.68**	**1.3**	**0.65**
Indeno[1,2,3-cd]pyrene	**0.26**	**0.32**	**0.58**	**0.28**
Dibenz[a,h]anthracene	< 0.08	**0.081**	**0.15**	< 0.09
Benzo[g,h,i]perylene	**0.22**	**0.24**	**0.43**	**0.21**
p-Terphenyl-D14 (surr)	**69 %R**	**74 %R**	**75 %R**	**66 %R**

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-6 9-10'	TP-5 6'	TP-4 9'
Lab Sample ID:	227591.02	227591.03	227591.04	227591.05
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/10/21	6/10/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	**69**	**580**	< 30	< 30
p-Terphenyl-D14 (surr)	**86 %R**	**97 %R**	**81 %R**	**68 %R**

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-14 1-2'	TP-1 0-2'	TP-2 3-4'	TP-3 2-3'
Lab Sample ID:	227591.07	227591.08	227591.09	227591.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/11/21	6/11/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	**59**	**69**	**93**	**230**
p-Terphenyl-D14 (surr)	**84 %R**	**89 %R**	**96 %R**	**107 %R**

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-6 9-10'	TP-14 1-2'	TP-1 0-2'
Lab Sample ID:	227591.02	227591.03	227591.07	227591.08
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	82.1	86.7	90.3	92.1
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/14/21	6/14/21	6/14/21
Date of Analysis:	6/18/21	6/18/21	6/18/21	6/18/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8081B	8081B	8081B	8081B
Dilution Factor:	1	1	1	1
Aldrin	< 0.006	< 0.006	< 0.006	< 0.005
alpha-BHC	< 0.006	< 0.006	< 0.006	< 0.005
beta-BHC	< 0.006	< 0.006	< 0.006	< 0.005
Lindane(gamma-BHC)	< 0.006	< 0.006	< 0.006	< 0.005
delta-BHC	< 0.006	< 0.006	< 0.006	< 0.005
Chlordane	< 0.02	< 0.02	< 0.02	< 0.02
4,4'-DDT	**0.014**	**0.040**	< 0.006	< 0.005
4,4'-DDE	**0.012**	< 0.006	< 0.006	< 0.005
4,4'-DDD	< 0.006	**0.063**	< 0.006	< 0.005
Dieldrin	< 0.006	< 0.006	< 0.006	< 0.005
Endosulfan I	< 0.006	< 0.006	< 0.006	< 0.005
Endosulfan II	< 0.006	< 0.006	< 0.006	< 0.005
Endosulfan Sulfate	< 0.006	< 0.006	< 0.006	< 0.005
Endrin	< 0.006	< 0.006	< 0.006	< 0.005
Endrin Aldehyde	< 0.006	< 0.006	< 0.006	< 0.005
Endrin Ketone	< 0.006	< 0.006	< 0.006	< 0.005
Heptachlor	< 0.006	< 0.006	< 0.006	< 0.005
Heptachlor Epoxide	< 0.006	< 0.006	< 0.006	< 0.005
Methoxychlor	< 0.006	< 0.006	< 0.006	< 0.005
Toxaphene	< 0.06	< 0.06	< 0.06	< 0.05
TMX (surr)	**61 %R**	**45 %R**	**60 %R**	**53 %R**
DCB (surr)	**44 %R**	**56 %R**	**45 %R**	**35 %R**

Clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-3 2-3'
Lab Sample ID:	227591.1
Matrix:	soil
Date Sampled:	6/11/21
Date Received:	6/14/21
% Solid:	81.6
Units:	mg/kg
Date of Extraction/Prep:	6/14/21
Date of Analysis:	6/18/21
Analyst:	MB
Extraction Method:	3540C
Analysis Method:	8081B
Dilution Factor:	1

Aldrin	< 0.006
alpha-BHC	< 0.006
beta-BHC	< 0.006
Lindane(gamma-BHC)	< 0.006
delta-BHC	< 0.006
Chlordane	< 0.02
4,4'-DDT	< 0.006
4,4'-DDE	< 0.006
4,4'-DDD	< 0.006
Dieldrin	< 0.006
Endosulfan I	< 0.006
Endosulfan II	< 0.006
Endosulfan Sulfate	< 0.006
Endrin	< 0.006
Endrin Aldehyde	< 0.006
Endrin Ketone	< 0.006
Heptachlor	< 0.006
Heptachlor Epoxide	< 0.006
Methoxychlor	< 0.006
Toxaphene	< 0.06
TMX (surr)	**49 %R**
DCB (surr)	**37 %R**

Clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-6 9-10'	TP-14 1-2'	TP-1 0-2'
Lab Sample ID:	227591.02	227591.03	227591.07	227591.08
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	82.1	86.7	90.3	92.1
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/14/21	6/14/21	6/14/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8082A	8082A	8082A	8082A
Dilution Factor:	1	1	1	1
PCB-1016	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1221	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1232	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1242	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1248	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1254	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1260	< 0.02	< 0.02	< 0.02	**0.040**
PCB-1262	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1268	< 0.02	< 0.02	< 0.02	< 0.02
TMX (surr)	**96 %R**	**58 %R**	**79 %R**	**88 %R**
DCB (surr)	**94 %R**	**93 %R**	**87 %R**	**78 %R**

Acid clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-3 2-3'
Lab Sample ID:	227591.1
Matrix:	soil
Date Sampled:	6/11/21
Date Received:	6/14/21
% Solid:	81.6
Units:	mg/kg
Date of Extraction/Prep:	6/14/21
Date of Analysis:	6/15/21
Analyst:	MB
Extraction Method:	3540C
Analysis Method:	8082A
Dilution Factor:	1

PCB-1016	< 0.02
PCB-1221	< 0.02
PCB-1232	< 0.02
PCB-1242	< 0.02
PCB-1248	< 0.02
PCB-1254	< 0.02
PCB-1260	< 0.02
PCB-1262	< 0.02
PCB-1268	< 0.02
TMX (surr)	**76 %R**
DCB (surr)	**73 %R**

Acid clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-6 9-10'	TP-5 6'	TP-4 9'	TP-1 0-2'					
Lab Sample ID:	227591.03	227591.04	227591.05	227591.08					
Matrix:	soil	soil	soil	soil					
Date Sampled:	6/10/21	6/10/21	6/10/21	6/11/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21					
Arsenic	**2.3**	**2.9**	**4.9**	**8.4**	SolTotDry	mg/kg	6/15/21	6020	DS
Barium	**8.3**	**11**	**20**	**29**	SolTotDry	mg/kg	6/15/21	6020	DS
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Chromium	**7.1**	**8.4**	**13**	**14**	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**8.4**	**6.0**	**7.7**	**55**	SolTotDry	mg/kg	6/15/21	6020	DS
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	SolTotDry	mg/kg	6/15/21	6020	DS
Selenium	**0.82**	< 0.5	< 0.5	**0.65**	SolTotDry	mg/kg	6/15/21	6020	DS
Silver	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS

Sample ID:	TP-3 2-3'							
Lab Sample ID:	227591.1							
Matrix:	soil							
Date Sampled:	6/11/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**		
Date Received:	6/14/21							
Arsenic	**18**	SolTotDry	mg/kg	6/15/21	6020	DS		
Barium	**120**	SolTotDry	mg/kg	6/15/21	6020	DS		
Cadmium	**1.2**	SolTotDry	mg/kg	6/15/21	6020	DS		
Chromium	**15**	SolTotDry	mg/kg	6/15/21	6020	DS		
Lead	**63**	SolTotDry	mg/kg	6/15/21	6020	DS		
Mercury	**0.13**	SolTotDry	mg/kg	6/15/21	6020	DS		
Selenium	**2.4**	SolTotDry	mg/kg	6/15/21	6020	DS		
Silver	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS		

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-14 1-2'	TP-2 3-4'					
Lab Sample ID:	227591.02	227591.07	227591.09					
Matrix:	soil	soil	soil					
Date Sampled:	6/10/21	6/11/21	6/11/21					
Date Received:	6/14/21	6/14/21	6/14/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Arsenic	**6.6**	**4.2**	**6.9**	SolTotDry	mg/kg	6/15/21	6020	DS
Barium	**1500**	**72**	**43**	SolTotDry	mg/kg	6/15/21	6020	DS
Cadmium	< 0.5	< 0.5	**0.59**	SolTotDry	mg/kg	6/15/21	6020	DS
Chromium	**13**	**15**	**25**	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**4600**	**99**	**130**	SolTotDry	mg/kg	6/15/21	6020	DS
Mercury	**0.28**	**0.22**	**0.28**	SolTotDry	mg/kg	6/15/21	6020	DS
Selenium	**1.3**	**0.54**	**0.66**	SolTotDry	mg/kg	6/15/21	6020	DS
Silver	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**1.4**	< 0.5	< 0.5	TCLPsolid	mg/L	6/18/21	6020	DS

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CHAIN-OF-CUSTODY RECORD

227591

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BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

Sample I.D.	Sampling Date/Time *If Composite, Indicate Both Start & Finish Date/Time	Matrix (see below)	Grab/*Composite	VOC: 524.2 / 524.2 MTBE only	VOC: 8260 (circled) 624 VTICs / 1,4 Dioxane	VOC: 8021	VOC: 8015 GRO MAVPH	SVOC: 8270 (circled) 625 EDB DBCP / ABN PAH (circled)	SVOC: TPH8100 (circled) LL (circled) L2	SVOC: 8015 DRO MAEPH	SVOC: Pest 608 PCB 608 / Pest 8081 (circled) PCB 8082 (circled)	Oil & Grease 1664 TPH 1664	TCLP: TCLP 1311 ABN Metals / VOC Pest Herb	Inorganics: BOD CBOD / TS TSS TDS	Inorganics: Br Cl F SO_4 / NO_2 NO_3 NO_3NO_2	Inorganics: TKN NH_3 TN / T. Phos. O. Phos.	Inorganics: pH T. Res. Chlorine / Spec. Con. T. Alk.	Inorganics: COD Phenols TOC DOC	Inorganics: Total Cyanide Total Sulfide	Inorganics: Reactive Cyanide Reactive Sulfide / Flashpoint Ignitability	Micro: Total Coliform E. Coli / Fecal Coliform	Micro: Enterococci / Heterotrophic Plate Count	Metals: Dissolved Metals (list below)	Metals: Total Metals (list below)	Other: RCRA 8 Metals	Other	Other	Other	# of Containers	Notes MeOH Vial #
Trip blank	6-10-21 / 0800	S	G		X																								1	
TP-7 0-3.5'	↓ / 0800	S	G		X				X	X		X													X				3	
TP-6 9-10'	/ 1115	S	G		X	/		X	X		X								TP-5 (6')						X				3	
TP-5 6'	/ 1300	S	G		~~X~~ Stet			X	X		~~X~~	SEO	6/14/21						→ Analyze VOCs						X				3	
TP-4 9'	↓ / 1450	S	G		~~X~~			X	X		~~X~~	SEO	6/14/21												X				3	
Trip blank	6-11-21 / 0700	S	G		X																								1	
TP-14 1-2'	↓ / 0830	S	G		X			X	X		X														X				3	
TP-1 0-2'	/ 1015	S	G		X			X	X		X														X				3	
TP-2 3-4'	/ 1055	S	G		~~X~~			X	X		~~X~~	SEO	6/14/21												X				3	
TP-3 2-3'	↓ / 1140	S	G		X			X	X		X														X				3	
MATRIX: A-Air; S-Soil; GW-Ground Water; SW-Surface Water; DW-Drinking Water; WW-Waste Water. PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH					M																									

PROJECT MANAGER: Bettina Eames

COMPANY: Nobis Group

ADDRESS: 18 Chenell Drive

CITY: Concord STATE: NH ZIP: 03301

PHONE: 603-224-4182 EXT.:

E-MAIL:

SITE NAME: Robin Roy

PROJECT #: 095560.00

STATE: NH MA ME VT OTHER: RI

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 2.7 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: YES OR NO

ELECTRONIC OPTIONS

(PDF) (EXCEL) EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

5 Day 7 Day

(10 Day)

*Pre-approval Required

METALS: (8 RCRA) 13 PP Fe, Mn Pb, Cu

OTHER METALS:

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

8270-PAHs only

SAMPLER(S): R. Rizza

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
[signature]	6/14/21	8:09	[signature]
[signature]	6/14/21	8:16	
[signature]	6/14/21	0835	[signature]

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc. *professional laboratory and drilling services*

51 Antrim Avenue | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | E-Mail: CustomerService@EasternAnalytical.com | www.EasternAnalytical.com

(WHITE: Lab Copy GREEN: Customer Copy)

Eastern Analytical, Inc.

professional laboratory and drilling services

Bettina Eames
Nobis Group
18 Chenell Drive
Concord , NH 03301

Laboratory Report for:

Eastern Analytical, Inc. ID: 228404
Client Identification: Robin Rug | 095560.260
Date Received: 7/1/2021

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:

- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 7.7.21 Date | 10 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Temperature upon receipt (°C): 3.8 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
228404.01	Trip Blank	7/1/21	6/29/21	07:00	aqueous		Adheres to Sample Acceptance Policy
228404.02	NB-2	7/1/21	6/30/21	08:00	aqueous		Adheres to Sample Acceptance Policy
228404.03	NB-3	7/1/21	6/29/21	15:10	aqueous		Adheres to Sample Acceptance Policy
228404.04	GZA-1	7/1/21	6/29/21	16:50	aqueous		Adheres to Sample Acceptance Policy
228404.05	GZA-2	7/1/21	6/29/21	17:35	aqueous		Adheres to Sample Acceptance Policy
228404.06	GZA-3	7/1/21	6/29/21	16:15	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

Eastern Analytical, Inc. www.easternanalytical.com | 800.287.0525 | customerservice@easternanalytical.com

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	NB-2	NB-3	GZA-1
Lab Sample ID:	228404.01	228404.02	228404.03	228404.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	6/29/21	6/30/21	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21	7/1/21	7/1/21
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	7/1/21	7/1/21	7/1/21	7/1/21
Analyst:	DGM	DGM	DGM	DGM
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 2	< 2	< 2	< 2
Chloromethane	< 2	< 2	< 2	< 2
Vinyl chloride	< 1	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2	< 2
Chloroethane	< 2	< 2	< 2	< 2
Trichlorofluoromethane	< 2	< 2	< 2	< 2
Diethyl Ether	< 2	< 2	< 2	< 2
Acetone	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30
Methylene chloride	< 1	< 1	< 1	< 1
Carbon disulfide	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1

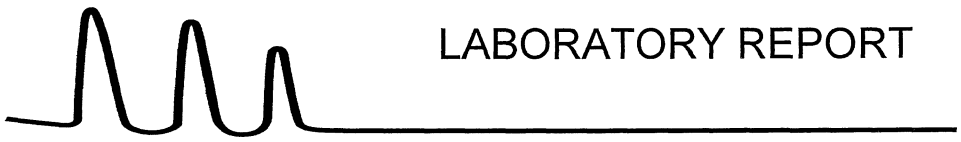
LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	NB-2	NB-3	GZA-1
Lab Sample ID:	228404.01	228404.02	228404.03	228404.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	6/29/21	6/30/21	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21	7/1/21	7/1/21
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	7/1/21	7/1/21	7/1/21	7/1/21
Analyst:	DGM	DGM	DGM	DGM
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 1	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1
Bromobenzene	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 2	< 2	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	**90 %R**	**91 %R**	**91 %R**	**90 %R**
1,2-Dichlorobenzene-d4 (surr)	**103 %R**	**101 %R**	**103 %R**	**103 %R**
Toluene-d8 (surr)	**97 %R**	**97 %R**	**97 %R**	**97 %R**
1,2-Dichloroethane-d4 (surr)	**106 %R**	**105 %R**	**106 %R**	**106 %R**



LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	GZA-2	GZA-3
Lab Sample ID:	228404.05	228404.06
Matrix:	aqueous	aqueous
Date Sampled:	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21
Units:	ug/L	ug/L
Date of Analysis:	7/1/21	7/1/21
Analyst:	DGM	DGM
Method:	8260C	8260C
Dilution Factor:	1	1
Dichlorodifluoromethane	< 2	< 2
Chloromethane	< 2	< 2
Vinyl chloride	< 1	< 1
Bromomethane	< 2	< 2
Chloroethane	< 2	< 2
Trichlorofluoromethane	< 2	< 2
Diethyl Ether	< 2	< 2
Acetone	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30
Methylene chloride	< 1	< 1
Carbon disulfide	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1
1,1-Dichloroethane	< 1	< 1
2,2-Dichloropropane	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1
2-Butanone(MEK)	< 10	< 10
Bromochloromethane	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10
Chloroform	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1
Carbon tetrachloride	< 1	< 1
1,1-Dichloropropene	< 1	< 1
Benzene	< 1	< 1
1,2-Dichloroethane	< 1	< 1
Trichloroethene	< 1	< 1
1,2-Dichloropropane	< 1	< 1
Dibromomethane	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5
Toluene	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1
2-Hexanone	< 10	< 10
Tetrachloroethene	< 1	< 1
1,3-Dichloropropane	< 1	< 1
Dibromochloromethane	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5
Chlorobenzene	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	GZA-2	GZA-3
Lab Sample ID:	228404.05	228404.06
Matrix:	aqueous	aqueous
Date Sampled:	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21
Units:	ug/L	ug/L
Date of Analysis:	7/1/21	7/1/21
Analyst:	DGM	DGM
Method:	8260C	8260C
Dilution Factor:	1	1
Ethylbenzene	< 1	< 1
mp-Xylene	< 1	< 1
o-Xylene	< 1	< 1
Styrene	< 1	< 1
Bromoform	< 2	< 2
IsoPropylbenzene	< 1	< 1
Bromobenzene	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1
2-Chlorotoluene	< 1	< 1
4-Chlorotoluene	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1
tert-Butylbenzene	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1
sec-Butylbenzene	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1
p-Isopropyltoluene	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1
n-Butylbenzene	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5
Naphthalene	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	**90 %R**	**90 %R**
1,2-Dichlorobenzene-d4 (surr)	**102 %R**	**102 %R**
Toluene-d8 (surr)	**97 %R**	**97 %R**
1,2-Dichloroethane-d4 (surr)	**106 %R**	**105 %R**

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	NB-2	NB-3	GZA-1	GZA-2
Lab Sample ID:	228404.02	228404.03	228404.04	228404.05
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	6/30/21	6/29/21	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21	7/1/21	7/1/21
Units:	ug/L	ug/L	ug/L	ug/L
Date of Extraction/Prep:	7/1/21	7/1/21	7/1/21	7/1/21
Date of Analysis:	7/1/21	7/1/21	7/1/21	7/1/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	< 0.1	< 0.1	< 0.1	< 0.1
1-Methylnaphthalene	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	< 0.1	< 0.1	**0.14**	< 0.1
Benzo[a]anthracene	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	< 0.1	< 0.1	< 0.1	< 0.1
Benzo[b]fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1
Benzo[k]fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1
Benzo[a]pyrene	< 0.1	< 0.1	< 0.1	< 0.1
Indeno[1,2,3-cd]pyrene	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz[a,h]anthracene	< 0.1	< 0.1	< 0.1	< 0.1
Benzo[g,h,i]perylene	< 0.1	< 0.1	< 0.1	< 0.1
p-Terphenyl-D14 (surr)	**51 %R**	**48 %R**	**30 %R**	**66 %R**

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	GZA-3
Lab Sample ID:	228404.06
Matrix:	aqueous
Date Sampled:	6/29/21
Date Received:	7/1/21
Units:	ug/L
Date of Extraction/Prep:	7/1/21
Date of Analysis:	7/1/21
Analyst:	JMR
Method:	8270D
Dilution Factor:	1
Naphthalene	< 0.1
2-Methylnaphthalene	< 0.1
1-Methylnaphthalene	< 0.1
Acenaphthylene	< 0.1
Acenaphthene	< 0.1
Fluorene	< 0.1
Phenanthrene	**0.13**
Anthracene	< 0.1
Fluoranthene	**0.28**
Pyrene	**0.24**
Benzo[a]anthracene	**0.18**
Chrysene	**0.12**
Benzo[b]fluoranthene	**0.18**
Benzo[k]fluoranthene	< 0.1
Benzo[a]pyrene	**0.14**
Indeno[1,2,3-cd]pyrene	< 0.1
Dibenz[a,h]anthracene	< 0.1
Benzo[g,h,i]perylene	< 0.1
p-Terphenyl-D14 (surr)	**55 %R**

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	NB-2	NB-3	GZA-1	GZA-2
Lab Sample ID:	228404.02	228404.03	228404.04	228404.05
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	6/30/21	6/29/21	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21	7/1/21	7/1/21
Units:	mg/L	mg/L	mg/L	mg/L
Date of Extraction/Prep:	7/1/21	7/1/21	7/1/21	7/1/21
Date of Analysis:	7/1/21	7/1/21	7/1/21	7/1/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	< 0.4	< 0.5	< 0.5	< 0.4
p-Terphenyl-D14 (surr)	**45 %R**	**44 %R**	**29 %R**	**61 %R**

GZA-1: The surrogate p-Terphenyl-D14 exhibited recovery below acceptance limits. The results were confirmed by re-analysis.

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	GZA-3
Lab Sample ID:	228404.06
Matrix:	aqueous
Date Sampled:	6/29/21
Date Received:	7/1/21
Units:	mg/L
Date of Extraction/Prep:	7/1/21
Date of Analysis:	7/1/21
Analyst:	JLB
Method:	8100mod
Dilution Factor:	1
TPH (C9-C40)	< 0.4
p-Terphenyl-D14 (surr)	**49 %R**

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

228404

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 524.2 MTBE ONLY	VOC: VTICs 8260 624 1, 4 DIOXANE	VOC: 8021	VOC: 8015 GRO MAVPH	SVOC: 8270 625 ABN	SVOC: EDB DBCP	SVOC: PAH TPH 8100	SVOC: L1 L2	SVOC: 8015 DRO MAEPH	SVOC: PEST 608 PEST 8081	SVOC: PCB 608 PCB 8082	SVOC: OIL & GREASE 1664	SVOC: TPH 1664	TCLP: TCLP 1311 VOC	TCLP: ABN PEST	TCLP: METALS HERB	INORGANICS: BOD TS	INORGANICS: CBOD TSS	INORGANICS: TDS	INORGANICS: Br NO2	INORGANICS: Cl NO3	INORGANICS: F NO2,NO3	INORGANICS: SO4	INORGANICS: TKN T. PHOS.	INORGANICS: NH3 O. PHOS.	INORGANICS: TN	INORGANICS: pH SPEC. CON.	INORGANICS: T. RES. CHLORINE T. ALK.	INORGANICS: COD	INORGANICS: PHENOLS	INORGANICS: TOC	INORGANICS: DOC	INORGANICS: TOTAL CYANIDE	INORGANICS: TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE	INORGANICS: REACTIVE SULFIDE	INORGANICS: FLASHPOINT	INORGANICS: IGNITABILITY	MICRO: TOTAL COLIFORM	MICRO: E. COLI	MICRO: FECAL COLIFORM	MICRO: ENTEROCOCCI	MICRO: HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	OTHER	OTHER	OTHER	OTHER	# OF CONTAINERS	NOTES MEOH VIAL #
Trip Blank	6/29/21 0700	GW	G		✓																																											2	
NB-2	6/30/21 0800	GW	G		✓			✓			✓																																					4	
NB-3	6/29/21 1510	GW	G		✓			✓			✓																																					4	
GZA-1	6/29/21 1650	GW	G		✓			✓			✓																																					4	
GZA-2	6/29/21 1735	GW	G		✓			✓			✓																																					4	
GZA-3	6/29/21 1615	GW	G		✓			✓			✓																																					4	
MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH					H																																											

PROJECT MANAGER: Bettina Fearns
COMPANY: Nobis
ADDRESS: 18 Chenell Drive
CITY: Concord **STATE:** NH **ZIP:** 03301
PHONE: 603-224-4182 **EXT.:**
E-MAIL: beames@nobis-group.com
SITE NAME: Robin Rug
PROJECT #: 095560.260
STATE: NH MA ME VT **OTHER:** RI
REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:
QUOTE #: **PO #:**

QA/QC REPORTING
A B C
MA MCP 3.8
TEMP. 4 °C
ICE? (YES) NO

REPORTING OPTIONS
PRELIMS: YES OR (NO)

ELECTRONIC OPTIONS
(PDF) (EXCEL) EQUIS
OTHER

TURN AROUND TIME
24hr* 48hr*
3-4 Days*
5 Day 7 Day
(10 Day)
*Pre-approval Required

METALS: 8 RCRA 13 PP FE, MN PB, CU
OTHER METALS:
SAMPLES FIELD FILTERED? ☒ YES ☐ NO
NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)
GZA-1 filtered for PAH due to turbidity

RI GB objectives

SITE HISTORY: Textile Mill
SUSPECTED CONTAMINATION:
FIELD READINGS:

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Sarah Powers	7/1/21	1045	

SAMPLER(S): S. Powers

Eastern Analytical, Inc.
professional laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTICAL.COM

(WHITE: Lab Copy GREEN: Customer Copy)

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July 9, 2021

Bettina Eames
Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301

Project Location: Bristol, RI
Client Job Number:
Project Number: 095560.00
Laboratory Work Order Number: 21G0029

Enclosed are results of analyses for samples received by the laboratory on July 1, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

Table of Contents

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301
ATTN: Bettina Eames

REPORT DATE: 7/9/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 095560.00

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21G0029

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Bristol, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SG-1	21G0029-01	Sub Slab		EPA TO-15	
SG-2	21G0029-02	Sub Slab		EPA TO-15	
SG-4	21G0029-03	Sub Slab		EPA TO-15	
SG-5	21G0029-04	Sub Slab		EPA TO-15	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Vinyl Acetate

21G0029-01[SG-1], 21G0029-02[SG-2], 21G0029-03[SG-4], 21G0029-04[SG-5], B285631-BLK1, B285631-BS1, B285631-DUP1, S061346-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene

21G0029-01[SG-1], 21G0029-02[SG-2], 21G0029-03[SG-4], 21G0029-04[SG-5], B285631-BLK1, B285631-BS1, B285631-DUP1, S061346-CCV1

Z-01

Compound fails the method requirement of 70-130% recovery for the LCS. Is classified by the lab as a difficult compound and passes the in house limits of 50-150%.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene

21G0029-01[SG-1], 21G0029-02[SG-2], 21G0029-03[SG-4], 21G0029-04[SG-5], B285631-BLK1, B285631-BS1, B285631-DUP1

Naphthalene

21G0029-01[SG-1], 21G0029-02[SG-2], 21G0029-03[SG-4], 21G0029-04[SG-5], B285631-BLK1, B285631-BS1, B285631-DUP1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-1
Sample ID: 21G0029-01
Sample Matrix: Sub Slab
Sampled: 6/30/2021 14:16

Sample Description/Location:
Sub Description/Location:
Canister ID: 2057
Canister Size: 6 liter
Flow Controller ID: 4067
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -7
Receipt Vacuum(in Hg): -5.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	4.9	4.0		12	9.5	2	7/8/21 19:38	BRF
Benzene	0.30	0.10		0.95	0.32	2	7/8/21 19:38	BRF
Benzyl chloride	ND	0.10		ND	0.52	2	7/8/21 19:38	BRF
Bromodichloromethane	ND	0.10		ND	0.67	2	7/8/21 19:38	BRF
Bromoform	ND	0.10		ND	1.0	2	7/8/21 19:38	BRF
Bromomethane	ND	0.10		ND	0.39	2	7/8/21 19:38	BRF
1,3-Butadiene	ND	0.10		ND	0.22	2	7/8/21 19:38	BRF
2-Butanone (MEK)	ND	4.0		ND	12	2	7/8/21 19:38	BRF
Carbon Disulfide	ND	1.0		ND	3.1	2	7/8/21 19:38	BRF
Carbon Tetrachloride	ND	0.10		ND	0.63	2	7/8/21 19:38	BRF
Chlorobenzene	ND	0.10		ND	0.46	2	7/8/21 19:38	BRF
Chloroethane	ND	0.10		ND	0.26	2	7/8/21 19:38	BRF
Chloroform	0.15	0.10		0.74	0.49	2	7/8/21 19:38	BRF
Chloromethane	ND	0.20		ND	0.41	2	7/8/21 19:38	BRF
Cyclohexane	ND	0.10		ND	0.34	2	7/8/21 19:38	BRF
Dibromochloromethane	ND	0.10		ND	0.85	2	7/8/21 19:38	BRF
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	7/8/21 19:38	BRF
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 19:38	BRF
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 19:38	BRF
1,4-Dichlorobenzene	1.6	0.10		9.9	0.60	2	7/8/21 19:38	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10		ND	0.49	2	7/8/21 19:38	BRF
1,1-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
1,2-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
1,2-Dichloropropane	ND	0.10		ND	0.46	2	7/8/21 19:38	BRF
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 19:38	BRF
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 19:38	BRF
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	7/8/21 19:38	BRF
1,4-Dioxane	ND	1.0		ND	3.6	2	7/8/21 19:38	BRF
Ethanol	11	4.0		20	7.5	2	7/8/21 19:38	BRF
Ethyl Acetate	ND	1.0		ND	3.6	2	7/8/21 19:38	BRF
Ethylbenzene	0.20	0.10		0.89	0.43	2	7/8/21 19:38	BRF
4-Ethyltoluene	ND	0.10		ND	0.49	2	7/8/21 19:38	BRF
Heptane	ND	0.10		ND	0.41	2	7/8/21 19:38	BRF
Hexachlorobutadiene	ND	0.10		ND	1.1	2	7/8/21 19:38	BRF

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-1
Sample ID: 21G0029-01
Sample Matrix: Sub Slab
Sampled: 6/30/2021 14:16

Sample Description/Location:
Sub Description/Location:
Canister ID: 2057
Canister Size: 6 liter
Flow Controller ID: 4067
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -7
Receipt Vacuum(in Hg): -5.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	4.0		ND	14	2	7/8/21 19:38	BRF
2-Hexanone (MBK)	ND	0.20		ND	0.82	2	7/8/21 19:38	BRF
Isopropanol	ND	4.0		ND	9.8	2	7/8/21 19:38	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	7/8/21 19:38	BRF
Methylene Chloride	ND	1.0		ND	3.5	2	7/8/21 19:38	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	7/8/21 19:38	BRF
Naphthalene	ND	0.10	Z-01	ND	0.52	2	7/8/21 19:38	BRF
Propene	ND	4.0		ND	6.9	2	7/8/21 19:38	BRF
Styrene	ND	0.10		ND	0.43	2	7/8/21 19:38	BRF
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	7/8/21 19:38	BRF
Tetrachloroethylene	1.4	0.10		9.6	0.68	2	7/8/21 19:38	BRF
Tetrahydrofuran	ND	1.0		ND	2.9	2	7/8/21 19:38	BRF
Toluene	1.3	0.10		4.8	0.38	2	7/8/21 19:38	BRF
1,2,4-Trichlorobenzene	ND	0.10	Z-01, V-34	ND	0.74	2	7/8/21 19:38	BRF
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 19:38	BRF
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 19:38	BRF
Trichloroethylene	ND	0.10		ND	0.54	2	7/8/21 19:38	BRF
Trichlorofluoromethane (Freon 11)	2.4	0.40		13	2.2	2	7/8/21 19:38	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	7/8/21 19:38	BRF
1,2,4-Trimethylbenzene	0.57	0.10		2.8	0.49	2	7/8/21 19:38	BRF
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 19:38	BRF
Vinyl Acetate	ND	2.0	V-05	ND	7.0	2	7/8/21 19:38	BRF
Vinyl Chloride	ND	0.10		ND	0.26	2	7/8/21 19:38	BRF
m&p-Xylene	0.37	0.20		1.6	0.87	2	7/8/21 19:38	BRF
o-Xylene	0.18	0.10		0.78	0.43	2	7/8/21 19:38	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.0	70-130	7/8/21 19:38

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-2
Sample ID: 21G0029-02
Sample Matrix: Sub Slab
Sampled: 6/30/2021 14:57

Sample Description/Location:
Sub Description/Location:
Canister ID: 1641
Canister Size: 6 liter
Flow Controller ID: 4076
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	4.8	4.0		12	9.5	2	7/8/21 20:30	BRF
Benzene	ND	0.10		ND	0.32	2	7/8/21 20:30	BRF
Benzyl chloride	ND	0.10		ND	0.52	2	7/8/21 20:30	BRF
Bromodichloromethane	ND	0.10		ND	0.67	2	7/8/21 20:30	BRF
Bromoform	ND	0.10		ND	1.0	2	7/8/21 20:30	BRF
Bromomethane	ND	0.10		ND	0.39	2	7/8/21 20:30	BRF
1,3-Butadiene	ND	0.10		ND	0.22	2	7/8/21 20:30	BRF
2-Butanone (MEK)	ND	4.0		ND	12	2	7/8/21 20:30	BRF
Carbon Disulfide	ND	1.0		ND	3.1	2	7/8/21 20:30	BRF
Carbon Tetrachloride	ND	0.10		ND	0.63	2	7/8/21 20:30	BRF
Chlorobenzene	ND	0.10		ND	0.46	2	7/8/21 20:30	BRF
Chloroethane	ND	0.10		ND	0.26	2	7/8/21 20:30	BRF
Chloroform	0.38	0.10		1.8	0.49	2	7/8/21 20:30	BRF
Chloromethane	ND	0.20		ND	0.41	2	7/8/21 20:30	BRF
Cyclohexane	ND	0.10		ND	0.34	2	7/8/21 20:30	BRF
Dibromochloromethane	ND	0.10		ND	0.85	2	7/8/21 20:30	BRF
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	7/8/21 20:30	BRF
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 20:30	BRF
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 20:30	BRF
1,4-Dichlorobenzene	0.44	0.10		2.7	0.60	2	7/8/21 20:30	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10		ND	0.49	2	7/8/21 20:30	BRF
1,1-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
1,2-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
1,2-Dichloropropane	ND	0.10		ND	0.46	2	7/8/21 20:30	BRF
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 20:30	BRF
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 20:30	BRF
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	7/8/21 20:30	BRF
1,4-Dioxane	ND	1.0		ND	3.6	2	7/8/21 20:30	BRF
Ethanol	33	4.0		62	7.5	2	7/8/21 20:30	BRF
Ethyl Acetate	ND	1.0		ND	3.6	2	7/8/21 20:30	BRF
Ethylbenzene	0.14	0.10		0.59	0.43	2	7/8/21 20:30	BRF
4-Ethyltoluene	ND	0.10		ND	0.49	2	7/8/21 20:30	BRF
Heptane	ND	0.10		ND	0.41	2	7/8/21 20:30	BRF
Hexachlorobutadiene	ND	0.10		ND	1.1	2	7/8/21 20:30	BRF

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-2
Sample ID: 21G0029-02
Sample Matrix: Sub Slab
Sampled: 6/30/2021 14:57

Sample Description/Location:
Sub Description/Location:
Canister ID: 1641
Canister Size: 6 liter
Flow Controller ID: 4076
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	4.0		ND	14	2	7/8/21 20:30	BRF
2-Hexanone (MBK)	ND	0.20		ND	0.82	2	7/8/21 20:30	BRF
Isopropanol	ND	4.0		ND	9.8	2	7/8/21 20:30	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	7/8/21 20:30	BRF
Methylene Chloride	ND	1.0		ND	3.5	2	7/8/21 20:30	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	7/8/21 20:30	BRF
Naphthalene	ND	0.10	Z-01	ND	0.52	2	7/8/21 20:30	BRF
Propene	ND	4.0		ND	6.9	2	7/8/21 20:30	BRF
Styrene	0.10	0.10		0.43	0.43	2	7/8/21 20:30	BRF
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	7/8/21 20:30	BRF
Tetrachloroethylene	2.6	0.10		18	0.68	2	7/8/21 20:30	BRF
Tetrahydrofuran	ND	1.0		ND	2.9	2	7/8/21 20:30	BRF
Toluene	0.42	0.10		1.6	0.38	2	7/8/21 20:30	BRF
1,2,4-Trichlorobenzene	ND	0.10	V-34, Z-01	ND	0.74	2	7/8/21 20:30	BRF
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 20:30	BRF
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 20:30	BRF
Trichloroethylene	0.23	0.10		1.2	0.54	2	7/8/21 20:30	BRF
Trichlorofluoromethane (Freon 11)	ND	0.40		ND	2.2	2	7/8/21 20:30	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	7/8/21 20:30	BRF
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 20:30	BRF
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 20:30	BRF
Vinyl Acetate	ND	2.0	V-05	ND	7.0	2	7/8/21 20:30	BRF
Vinyl Chloride	ND	0.10		ND	0.26	2	7/8/21 20:30	BRF
m&p-Xylene	0.39	0.20		1.7	0.87	2	7/8/21 20:30	BRF
o-Xylene	0.20	0.10		0.86	0.43	2	7/8/21 20:30	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	89.6	70-130	7/8/21 20:30

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-4
Sample ID: 21G0029-03
Sample Matrix: Sub Slab
Sampled: 6/30/2021 15:27

Sample Description/Location:
Sub Description/Location:
Canister ID: 2205
Canister Size: 6 liter
Flow Controller ID: 4311
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.5
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	5.4	4.0		13	9.5	2	7/8/21 21:49	BRF
Benzene	ND	0.10		ND	0.32	2	7/8/21 21:49	BRF
Benzyl chloride	ND	0.10		ND	0.52	2	7/8/21 21:49	BRF
Bromodichloromethane	ND	0.10		ND	0.67	2	7/8/21 21:49	BRF
Bromoform	ND	0.10		ND	1.0	2	7/8/21 21:49	BRF
Bromomethane	ND	0.10		ND	0.39	2	7/8/21 21:49	BRF
1,3-Butadiene	ND	0.10		ND	0.22	2	7/8/21 21:49	BRF
2-Butanone (MEK)	ND	4.0		ND	12	2	7/8/21 21:49	BRF
Carbon Disulfide	ND	1.0		ND	3.1	2	7/8/21 21:49	BRF
Carbon Tetrachloride	ND	0.10		ND	0.63	2	7/8/21 21:49	BRF
Chlorobenzene	ND	0.10		ND	0.46	2	7/8/21 21:49	BRF
Chloroethane	ND	0.10		ND	0.26	2	7/8/21 21:49	BRF
Chloroform	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
Chloromethane	ND	0.20		ND	0.41	2	7/8/21 21:49	BRF
Cyclohexane	ND	0.10		ND	0.34	2	7/8/21 21:49	BRF
Dibromochloromethane	ND	0.10		ND	0.85	2	7/8/21 21:49	BRF
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	7/8/21 21:49	BRF
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 21:49	BRF
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 21:49	BRF
1,4-Dichlorobenzene	0.19	0.10		1.1	0.60	2	7/8/21 21:49	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
1,1-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
1,2-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
1,2-Dichloropropane	ND	0.10		ND	0.46	2	7/8/21 21:49	BRF
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 21:49	BRF
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 21:49	BRF
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	7/8/21 21:49	BRF
1,4-Dioxane	ND	1.0		ND	3.6	2	7/8/21 21:49	BRF
Ethanol	23	4.0		44	7.5	2	7/8/21 21:49	BRF
Ethyl Acetate	ND	1.0		ND	3.6	2	7/8/21 21:49	BRF
Ethylbenzene	ND	0.10		ND	0.43	2	7/8/21 21:49	BRF
4-Ethyltoluene	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
Heptane	ND	0.10		ND	0.41	2	7/8/21 21:49	BRF
Hexachlorobutadiene	ND	0.10		ND	1.1	2	7/8/21 21:49	BRF

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-4
Sample ID: 21G0029-03
Sample Matrix: Sub Slab
Sampled: 6/30/2021 15:27

Sample Description/Location:
Sub Description/Location:
Canister ID: 2205
Canister Size: 6 liter
Flow Controller ID: 4311
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.5
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	4.0		ND	14	2	7/8/21 21:49	BRF
2-Hexanone (MBK)	ND	0.20		ND	0.82	2	7/8/21 21:49	BRF
Isopropanol	ND	4.0		ND	9.8	2	7/8/21 21:49	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	7/8/21 21:49	BRF
Methylene Chloride	ND	1.0		ND	3.5	2	7/8/21 21:49	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	7/8/21 21:49	BRF
Naphthalene	ND	0.10	Z-01	ND	0.52	2	7/8/21 21:49	BRF
Propene	ND	4.0		ND	6.9	2	7/8/21 21:49	BRF
Styrene	ND	0.10		ND	0.43	2	7/8/21 21:49	BRF
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	7/8/21 21:49	BRF
Tetrachloroethylene	38	0.10		260	0.68	2	7/8/21 21:49	BRF
Tetrahydrofuran	ND	1.0		ND	2.9	2	7/8/21 21:49	BRF
Toluene	0.25	0.10		0.93	0.38	2	7/8/21 21:49	BRF
1,2,4-Trichlorobenzene	ND	0.10	V-34, Z-01	ND	0.74	2	7/8/21 21:49	BRF
1,1,1-Trichloroethane	0.42	0.10		2.3	0.55	2	7/8/21 21:49	BRF
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 21:49	BRF
Trichloroethylene	3.6	0.10		19	0.54	2	7/8/21 21:49	BRF
Trichlorofluoromethane (Freon 11)	77	0.40		430	2.2	2	7/8/21 21:49	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	7/8/21 21:49	BRF
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
Vinyl Acetate	ND	2.0	V-05	ND	7.0	2	7/8/21 21:49	BRF
Vinyl Chloride	ND	0.10		ND	0.26	2	7/8/21 21:49	BRF
m&p-Xylene	0.26	0.20		1.1	0.87	2	7/8/21 21:49	BRF
o-Xylene	0.14	0.10		0.62	0.43	2	7/8/21 21:49	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	86.2	70-130	7/8/21 21:49

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-5
Sample ID: 21G0029-04
Sample Matrix: Sub Slab
Sampled: 6/30/2021 15:58

Sample Description/Location:
Sub Description/Location:
Canister ID: 2010
Canister Size: 6 liter
Flow Controller ID: 4213
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	12	4.0		28	9.5	2	7/8/21 22:40	BRF
Benzene	0.19	0.10		0.61	0.32	2	7/8/21 22:40	BRF
Benzyl chloride	ND	0.10		ND	0.52	2	7/8/21 22:40	BRF
Bromodichloromethane	ND	0.10		ND	0.67	2	7/8/21 22:40	BRF
Bromoform	ND	0.10		ND	1.0	2	7/8/21 22:40	BRF
Bromomethane	ND	0.10		ND	0.39	2	7/8/21 22:40	BRF
1,3-Butadiene	ND	0.10		ND	0.22	2	7/8/21 22:40	BRF
2-Butanone (MEK)	ND	4.0		ND	12	2	7/8/21 22:40	BRF
Carbon Disulfide	ND	1.0		ND	3.1	2	7/8/21 22:40	BRF
Carbon Tetrachloride	ND	0.10		ND	0.63	2	7/8/21 22:40	BRF
Chlorobenzene	ND	0.10		ND	0.46	2	7/8/21 22:40	BRF
Chloroethane	ND	0.10		ND	0.26	2	7/8/21 22:40	BRF
Chloroform	0.17	0.10		0.81	0.49	2	7/8/21 22:40	BRF
Chloromethane	ND	0.20		ND	0.41	2	7/8/21 22:40	BRF
Cyclohexane	ND	0.10		ND	0.34	2	7/8/21 22:40	BRF
Dibromochloromethane	ND	0.10		ND	0.85	2	7/8/21 22:40	BRF
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	7/8/21 22:40	BRF
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 22:40	BRF
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 22:40	BRF
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 22:40	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10		ND	0.49	2	7/8/21 22:40	BRF
1,1-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
1,2-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
1,2-Dichloropropane	ND	0.10		ND	0.46	2	7/8/21 22:40	BRF
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 22:40	BRF
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 22:40	BRF
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	7/8/21 22:40	BRF
1,4-Dioxane	ND	1.0		ND	3.6	2	7/8/21 22:40	BRF
Ethanol	ND	4.0		ND	7.5	2	7/8/21 22:40	BRF
Ethyl Acetate	ND	1.0		ND	3.6	2	7/8/21 22:40	BRF
Ethylbenzene	0.12	0.10		0.52	0.43	2	7/8/21 22:40	BRF
4-Ethyltoluene	ND	0.10		ND	0.49	2	7/8/21 22:40	BRF
Heptane	ND	0.10		ND	0.41	2	7/8/21 22:40	BRF
Hexachlorobutadiene	ND	0.10		ND	1.1	2	7/8/21 22:40	BRF

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-5
Sample ID: 21G0029-04
Sample Matrix: Sub Slab
Sampled: 6/30/2021 15:58

Sample Description/Location:
Sub Description/Location:
Canister ID: 2010
Canister Size: 6 liter
Flow Controller ID: 4213
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	4.0		ND	14	2	7/8/21 22:40	BRF
2-Hexanone (MBK)	ND	0.20		ND	0.82	2	7/8/21 22:40	BRF
Isopropanol	ND	4.0		ND	9.8	2	7/8/21 22:40	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	7/8/21 22:40	BRF
Methylene Chloride	ND	1.0		ND	3.5	2	7/8/21 22:40	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	7/8/21 22:40	BRF
Naphthalene	ND	0.10	Z-01	ND	0.52	2	7/8/21 22:40	BRF
Propene	ND	4.0		ND	6.9	2	7/8/21 22:40	BRF
Styrene	0.12	0.10		0.53	0.43	2	7/8/21 22:40	BRF
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	7/8/21 22:40	BRF
Tetrachloroethylene	1.7	0.10		11	0.68	2	7/8/21 22:40	BRF
Tetrahydrofuran	ND	1.0		ND	2.9	2	7/8/21 22:40	BRF
Toluene	0.62	0.10		2.3	0.38	2	7/8/21 22:40	BRF
1,2,4-Trichlorobenzene	ND	0.10	V-34, Z-01	ND	0.74	2	7/8/21 22:40	BRF
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 22:40	BRF
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 22:40	BRF
Trichloroethylene	ND	0.10		ND	0.54	2	7/8/21 22:40	BRF
Trichlorofluoromethane (Freon 11)	ND	0.40		ND	2.2	2	7/8/21 22:40	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	7/8/21 22:40	BRF
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 22:40	BRF
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 22:40	BRF
Vinyl Acetate	ND	2.0	V-05	ND	7.0	2	7/8/21 22:40	BRF
Vinyl Chloride	ND	0.10		ND	0.26	2	7/8/21 22:40	BRF
m&p-Xylene	0.30	0.20		1.3	0.87	2	7/8/21 22:40	BRF
o-Xylene	0.13	0.10		0.57	0.43	2	7/8/21 22:40	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.8	70-130	7/8/21 22:40

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Sample Extraction Data

Prep Method: TO-15 Prep **Analytical Method: EP**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
21G0029-01 [SG-1]	B285631	1.5	1	N/A	1000	200	150	07/08/21
21G0029-02 [SG-2]	B285631	1.5	1	N/A	1000	200	150	07/08/21
21G0029-03 [SG-4]	B285631	1.5	1	N/A	1000	200	150	07/08/21
21G0029-04 [SG-5]	B285631	1.5	1	N/A	1000	200	150	07/08/21

