FINAL REPORT
FOR
254 OLD GREAT ROAD PROPERTY
PRELIMINARY ASSESSMENT
NORTH SMITHFIELD, RHODE ISLAND

Prepared For:
U.S. Environmental Protection Agency
Region I
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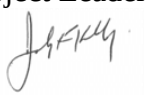

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ACRONYM/ABBREVIATIONS LIST

%	Percent
AOC	Area of Concern
bgs	Below Ground Surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
cfs	Cubic Feet Per Second
CB&I	Chicago Bridge & Iron Company
CLP	Contract Laboratory Program
CO	Carbon Monoxide
COR	Contracting Officer Representative
CRQL	Contract Required Quantitation Limit
CWA	Clean Water Act
DEC	Direct Exposure Criteria
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ft^2	Square feet
GIS	Geographic Information System
H_2S	Hydrogen Sulfide
I	Interstate
IH	Imminent Hazard
LEL	Lower Explosive Limit
LSI	Limited Subsurface Investigation
LSP	Licensed Site Professional
MA	Massachusetts
MCL	Maximum Contaminant Level
MCP	Massachusetts Contingency Plan
MassDEP	Massachusetts Department of Environmental Protection
µg/Kg	Micrograms Per Kilogram
µg/L	Micrograms Per Liter
µR/hr	MicroRoentgens per hour
mg/Kg	Milligrams Per Kilogram
mg/L	Milligrams Per Liter
mi^2	Square Miles
NE	Northeast
NERL	New England Regional Laboratory
No.	Number
NOAA	National Oceanic and Atmospheric Administration
NPDWR	National Primary Drinking Water Regulations
NRCS	Natural Resource Conservation Service
NRS	Numerical Ranking System
NTNC	non-transient non-community
O_2	Oxygen
OEME	Office of Environmental Measurement and Evaluation
OHM	Oil or Hazardous Material
ORP	Oxidation Reduction Potential
OSRR	Office of Site Remediation and Restoration
PA	Preliminary Assessment
PAH	Polynuclear Aromatic Hydrocarbon

ACRONYM/ABBREVIATIONS LIST

PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PE	Performance Evaluation
PEL	Probable Effects Level
PES	PES Associates, Inc.
Phase I SI	Phase I Initial Site Investigation
Phase II CSA	Phase II Comprehensive Site Assessment
Phase III Report	Phase III Identification, Evaluation, and Selection of Comprehensive Remedial Action Alternatives Report
PID	Photoionization Detector
PPE	Probable Point of Entry
ppb	parts per billion
ppm	Parts per million
PRP	Potentially Responsible Party
PWS ID	Public Water System Identification
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
REC	Recognized Environmental Condition
RI	Rhode Island
RIDEM	Rhode Island Department of Environmental Management
RTN	Release Tracking Number
SDG	Sample Delivery Group
SEMS	Superfund Enterprise Management System
SI	Site Inspection
SS-QAPP	Site-Specific Quality Assurance Project Plan
SQuiRT	Screening Quick Reference Table
START	Superfund Technical Assessment and Response Team
SVOC	Semivolatile Organic Compounds
SWP	Surface Water Pathway
1,1,1-TCA	1,1,1-Trichloroethane
TCLP	Toxicity Characteristic Leaching Procedure
TDL	Target Distance Limit
TEL	Threshold Effects Level
TOC	Total Organic Carbon
TOV	Total Organic Vapor
USDA	United States Department of Agriculture
TPH	Total Petroleum Hydrocarbons
USGS	United States Geologic Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compound
VPH	Volatile Petroleum Hydrocarbons
WPA	Wellhead Protection Area
XRF	X-Ray Fluorescence

Final Preliminary Assessment Report
254 Old Great Road Property
North Smithfield, Rhode Island

EPA ID No.: RIN000102026
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INTRODUCTION

The Weston Solutions, Inc., Superfund Technical Assessment and Response Team IV (START) was requested by the U.S. Environmental Protection Agency (EPA) Region I, Office of Site Remediation and Restoration (OSRR) to perform a Preliminary Assessment (PA) of the 254 Old Great Road Property site North Smithfield, Rhode Island (RI). The 254 Old Great Road Property site has currently been identified and is being investigated based on one or more contamination plumes of unknown origin, encompassing two groups of private residential drinking water supply wells located along Providence Street, Millville, Massachusetts (MA) and Mechanic Street, North Smithfield, RI. These two areas are located within the general vicinity of the 254 Old Great Road Property. The contamination plumes contain chlorinated volatile organic compounds (CVOCs), including trichloroethylene (TCE) and tetrachloroethylene (PCE), at levels greater than their respective state drinking water standards. At the current time, elevated levels of contamination have been documented in drinking water samples from wells on the following properties: 19/25 Providence Street (a shared well serving both properties), and 3 Providence Street Millville, MA; as well as 246, 254, 262, and 270 Mechanic Street North Smithfield, RI [1-2; 9-10; 45-55; 59-69; 77-85; 114-119; 123-125].