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep											
Blank (B285631-BLK1)					Prepared & Analyzed: 07/08/21						
Acetone	ND	0.80									
Benzene	ND	0.020									
Benzyl chloride	ND	0.020									
Bromodichloromethane	ND	0.020									
Bromoform	ND	0.020									
Bromomethane	ND	0.020									
1,3-Butadiene	ND	0.020									
2-Butanone (MEK)	ND	0.80									
Carbon Disulfide	ND	0.20									
Carbon Tetrachloride	ND	0.020									
Chlorobenzene	ND	0.020									
Chloroethane	ND	0.020									
Chloroform	ND	0.020									
Chloromethane	ND	0.040									
Cyclohexane	ND	0.020									
Dibromochloromethane	ND	0.020									
1,2-Dibromoethane (EDB)	ND	0.020									
1,2-Dichlorobenzene	ND	0.020									
1,3-Dichlorobenzene	ND	0.020									
1,4-Dichlorobenzene	ND	0.020									
Dichlorodifluoromethane (Freon 12)	ND	0.020									
1,1-Dichloroethane	ND	0.020									
1,2-Dichloroethane	ND	0.020									
1,1-Dichloroethylene	ND	0.020									
cis-1,2-Dichloroethylene	ND	0.020									
trans-1,2-Dichloroethylene	ND	0.020									
1,2-Dichloropropane	ND	0.020									
cis-1,3-Dichloropropene	ND	0.020									
trans-1,3-Dichloropropene	ND	0.020									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.020									
1,4-Dioxane	ND	0.20									
Ethanol	ND	0.80									
Ethyl Acetate	ND	0.20									
Ethylbenzene	ND	0.020									
4-Ethyltoluene	ND	0.020									
Heptane	ND	0.020									
Hexachlorobutadiene	ND	0.020									
Hexane	ND	0.80									
2-Hexanone (MBK)	ND	0.020									
Isopropanol	ND	0.80									
Methyl tert-Butyl Ether (MTBE)	ND	0.020									
Methylene Chloride	ND	0.20									
4-Methyl-2-pentanone (MIBK)	ND	0.020									
Naphthalene	ND	0.020									Z-01
Propene	ND	0.80									
Styrene	ND	0.020									

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep											
Blank (B285631-BLK1)					Prepared & Analyzed: 07/08/21						
1,1,2,2-Tetrachloroethane	ND	0.020									
Tetrachloroethylene	ND	0.020									
Tetrahydrofuran	ND	0.20									
Toluene	ND	0.020									
1,2,4-Trichlorobenzene	ND	0.020									V-34, Z-01
1,1,1-Trichloroethane	ND	0.020									
1,1,2-Trichloroethane	ND	0.020									
Trichloroethylene	ND	0.020									
Trichlorofluoromethane (Freon 11)	ND	0.080									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.080									
1,2,4-Trimethylbenzene	ND	0.020									
1,3,5-Trimethylbenzene	ND	0.020									
Vinyl Acetate	ND	0.40									V-05
Vinyl Chloride	ND	0.020									
m&p-Xylene	ND	0.040									
o-Xylene	ND	0.020									
Surrogate: 4-Bromofluorobenzene (1)	*7.27*				*8.00*		*90.9*	*70-130*			
LCS (B285631-BS1)					Prepared & Analyzed: 07/08/21						
Acetone	4.76				5.00		95.1	70-130			
Benzene	4.64				5.00		92.8	70-130			
Benzyl chloride	5.25				5.00		105	70-130			
Bromodichloromethane	5.05				5.00		101	70-130			
Bromoform	4.95				5.00		99.1	70-130			
Bromomethane	3.96				5.00		79.2	70-130			
1,3-Butadiene	3.86				5.00		77.1	70-130			
2-Butanone (MEK)	4.68				5.00		93.6	70-130			
Carbon Disulfide	4.58				5.00		91.5	70-130			
Carbon Tetrachloride	4.68				5.00		93.5	70-130			
Chlorobenzene	4.45				5.00		89.0	70-130			
Chloroethane	4.12				5.00		82.4	70-130			
Chloroform	4.30				5.00		86.0	70-130			
Chloromethane	4.43				5.00		88.5	70-130			
Cyclohexane	4.38				5.00		87.7	70-130			
Dibromochloromethane	4.75				5.00		94.9	70-130			
1,2-Dibromoethane (EDB)	4.75				5.00		95.0	70-130			
1,2-Dichlorobenzene	4.91				5.00		98.2	70-130			
1,3-Dichlorobenzene	5.05				5.00		101	70-130			
1,4-Dichlorobenzene	4.86				5.00		97.2	70-130			
Dichlorodifluoromethane (Freon 12)	4.07				5.00		81.4	70-130			
1,1-Dichloroethane	4.33				5.00		86.7	70-130			
1,2-Dichloroethane	4.38				5.00		87.6	70-130			
1,1-Dichloroethylene	4.67				5.00		93.5	70-130			
cis-1,2-Dichloroethylene	4.26				5.00		85.2	70-130			
trans-1,2-Dichloroethylene	4.21				5.00		84.2	70-130			
1,2-Dichloropropane	4.78				5.00		95.7	70-130			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep												
LCS (B285631-BS1)					Prepared & Analyzed: 07/08/21							
cis-1,3-Dichloropropene	4.44				5.00		88.8		70-130			
trans-1,3-Dichloropropene	4.88				5.00		97.6		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	3.85				5.00		77.1		70-130			
1,4-Dioxane	4.88				5.00		97.6		70-130			
Ethanol	5.22				5.00		104		70-130			
Ethyl Acetate	3.98				5.00		79.7		70-130			
Ethylbenzene	4.48				5.00		89.6		70-130			
4-Ethyltoluene	4.51				5.00		90.2		70-130			
Heptane	4.93				5.00		98.6		70-130			
Hexachlorobutadiene	4.46				5.00		89.2		70-130			
Hexane	4.61				5.00		92.2		70-130			
2-Hexanone (MBK)	5.81				5.00		116		70-130			
Isopropanol	4.07				5.00		81.5		70-130			
Methyl tert-Butyl Ether (MTBE)	3.77				5.00		75.4		70-130			
Methylene Chloride	5.17				5.00		103		70-130			
4-Methyl-2-pentanone (MIBK)	5.18				5.00		104		70-130			
Naphthalene	3.04				5.00		**60.7**	*	70-130			Z-01
Propene	4.06				5.00		81.2		70-130			
Styrene	4.52				5.00		90.4		70-130			
1,1,2,2-Tetrachloroethane	5.08				5.00		102		70-130			
Tetrachloroethylene	4.43				5.00		88.6		70-130			
Tetrahydrofuran	4.13				5.00		82.5		70-130			
Toluene	4.44				5.00		88.7		70-130			
1,2,4-Trichlorobenzene	3.37				5.00		**67.4**	*	70-130			Z-01, V-34
1,1,1-Trichloroethane	4.62				5.00		92.5		70-130			
1,1,2-Trichloroethane	4.80				5.00		95.9		70-130			
Trichloroethylene	4.82				5.00		96.4		70-130			
Trichlorofluoromethane (Freon 11)	4.12				5.00		82.4		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.39				5.00		87.8		70-130			
1,2,4-Trimethylbenzene	4.54				5.00		90.8		70-130			
1,3,5-Trimethylbenzene	4.69				5.00		93.8		70-130			
Vinyl Acetate	4.54				5.00		90.7		70-130			V-05
Vinyl Chloride	4.19				5.00		83.9		70-130			
m&p-Xylene	9.74				10.0		97.4		70-130			
o-Xylene	4.76				5.00		95.2		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*7.69*				*8.00*		*96.2*		*70-130*			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep											
Duplicate (B285631-DUP1)			**Source: 21G0029-02**		Prepared & Analyzed: 07/08/21						
Acetone	4.9	4.0	12	9.5		4.8			0.0412	25	
Benzene	ND	0.10	ND	0.32		ND				25	
Benzyl chloride	ND	0.10	ND	0.52		ND				25	
Bromodichloromethane	ND	0.10	ND	0.67		ND				25	
Bromoform	ND	0.10	ND	1.0		ND				25	
Bromomethane	ND	0.10	ND	0.39		ND				25	
1,3-Butadiene	ND	0.10	ND	0.22		ND				25	
2-Butanone (MEK)	ND	4.0	ND	12		ND				25	
Carbon Disulfide	ND	1.0	ND	3.1		ND				25	
Carbon Tetrachloride	ND	0.10	ND	0.63		ND				25	
Chlorobenzene	ND	0.10	ND	0.46		ND				25	
Chloroethane	ND	0.10	ND	0.26		ND				25	
Chloroform	0.36	0.10	1.7	0.49		0.38			5.43	25	
Chloromethane	ND	0.20	ND	0.41		ND				25	
Cyclohexane	ND	0.10	ND	0.34		ND				25	
Dibromochloromethane	ND	0.10	ND	0.85		ND				25	
1,2-Dibromoethane (EDB)	ND	0.10	ND	0.77		ND				25	
1,2-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
1,3-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
1,4-Dichlorobenzene	0.43	0.10	2.6	0.60		0.44			3.69	25	
Dichlorodifluoromethane (Freon 12)	ND	0.10	ND	0.49		ND				25	
1,1-Dichloroethane	ND	0.10	ND	0.40		ND				25	
1,2-Dichloroethane	ND	0.10	ND	0.40		ND				25	
1,1-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
cis-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
trans-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
1,2-Dichloropropane	ND	0.10	ND	0.46		ND				25	
cis-1,3-Dichloropropene	ND	0.10	ND	0.45		ND				25	
trans-1,3-Dichloropropene	ND	0.10	ND	0.45		ND				25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	ND	0.70		ND				25	
1,4-Dioxane	ND	1.0	ND	3.6		ND				25	
Ethanol	33	4.0	62	7.5		33			0.472	25	
Ethyl Acetate	ND	1.0	ND	3.6		ND				25	
Ethylbenzene	0.13	0.10	0.55	0.43		0.14			7.63	25	
4-Ethyltoluene	ND	0.10	ND	0.49		ND				25	
Heptane	ND	0.10	ND	0.41		ND				25	
Hexachlorobutadiene	ND	0.10	ND	1.1		ND				25	
Hexane	0.40	4.0	1.4	14		0.40			1.50	25	
2-Hexanone (MBK)	ND	0.10	ND	0.41		ND				25	
Isopropanol	ND	4.0	ND	9.8		ND				25	
Methyl tert-Butyl Ether (MTBE)	ND	0.10	ND	0.36		ND				25	
Methylene Chloride	ND	1.0	ND	3.5		ND				25	
4-Methyl-2-pentanone (MIBK)	ND	0.10	ND	0.41		ND				25	
Naphthalene	ND	0.10	ND	0.52		ND				25	Z-01
Propene	ND	4.0	ND	6.9		ND				25	
Styrene	0.11	0.10	0.45	0.43		0.10			5.83	25	

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep											
Duplicate (B285631-DUP1)			**Source: 21G0029-02**		Prepared & Analyzed: 07/08/21						
1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.69		ND				25	
Tetrachloroethylene	2.6	0.10	18	0.68		2.6			0.304	25	
Tetrahydrofuran	ND	1.0	ND	2.9		ND				25	
Toluene	0.44	0.10	1.7	0.38		0.42			4.16	25	
1,2,4-Trichlorobenzene	ND	0.10	ND	0.74		ND				25	V-34, Z-01
1,1,1-Trichloroethane	ND	0.10	ND	0.55		ND				25	
1,1,2-Trichloroethane	ND	0.10	ND	0.55		ND				25	
Trichloroethylene	0.19	0.10	1.0	0.54		0.23			15.2	25	
Trichlorofluoromethane (Freon 11)	0.39	0.40	2.2	2.2		0.38			1.04	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	ND	3.1		ND				25	
1,2,4-Trimethylbenzene	ND	0.10	ND	0.49		ND				25	
1,3,5-Trimethylbenzene	ND	0.10	ND	0.49		ND				25	
Vinyl Acetate	ND	2.0	ND	7.0		ND				25	V-05
Vinyl Chloride	ND	0.10	ND	0.26		ND				25	
m&p-Xylene	0.39	0.20	1.7	0.87		0.39			0.00	25	
o-Xylene	0.19	0.10	0.83	0.43		0.20			3.08	25	
Surrogate: 4-Bromofluorobenzene (1)	*6.95*				*8.00*		*86.9*	*70-130*			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
Z-01	Compound fails the method requirement of 70-130% recovery for the LCS. Is classified by the lab as a difficult compound and passes the in house limits of 50-150%.

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (S052381-ICV1)			Lab File ID: J2025821.D			Analyzed: 09/14/20 23:22			
Bromochloromethane (1)	159501	2.873	155833	2.873	102	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	756714	3.475	745760	3.475	101	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	686740	5.06	671608	5.057	102	60 - 140	0.0030	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S061346-CCV1)			Lab File ID: J21A189004.D			Analyzed: 07/08/21 11:41			
Bromochloromethane (1)	157356	2.87	155833	2.873	101	60 - 140	-0.0030	+/-0.50	
1,4-Difluorobenzene (1)	638767	3.472	745760	3.475	86	60 - 140	-0.0030	+/-0.50	
Chlorobenzene-d5 (1)	572744	5.057	671608	5.057	85	60 - 140	0.0000	+/-0.50	
LCS (B285631-BS1)			Lab File ID: J21A189005.D			Analyzed: 07/08/21 12:08			
Bromochloromethane (1)	154718	2.867	157356	2.87	98	60 - 140	-0.0030	+/-0.50	
1,4-Difluorobenzene (1)	629101	3.472	638767	3.472	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	564227	5.057	572744	5.057	99	60 - 140	0.0000	+/-0.50	
Blank (B285631-BLK1)			Lab File ID: J21A189008.D			Analyzed: 07/08/21 13:37			
Bromochloromethane (1)	153553	2.853	157356	2.87	98	60 - 140	-0.0170	+/-0.50	
1,4-Difluorobenzene (1)	568518	3.465	638767	3.472	89	60 - 140	-0.0070	+/-0.50	
Chlorobenzene-d5 (1)	521545	5.053	572744	5.057	91	60 - 140	-0.0040	+/-0.50	
SG-1 (21G0029-01)			Lab File ID: J21A189019.D			Analyzed: 07/08/21 19:38			
Bromochloromethane (1)	156119	2.86	157356	2.87	99	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	569826	3.465	638767	3.472	89	60 - 140	-0.0070	+/-0.50	
Chlorobenzene-d5 (1)	520091	5.053	572744	5.057	91	60 - 140	-0.0040	+/-0.50	
SG-2 (21G0029-02)			Lab File ID: J21A189021.D			Analyzed: 07/08/21 20:30			
Bromochloromethane (1)	151655	2.86	157356	2.87	96	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	554837	3.468	638767	3.472	87	60 - 140	-0.0040	+/-0.50	
Chlorobenzene-d5 (1)	524986	5.054	572744	5.057	92	60 - 140	-0.0030	+/-0.50	
Duplicate (B285631-DUP1)			Lab File ID: J21A189022.D			Analyzed: 07/08/21 20:57			
Bromochloromethane (1)	150490	2.86	157356	2.87	96	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	555730	3.468	638767	3.472	87	60 - 140	-0.0040	+/-0.50	
Chlorobenzene-d5 (1)	530318	5.054	572744	5.057	93	60 - 140	-0.0030	+/-0.50	
SG-4 (21G0029-03)			Lab File ID: J21A189024.D			Analyzed: 07/08/21 21:49			
Bromochloromethane (1)	143197	2.86	157356	2.87	91	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	550533	3.475	638767	3.472	86	60 - 140	0.0030	+/-0.50	
Chlorobenzene-d5 (1)	539904	5.057	572744	5.057	94	60 - 140	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SG-5 (21G0029-04)			Lab File ID: J21A189026.D			Analyzed: 07/08/21 22:40			
Bromochloromethane (1)	146505	2.86	157356	2.87	93	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	519978	3.465	638767	3.472	81	60 - 140	-0.0070	+/-0.50	
Chlorobenzene-d5 (1)	479500	5.054	572744	5.057	84	60 - 140	-0.0030	+/-0.50	

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CONTINUING CALIBRATION CHECK

EPA TO-15

S061346-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	4.86	0.9103154	0.8850047		-2.8	30
Benzene	A	5.00	4.78	0.6606025	0.6318197		-4.4	30
Benzyl chloride	A	5.00	4.94	0.5965762	0.5894319		-1.2	30
Bromodichloromethane	A	5.00	5.16	0.4537953	0.4678914		3.1	30
Bromoform	A	5.00	4.98	0.6600998	0.6568519		-0.5	30
Bromomethane	A	5.00	3.96	1.001177	0.7927807		-20.8	30
1,3-Butadiene	A	5.00	4.14	0.6246902	0.5173594		-17.2	30
2-Butanone (MEK)	A	5.00	4.58	1.30749	1.197997		-8.4	30
Carbon Disulfide	A	5.00	4.65	2.466469	2.291731		-7.1	30
Carbon Tetrachloride	A	5.00	4.77	0.5064752	0.4835616		-4.5	30
Chlorobenzene	A	5.00	4.53	0.7751296	0.7019848		-9.4	30
Chloroethane	A	5.00	4.05	0.5001442	0.4055517		-18.9	30
Chloroform	A	5.00	4.33	2.018779	1.748219		-13.4	30
Chloromethane	A	5.00	4.45	0.6141491	0.5465518		-11.0	30
Cyclohexane	A	5.00	4.45	0.2849344	0.2536061		-11.0	30
Dibromochloromethane	A	5.00	4.81	0.6429615	0.6185409		-3.8	30
1,2-Dibromoethane (EDB)	A	5.00	4.91	0.4841019	0.4754375		-1.8	30
1,2-Dichlorobenzene	A	5.00	4.75	0.6846313	0.6505552		-5.0	30
1,3-Dichlorobenzene	A	5.00	4.99	0.7215992	0.7200117		-0.2	30
1,4-Dichlorobenzene	A	5.00	4.81	0.7134896	0.6866453		-3.8	30
Dichlorodifluoromethane (Freon 12)	A	5.00	4.11	2.507091	2.06234		-17.7	30
1,1-Dichloroethane	A	5.00	4.31	1.545303	1.333354		-13.7	30
1,2-Dichloroethane	A	5.00	4.39	1.058805	0.9295407		-12.2	30
1,1-Dichloroethylene	A	5.00	4.59	1.160287	1.065569		-8.2	30
cis-1,2-Dichloroethylene	A	5.00	4.18	1.114268	0.9326927		-16.3	30
trans-1,2-Dichloroethylene	A	5.00	4.31	1.201908	1.035146		-13.9	30
1,2-Dichloropropane	A	5.00	4.83	0.2231134	0.2155903		-3.4	30
cis-1,3-Dichloropropene	A	5.00	4.48	0.3628898	0.3254896		-10.3	30
trans-1,3-Dichloropropene	A	5.00	4.68	0.3055463	0.2857505		-6.5	30
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 1	A	5.00	4.12	2.650055	2.185475		-17.5	30
1,4-Dioxane	A	5.00	4.59	0.139387	0.1278714		-8.3	30
Ethanol	A	5.00	4.16	0.1702165	0.1415898		-16.8	30
Ethyl Acetate	A	5.00	5.04	0.2280188	0.2298584		0.8	30
Ethylbenzene	A	5.00	4.62	1.161395	1.073599		-7.6	30
4-Ethyltoluene	A	5.00	4.58	1.262817	1.157501		-8.3	30
Heptane	A	5.00	5.01	0.1688454	0.1692536		0.2	30
Hexachlorobutadiene	A	5.00	4.59	0.6918294	0.6350314		-8.2	30
Hexane	L	5.00	4.53	0.6531603	0.5889016		-9.4	30

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CONTINUING CALIBRATION CHECK

EPA TO-15

S061346-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT		
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
2-Hexanone (MBK)	A	5.00	5.80	0.280065	0.3247831		16.0	30	
Isopropanol	A	5.00	5.12	1.001981	1.026442		2.4	30	
Methyl tert-Butyl Ether (MTBE)	A	5.00	3.89	2.512535	1.952871		-22.3	30	
Methylene Chloride	A	5.00	5.07	0.6621826	0.6719439		1.5	30	
4-Methyl-2-pentanone (MIBK)	A	5.00	5.24	0.1531114	0.1603289		4.7	30	
Naphthalene	A	5.00	3.90	1.086932	0.8469012		-22.1	30	
Propene	A	5.00	4.30	0.4641749	0.3992781		-14.0	30	
Styrene	A	5.00	4.54	0.7056488	0.6404174		-9.2	30	
1,1,2,2-Tetrachloroethane	A	5.00	5.07	0.638583	0.6475493		1.4	30	
Tetrachloroethylene	A	5.00	4.58	0.5546794	0.5080748		-8.4	30	
Tetrahydrofuran	A	5.00	4.29	0.7143044	0.6124813		-14.3	30	
Toluene	A	5.00	4.55	0.9345011	0.8510525		-8.9	30	
1,2,4-Trichlorobenzene	A	5.00	3.58	0.4260284	0.3054852		-28.3	30	
1,1,1-Trichloroethane	A	5.00	4.92	0.4496133	0.4424098		-1.6	30	
1,1,2-Trichloroethane	A	5.00	4.75	0.3281373	0.3119718		-4.9	30	
Trichloroethylene	A	5.00	4.98	0.2979469	0.2969421		-0.3	30	
Trichlorofluoromethane (Freon 11)	A	5.00	4.16	2.536841	2.10891		-16.9	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113	A	5.00	4.34	1.957735	1.701182		-13.1	30	
1,2,4-Trimethylbenzene	A	5.00	4.59	1.026744	0.9424916		-8.2	30	
1,3,5-Trimethylbenzene	A	5.00	4.85	1.080978	1.048239		-3.0	30	
Vinyl Acetate	A	5.00	3.20	1.400965	0.8956201		-36.1	30	*
Vinyl Chloride	A	5.00	4.28	0.8554634	0.7320471		-14.4	30	
m&p-Xylene	A	10.0	9.93	0.9185043	0.9116743		-0.7	30	
o-Xylene	A	5.00	4.86	0.899786	0.8744486		-2.8	30	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	AIHA,NY,ME,NH
Benzene	AIHA,FL,NJ,NY,ME,NH,VA
Benzyl chloride	AIHA,FL,NJ,NY,ME,NH,VA
Bromodichloromethane	AIHA,NJ,NY,ME,NH,VA
Bromoform	AIHA,NJ,NY,ME,NH,VA
Bromomethane	AIHA,FL,NJ,NY,ME,NH
1,3-Butadiene	AIHA,NJ,NY,ME,NH,VA
2-Butanone (MEK)	AIHA,FL,NJ,NY,ME,NH,VA
Carbon Disulfide	AIHA,NJ,NY,ME,NH,VA
Carbon Tetrachloride	AIHA,FL,NJ,NY,ME,NH,VA
Chlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
Chloroethane	AIHA,FL,NJ,NY,ME,NH,VA
Chloroform	AIHA,FL,NJ,NY,ME,NH,VA
Chloromethane	AIHA,FL,NJ,NY,ME,NH,VA
Cyclohexane	AIHA,NJ,NY,ME,NH,VA
Dibromochloromethane	AIHA,NY,ME,NH
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME,NH
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
1,3-Dichlorobenzene	AIHA,NJ,NY,ME,NH
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	AIHA,NY,ME,NH
1,1-Dichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,2-Dichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,1-Dichloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
cis-1,2-Dichloroethylene	AIHA,FL,NY,ME,NH,VA
trans-1,2-Dichloroethylene	AIHA,NJ,NY,ME,NH,VA
1,2-Dichloropropane	AIHA,FL,NJ,NY,ME,NH,VA
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,ME,NH,VA
trans-1,3-Dichloropropene	AIHA,NY,ME,NH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,NJ,NY,ME,NH,VA
1,4-Dioxane	AIHA,NJ,NY,ME,NH,VA
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,ME,NH,VA
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,ME,NH,VA
Hexachlorobutadiene	AIHA,NJ,NY,ME,NH,VA
Hexane	AIHA,FL,NJ,NY,ME,NH,VA
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY,ME,NH
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,ME,NH,VA
Methylene Chloride	AIHA,FL,NJ,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME,NH
Naphthalene	NY,ME,NH
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Tetrachloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
Tetrahydrofuran	AIHA
Toluene	AIHA,FL,NJ,NY,ME,NH,VA
1,2,4-Trichlorobenzene	AIHA,NJ,NY,ME,NH,VA
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
Trichloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	AIHA,NY,ME,NH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,ME,NH,VA
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME,NH
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME,NH
Vinyl Acetate	AIHA,FL,NJ,NY,ME,NH,VA
Vinyl Chloride	AIHA,FL,NJ,NY,ME,NH,VA
m&p-Xylene	AIHA,FL,NJ,NY,ME,NH,VA
o-Xylene	AIHA,FL,NJ,NY,ME,NH,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

con-test ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

21G0029DTO

http://www.contestlabs.com

Doc #378 Rev 1_03242017

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
East Longmeadow, MA 01028

Company Name:	
Address:	Nobis
Phone:	603-224-4182
Project Name:	Robin Rug
Project Location:	Bristol RI
Project Number:	095560.26
Project Manager:	Bettina Eames
Con-Test Quote Name/Number:	order# 2106449
Invoice Recipient:	Accounts Payable - Nobis
Sampled By:	Saran Powers

Requested Turnaround Time
7-Day ☐ 10-Day ☒
Due Date: Standard turnaround

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: beamesa@nobis-group.com
Fax To #:

ANALYSIS REQUESTED

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	ANALYSIS REQUESTED				" Hg			Please fill out completely, sign, date and retain the yellow copy for your records	
Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	☐ m³/min ☒ L/min	Code	☒ Liters ☐ m³	TO-15				Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply	For summa canister and flow controller information please refer to Con-Test's Air Media Agreement
															Summa Can ID	Flow Controller ID
01	SG-1	6/30/21 1345	6/30/21 1416	30	0.2 L/min	SS	6	✓				-30	-7	5.8	2057	4067
02	SG-2	6/30/21 1427	6/30/21 1457	30	0.2 L/min	SS	6	✓				-28	-4	1.6	1641	4076
03	SG-4	6/30/21 1457	6/30/21 1527	30	0.2 L/min	SS	6	✓				-29	-4	1.5	2205	4311
04	SG-5	6/30/21 1528	6/30/21 1558	30	0.2 L/min	SS	6	✓				-28	-5	1.4	2010	4213

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

Relinquished by: (signature)	Saran Powers	Date/Time: 6/30/21 2030
Received by: (signature)		Date/Time: 7/1/21 1125
Relinquished by: (signature)		Date/Time: 7/1/21 1605
Received by: (signature)		Date/Time: 7/1 1605
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Detection Limit Requirements
MA
GI
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ Other

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NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 278 Rev 6 2017

Air Media Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client DCHD

Received By RLF Date 7/1/21 Time 1605

How were the samples received? In Cooler ____ On Ice ____ No Ice ____ In Box T Ambient ____ Melted Ice ____

Were samples within Temperature Compliance? 2-6°C NA By Gun # ____ Actual Temp - ____ By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there any loose caps/valves on any samples? F

Is COC in ink/ Legible? T

Did COC Include all Pertinent Information? Client T Project T Analysis T ID's T Sampler Name T Collection Dates/Times T

Are Sample Labels filled out and legible? T

Are there Rushes? F Who was notified? ____

Samples are received within holding time? T

Proper Media Used? T Individually Certified Cans? F

Are there Trip Blanks? F Is there enough Volume? T

Containers:	#	Size	Regulator	Duration	Accessories:			
Summa Cans	5	6L	5	30min	Nut/Ferrule	5	IC Train	
Tedlar Bags					Tubing			
TO-17 Tubes					T-Connector		Shipping Charges	
Radiello					Syringe			
Pufs/TO-11s					Tedlar			

Can #'s					Reg #'s				
2057					4067				
1641					4076				
2205					4311				
2015					4213				
Unused Media					**Pufs/TO-17's**				
2144	(29.5)	4039							

Comments:

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July 13, 2021

Bettina Eames
Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301

Project Location: 125 Thames St, Bristol, RI
Client Job Number:
Project Number: 095560.260
Laboratory Work Order Number: 21G0028

Enclosed are results of analyses for samples received by the laboratory on July 1, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

Table of Contents

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301
ATTN: Bettina Eames

REPORT DATE: 7/13/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 095560.260

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21G0028

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 125 Thames St, Bristol, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WS-1	21G0028-01	Wipe		SW-846 8082A	
WS-2	21G0028-02	Wipe		SW-846 8082A	
WS-3	21G0028-03	Wipe		SW-846 8082A	
WS-4	21G0028-04	Wipe		SW-846 8082A	
CW-1	21G0028-05	Wipe		SW-846 8082A	
CW-2	21G0028-06	Wipe		SW-846 8082A	
CW-3	21G0028-07	Wipe		SW-846 8082A	
CW-4	21G0028-08	Wipe		SW-846 8082A	
CW-5	21G0028-09	Wipe		SW-846 8082A	
CW-6	21G0028-10	Wipe		SW-846 8082A	
CW-7	21G0028-11	Wipe		SW-846 8082A	
CW-8	21G0028-12	Wipe		SW-846 8082A	
CW-9	21G0028-13	Wipe		SW-846 8082A	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

Aroclor-1016

21G0028-01[WS-1], 21G0028-02[WS-2], 21G0028-03[WS-3], 21G0028-04[WS-4], 21G0028-05[CW-1], 21G0028-06[CW-2], 21G0028-07[CW-3], 21G0028-08[CW-4], 21G0028-09[CW-5], 21G0028-10[CW-6], 21G0028-11[CW-7], 21G0028-12[CW-8], 21G0028-13[CW-9], B285514-BLK1, B285514-BS1, B285514-BSD1

Aroclor-1016 [2C]

21G0028-01[WS-1], 21G0028-02[WS-2], 21G0028-03[WS-3], 21G0028-04[WS-4], 21G0028-05[CW-1], 21G0028-06[CW-2], 21G0028-07[CW-3], 21G0028-08[CW-4], 21G0028-09[CW-5], 21G0028-10[CW-6], 21G0028-11[CW-7], 21G0028-12[CW-8], 21G0028-13[CW-9], B285514-BLK1, B285514-BS1, B285514-BSD1

Aroclor-1260

21G0028-01[WS-1], 21G0028-02[WS-2], 21G0028-03[WS-3], 21G0028-04[WS-4], 21G0028-05[CW-1], 21G0028-06[CW-2], 21G0028-07[CW-3], 21G0028-08[CW-4], 21G0028-09[CW-5], 21G0028-10[CW-6], 21G0028-11[CW-7], 21G0028-12[CW-8], 21G0028-13[CW-9], B285514-BLK1, B285514-BS1, B285514-BSD1

Aroclor-1260 [2C]

21G0028-01[WS-1], 21G0028-02[WS-2], 21G0028-03[WS-3], 21G0028-04[WS-4], 21G0028-05[CW-1], 21G0028-06[CW-2], 21G0028-07[CW-3], 21G0028-08[CW-4], 21G0028-09[CW-5], 21G0028-10[CW-6], 21G0028-11[CW-7], 21G0028-12[CW-8], 21G0028-13[CW-9], B285514-BLK1, B285514-BS1, B285514-BSD1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: WS-1
Sampled: 6/28/2021 13:00

Sample ID: 21G0028-01

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1254 [1]	0.25	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1268 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	71.8	30-150		7/13/21	8:25
Decachlorobiphenyl [2]	67.9	30-150		7/13/21	8:25
Tetrachloro-m-xylene [1]	68.0	30-150		7/13/21	8:25
Tetrachloro-m-xylene [2]	68.0	30-150		7/13/21	8:25

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: WS-2 | Sampled: 6/28/2021 12:55

Sample ID: 21G0028-02

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1268 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	77.5	30-150		7/13/21	8:43
Decachlorobiphenyl [2]	74.1	30-150		7/13/21	8:43
Tetrachloro-m-xylene [1]	72.3	30-150		7/13/21	8:43
Tetrachloro-m-xylene [2]	72.1	30-150		7/13/21	8:43

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: WS-3 | Sampled: 6/28/2021 13:10

Sample ID: 21G0028-03

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	83.9	30-150		7/13/21 9:00	
Decachlorobiphenyl [2]	80.1	30-150		7/13/21 9:00	
Tetrachloro-m-xylene [1]	82.5	30-150		7/13/21 9:00	
Tetrachloro-m-xylene [2]	82.2	30-150		7/13/21 9:00	

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: WS-4 | Sampled: 6/28/2021 13:20

Sample ID: 21G0028-04

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1260 [2]	0.20	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	68.7	30-150		7/13/21	9:18
Decachlorobiphenyl [2]	65.3	30-150		7/13/21	9:18
Tetrachloro-m-xylene [1]	69.3	30-150		7/13/21	9:18
Tetrachloro-m-xylene [2]	69.4	30-150		7/13/21	9:18

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-1 | Sampled: 6/28/2021 14:00

Sample ID: 21G0028-05

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1254 [2]	0.32	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1260 [2]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	89.0	30-150		7/13/21	9:36
Decachlorobiphenyl [2]	91.9	30-150		7/13/21	9:36
Tetrachloro-m-xylene [1]	85.1	30-150		7/13/21	9:36
Tetrachloro-m-xylene [2]	84.2	30-150		7/13/21	9:36

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Project Location: 125 Thames St, Bristol, RI Sample Description: Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-2 Sampled: 6/28/2021 15:00

Sample ID: 21G0028-06

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1260 [2]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	87.6	30-150		7/13/21	9:53
Decachlorobiphenyl [2]	83.5	30-150		7/13/21	9:53
Tetrachloro-m-xylene [1]	85.7	30-150		7/13/21	9:53
Tetrachloro-m-xylene [2]	84.6	30-150		7/13/21	9:53

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-3
Sampled: 6/28/2021 14:05

Sample ID: 21G0028-07

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1260 [2]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	88.5	30-150		7/13/21 10:11
Decachlorobiphenyl [2]	84.3	30-150		7/13/21 10:11
Tetrachloro-m-xylene [1]	78.3	30-150		7/13/21 10:11
Tetrachloro-m-xylene [2]	79.0	30-150		7/13/21 10:11

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-4 | Sampled: 6/28/2021 15:10

Sample ID: 21G0028-08

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1268 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	70.0	30-150		7/13/21 10:29
Decachlorobiphenyl [2]	66.8	30-150		7/13/21 10:29
Tetrachloro-m-xylene [1]	75.4	30-150		7/13/21 10:29
Tetrachloro-m-xylene [2]	75.3	30-150		7/13/21 10:29

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-5
Sampled: 6/28/2021 14:35

Sample ID: 21G0028-09

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	92.6	30-150		7/13/21 10:46
Decachlorobiphenyl [2]	85.4	30-150		7/13/21 10:46
Tetrachloro-m-xylene [1]	78.9	30-150		7/13/21 10:46
Tetrachloro-m-xylene [2]	79.3	30-150		7/13/21 10:46

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-6 | Sampled: 6/28/2021 14:30

Sample ID: 21G0028-10

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1254 [2]	0.27	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	102	30-150		7/13/21 11:04
Decachlorobiphenyl [2]	97.2	30-150		7/13/21 11:04
Tetrachloro-m-xylene [1]	94.3	30-150		7/13/21 11:04
Tetrachloro-m-xylene [2]	94.0	30-150		7/13/21 11:04

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-7
Sampled: 6/28/2021 15:20

Sample ID: 21G0028-11

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1254 [2]	0.47	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	96.1	30-150		7/13/21 11:22
Decachlorobiphenyl [2]	86.7	30-150		7/13/21 11:22
Tetrachloro-m-xylene [1]	85.2	30-150		7/13/21 11:22
Tetrachloro-m-xylene [2]	85.8	30-150		7/13/21 11:22

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-8 | Sampled: 6/28/2021 15:30

Sample ID: 21G0028-12

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1254 [2]	0.40	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1260 [2]	0.35	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	75.0	30-150		7/13/21 11:39
Decachlorobiphenyl [2]	71.6	30-150		7/13/21 11:39
Tetrachloro-m-xylene [1]	75.8	30-150		7/13/21 11:39
Tetrachloro-m-xylene [2]	76.3	30-150		7/13/21 11:39

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-9
Sampled: 6/28/2021 15:05

Sample ID: 21G0028-13

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	89.0	30-150		7/13/21 11:57
Decachlorobiphenyl [2]	83.1	30-150		7/13/21 11:57
Tetrachloro-m-xylene [1]	91.0	30-150		7/13/21 11:57
Tetrachloro-m-xylene [2]	90.9	30-150		7/13/21 11:57

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
21G0028-01 [WS-1]	B285514	1.00	10.0	07/08/21
21G0028-02 [WS-2]	B285514	1.00	10.0	07/08/21
21G0028-03 [WS-3]	B285514	1.00	10.0	07/08/21
21G0028-04 [WS-4]	B285514	1.00	10.0	07/08/21
21G0028-05 [CW-1]	B285514	1.00	10.0	07/08/21
21G0028-06 [CW-2]	B285514	1.00	10.0	07/08/21
21G0028-07 [CW-3]	B285514	1.00	10.0	07/08/21
21G0028-08 [CW-4]	B285514	1.00	10.0	07/08/21
21G0028-09 [CW-5]	B285514	1.00	10.0	07/08/21
21G0028-10 [CW-6]	B285514	1.00	10.0	07/08/21
21G0028-11 [CW-7]	B285514	1.00	10.0	07/08/21
21G0028-12 [CW-8]	B285514	1.00	10.0	07/08/21
21G0028-13 [CW-9]	B285514	1.00	10.0	07/08/21

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B285514 - SW-846 3540C											
Blank (B285514-BLK1)				Prepared: 07/08/21 Analyzed: 07/13/21							
Aroclor-1016	ND	0.20	µg/Wipe								R-05
Aroclor-1016 [2C]	ND	0.20	µg/Wipe								R-05
Aroclor-1221	ND	0.20	µg/Wipe								
Aroclor-1221 [2C]	ND	0.20	µg/Wipe								
Aroclor-1232	ND	0.20	µg/Wipe								
Aroclor-1232 [2C]	ND	0.20	µg/Wipe								
Aroclor-1242	ND	0.20	µg/Wipe								
Aroclor-1242 [2C]	ND	0.20	µg/Wipe								
Aroclor-1248	ND	0.20	µg/Wipe								
Aroclor-1248 [2C]	ND	0.20	µg/Wipe								
Aroclor-1254	ND	0.20	µg/Wipe								
Aroclor-1254 [2C]	ND	0.20	µg/Wipe								
Aroclor-1260	ND	0.20	µg/Wipe								R-05
Aroclor-1260 [2C]	ND	0.20	µg/Wipe								R-05
Aroclor-1262	ND	0.20	µg/Wipe								
Aroclor-1262 [2C]	ND	0.20	µg/Wipe								
Aroclor-1268	ND	0.20	µg/Wipe								
Aroclor-1268 [2C]	ND	0.20	µg/Wipe								
Surrogate: Decachlorobiphenyl	*1.60*		µg/Wipe	2.00		80.2	30-150				
Surrogate: Decachlorobiphenyl [2C]	*1.53*		µg/Wipe	2.00		76.4	30-150				
Surrogate: Tetrachloro-m-xylene	*1.54*		µg/Wipe	2.00		76.9	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*1.53*		µg/Wipe	2.00		76.7	30-150				
LCS (B285514-BS1)				Prepared: 07/08/21 Analyzed: 07/13/21							
Aroclor-1016	0.49	0.20	µg/Wipe	0.500		97.3	40-140				R-05
Aroclor-1016 [2C]	0.48	0.20	µg/Wipe	0.500		96.9	40-140				R-05
Aroclor-1260	0.48	0.20	µg/Wipe	0.500		96.7	40-140				R-05
Aroclor-1260 [2C]	0.44	0.20	µg/Wipe	0.500		87.5	40-140				R-05
Surrogate: Decachlorobiphenyl	*1.93*		µg/Wipe	2.00		96.4	30-150				
Surrogate: Decachlorobiphenyl [2C]	*1.84*		µg/Wipe	2.00		92.0	30-150				
Surrogate: Tetrachloro-m-xylene	*1.73*		µg/Wipe	2.00		86.7	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*1.72*		µg/Wipe	2.00		86.1	30-150				
LCS Dup (B285514-BSD1)				Prepared: 07/08/21 Analyzed: 07/13/21							
Aroclor-1016	0.35	0.20	µg/Wipe	0.500		69.1	40-140	**33.9**	*	30	R-05
Aroclor-1016 [2C]	0.35	0.20	µg/Wipe	0.500		70.2	40-140	**31.9**	*	30	R-05
Aroclor-1260	0.32	0.20	µg/Wipe	0.500		64.5	40-140	**40.0**	*	30	R-05
Aroclor-1260 [2C]	0.28	0.20	µg/Wipe	0.500		56.8	40-140	**42.5**	*	30	R-05
Surrogate: Decachlorobiphenyl	*1.20*		µg/Wipe	2.00		59.8	30-150				
Surrogate: Decachlorobiphenyl [2C]	*1.15*		µg/Wipe	2.00		57.7	30-150				
Surrogate: Tetrachloro-m-xylene	*1.23*		µg/Wipe	2.00		61.5	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*1.24*		µg/Wipe	2.00		61.9	30-150				

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

WS-1

Lab Sample ID: 21G0028-01 Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.25	
	2	0.000	0.000	0.000	0.21	17.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

CW-1

Lab Sample ID: 21G0028-05

Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.25	
	2	0.000	0.000	0.000	0.32	24.6

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

CW-7

Lab Sample ID: 21G0028-11

Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.45	
	2	0.000	0.000	0.000	0.47	4.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

CW-8

Lab Sample ID: 21G0028-12 Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1260	1	0.000	0.000	0.000	0.30	
	2	0.000	0.000	0.000	0.35	15.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B285514-BS1 Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.49	
	2	0.000	0.000	0.000	0.48	2.1
Aroclor-1260	1	0.000	0.000	0.000	0.48	
	2	0.000	0.000	0.000	0.44	8.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B285514-BSD1 Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.35	
	2	0.000	0.000	0.000	0.35	0.0
Aroclor-1260	1	0.000	0.000	0.000	0.32	
	2	0.000	0.000	0.000	0.28	13.3

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

2160028

ALL SHADED AREAS are for LAB USE ONLY

Company: Nobis	Billing Information: Accounts Payable Nobis
Address: 18 Chenell Drive	
Report To: Bettina Eames	Email To: beames@nobis-group.com
Copy To:	Site Collection Info/Address: 125 Thames St
Customer Project Name/Number: Robin Rug 095560.200	State: RI County/City: Bristol Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: 603-224-4182 Email:	Site/Facility ID #: Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Sarah Powers	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature): Sarah Powers	Turnaround Date Required: standard turnaround Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [X] No Analysis:

Container Preservative Type **: 9

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses: PCBs EPA 8082 Soxhlet	Lab Sample # / Comments
WS-1	WP	G	6-28-21	1300				1	✓	1 Labels were wet and fell off some jars, unable to figure out which is WS-3, CW-1,
WS-2	WP	G		1255				1	✓	2 CW-7, and CW-8
WS-3	WP	G		1310				1	✓	3
WS-4	WP	G		1320				1	✓	4
CW-1	WP	G		1400				1	✓	5
CW-2	WP	G		1500				1	✓	6
CW-3	WP	G		1405				1	✓	7
CW-4	WP	G		1510				1	✓	8
CW-5	WP	G		1435				1	✓	9
CW-6	WP	G		1430				1	✓	10

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	(NA)
Custody Signatures Present	Y	N	(NA)
Collector Signature Present	(Y)	N	NA
Bottles Intact	(Y)	N	NA
Correct Bottles	(Y)	N	NA
Sufficient Volume	(Y)	N	NA
Samples Received on Ice	(Y)	N	NA
VOA - Headspace Acceptable	Y	N	(NA)
USDA Regulated Soils	Y	N	(NA)
Samples in Holding Time	(Y)	N	NA
Residual Chlorine Present	Y	N	(NA)
Cl Strips:			
Sample pH Acceptable	Y	N	(NA)
pH Strips:			
Sulfide Present	Y	N	(NA)
Lead Acetate Strips:			

LAB USE ONLY:

Customer Remarks / Special Conditions / Possible Hazards: Method 8022 w/ Soxhlet Extraction needed

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2676634

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:

Temp Blank Received: Y (N) NA

Therm ID#: 3

Cooler 1 Temp Upon Receipt: ____oC

Cooler 1 Therm Corr. Factor: ____oC

Cooler 1 Corrected Temp: ____oC

Comments: 4 < 3

Trip Blank Received: Y (N) NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 2

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Sarah Powers	6/30/21 2030		7/1/21 1605
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/1/21 1125		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/1/21 1405		

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

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CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

2160028

ALL SHADED AREAS are for LAB USE ONLY

Company: Nobis	Billing Information: Accounts Payable Nobis
Address: 18 Chenell Drive	
Report To: Bettina Eames	Email To: beames@nobis-group.com
Copy To:	Site Collection Info/Address: 125 Thames St
Customer Project Name/Number: Robin Rug 0955100.2100	State: RI County/City: Bristol Time Zone Collected: [ ]PT [ ]MT [ ]CT [X]ET
Phone: 603-224-4182 Email:	Site/Facility ID #: Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Sarah Powers	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature): Sarah Powers	Turnaround Date Required: Standard turnaround Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [X] No Analysis:

Container Preservative Type **: 9

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Analyses: 1,1 PCBs EPA 8082 Soxhlet

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	(NA)
Custody Signatures Present	Y	N	(NA)
Collector Signature Present	(Y)	N	NA
Bottles Intact	(Y)	N	NA
Correct Bottles	(Y)	N	NA
Sufficient Volume	(Y)	N	NA
Samples Received on Ice	(Y)	N	NA
VOA - Headspace Acceptable	Y	N	(NA)
USDA Regulated Soils	Y	N	(NA)
Samples in Holding Time	(Y)	N	NA
Residual Chlorine Present	Y	N	(NA)
Cl Strips: ____			
Sample pH Acceptable	Y	N	(NA)
pH Strips: ____			
Sulfide Present	Y	N	(NA)
Lead Acetate Strips: ____			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Lab Sample # / Comments
CW-7	WP	G	6-28-21	1520				1	-11
CW-8	WP	G	↓	1530				1	-12
CW-9	WP	G	↓	1505				1	13

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Remarks / Special Conditions / Possible Hazards: Method 8082 w/Soxhlet Extraction needed

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2676633

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 3
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments: 4.3

Trip Blank Received: Y (N) NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 2 of: 2

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Sarah Powers	6/30/21 2030		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/1/21 1125		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/1/21 1605		

MTJL LAB USE ONLY

Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

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FUSS & O'NEILL

Site Investigation Report Addendum

8/1/22

SITE INVESTIGATION REPORT ADDENDUM

ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

MAIN MILL PARCELS – Lots 10-42, 10-60, 10-61, 10-62 and 10-73
PARKING LOT PARCELS – Lots 10-32,10-41, 10-43, 10-44, 10-49, 10-50, 10-68, 10-74 and 10-76
RIDEM Site File No. SR-02-2085

Prepared For:

Brady Sullivan Properties, LLC
670 N. Commercial Street, Suite #303
Manchester, New Hampshire 03101

BY:
NOBIS GROUP®
18 CHENELL DRIVE
CONCORD, NH 03301

(603) 224-4182

Bettina E. Eames, P.G.
beames@nobis-group.com

Nobis Project No. 095560.261
August 1, 2022

August 1, 2022
File No. 095560.261

Ms. Michelle McLarney
Rhode Island Department of Environmental Management
Office of Land Revitalization & Sustainable Materials Management
Site Remediation Program
235 Promenade Street
Providence, Rhode Island 02908-5767
Submitted - Hard Copy via USPS regular mail and to RIDEM Sharepoint Page

Re: Site Investigation Report Addendum
Robin Rug Manufacturing Facility
125 Thames Street, Bristol, Rhode Island
Main Mill Parcels – Lots 10-42, 10-60, 10-61, 10-62 and 10-73
Parking Lot Parcels – Lots 10-32, 10-41, 10-43, 10-44, 10-49, 10-50, 10-68, 10-74 and 10-76
RIDEM File No. SR-02-2085

Dear Ms. McLarney :

Nobis Engineering, Inc. d/b/a Nobis Group® (Nobis), on behalf of Brady Sullivan Properties (Brady Sullivan) is submitting the enclosed Site Investigation Report (SIR) Addendum for the Robin Rug Manufacturing Facility located at 125 Thames Street in Bristol , Rhode Island ("the Site"). The Site consists of five parcels west of Thames Street (referred to as the "Main Mill Parcels") consisting of ± 2.9 acres of land and nine parcels east of Thames Street (referred to as the "parking Lot Parcels") consisting of ±0.338 acres of land (total = 14 parcels). The Site is located along Bristol Harbor just west of the downtown area and is shown on Figure 1.

BACKGROUND AND RELEASE NOTIFICATION

On May 3, 2022, Nobis, on behalf of Brady Sullivan (as Bona Fide Prospective Purchaser) submitted a Hazardous Materials Release Notification Form to the Rhode Island Department of Environmental Management (RIDEM) to report the release of oil (petroleum) and hazardous materials, including primarily polyaromatic nuclear hydrocarbons (PAHs) and metals (arsenic and lead) to soil. Concentration in soil exceeded the Rhode Island Residential direct contact criteria

Nobis Group®
18 Chenell Drive
Concord, NH 03301
T (603) 224-4182

(RDEC) and/or the industrial/commercial DEC (or ICDEC). The conditions in soil were discovered during performance of an ASTM Phase I Environmental Site Assessment (Phase I ESA) and a Phase II Limited Subsurface Investigation (Phase II) at the Site in 2021 as part of due diligence pre-purchase activities. In response to the release notification, the RIDEM issued the site number SR-02-2085 to the release and a Voluntary Cleanup Letter (VCL) dated May 13, 2022 to Brady Sullivan (Bona Fide Prospective Purchaser and also the Performing Party) outlining subsequent requirements for reporting, investigation and remediation in accordance with RIDEM's Office of Land Revitalization and Sustainable Materials Management regulations under 250-RICR-140-30-1, *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (aka the Remediation Regulations).

PREVIOUS SITE INVESTIGATIONS AND REPORT SUBMITTALS

Nobis has prepared this SIR submittal to satisfy the requirements of the *Remediation Regulations Subsection 1.8 –Site Investigation Report* as part of the VCL process. As previously communicated to RIDEM, Nobis completed an ASTM Phase I Environmental Site Assessment (ESA) in April 2021 and a Phase II Site Investigation (Phase II) at the Site in August 2021 for Brady Sullivan as part of due diligence prior to purchase of the Site. Previously in July 2005, GZA GeoEnvironmental conducted a Phase I and II Site Investigation at the site for another party. Copies of reports summarizing these past investigations have been submitted electronically to RIDEM via upload to the Sharepoint Page for the site "SR-02-2085" concurrently with this submittal.

SIR ADDENDUM - CHECKLIST AND SUPPLEMENTARY INFORMATION

In Nobis's opinion, the previous 2005 GZA and 2021 Nobis Phase I and II investigations satisfy the requirements and objectives of an SIR. These reports were used for reference to demonstrate that the content requirements as listed in the *SIR Checklist* have been met. The enclosed SIR Addendum submittal includes:

- Appendix A – SIR Checklist. Completed in accordance with Section 1.8.8 of the Remediation Regulations and cross-referencing to specific sections and pages of the 2005 GZA Phase I/II report and/or 2021 Phase I or Phase II reports, including those items in the checklist requiring further discussion or explanation.

- Appendix B – Release Notification Submittal. This submittal was prepared by Nobis on behalf of Brady Sullivan and was previously submitted to RIDEM on May 3, 2022.

- Appendix C - Remedial Alternatives Evaluation. An evaluation of a minimum of two (2) remedial alternatives (as per Section 1.8.4 of the Checklist), including a recommendation and preferred alternative(s) for the Main Mill Parcels and the Parking Lot Parcels.

- Appendix D – Property Survey Plan and Redevelopment Project Master Plan. The plan entitled "Boundary and Topographic Survey Plan Bristol Yarn Mill" dated August 18, 2021 prepared by Control Point Associates (Registered Land Surveyor) depicts current conditions. Shown on the Control Point Survey plan are the current building footprint, paved areas and unpaved/landscaped areas. The second plan entitled "Master Plan Bristol Yarn Mill" dated April 13, 2021 prepared by Fuss & O'Neill depicts the proposed redevelopment plan, including changes to the current building footprint, planned demolition of the Annex Building, proposed new Riverwalk Structure, proposed new/improved paved areas and unpaved/landscaped areas.

CERTIFICATION

As required per the RIDEM Remediation Regulations and as listed under Section 1.85. of the SIR Checklist, this SIR submittal been certified by a representative of Nobis and by Brady Sullivan. Certification Statements for the SIR are provided in Appendix E.

STATUS OF PROPERTY ACQUISITION AND REDEVELOPMENT PROJECT

Additional subsurface site investigation activities are planned to be done to delineate the extent of lead in shallow subsurface soil (0 to 3.5 fbg) around TP-7 on parking lot Parcel 10-76. However, this soil delineation/investigation effort will be conducted in the future in conjunction with new park lot construction. The new parking lot upgrade will include new asphalt cap, curbing with perimeter landscaping and stormwater management features. This work will likely require soil management (off-site disposal) and thus further delineation of lead in shallow soils will be incorporated into the Remedial Action Work Plan (RAWP) and conducted at the time of new parking lot construction. Brady Sullivan is aware that prior public notice (to abutters) will be required prior to initiation of these activities. As of this writing, Brady Sullivan has not yet purchased the Site and final property acquisition is still in progress. Brady Sullivan is actively

seeking all project approvals (planning, zoning, environmental, etc.) and anticipates tentative acquisition of the property on or about December 31, 2022.

We anticipate that this submittal satisfies the requirements of the SIR and will be approved by RIDEM. If you require any further information, please feel free to contact Ms. Bettina E. Eames at 603-224-4182 or Mr. Chris Reynolds, PE of Brady Sullivan Properties at 508-728-9208.

Sincerely,

NOBIS GROUP®

Bettina E. Eames, PG
Senior Project Manager

Clarence "Tim" Andrews, PG | Associate
Director of State & Municipal Services

Attachments:
Figure 1 – Site Locus Map
Appendix A - SIR Checklist
Appendix B Release Notification Submittal
Appendix C - Remedial Alternatives Evaluation
Appendix D Property Survey Plan and Master Plan (Current and Proposed Future Conditions)
Appendix E Certification

c: File No. 095560.261 (w/attach.)

FIGURES

USGS Topographic Map
Bristol, RI-Mass
Revised 1955

nobis
Nobis Group® - 18 Chenell Drive
Concord, NH 03301 - (603) 224-4182
www.nobis-group.com

FIGURE 1

SITE LOCUS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RI

PREPARED BY: SKP	CHECKED BY: BE
PROJECT NO. 95560.26	DATE: JULY 2022

J:\95560.00 - Brady Sullivan Portfolio\Environmental\95560.26 - Bristol RI Phase I ESA\05 Deliverable-Report\Figures\Figure 1_Site Locus.mxd 2/15/2021 13:23 spowers

APPENDIX A

Section 1.20 of the "Remediation Regulations"
Site Investigation Report (SIR) Checklist

(The following information shall be completed and submitted with the SIR)

Contact Name:	**Bettina Eames, PG - Nobis Group (Consultant for Brady Sullivan Properties LLC)**
Contact Address:	**18 Chenell Drive, Concord, NH 03301**
Contact Telephone:	**603-513-7328**
Site Name:	**Robin Rug Manufacturing SR-02-2085**
Site Address:	**125 Thames Street, Bristol, RI**

OFFICE USE ONLY
SITE INVESTIGATION REPORT (SIR) SITE:
PROJECT CODE:
SIR SUBMITTAL DATE:
CHECKLIST SUBMITTAL DATE:

DIRECTIONS: *The box to the left of each item listed below is for the administrative review of the SIR submission and is for* ***RIDEM USE ONLY****. Under each item listed below, cross-reference the specific sections and pages in the SIR that provide detailed information that addresses each stated requirement. Failure to include cross-references may delay review and approval. If an item is not applicable, simply state that it is not applicable and provide an explanation in the SIR.*

☐ 1.8.3(A)(1) List specific objectives of the SIR related to characterization of the Release, impacts of the Release and remedy.

See 2021 Nobis Phase I ESA Sections 1.1, 1.2, 7.0, and 8.0 and 2021 Nobis Phase II Report, Sections 1.1, 2.0, 3.0, and 5.0.

☐ 1.8.3(A)(2) Include information reported in the Notification of Release. A copy of the Release notification form should be included in the SIR. Include information relating to short-term response, if applicable.

See Appendix B of this submittal and Section 4.4 of the 2021 Nobis Phase II report.

☐ 1.8.3(A)(3) Include documentation of any past incidents or Releases.

See 2005 GZA Phase I/II Report Sections 6.20.2 and 10.00 (Site Regulatory Review) and 2021 Nobis Phase I ESA Report- Sections 6.1, 7.0 and 8.0.

☐ 1.8.3(A)(4) Include list of prior property Owners and Operators, as well as sequencing of property transfers and time periods of occupancy.

See 2002 GZA Phase I/II Report - Sections 4.10, 4.40, and Table 1.

☐ 1.8.3(A)(5) Include previously existing environmental information which characterizes the Contaminated-Site and all information that led to the discovery of the Contaminated-Site.

See 2005 GZA Phase I/II Report - Sections 6.10 and 6.20 and the 2021 Nobis Phase II Report- Section 1.4.

☐ 1.8.3(A)(6) Include current uses and zoning of the Contaminated-Site, including brief statements of operations, processes employed, waste generated, Hazardous Materials handled, and any residential activities on the site, if applicable. (This section should be linked to the specific objectives section demonstrating how the compounds of concern in the investigation are those that are used or may have been used on the site or are those that may have impacted the site from an off-site source.)

See 2005 GZA Phase I/II Report - Sections 6.10 and 6.20 and 2021 Nobis Phase I Report - Sections 2.3, 2.4, 5.3, and 5.4.

☐ 1.8.3(A)(7) Include a locus map showing the location of the site using US Geological Survey 7.5-min quadrangle map or a copy of a section of that USGS map.

See Figure 1 of this SIR Addendum.

☐ 1.8.3(A)(8) Include a site plan, to scale, showing: **See 2021 Nobis Phase II Figure 2 and 2021 Nobis Phase I ESA Appendix F-2 Sanborn Maps**

- ☐ Buildings **(See also Appendix D - Property Survey Plan and Master Plan)**
- ☐ Activities
- ☐ Structures
- North Arrow
- ☐ Wells
- ☐ UIC Systems, septic tanks, UST, piping and other underground structures – **See Cistern on Figure 2 Site Plan (2021 Nobis Phase II Report)**
- ☐ Outdoor Hazardous Materials storage and handling areas - **(See 2021 Nobis Phase II - App F-2 - Historical Fire Insurance Maps)**
- ☐ Extent of paved areas **(See also Appendix D - Property Survey Plan and Master Plan)**
- ☐ Location of environmental samples previously taken with analytical results
- ☐ Waste management and disposal areas
- ☐ Property Lines

☐ 1.8.3(A)(9) Include a general characterization of the property surrounding the area including, but not limited to:

- ☐ Location and distance to any surface water bodies within 500 ft of the site.
  Bristol Harbor borders the western boundary of the mill buildings
- ☐ Location and distance to any Environmentally Sensitive Areas within 500 ft of the site.
  There are no Environmentally Sensitive Areas within 500 ft. of the site.
- ☐ Actual sources of potable water for all properties immediately abutting the site.
  The Site and surrounding properties are serviced by municipal water.
- ☐ Location and distance to all public water supplies, which have been active within the previous 2 years and within one mile of the site.
  There are no public water supplies within one mile of the site. See 2021 Nobis Phase I Report - Appendix F-6, EDR Report Physical Settings Map.
- ☐ Determination as to whether the Release impacts any off-site area utilized for residential or industrial/commercial property or both.
  Release is limited to soil only - no groundwater impacts identified. No known off-site areas impacted.
- ☐ Determination of the underlying groundwater classification and if the classification is GB, the distance to the nearest GA area.
  Groundwater is classified as GB, See 2005 GZA Phase I/II - Section 10.0 and 2021 Nobis Phase II - Section 4.2. The nearest GA area is approximately 1-mi away.

☐ 1.8.3(A)(10) Include classifications of surface and ground water at and surrounding the site that could be impacted by a Release.
Impacts to groundwater have not been identified based previous investigations.

☐ 1.8.3(A)(11) Include a description of the contamination from the Release, including:

- ☐ Free liquids on the surface - **Not observed/encountered. See 2005 GZA Phase I/II and 2021 Nobis Phase I and II.**
- ☐ LNAPL and DNAPL - **Not observed/encountered. See 2005 GZA Phase I/II and 2021 Nobis Phase I and II**
- ☐ Concentrations of Hazardous Substances which can be shown to present an actual or potential threat to human health and any concentrations in excess of any of the remedial objectives (reference Section 1.13) **– See 2021 Nobis Phase II Table 8 and Release Notification**
- ☐ Impact to Environmentally Sensitive Areas – **None Observed.**
- ☐ Contamination of man-made structures Odors or stained soil **Some soil staining observed within fill materials in test pits. Please reference Appendix E of the 2021 Nobis Phase II report.**

☐ Stressed vegetation **Not observed.**

☐ Presence of excavated or stockpiled material and an estimate of its total volume
None observed.

☐ Environmental sampling locations, procedures and copies of the results of any analytical testing at the site
See 2005 GZA Phase I/II - Sections 9.00 and 10.00 and Appendix G and 2021 Nobis Phase I & II Report Sections 2.0 and 3.0 and Appendix F.

☐ List of Hazardous Substances at the site
See Appendix B Release Notification of this submittal - Table 8

☐ Discuss if the contamination falls outside of the jurisdiction of the Remediation Regulations, including but not limited to USTs, UICs, and wetlands.
Contamination does not fall outside of the Remediation Regulations.

☐ 1.8.3(A)(12) Include the concentration gradients of Hazardous Substances throughout the site for each media impacted by the Release.

Release condition in soil is not attributed to a previously reported known spill or release but rather to long-time (100+ years) of industrial use (textile mill). Therefore, no concentration gradient (in either soil or groundwater) has been established or is considered to be present. Concentrations of hazardous substances in soil are assumed to be random and heterogenous across the site.

☐ 1.8.3(A)(13) Include the methodology and results of any investigation conducted to determine background concentrations of Hazardous Substances identified at the Contaminated-Site (see Section 1.13).

An investigation to determine background concentrations was not performed. See also Appendix B - Release Notification Submittal.

☐ 1.8.3(A)(14) Include a listing and evaluation of the site specific hydrogeological properties which could influence the migration of Hazardous Substances throughout and away from the site, including but not limited to, where appropriate:

☐ Depth to GW

Shallow (< 10 fbg) and tidally-influenced. See 2021 Nobis Phase II Report Section 3.2 and Table 2.

☐ Presence and effects of both the natural and man-made barriers to and conduits for contaminant migration

Buildings, pavement, and vegetation are natural and man-made barriers that prevent migration of impacted soil.

☐ Characterization of bedrock

Not Applicable. See 2021 Nobis Phase I Report Section 2.7.

☐ Groundwater contours, flow rates and gradients throughout the site – **See Figure 3 of the 2021 Phase II report.**

☐ 1.8.3(A)(15) Include a characterization of the topography, surface water and run-off flow patterns, including the flooding potential, of the site.

See GZA Phase I/II Report – Sections 3.10, 3.20, 3.30 and 3.40 and 2021 Nobis Phase I Report – Section 2.7 and Appendix E.

☐ 1.8.3(A)(16) Include the potential for Hazardous Substances from the site to volatilize and any and all potential impacts of the volatilization to structures within the site.

See 2021 Nobis Phase I Report - Section 8.0- Vapor Encroachment Screening and 2021 Nobis Phase II Report - Sections 4.3 and 5.0.

☐ 1.8.3(A)(17) Include the potential for entrainment of Hazardous Substances from the site by wind or erosion actions.

Potential for entrainment of Hazardous Substances from the site by wind or erosion is low or De Minimis due to soils being predominantly covered by buildings and/or pavement.

☐ 1.8.3(A)(18) Include detailed protocols for all fate and transport models used in the Site Investigation.

Fate and transport models (as related to groundwater and subslab soil gas/vapor intrusion) were not used as these risk exposure pathways were incomplete.

☐ 1.8.3(A)(19) Include a complete list of all samples taken, the location of all samples, parameters tested for and analytical methods used during the Site Investigation. (Be sure to include the samples locations and analytical results on a site figure).

See 2005 GZA Phase I/II Report - Section 9.00 and Appendix G and 2021 Nobis Phase II Report - Section 2.0, Tables 1 through 8, Figure 2 (Site Plan) and Appendix F (Lab Data Reports).

☐ 1.8.3(A)(20) Include construction plans and development procedures for all monitoring wells. Well construction shall be consistent with the requirements of the Groundwater Quality Rules.

See 2021 Nobis Phase II Report - Section 2.3 (Groundwater Monitoring Well Installation and Development) and Appendix D (Soil Boring/Well Logs).

☐ 1.8.3(A)(21) Include procedures for the handling, storage and disposal of wastes derived from and during the investigation.

There was no investigation derived waste produced during 2021 Nobis Phase II site investigation.

☐ 1.8.3(A)(22) Include a quality assurance and quality control evaluation summary report for sample handling and analytical procedures, including, but not limited to, chain-of-custody procedures and sample preservation techniques.

2021 Nobis Phase II - Samples were collected and submitted on ice following proper protocol and chain of custody procedures. See 2005 GZA Phase I/II Report Appendix G and the 2021 Nobis Phase II Report - Appendix F for analytical quality assurance and control summaries.

☐ 1.8.3(A)(23) Include any other site-specific factor, that the Director believes, is necessary to make an accurate decision as to the appropriate Remedial Action to be taken at the site.

Site history information indicates that operations at the site have taken place for many years and there are several historical sources of contamination with little documentation. Groundwater has been demonstrated to not be impacted by contamination at the site and areas of soil impacts are covered mostly by buildings and/or pavement and are therefore are only "potentially accessible". Direct contact with contaminated soils is low or unlikely unless

disturbed or uncovered during excavation or construction-related activities.

☐ 1.8.4 Include Remedial Alternatives. The Site Investigation Report shall contain a minimum of **TWO (2)** remedial alternatives other than no action/natural attenuation alternative, unless this requirement is waived by the Department. It should be clear which of these alternatives is most preferable. All alternatives shall be supported by relevant data contained in the Site Investigation Report and consistent with the current and reasonably forseeable land usage, and documentation of the following:

- Compliance with Section 1.9 (RISK MANAGEMENT);
- Technical feasibility of the preferred remedial alternative;
- Compliance with federal, state and local laws or other public concerns; and
- The ability of the Performing Party to perform the preferred remedial alternative.

See Appendix C of this SIR Addendum.

☐ 1.8.5 **Certification Requirements:** The Site Investigation Report and all associated progress reports shall include the following statements signed by an authorized representative of the party specified:

A statement signed by an authorized representative of the Person who prepared the Site Investigation Report certifying the completeness and accuracy of the information contained in that report to the best of their knowledge; and

A statement signed by the Performing Party responsible for the submittal of the Site Investigation Report certifying that the report is a complete and accurate representation of the site and the Release and contains all known facts surrounding the Release to the best of their knowledge.

See Appendix E of this SIR Addendum.

☐ 1.8.6 **Progress Reports:** If the Site Investigation is not complete, include a schedule for the submission of periodic progress reports on the status of the investigation and interim reports on any milestones achieved in the project.

See cover letter of this SIR Addendum regarding schedule for supplemental site investigation for lead in soil around TP-7 on Parking Lot Parcel 10-76.

☐ **Public Involvement and Notice:** Be prepared to implement public notice requirements per Sections 1.8.7 and 1.8.9 of the Remediation Regulations when the Department deems the Site Investigation Report to be complete.

Indicate if the site falls within an Environmental Justice (EJ) area and, if applicable, include all EJ public notice documentation issued, and the list of recipients.

The site does not fall within an Environmental Justice Area.

APPENDIX B

May 3, 2022
File No. 095560.26

Ms. Kelly Owens, Supervisor
Rhode Island Department of Environmental Management
Office of Land Revitalization & Sustainable Materials Management
Site Remediation Program
235 Promenade Street
Providence, Rhode Island 02908-5767
Submitted via email - DEM.OWMSiteRemNor@dem.ri.gov

Re: Notification of Hazardous Material Release
Robin Rug Manufacturing
125 Thames Street, Bristol, Rhode Island

Dear Ms. Owens :

Nobis Engineering, Inc. d/b/a Nobis Group (Nobis), on behalf of Brady Sullivan Properties (our client) is submitting the enclosed Hazardous Material Release Notification Form for the Robin Rug Manufacturing located at 125 Thames Street in Bristol. This notification is being submitted in accordance with the RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (250-RICR-140-30-1) *Subsection 1.6.1 – Notification of a Release.* If you require any further information, please feel free to contact the undersigned at 603-224-4182 or Mr. Chris Reynolds of Brady Sullivan.

Sincerely,

NOBIS GROUP®

Bettina E. Eames, PG
Senior Project Manager

Clarence "Tim" Andrews, PG | Associate
Director of State & Municipal Services

Attachment – Release Notification Form and Supporting Information
c: File No. 096660.26 (w/attach.)

Nobis Group®
18 Chenell Drive
Concord, NH 03301
T (603) 224-4182

Office of Land Revitalization & Sustainable Materials Management
Site Remediation Section

HAZARDOUS MATERIAL RELEASE NOTIFICATION FORM

THIS FORM IS NOT TO BE USED TO REPORT AN IMMINENT HAZARD

1. Notifier Information:

Name: Bettina Eames, Nobis Group

Address: 18 Chenell Drive, Concord NH 03301

Phone: (603) 513-7328

Email: beames@nobis-group.com

Status:
- [X] Environmental Professional
- [ ] Owner
- [ ] Operator
- [ ] Secured Creditor
- [ ] Voluntary

If Environmental Professional is selected, please supply the follow information for your client below:

Name: Chris Reynolds, Brady Sullivan Properties

Address: 670 North Commercial Street, Manchester NH 03101

Phone: (508) 728-9208

Email: creynolds@bradySullivan.com

Status:
- [ ] Owner
- [ ] Operator
- [ ] Secured Creditor
- [ ] Voluntary
- [X] (Prospective Purchaser)

2. Property Information:

Name of Site: Robin Rug Manufacturing Facility

Site Address: 125 Thames Street, Bristol, RI

Plat/Lot Numbers: Main Mill Parcels (10-42, 10-60, 10-61, 10-62, 10-73); Parking Lot Parcels (10-43 and 10-76)

Approximate Acreage of Property: Main Mill parcels (2.9 acres); Parking Lot Parcels (0.338 acres)

Latitude/Longitude: 41 deg 40 min 1.88 sec Latitude N; 71 deg 16 min 38.70 sec Longitude W.

Site Land Usage Type:
- [ ] Residential
- [x] Industrial/Commercial

Location of Release (Attach site sketch as necessary): Main Mill Parcels Lots 10-42 and 10-60; Parking Lot Parcels 10-43 and 10-76. See attached Figures 1 and 2.

3. Release Information:

Date of Discovery: 8/6/2021

Source: Historical Fill and incidental releases of 100+years of rug manufacturing at mill complex.

Release Media: Soil

Hazardous Materials and Concentrations (Attach certificates of analysis as necessary):
Oil and hazardous materials including PAHs, metals (arsenic, lead) and petroleum. See attached supplemental narrative, tables and lab reports.

Extent of Contamination: OHM suspected underlying all of Main Mill parcels. Localized arsenic, lead and petroleum (gasoline) on parking lot parcels 10-42 and 10-76.

Approximate acreage of Contaminated Area: 2.9 acres (Main Mill parcels); < 0.338 acres (parking lot parcels 10-43 and 10-76)

4. Resource Information:

	(current)	(future use is residential apartment/condo)
Site Land Usage:	☒ Industrial/Commercial	☐ Residential
Adjacent Land Usage:	☐ Industrial/Commercial	☒ Residential
Site Groundwater Class:	☐ GA/GAA	☒ GB
Adjacent Groundwater Class: (if different than site groundwater classification within 500 feet)	☐ GA/GAA	☒ GB
Nearest Surface Water or Wetland:	☒ Less Than 500 Feet	☐ Greater Than 500 Feet

Potential for adverse impact? ☐ Yes ☒ No

5. Potentially Responsible Parties:

Name: Russell Karin, Russ-Russ Realty Co.

Address: 125 Thames Street, Bristol, RI

Status: ☒ Owner ☐ Operator ☐ Other:

Name:

Address:

Status: ☐ Owner ☐ Operator ☐ Other:

6. Measures taken or proposed to be taken in response to Release:
1) Preparation of Soil Management Plan and HASP for work during redevelopment activities.
2) Preparation and Management of on-site soils > RDEC and > IDEC via use of Environmental Land Use Restriction (ELUR).
3) Localized excavation and off-site disposal of lead-impacted soils on parking lot parcel 10-76 during redevelopment activities.

Check all that apply: ☐ Site Investigation ☐ Short-Term/Emergency ☐ EXPRESS Policy ☐ Dig & Haul Policy

7. Other significant remarks about Release (Will a background determination be made?)

Signature: _____ **Date:** May 3, 2022

Title: Senior Project Manager, Nobis Group

Hazardous Material Release Notification Form
Supplemental Information
Robin Rug Manufacturing
125 Thames Street, Bristol, RI

2 Property Information

Site Description

The subject property is comprised of 14 parcels (collectively referred to as the "subject property") totaling approximately 3.47± acres of land and includes industrial, commercial, residential, parking lot and undeveloped land use. The location of the subject property is shown on **Figure 1 - Locus Map**. Pertinent site features are shown on **Figure 2 – Site Plan.** Groundwater flow directions are shown on **Figure 3**. The subject property includes the Main Mill Building property (5 parcels) and 8 parcels located on adjacent Thames Street. These parcels are identified on the Town of Bristol Tax Map 10 as follows:

- **Robin Rug Mill Building Property** - includes parcels 10-42, 10-60, 10-61, 10-62, and 10-73. Robin Rug is a braided rug manufacturing facility. The building is made up of several interconnected buildings with industrial and commercial use.

- **Mill Parking Lots** - located on Thames Street east of the Mill Building and includes parcels 10-41, 10-44 and 10-68. These parcels are used as a parking lot for the mill.

- **Lot 10-32** – located at the corner of Church and Thames Street is a seasonal parking lot rented from the property owner by the Town of Bristol.

- **Lots 10-76, 10-43, and 10-74** - located between Hope Street and Thames Street and consists of a gravel parking lot.

- **Lot 10-49** – located at 60 Thames Street. This property is a single-family residence.

- **Lot 10-50** – located at 70 Thames Street. This property is a two-family residence.

The subject property is located along the waterfront of Bristol Harbor within the Town's Waterfront Planned Unit Development zone. The subject property is abutted by mostly residential properties (some commercial properties) to the north and east, by the Bristol Elks lodge to the southwest, and by the Maritime Welcome Center (former armory and community center) to the northwest. The parcels located east of Thames Street are in the Downtown and Residential R-6 zones.

Hazardous Material Release Notification Form
Supplemental Information
Robin Rug Manufacturing
125 Thames Street, Bristol, RI

Site Land Usage Type:

Currently, the subject property consists of parcels which are used for both residential (Lots 10-49 and 10-50 at 60 and 70 Thames Street, respectively) and industrial/commercial purposes (Main Mill parcel and parking lot parcels). In the future, the Main Mill parcel is proposed to be used for residential purposes (condominiums) upon development.

3 Release Information

Source/Site History

The two main Mill parcels (Lots 10-42 and 10-60) were originally developed as a textile mill producing cottons and yarns, including operation of a dye house, in the late 1800s though the mid-1900s. Circa 1975, Robin Rug purchased the property and operated the mill to produce braided rugs. Residential properties at 60 and 70 Thames Street were historically residential and used as single or double-family homes. Prior to the 1960s, green houses were reportedly present on Lots 10-43 and 10-76. The Mill paved and gravel parking lots have historically been undeveloped, while the Church and Thames Parking Lot (Lot 10-32) appears to have previously been developed as a residence, a store and boarding house.

Release Media

In 2021, Nobis Group® (Nobis) conducted a limited Phase II site investigation on behalf of Brady Sullivan Properties for a perspective purchase of the site. The limited Phase II included subsurface drilling, well survey and groundwater sampling and chemical analysis of soil, groundwater, soil vapor and building materials. Samples were analyzed for a combination of analytes, including VOCs, PAHs, TPH and/or metals. Building materials were sampled for PCBs. Media requiring reporting to the Rhode Island Department of Environmental Management (RIDEM) was identified to include **Soil only**. A summary of the findings of the limited Phase II, were as follows:

- Subsurface soil consists of fill overlying native marine deposits consisting of alternating layers of sand, silt, and clay. Fill consists of fine to coarse sand with debris consisting of crushed stone/rock, concrete, brick, ash, slag, glass, plastic, and wire fragments. Fill is present in several area of the site, including west of the main mill, the central northern

interior (SB-6/SB-7 area) and in the parking lots parcels east of Thames Street. Fill ranged in thickness from approximately 3 to 8 feet. The greatest amount of fill (≈8 feet) was encountered in TP-6 on Lot 10-43.

- Except for one reading (65 ppmv in TP-6), PID readings of TVOCs in soil were generally low and less than 1 ppmv in most locations. Petroleum odors were encountered at the groundwater table at 8 fbg in TP-6 only. No dark brown or black-stained soils were encountered in the subsurface. No sheen or free product was encountered in groundwater monitoring locations.

- A UST, which was suspected to exist based upon GPR, was not encountered during test pit explorations at TP-7 on Lot 10-76. The past and/or current use of the two unknown metal pipes in this location remains unclear. Lead was detected at 4,600 mg/kg in TP-7 at depth of 0 to 3.5 feet and is suspected to be related to the presence of ash.

- In soil, contaminants detected included primarily PAHs, TPH and metals (primarily arsenic and lead). The contaminants may be related to the presence of anthropogenic fill (placed by man) or pyrogenic fill (burn residue or produced by fire) and/or possibly by undocumented releases from historic mill activities and operations. Other contaminants such as VOCs, pesticides, PCBs, cyanide, and hexavalent chromium were low and/or not detected. Several constituents detected in soil exceed the Rhode Island Residential DEC and/or the Industrial/Commercial DEC. Exceedance of the DECs indicates that a potential increased risk to human health exists via the direct contact pathway. **See Table 8 attached.**

- In groundwater, VOCs and TPH were not detected in groundwater monitoring wells located on the Main Mill Building parcels (Lots 10-42 and 10-60) and or in NB-3 installed on parking lot parcel Lot 10-43. PAHs were detected at low concentrations in GZA-3 primarily located on the downgradient site of the subject property. Based upon the groundwater sampling data, groundwater quality does not appear significantly negatively impacted and is consistent with groundwater quality in GB areas.

- In subslab soil vapor, VOCs are present at varying concentrations. VOCs reported include various types of gasoline related compounds and several CVOCs. Total VOC vapor

concentrations (772.05 ug/m3) in SG-4 located beneath Mill Bldg#7 was much higher than in other locations. Most of the total VOC concentration in SG-4 soil vapor consisted of trichlorofluoromethane (Freon 11) and PCE. The State of Rhode Island does not have a stand-alone guidance dedicated to vapor intrusion and/or standards (like CTDEEP) or vapor screening values (like MassDEP). For comparison only, the PCE concentration of 260 ug/m3 in SG-4 exceeds the MassDEP Subslab Soil Gas Screening Value for Residential Use. Per MassDEP guidance, this exceedance indicates that the vapor intrusion pathway may be of concern under future residential use conditions. However, the PCE soil vapor detection was in only 1 of 4 sample locations and was in portion of the main mill building proposed as open-air garage space (below first residential living floor). Additionally, PCE was not detected in either soil or groundwater and thus the presence of PCE in soil vapor may be indicative of background conditions and from an unknown off-site source. Thus, this single PCE soil vapor detection beneath the subslab is not considered to have an impact on proposed future use.

- In wipe samples, low to trace levels of PCBs are present. Wipe samples indicated that low level PCBs are associated with some elevator oils and in some stained concrete surfaces (from past spills) in the basement. Total PCB wipe concentrations were less than 1 ug/100 cm2 which is below the reporting notification threshold per State of Rhode Island and federal (TSCA) requirement of 10 ug/100 cm2.

TABLES

Table 1
Soil PID Readings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Location	Sample Number	Sample Depth (ft)	PID Reading (ppmV)
SB-1	-	0 to 4	No readings collected
SB-2	S-1	5 to 7	1.7
SB-2	S-1	7 to 10	3.7
SB-2	S-2	10 to 11	3.8
SB-2	S-2	12 to 13	1.2
SB-2	S-2	15	<1
SB-3	S-1	5 to 7	3.0
sB-3	S-1	7 to 10	4.5
SB-3	S-2	10 to 12	1.0
SB-3	S-2	12 to 15	2.4
SB-4	S-1	0 to 4	3.0
SB-4	S-1	4 to 5	7.3
SB-4	S-2	5 to 9	<1
SB-4	S-2	9 to 10	<1
SB-4	S-3	10 to 13	<1
SB-4	S-3	13 to 15	<1
SB-5	S-1	0 to 3	8.9
SB-5	S-1	3 to 5	<1
SB-5	S-2	5 to 7	7.6
SB-5	S-2	7 to 9	1.6
SB-5	S-2	9 to 10	14.5
SB-5	S-3	10 to 15	<1
SB-6	--	0 to 1	<1
SB-6	--	1 to 2	<1
SB-7	--	0 to 2.5	2.3
SB-8	S-1	0 to 4	8.0
SB-8	S-1	4 to 5	<1
SB-8	S-2	5 to 8	<1
SB-8	S-2	8 to 10	<1
SB-8	S-3	10 to 12	3.7
SB-8	S-3	12 to 15	<1
SB-9	S-1	0 to 3	<1
SB-9	S-1	3 to 5	<1
SB-9	S-2	5 to 7	<1
SB-9	S-2	7 to 9	<1
SB-9	S-2	9 to 10	<1
SB-9	S-3	10 to 13	<1
SB-9	S-3	13 to 15	<1

Table 1
Soil PID Readings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Location	Sample Number	Sample Depth (ft)	PID Reading (ppmV)
SB-10	S-1	0 to 5	4.3
SB-10	S-2	5 to 7	26
SB-10	S-2	7 to 9	1.1
SB-10	S-2	9 to 10	16.4
SB-10	S-3	10 to 13	3.8
SB-10	S-3	13 to 15	14.5
SB-11	S-1	0 to 3	<1
SB-11	S-1	3 to 5	<1
SB-11	S-2	5 to 7	<1
SB-11	S-2	7 to 10	<1
SB-11	S-3	10 to 11	<1
SB-11	S-3	11 to 15	<1
TP-1	--	0 to 1	<1
TP-1	--	1 to 2	<1
TP-1	--	2 to 3	<1
TP-1	--	3 to 4	<1
TP-1	--	4 to 5	<1
TP-2	--	0 to 1	<1
TP-2	--	1 to 2	<1
TP-2	--	2 to 3	<1
TP-2	--	3 to 4	1.1
TP-2	--	4 to 5	<1
TP-2	--	5 to 6	<1
TP-2	--	6 to 7	<1
TP-3	--	0 to 1	<1
TP-3	--	1 to 2	<1
TP-3	--	2 to 3	<1
TP-3	--	3 to 4	<1
TP-3	--	4 to 5	<1
TP-3	--	5 to 6	<1
TP-3	--	6 to 7	<1
TP-4	--	0 to 2	<1
TP-4	--	2 to 4	<1
TP-4	--	4 to 6	<1
TP-4	--	6 to 8	<1
TP-4	--	8 to 9	<1
TP-4	--	9 to 10	<1
TP-5	--	0 to 2	<1
TP-5	--	2 to 4	<1
TP-5	--	4 to 6.5	<1

Table 1
Soil PID Readings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Location	Sample Number	Sample Depth (ft)	PID Reading (ppmV)
TP-6	--	0 to 3	<1
TP-6	--	3 to 6	<1
TP-6	--	6 to 8	<1
TP-6	--	8 to 10	65.6
TP-7 (1)	--	0 to 3	<1
TP-7 (1)	--	3 to 5	<1
TP-7 (1)	--	5 to 7	<1
TP-7 (2)	--	0 to 2	<1
TP-7 (2)	--	2 to 4	<1
TP-7 (2)	--	4 to 6	<1
TP-7 (2)	--	6 to 7	<1
TP-7 (2)	--	7 to 8	<1
TP-8	--	0 to 2	<1
TP-8	--	2 to 4	<1
TP-8	--	4 to 6	<1
TP-9	--	0 to 2	<1
TP-9	--	2 to 4	<1
TP-9	--	4 to 6	<1
TP-9	--	4 to 6	<1
TP-10	--	0 to 1	<1
TP-10	--	1 to 2	<1
TP-10	--	2 to 4	<1
TP-10	--	4 to 5	<1
TP-10	--	5 to 7	<1
TP-10	--	7 to 8	<1
TP-10	--	8 to 9	<1
TP-10	--	9 to 10	<1
TP-11	--	0 to 3	<1
TP-11	--	3 to 5	<1
TP-11	--	5 to 7	<1
TP-12	--	0 to 2	<1
TP-12	--	2 to 4	<1
TP-12	--	4 to 6	<1
TP-12	--	6 to 7	<1
TP-13	--	0 to 2	<1
TP-13	--	2 to 4	<1
TP-13	--	4 to 5	<1
TP-13	--	5 to 6.5	<1

Table 1
Soil PID Readings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Location	Sample Number	Sample Depth (ft)	PID Reading (ppmV)
TP-14	--	0 to 1	<1
TP-14	--	1 to 2	<1
TP-14	--	2 to 3	<1
TP-14	--	3 to 4	<1
TP-14	--	4 to 5	<1
TP-14	--	5 to 6	<1
TP-14	--	6 to 7	<1
TP-14	--	7 to 8	<1
TP-14	--	8 to 9	<1
TP-19	--	0 to 1	<1
TP-19	--	1 to 2	<1
TP-19	--	2 to 3	<1
TP-19	--	3 to 4	<1
TP-19	--	4 to 5	<1
TP-19	--	5 to 6	<1
TP-19	--	6 to 7.5	<1

Notes:

1. Soil boring PID headspace readings were recorded during drilling operations on June 8, 9 and 10, 2021.
2. Soil test pit PID headspace readings were recorded during excavation on June 10 and 11, 2021.
3. PIDs were calibrated and used in accordance with Nobis SOP FS-007 Vapor and Air Screening with PID and FID.

Table 2
Groundwater Elevation Data
Robin Rug
125 Thames Street
Bristol, Rhode Island

Well No.	Date	Reference Elevation (ft.)	Depth to Groundwater (ft.)	Groundwater Elevation (ft.)
NB-2	6/30/2021	98.90	5.40	93.50
NB-3	6/30/2021	109.78	6.44	103.34
GZA-1	6/30/2021	96.93	7.71	89.22
GZA-2	6/30/2021	96.35	7.09	89.26
GZA-3	6/30/2021	96.14	6.57	89.57

Notes:

1. Well elevations were surveyed on June 30, 2021. The reference elevation is based on a temporary benchmark located at the southeast corner of a conrete pad on Church Street Extension, with a given elevation of 100 ft.

2. Groundwater level measurements were obtained by Nobis Group on the dates indicated, using an electronic water level indicator.

Table 3
Soil Analytical Results - Soil Borings
Robin Rug
125 Thames Street
Bristol, Rhode Island

Parameter	Units	Soil Boring/Sample Depth								RIDEM Soil Standards [1][2]		
		SB-3 7-9 ft	SB-2 12-14 ft	SB-4 7-9 ft	SB-5/NB-1 10-12 ft	SB-6 2 ft	SB-7 2 ft	SB-8/NB-2 7-9 ft	SB-11 8-10 ft	RDEC	I/C DEC	Leachability Criteria (GB)
VOCS (EPA 8260C):												
Tetrachloroethene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	**0.40**	<0.5	<0.5	12	110	4.2
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	**0.10**	<0.1	<0.1	<0.1	NS	NS	NS
SVOCs (8270D):												
Carbazole	mg/kg	< 0.08	< 0.08	< 0.08	<0.08	**3.10**	**0.57**	< 0.07	< 0.08	NS	NS	NS
Dibenzofuran	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.20**	**0.31**	< 0.07	< 0.08	NS	NS	NS
Naphthalene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.60**	**0.35**	< 0.07	< 0.08	54	10,000	NS
2-Methylnaphthalene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**0.73**	**0.12**	< 0.07	< 0.08	123	10,000	NS
1-Methylnaphthalene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**0.55**	**0.13**	< 0.07	< 0.08	NS	NS	NS
Acenaphthylene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.8**	**0.57**	< 0.07	< 0.08	23	10,000	NS
Acenaphthene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.4**	**0.41**	< 0.07	< 0.08	43	10,000	NS
Fluorene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.6**	**0.40**	< 0.07	< 0.08	28	10,000	NS
Phenanthrene	mg/kg	< 0.08	< 0.08	< 0.08	**0.11**	**30**	**4.90**	< 0.07	< 0.08	40	10,000	NS
Anthracene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**8.1**	**1.40**	< 0.07	< 0.08	35	10,000	NS
Fluoranthene	mg/kg	< 0.08	< 0.08	< 0.08	**0.14**	**57**	**7.20**	< 0.07	< 0.08	28	10,000	NS
Pyrene	mg/kg	< 0.08	< 0.08	< 0.08	**0.12**	**37**	**6.80**	< 0.07	< 0.08	13	10,000	NS
Benzo[a]anthracene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**25**	**4.60**	< 0.07	< 0.08	0.9	7.8	NS
Chrysene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**22**	**4.20**	< 0.07	< 0.08	0.4	780	NS
Benzo[b]fluoranthene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**27**	**6.10**	< 0.07	< 0.08	0.9	7.8	NS
Benzo[k]fluoranthene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**7.8**	**2.30**	< 0.07	< 0.08	0.9	78	NS
Benzo[a]pyrene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**22**	**4.60**	< 0.07	< 0.08	0.4	0.8	NS
Indeno[1,2,3-cd]pyrene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**9.2**	**1.30**	< 0.07	< 0.08	0.9	7.8	NS
Dibenz[a,h]anthracene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**2.2**	**0.31**	< 0.07	< 0.08	0.4	0.8	NS
Benzo[g,h,i]perylene	mg/kg	< 0.08	< 0.08	< 0.08	< 0.08	**6.3**	**0.98**	< 0.07	< 0.08	0.8	10,000	NS
Total SVOCs	mg/kg	<0.08	<0.08	<0.08	**0.37**	**270.58**	**47.55**	<0.07	<0.08	n/a	n/a	n/a
Total PAHs	mg/kg	<0.08	<0.08	<0.08	**0.37**	**265.28**	**46.67**	<0.07	<0.08	n/a	n/a	n/a
TPH (8100 Modified):												
C9 - C40 Hydrocarbons	mg/kg	<30	<30	<30	**90**	**800**	**190**	<30	<30	500	2,500	2,500
Pesticides (EPA 8081B):	mg/kg	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	<0.005 to <0.05	NS	NS	NS
PCBs (8082A):	mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	10	10	10.0
Metals:												
Arsenic	mg/kg	**4.1**	**4.0**	**1.5**	**4.2**	**6.1**	**4.7**	**8.50**	**4.5**	7.00	7.00	NS
Barium	mg/kg	**19**	**11**	**2.3**	**8.5**	**92**	**62**	**16**	**18**	5500	10000	NS
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	39	1000	NS
Chromium, Total	mg/kg	**14**	**7.7**	**6.1**	**24**	**25**	**17**	**12**	**12**	1790	20000	NS
Chromium, Hexavalent	mg/kg	NA	NA	<0.43	<0.41	<0.44	<0.44	NA	NA	390	10000	NS
Lead	mg/kg	**6.7**	**5.7**	**2.3**	**19**	**310**	**260**	**6.60**	**7.7**	150	500	NS
Mercury	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	**0.60**	**0.16**	<0.1	< 0.1	23	610	NS
Selenium	mg/kg	< 0.5	< 0.5	< 0.5	**0.52**	< 0.5	< 0.5	**0.57**	< 0.5	390	10000	NS
Silver	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	200	10000	NS
TCLP, Lead:	mg/L	NA	NA	NA	NA	<0.5	<0.5	NA	NA	n/a	n/a	NS
Cyanide, Total:	mg/kg	<0.5	<0.5	<0.5	<0.5	**0.54**	<0.5	<0.5	<0.5	200	10,000	NS

Notes:
Samples were collected on June 8, 9 and 10, 2021.
Samples were analyzed by Eastern Analytical, Inc. of Concord, NH.
Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260C. Only analaytes detected at least once shown above.
Samples were analyzed for Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270D. Only analytes detected at least once shown above.
NA = Not analyzed for parameter shown.

<0.5	Concentration is less than laboratory detection limit. Analyte not detected.
57	Concentration in **BOLD/Yellow** exceeds Residential Direct Exposure Criteria (RDEC)
9.2	Concentration in **BOLD/Blue** exceeds both Residential Direct Exposure Criteria (RDEC) and Industrial/Commercial DEC (IC/DEC)

(1) Source: Rhode Island Department of Environmental Management (RIDEM) - Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.9.2 - Soil Objectives Table 2 : Direct Exposure Criteria for Residential (REDEC) and Industrial/Commercial (I/CDEC) and Table 2 - Leachability Criteria for GA Groundwater and GB Groundwater.

(2) Source RIDEM Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.92 Soil Objectives, Subsection B.4. (a) Soil Objectives for Total Petroleum Hydrocarbons (TPH).
NS = indicates no standard is established for parameter group and/or analyte.

Table 4
Soil Analytical Results - Test Pits
Robin Rug
125 Thames Street
Bristol, Rhode Island

Parameter	Units	Test Pit No./Sample Depth								RIDEM Standards [1] [2]		
		TP-1 0-2 ft	TP-2 3-4 ft	TP-3 2-3 ft	TP-4 9 ft	TP-5 6 ft	TP-6 9-10 ft	TP-7 0-3.5 ft	TP-14 1-2 ft	RDEC	I/C DEC	Leachability Criteria (GB)
VOCS (EPA 8260C):												
Styrene	mg/kg	<0.5	--	**5.1**	--	<0.5	<0.5	<0.8	<0.5	13	190	64
SVOCS/PAHs (EPA 8270D):												
Naphthalene	mg/kg	< 0.07	**0.086**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	54.00	10000	NS
Acenaphthylene	mg/kg	**0.10**	**0.19**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	23.00	10000	NS
Acenaphthene	mg/kg	< 0.07	**0.13**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	43.00	10000	NS
Fluorene	mg/kg	**0.07**	**0.19**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	28.00	10000	NS
Phenanthrene	mg/kg	**0.75**	**1.50**	**0.57**	< 0.08	< 0.07	< 0.08	**0.17**	**0.38**	40.00	10000	NS
Anthracene	mg/kg	**0.22**	**0.46**	**0.12**	< 0.08	< 0.07	< 0.08	< 0.09	**0.12**	35.00	10000	NS
Fluoranthene	mg/kg	**1.30**	**2.40**	**0.95**	< 0.08	< 0.07	< 0.08	**0.53**	**0.71**	28.00	10000	NS
Pyrene	mg/kg	**1.10**	**2.10**	**0.79**	< 0.08	< 0.07	< 0.08	**0.61**	**0.59**	13.00	10000	NS
Benzo[a]anthracene	mg/kg	**0.71**	**1.30**	**0.70**	< 0.08	< 0.07	< 0.08	**0.44**	**0.37**	0.90	7.80	NS
Chrysene	mg/kg	**0.69**	**1.30**	**0.75**	< 0.08	< 0.07	< 0.08	**0.40**	**0.38**	0.40	780	NS
Benzo[b]fluoranthene	mg/kg	**0.83**	**1.60**	**0.93**	< 0.08	< 0.07	< 0.08	**0.40**	**0.47**	0.90	7.80	NS
Benzo[k]fluoranthene	mg/kg	**0.33**	**0.54**	**0.35**	< 0.08	< 0.07	< 0.08	**0.14**	**0.16**	0.90	78.00	NS
Benzo[a]pyrene	mg/kg	**0.68**	**1.30**	**0.65**	< 0.08	< 0.07	< 0.08	**0.35**	**0.36**	0.40	0.80	NS
Indeno[1,2,3-cd]pyrene	mg/kg	**0.32**	**0.58**	**0.28**	< 0.08	< 0.07	< 0.08	**0.21**	**0.26**	0.90	7.80	NS
Dibenz[a,h]anthracene	mg/kg	**0.08**	**0.15**	< 0.09	< 0.08	< 0.07	< 0.08	< 0.09	< 0.08	0.40	0.80	NS
Benzo[g,h,i]perylene	mg/kg	**0.24**	**0.43**	**0.21**	< 0.08	< 0.07	< 0.08	**0.22**	**0.22**	0.80	10000	NS
Total PAHs	mg/kg	**7.42**	**14.17**	**6.30**	<0.08	<0.07	<0.08	**3.47**	**4.02**	n/a	n/a	n/a
TPH (8100 Modified):												
C9 - C40 Hydrocarbons	mg/kg	**69**	**93**	**230**	< 30	< 30	**580**	**69**	**59**	500	2500	2500
Pesticides (EPA 8081B):												
4,4'-DDT	mg/kg	< 0.005	NA	< 0.006	NA	NA	**0.040**	**0.014**	< 0.006	NS	NS	NS
4,4'-DDE	mg/kg	< 0.005	NA	< 0.006	NA	NA	< 0.006	**0.012**	< 0.006	NS	NS	NS
4,4'-DDD	mg/kg	< 0.005	NA	< 0.006	NA	NA	**0.063**	< 0.006	< 0.006	NS	NS	NS
PCBs (8082A):												
PCB-1260	mg/kg	**0.040**	NA	< 0.02	NA	NA	< 0.02	< 0.02	< 0.02	10	10	10.0
Metals:												
Arsenic	mg/kg	**8.4**	**6.9**	**18**	**4.9**	**2.9**	**2.3**	**6.6**	**4.2**	7	7	NS
Barium	mg/kg	**29**	**43**	**120**	**20**	**11**	**8.3**	**1,500**	**72**	5500	10000	NS
Cadmium	mg/kg	< 0.5	**0.59**	**1.2**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	39	1000	NS
Chromium, Total	mg/kg	**14**	**25**	**15**	**13**	**8.4**	**7.1**	**13**	**15**	1790	20000	NS
Chromium, Hexavalent	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	390	10000	NS
Lead	mg/kg	**55**	**130**	**63**	**7.7**	**6.0**	**8.4**	**4,600**	**99**	150	500	NS
Mercury	mg/kg	< 0.1	**0.28**	**0.13**	< 0.1	< 0.1	< 0.1	**0.28**	**0.22**	23	610	NS
Selenium	mg/kg	**0.65**	**0.66**	**2.4**	< 0.5	< 0.5	**0.82**	**1.3**	**0.54**	390	10000	NS
Silver	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	200	10000	NS
TCLP, Lead:	mg/L	NA	<0.5	NA	NA	NA	NA	**1.4**	<0.5	n/a	n/a	NS

Notes:
Samples were collected on June 10 and 11, 2021.
Samples were analyzed by Eastern Analytical, Inc. of Concord, NH.
Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260C. Only analytes detected at least once shown above.
Samples were analyzed for Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270D analyzed for PAHs only. Only analytes detected at least once shown above.
NA = Not analyzed for parameter shown.