This package follows the guidelines developed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, commonly referred to as Superfund. However, these documents do not necessarily fulfill the requirements of other EPA Region I regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other Federal, State, or local regulations. PAs are intended to provide a preliminary screening of sites to facilitate EPA Region I's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

The street addresses, coordinates, and contaminant locations presented in this PA report identify the general area in which the site is located. They represent one or more locations EPA considers to be part of the site based upon the screening information collected or generated in the course of this or previous investigation(s). The EPA Site Assessment Program is designed to identify "releases or threats of releases" of hazardous substances, and the focus of this investigation is on the release(s) or potential release(s), rather than precisely delineated site boundaries. A site is defined under the EPA Site Assessment program as where a hazardous substance has been "deposited, stored, placed, or otherwise come to be located." EPA anticipates that the preliminary description of site boundaries will be refined as more information is developed regarding where the contamination has come to be located.

SITE DESCRIPTION

For the purpose of this PA document, the 254 Old Great Road Property site is identified in the North Smithfield Tax Records as Map 2, Lot 1 [4]. The geographic coordinates for the site, as measured from the approximate center of the property, are 42° 00′ 48.67″ north latitude and 71° 34′ 43.57″ west longitude (42.0135194°, -071.5787694°) (Attachment A, Figure 1) [5]. The parcel is approximately 5 acres and is classified as residential. According to town records, a building permit was issued in 1991 for a 22-foot-wide by 32-foot-long barn (garage) structure

located on Plot 2, Lot 1. The permit noted that a small portion of the property is located in Millville, MA, but that 100 percent of the frontage (road) and over 90 percent of the area was located in North Smithfield, RI. Town records indicate that a single-family, modern subterranean house was constructed around 2003 in the central portion of the property [4]. Two garages are noted in the Tax records: one is a 3,500-square-foot (ft^2) metal garage building (also referred to as the Steel Garage/Warehouse), and the second is an 816-ft^2 garage. START assumes this garage is the barn structure permitted in 1991, built on the northern border of the property [1].

The property is bordered by woodlands/wetlands, an Electrical Transmission Line Easement, and Pratt Pond to the south; woodlands/wetlands and a residence (465 Central Street) to the west; a former sand and gravel operation area (171 Central Street), residential properties (3 and 15 Providence Street), and a light commercial property [7 Providence Street (the Former Mendon Garage) property] to the north; and Old Great Road and residential properties (250 and 252 Old Great Road) to the east. A Petroleum Pipeline Easement transects the property from southeast to northwest, near the center of the property (Attachment A, Figures 2 and 3) [1].

The general area in the vicinity of the 254 Old Great Road Property consists of portions of the commercial business district and village residential district of Millville, MA and North Smithfield, RI, containing mixed residential, light commercial and industrial properties. The immediate area surrounding the property generally consists of woodland areas. Old Great Road, Providence Street, and the general area around Mechanic Street contain numerous residential units, including single-family homes, duplexes, and condominiums [1-3].

On 23 June 2016, EPA, Rhode Island Department of Environmental Management (RIDEM), and START personnel conducted an on-site and off-site reconnaissance of the 254 Old Great Road property and vicinity. START conducted ambient air screening during the reconnaissance using a MultiRAE Plus photoionization detector (PID)/combustible gas indicator (CGI)/oxygen (O_2) meter and Ludlum 19A gamma radiation meter. No elevated ambient air readings were noted at any locations during the reconnaissance.

START observed two main areas on the property, a residential area and a commercial area. The residential area contains a partially buried modern subterranean house, surrounded by fill material on three sides. The front (southeast) side of the two-story house is open to the air, overlooking a lawn and driveway area. Along the driveway and observable corners of the house, START observed that the fill material included large boulders apparently from a blast excavation area, as well as silt, sand, gravel, and cobble size materials. The fill material surrounding the house forms a grass-covered, elevated platform area, approximately 1-2 feet below the flat roof-line of the house. The elevated area conforms to the local topography of the remainder of the northern portion of the property (Attachment B, Photodocumentation Log) [1; 2]. Mr. David Laliberte, current occupant of the house and son of the property owner, stated that he did not know the origin of the fill material surrounding the house [1].