<0.5	Concentration is less than laboratory detection limit. Analyte not detected.
57	Concentration in **BOLD/Yellow** exceeds Residential Direct Exposure Criteria (RDEC)
9.2	Concentration in **BOLD/Blue** exceeds both Residential Direct Exposure Criteria (RDEC) and Industrial/Commercial DEC (IC/DEC)

(1) Source: Rhode Island Department of Environmental Management (RIDEM) - Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.9.2 - Soil Objectives Table 2 : Direct Exposure Criteria for Residential (REDEC) and Industrial/Commercial (I/CDEC) and Table 2 - Leachability Criteria for GA Groundwater and GB Groundwater.
(2) Source RIDEM Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.92 Soil Objectives, Subsection B.4. (a) Soil Objectives for Total Petroleum Hydrocarbons (TPH).
NS = indicates no standard is established for parameter group and/or analyte.

Table 5
Groundwater Sampling Results
Robin Rug
125 Thames Street
Bristol, Rhode Island

Parameter	Units	Sample Location					RIDEM Site Remediation - Method 1 Groundwater Objective (1)
		NB-2	NB-3	GZA-1	GZA-2	GZA-3	GB Category
VOCs (EPA 8260):	mg/L	<0.5 to <30	<0.5 to <30	<0.5 to <30	<0.5 to <30	<0.5 to <30	varies
PAHs (EPA Method 8270):							
Phenanthrene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.13**	NS
Fluoranthene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.28**	NS
Pyrene	mg/L	<0.1	<0.1	**0.14**	<0.1	**0.24**	NS
Benzo[a]anthracene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.18**	NS
Chrysene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.12**	NS
Benzo[b]fluoranthene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.18**	NS
Benzo[a]pyrene	mg/L	<0.1	<0.1	<0.1	<0.1	**0.14**	NS
TPH (EPA 8100 Modified):							
C9 - C40 Hydrocarbons	mg/L	<0.4	<0.5	<0.5	<0.4	<0.4	NS

Notes:
Samples were collected on 6/29/21. NB-2 was sampled on 6/30/21.
Samples were analyzed by Eastern Analytical, Inc. of Concord, NH.
Samples were analyzed by EPA Method 8270 for PAHs only.

<0.5	Concentration is less than laboratory detection limit. Analyte not detected.
0.14	Concentrations in **BOLD** indicate analytes detected above laboratory detection limits.

(1) Source: Rhode Island Department of Environmental Management (RIDEM) - Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.9.3 - Groundwater Objectives Table 4: GB Groundwater Objectives.
NS = indicates no standard is established for parameter group and/or analyte.

Table 6
Subslab Soil Vapor Sampling Results
Robin Rug
125 Thames Street
Bristol, Rhode Island

Parameter	Units	Sample Location				Soil Vapor Screening Values [1]			
						CT DEEP 2021 [2]		MassDEP - 2013 [3]	
		SG-1	SG-2	SG-4	SG-5	Volatilization Criteria		Sub-Slab Soil Gas Screening Values	
		Bldg #3	Bldg #1	Bldg#7	Bldg#7A	Residential	I/C	Residential	I/C
VOCs (EPA Method TO-15):									
Acetone	ug/m^3	**12**	**12**	**13**	**28**	140,000	690,000	6,400	50,000
Benzene	ug/m^3	**0.95**	<0.32	<0.32	**0.61**	2,500	4,600	160	770
Chloroform	ug/m^3	**0.74**	**1.80**	<0.49	**0.81**	380	690	130	210
1,4-Dichlorobenzene	ug/m^3	**9.90**	**2.70**	**1.10**	<0.60	18,000	33,000	35	120
Ethanol	ug/m^3	**20**	**62**	**44**	<7.5	-	-	-	-
Ethylbenzene	ug/m^3	**0.89**	**0.59**	<0.43	**0.52**	40,000	400,000	520	62,000
Styrene	ug/m^3	<0.43	**0.43**	<0.43	**0.53**	39,000	400,000	98	1,400
Tetrachloroethylene (PCE)	ug/m^3	**9.60**	**18**	**260**	**11**	3,800	6,900	98	290
Toluene	ug/m^3	**4.80**	**1.60**	**0.93**	**2.30**	160,000	690,000	3,800	310,000
1,1,1-Trichloroethane (1,1,1-TCA)	ug/m^3	<0.55	<0.55	**2.30**	<0.55	380,000	690,000	210	320,000
Trichloroethylene (TCE)	ug/m^3	<0.54	**1.20**	**19**	<0.54	760	1,400	28	130
Trichlorofluoromethane (Freon 11)	ug/m^3	**13**	<2.2	**430**	<2.2	-	-	-	-
1,2,4-Trimethylbenzene	ug/m^3	**2.80**	<0.49	<0.49	<0.49	-	-	-	-
Xylenes, Total	ug/m^3	**2.38**	**1.56**	**1.72**	**1.87**	170,000	690,000	1,400	6,200
Total VOCs	ug/m3	**77.06**	**101.88**	**772.05**	**45.64**	-	-	-	-

Notes:
Vapor (air) samples were collected on 6/30/21.
Samples were analyzed by Con-Test, a Pace Analytical Laboratory.
Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method TO-15

<0.5	Concentration is less than laboratory detection limit. Analyte not detected.
0.14	Concentration in **BOLD** indicate analytes detected above laboratory detection limits.
260	Concentration in **BOLD/Yellow** exceeds MassDEP Residenital Use Subslab Soil Gas Screening Value.

(1) Source: Rhode Island Department of Environmental Management (RIDEM) has no screening values or standards for soil vapor. Screening values shown from CTDEEP and MassDEP are for reference only.
(2) Source: State of Connecticut Regulations - Volatilization Criteria for Soil Vapor, Appendix F to RSRs 22a-133k-3.
(3) Source: Massachusetts Department of Environmental Protection (MassDEP) Interim Final Vapor Intrusion Guidance WSC#-11-435, Dec 2011, Revised February 22, 2013, Appendix II (Sub-Slab Soil Gas Screening Values)
(-) = indicates no screening value or standard established for analyte.

Table 7
PCB Wipe Sampling Results
Robin Rug
125 Thames Street
Bristol, Rhode Island

Sample ID	Location	PCBs (ug/Wipe)		
		Aroclor-1254	Aroclor-1260	Total PCBs
WS-1	Elevator cables in Building #4 "Penthouse"	**0.25**	<0.20	**0.25**
WS-2	Elevator cables in Building #2 "Penthouse"	<0.20	<0.20	<0.20
WS-3	Elevator cables in Building #7 "Penthouse"	<0.20	<0.20	<0.20
WS-4	Elevator cables in Building #7A "Penthouse"	<0.20	**0.20**	**0.20**
CW-1	Concrete floor in NW corner of Building #4 basement	**0.32**	<0.20	**0.32**
CW-2	Concrete floor in Building #5 basement next to waste oil drum storage	<0.20	<0.20	<0.20
CW-3	Concrete floor in Building #3 basement next to leaking drum and former UST piping	<0.20	<0.20	<0.20
CW-4	Stained area on concrete floor in Building #2A	<0.20	<0.20	<0.20
CW-5	Concrete floor between base of back two transformers in basement of Building #1	<0.20	<0.20	<0.20
CW-6	Concrete slab in Building #6 near elevator	**0.27**	<0.20	**0.27**
CW-7	Concrete floor between base of first two transformers in basement of Building #1	**0.47**	<0.20	<0.20
CW-8	Metal floor in Building #7A in front of elevator doors	**0.40**	**0.35**	**0.75**
CW-9	Surface of transformer, near base, in basement of Building #1	<0.20	<0.20	<0.20
			RIDEM Reportable Notification	10 ug/100 cm2

Notes:
Samples collected on 6/30/2021.
Samples were analyzed by Con-Test, a Pace Analytical Laboratory.
Polychlorinated Biphenyls (PCBs) SW-846 8082A
Wipe Area = 10 cm x 10 cm square = 100 cm2.

Table 8

Summary of Soil DEC Exceedances

Robin Rug

125 Thames Street

Bristol, RI

Parcel No.	Current Use	Future Use	Location/Depth	Constituent	Soil Concentration (mg/kg) > RIDEM Standard	RIDEM Soil Standard [1]
10-42 Main Mill Parcel (Robin Rug)	Industrial/ Commercial	Residential	SB-6 2 feet	Fluoranthene	57	RDEC = 28 mg/kg
				Pyrene	37	RDEC = 13 mg/kg
				Benzo(a)anthracene	25	RDEC = 0.9 mg/kg; I/C DEC = 7.8 mg/kg
				Chrysene	22.0	RDEC = 0.4 mg/kg
				Benzo(b)fluoranthene	27.0	RDEC = 0.9 mg/kg; I/C DEC = 7.8 mg/kg
				Benzo(k)fluoranthene	7.8	RDEC = 0.9 mg/kg; I/C DEC = 0.8 mg/kg
				Benzo(a)pyrene	22.0	RDEC = 0.4 mg/kg; I/C DEC = 0.8 mg/kg
				Indeno[1,2,3-cd]pyrene	9.2	RDEC = 0.9 mg/kg; I/C DEC =7.8 mg/kg
				Dibenzo[a,h]anthracene	2.2	RDEC = 0.4 mg/kg; I/C DEC = 0.8 mg/kg
				Benzo[g,h,i]perylene	6.3	RDEC = 0.8 mg/kg
				TPH	800	RDEC = 500 mg/kg
				Lead	310	RDEC = 150 mg/kg
			SB-7 2 feet	Benzo(a)anthracene	4.6	RDEC = 28 mg/kg
				Chrysene	4.2	RDEC = 0.4 mg/kg
				Benzo(b)fluoranthene	6.1	RDEC = 0.9 mg/kg
				Benzo(k)fluoranthene	2.3	RDEC = 0.9 mg/kg
				Benzo(a)pyrene	4.6	RDEC = 0.4 mg/kg; I/C DEC = 0.8 mg/kg
				Indeno[1,2,3-cd]pyrene	1.3	RDEC = 0.9 mg/kg
				Benzo[g,h,i]perylene	0.98	RDEC = 0.8 mg/kg
				Lead	260	RDEC = 150 mg/kg
			TP-2 3 - 4 feet	Benzo(a)anthracene	1.30	RDEC = 28 mg/kg
				Chrysene	1.30	RDEC = 0.4 mg/kg
				Benzo(b)fluoranthene	1.60	RDEC = 0.9 mg/kg
				Benzo(a)pyrene	1.30	RDEC = 0.4 mg/kg; I/C DEC = 0.8 mg/kg
			TP-3 2 - 3 feet	Chrysene	0.75	RDEC = 0.4 mg/kg
				Benzo(b)fluoranthene	0.93	RDEC = 0.9 mg/kg
				Benzo(a)pyrene	0.65	RDEC = 0.4 mg/kg
				Arsenic	18	RDEC = 7.0 mg/kg
10-60 Main Mill Parcel (Robin Rug)	Industrial/ Commercial	Residential	TP-1 0 - 2 feet	Chrysene	0.69	RDEC = 0.4 mg/kg
				Benzo(a)pyrene	0.68	RDEC = 0.4 mg/kg
				Arsenic	8.4	RDEC = 7.0 mg/kg; I/C DEC = 7.0 mg/kg
10-43 Parking Lot Parcel	Residential	Industrial/ Commercial (Parking Lot for Condos)	SB-8 7 - 9 feet	Arsenic	8.5	RDEC = 7.0 mg/kg; I/C DEC = 7.0 mg/kg
			TP-6 9 - 10 feet	TPH	580	RDEC = 500 mg/kg
10-76 Parking Lot Parcel	Residential	Industrial/ Commercial (Parking Lot for Condos)	TP-7 0 - 3.5 feet	Lead	4,600	RDEC = 150 mg/kg; I/C DEC = 500 mg/kg

Note:

(1) Source: Rhode Island Department of Environmental Management (RIDEM) - Site Remediation Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, effective April 22, 2020. Subchapter 30, Section 1.9.2 - Soil Objectives Table 1 : Direct Exposure Criteria for Residential (REDEC) and Industrial/Commercial

FIGURES

USGS Topographic Map
Bristol, RI-Mass
Revised 1955

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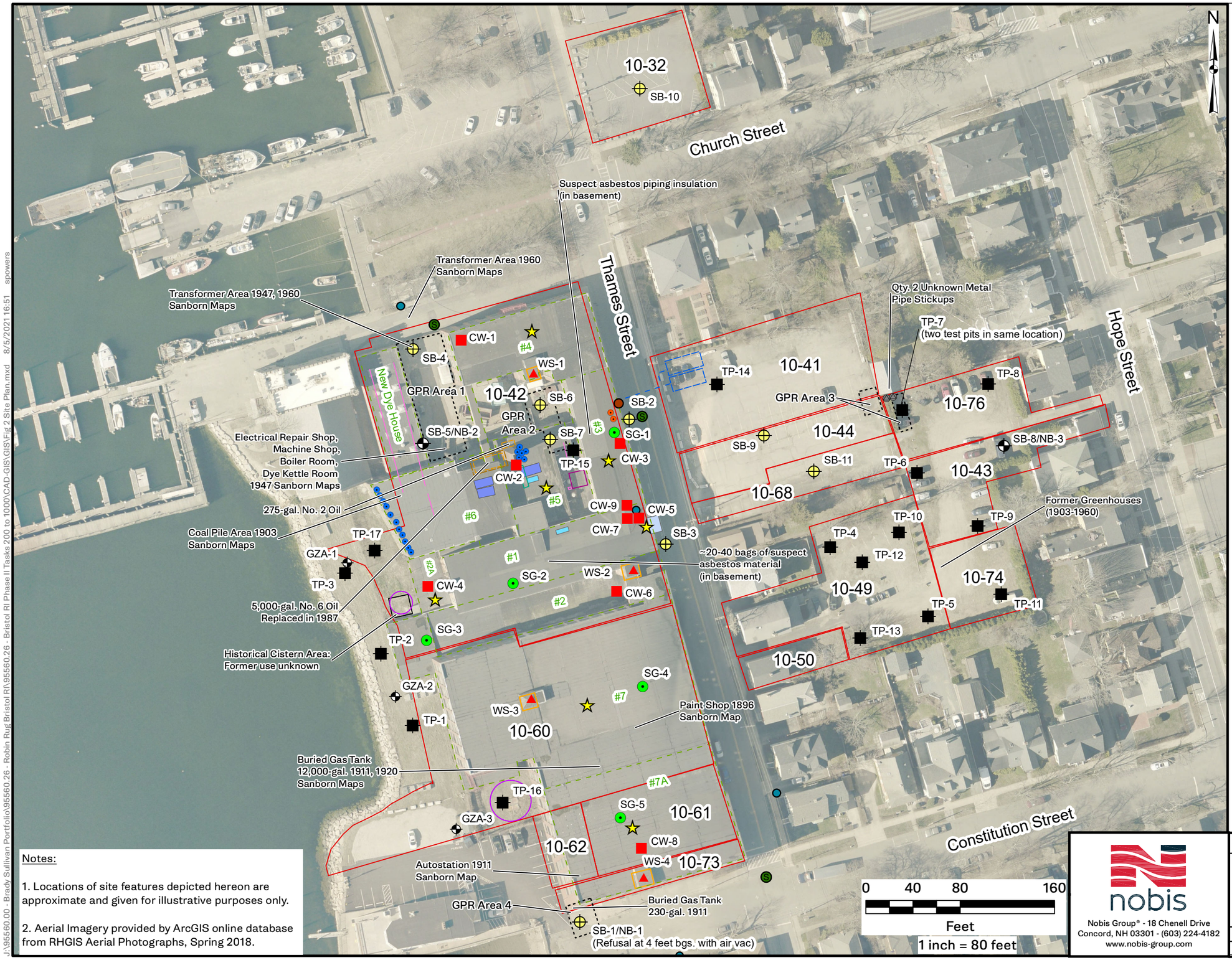
FIGURE 1

SITE LOCUS
ROBIN RUG MANUFACTURING FACILITY
125 THAMES STREET
BRISTOL, RI

PREPARED BY: SKP	CHECKED BY: BE
PROJECT NO. 95560.26	DATE: MARCH 2021

J:\95560.00 - Brady Sullivan Portfolio\Environmental\95560.26 - Bristol RI Phase I ESA\05 Deliverable-Report\Figures\Figure 1_Site Locus.mxd 2/15/2021 13:23 spowers



- Test Pit (TP-15 and TP-16 not excavated)
- PCB Wipe (elevator cable) WS-series (total = 4)
- PCB Wipe (concrete floor) CW-series (total =9)
- Soil Gas Vapor Point (SG-3 not installed)
- Soil Boring (total=11)
- Groundwater Monitoring Well
- Stained Floor
- Transformer(Qty. 3 out of use)
- Former UST Piping Into
- Sewer Manhole
- Pipe Stickups
- Waste Oil
- Leaking Oil
- Floor
- GPR Exploration Location
- Cable-Weighted
- Former Stock Dye Kettle
- Former Water
- Hydraulic
- Trench Around
- Water
- Active
- Former UST (20,000 gal. #6 oil)
- Former
- Parcel Boundary (Total = 14)

10-42 = Tax Map and Lot Number

Notes:

1. Locations of site features depicted hereon are approximate and given for illustrative purposes only.

2. Aerial Imagery provided by ArcGIS online database from RHGIS Aerial Photographs, Spring 2018.

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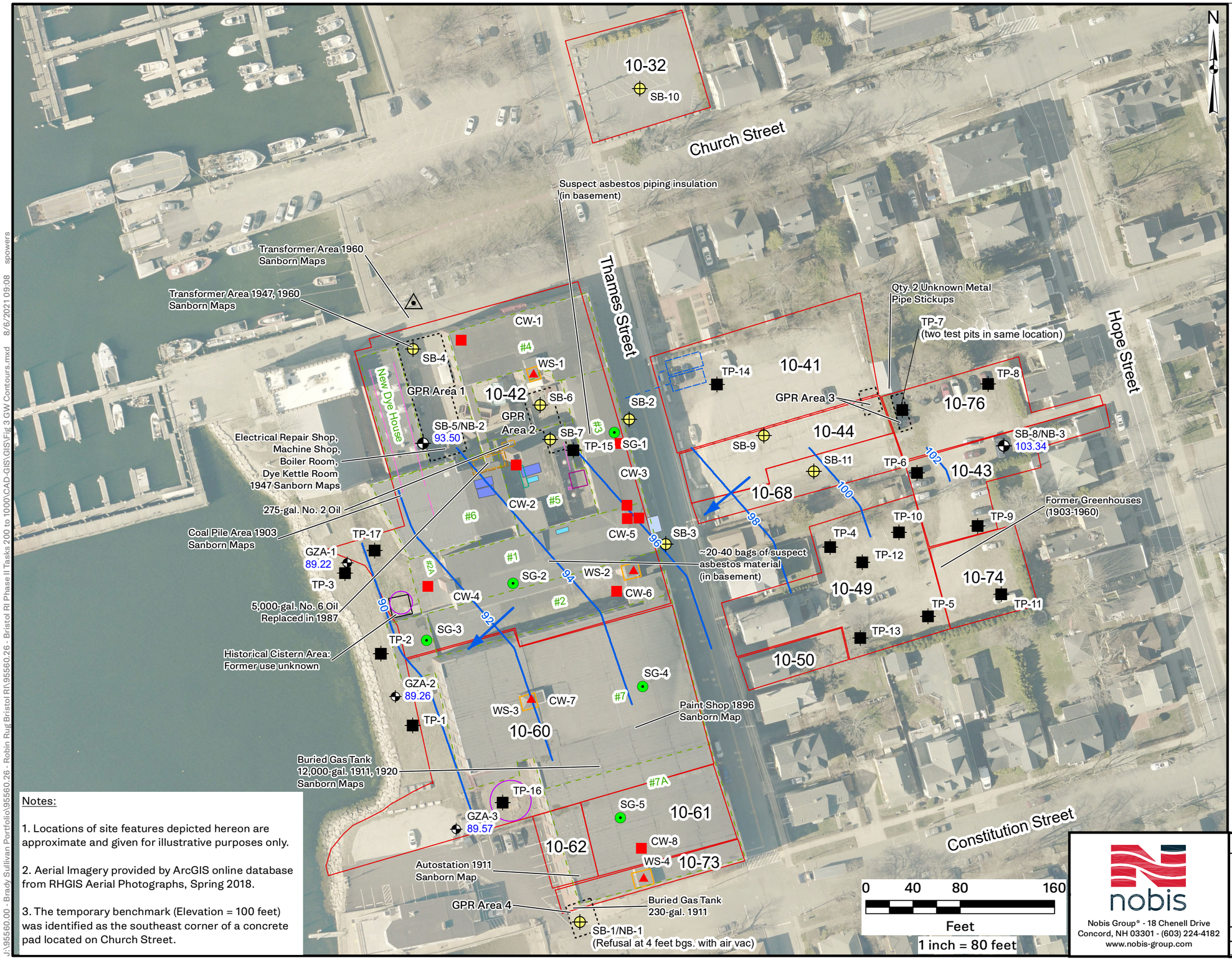
FIGURE 2

SITE PLAN
ROBIN RUG FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: AUGUST 2021



Legend

- Test Pit (TP-15 and TP-16 not excavated)
- PCB Wipe (elevator cable) WS-series (total = 4)
- PCB Wipe (concrete floor) CW-series (total =9)
- Soil Gas Vapor Point (SG-3 not installed)
- Soil Boring
- Groundwater Monitoring Well with Groundwater Elevation 93.50 (on 6/30/21)
- Temporary Benchmark
- Floor Drains
- Groundwater Elevation Contour
- Groundwater Flow Direction
- GPR Exploration Location
- Cable-Weighted Elevator
- Former Stock Dye Kettle
- Former Water Tower
- Hydraulic Lift
- Trench Around Boiler
- Boilers
- Water Tanks
- Active AST
- Former UST (20,000 gal. #6 oil)
- Former AST
- Parcel Boundary (Total =14)

10-42 = Tax Map Parcel ID

Notes:

1. Locations of site features depicted hereon are approximate and given for illustrative purposes only.

2. Aerial Imagery provided by ArcGIS online database from RHGIS Aerial Photographs, Spring 2018.

3. The temporary benchmark (Elevation = 100 feet) was identified as the southeast corner of a concrete pad located on Church Street.

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FIGURE 3

GROUNDWATER POTENTIOMETRIC MAP
ROBIN RUG FACILITY
125 THAMES STREET
BRISTOL, RHODE ISLAND

PREPARED BY: SKP	CHECKED BY: BEE
PROJECT NO. 95560.26	DATE: AUGUST 2021

ATTACHMENTS

Eastern Analytical, Inc.

professional laboratory and drilling services

Bettina Eames
Nobis Group
18 Chenell Drive
Concord , NH 03301

Laboratory Report for:

Eastern Analytical, Inc. ID: 227592
Client Identification: Robin Rug | 095560.260
Date Received: 6/14/2021

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:

- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 6.22.21 Date | 33 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Temperature upon receipt (°C): 3.3 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
227592.01	SB-10 (10-12')	6/14/21	6/8/21	10:15	soil		Sample canceled at customer's request
227592.02	SB-8/NB-2 (7-9')	6/14/21	6/8/21	14:20	soil	96.4	Adheres to Sample Acceptance Policy
227592.03	SB-11 (8-10')	6/14/21	6/9/21	08:30	soil	90.1	Adheres to Sample Acceptance Policy
227592.04	SB-9 (10-12')	6/14/21	6/9/21	09:30	soil		Sample canceled at customer's request
227592.05	SB-4 (7-9')	6/14/21	6/9/21	12:25	soil	85.1	Adheres to Sample Acceptance Policy
227592.06	SB-5/NB-1 (10-12')	6/14/21	6/9/21	13:25	soil	89.2	Adheres to Sample Acceptance Policy
227592.07	SB-3 (7-9')	6/14/21	6/10/21	15:35	soil	88.3	Adheres to Sample Acceptance Policy
227592.08	SB-2 (12-14')	6/14/21	6/10/21	16:35	soil	87.5	Adheres to Sample Acceptance Policy
227592.09	SB-6 (2.0')	6/14/21	6/11/21	13:30	soil	86.2	Adheres to Sample Acceptance Policy
227592.1	SB-7 (2.0')	6/14/21	6/11/21	11:50	soil	84.1	Adheres to Sample Acceptance Policy
227592.11	Trip Blank	6/14/21	6/8/21	07:00	soil	100.0	Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	< 0.1	< 0.1	< 0.1	< 0.1
Chloroethane	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	< 2	< 2	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	< 2	< 2	< 2	< 2
Methylene chloride	< 0.1	< 0.1	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.1	< 0.1	< 0.1
Isopropyl ether(DIPE)	< 0.1	< 0.1	< 0.1	< 0.1
tert-amyl methyl ether(TAME)	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
2,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone(MEK)	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	< 0.05	< 0.05	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dioxane	< 1	< 1	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
2-Hexanone	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.02
Chlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.05

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
mp-Xylene	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	< 0.05	< 0.05	< 0.05	< 0.05
IsoPropylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
n-Propylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
sec-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
p-Isopropyltoluene	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
n-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	**88 %R**	**87 %R**	**87 %R**	**89 %R**
1,2-Dichlorobenzene-d4 (surr)	**103 %R**	**103 %R**	**103 %R**	**102 %R**
Toluene-d8 (surr)	**96 %R**	**95 %R**	**96 %R**	**97 %R**
1,2-Dichloroethane-d4 (surr)	**102 %R**	**104 %R**	**104 %R**	**104 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	< 0.1	< 0.1	< 0.1	< 0.1
Chloroethane	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	< 2	< 2	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	< 2	< 2	< 2	< 2
Methylene chloride	< 0.1	< 0.1	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.1	< 0.1	< 0.1
Isopropyl ether(DIPE)	< 0.1	< 0.1	< 0.1	< 0.1
tert-amyl methyl ether(TAME)	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
2,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone(MEK)	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	< 0.05	< 0.05	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dioxane	< 1	< 1	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.05
2-Hexanone	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.05	< 0.05	**0.40**
1,3-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.02
Chlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.05

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
mp-Xylene	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	< 0.05	< 0.05	< 0.05	< 0.05
IsoPropylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.05	< 0.05	< 0.05	< 0.05
n-Propylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
sec-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
p-Isopropyltoluene	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
n-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	< 0.1	< 0.1	**0.10**	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	**86 %R**	**86 %R**	**88 %R**	**91 %R**
1,2-Dichlorobenzene-d4 (surr)	**103 %R**	**103 %R**	**102 %R**	**101 %R**
Toluene-d8 (surr)	**95 %R**	**95 %R**	**95 %R**	**93 %R**
1,2-Dichloroethane-d4 (surr)	**105 %R**	**105 %R**	**105 %R**	**105 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank
Lab Sample ID:	227592.11
Matrix:	soil
Date Sampled:	6/8/21
Date Received:	6/14/21
Units:	mg/kg
Date of Analysis:	6/15/21
Analyst:	JAK
Method:	8260C
Dilution Factor:	1

Dichlorodifluoromethane	< 0.1
Chloromethane	< 0.1
Vinyl chloride	< 0.02
Bromomethane	< 0.1
Chloroethane	< 0.1
Trichlorofluoromethane	< 0.1
Diethyl Ether	< 0.05
Acetone	< 2
1,1-Dichloroethene	< 0.05
tert-Butyl Alcohol (TBA)	< 2
Methylene chloride	< 0.1
Carbon disulfide	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1
Isopropyl ether(DIPE)	< 0.1
tert-amyl methyl ether(TAME)	< 0.1
trans-1,2-Dichloroethene	< 0.05
1,1-Dichloroethane	< 0.05
2,2-Dichloropropane	< 0.05
cis-1,2-Dichloroethene	< 0.05
2-Butanone(MEK)	< 0.5
Bromochloromethane	< 0.05
Tetrahydrofuran(THF)	< 0.5
Chloroform	< 0.05
1,1,1-Trichloroethane	< 0.05
Carbon tetrachloride	< 0.05
1,1-Dichloropropene	< 0.05
Benzene	< 0.05
1,2-Dichloroethane	< 0.05
Trichloroethene	< 0.05
1,2-Dichloropropane	< 0.05
Dibromomethane	< 0.05
Bromodichloromethane	< 0.05
1,4-Dioxane	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5
cis-1,3-Dichloropropene	< 0.05
Toluene	< 0.05
trans-1,3-Dichloropropene	< 0.05
1,1,2-Trichloroethane	< 0.05
2-Hexanone	< 0.1
Tetrachloroethene	< 0.05
1,3-Dichloropropane	< 0.05
Dibromochloromethane	< 0.05
1,2-Dibromoethane(EDB)	< 0.02
Chlorobenzene	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank
Lab Sample ID:	227592.11
Matrix:	soil
Date Sampled:	6/8/21
Date Received:	6/14/21
Units:	mg/kg
Date of Analysis:	6/15/21
Analyst:	JAK
Method:	8260C
Dilution Factor:	1
Ethylbenzene	< 0.05
mp-Xylene	< 0.05
o-Xylene	< 0.05
Styrene	< 0.05
Bromoform	< 0.05
IsoPropylbenzene	< 0.05
Bromobenzene	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05
1,2,3-Trichloropropane	< 0.05
n-Propylbenzene	< 0.05
2-Chlorotoluene	< 0.05
4-Chlorotoluene	< 0.05
1,3,5-Trimethylbenzene	< 0.05
tert-Butylbenzene	< 0.05
1,2,4-Trimethylbenzene	< 0.05
sec-Butylbenzene	< 0.05
1,3-Dichlorobenzene	< 0.05
p-Isopropyltoluene	< 0.05
1,4-Dichlorobenzene	< 0.05
1,2-Dichlorobenzene	< 0.05
n-Butylbenzene	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05
1,3,5-Trichlorobenzene	< 0.05
1,2,4-Trichlorobenzene	< 0.05
Hexachlorobutadiene	< 0.05
Naphthalene	< 0.1
1,2,3-Trichlorobenzene	< 0.05
4-Bromofluorobenzene (surr)	**89 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**
Toluene-d8 (surr)	**95 %R**
1,2-Dichloroethane-d4 (surr)	**103 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/16/21	6/14/21	6/14/21	6/16/21
Date of Analysis:	6/17/21	6/15/21	6/15/21	6/17/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
alpha-Terpineol	< 0.34	< 0.4	< 0.4	< 0.4
Phenol	< 0.07	< 0.08	< 0.08	< 0.08
2-Chlorophenol	< 0.07	< 0.08	< 0.08	< 0.08
2,4-Dichlorophenol	< 0.07	< 0.08	< 0.08	< 0.08
2,4,5-Trichlorophenol	< 0.07	< 0.08	< 0.08	< 0.08
2,4,6-Trichlorophenol	< 0.07	< 0.08	< 0.08	< 0.08
Pentachlorophenol	< 0.34	< 0.4	< 0.4	< 0.4
2-Nitrophenol	< 0.34	< 0.4	< 0.4	< 0.4
4-Nitrophenol	< 0.34	< 0.4	< 0.4	< 0.4
2,4-Dinitrophenol	< 0.7	< 0.7	< 0.8	< 0.7
2-Methylphenol	< 0.07	< 0.08	< 0.08	< 0.08
3/4-Methylphenol	< 0.07	< 0.08	< 0.08	< 0.08
2,4-Dimethylphenol	< 0.34	< 0.4	< 0.4	< 0.4
4-Chloro-3-methylphenol	< 0.07	< 0.08	< 0.08	< 0.08
4,6-Dinitro-2-methylphenol	< 0.34	< 0.4	< 0.4	< 0.4
Benzoic Acid	< 3.4	< 4	< 4	< 4
N-Nitrosodimethylamine	< 0.07	< 0.08	< 0.08	< 0.08
n-Nitroso-di-n-propylamine	< 0.04	< 0.04	< 0.05	< 0.04
n-Nitrosodiphenylamine	< 0.07	< 0.08	< 0.08	< 0.08
bis(2-Chloroethyl)ether	< 0.07	< 0.08	< 0.08	< 0.08
bis(2-chloroisopropyl)ether	< 0.07	< 0.08	< 0.08	< 0.08
bis(2-Chloroethoxy)methane	< 0.07	< 0.08	< 0.08	< 0.08
1,3-Dichlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
Acetophenone	< 0.7	< 0.7	< 0.8	< 0.7
1,4-Dichlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
1,2-Dichlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
1,2,4-Trichlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
2-Chloronaphthalene	< 0.07	< 0.08	< 0.08	< 0.08
4-Chlorophenyl-phenylether	< 0.07	< 0.08	< 0.08	< 0.08
4-Bromophenyl-phenylether	< 0.07	< 0.08	< 0.08	< 0.08
Hexachloroethane	< 0.07	< 0.08	< 0.08	< 0.08
Hexachlorobutadiene	< 0.07	< 0.08	< 0.08	< 0.08
Hexachlorocyclopentadiene	< 0.34	< 0.4	< 0.4	< 0.4
Hexachlorobenzene	< 0.07	< 0.08	< 0.08	< 0.08
4-Chloroaniline	< 0.07	< 0.08	< 0.08	< 0.08
2,3-Dichloroaniline	< 0.07	< 0.08	< 0.08	< 0.08
2-Nitroaniline	< 0.34	< 0.4	< 0.4	< 0.4
3-Nitroaniline	< 0.34	< 0.4	< 0.4	< 0.4
4-Nitroaniline	< 0.34	< 0.4	< 0.4	< 0.4
Aniline	< 0.07	< 0.08	< 0.08	< 0.08
Benzyl alcohol	< 0.7	< 0.7	< 0.8	< 0.7
Nitrobenzene	< 0.07	< 0.08	< 0.08	< 0.08
Isophorone	< 0.07	< 0.08	< 0.08	< 0.08
2,4-Dinitrotoluene	< 0.14	< 0.2	< 0.2	< 0.2
2,6-Dinitrotoluene	< 0.14	< 0.2	< 0.2	< 0.2
Benzidine (estimated)	< 0.34	< 0.4	< 0.4	< 0.4
3,3'-Dichlorobenzidine	< 0.07	< 0.08	< 0.08	< 0.08

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/16/21	6/14/21	6/14/21	6/16/21
Date of Analysis:	6/17/21	6/15/21	6/15/21	6/17/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Pyridine	< 0.34	< 0.4	< 0.4	< 0.4
Azobenzene	< 0.07	< 0.08	< 0.08	< 0.08
Carbazole	< 0.07	< 0.08	< 0.08	< 0.08
Dimethylphthalate	< 0.07	< 0.08	< 0.08	< 0.08
Diethylphthalate	< 0.34	< 0.4	< 0.4	< 0.4
Di-n-butylphthalate	< 0.34	< 0.4	< 0.4	< 0.4
Butylbenzylphthalate	< 0.34	< 0.4	< 0.4	< 0.4
bis(2-Ethylhexyl)phthalate	< 0.34	< 0.4	< 0.4	< 0.4
Di-n-octylphthalate	< 0.34	< 0.4	< 0.4	< 0.4
Dibenzofuran	< 0.07	< 0.08	< 0.08	< 0.08
Naphthalene	< 0.07	< 0.08	< 0.08	< 0.08
2-Methylnaphthalene	< 0.07	< 0.08	< 0.08	< 0.08
1-Methylnaphthalene	< 0.07	< 0.08	< 0.08	< 0.08
Acenaphthylene	< 0.07	< 0.08	< 0.08	< 0.08
Acenaphthene	< 0.07	< 0.08	< 0.08	< 0.08
Fluorene	< 0.07	< 0.08	< 0.08	< 0.08
Phenanthrene	< 0.07	< 0.08	< 0.08	**0.11**
Anthracene	< 0.07	< 0.08	< 0.08	< 0.08
Fluoranthene	< 0.07	< 0.08	< 0.08	**0.14**
Pyrene	< 0.07	< 0.08	< 0.08	**0.12**
Benzo[a]anthracene	< 0.07	< 0.08	< 0.08	< 0.08
Chrysene	< 0.07	< 0.08	< 0.08	< 0.08
Benzo[b]fluoranthene	< 0.07	< 0.08	< 0.08	< 0.08
Benzo[k]fluoranthene	< 0.07	< 0.08	< 0.08	< 0.08
Benzo[a]pyrene	< 0.07	< 0.08	< 0.08	< 0.08
Indeno[1,2,3-cd]pyrene	< 0.07	< 0.08	< 0.08	< 0.08
Dibenz[a,h]anthracene	< 0.07	< 0.08	< 0.08	< 0.08
Benzo[g,h,i]perylene	< 0.07	< 0.08	< 0.08	< 0.08
n-Decane	< 0.34	< 0.4	< 0.4	< 0.4
n-Octadecane	< 0.34	< 0.4	< 0.4	< 0.4
2-Fluorophenol (surr)	**68 %R**	**58 %R**	**68 %R**	**62 %R**
Phenol-d6 (surr)	**71 %R**	**61 %R**	**72 %R**	**67 %R**
2,4,6-Tribromophenol (surr)	**84 %R**	**74 %R**	**88 %R**	**83 %R**
Nitrobenzene-D5 (surr)	**77 %R**	**67 %R**	**77 %R**	**70 %R**
2-Fluorobiphenyl (surr)	**80 %R**	**70 %R**	**83 %R**	**75 %R**
p-Terphenyl-D14 (surr)	**82 %R**	**76 %R**	**83 %R**	**76 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/16/21	6/16/21	6/16/21	6/14/21
Date of Analysis:	6/17/21	6/17/21	6/17/21	6/15/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	6	1
alpha-Terpineol	< 0.4	< 0.4	< 2	< 0.4
Phenol	< 0.08	< 0.08	< 0.4	< 0.08
2-Chlorophenol	< 0.08	< 0.08	< 0.4	< 0.08
2,4-Dichlorophenol	< 0.08	< 0.08	< 0.4	< 0.08
2,4,5-Trichlorophenol	< 0.08	< 0.08	< 0.4	< 0.08
2,4,6-Trichlorophenol	< 0.08	< 0.08	< 0.4	< 0.08
Pentachlorophenol	< 0.4	< 0.4	< 2	< 0.4
2-Nitrophenol	< 0.4	< 0.4	< 2	< 0.4
4-Nitrophenol	< 0.4	< 0.4	< 2	< 0.4
2,4-Dinitrophenol	< 0.8	< 0.8	< 4	< 0.8
2-Methylphenol	< 0.08	< 0.08	< 0.4	< 0.08
3/4-Methylphenol	< 0.08	< 0.08	< 0.4	< 0.08
2,4-Dimethylphenol	< 0.4	< 0.4	< 2	< 0.4
4-Chloro-3-methylphenol	< 0.08	< 0.08	< 0.4	< 0.08
4,6-Dinitro-2-methylphenol	< 0.4	< 0.4	< 2	< 0.4
Benzoic Acid	< 4	< 4	< 20	< 4
N-Nitrosodimethylamine	< 0.08	< 0.08	< 0.4	< 0.08
n-Nitroso-di-n-propylamine	< 0.04	< 0.05	< 0.2	< 0.05
n-Nitrosodiphenylamine	< 0.08	< 0.08	< 0.4	< 0.08
bis(2-Chloroethyl)ether	< 0.08	< 0.08	< 0.4	< 0.08
bis(2-chloroisopropyl)ether	< 0.08	< 0.08	< 0.4	< 0.08
bis(2-Chloroethoxy)methane	< 0.08	< 0.08	< 0.4	< 0.08
1,3-Dichlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
Acetophenone	< 0.8	< 0.8	< 4	< 0.8
1,4-Dichlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
1,2-Dichlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
1,2,4-Trichlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
2-Chloronaphthalene	< 0.08	< 0.08	< 0.4	< 0.08
4-Chlorophenyl-phenylether	< 0.08	< 0.08	< 0.4	< 0.08
4-Bromophenyl-phenylether	< 0.08	< 0.08	< 0.4	< 0.08
Hexachloroethane	< 0.08	< 0.08	< 0.4	< 0.08
Hexachlorobutadiene	< 0.08	< 0.08	< 0.4	< 0.08
Hexachlorocyclopentadiene	< 0.4	< 0.4	< 2	< 0.4
Hexachlorobenzene	< 0.08	< 0.08	< 0.4	< 0.08
4-Chloroaniline	< 0.08	< 0.08	< 0.4	< 0.08
2,3-Dichloroaniline	< 0.08	< 0.08	< 0.4	< 0.08
2-Nitroaniline	< 0.4	< 0.4	< 2	< 0.4
3-Nitroaniline	< 0.4	< 0.4	< 2	< 0.4
4-Nitroaniline	< 0.4	< 0.4	< 2	< 0.4
Aniline	< 0.08	< 0.08	< 0.4	< 0.08
Benzyl alcohol	< 0.8	< 0.8	< 4	< 0.8
Nitrobenzene	< 0.08	< 0.08	< 0.4	< 0.08
Isophorone	< 0.08	< 0.08	< 0.4	< 0.08
2,4-Dinitrotoluene	< 0.2	< 0.2	< 0.8	< 0.2
2,6-Dinitrotoluene	< 0.2	< 0.2	< 0.8	< 0.2
Benzidine (estimated)	< 0.4	< 0.4	< 2	< 0.4
3,3'-Dichlorobenzidine	< 0.08	< 0.08	< 0.4	< 0.08

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/16/21	6/16/21	6/16/21	6/14/21
Date of Analysis:	6/17/21	6/17/21	6/17/21	6/15/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	6	1
Pyridine	< 0.4	< 0.4	< 2	< 0.4
Azobenzene	< 0.08	< 0.08	< 0.4	< 0.08
Carbazole	< 0.08	< 0.08	**3.1**	**0.57**
Dimethylphthalate	< 0.08	< 0.08	< 0.4	< 0.08
Diethylphthalate	< 0.4	< 0.4	< 2	< 0.4
Di-n-butylphthalate	< 0.4	< 0.4	< 2	< 0.4
Butylbenzylphthalate	< 0.4	< 0.4	< 2	< 0.4
bis(2-Ethylhexyl)phthalate	< 0.4	< 0.4	< 2	< 0.4
Di-n-octylphthalate	< 0.4	< 0.4	< 2	< 0.4
Dibenzofuran	< 0.08	< 0.08	**2.2**	**0.31**
Naphthalene	< 0.08	< 0.08	**2.6**	**0.35**
2-Methylnaphthalene	< 0.08	< 0.08	**0.73**	**0.12**
1-Methylnaphthalene	< 0.08	< 0.08	**0.55**	**0.13**
Acenaphthylene	< 0.08	< 0.08	**2.8**	**0.57**
Acenaphthene	< 0.08	< 0.08	**2.4**	**0.41**
Fluorene	< 0.08	< 0.08	**2.6**	**0.40**
Phenanthrene	< 0.08	< 0.08	**30**	**4.9**
Anthracene	< 0.08	< 0.08	**8.1**	**1.4**
Fluoranthene	< 0.08	< 0.08	**57**	**7.2**
Pyrene	< 0.08	< 0.08	**37**	**6.8**
Benzo[a]anthracene	< 0.08	< 0.08	**25**	**4.6**
Chrysene	< 0.08	< 0.08	**22**	**4.2**
Benzo[b]fluoranthene	< 0.08	< 0.08	**27**	**6.1**
Benzo[k]fluoranthene	< 0.08	< 0.08	**7.8**	**2.3**
Benzo[a]pyrene	< 0.08	< 0.08	**22**	**4.6**
Indeno[1,2,3-cd]pyrene	< 0.08	< 0.08	**9.2**	**1.3**
Dibenz[a,h]anthracene	< 0.08	< 0.08	**2.2**	**0.31**
Benzo[g,h,i]perylene	< 0.08	< 0.08	**6.3**	**0.98**
n-Decane	< 0.4	< 0.4	< 2	< 0.4
n-Octadecane	< 0.4	< 0.4	< 2	< 0.4
2-Fluorophenol (surr)	**57 %R**	**61 %R**	**59 %R**	**66 %R**
Phenol-d6 (surr)	**62 %R**	**65 %R**	**64 %R**	**70 %R**
2,4,6-Tribromophenol (surr)	**80 %R**	**79 %R**	**83 %R**	**88 %R**
Nitrobenzene-D5 (surr)	**62 %R**	**69 %R**	**68 %R**	**74 %R**
2-Fluorobiphenyl (surr)	**70 %R**	**74 %R**	**76 %R**	**81 %R**
p-Terphenyl-D14 (surr)	**79 %R**	**78 %R**	**80 %R**	**83 %R**

Deviations from the Report:
SB-6 (2.0'): Parameter: Fluoranthene Date of Analysis: 6/18/2021 Dilution Factor: 30

SB-6 (2.0'): Detection limits elevated due to sample matrix causing internal standard failure in initial extraction.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	< 30	< 30	< 30	**90**
p-Terphenyl-D14 (surr)	**78 %R**	**77 %R**	**77 %R**	**85 %R**

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	11	2
TPH (C9-C40)	< 30	< 30	**800**	**190**
p-Terphenyl-D14 (surr)	**55 %R**	**69 %R**	**DOR**	**118 %R**

DOR: Diluted out of range.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	96.4	90.1	85.1	89.2
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/14/21	6/14/21	6/14/21
Date of Analysis:	6/18/21	6/18/21	6/18/21	6/18/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8081B	8081B	8081B	8081B
Dilution Factor:	1	1	1	1
Aldrin	< 0.005	< 0.005	< 0.006	< 0.006
alpha-BHC	< 0.005	< 0.005	< 0.006	< 0.006
beta-BHC	< 0.005	< 0.005	< 0.006	< 0.006
Lindane(gamma-BHC)	< 0.005	< 0.005	< 0.006	< 0.006
delta-BHC	< 0.005	< 0.005	< 0.006	< 0.006
Chlordane	< 0.02	< 0.02	< 0.02	< 0.02
4,4'-DDT	< 0.005	< 0.005	< 0.006	< 0.006
4,4'-DDE	< 0.005	< 0.005	< 0.006	< 0.006
4,4'-DDD	< 0.005	< 0.005	< 0.006	< 0.006
Dieldrin	< 0.005	< 0.005	< 0.006	< 0.006
Endosulfan I	< 0.005	< 0.005	< 0.006	< 0.006
Endosulfan II	< 0.005	< 0.005	< 0.006	< 0.006
Endosulfan Sulfate	< 0.005	< 0.005	< 0.006	< 0.006
Endrin	< 0.005	< 0.005	< 0.006	< 0.006
Endrin Aldehyde	< 0.005	< 0.005	< 0.006	< 0.006
Endrin Ketone	< 0.005	< 0.005	< 0.006	< 0.006
Heptachlor	< 0.005	< 0.005	< 0.006	< 0.006
Heptachlor Epoxide	< 0.005	< 0.005	< 0.006	< 0.006
Methoxychlor	< 0.005	< 0.005	< 0.006	< 0.006
Toxaphene	< 0.05	< 0.05	< 0.06	< 0.06
TMX (surr)	**64 %R**	**57 %R**	**62 %R**	**61 %R**
DCB (surr)	**46 %R**	**45 %R**	**41 %R**	**41 %R**

Clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	88.3	87.5	86.2	84.1
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/18/21	6/18/21	6/18/21	6/18/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8081B	8081B	8081B	8081B
Dilution Factor:	1	1	1	1
Aldrin	< 0.006	< 0.006	< 0.006	< 0.006
alpha-BHC	< 0.006	< 0.006	< 0.006	< 0.006
beta-BHC	< 0.006	< 0.006	< 0.006	< 0.006
Lindane(gamma-BHC)	< 0.006	< 0.006	< 0.006	< 0.006
delta-BHC	< 0.006	< 0.006	< 0.006	< 0.006
Chlordane	< 0.02	< 0.02	< 0.02	< 0.02
4,4'-DDT	< 0.006	< 0.006	< 0.006	< 0.006
4,4'-DDE	< 0.006	< 0.006	< 0.006	< 0.006
4,4'-DDD	< 0.006	< 0.006	< 0.006	< 0.006
Dieldrin	< 0.006	< 0.006	< 0.006	< 0.006
Endosulfan I	< 0.006	< 0.006	< 0.006	< 0.006
Endosulfan II	< 0.006	< 0.006	< 0.006	< 0.006
Endosulfan Sulfate	< 0.006	< 0.006	< 0.006	< 0.006
Endrin	< 0.006	< 0.006	< 0.006	< 0.006
Endrin Aldehyde	< 0.006	< 0.006	< 0.006	< 0.006
Endrin Ketone	< 0.006	< 0.006	< 0.006	< 0.006
Heptachlor	< 0.006	< 0.006	< 0.006	< 0.006
Heptachlor Epoxide	< 0.006	< 0.006	< 0.006	< 0.006
Methoxychlor	< 0.006	< 0.006	< 0.006	< 0.006
Toxaphene	< 0.06	< 0.06	< 0.06	< 0.06
TMX (surr)	**57 %R**	**57 %R**	**36 %R**	**39 %R**
DCB (surr)	**45 %R**	**43 %R**	**35 %R**	**33 %R**

Clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06
Matrix:	soil	soil	soil	soil
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	96.4	90.1	85.1	89.2
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/14/21	6/14/21	6/14/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8082A	8082A	8082A	8082A
Dilution Factor:	1	1	1	1
PCB-1016	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1221	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1232	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1242	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1248	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1254	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1260	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1262	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1268	< 0.02	< 0.02	< 0.02	< 0.02
TMX (surr)	**94 %R**	**85 %R**	**99 %R**	**98 %R**
DCB (surr)	**98 %R**	**97 %R**	**99 %R**	**84 %R**

Acid clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	88.3	87.5	86.2	84.1
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/16/21	6/16/21	6/16/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8082A	8082A	8082A	8082A
Dilution Factor:	1	1	1	1
PCB-1016	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1221	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1232	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1242	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1248	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1254	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1260	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1262	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1268	< 0.02	< 0.02	< 0.02	< 0.02
TMX (surr)	**97 %R**	**85 %R**	**51 %R**	**56 %R**
DCB (surr)	**108 %R**	**96 %R**	**52 %R**	**56 %R**

Acid clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10 -12')					
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06					
Matrix:	soil	soil	soil	soil					
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21		Analysis			
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21	**Units**	**Date**	**Time**	**Method**	**Analyst**
Cyanide Total	< 0.5	< 0.5	< 0.5	< 0.5	mg/kg	06/16/21	8:55	9010/9014	RB

Sample ID:	SB-3 (7-9')	SB-2 (12-14')	SB-6 (2.0')	SB-7 (2.0')					
Lab Sample ID:	227592.07	227592.08	227592.09	227592.1					
Matrix:	soil	soil	soil	soil					
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21		Analysis			
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21	**Units**	**Date**	**Time**	**Method**	**Analyst**
Cyanide Total	< 0.5	< 0.5	**0.54**	< 0.5	mg/kg	06/16/21	8:55	9010/9014	RB

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-8/NB-2 (7-9')	SB-11 (8-10')	SB-4 (7-9')	SB-5/NB-1 (10-12')					
Lab Sample ID:	227592.02	227592.03	227592.05	227592.06					
Matrix:	soil	soil	soil	soil					
Date Sampled:	6/8/21	6/9/21	6/9/21	6/9/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21					
Arsenic	**8.5**	**4.5**	**1.5**	**4.2**	SolTotDry	mg/kg	6/15/21	6020	DS
Barium	**16**	**18**	**2.3**	**8.5**	SolTotDry	mg/kg	6/15/21	6020	DS
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Chromium	**12**	**12**	**6.1**	**24**	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**6.6**	**7.7**	**2.3**	**19**	SolTotDry	mg/kg	6/15/21	6020	DS
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	SolTotDry	mg/kg	6/15/21	6020	DS
Selenium	**0.57**	< 0.5	< 0.5	**0.52**	SolTotDry	mg/kg	6/15/21	6020	DS
Silver	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS

Sample ID:	SB-3 (7-9')	SB-2 (12-14')						
Lab Sample ID:	227592.07	227592.08						
Matrix:	soil	soil						
Date Sampled:	6/10/21	6/10/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**	
Date Received:	6/14/21	6/14/21						
Arsenic	**4.1**	**4.0**	SolTotDry	mg/kg	6/15/21	6020	DS	
Barium	**19**	**11**	SolTotDry	mg/kg	6/15/21	6020	DS	
Cadmium	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS	
Chromium	**14**	**7.7**	SolTotDry	mg/kg	6/15/21	6020	DS	
Lead	**6.7**	**5.7**	SolTotDry	mg/kg	6/15/21	6020	DS	
Mercury	< 0.1	< 0.1	SolTotDry	mg/kg	6/15/21	6020	DS	
Selenium	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS	
Silver	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS	

LABORATORY REPORT

EAI ID#: **227592**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	SB-6 (2.0')	SB-7 (2.0')					
Lab Sample ID:	227592.09	227592.1					
Matrix:	soil	soil					
Date Sampled:	6/11/21	6/11/21					
Date Received:	6/14/21	6/14/21					
			Analytical Matrix	**Units**	**Date of Analysis**	**Method**	**Analyst**
Arsenic	**6.1**	**4.7**	SolTotDry	mg/kg	6/15/21	6020	DS
Barium	**92**	**62**	SolTotDry	mg/kg	6/15/21	6020	DS
Cadmium	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Chromium	**25**	**17**	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**310**	**260**	SolTotDry	mg/kg	6/15/21	6020	DS
Mercury	**0.60**	**0.16**	SolTotDry	mg/kg	6/15/21	6020	DS
Selenium	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Silver	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	< 0.5	< 0.5	TCLPsolid	mg/L	6/18/21	6020	DS

PHOENIX
Environmental Laboratories, Inc.

Tuesday, June 22, 2021

Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Project ID: 227592
SDG ID: GCI54779
Sample ID#s: CI54779 - CI54782

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

June 22, 2021

SDG I.D.: GCI54779

Project ID: 227592

Client Id	Lab Id	Matrix
SB-4 (7-9`)	CI54779	SOIL
SB-6 (2.0`)	CI54780	SOIL
SB-7 (2.0`)	CI54781	SOIL
SB-5/NB-1 (10-12`)	CI54782	SOIL

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2021

FOR: Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		06/09/21	12:25
Location Code:	EASTANAL-NH	Received by:	SW	06/15/21	11:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	55122				

Laboratory Data

SDG ID: GCI54779
Phoenix ID: CI54779

Project ID: 227592
Client ID: SB-4 (7-9`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	84		%		06/15/21	AR	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.43	0.43	mg/Kg	1	06/17/21	BJA	SW7196A
pH at 25C - Soil	7.15	1.00	pH Units	1	06/16/21 12:37	DJ/EG	SW846 9045D
Redox Potential	231		mV	1	06/16/21	DJ/EG	SM2580B-09

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 22, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2021

FOR: Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		06/11/21	13:30
Location Code:	EASTANAL-NH	Received by:	SW	06/15/21	11:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	55122				

Laboratory Data

SDG ID: GCI54779
Phoenix ID: CI54780

Project ID: 227592
Client ID: SB-6 (2.0`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	85		%		06/15/21	AR	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.44	0.44	mg/Kg	1	06/17/21	BJA	SW7196A
pH at 25C - Soil	7.38	1.00	pH Units	1	06/16/21 12:37	DJ/EG	SW846 9045D
Redox Potential	314		mV	1	06/16/21	DJ/EG	SM2580B-09

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 22, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2021

FOR: Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		06/11/21	11:50
Location Code:	EASTANAL-NH	Received by:	SW	06/15/21	11:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	55122				

Laboratory Data

SDG ID: GCI54779
Phoenix ID: CI54781

Project ID: 227592
Client ID: SB-7 (2.0`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		06/15/21	AR	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.44	0.44	mg/Kg	1	06/18/21	BJA/QH	SW7196A
pH at 25C - Soil	7.93	1.00	pH Units	1	06/16/21 12:37	DJ/EG	SW846 9045D
Redox Potential	338		mV	1	06/16/21	DJ/EG	SM2580B-09

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 22, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2021

FOR: Attn: Front Office
Eastern Analytical
25 Chenell Drive
Concord, NH 03301

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		06/09/21	13:25
Location Code:	EASTANAL-NH	Received by:	SW	06/15/21	11:33
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	55122				

Laboratory Data

SDG ID: GCI54779
Phoenix ID: CI54782

Project ID: 227592
Client ID: SB-5/NB-1 (10-12`)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		06/15/21	AR	SW846-%Solid
Chromium, Hex. (SW3060 digestion)	< 0.41	0.41	mg/Kg	1	06/18/21	BJA/QH	SW7196A
pH at 25C - Soil	7.39	1.00	pH Units	1	06/16/21 12:37	DJ/EG	SW846 9045D
Redox Potential	320		mV	1	06/16/21	DJ/EG	SM2580B-09

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Hexavalent Chromium:
This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
June 22, 2021
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

June 22, 2021

QA/QC Data

SDG I.D.: GCI54779

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 579920 (mg/kg), QC Sample No: CI54469 40X (CI54779, CI54780)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.39	<0.42	NC	94.1						85 - 115	30	
Chromium, Hexavalent (Ins)						95.1			92.8			85 - 115	30	
Chromium, Hexavalent (Sol)						93.4			90.8			85 - 115	30	
QA/QC Batch 580132 (mg/kg), QC Sample No: CI57461 40X (CI54781, CI54782)														
Chromium, Hexavalent - Soil														
Chromium, Hexavalent	BRL	0.40	<0.42	<0.42	NC	95.1						85 - 115	30	
Chromium, Hexavalent (Ins)						103			94.3			85 - 115	30	
Chromium, Hexavalent (Sol)						92.2			56.7			85 - 115	30	m

m = This parameter is outside laboratory MS/MSD specified recovery limits.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

June 22, 2021

QA/QC Data

SDG I.D.: GCI54779

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 579781 (PH), QC Sample No: CI54731 (CI54779, CI54780, CI54781, CI54782)													
pH at 25C - Soil			7.50	7.46	0.50	99.7						85 - 115	20

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
June 22, 2021

Std: None

State: RI

Sample Criteria Exceedances Report

GCI54779 - EASTANAL-NH

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

June 22, 2021

SDG I.D.: GCI54779

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

CHAIN-OF-CUSTODY RECORD

4.7°wc 1Q

Eastern Analytical, Inc.
professional laboratory and drilling services

EAI ID# 227592 Page 1

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
SB-4 (7-9')	6/9/2021 12:25	soil	Subcontract - Hexavalent Chromium Soil 3060/7196	54779
SB-6 (2.0')	6/11/2021 13:30	soil	Subcontract - Hexavalent Chromium Soil 3060/7196	54780
SB-7 (2.0')	6/11/2021 11:50	soil	Subcontract - Hexavalent Chromium Soil 3060/7196	54781
SB-5/NB-1 (10-12')	6/9/2021 13:25	soil	Subcontract - Hexavalent Chromium Soil 3060/7196	54782

Rush - 1 8oz jar per sample.

EAI ID# 227592 **Project State: RI**

Project ID: 0

Company Phoenix Environmental Labs
Address 587 East Middle Turnpike
Address Manchester , CT 06040
Account #
Phone # (860) 645-1102

Results Needed: Preferred Date: Standard

RUSH Due Date: _____

QC Deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:

Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.

PO #:55122 **EAI ID# 227592**

Data Deliverable (circle)

Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by:

Relinquished by	Date/Time	Received by
[signature]	6/14/21	1500 UPS
UPS [signature]	6/15/21	11:33

CHAIN-OF-CUSTODY RECORD

227592

32

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D. (BEE 6/14/21)	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 8260 624 VTICs 1,4 Dioxane	SVOC: 8270 625 SVTICs EDB DBCP ABN A BN PAH	SVOC: TPH8100 L1 L2	SVOC: PEST 608 PCB 608 PEST 8081 PCB 8082	INORGANICS: Total Cyanide Total Sulfide	OTHER: RCRA 8 Metals	OTHER: Hexavalent Cr	# of Containers	NOTES MeOH Vial #
~~SB-10 (10-12')~~	~~6/8/21 1015~~	~~S~~	~~G~~	✓	✓	✓	✓	✓	✓	✓	5	53827 DNA
SB-8/NB-2 (7')	6/8/21 1420	S	G	✓	✓	✓	✓	✓	✓		5	53822 BEE 6/14/21
SB-11 (8-10')	6/9/21 0830	S	G	✓	✓	✓	✓	✓	✓		5	53828
~~SB-9 (10-12')~~	~~6/9/21 0930~~	~~S~~	~~G~~	✓	✓	✓	✓	✓	✓	✓	5	~~53831~~ DNA
SB-4 (7-9')	6/9/21 1225	S	G	✓	✓	✓	✓	✓	✓	✓	5	53823 BEE 6/14/21
SB-5/NB-1 (10-12')	6/9/21 1325	S	G	✓	✓	✓	✓	✓	✓	✓	5	53833
SB-3 (7-9')	6/10/21 1535	S	G	✓	✓	✓	✓	✓	✓		5	53829
SB-2 (12-14')	6/10/21 1635	S	G	✓	✓	✓	✓	✓	✓		5	53821
SB-6 (2.0')	6/11/21 1330	S	G	✓	✓	✓	✓	✓	✓	✓	5	53832 *TCLP lead per client 6/16/21
SB-7 (2.0')	6/11/21 1150	S	G	✓	✓	✓	✓	✓	✓	✓	5	53830
				M								

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Bettina Eames

COMPANY: Nobis

ADDRESS: 18 Chenell Drive

CITY: Concord STATE: NH ZIP: 03301

PHONE: (603) 224-4182 EXT.:

FAX:

E-MAIL: beames@nobis-group.com

SITE NAME: Robin Rug

PROJECT #: 095560.200

STATE: NH MA ME VT (OTHER) RI

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED: Standard TAT

QA/QC REPORTING LEVEL: Rhode Island — A B C OR MA MCP

REPORTING OPTIONS: PRELIMS: YES OR (NO)

ELECTRONIC OPTIONS: (E-MAIL) (PDF) EQUIS (EXCEL)

TEMP. 3.3 °C ICE? (YES) NO

SAMPLER(S): S. Powers

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Darald Powers	6/11/21	1910	
	6/14/21	9:04	[signature]
[signature]	6/14/21	8:16	
[signature]	6/14/21	0835	[signature]

METALS: (8 RCRA) 13 PP Fe, Mn Pb, Cu

OTHER METALS:

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)
* DNA = Do Not Analyze
Cr+6 samples SB-5/NB-1, SB-4, SB-6, SB-7 only
BEE 6/14/21

SITE HISTORY: Textile Mill

SUSPECTED CONTAMINATION:

FIELD READINGS: <10 ppm PID

Eastern Analytical, Inc. *professional laboratory and drilling services*
25 Chenell Drive | Concord, NH 03301 | Tel: 603.228.0525 | 1.800.287.0525 | E-Mail: CustomerService@EasternAnalytical.com | www.EasternAnalytical.com

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Page 2 of 2

CHAIN-OF-CUSTODY RECORD

227592

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 524.2 BTEX; 524.2 MTBE ONLY; 624 VTICS; 624 + OXYGENATE; 8021 BTEX HALOS; 8015 GRO MAPH	SVOC: 8270 625 SVTICS EDB DBCP ABN A BN 2AH; 8100 LI L2; 8015 DRO MAEPH; PEST 608 PCB 608 PEST 8082 PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 TOC ABN Metals PEST Hers; DISSOLVED METALS (LAST BELOW); TOTAL METALS (LIST BELOW)	INORGANICS: TS TSS TDS SPEC. COND.; Cl F SO4 NO3 NO2; BOD COOD T-ALK; TKN NH3 T. PHOS. O. PHOS.; pH T. RES. CHLORINE; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY; MICRO: TOTAL COLIFORM FECAL COLIFORM E. COLI; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	# OF CONTAINERS	NOTES MeOH Vial #
Trip Blank	6/8/21 0700	SW	G	✓				1	538210

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

M

PROJECT MANAGER: Bethina Eames

COMPANY: Nobis

ADDRESS: 18 Chenell Drive

CITY: Concord STATE: NH ZIP: 03301

PHONE: (603) 224-4182 EXT:

FAX:

E-MAIL: beames@nobis-group.com

SITE NAME: Robin Rug

PROJECT #: 095560.260

STATE: NH MA ME VT (OTHER) RI

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

DATE NEEDED: standard TAT

QA/QC REPORTING LEVEL: A B C OR MA MCP

REPORTING OPTIONS: PRELIMS: YES OR (NO)

ELECTRONIC OPTIONS: (E-MAIL) (PDF) EQUIS (EXCEL)

TEMP. 3.3 °C ICE? (YES) NO

SAMPLER(S): S. Powers

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Samantha Powers	6/11/21	1910	
	6/14/21	8:04	
	6/14/21	8:16	
FedEx	6/14	0835	

METALS: 8 RCRA 13 PP Fe, Mn Pb, Cu

OTHER METALS:

SAMPLES FIELD FILTERED? YES NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY: Textile Mill

SUSPECTED CONTAMINATION:

FIELD READINGS: <10 ppm PID

Eastern Analytical, Inc.
professional laboratory and drilling services
25 CHENELL DRIVE | CONCORD, NH 03301 | TEL. 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTICAL.COM

(WHITE: ORIGINAL GREEN: PROJECT MANAGER)

Eastern Analytical, Inc.
professional laboratory and drilling services

Bettina Eames
Nobis Group
18 Chenell Drive
Concord , NH 03301

Laboratory Report for:

Eastern Analytical, Inc. ID: 227591
Client Identification: Robin Rug | 095560.260
Date Received: 6/14/2021

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:
- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — Date: 6·21·21 — # of pages (excluding cover letter): 16

SAMPLE CONDITIONS PAGE

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Temperature upon receipt (°C): 2.9 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
227591.01	Trip Blank	6/14/21	6/10/21	08:00	soil	100.0	Adheres to Sample Acceptance Policy
227591.02	TP-7 0-3.5'	6/14/21	6/10/21	09:00	soil	82.1	Adheres to Sample Acceptance Policy
227591.03	TP-6 9-10'	6/14/21	6/10/21	11:15	soil	86.7	Adheres to Sample Acceptance Policy
227591.04	TP-5 6'	6/14/21	6/10/21	13:00	soil	93.9	Adheres to Sample Acceptance Policy
227591.05	TP-4 9'	6/14/21	6/10/21	14:50	soil	89.5	Adheres to Sample Acceptance Policy
227591.06	Trip Blank	6/14/21	6/11/21	07:00	soil	100.0	Adheres to Sample Acceptance Policy
227591.07	TP-14 1-2'	6/14/21	6/11/21	08:30	soil	90.3	Adheres to Sample Acceptance Policy
227591.08	TP-1 0-2'	6/14/21	6/11/21	10:15	soil	92.1	Adheres to Sample Acceptance Policy
227591.09	TP-2 3-4'	6/14/21	6/11/21	10:55	soil	92.0	Adheres to Sample Acceptance Policy
227591.1	TP-3 2-3'	6/14/21	6/11/21	11:40	soil	81.6	Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	TP-7 0-3.5'	TP-6 9-10'	TP-5 6'
Lab Sample ID:	227591.01	227591.02	227591.03	227591.04
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/10/21	6/10/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/14/21	6/14/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	2	1	1
Dichlorodifluoromethane	< 0.1	< 0.2	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.2	< 0.1	< 0.1
Vinyl chloride	< 0.02	< 0.03	< 0.02	< 0.02
Bromomethane	< 0.1	< 0.2	< 0.1	< 0.1
Chloroethane	< 0.1	< 0.2	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.2	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.08	< 0.05	< 0.05
Acetone	< 2	< 3	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.08	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	< 2	< 3	< 2	< 2
Methylene chloride	< 0.1	< 0.2	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.2	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.2	< 0.1	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.2	< 0.1	< 0.1
Isopropyl ether(DIPE)	< 0.1	< 0.2	< 0.1	< 0.1
tert-amyl methyl ether(TAME)	< 0.1	< 0.2	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.08	< 0.05	< 0.05
1,1-Dichloroethane	< 0.05	< 0.08	< 0.05	< 0.05
2,2-Dichloropropane	< 0.05	< 0.08	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.08	< 0.05	< 0.05
2-Butanone(MEK)	< 0.5	< 0.8	< 0.5	< 0.5
Bromochloromethane	< 0.05	< 0.08	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.8	< 0.5	< 0.5
Chloroform	< 0.05	< 0.08	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.08	< 0.05	< 0.05
Carbon tetrachloride	< 0.05	< 0.08	< 0.05	< 0.05
1,1-Dichloropropene	< 0.05	< 0.08	< 0.05	< 0.05
Benzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dichloroethane	< 0.05	< 0.08	< 0.05	< 0.05
Trichloroethene	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dichloropropane	< 0.05	< 0.08	< 0.05	< 0.05
Dibromomethane	< 0.05	< 0.08	< 0.05	< 0.05
Bromodichloromethane	< 0.05	< 0.08	< 0.05	< 0.05
1,4-Dioxane	< 1	< 2	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.8	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.08	< 0.05	< 0.05
Toluene	< 0.05	< 0.08	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.08	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.08	< 0.05	< 0.05
2-Hexanone	< 0.1	< 0.2	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.08	< 0.05	< 0.05
1,3-Dichloropropane	< 0.05	< 0.08	< 0.05	< 0.05
Dibromochloromethane	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.02	< 0.03	< 0.02	< 0.02
Chlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.08	< 0.05	< 0.05

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	TP-7 0-3.5'	TP-6 9-10'	TP-5 6'
Lab Sample ID:	227591.01	227591.02	227591.03	227591.04
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/10/21	6/10/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/14/21	6/14/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	2	1	1
Ethylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
mp-Xylene	< 0.05	< 0.08	< 0.05	< 0.05
o-Xylene	< 0.05	< 0.08	< 0.05	< 0.05
Styrene	< 0.05	< 0.08	< 0.05	< 0.05
Bromoform	< 0.05	< 0.08	< 0.05	< 0.05
IsoPropylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
Bromobenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.08	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.05	< 0.08	< 0.05	< 0.05
n-Propylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
2-Chlorotoluene	< 0.05	< 0.08	< 0.05	< 0.05
4-Chlorotoluene	< 0.05	< 0.08	< 0.05	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
tert-Butylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
sec-Butylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
p-Isopropyltoluene	< 0.05	< 0.08	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
n-Butylbenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.05	< 0.08	< 0.05	< 0.05
1,3,5-Trichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
Hexachlorobutadiene	< 0.05	< 0.08	< 0.05	< 0.05
Naphthalene	< 0.1	< 0.2	< 0.1	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.08	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	**92 %R**	**90 %R**	**140 %R**	**88 %R**
1,2-Dichlorobenzene-d4 (surr)	**100 %R**	**102 %R**	**92 %R**	**102 %R**
Toluene-d8 (surr)	**95 %R**	**95 %R**	**88 %R**	**96 %R**
1,2-Dichloroethane-d4 (surr)	**101 %R**	**102 %R**	**108 %R**	**101 %R**

TP-7 0-3.5': Reporting limits are elevated due to the % solids content of the sample or the sample mass used for analysis.
TP-6 9-10': Non target interference in the sample resulted in recovery high outside of the acceptance control limits of 70-130%R for the surrogate 4-Bromofluorobenzene (surr).

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	TP-14 1-2'	TP-1 0-2'	TP-3 2-3'
Lab Sample ID:	227591.06	227591.07	227591.08	227591.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/11/21	6/11/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	2
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1	< 0.2
Chloromethane	< 0.1	< 0.1	< 0.1	< 0.2
Vinyl chloride	< 0.02	< 0.02	< 0.02	< 0.04
Bromomethane	< 0.1	< 0.1	< 0.1	< 0.2
Chloroethane	< 0.1	< 0.1	< 0.1	< 0.2
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1	< 0.2
Diethyl Ether	< 0.05	< 0.05	< 0.05	< 0.1
Acetone	< 2	< 2	< 2	< 4
1,1-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.1
tert-Butyl Alcohol (TBA)	< 2	< 2	< 2	< 4
Methylene chloride	< 0.1	< 0.1	< 0.1	< 0.2
Carbon disulfide	< 0.1	< 0.1	< 0.1	< 0.2
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1	< 0.2
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.1	< 0.1	< 0.2
Isopropyl ether(DIPE)	< 0.1	< 0.1	< 0.1	< 0.2
tert-amyl methyl ether(TAME)	< 0.1	< 0.1	< 0.1	< 0.2
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.1
1,1-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.1
2,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.1
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05	< 0.1
2-Butanone(MEK)	< 0.5	< 0.5	< 0.5	< 1
Bromochloromethane	< 0.05	< 0.05	< 0.05	< 0.1
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.5	< 1
Chloroform	< 0.05	< 0.05	< 0.05	< 0.1
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.1
Carbon tetrachloride	< 0.05	< 0.05	< 0.05	< 0.1
1,1-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.1
Benzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dichloroethane	< 0.05	< 0.05	< 0.05	< 0.1
Trichloroethene	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.1
Dibromomethane	< 0.05	< 0.05	< 0.05	< 0.1
Bromodichloromethane	< 0.05	< 0.05	< 0.05	< 0.1
1,4-Dioxane	< 1	< 1	< 1	< 2
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.5	< 1
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.1
Toluene	< 0.05	< 0.05	< 0.05	< 0.1
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05	< 0.1
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.05	< 0.1
2-Hexanone	< 0.1	< 0.1	< 0.1	< 0.2
Tetrachloroethene	< 0.05	< 0.05	< 0.05	< 0.1
1,3-Dichloropropane	< 0.05	< 0.05	< 0.05	< 0.1
Dibromochloromethane	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02	< 0.04
Chlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.1

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	TP-14 1-2'	TP-1 0-2'	TP-3 2-3'
Lab Sample ID:	227591.06	227591.07	227591.08	227591.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/11/21	6/11/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	2
Ethylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
mp-Xylene	< 0.05	< 0.05	< 0.05	< 0.1
o-Xylene	< 0.05	< 0.05	< 0.05	< 0.1
Styrene	< 0.05	< 0.05	< 0.05	**5.1**
Bromoform	< 0.05	< 0.05	< 0.05	< 0.1
IsoPropylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
Bromobenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05	< 0.1
1,2,3-Trichloropropane	< 0.05	< 0.05	< 0.05	< 0.1
n-Propylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
2-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.1
4-Chlorotoluene	< 0.05	< 0.05	< 0.05	< 0.1
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
tert-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
sec-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
p-Isopropyltoluene	< 0.05	< 0.05	< 0.05	< 0.1
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
n-Butylbenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2-Dibromo-3-chloropropane	< 0.05	< 0.05	< 0.05	< 0.1
1,3,5-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
Hexachlorobutadiene	< 0.05	< 0.05	< 0.05	< 0.1
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.2
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.05	< 0.1
4-Bromofluorobenzene (surr)	**88 %R**	**88 %R**	**89 %R**	**103 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**	**102 %R**	**102 %R**	**95 %R**
Toluene-d8 (surr)	**96 %R**	**95 %R**	**95 %R**	**95 %R**
1,2-Dichloroethane-d4 (surr)	**101 %R**	**102 %R**	**103 %R**	**102 %R**

TP-3 2-3': Reporting limits are elevated due to the % solids content of the sample or the sample mass used for analysis.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-6 9-10'	TP-5 6'	TP-4 9'
Lab Sample ID:	227591.02	227591.03	227591.04	227591.05
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/10/21	6/10/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Naphthalene	< 0.09	< 0.08	< 0.07	< 0.08
2-Methylnaphthalene	< 0.09	< 0.08	< 0.07	< 0.08
1-Methylnaphthalene	< 0.09	< 0.08	< 0.07	< 0.08
Acenaphthylene	< 0.09	< 0.08	< 0.07	< 0.08
Acenaphthene	< 0.09	< 0.08	< 0.07	< 0.08
Fluorene	< 0.09	< 0.08	< 0.07	< 0.08
Phenanthrene	**0.17**	< 0.08	< 0.07	< 0.08
Anthracene	< 0.09	< 0.08	< 0.07	< 0.08
Fluoranthene	**0.53**	< 0.08	< 0.07	< 0.08
Pyrene	**0.61**	< 0.08	< 0.07	< 0.08
Benzo[a]anthracene	**0.44**	< 0.08	< 0.07	< 0.08
Chrysene	**0.40**	< 0.08	< 0.07	< 0.08
Benzo[b]fluoranthene	**0.40**	< 0.08	< 0.07	< 0.08
Benzo[k]fluoranthene	**0.14**	< 0.08	< 0.07	< 0.08
Benzo[a]pyrene	**0.35**	< 0.08	< 0.07	< 0.08
Indeno[1,2,3-cd]pyrene	**0.21**	< 0.08	< 0.07	< 0.08
Dibenz[a,h]anthracene	< 0.09	< 0.08	< 0.07	< 0.08
Benzo[g,h,i]perylene	**0.22**	< 0.08	< 0.07	< 0.08
p-Terphenyl-D14 (surr)	**71 %R**	**79 %R**	**76 %R**	**70 %R**

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-14 1-2'	TP-1 0-2'	TP-2 3-4'	TP-3 2-3'
Lab Sample ID:	227591.07	227591.08	227591.09	227591.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/11/21	6/11/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Naphthalene	< 0.08	< 0.07	**0.086**	< 0.09
2-Methylnaphthalene	< 0.08	< 0.07	< 0.08	< 0.09
1-Methylnaphthalene	< 0.08	< 0.07	< 0.08	< 0.09
Acenaphthylene	< 0.08	**0.10**	**0.19**	< 0.09
Acenaphthene	< 0.08	< 0.07	**0.13**	< 0.09
Fluorene	< 0.08	**0.073**	**0.19**	< 0.09
Phenanthrene	**0.38**	**0.75**	**1.5**	**0.57**
Anthracene	**0.12**	**0.22**	**0.46**	**0.12**
Fluoranthene	**0.71**	**1.3**	**2.4**	**0.95**
Pyrene	**0.59**	**1.1**	**2.1**	**0.79**
Benzo[a]anthracene	**0.37**	**0.71**	**1.3**	**0.70**
Chrysene	**0.38**	**0.69**	**1.3**	**0.75**
Benzo[b]fluoranthene	**0.47**	**0.83**	**1.6**	**0.93**
Benzo[k]fluoranthene	**0.16**	**0.33**	**0.54**	**0.35**
Benzo[a]pyrene	**0.36**	**0.68**	**1.3**	**0.65**
Indeno[1,2,3-cd]pyrene	**0.26**	**0.32**	**0.58**	**0.28**
Dibenz[a,h]anthracene	< 0.08	**0.081**	**0.15**	< 0.09
Benzo[g,h,i]perylene	**0.22**	**0.24**	**0.43**	**0.21**
p-Terphenyl-D14 (surr)	**69 %R**	**74 %R**	**75 %R**	**66 %R**

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-6 9-10'	TP-5 6'	TP-4 9'
Lab Sample ID:	227591.02	227591.03	227591.04	227591.05
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/10/21	6/10/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	**69**	**580**	< 30	< 30
p-Terphenyl-D14 (surr)	**86 %R**	**97 %R**	**81 %R**	**68 %R**

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-14 1-2'	TP-1 0-2'	TP-2 3-4'	TP-3 2-3'
Lab Sample ID:	227591.07	227591.08	227591.09	227591.1
Matrix:	soil	soil	soil	soil
Date Sampled:	6/11/21	6/11/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/15/21	6/15/21	6/15/21	6/15/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	**59**	**69**	**93**	**230**
p-Terphenyl-D14 (surr)	**84 %R**	**89 %R**	**96 %R**	**107 %R**

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-6 9-10'	TP-14 1-2'	TP-1 0-2'
Lab Sample ID:	227591.02	227591.03	227591.07	227591.08
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	82.1	86.7	90.3	92.1
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/14/21	6/14/21	6/14/21
Date of Analysis:	6/18/21	6/18/21	6/18/21	6/18/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8081B	8081B	8081B	8081B
Dilution Factor:	1	1	1	1
Aldrin	< 0.006	< 0.006	< 0.006	< 0.005
alpha-BHC	< 0.006	< 0.006	< 0.006	< 0.005
beta-BHC	< 0.006	< 0.006	< 0.006	< 0.005
Lindane(gamma-BHC)	< 0.006	< 0.006	< 0.006	< 0.005
delta-BHC	< 0.006	< 0.006	< 0.006	< 0.005
Chlordane	< 0.02	< 0.02	< 0.02	< 0.02
4,4'-DDT	**0.014**	**0.040**	< 0.006	< 0.005
4,4'-DDE	**0.012**	< 0.006	< 0.006	< 0.005
4,4'-DDD	< 0.006	**0.063**	< 0.006	< 0.005
Dieldrin	< 0.006	< 0.006	< 0.006	< 0.005
Endosulfan I	< 0.006	< 0.006	< 0.006	< 0.005
Endosulfan II	< 0.006	< 0.006	< 0.006	< 0.005
Endosulfan Sulfate	< 0.006	< 0.006	< 0.006	< 0.005
Endrin	< 0.006	< 0.006	< 0.006	< 0.005
Endrin Aldehyde	< 0.006	< 0.006	< 0.006	< 0.005
Endrin Ketone	< 0.006	< 0.006	< 0.006	< 0.005
Heptachlor	< 0.006	< 0.006	< 0.006	< 0.005
Heptachlor Epoxide	< 0.006	< 0.006	< 0.006	< 0.005
Methoxychlor	< 0.006	< 0.006	< 0.006	< 0.005
Toxaphene	< 0.06	< 0.06	< 0.06	< 0.05
TMX (surr)	**61 %R**	**45 %R**	**60 %R**	**53 %R**
DCB (surr)	**44 %R**	**56 %R**	**45 %R**	**35 %R**

Clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-3 2-3'
Lab Sample ID:	227591.1
Matrix:	soil
Date Sampled:	6/11/21
Date Received:	6/14/21
% Solid:	81.6
Units:	mg/kg
Date of Extraction/Prep:	6/14/21
Date of Analysis:	6/18/21
Analyst:	MB
Extraction Method:	3540C
Analysis Method:	8081B
Dilution Factor:	1

Aldrin	< 0.006
alpha-BHC	< 0.006
beta-BHC	< 0.006
Lindane(gamma-BHC)	< 0.006
delta-BHC	< 0.006
Chlordane	< 0.02
4,4'-DDT	< 0.006
4,4'-DDE	< 0.006
4,4'-DDD	< 0.006
Dieldrin	< 0.006
Endosulfan I	< 0.006
Endosulfan II	< 0.006
Endosulfan Sulfate	< 0.006
Endrin	< 0.006
Endrin Aldehyde	< 0.006
Endrin Ketone	< 0.006
Heptachlor	< 0.006
Heptachlor Epoxide	< 0.006
Methoxychlor	< 0.006
Toxaphene	< 0.06
TMX (surr)	**49 %R**
DCB (surr)	**37 %R**

Clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-6 9-10'	TP-14 1-2'	TP-1 0-2'
Lab Sample ID:	227591.02	227591.03	227591.07	227591.08
Matrix:	soil	soil	soil	soil
Date Sampled:	6/10/21	6/10/21	6/11/21	6/11/21
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21
% Solid:	82.1	86.7	90.3	92.1
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	6/14/21	6/14/21	6/14/21	6/14/21
Date of Analysis:	6/15/21	6/15/21	6/15/21	6/15/21
Analyst:	MB	MB	MB	MB
Extraction Method:	3540C	3540C	3540C	3540C
Analysis Method:	8082A	8082A	8082A	8082A
Dilution Factor:	1	1	1	1
PCB-1016	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1221	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1232	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1242	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1248	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1254	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1260	< 0.02	< 0.02	< 0.02	**0.040**
PCB-1262	< 0.02	< 0.02	< 0.02	< 0.02
PCB-1268	< 0.02	< 0.02	< 0.02	< 0.02
TMX (surr)	**96 %R**	**58 %R**	**79 %R**	**88 %R**
DCB (surr)	**94 %R**	**93 %R**	**87 %R**	**78 %R**

Acid clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-3 2-3'
Lab Sample ID:	227591.1
Matrix:	soil
Date Sampled:	6/11/21
Date Received:	6/14/21
% Solid:	81.6
Units:	mg/kg
Date of Extraction/Prep:	6/14/21
Date of Analysis:	6/15/21
Analyst:	MB
Extraction Method:	3540C
Analysis Method:	8082A
Dilution Factor:	1

PCB-1016	< 0.02
PCB-1221	< 0.02
PCB-1232	< 0.02
PCB-1242	< 0.02
PCB-1248	< 0.02
PCB-1254	< 0.02
PCB-1260	< 0.02
PCB-1262	< 0.02
PCB-1268	< 0.02
TMX (surr)	**76 %R**
DCB (surr)	**73 %R**

Acid clean-up was performed on the samples and associated batch QC.

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-6 9-10'	TP-5 6'	TP-4 9'	TP-1 0-2'					
Lab Sample ID:	227591.03	227591.04	227591.05	227591.08					
Matrix:	soil	soil	soil	soil					
Date Sampled:	6/10/21	6/10/21	6/10/21	6/11/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	6/14/21	6/14/21	6/14/21	6/14/21					
Arsenic	**2.3**	**2.9**	**4.9**	**8.4**	SolTotDry	mg/kg	6/15/21	6020	DS
Barium	**8.3**	**11**	**20**	**29**	SolTotDry	mg/kg	6/15/21	6020	DS
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Chromium	**7.1**	**8.4**	**13**	**14**	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**8.4**	**6.0**	**7.7**	**55**	SolTotDry	mg/kg	6/15/21	6020	DS
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	SolTotDry	mg/kg	6/15/21	6020	DS
Selenium	**0.82**	< 0.5	< 0.5	**0.65**	SolTotDry	mg/kg	6/15/21	6020	DS
Silver	< 0.5	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS

Sample ID:	TP-3 2-3'							
Lab Sample ID:	227591.1							
Matrix:	soil							
Date Sampled:	6/11/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**		
Date Received:	6/14/21							
Arsenic	**18**	SolTotDry	mg/kg	6/15/21	6020	DS		
Barium	**120**	SolTotDry	mg/kg	6/15/21	6020	DS		
Cadmium	**1.2**	SolTotDry	mg/kg	6/15/21	6020	DS		
Chromium	**15**	SolTotDry	mg/kg	6/15/21	6020	DS		
Lead	**63**	SolTotDry	mg/kg	6/15/21	6020	DS		
Mercury	**0.13**	SolTotDry	mg/kg	6/15/21	6020	DS		
Selenium	**2.4**	SolTotDry	mg/kg	6/15/21	6020	DS		
Silver	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS		

LABORATORY REPORT

EAI ID#: **227591**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	TP-7 0-3.5'	TP-14 1-2'	TP-2 3-4'					
Lab Sample ID:	227591.02	227591.07	227591.09					
Matrix:	soil	soil	soil					
Date Sampled:	6/10/21	6/11/21	6/11/21					
Date Received:	6/14/21	6/14/21	6/14/21	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Arsenic	**6.6**	**4.2**	**6.9**	SolTotDry	mg/kg	6/15/21	6020	DS
Barium	**1500**	**72**	**43**	SolTotDry	mg/kg	6/15/21	6020	DS
Cadmium	< 0.5	< 0.5	**0.59**	SolTotDry	mg/kg	6/15/21	6020	DS
Chromium	**13**	**15**	**25**	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**4600**	**99**	**130**	SolTotDry	mg/kg	6/15/21	6020	DS
Mercury	**0.28**	**0.22**	**0.28**	SolTotDry	mg/kg	6/15/21	6020	DS
Selenium	**1.3**	**0.54**	**0.66**	SolTotDry	mg/kg	6/15/21	6020	DS
Silver	< 0.5	< 0.5	< 0.5	SolTotDry	mg/kg	6/15/21	6020	DS
Lead	**1.4**	< 0.5	< 0.5	TCLPsolid	mg/L	6/18/21	6020	DS

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

227591

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

16

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 / 524.2 MTBE ONLY	VOC: (8260) 624 / 1,4 DIOXANE / VTICS	VOC: 8021	VOC: 8015 GRO / MAVPH	SVOC: (8270) 625 / ABN (PAH)	SVOC: EDB DBCP / (TPH8100) (LL)	SVOC: 8015 DRO / MAEPH	SVOC: PEST 608 PCB 608 / (PEST 8081) (PCB 8082)	SVOC: OIL & GREASE 1664 / TPH 1664	TCLP: TCLP 1311 ABN METALS / VOC PEST HERB	INORGANICS: BOD CBOD / TS TSS TDS	INORGANICS: Br Cl F SO₄ / NO₂ NO₃ NO₂NO₃	INORGANICS: TKN NH₃ TN / T. PHOS. O. PHOS.	INORGANICS: pH T. RES. CHLORINE / SPEC. CON. T. ALK.	INORGANICS: COD PHENOLS TOC DOC	INORGANICS: TOTAL CYANIDE / TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE REACTIVE SULFIDE / FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM / FECAL COLIFORM E. COLI	MICRO: ENTEROCOCCI / HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	OTHER: RCRA 8 Metals	OTHER	OTHER	OTHER	# OF CONTAINERS	NOTES MeOH VIAL #
Trip blank	6-10-21 / 0800	S	G		X																								1	
TP-7 0-3.5'	↓ / 0800	S	G		X			X	X		X														X				3	
TP-6 9-10'	/ 1115	S	G		X	/		X	X		X								TP-5 (6') → Analyze VOCs						X				3	
TP-5 6'	/ 1300	S	G		~~X~~ [illegible]			X	X		~~X~~	See 6/14/21													X				3	
TP-4 9'	↓ / 1450	S	G		~~X~~			X	X		~~X~~	See 6/14/21													X				3	
Trip blank	6-11-21 / 0700	S	G		X																								1	
TP-14 1-2'	↓ / 0830	S	G		X			X	X		X														X				3	
TP-1 0-2'	/ 1015	S	G		X			X	X		X														X				3	
TP-2 3-4'	/ 1055	S	G		~~X~~			X	X		~~X~~	See 6/14/21													X				3	
TP-3 2-3'	↓ / 1140	S	G		X			X	X		X														X				3	
MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER																														
PRESERVATIVE: H-HCL; N-HNO₃; S-H₂SO₄; Na-NaOH; M-MEOH					M																									

PROJECT MANAGER: Bettina Eames

COMPANY: Nobis Group

ADDRESS: 18 Chenell Drive

CITY: Concord STATE: NH ZIP: 03301

PHONE: 603-224-4182 EXT.:

E-MAIL:

SITE NAME: Robin Ruf

PROJECT #: 095560.00

STATE: NH MA ME VT OTHER: RI

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 2.7 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: YES OR NO

ELECTRONIC OPTIONS

(PDF) (EXCEL) EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

5 Day 7 Day

(10 Day)

*Pre-approval Required

METALS: (8 RCRA) 13 PP Fe, Mn Pb, Cu

OTHER METALS:

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

8270-PAHs only

SAMPLER(S): R Rizza

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Richard Rizza	6/14/21	8:09	[illegible]
[illegible]	6/14/21	2:16	
[illegible]	6/14/21	0835	[illegible]

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.

professional laboratory and drilling services

Bettina Eames
Nobis Group
18 Chenell Drive
Concord , NH 03301

Laboratory Report for:

Eastern Analytical, Inc. ID: 228404
Client Identification: Robin Rug | 095560.260
Date Received: 7/1/2021

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:

< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:

- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director | 7.7.21 Date | 10 # of pages (excluding cover letter)

SAMPLE CONDITIONS PAGE

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Temperature upon receipt (°C): 3.8 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
228404.01	Trip Blank	7/1/21	6/29/21	07:00	aqueous		Adheres to Sample Acceptance Policy
228404.02	NB-2	7/1/21	6/30/21	08:00	aqueous		Adheres to Sample Acceptance Policy
228404.03	NB-3	7/1/21	6/29/21	15:10	aqueous		Adheres to Sample Acceptance Policy
228404.04	GZA-1	7/1/21	6/29/21	16:50	aqueous		Adheres to Sample Acceptance Policy
228404.05	GZA-2	7/1/21	6/29/21	17:35	aqueous		Adheres to Sample Acceptance Policy
228404.06	GZA-3	7/1/21	6/29/21	16:15	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

Eastern Analytical, Inc. www.easternanalytical.com | 800.287.0525 | customerservice@easternanalytical.com

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	NB-2	NB-3	GZA-1
Lab Sample ID:	228404.01	228404.02	228404.03	228404.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	6/29/21	6/30/21	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21	7/1/21	7/1/21
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	7/1/21	7/1/21	7/1/21	7/1/21
Analyst:	DGM	DGM	DGM	DGM
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Dichlorodifluoromethane	< 2	< 2	< 2	< 2
Chloromethane	< 2	< 2	< 2	< 2
Vinyl chloride	< 1	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2	< 2
Chloroethane	< 2	< 2	< 2	< 2
Trichlorofluoromethane	< 2	< 2	< 2	< 2
Diethyl Ether	< 2	< 2	< 2	< 2
Acetone	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30
Methylene chloride	< 1	< 1	< 1	< 1
Carbon disulfide	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1
Benzene	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1