On the elevated area, north of the house, START observed a Red Garage/Storage Shed located along the northeastern portion of the property. The building appeared to be used for storage of vehicle and lawn equipment. Four empty and partially corroded 30-gallon steel drums were observed in the wooded area, northwest of the Red Garage/Storage Shed. One of the drums is marked on the top along the outer ring circle as “E.I. DU PONT DE NEMOURS & CO. INC. WILMINGTON DEL.”; with four lines of center text labeling reads “DUPONT”; “REG. U.S. PAT. OFF.”; MADE IN U.S.A.; and lowest line read “D-151”. The other three 30-gallon drums

did not have any labeling. An empty and partially corroded 55-gallon steel drum was observed at the southwest side of the Red Garage/Storage Shed within the vegetation/brush [1; 2].

To the southwest of the Red Garage/Storage Shed, START observed an approximately 15- to 20-foot-high pile of mixed soil and road construction debris (pieces of asphalt, concrete, lumber, and waste-rock containing blast drill holes) along the northwestern property boundary. The portion of the mixed soil and road construction debris pile located on the 254 Old Great Road property extends approximately 120 feet from east to west. Based on the Town Plot/Lot map, this pile appears to be at least partially on the 254 Old Great Road Property. In addition, it appears that portions of the pile may be located on the adjacent 465 Central Street and 171 Central Street properties. The occupant of the 254 Old Great Road property and owner of the 171 Central Street property both noted to START personnel that they did not know the origin of the fill material. START has not ascertained any information regarding the composition or origin of the fill material composing the pile [1; 2; 4].

A large Soil/Loam Pile, approximately 80 feet in diameter by 15 to 20 feet high, was observed located behind (west of) the residence. Mr. David Laliberte stated that he did not know the origin of the large screened loam pile. The private drinking water well which supplies the on-site residence is located along the south side of the Soil/Loam Pile [1; 2].

To the southwest of the Soil/Loam Pile, START observed a junked passenger van, an open trailer body, and a partially closed tractor trailer body (Labeled T-165). The open trailer body contained duct work, electrical panels, and what appeared to be a stove. A small 5-gallon pail of a tar-like material was located in a wooden bin outside of the trailer. The partially closed tractor trailer body contained office supplies (chairs, desk, cubicle walls, metal shelves, etc.) and a water pressure tank [1; 2].

The commercial area, located on the southwestern portion of the property, contains a large Steel Garage/Warehouse building, a large open Dirt Parking Lot, as well as several smaller sheds, trailers, trucks, vehicles and miscellaneous equipment and supplies. A Petroleum Pipeline Easement traverses the property along a general east to west trend between the residential and commercial areas, south of the house and north of the Steel Garage/Warehouse structure [1; 2].

START observed the large, approximately 80-foot by 55-foot, commercial Steel Garage/Warehouse building. However, the eastern portion of the warehouse building (approximately 80 percent of the building) was locked and secured. START was unable to access or make any observations regarding this portion of the building. Since this building was not accessible and no observation could be noted, this area remains a potential concern and appears to warrant further discussion and/or investigation. The remaining portion, the southwestern portion of the Steel Garage/Warehouse, contained various construction materials and supplies. Six old Tractor Trailer bodies are positioned to allow them to nest up to the northwestern and southwestern walls of the Steel Garage/Warehouse building. These trailer bodies and the Steel Garage/Warehouse structure are open (or cut open) to allow additional storage space accessible through the Steel Garage/Warehouse. The southwestern portion of the Steel Garage/Warehouse primarily contains building construction equipment and such as wooden planks, insulation, pallets, door frames, ladders, scaffolding, wood scraps, cables, chains, brasses, bins of metals parts, bolts, and supplies, etc. [1; 2].

A rusty, partially corroded 55-gallon steel drum was observed in southwest corner of the large Steel Garage/Warehouse building. This closed drum appeared to contain an unknown solid

material at the bottom and an unknown liquid material at the top of the drum. No elevated PID readings were noted in the ambient air in the building or adjacent to the closed 55-gallon steel drum. Dark stains (possibly oil) were observed on the concrete floor inside the western portion of the building, including adjacent to the rusty, partially corroded 55-gallon steel drum. Dark staining was also observed on the Dirt Parking Lot area immediately outside the large Steel Garage/Warehouse building doors [1; 2].

START observed a Dirt Parking Lot, approximately 120 feet wide by 200 feet long, that narrows into the dirt/gravel roadway that extends past the front of the on-site house and continues out to the Old Great Road property entrance [1; 2].