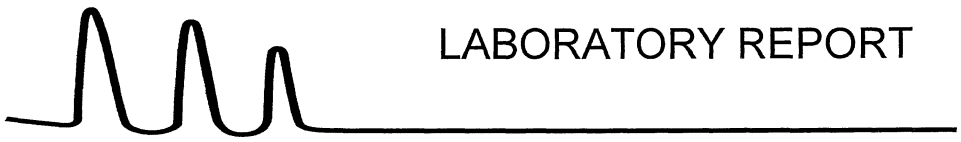
LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	Trip Blank	NB-2	NB-3	GZA-1
Lab Sample ID:	228404.01	228404.02	228404.03	228404.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	6/29/21	6/30/21	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21	7/1/21	7/1/21
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	7/1/21	7/1/21	7/1/21	7/1/21
Analyst:	DGM	DGM	DGM	DGM
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1
Ethylbenzene	< 1	< 1	< 1	< 1
mp-Xylene	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1
Bromobenzene	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 2	< 2	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	**90 %R**	**91 %R**	**91 %R**	**90 %R**
1,2-Dichlorobenzene-d4 (surr)	**103 %R**	**101 %R**	**103 %R**	**103 %R**
Toluene-d8 (surr)	**97 %R**	**97 %R**	**97 %R**	**97 %R**
1,2-Dichloroethane-d4 (surr)	**106 %R**	**105 %R**	**106 %R**	**106 %R**



LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	GZA-2	GZA-3
Lab Sample ID:	228404.05	228404.06
Matrix:	aqueous	aqueous
Date Sampled:	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21
Units:	ug/L	ug/L
Date of Analysis:	7/1/21	7/1/21
Analyst:	DGM	DGM
Method:	8260C	8260C
Dilution Factor:	1	1
Dichlorodifluoromethane	< 2	< 2
Chloromethane	< 2	< 2
Vinyl chloride	< 1	< 1
Bromomethane	< 2	< 2
Chloroethane	< 2	< 2
Trichlorofluoromethane	< 2	< 2
Diethyl Ether	< 2	< 2
Acetone	< 10	< 10
1,1-Dichloroethene	< 0.5	< 0.5
tert-Butyl Alcohol (TBA)	< 30	< 30
Methylene chloride	< 1	< 1
Carbon disulfide	< 2	< 2
Methyl-t-butyl ether(MTBE)	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 2	< 2
Isopropyl ether(DIPE)	< 2	< 2
tert-amyl methyl ether(TAME)	< 2	< 2
trans-1,2-Dichloroethene	< 1	< 1
1,1-Dichloroethane	< 1	< 1
2,2-Dichloropropane	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1
2-Butanone(MEK)	< 10	< 10
Bromochloromethane	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10
Chloroform	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1
Carbon tetrachloride	< 1	< 1
1,1-Dichloropropene	< 1	< 1
Benzene	< 1	< 1
1,2-Dichloroethane	< 1	< 1
Trichloroethene	< 1	< 1
1,2-Dichloropropane	< 1	< 1
Dibromomethane	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5
Toluene	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1
2-Hexanone	< 10	< 10
Tetrachloroethene	< 1	< 1
1,3-Dichloropropane	< 1	< 1
Dibromochloromethane	< 1	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5
Chlorobenzene	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	GZA-2	GZA-3
Lab Sample ID:	228404.05	228404.06
Matrix:	aqueous	aqueous
Date Sampled:	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21
Units:	ug/L	ug/L
Date of Analysis:	7/1/21	7/1/21
Analyst:	DGM	DGM
Method:	8260C	8260C
Dilution Factor:	1	1
Ethylbenzene	< 1	< 1
mp-Xylene	< 1	< 1
o-Xylene	< 1	< 1
Styrene	< 1	< 1
Bromoform	< 2	< 2
IsoPropylbenzene	< 1	< 1
Bromobenzene	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1
2-Chlorotoluene	< 1	< 1
4-Chlorotoluene	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1
tert-Butylbenzene	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1
sec-Butylbenzene	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1
p-Isopropyltoluene	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1
n-Butylbenzene	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5
Naphthalene	< 2	< 2
1,2,3-Trichlorobenzene	< 0.5	< 0.5
4-Bromofluorobenzene (surr)	**90 %R**	**90 %R**
1,2-Dichlorobenzene-d4 (surr)	**102 %R**	**102 %R**
Toluene-d8 (surr)	**97 %R**	**97 %R**
1,2-Dichloroethane-d4 (surr)	**106 %R**	**105 %R**

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	NB-2	NB-3	GZA-1	GZA-2
Lab Sample ID:	228404.02	228404.03	228404.04	228404.05
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	6/30/21	6/29/21	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21	7/1/21	7/1/21
Units:	ug/L	ug/L	ug/L	ug/L
Date of Extraction/Prep:	7/1/21	7/1/21	7/1/21	7/1/21
Date of Analysis:	7/1/21	7/1/21	7/1/21	7/1/21
Analyst:	JMR	JMR	JMR	JMR
Method:	8270D	8270D	8270D	8270D
Dilution Factor:	1	1	1	1
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	< 0.1	< 0.1	< 0.1	< 0.1
1-Methylnaphthalene	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	< 0.1	< 0.1	**0.14**	< 0.1
Benzo[a]anthracene	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	< 0.1	< 0.1	< 0.1	< 0.1
Benzo[b]fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1
Benzo[k]fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1
Benzo[a]pyrene	< 0.1	< 0.1	< 0.1	< 0.1
Indeno[1,2,3-cd]pyrene	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz[a,h]anthracene	< 0.1	< 0.1	< 0.1	< 0.1
Benzo[g,h,i]perylene	< 0.1	< 0.1	< 0.1	< 0.1
p-Terphenyl-D14 (surr)	**51 %R**	**48 %R**	**30 %R**	**66 %R**

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	GZA-3
Lab Sample ID:	228404.06
Matrix:	aqueous
Date Sampled:	6/29/21
Date Received:	7/1/21
Units:	ug/L
Date of Extraction/Prep:	7/1/21
Date of Analysis:	7/1/21
Analyst:	JMR
Method:	8270D
Dilution Factor:	1
Naphthalene	< 0.1
2-Methylnaphthalene	< 0.1
1-Methylnaphthalene	< 0.1
Acenaphthylene	< 0.1
Acenaphthene	< 0.1
Fluorene	< 0.1
Phenanthrene	**0.13**
Anthracene	< 0.1
Fluoranthene	**0.28**
Pyrene	**0.24**
Benzo[a]anthracene	**0.18**
Chrysene	**0.12**
Benzo[b]fluoranthene	**0.18**
Benzo[k]fluoranthene	< 0.1
Benzo[a]pyrene	**0.14**
Indeno[1,2,3-cd]pyrene	< 0.1
Dibenz[a,h]anthracene	< 0.1
Benzo[g,h,i]perylene	< 0.1
p-Terphenyl-D14 (surr)	**55 %R**

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	NB-2	NB-3	GZA-1	GZA-2
Lab Sample ID:	228404.02	228404.03	228404.04	228404.05
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	6/30/21	6/29/21	6/29/21	6/29/21
Date Received:	7/1/21	7/1/21	7/1/21	7/1/21
Units:	mg/L	mg/L	mg/L	mg/L
Date of Extraction/Prep:	7/1/21	7/1/21	7/1/21	7/1/21
Date of Analysis:	7/1/21	7/1/21	7/1/21	7/1/21
Analyst:	JLB	JLB	JLB	JLB
Method:	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	1	1	1	1
TPH (C9-C40)	< 0.4	< 0.5	< 0.5	< 0.4
p-Terphenyl-D14 (surr)	**45 %R**	**44 %R**	**29 %R**	**61 %R**

GZA-1: The surrogate p-Terphenyl-D14 exhibited recovery below acceptance limits. The results were confirmed by re-analysis.

LABORATORY REPORT

EAI ID#: **228404**

Client: **Nobis Group**

Client Designation: **Robin Rug | 095560.260**

Sample ID:	GZA-3
Lab Sample ID:	228404.06
Matrix:	aqueous
Date Sampled:	6/29/21
Date Received:	7/1/21
Units:	mg/L
Date of Extraction/Prep:	7/1/21
Date of Analysis:	7/1/21
Analyst:	JLB
Method:	8100mod
Dilution Factor:	1
TPH (C9-C40)	< 0.4
p-Terphenyl-D14 (surr)	**49 %R**

Page 1 of 1

CHAIN-OF-CUSTODY RECORD

228404

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 524.2 MTBE ONLY	VOC: VTICs 8260 624 1, 4 DIOXANE	VOC: 8021	VOC: 8015 GRO MAVPH	SVOC: 8270 625 ABN	SVOC: EDB DBCP	SVOC: PAH TPH 8100	SVOC: L1 L2	SVOC: 8015 DRO MAEPH	SVOC: PEST 608 PEST 8081	SVOC: PCB 608 PCB 8082	SVOC: OIL & GREASE 1664	SVOC: TPH 1664	TCLP: TCLP 1311 VOC	TCLP: ABN PEST	TCLP: METALS HERB	INORGANICS: BOD TS	INORGANICS: CBOD TSS	INORGANICS: TDS	INORGANICS: Br NO2	INORGANICS: Cl NO3	INORGANICS: F NO2,NO3	INORGANICS: SO4	INORGANICS: TKN T. PHOS.	INORGANICS: NH3 O. PHOS.	INORGANICS: TN	INORGANICS: pH SPEC. CON.	INORGANICS: T. RES. CHLORINE T. ALK.	INORGANICS: COD	INORGANICS: PHENOLS	INORGANICS: TOC	INORGANICS: DOC	INORGANICS: TOTAL CYANIDE	INORGANICS: TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE	INORGANICS: REACTIVE SULFIDE	INORGANICS: FLASHPOINT	INORGANICS: IGNITABILITY	MICRO: TOTAL COLIFORM	MICRO: E. COLI	MICRO: FECAL COLIFORM	MICRO: ENTEROCOCCI	MICRO: HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	OTHER	OTHER	OTHER	OTHER	# OF CONTAINERS	NOTES MEOH VIAL #
Trip Blank	6/29/21 0700	GW	G		✓																																											2	
NB-2	6/30/21 0800	GW	G		✓			✓			✓																																					4	
NB-3	6/29/21 1510	GW	G		✓			✓			✓																																					4	
GZA-1	6/29/21 1650	GW	G		✓			✓			✓																																					4	
GZA-2	6/29/21 1735	GW	G		✓			✓			✓																																					4	
GZA-3	6/29/21 1615	GW	G		✓			✓			✓																																					4	
MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH					H																																											

PROJECT MANAGER: Bettina Fearns
COMPANY: Nobis
ADDRESS: 18 Chenell Drive
CITY: Concord **STATE:** NH **ZIP:** 03301
PHONE: 603-224-4182 **EXT.:**
E-MAIL: beames@nobis-group.com
SITE NAME: Robin Rug
PROJECT #: 095560.260
STATE: NH MA ME VT **OTHER:** RI
REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:
QUOTE #: **PO #:**

QA/QC REPORTING
A B C
MA MCP 3.8
TEMP. 4 °C
ICE? (YES) NO

REPORTING OPTIONS
PRELIMS: YES OR (NO)

ELECTRONIC OPTIONS
(PDF) (EXCEL) EQUIS
OTHER

TURN AROUND TIME
24hr* 48hr*
3-4 Days*
5 Day 7 Day
(10 Day)
*Pre-approval Required

METALS: 8 RCRA 13 PP FE, MN PB, CU
OTHER METALS:
SAMPLES FIELD FILTERED? ☒ YES ☐ NO
NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)
GZA-1 filtered for PAH due to turbidity

RI GB objectives

SITE HISTORY: Textile Mill
SUSPECTED CONTAMINATION:
FIELD READINGS:

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Sarah Powers	7/1/21	1045	

SAMPLER(S): S. Powers

Eastern Analytical, Inc.
professional laboratory and drilling services
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July 13, 2021

Bettina Eames
Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301

Project Location: 125 Thames St, Bristol, RI
Client Job Number:
Project Number: 095560.260
Laboratory Work Order Number: 21G0028

Enclosed are results of analyses for samples received by the laboratory on July 1, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

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Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301
ATTN: Bettina Eames

REPORT DATE: 7/13/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 095560.260

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21G0028

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: 125 Thames St, Bristol, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
WS-1	21G0028-01	Wipe		SW-846 8082A	
WS-2	21G0028-02	Wipe		SW-846 8082A	
WS-3	21G0028-03	Wipe		SW-846 8082A	
WS-4	21G0028-04	Wipe		SW-846 8082A	
CW-1	21G0028-05	Wipe		SW-846 8082A	
CW-2	21G0028-06	Wipe		SW-846 8082A	
CW-3	21G0028-07	Wipe		SW-846 8082A	
CW-4	21G0028-08	Wipe		SW-846 8082A	
CW-5	21G0028-09	Wipe		SW-846 8082A	
CW-6	21G0028-10	Wipe		SW-846 8082A	
CW-7	21G0028-11	Wipe		SW-846 8082A	
CW-8	21G0028-12	Wipe		SW-846 8082A	
CW-9	21G0028-13	Wipe		SW-846 8082A	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:

Aroclor-1016

21G0028-01[WS-1], 21G0028-02[WS-2], 21G0028-03[WS-3], 21G0028-04[WS-4], 21G0028-05[CW-1], 21G0028-06[CW-2], 21G0028-07[CW-3], 21G0028-08[CW-4], 21G0028-09[CW-5], 21G0028-10[CW-6], 21G0028-11[CW-7], 21G0028-12[CW-8], 21G0028-13[CW-9], B285514-BLK1, B285514-BS1, B285514-BSD1

Aroclor-1016 [2C]

21G0028-01[WS-1], 21G0028-02[WS-2], 21G0028-03[WS-3], 21G0028-04[WS-4], 21G0028-05[CW-1], 21G0028-06[CW-2], 21G0028-07[CW-3], 21G0028-08[CW-4], 21G0028-09[CW-5], 21G0028-10[CW-6], 21G0028-11[CW-7], 21G0028-12[CW-8], 21G0028-13[CW-9], B285514-BLK1, B285514-BS1, B285514-BSD1

Aroclor-1260

21G0028-01[WS-1], 21G0028-02[WS-2], 21G0028-03[WS-3], 21G0028-04[WS-4], 21G0028-05[CW-1], 21G0028-06[CW-2], 21G0028-07[CW-3], 21G0028-08[CW-4], 21G0028-09[CW-5], 21G0028-10[CW-6], 21G0028-11[CW-7], 21G0028-12[CW-8], 21G0028-13[CW-9], B285514-BLK1, B285514-BS1, B285514-BSD1

Aroclor-1260 [2C]

21G0028-01[WS-1], 21G0028-02[WS-2], 21G0028-03[WS-3], 21G0028-04[WS-4], 21G0028-05[CW-1], 21G0028-06[CW-2], 21G0028-07[CW-3], 21G0028-08[CW-4], 21G0028-09[CW-5], 21G0028-10[CW-6], 21G0028-11[CW-7], 21G0028-12[CW-8], 21G0028-13[CW-9], B285514-BLK1, B285514-BS1, B285514-BSD1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: WS-1
Sampled: 6/28/2021 13:00

Sample ID: 21G0028-01

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1254 [1]	0.25	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM
Aroclor-1268 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:25	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	71.8	30-150		7/13/21	8:25
Decachlorobiphenyl [2]	67.9	30-150		7/13/21	8:25
Tetrachloro-m-xylene [1]	68.0	30-150		7/13/21	8:25
Tetrachloro-m-xylene [2]	68.0	30-150		7/13/21	8:25

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: WS-2 | Sampled: 6/28/2021 12:55

Sample ID: 21G0028-02

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM
Aroclor-1268 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 8:43	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	77.5	30-150		7/13/21	8:43
Decachlorobiphenyl [2]	74.1	30-150		7/13/21	8:43
Tetrachloro-m-xylene [1]	72.3	30-150		7/13/21	8:43
Tetrachloro-m-xylene [2]	72.1	30-150		7/13/21	8:43

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: WS-3 | Sampled: 6/28/2021 13:10

Sample ID: 21G0028-03

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:00	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	83.9	30-150		7/13/21 9:00	
Decachlorobiphenyl [2]	80.1	30-150		7/13/21 9:00	
Tetrachloro-m-xylene [1]	82.5	30-150		7/13/21 9:00	
Tetrachloro-m-xylene [2]	82.2	30-150		7/13/21 9:00	

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: WS-4 | Sampled: 6/28/2021 13:20

Sample ID: 21G0028-04

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1254 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1260 [2]	0.20	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:18	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	68.7	30-150		7/13/21	9:18
Decachlorobiphenyl [2]	65.3	30-150		7/13/21	9:18
Tetrachloro-m-xylene [1]	69.3	30-150		7/13/21	9:18
Tetrachloro-m-xylene [2]	69.4	30-150		7/13/21	9:18

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-1 | Sampled: 6/28/2021 14:00

Sample ID: 21G0028-05

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1254 [2]	0.32	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1260 [2]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:36	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	89.0	30-150		7/13/21	9:36
Decachlorobiphenyl [2]	91.9	30-150		7/13/21	9:36
Tetrachloro-m-xylene [1]	85.1	30-150		7/13/21	9:36
Tetrachloro-m-xylene [2]	84.2	30-150		7/13/21	9:36

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Project Location: 125 Thames St, Bristol, RI Sample Description: Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-2 Sampled: 6/28/2021 15:00

Sample ID: 21G0028-06

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1260 [2]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 9:53	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Decachlorobiphenyl [1]	87.6	30-150		7/13/21	9:53
Decachlorobiphenyl [2]	83.5	30-150		7/13/21	9:53
Tetrachloro-m-xylene [1]	85.7	30-150		7/13/21	9:53
Tetrachloro-m-xylene [2]	84.6	30-150		7/13/21	9:53

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-3
Sampled: 6/28/2021 14:05

Sample ID: 21G0028-07

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1260 [2]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:11	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	88.5	30-150		7/13/21 10:11
Decachlorobiphenyl [2]	84.3	30-150		7/13/21 10:11
Tetrachloro-m-xylene [1]	78.3	30-150		7/13/21 10:11
Tetrachloro-m-xylene [2]	79.0	30-150		7/13/21 10:11

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-4 | Sampled: 6/28/2021 15:10

Sample ID: 21G0028-08

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM
Aroclor-1268 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:29	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	70.0	30-150		7/13/21 10:29
Decachlorobiphenyl [2]	66.8	30-150		7/13/21 10:29
Tetrachloro-m-xylene [1]	75.4	30-150		7/13/21 10:29
Tetrachloro-m-xylene [2]	75.3	30-150		7/13/21 10:29

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-5
Sampled: 6/28/2021 14:35

Sample ID: 21G0028-09

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 10:46	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	92.6	30-150		7/13/21 10:46
Decachlorobiphenyl [2]	85.4	30-150		7/13/21 10:46
Tetrachloro-m-xylene [1]	78.9	30-150		7/13/21 10:46
Tetrachloro-m-xylene [2]	79.3	30-150		7/13/21 10:46

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-6 | Sampled: 6/28/2021 14:30

Sample ID: 21G0028-10

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1254 [2]	0.27	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:04	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	102	30-150		7/13/21 11:04
Decachlorobiphenyl [2]	97.2	30-150		7/13/21 11:04
Tetrachloro-m-xylene [1]	94.3	30-150		7/13/21 11:04
Tetrachloro-m-xylene [2]	94.0	30-150		7/13/21 11:04

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-7
Sampled: 6/28/2021 15:20

Sample ID: 21G0028-11

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1254 [2]	0.47	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:22	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	96.1	30-150		7/13/21 11:22
Decachlorobiphenyl [2]	86.7	30-150		7/13/21 11:22
Tetrachloro-m-xylene [1]	85.2	30-150		7/13/21 11:22
Tetrachloro-m-xylene [2]	85.8	30-150		7/13/21 11:22

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Project Location: 125 Thames St, Bristol, RI | Sample Description: | Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-8 | Sampled: 6/28/2021 15:30

Sample ID: 21G0028-12

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1254 [2]	0.40	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1260 [2]	0.35	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:39	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	75.0	30-150		7/13/21 11:39
Decachlorobiphenyl [2]	71.6	30-150		7/13/21 11:39
Tetrachloro-m-xylene [1]	75.8	30-150		7/13/21 11:39
Tetrachloro-m-xylene [2]	76.3	30-150		7/13/21 11:39

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Project Location: 125 Thames St, Bristol, RI
Sample Description:
Work Order: 21G0028

Date Received: 7/1/2021

Field Sample #: CW-9
Sampled: 6/28/2021 15:05

Sample ID: 21G0028-13

Sample Matrix: Wipe

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1221 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1232 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1242 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1248 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1254 [2]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1260 [1]	ND	0.20	µg/Wipe	1	R-05	SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1262 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM
Aroclor-1268 [1]	ND	0.20	µg/Wipe	1		SW-846 8082A	7/8/21	7/13/21 11:57	SFM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	89.0	30-150		7/13/21 11:57
Decachlorobiphenyl [2]	83.1	30-150		7/13/21 11:57
Tetrachloro-m-xylene [1]	91.0	30-150		7/13/21 11:57
Tetrachloro-m-xylene [2]	90.9	30-150		7/13/21 11:57

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Sample Extraction Data

Prep Method: SW-846 3540C **Analytical Method: SW-846 8082A**

Lab Number [Field ID]	Batch	Initial [Wipe]	Final [mL]	Date
21G0028-01 [WS-1]	B285514	1.00	10.0	07/08/21
21G0028-02 [WS-2]	B285514	1.00	10.0	07/08/21
21G0028-03 [WS-3]	B285514	1.00	10.0	07/08/21
21G0028-04 [WS-4]	B285514	1.00	10.0	07/08/21
21G0028-05 [CW-1]	B285514	1.00	10.0	07/08/21
21G0028-06 [CW-2]	B285514	1.00	10.0	07/08/21
21G0028-07 [CW-3]	B285514	1.00	10.0	07/08/21
21G0028-08 [CW-4]	B285514	1.00	10.0	07/08/21
21G0028-09 [CW-5]	B285514	1.00	10.0	07/08/21
21G0028-10 [CW-6]	B285514	1.00	10.0	07/08/21
21G0028-11 [CW-7]	B285514	1.00	10.0	07/08/21
21G0028-12 [CW-8]	B285514	1.00	10.0	07/08/21
21G0028-13 [CW-9]	B285514	1.00	10.0	07/08/21

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QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B285514 - SW-846 3540C											
Blank (B285514-BLK1)				Prepared: 07/08/21 Analyzed: 07/13/21							
Aroclor-1016	ND	0.20	µg/Wipe								R-05
Aroclor-1016 [2C]	ND	0.20	µg/Wipe								R-05
Aroclor-1221	ND	0.20	µg/Wipe								
Aroclor-1221 [2C]	ND	0.20	µg/Wipe								
Aroclor-1232	ND	0.20	µg/Wipe								
Aroclor-1232 [2C]	ND	0.20	µg/Wipe								
Aroclor-1242	ND	0.20	µg/Wipe								
Aroclor-1242 [2C]	ND	0.20	µg/Wipe								
Aroclor-1248	ND	0.20	µg/Wipe								
Aroclor-1248 [2C]	ND	0.20	µg/Wipe								
Aroclor-1254	ND	0.20	µg/Wipe								
Aroclor-1254 [2C]	ND	0.20	µg/Wipe								
Aroclor-1260	ND	0.20	µg/Wipe								R-05
Aroclor-1260 [2C]	ND	0.20	µg/Wipe								R-05
Aroclor-1262	ND	0.20	µg/Wipe								
Aroclor-1262 [2C]	ND	0.20	µg/Wipe								
Aroclor-1268	ND	0.20	µg/Wipe								
Aroclor-1268 [2C]	ND	0.20	µg/Wipe								
Surrogate: Decachlorobiphenyl	*1.60*		µg/Wipe	2.00		80.2	30-150				
Surrogate: Decachlorobiphenyl [2C]	*1.53*		µg/Wipe	2.00		76.4	30-150				
Surrogate: Tetrachloro-m-xylene	*1.54*		µg/Wipe	2.00		76.9	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*1.53*		µg/Wipe	2.00		76.7	30-150				
LCS (B285514-BS1)				Prepared: 07/08/21 Analyzed: 07/13/21							
Aroclor-1016	0.49	0.20	µg/Wipe	0.500		97.3	40-140				R-05
Aroclor-1016 [2C]	0.48	0.20	µg/Wipe	0.500		96.9	40-140				R-05
Aroclor-1260	0.48	0.20	µg/Wipe	0.500		96.7	40-140				R-05
Aroclor-1260 [2C]	0.44	0.20	µg/Wipe	0.500		87.5	40-140				R-05
Surrogate: Decachlorobiphenyl	*1.93*		µg/Wipe	2.00		96.4	30-150				
Surrogate: Decachlorobiphenyl [2C]	*1.84*		µg/Wipe	2.00		92.0	30-150				
Surrogate: Tetrachloro-m-xylene	*1.73*		µg/Wipe	2.00		86.7	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*1.72*		µg/Wipe	2.00		86.1	30-150				
LCS Dup (B285514-BSD1)				Prepared: 07/08/21 Analyzed: 07/13/21							
Aroclor-1016	0.35	0.20	µg/Wipe	0.500		69.1	40-140	**33.9**	*	30	R-05
Aroclor-1016 [2C]	0.35	0.20	µg/Wipe	0.500		70.2	40-140	**31.9**	*	30	R-05
Aroclor-1260	0.32	0.20	µg/Wipe	0.500		64.5	40-140	**40.0**	*	30	R-05
Aroclor-1260 [2C]	0.28	0.20	µg/Wipe	0.500		56.8	40-140	**42.5**	*	30	R-05
Surrogate: Decachlorobiphenyl	*1.20*		µg/Wipe	2.00		59.8	30-150				
Surrogate: Decachlorobiphenyl [2C]	*1.15*		µg/Wipe	2.00		57.7	30-150				
Surrogate: Tetrachloro-m-xylene	*1.23*		µg/Wipe	2.00		61.5	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*1.24*		µg/Wipe	2.00		61.9	30-150				

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

WS-1

Lab Sample ID: 21G0028-01 Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.25	
	2	0.000	0.000	0.000	0.21	17.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

CW-1

Lab Sample ID: 21G0028-05

Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.25	
	2	0.000	0.000	0.000	0.32	24.6

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

CW-7

Lab Sample ID: 21G0028-11

Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1254	1	0.000	0.000	0.000	0.45	
	2	0.000	0.000	0.000	0.47	4.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

CW-8

Lab Sample ID: 21G0028-12 Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1260	1	0.000	0.000	0.000	0.30	
	2	0.000	0.000	0.000	0.35	15.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B285514-BS1 Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.49	
	2	0.000	0.000	0.000	0.48	2.1
Aroclor-1260	1	0.000	0.000	0.000	0.48	
	2	0.000	0.000	0.000	0.44	8.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B285514-BSD1 Date(s) Analyzed: 07/13/2021 07/13/2021

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.35	
	2	0.000	0.000	0.000	0.35	0.0
Aroclor-1260	1	0.000	0.000	0.000	0.32	
	2	0.000	0.000	0.000	0.28	13.3

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

2160028

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Report To: Bettina Eames	Email To: beames@nobis-group.com
Copy To:	Site Collection Info/Address: 125 Thames St
Customer Project Name/Number: Robin Rug 095560.200	State: RI County/City: Bristol Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: 603-224-4182 Email:	Site/Facility ID #:
Collected By (print): Sarah Powers	Purchase Order #: Quote #:
Collected By (signature): Sarah Powers	Turnaround Date Required: standard turnaround
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [X] No

DW PWS ID #: DW Location Code:

Immediately Packed on Ice: [X] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses: PCBs EPA 8082 Soxhlet	Lab Sample # / Comments
WS-1	WP	G	6-28-21	1300				1	✓	1 Labels were wet and fell off some jars, unable to figure out
WS-2	WP	G		1255				1	✓	2 which is WS-3, CW-1,
WS-3	WP	G		1310				1	✓	- 3 CW-7, and CW-8
WS-4	WP	G		1320				1	✓	4
CW-1	WP	G		1400				1	✓	- 5
CW-2	WP	G		1500				1	✓	6
CW-3	WP	G		1405				1	✓	7
CW-4	WP	G		1510				1	✓	~~8~~
CW-5	WP	G		1435				1	✓	9
CW-6	WP	G		1430				1	✓	~~10~~

Container Preservative Type **: 9

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Project Manager:

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	(NA)
Custody Signatures Present	Y	N	(NA)
Collector Signature Present	(Y)	N	NA
Bottles Intact	(Y)	N	NA
Correct Bottles	(Y)	N	NA
Sufficient Volume	(Y)	N	NA
Samples Received on Ice	(Y)	N	NA
VOA - Headspace Acceptable	Y	N	(NA)
USDA Regulated Soils	Y	N	(NA)
Samples in Holding Time	(Y)	N	NA
Residual Chlorine Present	Y	N	(NA)
Cl Strips:			
Sample pH Acceptable	Y	N	(NA)
pH Strips:			
Sulfide Present	Y	N	(NA)
Lead Acetate Strips:			

LAB USE ONLY:

Customer Remarks / Special Conditions / Possible Hazards: Method 8022 w/ Soxhlet Extraction needed

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2676634

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:

Temp Blank Received: Y (N) NA

Therm ID#: 3

Cooler 1 Temp Upon Receipt: ____oC

Cooler 1 Therm Corr. Factor: ____oC

Cooler 1 Corrected Temp: ____oC

Comments: 4 < 3

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Sarah Powers	6/30/21 2030		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/1/21 1125		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/1/21 1405		

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y (N) NA

HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 2

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CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical™

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

2160028

ALL SHADED AREAS are for LAB USE ONLY

Company: Nobis	Billing Information: Accounts Payable Nobis
Address: 18 Chenell Drive	
Report To: Bethina Eames	Email To: beames@nobis-group.com
Copy To:	Site Collection Info/Address: 125 Thames St
Customer Project Name/Number: Robin Rug 0955100.2100	State: RI County/City: Bristol Time Zone Collected: [ ]PT [ ]MT [ ]CT [X]ET
Phone: 603-224-4182 Email:	Site/Facility ID #: Compliance Monitoring? [ ] Yes [X] No
Collected By (print): Sarah Powers	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature): Sarah Powers	Turnaround Date Required: Standard turnaround Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [X] No Analysis:

Container Preservative Type **: 9

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses: 1,1,1,2-PCBs 8082 soxhlet

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:
Lab Sample # / Comments:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Lab Sample # / Comments
CW-7	WP	G	6-28-21	1520				1	11
CW-8	WP	G	↓	1530				1	12
CW-9	WP	G	↓	1505				1	13

Customer Remarks / Special Conditions / Possible Hazards:
Method 8082 w/Soxhlet Extraction needed

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2676633

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 3
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments: 4.3

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Sarah Powers	6/30/21 2030		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/1/21 1125		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	7/1/21 1605		

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y (N) NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 2 of: 2

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 9, 2021

Bettina Eames
Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301

Project Location: Bristol, RI
Client Job Number:
Project Number: 095560.00
Laboratory Work Order Number: 21G0029

Enclosed are results of analyses for samples received by the laboratory on July 1, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica L. Hoffman
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Nobis Engineering - NH
18 Chenell Drive
Concord, NH 03301
ATTN: Bettina Eames

REPORT DATE: 7/9/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 095560.00

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21G0029

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Bristol, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SG-1	21G0029-01	Sub Slab		EPA TO-15	
SG-2	21G0029-02	Sub Slab		EPA TO-15	
SG-4	21G0029-03	Sub Slab		EPA TO-15	
SG-5	21G0029-04	Sub Slab		EPA TO-15	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Vinyl Acetate

21G0029-01[SG-1], 21G0029-02[SG-2], 21G0029-03[SG-4], 21G0029-04[SG-5], B285631-BLK1, B285631-BS1, B285631-DUP1, S061346-CCV1

V-34

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene

21G0029-01[SG-1], 21G0029-02[SG-2], 21G0029-03[SG-4], 21G0029-04[SG-5], B285631-BLK1, B285631-BS1, B285631-DUP1, S061346-CCV1

Z-01

Compound fails the method requirement of 70-130% recovery for the LCS. Is classified by the lab as a difficult compound and passes the in house limits of 50-150%.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene

21G0029-01[SG-1], 21G0029-02[SG-2], 21G0029-03[SG-4], 21G0029-04[SG-5], B285631-BLK1, B285631-BS1, B285631-DUP1

Naphthalene

21G0029-01[SG-1], 21G0029-02[SG-2], 21G0029-03[SG-4], 21G0029-04[SG-5], B285631-BLK1, B285631-BS1, B285631-DUP1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-1
Sample ID: 21G0029-01
Sample Matrix: Sub Slab
Sampled: 6/30/2021 14:16

Sample Description/Location:
Sub Description/Location:
Canister ID: 2057
Canister Size: 6 liter
Flow Controller ID: 4067
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -7
Receipt Vacuum(in Hg): -5.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	4.9	4.0		12	9.5	2	7/8/21 19:38	BRF
Benzene	0.30	0.10		0.95	0.32	2	7/8/21 19:38	BRF
Benzyl chloride	ND	0.10		ND	0.52	2	7/8/21 19:38	BRF
Bromodichloromethane	ND	0.10		ND	0.67	2	7/8/21 19:38	BRF
Bromoform	ND	0.10		ND	1.0	2	7/8/21 19:38	BRF
Bromomethane	ND	0.10		ND	0.39	2	7/8/21 19:38	BRF
1,3-Butadiene	ND	0.10		ND	0.22	2	7/8/21 19:38	BRF
2-Butanone (MEK)	ND	4.0		ND	12	2	7/8/21 19:38	BRF
Carbon Disulfide	ND	1.0		ND	3.1	2	7/8/21 19:38	BRF
Carbon Tetrachloride	ND	0.10		ND	0.63	2	7/8/21 19:38	BRF
Chlorobenzene	ND	0.10		ND	0.46	2	7/8/21 19:38	BRF
Chloroethane	ND	0.10		ND	0.26	2	7/8/21 19:38	BRF
Chloroform	0.15	0.10		0.74	0.49	2	7/8/21 19:38	BRF
Chloromethane	ND	0.20		ND	0.41	2	7/8/21 19:38	BRF
Cyclohexane	ND	0.10		ND	0.34	2	7/8/21 19:38	BRF
Dibromochloromethane	ND	0.10		ND	0.85	2	7/8/21 19:38	BRF
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	7/8/21 19:38	BRF
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 19:38	BRF
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 19:38	BRF
1,4-Dichlorobenzene	1.6	0.10		9.9	0.60	2	7/8/21 19:38	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10		ND	0.49	2	7/8/21 19:38	BRF
1,1-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
1,2-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 19:38	BRF
1,2-Dichloropropane	ND	0.10		ND	0.46	2	7/8/21 19:38	BRF
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 19:38	BRF
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 19:38	BRF
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	7/8/21 19:38	BRF
1,4-Dioxane	ND	1.0		ND	3.6	2	7/8/21 19:38	BRF
Ethanol	11	4.0		20	7.5	2	7/8/21 19:38	BRF
Ethyl Acetate	ND	1.0		ND	3.6	2	7/8/21 19:38	BRF
Ethylbenzene	0.20	0.10		0.89	0.43	2	7/8/21 19:38	BRF
4-Ethyltoluene	ND	0.10		ND	0.49	2	7/8/21 19:38	BRF
Heptane	ND	0.10		ND	0.41	2	7/8/21 19:38	BRF
Hexachlorobutadiene	ND	0.10		ND	1.1	2	7/8/21 19:38	BRF

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-1
Sample ID: 21G0029-01
Sample Matrix: Sub Slab
Sampled: 6/30/2021 14:16

Sample Description/Location:
Sub Description/Location:
Canister ID: 2057
Canister Size: 6 liter
Flow Controller ID: 4067
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -7
Receipt Vacuum(in Hg): -5.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	4.0		ND	14	2	7/8/21 19:38	BRF
2-Hexanone (MBK)	ND	0.20		ND	0.82	2	7/8/21 19:38	BRF
Isopropanol	ND	4.0		ND	9.8	2	7/8/21 19:38	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	7/8/21 19:38	BRF
Methylene Chloride	ND	1.0		ND	3.5	2	7/8/21 19:38	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	7/8/21 19:38	BRF
Naphthalene	ND	0.10	Z-01	ND	0.52	2	7/8/21 19:38	BRF
Propene	ND	4.0		ND	6.9	2	7/8/21 19:38	BRF
Styrene	ND	0.10		ND	0.43	2	7/8/21 19:38	BRF
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	7/8/21 19:38	BRF
Tetrachloroethylene	1.4	0.10		9.6	0.68	2	7/8/21 19:38	BRF
Tetrahydrofuran	ND	1.0		ND	2.9	2	7/8/21 19:38	BRF
Toluene	1.3	0.10		4.8	0.38	2	7/8/21 19:38	BRF
1,2,4-Trichlorobenzene	ND	0.10	Z-01, V-34	ND	0.74	2	7/8/21 19:38	BRF
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 19:38	BRF
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 19:38	BRF
Trichloroethylene	ND	0.10		ND	0.54	2	7/8/21 19:38	BRF
Trichlorofluoromethane (Freon 11)	2.4	0.40		13	2.2	2	7/8/21 19:38	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	7/8/21 19:38	BRF
1,2,4-Trimethylbenzene	0.57	0.10		2.8	0.49	2	7/8/21 19:38	BRF
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 19:38	BRF
Vinyl Acetate	ND	2.0	V-05	ND	7.0	2	7/8/21 19:38	BRF
Vinyl Chloride	ND	0.10		ND	0.26	2	7/8/21 19:38	BRF
m&p-Xylene	0.37	0.20		1.6	0.87	2	7/8/21 19:38	BRF
o-Xylene	0.18	0.10		0.78	0.43	2	7/8/21 19:38	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.0	70-130	7/8/21 19:38

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-2
Sample ID: 21G0029-02
Sample Matrix: Sub Slab
Sampled: 6/30/2021 14:57

Sample Description/Location:
Sub Description/Location:
Canister ID: 1641
Canister Size: 6 liter
Flow Controller ID: 4076
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	4.8	4.0		12	9.5	2	7/8/21 20:30	BRF
Benzene	ND	0.10		ND	0.32	2	7/8/21 20:30	BRF
Benzyl chloride	ND	0.10		ND	0.52	2	7/8/21 20:30	BRF
Bromodichloromethane	ND	0.10		ND	0.67	2	7/8/21 20:30	BRF
Bromoform	ND	0.10		ND	1.0	2	7/8/21 20:30	BRF
Bromomethane	ND	0.10		ND	0.39	2	7/8/21 20:30	BRF
1,3-Butadiene	ND	0.10		ND	0.22	2	7/8/21 20:30	BRF
2-Butanone (MEK)	ND	4.0		ND	12	2	7/8/21 20:30	BRF
Carbon Disulfide	ND	1.0		ND	3.1	2	7/8/21 20:30	BRF
Carbon Tetrachloride	ND	0.10		ND	0.63	2	7/8/21 20:30	BRF
Chlorobenzene	ND	0.10		ND	0.46	2	7/8/21 20:30	BRF
Chloroethane	ND	0.10		ND	0.26	2	7/8/21 20:30	BRF
Chloroform	0.38	0.10		1.8	0.49	2	7/8/21 20:30	BRF
Chloromethane	ND	0.20		ND	0.41	2	7/8/21 20:30	BRF
Cyclohexane	ND	0.10		ND	0.34	2	7/8/21 20:30	BRF
Dibromochloromethane	ND	0.10		ND	0.85	2	7/8/21 20:30	BRF
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	7/8/21 20:30	BRF
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 20:30	BRF
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 20:30	BRF
1,4-Dichlorobenzene	0.44	0.10		2.7	0.60	2	7/8/21 20:30	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10		ND	0.49	2	7/8/21 20:30	BRF
1,1-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
1,2-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 20:30	BRF
1,2-Dichloropropane	ND	0.10		ND	0.46	2	7/8/21 20:30	BRF
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 20:30	BRF
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 20:30	BRF
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	7/8/21 20:30	BRF
1,4-Dioxane	ND	1.0		ND	3.6	2	7/8/21 20:30	BRF
Ethanol	33	4.0		62	7.5	2	7/8/21 20:30	BRF
Ethyl Acetate	ND	1.0		ND	3.6	2	7/8/21 20:30	BRF
Ethylbenzene	0.14	0.10		0.59	0.43	2	7/8/21 20:30	BRF
4-Ethyltoluene	ND	0.10		ND	0.49	2	7/8/21 20:30	BRF
Heptane	ND	0.10		ND	0.41	2	7/8/21 20:30	BRF
Hexachlorobutadiene	ND	0.10		ND	1.1	2	7/8/21 20:30	BRF

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-2
Sample ID: 21G0029-02
Sample Matrix: Sub Slab
Sampled: 6/30/2021 14:57

Sample Description/Location:
Sub Description/Location:
Canister ID: 1641
Canister Size: 6 liter
Flow Controller ID: 4076
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	4.0		ND	14	2	7/8/21 20:30	BRF
2-Hexanone (MBK)	ND	0.20		ND	0.82	2	7/8/21 20:30	BRF
Isopropanol	ND	4.0		ND	9.8	2	7/8/21 20:30	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	7/8/21 20:30	BRF
Methylene Chloride	ND	1.0		ND	3.5	2	7/8/21 20:30	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	7/8/21 20:30	BRF
Naphthalene	ND	0.10	Z-01	ND	0.52	2	7/8/21 20:30	BRF
Propene	ND	4.0		ND	6.9	2	7/8/21 20:30	BRF
Styrene	0.10	0.10		0.43	0.43	2	7/8/21 20:30	BRF
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	7/8/21 20:30	BRF
Tetrachloroethylene	2.6	0.10		18	0.68	2	7/8/21 20:30	BRF
Tetrahydrofuran	ND	1.0		ND	2.9	2	7/8/21 20:30	BRF
Toluene	0.42	0.10		1.6	0.38	2	7/8/21 20:30	BRF
1,2,4-Trichlorobenzene	ND	0.10	V-34, Z-01	ND	0.74	2	7/8/21 20:30	BRF
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 20:30	BRF
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 20:30	BRF
Trichloroethylene	0.23	0.10		1.2	0.54	2	7/8/21 20:30	BRF
Trichlorofluoromethane (Freon 11)	ND	0.40		ND	2.2	2	7/8/21 20:30	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	7/8/21 20:30	BRF
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 20:30	BRF
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 20:30	BRF
Vinyl Acetate	ND	2.0	V-05	ND	7.0	2	7/8/21 20:30	BRF
Vinyl Chloride	ND	0.10		ND	0.26	2	7/8/21 20:30	BRF
m&p-Xylene	0.39	0.20		1.7	0.87	2	7/8/21 20:30	BRF
o-Xylene	0.20	0.10		0.86	0.43	2	7/8/21 20:30	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	89.6	70-130	7/8/21 20:30

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-4
Sample ID: 21G0029-03
Sample Matrix: Sub Slab
Sampled: 6/30/2021 15:27

Sample Description/Location:
Sub Description/Location:
Canister ID: 2205
Canister Size: 6 liter
Flow Controller ID: 4311
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.5
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	5.4	4.0		13	9.5	2	7/8/21 21:49	BRF
Benzene	ND	0.10		ND	0.32	2	7/8/21 21:49	BRF
Benzyl chloride	ND	0.10		ND	0.52	2	7/8/21 21:49	BRF
Bromodichloromethane	ND	0.10		ND	0.67	2	7/8/21 21:49	BRF
Bromoform	ND	0.10		ND	1.0	2	7/8/21 21:49	BRF
Bromomethane	ND	0.10		ND	0.39	2	7/8/21 21:49	BRF
1,3-Butadiene	ND	0.10		ND	0.22	2	7/8/21 21:49	BRF
2-Butanone (MEK)	ND	4.0		ND	12	2	7/8/21 21:49	BRF
Carbon Disulfide	ND	1.0		ND	3.1	2	7/8/21 21:49	BRF
Carbon Tetrachloride	ND	0.10		ND	0.63	2	7/8/21 21:49	BRF
Chlorobenzene	ND	0.10		ND	0.46	2	7/8/21 21:49	BRF
Chloroethane	ND	0.10		ND	0.26	2	7/8/21 21:49	BRF
Chloroform	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
Chloromethane	ND	0.20		ND	0.41	2	7/8/21 21:49	BRF
Cyclohexane	ND	0.10		ND	0.34	2	7/8/21 21:49	BRF
Dibromochloromethane	ND	0.10		ND	0.85	2	7/8/21 21:49	BRF
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	7/8/21 21:49	BRF
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 21:49	BRF
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 21:49	BRF
1,4-Dichlorobenzene	0.19	0.10		1.1	0.60	2	7/8/21 21:49	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
1,1-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
1,2-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 21:49	BRF
1,2-Dichloropropane	ND	0.10		ND	0.46	2	7/8/21 21:49	BRF
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 21:49	BRF
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 21:49	BRF
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	7/8/21 21:49	BRF
1,4-Dioxane	ND	1.0		ND	3.6	2	7/8/21 21:49	BRF
Ethanol	23	4.0		44	7.5	2	7/8/21 21:49	BRF
Ethyl Acetate	ND	1.0		ND	3.6	2	7/8/21 21:49	BRF
Ethylbenzene	ND	0.10		ND	0.43	2	7/8/21 21:49	BRF
4-Ethyltoluene	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
Heptane	ND	0.10		ND	0.41	2	7/8/21 21:49	BRF
Hexachlorobutadiene	ND	0.10		ND	1.1	2	7/8/21 21:49	BRF

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-4
Sample ID: 21G0029-03
Sample Matrix: Sub Slab
Sampled: 6/30/2021 15:27

Sample Description/Location:
Sub Description/Location:
Canister ID: 2205
Canister Size: 6 liter
Flow Controller ID: 4311
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.5
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Hexane	ND	4.0		ND	14	2	7/8/21 21:49	BRF
2-Hexanone (MBK)	ND	0.20		ND	0.82	2	7/8/21 21:49	BRF
Isopropanol	ND	4.0		ND	9.8	2	7/8/21 21:49	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	7/8/21 21:49	BRF
Methylene Chloride	ND	1.0		ND	3.5	2	7/8/21 21:49	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	7/8/21 21:49	BRF
Naphthalene	ND	0.10	Z-01	ND	0.52	2	7/8/21 21:49	BRF
Propene	ND	4.0		ND	6.9	2	7/8/21 21:49	BRF
Styrene	ND	0.10		ND	0.43	2	7/8/21 21:49	BRF
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	7/8/21 21:49	BRF
Tetrachloroethylene	38	0.10		260	0.68	2	7/8/21 21:49	BRF
Tetrahydrofuran	ND	1.0		ND	2.9	2	7/8/21 21:49	BRF
Toluene	0.25	0.10		0.93	0.38	2	7/8/21 21:49	BRF
1,2,4-Trichlorobenzene	ND	0.10	V-34, Z-01	ND	0.74	2	7/8/21 21:49	BRF
1,1,1-Trichloroethane	0.42	0.10		2.3	0.55	2	7/8/21 21:49	BRF
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 21:49	BRF
Trichloroethylene	3.6	0.10		19	0.54	2	7/8/21 21:49	BRF
Trichlorofluoromethane (Freon 11)	77	0.40		430	2.2	2	7/8/21 21:49	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	7/8/21 21:49	BRF
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 21:49	BRF
Vinyl Acetate	ND	2.0	V-05	ND	7.0	2	7/8/21 21:49	BRF
Vinyl Chloride	ND	0.10		ND	0.26	2	7/8/21 21:49	BRF
m&p-Xylene	0.26	0.20		1.1	0.87	2	7/8/21 21:49	BRF
o-Xylene	0.14	0.10		0.62	0.43	2	7/8/21 21:49	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	86.2	70-130	7/8/21 21:49

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-5
Sample ID: 21G0029-04
Sample Matrix: Sub Slab
Sampled: 6/30/2021 15:58

Sample Description/Location:
Sub Description/Location:
Canister ID: 2010
Canister Size: 6 liter
Flow Controller ID: 4213
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	Results	RL	Flag/Qual	Results	RL	Dilution	Analyzed	Analyst
Acetone	12	4.0		28	9.5	2	7/8/21 22:40	BRF
Benzene	0.19	0.10		0.61	0.32	2	7/8/21 22:40	BRF
Benzyl chloride	ND	0.10		ND	0.52	2	7/8/21 22:40	BRF
Bromodichloromethane	ND	0.10		ND	0.67	2	7/8/21 22:40	BRF
Bromoform	ND	0.10		ND	1.0	2	7/8/21 22:40	BRF
Bromomethane	ND	0.10		ND	0.39	2	7/8/21 22:40	BRF
1,3-Butadiene	ND	0.10		ND	0.22	2	7/8/21 22:40	BRF
2-Butanone (MEK)	ND	4.0		ND	12	2	7/8/21 22:40	BRF
Carbon Disulfide	ND	1.0		ND	3.1	2	7/8/21 22:40	BRF
Carbon Tetrachloride	ND	0.10		ND	0.63	2	7/8/21 22:40	BRF
Chlorobenzene	ND	0.10		ND	0.46	2	7/8/21 22:40	BRF
Chloroethane	ND	0.10		ND	0.26	2	7/8/21 22:40	BRF
Chloroform	0.17	0.10		0.81	0.49	2	7/8/21 22:40	BRF
Chloromethane	ND	0.20		ND	0.41	2	7/8/21 22:40	BRF
Cyclohexane	ND	0.10		ND	0.34	2	7/8/21 22:40	BRF
Dibromochloromethane	ND	0.10		ND	0.85	2	7/8/21 22:40	BRF
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	7/8/21 22:40	BRF
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 22:40	BRF
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 22:40	BRF
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	7/8/21 22:40	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10		ND	0.49	2	7/8/21 22:40	BRF
1,1-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
1,2-Dichloroethane	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	7/8/21 22:40	BRF
1,2-Dichloropropane	ND	0.10		ND	0.46	2	7/8/21 22:40	BRF
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 22:40	BRF
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	7/8/21 22:40	BRF
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10		ND	0.70	2	7/8/21 22:40	BRF
1,4-Dioxane	ND	1.0		ND	3.6	2	7/8/21 22:40	BRF
Ethanol	ND	4.0		ND	7.5	2	7/8/21 22:40	BRF
Ethyl Acetate	ND	1.0		ND	3.6	2	7/8/21 22:40	BRF
Ethylbenzene	0.12	0.10		0.52	0.43	2	7/8/21 22:40	BRF
4-Ethyltoluene	ND	0.10		ND	0.49	2	7/8/21 22:40	BRF
Heptane	ND	0.10		ND	0.41	2	7/8/21 22:40	BRF
Hexachlorobutadiene	ND	0.10		ND	1.1	2	7/8/21 22:40	BRF

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ANALYTICAL RESULTS

Project Location: Bristol, RI
Date Received: 7/1/2021
Field Sample #: SG-5
Sample ID: 21G0029-04
Sample Matrix: Sub Slab
Sampled: 6/30/2021 15:58

Sample Description/Location:
Sub Description/Location:
Canister ID: 2010
Canister Size: 6 liter
Flow Controller ID: 4213
Sample Type: 30 min

Work Order: 21G0029
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv			ug/m3			Date/Time	
Analyte	**Results**	**RL**	**Flag/Qual**	**Results**	**RL**	**Dilution**	**Analyzed**	**Analyst**
Hexane	ND	4.0		ND	14	2	7/8/21 22:40	BRF
2-Hexanone (MBK)	ND	0.20		ND	0.82	2	7/8/21 22:40	BRF
Isopropanol	ND	4.0		ND	9.8	2	7/8/21 22:40	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10		ND	0.36	2	7/8/21 22:40	BRF
Methylene Chloride	ND	1.0		ND	3.5	2	7/8/21 22:40	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10		ND	0.41	2	7/8/21 22:40	BRF
Naphthalene	ND	0.10	Z-01	ND	0.52	2	7/8/21 22:40	BRF
Propene	ND	4.0		ND	6.9	2	7/8/21 22:40	BRF
Styrene	0.12	0.10		0.53	0.43	2	7/8/21 22:40	BRF
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	7/8/21 22:40	BRF
Tetrachloroethylene	1.7	0.10		11	0.68	2	7/8/21 22:40	BRF
Tetrahydrofuran	ND	1.0		ND	2.9	2	7/8/21 22:40	BRF
Toluene	0.62	0.10		2.3	0.38	2	7/8/21 22:40	BRF
1,2,4-Trichlorobenzene	ND	0.10	V-34, Z-01	ND	0.74	2	7/8/21 22:40	BRF
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 22:40	BRF
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	7/8/21 22:40	BRF
Trichloroethylene	ND	0.10		ND	0.54	2	7/8/21 22:40	BRF
Trichlorofluoromethane (Freon 11)	ND	0.40		ND	2.2	2	7/8/21 22:40	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40		ND	3.1	2	7/8/21 22:40	BRF
1,2,4-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 22:40	BRF
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	7/8/21 22:40	BRF
Vinyl Acetate	ND	2.0	V-05	ND	7.0	2	7/8/21 22:40	BRF
Vinyl Chloride	ND	0.10		ND	0.26	2	7/8/21 22:40	BRF
m&p-Xylene	0.30	0.20		1.3	0.87	2	7/8/21 22:40	BRF
o-Xylene	0.13	0.10		0.57	0.43	2	7/8/21 22:40	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.8	70-130	7/8/21 22:40

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Sample Extraction Data

Prep Method: TO-15 Prep **Analytical Method: EP**

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
21G0029-01 [SG-1]	B285631	1.5	1	N/A	1000	200	150	07/08/21
21G0029-02 [SG-2]	B285631	1.5	1	N/A	1000	200	150	07/08/21
21G0029-03 [SG-4]	B285631	1.5	1	N/A	1000	200	150	07/08/21
21G0029-04 [SG-5]	B285631	1.5	1	N/A	1000	200	150	07/08/21

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep											
Blank (B285631-BLK1)					Prepared & Analyzed: 07/08/21						
Acetone	ND	0.80									
Benzene	ND	0.020									
Benzyl chloride	ND	0.020									
Bromodichloromethane	ND	0.020									
Bromoform	ND	0.020									
Bromomethane	ND	0.020									
1,3-Butadiene	ND	0.020									
2-Butanone (MEK)	ND	0.80									
Carbon Disulfide	ND	0.20									
Carbon Tetrachloride	ND	0.020									
Chlorobenzene	ND	0.020									
Chloroethane	ND	0.020									
Chloroform	ND	0.020									
Chloromethane	ND	0.040									
Cyclohexane	ND	0.020									
Dibromochloromethane	ND	0.020									
1,2-Dibromoethane (EDB)	ND	0.020									
1,2-Dichlorobenzene	ND	0.020									
1,3-Dichlorobenzene	ND	0.020									
1,4-Dichlorobenzene	ND	0.020									
Dichlorodifluoromethane (Freon 12)	ND	0.020									
1,1-Dichloroethane	ND	0.020									
1,2-Dichloroethane	ND	0.020									
1,1-Dichloroethylene	ND	0.020									
cis-1,2-Dichloroethylene	ND	0.020									
trans-1,2-Dichloroethylene	ND	0.020									
1,2-Dichloropropane	ND	0.020									
cis-1,3-Dichloropropene	ND	0.020									
trans-1,3-Dichloropropene	ND	0.020									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.020									
1,4-Dioxane	ND	0.20									
Ethanol	ND	0.80									
Ethyl Acetate	ND	0.20									
Ethylbenzene	ND	0.020									
4-Ethyltoluene	ND	0.020									
Heptane	ND	0.020									
Hexachlorobutadiene	ND	0.020									
Hexane	ND	0.80									
2-Hexanone (MBK)	ND	0.020									
Isopropanol	ND	0.80									
Methyl tert-Butyl Ether (MTBE)	ND	0.020									
Methylene Chloride	ND	0.20									
4-Methyl-2-pentanone (MIBK)	ND	0.020									
Naphthalene	ND	0.020									Z-01
Propene	ND	0.80									
Styrene	ND	0.020									

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep											
Blank (B285631-BLK1)					Prepared & Analyzed: 07/08/21						
1,1,2,2-Tetrachloroethane	ND	0.020									
Tetrachloroethylene	ND	0.020									
Tetrahydrofuran	ND	0.20									
Toluene	ND	0.020									
1,2,4-Trichlorobenzene	ND	0.020									V-34, Z-01
1,1,1-Trichloroethane	ND	0.020									
1,1,2-Trichloroethane	ND	0.020									
Trichloroethylene	ND	0.020									
Trichlorofluoromethane (Freon 11)	ND	0.080									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.080									
1,2,4-Trimethylbenzene	ND	0.020									
1,3,5-Trimethylbenzene	ND	0.020									
Vinyl Acetate	ND	0.40									V-05
Vinyl Chloride	ND	0.020									
m&p-Xylene	ND	0.040									
o-Xylene	ND	0.020									
Surrogate: 4-Bromofluorobenzene (1)	*7.27*				*8.00*		*90.9*	*70-130*			
LCS (B285631-BS1)					Prepared & Analyzed: 07/08/21						
Acetone	4.76				5.00		95.1	70-130			
Benzene	4.64				5.00		92.8	70-130			
Benzyl chloride	5.25				5.00		105	70-130			
Bromodichloromethane	5.05				5.00		101	70-130			
Bromoform	4.95				5.00		99.1	70-130			
Bromomethane	3.96				5.00		79.2	70-130			
1,3-Butadiene	3.86				5.00		77.1	70-130			
2-Butanone (MEK)	4.68				5.00		93.6	70-130			
Carbon Disulfide	4.58				5.00		91.5	70-130			
Carbon Tetrachloride	4.68				5.00		93.5	70-130			
Chlorobenzene	4.45				5.00		89.0	70-130			
Chloroethane	4.12				5.00		82.4	70-130			
Chloroform	4.30				5.00		86.0	70-130			
Chloromethane	4.43				5.00		88.5	70-130			
Cyclohexane	4.38				5.00		87.7	70-130			
Dibromochloromethane	4.75				5.00		94.9	70-130			
1,2-Dibromoethane (EDB)	4.75				5.00		95.0	70-130			
1,2-Dichlorobenzene	4.91				5.00		98.2	70-130			
1,3-Dichlorobenzene	5.05				5.00		101	70-130			
1,4-Dichlorobenzene	4.86				5.00		97.2	70-130			
Dichlorodifluoromethane (Freon 12)	4.07				5.00		81.4	70-130			
1,1-Dichloroethane	4.33				5.00		86.7	70-130			
1,2-Dichloroethane	4.38				5.00		87.6	70-130			
1,1-Dichloroethylene	4.67				5.00		93.5	70-130			
cis-1,2-Dichloroethylene	4.26				5.00		85.2	70-130			
trans-1,2-Dichloroethylene	4.21				5.00		84.2	70-130			
1,2-Dichloropropane	4.78				5.00		95.7	70-130			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep												
LCS (B285631-BS1)					Prepared & Analyzed: 07/08/21							
cis-1,3-Dichloropropene	4.44				5.00		88.8		70-130			
trans-1,3-Dichloropropene	4.88				5.00		97.6		70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	3.85				5.00		77.1		70-130			
1,4-Dioxane	4.88				5.00		97.6		70-130			
Ethanol	5.22				5.00		104		70-130			
Ethyl Acetate	3.98				5.00		79.7		70-130			
Ethylbenzene	4.48				5.00		89.6		70-130			
4-Ethyltoluene	4.51				5.00		90.2		70-130			
Heptane	4.93				5.00		98.6		70-130			
Hexachlorobutadiene	4.46				5.00		89.2		70-130			
Hexane	4.61				5.00		92.2		70-130			
2-Hexanone (MBK)	5.81				5.00		116		70-130			
Isopropanol	4.07				5.00		81.5		70-130			
Methyl tert-Butyl Ether (MTBE)	3.77				5.00		75.4		70-130			
Methylene Chloride	5.17				5.00		103		70-130			
4-Methyl-2-pentanone (MIBK)	5.18				5.00		104		70-130			
Naphthalene	3.04				5.00		**60.7**	*	70-130			Z-01
Propene	4.06				5.00		81.2		70-130			
Styrene	4.52				5.00		90.4		70-130			
1,1,2,2-Tetrachloroethane	5.08				5.00		102		70-130			
Tetrachloroethylene	4.43				5.00		88.6		70-130			
Tetrahydrofuran	4.13				5.00		82.5		70-130			
Toluene	4.44				5.00		88.7		70-130			
1,2,4-Trichlorobenzene	3.37				5.00		**67.4**	*	70-130			Z-01, V-34
1,1,1-Trichloroethane	4.62				5.00		92.5		70-130			
1,1,2-Trichloroethane	4.80				5.00		95.9		70-130			
Trichloroethylene	4.82				5.00		96.4		70-130			
Trichlorofluoromethane (Freon 11)	4.12				5.00		82.4		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.39				5.00		87.8		70-130			
1,2,4-Trimethylbenzene	4.54				5.00		90.8		70-130			
1,3,5-Trimethylbenzene	4.69				5.00		93.8		70-130			
Vinyl Acetate	4.54				5.00		90.7		70-130			V-05
Vinyl Chloride	4.19				5.00		83.9		70-130			
m&p-Xylene	9.74				10.0		97.4		70-130			
o-Xylene	4.76				5.00		95.2		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*7.69*				*8.00*		*96.2*		*70-130*			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep											
Duplicate (B285631-DUP1)			**Source: 21G0029-02**		Prepared & Analyzed: 07/08/21						
Acetone	4.9	4.0	12	9.5		4.8			0.0412	25	
Benzene	ND	0.10	ND	0.32		ND				25	
Benzyl chloride	ND	0.10	ND	0.52		ND				25	
Bromodichloromethane	ND	0.10	ND	0.67		ND				25	
Bromoform	ND	0.10	ND	1.0		ND				25	
Bromomethane	ND	0.10	ND	0.39		ND				25	
1,3-Butadiene	ND	0.10	ND	0.22		ND				25	
2-Butanone (MEK)	ND	4.0	ND	12		ND				25	
Carbon Disulfide	ND	1.0	ND	3.1		ND				25	
Carbon Tetrachloride	ND	0.10	ND	0.63		ND				25	
Chlorobenzene	ND	0.10	ND	0.46		ND				25	
Chloroethane	ND	0.10	ND	0.26		ND				25	
Chloroform	0.36	0.10	1.7	0.49		0.38			5.43	25	
Chloromethane	ND	0.20	ND	0.41		ND				25	
Cyclohexane	ND	0.10	ND	0.34		ND				25	
Dibromochloromethane	ND	0.10	ND	0.85		ND				25	
1,2-Dibromoethane (EDB)	ND	0.10	ND	0.77		ND				25	
1,2-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
1,3-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
1,4-Dichlorobenzene	0.43	0.10	2.6	0.60		0.44			3.69	25	
Dichlorodifluoromethane (Freon 12)	ND	0.10	ND	0.49		ND				25	
1,1-Dichloroethane	ND	0.10	ND	0.40		ND				25	
1,2-Dichloroethane	ND	0.10	ND	0.40		ND				25	
1,1-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
cis-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
trans-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
1,2-Dichloropropane	ND	0.10	ND	0.46		ND				25	
cis-1,3-Dichloropropene	ND	0.10	ND	0.45		ND				25	
trans-1,3-Dichloropropene	ND	0.10	ND	0.45		ND				25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	ND	0.70		ND				25	
1,4-Dioxane	ND	1.0	ND	3.6		ND				25	
Ethanol	33	4.0	62	7.5		33			0.472	25	
Ethyl Acetate	ND	1.0	ND	3.6		ND				25	
Ethylbenzene	0.13	0.10	0.55	0.43		0.14			7.63	25	
4-Ethyltoluene	ND	0.10	ND	0.49		ND				25	
Heptane	ND	0.10	ND	0.41		ND				25	
Hexachlorobutadiene	ND	0.10	ND	1.1		ND				25	
Hexane	0.40	4.0	1.4	14		0.40			1.50	25	
2-Hexanone (MBK)	ND	0.10	ND	0.41		ND				25	
Isopropanol	ND	4.0	ND	9.8		ND				25	
Methyl tert-Butyl Ether (MTBE)	ND	0.10	ND	0.36		ND				25	
Methylene Chloride	ND	1.0	ND	3.5		ND				25	
4-Methyl-2-pentanone (MIBK)	ND	0.10	ND	0.41		ND				25	
Naphthalene	ND	0.10	ND	0.52		ND				25	Z-01
Propene	ND	4.0	ND	6.9		ND				25	
Styrene	0.11	0.10	0.45	0.43		0.10			5.83	25	

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B285631 - TO-15 Prep											
Duplicate (B285631-DUP1)			**Source: 21G0029-02**		Prepared & Analyzed: 07/08/21						
1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.69		ND				25	
Tetrachloroethylene	2.6	0.10	18	0.68		2.6			0.304	25	
Tetrahydrofuran	ND	1.0	ND	2.9		ND				25	
Toluene	0.44	0.10	1.7	0.38		0.42			4.16	25	
1,2,4-Trichlorobenzene	ND	0.10	ND	0.74		ND				25	V-34, Z-01
1,1,1-Trichloroethane	ND	0.10	ND	0.55		ND				25	
1,1,2-Trichloroethane	ND	0.10	ND	0.55		ND				25	
Trichloroethylene	0.19	0.10	1.0	0.54		0.23			15.2	25	
Trichlorofluoromethane (Freon 11)	0.39	0.40	2.2	2.2		0.38			1.04	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	ND	3.1		ND				25	
1,2,4-Trimethylbenzene	ND	0.10	ND	0.49		ND				25	
1,3,5-Trimethylbenzene	ND	0.10	ND	0.49		ND				25	
Vinyl Acetate	ND	2.0	ND	7.0		ND				25	V-05
Vinyl Chloride	ND	0.10	ND	0.26		ND				25	
m&p-Xylene	0.39	0.20	1.7	0.87		0.39			0.00	25	
o-Xylene	0.19	0.10	0.83	0.43		0.20			3.08	25	
Surrogate: 4-Bromofluorobenzene (1)	*6.95*				*8.00*		*86.9*	*70-130*			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
Z-01	Compound fails the method requirement of 70-130% recovery for the LCS. Is classified by the lab as a difficult compound and passes the in house limits of 50-150%.

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (S052381-ICV1)			Lab File ID: J2025821.D			Analyzed: 09/14/20 23:22			
Bromochloromethane (1)	159501	2.873	155833	2.873	102	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	756714	3.475	745760	3.475	101	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	686740	5.06	671608	5.057	102	60 - 140	0.0030	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S061346-CCV1)			Lab File ID: J21A189004.D			Analyzed: 07/08/21 11:41			
Bromochloromethane (1)	157356	2.87	155833	2.873	101	60 - 140	-0.0030	+/-0.50	
1,4-Difluorobenzene (1)	638767	3.472	745760	3.475	86	60 - 140	-0.0030	+/-0.50	
Chlorobenzene-d5 (1)	572744	5.057	671608	5.057	85	60 - 140	0.0000	+/-0.50	
LCS (B285631-BS1)			Lab File ID: J21A189005.D			Analyzed: 07/08/21 12:08			
Bromochloromethane (1)	154718	2.867	157356	2.87	98	60 - 140	-0.0030	+/-0.50	
1,4-Difluorobenzene (1)	629101	3.472	638767	3.472	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	564227	5.057	572744	5.057	99	60 - 140	0.0000	+/-0.50	
Blank (B285631-BLK1)			Lab File ID: J21A189008.D			Analyzed: 07/08/21 13:37			
Bromochloromethane (1)	153553	2.853	157356	2.87	98	60 - 140	-0.0170	+/-0.50	
1,4-Difluorobenzene (1)	568518	3.465	638767	3.472	89	60 - 140	-0.0070	+/-0.50	
Chlorobenzene-d5 (1)	521545	5.053	572744	5.057	91	60 - 140	-0.0040	+/-0.50	
SG-1 (21G0029-01)			Lab File ID: J21A189019.D			Analyzed: 07/08/21 19:38			
Bromochloromethane (1)	156119	2.86	157356	2.87	99	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	569826	3.465	638767	3.472	89	60 - 140	-0.0070	+/-0.50	
Chlorobenzene-d5 (1)	520091	5.053	572744	5.057	91	60 - 140	-0.0040	+/-0.50	
SG-2 (21G0029-02)			Lab File ID: J21A189021.D			Analyzed: 07/08/21 20:30			
Bromochloromethane (1)	151655	2.86	157356	2.87	96	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	554837	3.468	638767	3.472	87	60 - 140	-0.0040	+/-0.50	
Chlorobenzene-d5 (1)	524986	5.054	572744	5.057	92	60 - 140	-0.0030	+/-0.50	
Duplicate (B285631-DUP1)			Lab File ID: J21A189022.D			Analyzed: 07/08/21 20:57			
Bromochloromethane (1)	150490	2.86	157356	2.87	96	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	555730	3.468	638767	3.472	87	60 - 140	-0.0040	+/-0.50	
Chlorobenzene-d5 (1)	530318	5.054	572744	5.057	93	60 - 140	-0.0030	+/-0.50	
SG-4 (21G0029-03)			Lab File ID: J21A189024.D			Analyzed: 07/08/21 21:49			
Bromochloromethane (1)	143197	2.86	157356	2.87	91	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	550533	3.475	638767	3.472	86	60 - 140	0.0030	+/-0.50	
Chlorobenzene-d5 (1)	539904	5.057	572744	5.057	94	60 - 140	0.0000	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
SG-5 (21G0029-04)			Lab File ID: J21A189026.D			Analyzed: 07/08/21 22:40			
Bromochloromethane (1)	146505	2.86	157356	2.87	93	60 - 140	-0.0100	+/-0.50	
1,4-Difluorobenzene (1)	519978	3.465	638767	3.472	81	60 - 140	-0.0070	+/-0.50	
Chlorobenzene-d5 (1)	479500	5.054	572744	5.057	84	60 - 140	-0.0030	+/-0.50	

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CONTINUING CALIBRATION CHECK

EPA TO-15

S061346-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	4.86	0.9103154	0.8850047		-2.8	30
Benzene	A	5.00	4.78	0.6606025	0.6318197		-4.4	30
Benzyl chloride	A	5.00	4.94	0.5965762	0.5894319		-1.2	30
Bromodichloromethane	A	5.00	5.16	0.4537953	0.4678914		3.1	30
Bromoform	A	5.00	4.98	0.6600998	0.6568519		-0.5	30
Bromomethane	A	5.00	3.96	1.001177	0.7927807		-20.8	30
1,3-Butadiene	A	5.00	4.14	0.6246902	0.5173594		-17.2	30
2-Butanone (MEK)	A	5.00	4.58	1.30749	1.197997		-8.4	30
Carbon Disulfide	A	5.00	4.65	2.466469	2.291731		-7.1	30
Carbon Tetrachloride	A	5.00	4.77	0.5064752	0.4835616		-4.5	30
Chlorobenzene	A	5.00	4.53	0.7751296	0.7019848		-9.4	30
Chloroethane	A	5.00	4.05	0.5001442	0.4055517		-18.9	30
Chloroform	A	5.00	4.33	2.018779	1.748219		-13.4	30
Chloromethane	A	5.00	4.45	0.6141491	0.5465518		-11.0	30
Cyclohexane	A	5.00	4.45	0.2849344	0.2536061		-11.0	30
Dibromochloromethane	A	5.00	4.81	0.6429615	0.6185409		-3.8	30
1,2-Dibromoethane (EDB)	A	5.00	4.91	0.4841019	0.4754375		-1.8	30
1,2-Dichlorobenzene	A	5.00	4.75	0.6846313	0.6505552		-5.0	30
1,3-Dichlorobenzene	A	5.00	4.99	0.7215992	0.7200117		-0.2	30
1,4-Dichlorobenzene	A	5.00	4.81	0.7134896	0.6866453		-3.8	30
Dichlorodifluoromethane (Freon 12)	A	5.00	4.11	2.507091	2.06234		-17.7	30
1,1-Dichloroethane	A	5.00	4.31	1.545303	1.333354		-13.7	30
1,2-Dichloroethane	A	5.00	4.39	1.058805	0.9295407		-12.2	30
1,1-Dichloroethylene	A	5.00	4.59	1.160287	1.065569		-8.2	30
cis-1,2-Dichloroethylene	A	5.00	4.18	1.114268	0.9326927		-16.3	30
trans-1,2-Dichloroethylene	A	5.00	4.31	1.201908	1.035146		-13.9	30
1,2-Dichloropropane	A	5.00	4.83	0.2231134	0.2155903		-3.4	30
cis-1,3-Dichloropropene	A	5.00	4.48	0.3628898	0.3254896		-10.3	30
trans-1,3-Dichloropropene	A	5.00	4.68	0.3055463	0.2857505		-6.5	30
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 1	A	5.00	4.12	2.650055	2.185475		-17.5	30
1,4-Dioxane	A	5.00	4.59	0.139387	0.1278714		-8.3	30
Ethanol	A	5.00	4.16	0.1702165	0.1415898		-16.8	30
Ethyl Acetate	A	5.00	5.04	0.2280188	0.2298584		0.8	30
Ethylbenzene	A	5.00	4.62	1.161395	1.073599		-7.6	30
4-Ethyltoluene	A	5.00	4.58	1.262817	1.157501		-8.3	30
Heptane	A	5.00	5.01	0.1688454	0.1692536		0.2	30
Hexachlorobutadiene	A	5.00	4.59	0.6918294	0.6350314		-8.2	30
Hexane	L	5.00	4.53	0.6531603	0.5889016		-9.4	30

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CONTINUING CALIBRATION CHECK

EPA TO-15

S061346-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT		
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
2-Hexanone (MBK)	A	5.00	5.80	0.280065	0.3247831		16.0	30	
Isopropanol	A	5.00	5.12	1.001981	1.026442		2.4	30	
Methyl tert-Butyl Ether (MTBE)	A	5.00	3.89	2.512535	1.952871		-22.3	30	
Methylene Chloride	A	5.00	5.07	0.6621826	0.6719439		1.5	30	
4-Methyl-2-pentanone (MIBK)	A	5.00	5.24	0.1531114	0.1603289		4.7	30	
Naphthalene	A	5.00	3.90	1.086932	0.8469012		-22.1	30	
Propene	A	5.00	4.30	0.4641749	0.3992781		-14.0	30	
Styrene	A	5.00	4.54	0.7056488	0.6404174		-9.2	30	
1,1,2,2-Tetrachloroethane	A	5.00	5.07	0.638583	0.6475493		1.4	30	
Tetrachloroethylene	A	5.00	4.58	0.5546794	0.5080748		-8.4	30	
Tetrahydrofuran	A	5.00	4.29	0.7143044	0.6124813		-14.3	30	
Toluene	A	5.00	4.55	0.9345011	0.8510525		-8.9	30	
1,2,4-Trichlorobenzene	A	5.00	3.58	0.4260284	0.3054852		-28.3	30	
1,1,1-Trichloroethane	A	5.00	4.92	0.4496133	0.4424098		-1.6	30	
1,1,2-Trichloroethane	A	5.00	4.75	0.3281373	0.3119718		-4.9	30	
Trichloroethylene	A	5.00	4.98	0.2979469	0.2969421		-0.3	30	
Trichlorofluoromethane (Freon 11)	A	5.00	4.16	2.536841	2.10891		-16.9	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113	A	5.00	4.34	1.957735	1.701182		-13.1	30	
1,2,4-Trimethylbenzene	A	5.00	4.59	1.026744	0.9424916		-8.2	30	
1,3,5-Trimethylbenzene	A	5.00	4.85	1.080978	1.048239		-3.0	30	
Vinyl Acetate	A	5.00	3.20	1.400965	0.8956201		-36.1	30	*
Vinyl Chloride	A	5.00	4.28	0.8554634	0.7320471		-14.4	30	
m&p-Xylene	A	10.0	9.93	0.9185043	0.9116743		-0.7	30	
o-Xylene	A	5.00	4.86	0.899786	0.8744486		-2.8	30	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	AIHA,NY,ME,NH
Benzene	AIHA,FL,NJ,NY,ME,NH,VA
Benzyl chloride	AIHA,FL,NJ,NY,ME,NH,VA
Bromodichloromethane	AIHA,NJ,NY,ME,NH,VA
Bromoform	AIHA,NJ,NY,ME,NH,VA
Bromomethane	AIHA,FL,NJ,NY,ME,NH
1,3-Butadiene	AIHA,NJ,NY,ME,NH,VA
2-Butanone (MEK)	AIHA,FL,NJ,NY,ME,NH,VA
Carbon Disulfide	AIHA,NJ,NY,ME,NH,VA
Carbon Tetrachloride	AIHA,FL,NJ,NY,ME,NH,VA
Chlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
Chloroethane	AIHA,FL,NJ,NY,ME,NH,VA
Chloroform	AIHA,FL,NJ,NY,ME,NH,VA
Chloromethane	AIHA,FL,NJ,NY,ME,NH,VA
Cyclohexane	AIHA,NJ,NY,ME,NH,VA
Dibromochloromethane	AIHA,NY,ME,NH
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME,NH
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
1,3-Dichlorobenzene	AIHA,NJ,NY,ME,NH
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	AIHA,NY,ME,NH
1,1-Dichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,2-Dichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,1-Dichloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
cis-1,2-Dichloroethylene	AIHA,FL,NY,ME,NH,VA
trans-1,2-Dichloroethylene	AIHA,NJ,NY,ME,NH,VA
1,2-Dichloropropane	AIHA,FL,NJ,NY,ME,NH,VA
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,ME,NH,VA
trans-1,3-Dichloropropene	AIHA,NY,ME,NH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,NJ,NY,ME,NH,VA
1,4-Dioxane	AIHA,NJ,NY,ME,NH,VA
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,ME,NH,VA
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,ME,NH,VA
Hexachlorobutadiene	AIHA,NJ,NY,ME,NH,VA
Hexane	AIHA,FL,NJ,NY,ME,NH,VA
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY,ME,NH
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,ME,NH,VA
Methylene Chloride	AIHA,FL,NJ,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME,NH
Naphthalene	NY,ME,NH
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,ME,NH,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Tetrachloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
Tetrahydrofuran	AIHA
Toluene	AIHA,FL,NJ,NY,ME,NH,VA
1,2,4-Trichlorobenzene	AIHA,NJ,NY,ME,NH,VA
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,ME,NH,VA
Trichloroethylene	AIHA,FL,NJ,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	AIHA,NY,ME,NH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,ME,NH,VA
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME,NH
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME,NH
Vinyl Acetate	AIHA,FL,NJ,NY,ME,NH,VA
Vinyl Chloride	AIHA,FL,NJ,NY,ME,NH,VA
m&p-Xylene	AIHA,FL,NJ,NY,ME,NH,VA
o-Xylene	AIHA,FL,NJ,NY,ME,NH,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

con-test ANALYTICAL LABORATORY
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21G0009DTO

http://www.contestlabs.com

Doc #378 Rev 1_03242017

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
East Longmeadow, MA 01028

Company Name:
Address: Nobis
Phone: 603-224-4182
Project Name: Robin Rug
Project Location: Bristol RI
Project Number: 0955160.26
Project Manager: Bettina Beames
Con-Test Quote Name/Number: order# 2106449
Invoice Recipient: Accounts Payable - Nobis
Sampled By: Saran Powers

Requested Turnaround Time
7-Day ☐ 10-Day ☒
Due Date: Standard turnaround

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: beamesa@nobis-group.com
Fax To #:

ANALYSIS REQUESTED

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	TO-15				" Hg			Please fill out completely, sign, date and retain the yellow copy for your records	
Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	☐ m³/min ☒ L/min	Code	☒ Liters ☐ m³					Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa Can ID	Flow Controller ID
01	SG-1	6/30/21 1345	6/30/21 1416	30	0.2 L/min	SS	6	✓				-30	-7	5.8	2057	4067
02	SG-2	6/30/21 1427	6/30/21 1457	30	0.2 L/min	SS	6	✓				-28	-4	1.6	1641	4076
03	SG-4	6/30/21 1457	6/30/21 1527	30	0.2 L/min	SS	6	✓				-29	-4	1.5	2205	4311
04	SG-5	6/30/21 1528	6/30/21 1558	30	0.2 L/min	SS	6	✓				-28	-5	2	2010	4213

Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply

For summa canister and flow controller information please refer to Con-Test's Air Media Agreement

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

	Date/Time:
Relinquished by: (signature) Saran Powers	6/30/21 2030
Received by: (signature)	7/1/21 1125
Relinquished by: (signature)	7/1/21 1605
Received by: (signature)	7/1 1605
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ Other

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NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 278 Rev 6 2017

Air Media Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client DCHD

Received By RLF Date 7/1/21 Time 1605

How were the samples received? In Cooler ____ On Ice ____ No Ice ____ In Box T Ambient ____ Melted Ice ____

Were samples within Temperature Compliance? 2-6°C NA By Gun # ____ Actual Temp - ____ By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there any loose caps/valves on any samples? F

Is COC in ink/ Legible? T

Did COC Include all Pertinent Information? Client T Project T Analysis T ID's T Sampler Name T Collection Dates/Times T

Are Sample Labels filled out and legible? T

Are there Rushes? F Who was notified? ____

Samples are received within holding time? T

Proper Media Used? T Individually Certified Cans? F

Are there Trip Blanks? F Is there enough Volume? T

Containers:	#	Size	Regulator	Duration	Accessories:			
Summa Cans	5	6L	5	30min	Nut/Ferrule	5	IC Train	
Tedlar Bags					Tubing			
TO-17 Tubes					T-Connector		Shipping Charges	
Radiello					Syringe			
Pufs/TO-11s					Tedlar			

Can #'s					Reg #'s				
2057					4067				
1641					4076				
2205					4311				
2015					4213				
Unused Media					**Pufs/TO-17's**				
2144	(29.5)	4039							

Comments:

APPENDIX C

Conceptual Site Model and Proposed Future Redevelopment

Contaminants consist of oil (as petroleum) and polyaromatic nuclear hydrocarbons (PAHs) and metals (primarily arsenic and lead). These contaminants are associated with filling of the land with unknown fill mixed with quarry gravel to expand the buildable waterfront coupled with the long-time (100 + years) of industrial use of the main portion of the Site and incidental releases which occurred over time.

These contaminants are present in subsurface soils above the residential direct exposure criteria (RDEC) and/or the industrial/commercial DEC (ICDEC) on two of the Main Mill parcels (west of Thames Street) and on two of the parking lots (east of Thames Street). A summary of soil exceedances of the RDEC and/or ICDEC are summarized in Table 8 (See Attached). Thus, the direct contact/dermal absorption pathway is the only complete exposure pathway identified at the Site. Regarding groundwater: 1) no significant concentration of VOCs were detected in groundwater, 2) groundwater beneath the Site and surrounding areas is designated a GB Resource Area, and 3) the Site and surrounding area is serviced by a public municipal drinking water supply. Thus, the drinking water pathway is considered incomplete and not a concern. No significant detections of VOCs were detected in soil gas beneath the subslab of the Main Mill parcel and no residential units are planned on the basement and/or first/ground floor level. Thus, the indoor air pathway (vapor intrusion) is incomplete and also not a concern. The past, current and proposed future use of the west and east portions of the Site are described as follows:

Main Mill Parcels (West of Thames Street)- The large multi-story Main Mill building is mostly unoccupied and is largely underutilized and has been for several years. Current activities involve light industrial work (braided rug manufacturing) primarily on the ground and first floor in the northernmost building of the Mill Complex only. The future proposed use of the Main Mill Parcels will include redevelopment of the existing Mill Buildings into residential apartments/condominiums. Most of these parcels are covered by either a building and/or asphalt. A small portion of the western portion of these parcels (the area between the buildings and Bristol Harbor) is unpaved.

Parking Lot Parcels (East of Thames Street) – These parcels have had more of a residential use and most recently have been used as vehicular parking for adjacent residential properties. The future proposed use of the Parking Lot Parcels is the same as the current use (parking) but will be upgraded and improved with new features including: an asphalt cap, curbing and perimeter landscaping, security lighting and stormwater management features.

Brady Sullivan is proposing to redevelop the Robin Rug Mill Complex. The proposed project will be named the Bristol Yarn Mill. The existing multi-story Main Mill building are proposed to be converted into 127 loft-style residential apartments (mostly 2-bedroom rentals) and approximately 6,300 SF of leasable space for commercial use will be provided on the ground/first floor. The development will include 150 interior parking spaces (on Main Mill parcels) and 150 exterior spaces (east of Thames Street). A riverwalk will be constructed along the Harbor which will connect to Independence Park and provide public access to the waterfront. Concept plans for the proposed project and that were submitted as part of the recent (June 2021) pre-application/concept review to the Town of Bristol Department of Community Development are attached.

Brady Sullivan has successfully redeveloped serval historic mill properties (like Robin Rug). Examples of previous mill building to residential loft conversions completed by Brady Sullivan have included: Harris Mill Lofts in Coventry, Pocasset Mill Lofts in Johnston and US Rubber Lofts in Providence, Rhode Island.

Remedial Alternatives Analysis Objectives

As part of this SIR Addendum, Nobis conducted a Remedial Alternatives Analysis (RAA) to address the presence of oil (petroleum) and hazardous materials present in subsurface soils and which exceeds the RDEC and ICDEC at the Site. The purpose of the RRA is to identify a minimum of two (2) potential alternatives (excluding no action or natural attenuation) that will reduce or limit risk to human health associated with the direct contact exposure pathway associated with soil.

Description of Remedial Alternatives

The soil data and remedial alternatives for soil were evaluated against based upon several factors including: cost effectiveness, permanency of the alternative, risk management under current and/or future use scenarios (per Section 1.9.2 – Soil Objectives) and technical feasibility. Additionally, compliance with state and local laws or other public concerns, the Performing Party's ability and site background conditions were also considered for each alternative.

Each alternative was separately evaluated with respect to the Main Mill Parcels (west of Thames Street)and the Parking Lot Parcels (east of Thames Street) against each proposed alternative, which are as follows:

Alternative No. 1	Soil Excavation and Off-Site Disposal
Alternative No. 2	Engineered Controls
Alternative No. 3	Environmental Land Use Control and Soil Management Plan

Alternative No. 1 Soil Excavation and Off-Site Disposal

Description of Alternative

This alternative involves the excavation and off-site disposal off-site to a licensed facility.

On the Main Mill Parcel, the contaminants exceeding the RDEC and/or IDEC on the Main Mill parcels include PAHs, petroleum, lead and arsenic are located at depths from ground surface (0 feet) in the unpaved western portion of the site to depth up to 4 feet below grade located beneath paved areas. It is likely that these contaminants are located at similar depths within multiple subsurface utility corridors between the Mill buildings and beneath the footprint of the entire mill building complex. This alternative would be an enormous undertaking and would take a very long time. Excavation of soils from beneath the existing buildings would require demolition of the structure and removal of an enormously large volume of soil and backfilling, rebuild of existing structures (some subject to historical preservation), the associated subsurface utility corridors and asphalt and/or concrete pavements in order to achieve the end goal of the project.

On the Parking Lot Parcels, excavation up to depths of 9 to 10 feet in areas around SB-8 and TP-6 would need to be conducted to remove petroleum and arsenic above the RDEC. Exceedance of the ICDEC are located at mixed depths including 0 – 3.5 feet (lead a TP-7) and 7 to 9 feet (arsenic at SB-8). Further delineation around TP-7 would be needed around TP-7 which appears to be a "hot spot" (lead = 4.600 m/kg). Concentrations of arsenic are low (8 to 8.5 mg/kg) in soil and slightly above the RDEC and ICDEC of 7.0 mg/kg. Arsenic is presumed to be consistent with background concentrations on the Parking Lot Parcels. Excavation of soils on the unpaved parking lot parcels would generate a relatively large volume of soil (but less than at the Main Mill Parcels), management off-site and backfilling. The subgrade would need rebuild and restoration to support new parking lot construction which is the end goal of the project.

Compliance with Section 1.8 of the Remediation Regulations

This alternative would provide compliance with Section 1.8 of the Remediation Regulations, however , the cost to execute this alternative on the Main Mill Parcel would be cost prohibitive for the end goal of the project. On the Parking Lot Parcels, full soil excavation and off-site disposal across the entire Lots 10-43 and 10-76 would be cost prohibitive to the end goal of the

project. Localized soil excavation for the elevated lead in shallow soil (0 to 3.5 feet) around TP-7 on Lot 10-76 is suggested as these shallow lead impacted soils could be removed (in association with improvement to the parking lot sub-base) during rebuilding of the parking lot during project implementation. However, potential exposures to lead-impacted soils at TP-7 which are above the ICDEC could be managed via Alternative No. 2 (Capping) and Alternative No. 3 (ELUR with SMP). The full extent of lead impacted soils and volumes around TP-7 can be assessed during project execution.

Technical Feasibility

Implementation of soil excavation and off-site disposal is not considered to be technically or financially feasible on the Main Mill Parcels. Fill material with quarry gravel from an unknown source was historically used to expand the land area upon which the present Mill Complex is situated. Thus, soil on the Main Mill Parcels with RDEC and/or ICDEC exceedances is relatively inaccessible "as is" and covered by either a large building structure or pavement. Excavation of soils from the western portion of the Main Mill parcels (around TP-1, TP-2 and TP-3) where building and pavement are absent) would consist of a very large volume of impacted fill/quarry gravel materials (with unknown depths) as the depth of the fill/quarry gravel mix is unknown. Soils in this unpaved area would be best left in place as soil removal could impact the stability of the shoreline along Bristol Harbor and impact future construction of the proposed Harbors' Edge Walk. Exposure to near surface contaminated soils in the unpaved portion of the Main Mill can be managed via other means (i.e. Alternative No. 3).

Compliance with State and Local Laws and Other Public Concerns

This alternative would comply with state laws, including the Remediation Regulations. However, any proposed excavation from within the boundaries of most of the Main Mill Parcels would require approvals from the Coastal Resource Management Council (CRMC) and likely the Town. No specific local law or public concerns are known to be violated by this alternative. On the Parking Lot Parcels, this alternative is not anticipated to violate a specific local law or public concern.

Ability to Perform

Brady Sullivan, the Performing Party, is not able to perform this alternative to the full extent on the Main Mill Parcel and/or to the full extent on the Parking Lot Parcels as it would be cost prohibitive to the end goal of the project.

Alternative No. 2 Engineered Controls

Engineered controls would involve the use of a combination of strategies or "controls" designed to protect future site receptors from the contaminants in near and subsurface soil. Engineered controls can take the from of a number of various strategies and depend on the contamination present at the site. Engineered Controls can include, but not be limited to, such strategies as:

- Use of two feet of clean fill,
- Use of one foot of clean fill over geotextile liner (or marker barrier),
- Asphalt (minimum six inches of clean fill and four inches of asphalt),
- Concrete (minimum six inches of clean fill and four inches of concrete),
- Building foundation(s),
- Fencing,
- Restricted access,
- Impermeable cap (to prevent infiltration), and,
- Passive SSDS vapor barrier (for sites with vapor intrusion issues).

Several of these engineered controls will help to prevent direct contact to soil and minimize the leachability of the COCs (primarily metals) to groundwater. The identified COCs in soil on the Main Mill Parcels have shown little leaching and negative impacts on groundwater quality due to the presence of many of these controls, which currently exist. On the Parking Lot Parcels (most of which is currently unpaved), the construction of a new paved parking lot and maintenance of a capped surface would achieve the project risk management goals. Engineered Controls is recommended in conjunction with Alternative No. 3 for both the Main Mill Parcels and the Parking Lot Parcels.

Compliance with Section 1.8 of the Remediation Regulations

This alternative would provide compliance with Section 1.8 of the Remediation.

Technical Feasibility

Implementation of this alternative is technically feasible.

Compliance with State and Local Laws and Other Public Concerns

This alternative would comply with state laws, including the Remediation Regulations. This alternative is not anticipated to violate a specific local law or public concern for the Parking Lot Parcels. However, the use of asphalt or concrete pavement directly along the harbor front and west of the Main Mill Buildings may violate law or public concern and would not be consistent

with planned redevelopment of this portion of the site. This portion of the Site (adjacent to the harbor) is within the boundary of the CRMC and is proposed for construction of a public access harbor walk and thus will remain unpaved and surrounded by new and improved landscaping (i.e. wild grasses and flowers and small shrubs), etc.. The use of fencing and restricted access signage around the unpaved soil areas adjacent to the riverwalk (to prevent contact with near surface soils) will be utilized as engineered controls.

Ability to Perform

Brady Sullivan, the Performing Party, is able to perform this alternative.

Alternative No. 3 Environmental Land Use Control and Soil Management Plan

Environmental Land Use Control (ELUR) is a form of Institution Control that would be placed upon the land and recorded against the property deed (s). An ELUR would allow soil exceeding the Method 1 RDEC and/or ICDEC to remain in-place but under the Institutional Control of an ELUR. An Environmental Land Usage Restriction (ELUR) and an associated Soils Management Plan (SMP) would be placed on the property allowing certain activities and uses (i.e residential use with apartment style management) and future utility or construction work with conditions and prohibit certain activities and uses (i.e. single family residential use) provided that certain obligations and conditions are met. Obligations and conditions would include such things as: no gardening or growing of vegetables, annual inspections of restricted areas and any excavation work to be done under a Soil Management Plan (SMP). The ELUR would include an annual Site inspection and self-certification and reporting to RIDEM that the ELUR was being complied with.

Compliance with Section 1.8 of the Remediation Regulations

This alternative would comply with state laws, including the Remediation Regulations. This alternative would be used to allow residential apartment-condominium style use of the Main Mill Parcels only.

Technical Feasibility

Implementation of this alternative is considered technically and financially feasible on both the Main Mill Parcels and for the Parking Lot Parcels.

Compliance with State and Local Laws and Other Public Concerns

This alternative would comply with state laws, including the Remediation Regulations. This alternative is not anticipated to violate a specific local law or public concern. This alternative may require notification to easement holders and notification to utilities which may conduct excavation work within the ELUR-restricted areas in the future.

Ability to Perform

Brady Sullivan, the Performing Party is able to perform this alternative.

Recommended Remedial Alternatives

For the Main Mill Parcels Lots 10-42, 10-60, 10-61, 10-62 and 10-73 which are located west of Thames Street, the selected remedial alternative(s) include:

Alternative No. 2	Engineered Controls, and
Alternative No. 3	ELUR with SMP.