Along the west side of the Dirt Parking Lot, START observed the Small Red Wooden Shed approximately 12 feet by 9 feet and containing construction supplies, including several pieces of plywood, mesh fencing for concrete reinforcement, and approximately nine 5-gallon bucket containers of unknown contents. START also observed three 55-gallon polyethylene (poly) drums and two 5-gallon bucket containers behind (west of) the Small Red Wooden Shed. These 55-gallon poly drums appeared to be empty, and the 5-gallon containers were labeled "sheetrock compound".

START observed two secured/locked "Old White Storage Trailers" located in this area. The contents of these trailers could not be observed. However, START did observe two 20-gallon white poly containers, two blue poly 5-gallon containers, and two estimated 40-pound propane cylinders located next to the these trailers. Black staining was observed on the outside of one of the two blue 5-gallon containers [1; 2].

START observed various piles of scrap supplies and materials stored on the ground surface to the east of the large Steel Garage/Warehouse building and the Dirt Parking Lot. These materials included tires, scrap rubber pieces, corrugated poly pipes, cinder blocks, Poly drain/sewer pipes, scrap metal, and miscellaneous wood and debris. START also observed an empty estimated 600-gallon green Portable Storage Tank to the east of the Dirt Parking Lot. The empty tank had no labels indicating its previous contents. Several trucks and pieces of tree service equipment were parked on and along the Dirt Parking Lot, some bearing the name "Cavedon Tree Service".

START observed a retaining wall to the southwest of the Steel Garage/Warehouse building, Small Red Wooden Shed, and Old White Storage Trailers. West of the retaining wall, START observed wetlands and an Unnamed Stream.

To the southeast of the Dirt Parking Lot, START observed four rusted 55-gallon steel drums in the off-site wetlands/woodlands on the adjacent property (assumed to be the on the 252 Old Great Road property). One of these drums appeared to be bulging.

OPERATIONAL AND REGULATORY HISTORY AND WASTE CHARACTERISTICS

As previously noted, 254 Old Great Road Property has been identified and is being investigated based its proximity to one or more contamination plumes of unknown origin, encompassing two groups of private residential drinking water supply wells located along Providence Street, Millville, MA and Mechanic Street, North Smithfield, RI. Previous analytical results indicate that the contamination plume(s) of unknown origin contain CVOCs, including elevated levels of TCE and PCE.

Limited information is known regarding the operational history of the 254 Old Great Road Property. According to tax records, the property was originally 9.95 acres and divided in 1985 into two lots, the 4.9-acre 465 Central Street property (Plat 1 Lot 23) and the 5.05-acre 254 Old Great Road property (Plat 2 Lot 1). The property is currently operated as a residential lot, although the southwestern portion of the property was observed by START and is reported by the on-site occupant to be used for vehicle and equipment storage by the Cavedon Tree Service Company, with permission from the property owner. According to Mr. Laliberte, the southwestern portion of the property was previously used by his father (Leon Laliberte) in the family's steel building construction business. During the site reconnaissance, START observed a large Steel Garage/Warehouse building, vehicles, equipment, supplies, and material presumably associated with the former operations of the family's steel building construction business (see additional details in the On-site/Off-Site Reconnaissance section of this document). According to Mr. Leon Laliberte, during sampling activities at 250 Old Great Road, no hazardous materials were ever staged, stored or used on the 250 Old Great Road property. According to Mr. Leon Laliberte, his Steel Building Construction business had all construction materials transported directly to the job site where the building was erected. The 250 Old Great Road property was used as a staging area for vehicles, tools, and leftover steel building components that could be reused on future jobs [1].

It is unclear to START if the mixed soil and road construction debris pile is related to the family's steel building construction business or other businesses previously operating on the property. According to available tax records, the property was also previously owned by Campanella and Cardi Construction Company from April 1962 until May 1975 and by the East Providence Concrete and Asphalt Co. from May 1975 until January 1976 [4]. It is unknown what operations were performed on the property during these periods.

Table 1 provides a list of the known ownership history for the Plat 2 Lot 1 (250 Old Great Road property).

Table 1

Ownership History for the Plat 2 Lot 1 (250 Old Great Road)

Purchase Date	Owner	Comments
4/8/85	Elizabeth T. Laliberte	Area reduced by Plat 1 Lot 23 to 4.82 ac.*
4/16/1984	Elizabeth T. Laliberte	
1/23/1976	Leon J. & Elizabeth T. Laliberte	
5/15/1975	East Providence Concrete and Asphalt Co.	
4/26/1962	Campanella and Cardi Construction Company	
9/17/1958	---	Area reduced R.I. Plat 1036, Par. 60
7/11/1939	Joseph & Mary Nawrocki as J.T.	
7/11/1937	Fannie B. Wilson	Recorded 12/23/1975
1/7/1911	William W. Wilson	
	Florence L Mowry	9.95 Acres

* Note there are discrepancies in the tax records, reporting the size of the property as 4.82 and 5.05 ac. in various documents.