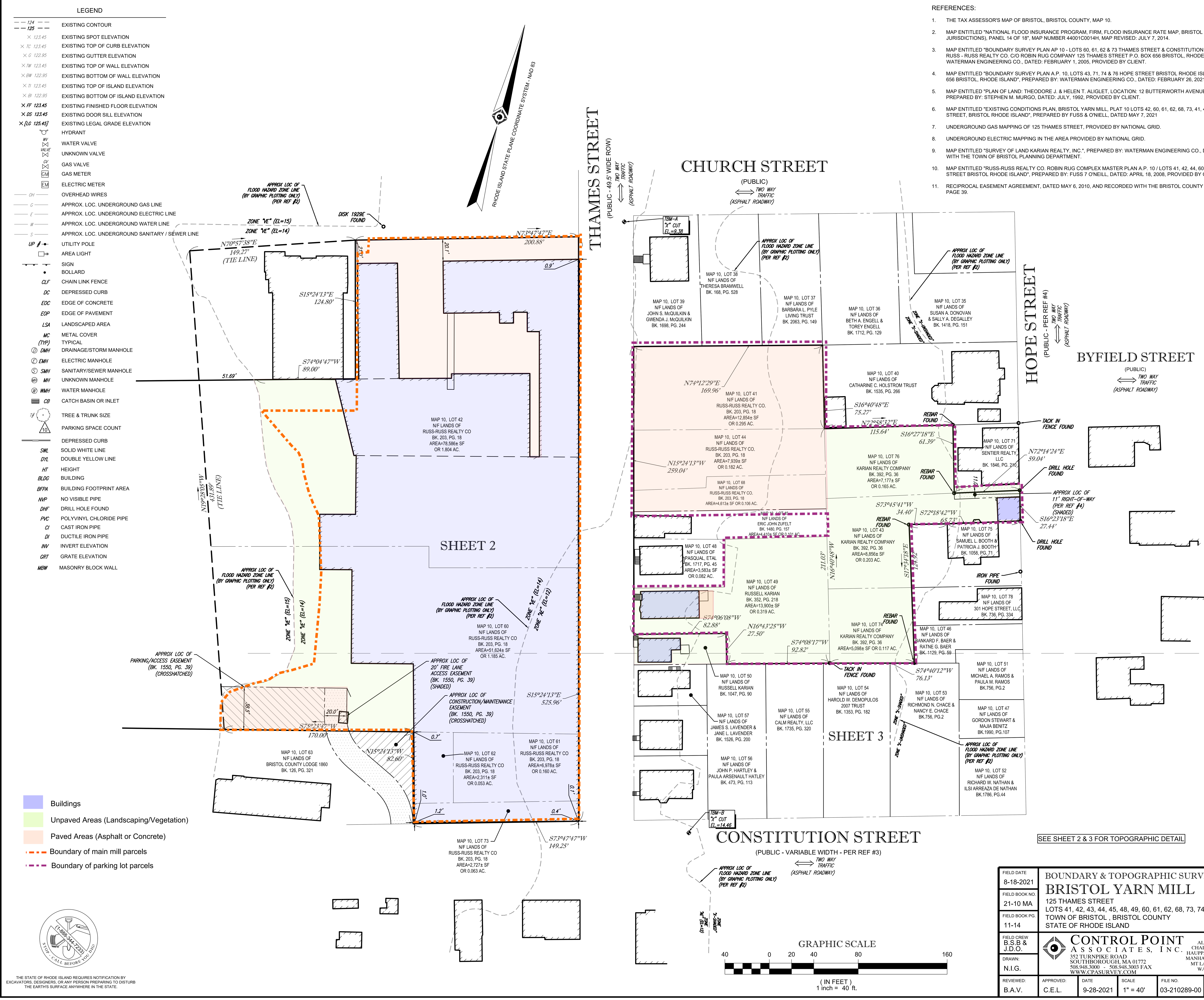
Engineered controls to be used on the Main Mill Parcels will include a combination of controls, including: 2 feet of clean fill in utility corridors, capping via use of asphalt pavement in vehicular parking areas, capping via use of concrete/pavers in walkway areas, maintenance of existing buildings/foundations and restricted access via the use of fencing and signage in portions to remain unpaved and where soil could be deemed "accessible" or "potentially accessible".

For the Parking Lot Parcels (Lots 10-41, 10-43, 10-44, 10-39, 10-68, 10-74 and 10-76) which are located east of Thames Street, the selected remedial alternative(s) include:

Alternative No. 1	Soil Excavation and Off-Site Disposal (To remove lead-impacted soils around TP-7 only on Lot 10-76), and,
Alternative No. 2	Engineered Controls, and
Alternative No. 3	ELUR with SMP.

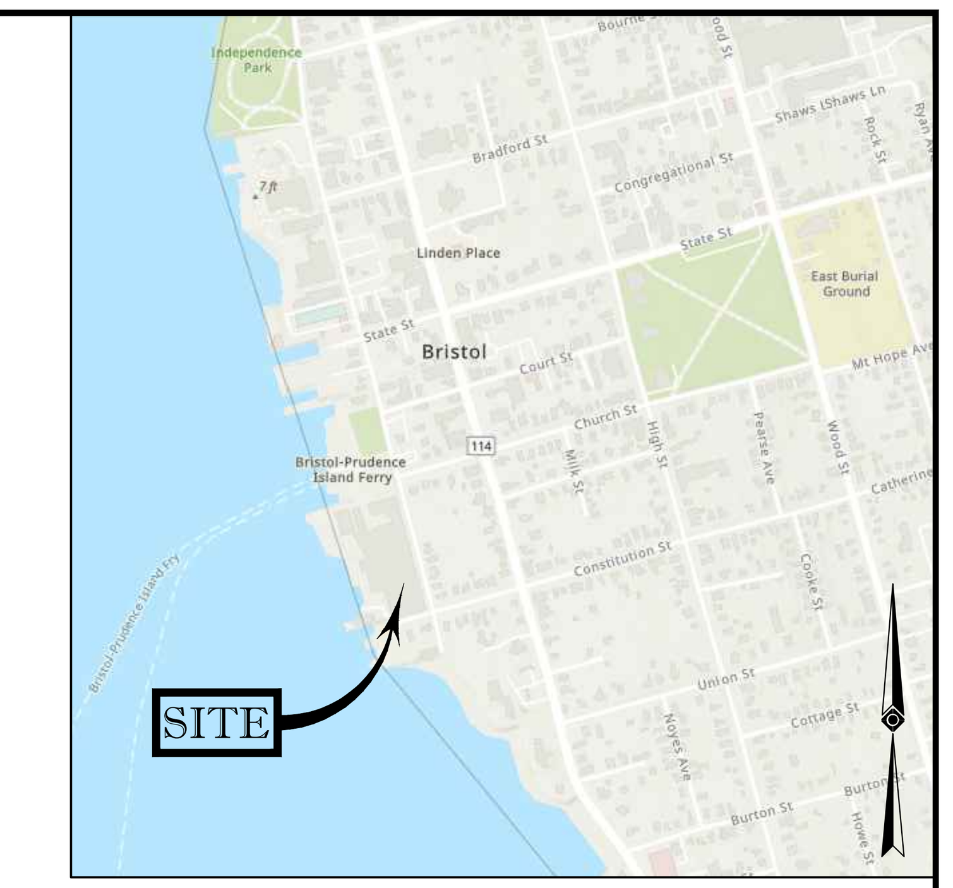
Engineered controls to be used on the Parking Lot Parcels will include: the use of new asphalt pavement as a cap for construction of the new parking lot, including 2 feet of clean fill beneath the new paved parking lot.

APPENDIX D



REFERENCES:

1. THE TAX ASSESSOR'S MAP OF BRISTOL, BRISTOL COUNTY, MAP 10.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, BRISTOL COUNTY, RHODE ISLAND 9ALL JURISDICTIONS), PANEL 14 OF 18", MAP NUMBER 44001C0014H, MAP REVISED: JULY 7, 2014.
3. MAP ENTITLED "BOUNDARY SURVEY PLAN AP 10 - LOTS 60, 61, 62 & 73 THAMES STREET & CONSTITUTION STREET BRISTOL, RHODE ISLAND RUSS - RUSS REALTY CO. C/O ROBIN RUG COMPANY 125 THAMES STREET P.O. BOX 656 BRISTOL, RHODE ISLAND 02809", PREPARED BY: WATERMAN ENGINEERING CO., DATED: FEBRUARY 1, 2005, PROVIDED BY CLIENT.
4. MAP ENTITLED "BOUNDARY SURVEY PLAN A.P. 10, LOTS 43, 71, 74 & 76 HOPE STREET BRISTOL RHODE ISLAND KARIAN REALTY CO. P.O. BOX 656 BRISTOL, RHODE ISLAND", PREPARED BY: WATERMAN ENGINEERING CO., DATED: FEBRUARY 26, 2021, PROVIDED BY CLIENT.
5. MAP ENTITLED "PLAN OF LAND: THEODORE J. & HELEN T. ALIGLET, LOCATION: 12 BUTTERWORTH AVENUE BRISTOL, RHODE ISLAND", PREPARED BY: STEPHEN M. MURGO, DATED: JULY, 1992, PROVIDED BY CLIENT.
6. MAP ENTITLED "EXISTING CONDITIONS PLAN, BRISTOL YARN MILL, PLAT 10 LOTS 42, 60, 61, 62, 68, 73, 41, 43, 44, 49, 74 AND 76, 125 THAMES STREET, BRISTOL RHODE ISLAND", PREPARED BY FUSS & O'NIELL, DATED MAY 7, 2021
7. UNDERGROUND GAS MAPPING OF 125 THAMES STREET, PROVIDED BY NATIONAL GRID.
8. UNDERGROUND ELECTRIC MAPPING IN THE AREA PROVIDED BY NATIONAL GRID.
9. MAP ENTITLED "SURVEY OF LAND KARIAN REALTY, INC.", PREPARED BY: WATERMAN ENGINEERING CO., DATED: AUGUST 1990, ON FILE WITH THE TOWN OF BRISTOL PLANNING DEPARTMENT.
10. MAP ENTITLED "RUSS-RUSS REALTY CO. ROBIN RUG COMPLEX MASTER PLAN A.P. 10 / LOTS 41, 42, 44, 60, 61, 62, 68 & 73 125 THAMES STREET BRISTOL RHODE ISLAND", PREPARED BY: FUSS 7 O'NEILL, DATED: APRIL 18, 2008, PROVIDED BY CLIENT.
11. RECIPROCAL EASEMENT AGREEMENT, DATED MAY 6, 2010, AND RECORDED WITH THE BRISTOL COUNTY LAND RECORDS IN BOOK 1550, PAGE 39.



LOCUS MAP
©2013 ESRI WORLD STREET MAPS
NOT TO SCALE

NOTES:

1. PROPERTY KNOWN AS LOTS 41, 42, 43, 44, 45, 48, 49, 60, 61, 62, 68, 73, 74 & 76 AS SHOWN ON THE TOWN OF BRISTOL, BRISTOL COUNTY, STATE OF RHODE ISLAND MAP NO. 10.
2. LOT 41 AREA = 12,854 SQUARE FEET OR 0.295 ACRES
LOT 42 AREA = 78,586 SQUARE FEET OR 1.804 ACRES
LOT 43 AREA = 8,856 SQUARE FEET OR 0.203 ACRES
LOT 44 AREA = 7,939 SQUARE FEET OR 0.182 ACRES
LOT 45 AREA = 4,410 SQUARE FEET OR 0.101 ACRES
LOT 48 AREA = 3,583 SQUARE FEET OR 0.082 ACRES
LOT 49 AREA = 13,900 SQUARE FEET OR 0.319 ACRES
LOT 60 AREA = 51,624 SQUARE FEET OR 1.185 ACRES
LOT 61 AREA = 6,978 SQUARE FEET OR 0.160 ACRES
LOT 62 AREA = 2,311 SQUARE FEET OR 0.053 ACRES
LOT 68 AREA = 4,613 SQUARE FEET OR 0.106 ACRES
LOT 73 AREA = 2,727 SQUARE FEET OR 0.063 ACRES
LOT 74 AREA = 5,098 SQUARE FEET OR 0.117 ACRES
LOT 76 AREA = 7,177 SQUARE FEET OR 0.165 ACRES
TOTAL AREA = 210,656 SQUARE FEET OR 4.835 ACRES
3. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE ASBUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.

   THE SOURCE OF UNDERGROUND UTILITIES ARE SHOWN UTILIZING A QUALITY LEVEL SYSTEM:

   QUALITY LEVEL D - UTILITIES SHOWN BASED UPON REFERENCE MAPPING OR ORAL HISTORY. NOT FIELD VERIFIED.

   QUALITY LEVEL C - LOCATION OF UTILITY SURFACE FEATURES SUPPLEMENTS REFERENCE MAPPING. INCLUDES MARKOUT BY OTHERS.

   QUALITY LEVEL B - UTILITY LOCATION DATA IS COLLECTED THROUGH GEOPHYSICAL SENSING TECHNOLOGY TO SUPPLEMENT SURFACE FEATURES AND OR REFERENCE MAPPING. INCLUDES MARKOUT BY CONTROL POINT ASSOCIATES, INC.

   QUALITY LEVEL A - HORIZONTAL AND VERTICAL LOCATION OF UTILITIES ARE OBTAINED USING VACUUM EQUIPMENT EXCAVATION OR OTHER METHODS TO EXPOSE THE UTILITY. LOCATION SHOWN AT SINGLE POINT WHERE EXCAVATION OCCURRED UNLESS UTILITY WAS LOCATED PRIOR TO FILLING.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
6. BY GRAPHIC PLOTTING ONLY A PORTION OF THE PROPERTY IS LOCATED IN FLOOD HAZARD ZONE "AE" (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, BASE FLOOD ELEVATIONS DETERMINED, EL=12), & ZONE "X SHADED" (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM %1 ANNUAL CHANCE FLOOD), & ZONE "X-UNSHADED" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), & ZONE "VE" (COSTAL FLOOD ZONE WITH VELOCITY HAZARD (WAVE ACTION); BASE FLOOD ELEVATIONS DETERMINED, EL=14 & EL=15) PER REF #2.
7. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS) TAKEN AT THE TIME OF THE FIELD SURVEY.

   TEMPORARY BENCH MARKS SET:

   TBM-A: X-CUT ON BONNET BOLT OF FIRE HYDRANT ALONG EASTERLY LINE OF THAMES STREET AT ELEVATION = 9.38'

   TBM-B: X-CUT ON BONNET BOLT OF FIRE HYDRANT ALONG NORTHERLY LINE OF CONSTITUTION STREET AT ELEVATION = 14.46'

   PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.
8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.

SEE SHEET 2 & 3 FOR TOPOGRAPHIC DETAIL

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE
1	UPDATED PER RECEIPT OF CLIENT COMMENTS	--	A.L.S.	C.E.L.	10-01-2021

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON DECEMBER 30, 2020 AS FOLLOWS:

1. TYPE OF BOUNDARY SURVEY: COMPREHENSIVE BOUNDARY SURVEY — MEASUREMENT SPECIFICATION I
2. OTHER TYPE OF SURVEY: — MEASUREMENT SPECIFICATION:
   DATA ACCUMULATION SURVEY (TOPOGRAPHIC SURVEY) — III
   VERTICAL CONTROL STANDARD — V-3
   TOPOGRAPHIC SURVEY ACCURACY — T-2
3. THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THIS PLAN IS AS FOLLOWS:
   PREPARE BOUNDARY SURVEY AND OBTAIN TOPOGRAPHIC INFORMATION FOR USE AS A BACKGROUND DOCUMENT FOR SITE PLAN PREPARATION.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL.

CHARLES E. LENT
STATE OF RHODE ISLAND
No. 1947
HOPE
PROFESSIONAL LAND SURVEYOR

10-01-2021
DATE

CHARLES E. LENT
RHODE ISLAND PROFESSIONAL LAND SURVEYOR #1947
CERTIFICATE OF AUTHORIZATION #A350

BOUNDARY & TOPOGRAPHIC SURVEY
BRISTOL YARN MILL

125 THAMES STREET
LOTS 41, 42, 43, 44, 45, 48, 49, 60, 61, 62, 68, 73, 74, 76, MAP 10
TOWN OF BRISTOL , BRISTOL COUNTY
STATE OF RHODE ISLAND

FIELD DATE: 8-18-2021
FIELD BOOK NO.: 21-10 MA
FIELD BOOK PG.: 11-14
FIELD CREW: B.S.B & J.D.O.
DRAWN: N.I.G.

CONTROL POINT ASSOCIATES, INC.
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX
WWW.CPASURVEY.COM
ALBANY, NY 518-217-5010
CHALFONT, PA 215-712-9800
HAUPPAUGE, NY 631-580-2645
MANHATTAN, NY 646-780-0411
MT LAUREL, NJ 609-857-2099
WARREN, NJ 908-668-0099

REVIEWED:	APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
B.A.V.	C.E.L.	9-28-2021	1" = 40'	03-210289-00	1 OF 3

LEGEND

- 124 / 125 — EXISTING CONTOUR
- 123.45 — EXISTING SPOT ELEVATION
- TC 123.45 — EXISTING TOP OF CURB ELEVATION
- G 122.95 — EXISTING GUTTER ELEVATION
- TW 123.45 — EXISTING TOP OF WALL ELEVATION
- BW 122.95 — EXISTING BOTTOM OF WALL ELEVATION
- TI 123.45 — EXISTING TOP OF ISLAND ELEVATION
- BI 122.95 — EXISTING BOTTOM OF ISLAND ELEVATION
- FF 123.45 — EXISTING FINISHED FLOOR ELEVATION
- DS 123.45 — EXISTING DOOR SILL ELEVATION
- [LG 125.45] — EXISTING LEGAL GRADE ELEVATION
- HYDRANT
- WV — WATER VALVE
- VALVE — UNKNOWN VALVE
- GV — GAS VALVE
- GM — GAS METER
- EM — ELECTRIC METER
- OH — OVERHEAD WIRES
- G — APPROX. LOC. UNDERGROUND GAS LINE
- E — APPROX. LOC. UNDERGROUND ELECTRIC LINE
- W — APPROX. LOC. UNDERGROUND WATER LINE
- S — APPROX. LOC. UNDERGROUND SANITARY / SEWER LINE
- UP — UTILITY POLE
- AREA LIGHT
- SIGN
- BOLLARD
- CLF — CHAIN LINK FENCE
- DC — DEPRESSED CURB
- EOC — EDGE OF CONCRETE
- EOP — EDGE OF PAVEMENT
- LSA — LANDSCAPED AREA
- MC (TYP) — METAL COVER TYPICAL
- DMH — DRAINAGE/STORM MANHOLE
- EMH — ELECTRIC MANHOLE
- SMH — SANITARY/SEWER MANHOLE
- MH — UNKNOWN MANHOLE
- WMH — WATER MANHOLE
- CB — CATCH BASIN OR INLET
- TREE & TRUNK SIZE
- 10 — PARKING SPACE COUNT
- DEPRESSED CURB
- SWL — SOLID WHITE LINE
- DYL — DOUBLE YELLOW LINE
- HT — HEIGHT
- BLDG — BUILDING
- BFPA — BUILDING FOOTPRINT AREA
- NVP — NO VISIBLE PIPE
- DHF — DRILL HOLE FOUND
- PVC — POLYVINYL CHLORIDE PIPE
- CI — CAST IRON PIPE
- DI — DUCTILE IRON PIPE
- INV — INVERT ELEVATION
- GRT — GRATE ELEVATION
- MBW — MASONRY BLOCK WALL

RHODE ISLAND STATE PLANE COORDINATE SYSTEM - NAD 83

THAMES STREET (PUBLIC - 49.5' WIDE ROW) ⟺ TWO WAY TRAFFIC (ASPHALT ROADWAY)

CHURCH STREET (PUBLIC) ⟺ TWO WAY TRAFFIC (ASPHALT ROADWAY)

HOPE STREET (PUBLIC - PER REF #4) ⟺ TWO WAY TRAFFIC (ASPHALT ROADWAY)

BYFIELD STREET (PUBLIC) ⟺ TWO WAY TRAFFIC (ASPHALT ROADWAY)

APPROX LOC OF FLOOD HAZARD ZONE LINE (BY GRAPHIC PLOTTING ONLY) (PER REF #2)

ZONE "AE" (EL=15) / ZONE "AE" (EL=14) / ZONE "X-SHADED" / ZONE "X" (EL=13)

TRANSFORMER ON CONC. PAD

DISK 1929E FOUND

TBM-A "X" CUT EL=9.38

"BRISTOL MARITIME CENTER"

"OVERNIGHT PARKING ONLY WITH THIS PERMIT"

"2 HOUR PARKING"

PLATFORM

APPROX. LOC. OF U.G. ELEC. LINE (PER REF. #7) (NOT FIELD VERIFIED – SEE NOTE 3)

APPROX. LOC. OF U.G. GAS LINE (PER REF. #6) (NOT FIELD VERIFIED – SEE NOTE 3)

APPROX. LOC. OF U.G. WATER LINE (PER REF. #5) (NOT FIELD VERIFIED – SEE NOTE 3)

APPROX. LOC. OF U.G. SAN. SEWER LINE (PER REF. #3) (NOT FIELD VERIFIED – SEE NOTE 3)

APPROX LOC OF BUILDING PARTY WALL

APPROX LOC OF TAX PARCEL LINE

APPROX LOC OF 20' FIRE LANE ACCESS EASEMENT (BK. 1550, PG. 39) (SHADED)

APPROX LOC OF 11' RIGHT-OF-WAY (PER REF. #4) (SHADED)

2 STORY FRAME BUILDING BFPA=1,371± SF

1 STORY FRAME BUILDING BLDG HT=24.5 BFPA=914 ± SF

2 STORY FRAME BUILDING BLDG HT=27.7 BFPA=1,037± SF

2 STORY FRAME BUILDING BLDG HT=26.9 BFPA=1,287± SF

5 STORY BRICK BUILDING BLDG HT=56.5 BFPA=94,863± SF

2 STORY FRAME BUILDING BFPA=726± SF

2 STORY FRAME BUILDING BLDG HT=21.2 BFPA=506± SF

2 STORY FRAME BUILDING BFPA=2,308± SF

2 STORY FRAME BUILDING BLDG HT=28.3 BFPA=2,137± SF

2 STORY FRAME BUILDING BFPA=437± SF

2 STORY FRAME BUILDING BFPA=1,543± SF

2 STORY FRAME BUILDING BFPA=1,690± SF

2 STORY FRAME BUILDING BFPA=1,892± SF

3 STORY BRICK BUILDING

1 STORY BRICK BUILDING

3 STORY FRAME BUILDING BFPA=1,827± SF

MAP 10, LOT 35 N/F LANDS OF SUSAN A. DONOVAN & SALLY A. DEGALLEY BK. 1418, PG. 151

MAP 10, LOT 36 N/F LANDS OF BETH A. ENGELL & TOREY ENGELL BK. 1712, PG. 129

MAP 10, LOT 37 N/F LANDS OF BARBARA L. PYLE LIVING TRUST BK. 2063, PG. 149

MAP 10, LOT 38 N/F LANDS OF THERESA BRAMWELL BK. 168, PG. 528

MAP 10, LOT 39 N/F LANDS OF JOHN S. McQUILKIN & GWENDA J. McQUILKIN BK. 1698, PG. 244

MAP 10, LOT 40 N/F LANDS OF CATHARINE C. HOLSTROM TRUST BK. 1535, PG. 266

MAP 10, LOT 41 N/F LANDS OF RUSS-RUSS REALTY CO, BK. 203, PG. 18 AREA=12,854± SF OR 0.295 AC.

MAP 10, LOT 42 N/F LANDS OF RUSS-RUSS REALTY CO BK. 203, PG. 18 AREA=78,586± SF OR 1.804 AC.

MAP 10, LOT 44 N/F LANDS OF RUSS-RUSS REALTY CO. BK. 203, PG. 18 AREA=7,939± SF OR 0.182 AC.

MAP 10, LOT 45 N/F LANDS OF ERIC JOHN ZUFELT BK. 1480, PG. 157 AREA=4,410± SF OR 0.101 AC.

MAP 10, LOT 48 N/F LANDS OF PASQUAL ETAL BK. 1717, PG. 45 AREA=3,583± SF OR 0.082 AC.

MAP 10, LOT 49 N/F LANDS OF RUSSELL KARIAN BK. 352, PG. 218 AREA=13,900± SF OR 0.319 AC..

MAP 10, LOT 50 N/F LANDS OF RUSSELL KARIAN BK. 1047, PG. 90

MAP 10, LOT 60 N/F LANDS OF RUSS-RUSS REALTY CO BK. 203, PG. 18 AREA=51,624± SF OR 1.185 AC.

MAP 10, LOT 68 N/F LANDS OF RUSS-RUSS REALTY CO, BK. 203, PG. 18 AREA=4,613± SF OR 0.106 AC.

MAP 10, LOT 76 N/F LANDS OF KARIAN REALTY COMPANY BK. 392, PG. 36 AREA=7,177± SF OR 0.165 AC.

MAP 10, LOT 43 N/F LANDS OF KARIAN REALTY COMPANY BK. 392, PG. 36 AREA=8,856± SF OR 0.203 AC.

MAP 10, LOT 74 N/F LANDS OF KARIAN REALTY COMPANY BK. 392, PG. 36 AREA=5,098± SF OR 0.117 AC.

MAP 10, LOT 71 N/F LANDS OF SENTIER REALTY, LLC BK. 1866, PG. 210

MAP 10, LOT 75 N/F LANDS OF SAMUEL L. BOOTH & PATRICIA J. BOOTH BK. 1058, PG. 71

MAP 10, LOT 78 N/F LANDS OF 301 HOPE STREET, LLC BK. 736, PG. 334

MAP 10, LOT 46 N/F LANDS OF BANKARD F. BAER & RATNE G. BAER BK. 1129, PG. 59

MAP 10, LOT 51 N/F LANDS OF MICHAEL A. RAMOS & PAULA M. RAMOS BK.756, PG.2

POB BK. 392, PG. 36

MATCHLINE SHEET 2
MATCHLINE SHEET 3

SEE SHEET 1 OF 2 FOR OVERALL BOUNDARY, NOTES & REFERENCES

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE
1	UPDATED PER RECEIPT OF CLIENT COMMENTS	--	A.L.S.	C.E.L.	10-01-2021

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON DECEMBER 30, 2020 AS FOLLOWS:

1. TYPE OF BOUNDARY SURVEY: COMPREHENSIVE BOUNDARY SURVEY — MEASUREMENT SPECIFICATION I
2. OTHER TYPE OF SURVEY: — MEASUREMENT SPECIFICATION:
   - DATA ACCUMULATION SURVEY (TOPOGRAPHIC SURVEY) — III
   - VERTICAL CONTROL STANDARD — V-3
   - TOPOGRAPHIC SURVEY ACCURACY — T-2
3. THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THIS PLAN IS AS FOLLOWS: PREPARE BOUNDARY SURVEY AND OBTAIN TOPOGRAPHIC AND PLANIMETRIC INFORMATION FOR USE AS A BACKGROUND DOCUMENT FOR SITE PLAN PREPARATION.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

CHARLES E. LENT — No. 1947 — PROFESSIONAL LAND SURVEYOR

10-01-2021

CHARLES E. LENT
RHODE ISLAND PROFESSIONAL LAND SURVEYOR #1947
CERTIFICATE OF AUTHORIZATION #A350

FIELD DATE	8-18-2021
FIELD BOOK NO.	21-10 MA
FIELD BOOK PG.	11-14
FIELD CREW	B.S.B & J.D.O.
DRAWN:	N.I.G.
REVIEWED:	B.A.V.

BOUNDARY & TOPOGRAPHIC SURVEY

BRISTOL YARN MILL

125 THAMES STREET
LOTS 41, 42, 43, 44, 45, 48, 49, 60, 61, 62, 68, 73, 74, 76, MAP 10
TOWN OF BRISTOL , BRISTOL COUNTY
STATE OF RHODE ISLAND

CONTROL POINT ASSOCIATES, INC.
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX
WWW.CPASURVEY.COM

ALBANY, NY 518-217-5010
CHALFONT, PA 215-712-9800
HAUPPAUGE, NY 631-580-2645
MANHATTAN, NY 646-780-0411
MT LAUREL, NJ 609-857-2099
WARREN, NJ 908-668-0099

APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
C.E.L.	9-28-2021	1" = 30'	03-210289-00	2 OF 3

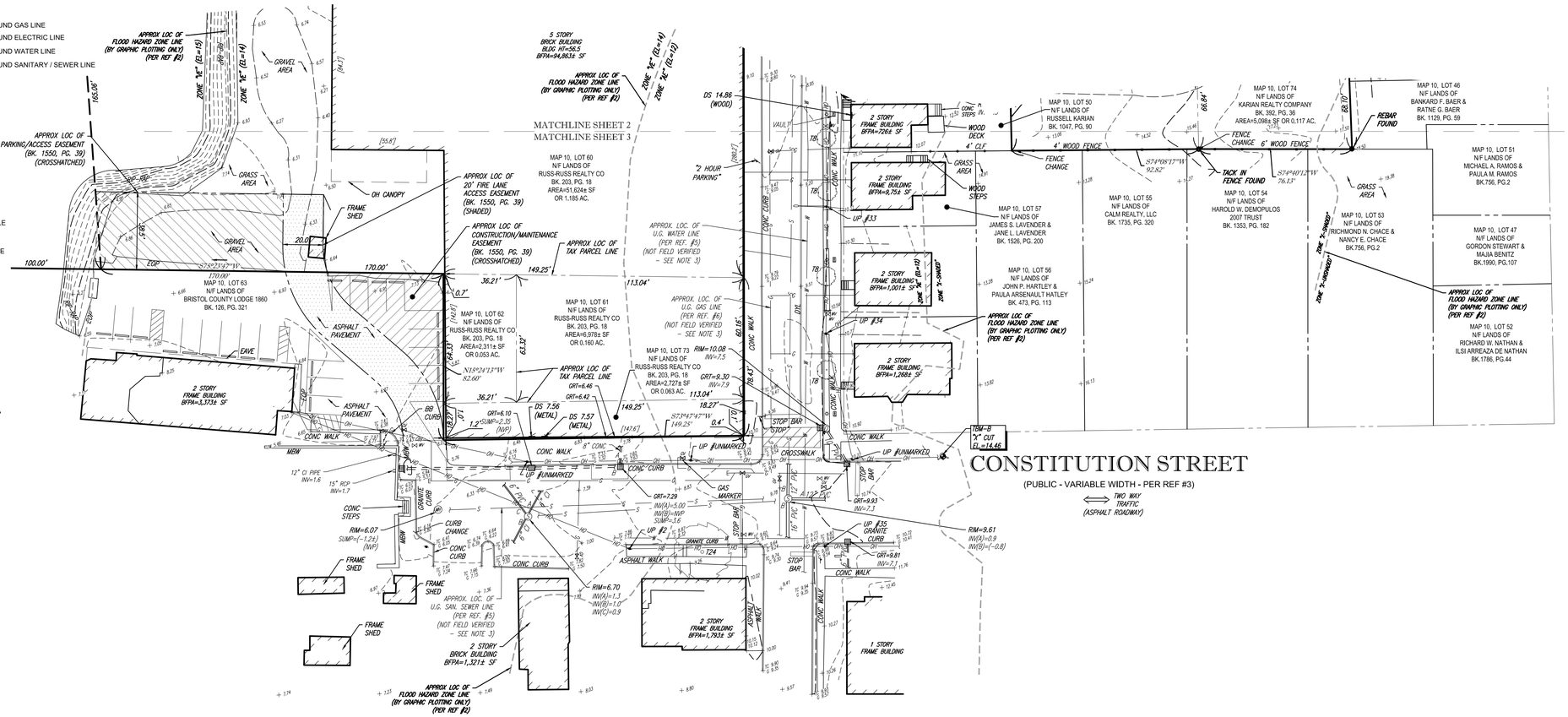
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

THE STATE OF RHODE ISLAND REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTHS SURFACE ANYWHERE IN THE STATE.

DIG SAFE — 1-(888)-344-7233 — STOP! CALL BEFORE YOU DIG!

LEGEND

124 / 125	EXISTING CONTOUR
× 123.45	EXISTING SPOT ELEVATION
× TC 123.45	EXISTING TOP OF CURB ELEVATION
× G 122.95	EXISTING GUTTER ELEVATION
× TW 123.45	EXISTING TOP OF WALL ELEVATION
× BW 122.95	EXISTING BOTTOM OF WALL ELEVATION
× TI 123.45	EXISTING TOP OF ISLAND ELEVATION
× BI 122.95	EXISTING BOTTOM OF ISLAND ELEVATION
× FF 123.45	EXISTING FINISHED FLOOR ELEVATION
× DS 123.45	EXISTING DOOR SILL ELEVATION
× [LG 125.45]	EXISTING LEGAL GRADE ELEVATION
	HYDRANT
WV	WATER VALVE
UNKNOWN VALVE	UNKNOWN VALVE
GV	GAS VALVE
GM	GAS METER
EM	ELECTRIC METER
OH	OVERHEAD WIRES
G	APPROX. LOC. UNDERGROUND GAS LINE
E	APPROX. LOC. UNDERGROUND ELECTRIC LINE
W	APPROX. LOC. UNDERGROUND WATER LINE
S	APPROX. LOC. UNDERGROUND SANITARY / SEWER LINE
UP	UTILITY POLE
	AREA LIGHT
	SIGN
	BOLLARD
CLF	CHAIN LINK FENCE
DC	DEPRESSED CURB
EOC	EDGE OF CONCRETE
EOP	EDGE OF PAVEMENT
LSA	LANDSCAPED AREA
MC (TYP)	METAL COVER TYPICAL
DMH	DRAINAGE/STORM MANHOLE
EMH	ELECTRIC MANHOLE
SMH	SANITARY/SEWER MANHOLE
MH	UNKNOWN MANHOLE
WMH	WATER MANHOLE
CB	CATCH BASIN OR INLET
14	TREE & TRUNK SIZE
10	PARKING SPACE COUNT
	DEPRESSED CURB
SWL	SOLID WHITE LINE
DYL	DOUBLE YELLOW LINE
HT	HEIGHT
BLDG	BUILDING
BFPA	BUILDING FOOTPRINT AREA
NVP	NO VISIBLE PIPE
DHF	DRILL HOLE FOUND
PVC	POLYVINYL CHLORIDE PIPE
CI	CAST IRON PIPE
DI	DUCTILE IRON PIPE
INV	INVERT ELEVATION
GRT	GRATE ELEVATION
MBW	MASONRY BLOCK WALL



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

No.	DESCRIPTION OF REVISION	FIELD CREW	DRAWN:	APPROVED:	DATE
1	UPDATED PER RECEIPT OF CLIENT COMMENTS	--	A.L.S.	C.E.L.	10-01-2021

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON DECEMBER 30, 2020 AS FOLLOWS:

1. TYPE OF BOUNDARY SURVEY: COMPREHENSIVE BOUNDARY SURVEY — MEASUREMENT SPECIFICATION I
2. OTHER TYPE OF SURVEY: — MEASUREMENT SPECIFICATION:
   - DATA ACCUMULATION SURVEY (TOPOGRAPHIC SURVEY) — III
   - VERTICAL CONTROL STANDARD — V-3
   - TOPOGRAPHIC SURVEY ACCURACY — T-2
3. THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THIS PLAN IS AS FOLLOWS: PREPARE BOUNDARY SURVEY AND OBTAIN TOPOGRAPHIC AND PLANIMETRIC INFORMATION FOR USE AS A BACKGROUND DOCUMENT FOR SITE PLAN PREPARATION.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL.

CHARLES E. LENT — No. 1947 — PROFESSIONAL LAND SURVEYOR

10-01-2021
DATE

CHARLES E. LENT
RHODE ISLAND PROFESSIONAL LAND SURVEYOR #1947
CERTIFICATE OF AUTHORIZATION #A350

FIELD DATE: 8-18-2021
FIELD BOOK NO.: 21-10 MA
FIELD BOOK PG.: 11-14
FIELD CREW: B.S.B & J.D.O.
DRAWN: N.I.G.
REVIEWED: B.A.V.

BOUNDARY & TOPOGRAPHIC SURVEY

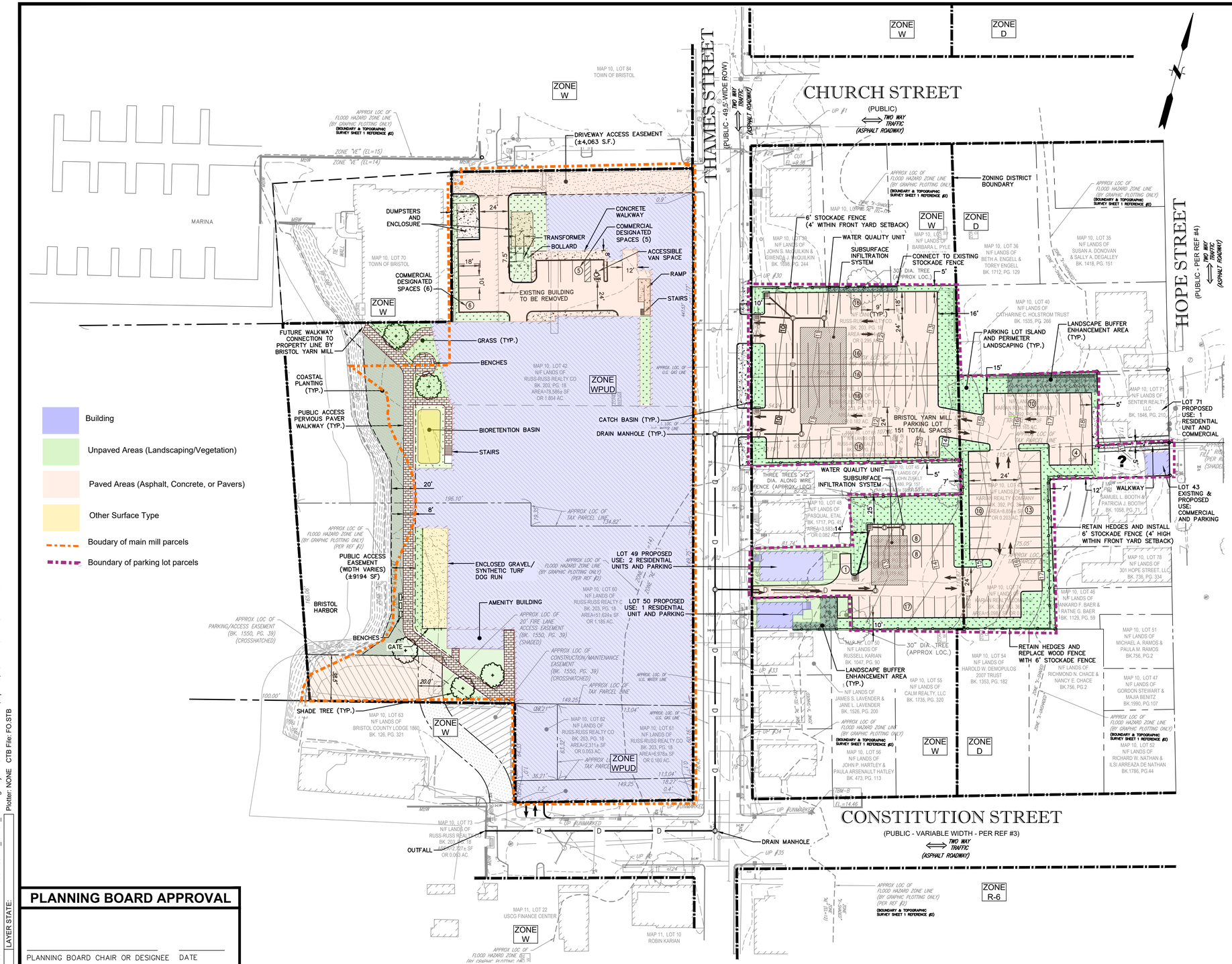
BRISTOL YARN MILL

125 THAMES STREET
LOTS 41, 42, 43, 44, 45, 48, 49, 60, 61, 62, 68, 73, 74, 76, MAP 10
TOWN OF BRISTOL , BRISTOL COUNTY
STATE OF RHODE ISLAND

CONTROL POINT ASSOCIATES, INC.
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508.948.3000 - 508.948.3003 FAX
WWW.CPASURVEY.COM
ALBANY, NY 518-217-5010
CHALFONT, PA 215-712-9000
HAUPPAUGE, NY 631-580-2645
MANHATTAN, NY 646-780-0411
MT LAUREL, NJ 609-857-2099
WARREN, NJ 908-668-0099

APPROVED:	DATE	SCALE	FILE NO.	DWG. NO.
C.E.L.	9-28-2021	1" = 30'	03-210289-00	3 OF 3

THE STATE OF RHODE ISLAND REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



ZONING DIMENSION TABLE

CRITERIA	REQUIRED PER ZONING DISTRICT W	D	WPUD	PROPOSED (BUILDING SITE – LOTS 42,60,61,62,73)
MINIMUM LOT AREA	5,000 SF			142,226± SF (3.265 AC)
MINIMUM LOT AREA PER DWELLING UNIT	4,000 SF	2,500 SF	2,900 SF*	1,748 SF (227,286 SF/130 UNITS)
MINIMUM FRONTAGE	50'			149.25' CONSTITUTION STREET (MIN.)
MIMIMUM LOT WIDTH	50'			149.25' CONSTITUTION STREET (MIN.)
FRONT SETBACK	0'			–0.90'
SIDE SETBACK	0'			0.0'
REAR SETBACK	10'			30±' (TO APPROX. MEAN HIGH WATER)
MAX. BUILDING HEIGHT	35' (3 STORIES)			55' MAX.–4 STORIES (EXISTING)
MAX. LOT COVERAGE BY STRUCTURES	70%			83,153 S.F./142,226 S.F. = 58.5% (PROP.) 87,296 S.F./142,226 S.F. = 61.4% (EXIST.)
MAX. TOTAL COVERAGE	85%	95%	N/A	97,606 S.F./142,226 S.F. = 68.6%
MAX. FLOOR AREA RATIO	1.5	1.4	N/A	227,286 S.F./142,226 S.F. = 1.6±
IMPERVIOUS COVER	PARKING LOT SITE			51,237 S.F./66,327 S.F. = 77.2%

*TOWN COUNCIL ZONE CHANGE APPROVAL FROM JUNE 23, 2008 ALLOWED A DENSITY OF 98 UNITS BASED ON A GROSS FLOOR AREA TO UNIT RATIO OF 2,900 SQUARE FEET.

PARKING SUMMARY

	USE	REQUIRED	PROPOSED
RESIDENTIAL PARKING SPACES (ON–SITE)		127	137
RESIDENTIAL PARKING SPACES (OFF–SITE)		0	148
COMMERCIAL PARKING SPACES (ON–SITE)		11	11
317 HOPE STREET (LOT 71) – ZONE D	RES/COMM	0	0
325 HOPE STREET (LOT 43) – ZONE D	COMM	0	0
60 THAMES STREET (LOT 50) – ZONE W	SF RES	1	1
70 THAMES STREET (LOT 49) – ZONE W	MF RES	2	2
TOTAL PARKING SPACES:		141	299

RESIDENTIAL PARKING REQUIREMENT: 1 SPACE/D.U. (127 RESIDENTIAL W AND REHAB LDP ZONES)

COMMERCIAL PARKING REQUIREMENT: 1 SPACE/600 S.F. GFA (0 SPACES REQ'D FOR RESIDENTIAL, OFFICE, SERVICE, RETAIL, OR INSTITUTIONS WITHIN D ZONE) (6,292 S.F. / 600 S.F. = 11 SPACES

LOADING SPACE REQUIREMENT: 1 SPACE/3,000–19,999 S.F. OF GFA (6,292 S.F. = 1 SPACE

NOTES:
1. PARKING AND LOADING REQUIREMENTS SHALL COMPLY WITH ARTICLE VIII SEC. 28–251.
2. ON–STREET PARKING ON THAMES STREET IS NOT INCLUDED IN THE CALCULATIONS.
3. THERE ARE 42 TOTAL COMPACT VEHICLE PARKING SPACES, 9 DESIGNATED MOTORCYCLE SPACES AND 24 BICYCLE SPACES WITHIN THE BASEMENT LEVEL OF 125 THAMES STREET. COMPACT PARKING SPACES ACCOUNTS FOR 13.5% OF TOTAL PARKING COUNT. MOTORCYCLE AND BICYCLE PARKING IS NOT INCLUDED IN THE CALCULATIONS.

ZONING RELIEF:

1. ARTICLE VIII SEC. 28–251(1): OFF–STREET PARKING IS REQUIRED ON THE SAME PROPERTY AS THE DEVELOPMENT EXCEPT AS PERMITTED UNDER SEC. 28–255.
2. ARTICLE VIII SEC. 28–251(2)(a): OFF–STREET PARKING SPACE DIMENSIONS MUST BE 10' WIDE BY 18' LONG. PROPOSED RESIDENTIAL PARKING SPACES ARE 9' WIDE BY 18' LONG.
3. ARTICLE VIII SEC. 28–251(2)(a): DOUBLE LINE PARKING SPACE STRIPES ARE REQUIRED IN PARKING LOTS WITH MORE THAN 20 SPACES.
4. ARTICLE IX SEC. 28–284(d)(1): REQUIRED TO USE AT LEAST 25 PERCENT OF THE SITE FOR COMMERCIAL, INSTITUTIONAL, AND/OR PUBLIC USE.
5. ARTICLE IX SEC. 28–284(d)(2)RESIDENTIAL DENSITY FOR HISTORICAL BUILDINGS GREATER THAN 100,000 SQUARE FEET IN THE W ZONE. CONTRIBUTING BUILDINGS ON THE NATIONAL HISTORICAL REGISTER LOCATED IN THE W ZONE THAT ARE IN EXCESS OF 100,000 SQUARE FEET OF GROSS FLOOR AREA SHALL HAVE A MINIMUM GFA/DU (GROSS FLOOR AREA PER DWELLING UNIT) OF 2,250 SQUARE FEET PER DWELLING UNIT.
6. ARTICLE IX SEC. 28–284(g): AT LEAST 10 PERCENT OF THE LAND AREA MUST BE ALLOCATED FOR PUBLIC OR INSTITUTIONAL USE INCLUDING, BUT NOT LIMITED TO, PUBLICLY ACCESSIBLE PARKS, SQUARES, GREEN SPACES, WATERFRONT ACCESS, INTERIOR SPACES, PUBLIC VIEW CORRIDORS AND BUFFER AREAS. PROPOSED PUBLIC ACCESS EASEMENT IS 9.3 PERCENT OF LAND AREA (13,257 SF / 142,226 SF MILL LOTS ONLY: LOTS 42, 60, 61, 62, AND 73).

NOTES:

1. ARTICLES AND SECTIONS REFER TO THE BRISTOL, RI CODE OF ORDINANCES CHAPTER 28 "ZONING" (MUNICODE VERSION DECEMBER 14, 2020).
2. REFERENCE BRISTOL TOWN COUNCIL DECISION FOR "PETITION TO CHANGE OF ZONE ORDINANCE RELATIVE TO DENSITY AND COMMERCIAL USES FOR ROBIN RUG" DATED JUNE 23, 2008 (BK. 1457 PG. 177) THAT APPLIES TO SPECIFIC DEVELOPMENT CONDITIONS ON THE ROBIN RUG MILL COMPLEX.
3. THIS CONCEPT PLAN IS INTENDED TO BE USED FOR PLANNING PURPOSES ONLY AND IS NOT SUITABLE FOR PERMITTING OR CONSTRUCTION.

PLANNING BOARD APPROVAL

PLANNING BOARD CHAIR OR DESIGNEE DATE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SEAL

SEAL

SCALE:
HORZ.: 1"= 40'
VERT.:
DATUM:
HORZ.:NAD 1983
VERT.: NAD 1988
40 20 0 40
GRAPHIC SCALE

FUSS & O'NEILL
317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
www.fando.com

BRADY SULLIVAN PROPERTIES, LLC
MASTER PLAN
BRISTOL YARN MILL
ALTERNATIVE PARKING PLAN

125 THAMES STREET BRISTOL, RHODE ISLAND

PROJ. No.: 20061150.A22
DATE: APRIL 13, 2021

C1.01

File Path: \\private\DFS\CadProj\DWG\P20061150\A22\Civil\Plan\20061150A22_STP01_ALT.dwg Layout: C1.01 Plotted: Wed, April 13, 2022 - 4:45 PM User: kmccombs
LAYER STATE: Plotter: NONE CTB File: FO.STB
MS VIEW:

APPENDIX E

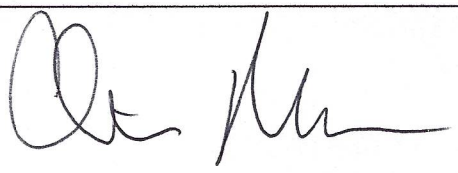
APPENDIX E – CERTIFICATION
Site Investigation Report

In accordance with RIDEM's Office of Land Revitalization and Sustainable Materials Management Regulations under 250-RICR-140-30-1, *Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases* (aka the Remediation Regulations), the following statement of certification for the **Site Investigation Report for the Robin Rug Manufacturing Facility Site located at 125 Thames Street and auxiliary Parking Lot Parcels located east of Thames Street, Bristol, Rhode Island** is provided:

CERTIFICATION OF CONSULTANT:

*Nobis Group, certifies to the best of its knowledge that the **Site Investigation Report** is complete and accurate:*	
	
Name: Bettina Eames, P.G Senior Project Manager Nobis Group, Concord, NH	Date: August 1, 2022

CERTIFICATION OF PERFORMING PARTY:

*Brady Sullivan Properties certifies to the best of its knowledge that the **Site Investigation Report** is complete and accurate:*	
	
Name: Chris Reynolds, PE Senior Project Manager Brady Sullivan Properties	Date: August 1, 2022