[4]

No known environmental investigations have been completed for the 254 Old Great Road Property site. No known regulatory history was identified by START regarding this site.

On 16 September 2016, the 254 Old Great Road Property was listed as a site under the Superfund Enterprise Management System (SEMS) as Site ID. No. RIN000102026 [6,140].

Based on a lack of historical sampling activities, no known contamination or actual waste source areas have been identified on or in association with the 254 Old Great Road Property. Therefore, the 254 Old Great Road Property has been identified and is being investigated to determine if it contains sources areas which could be contributing to, or if it has been impacted by, one or more contamination plumes of unknown origin in the area (Attachment A, Figure 2).

As previously noted, the 254 Old Great Road Property has been identified and is being investigated based its proximity to one or more contamination plumes of unknown origin, encompassing two groups of private residential drinking water supply wells located along Providence Street, Millville, MA and Mechanic Street, North Smithfield, RI. Previous and ongoing investigations of groundwater impacts and potential waste source sampling have focused on elevated levels of TCE and PCE associated with the contamination plume(s) in the area and are summarized below.

Summary of Mechanic Street, North Smithfield, RI Area Investigations:
In a correspondence to RIDEM dated 29 April 2003, the Rhode Island Department of Health provided records from 2001 through 2003 indicating TCE concentrations above the Maximum

Contaminant Levels (MCL) in drinking water at 254 and 262 Mechanic Street [9]. In 2004, RIDEM performed drinking water sampling at several Mechanic Street residences and found TCE above the MCL in three drinking water wells at 254, 262, and 270 Mechanic Street, the highest at 262 and 270 Mechanic Street [11 micrograms per Liter (µg/L)] [9-10]. In response to these results, RIDEM began providing bottled water to all residences along Mechanic Street whose drinking water TCE levels exceeded the MCL [9]. In September 2015, the homeowners of 246 Mechanic Street contracted a laboratory to perform volatile organic compound (VOC) analysis on their drinking water samples. TCE and PCE were found at concentrations of 23.9 µg/L and 5.7 µg/L, respectively, and exceeded their respective MCLs [10]. To date, limited sampling has been conducted in the Mechanic Street area to determine if other residential wells may have been impacted.

Summary of Providence Street, Millville, MA Area Investigations:

On 8 July 2015, Massachusetts Department of Environmental Protection (MassDEP) received a telephone call from the resident at 19B (originally reported erroneously as 19C) Providence Street, Millville, MA reporting that they had received sample results for their private residential drinking water supply well indicating the well was contaminated with chlorinated solvents at levels elevated above state drinking water standards [12-13]. TCE was detected at 17 µg/L and PCE at 8.6 µg/L [14]. The state drinking water standard for both TCE and PCE is 5.0 µg/L. The resident noted that the well was tested due to concerns regarding activities at a gravel pit located adjacent their common property. The caller also noted that there were detectable levels of radon, nitrates, and coliform bacteria found in the samples. The caller further noted that the contaminated well is shared by 19 residents in eight separate condominium units, located at 19 and 25 Providence Street, Millville, MA. The caller noted that she had no well construction details but believed the pump was set at approximately 300 feet below the ground surface. The MassDEP representative advised the caller to stop drinking the water and switch to bottled water immediately [12].

On 9 July 2015, MassDEP personnel mobilized to the property adjacent to 19 Providence Street, and met with the owner of the 171 Central Street, Millville, MA property and his representative/consultant. Following the meeting, MassDEP conducted a reconnaissance of the property at 171 Central Street, Millville, MA to determine if there were any visible indicators of an oil or hazardous material (OHM) release that may have impacted the adjacent private water well supply. MassDEP observed some solid materials (pallets, concrete, a trailer, etc.), several 300-gallon plastic totes containing cooking oil used to run the construction equipment, along with some 5-gallon plastic jugs of cooking oil. MassDEP noted a few small areas where diesel fuel, gasoline, or cooking oil may have been spilled. MassDEP also observed five drums that appeared to be empty that the property owner said he did not use [15].

Following the reconnaissance, MassDEP personnel met with a representative of the two condominiums, located at 19 and 25 Providence Street. MassDEP personnel reconnoitered the property, and observed the private well that serves both condominiums and water supply storage tank (located in the basement of the condominium). MassDEP personnel noted that the private well that currently serves the two condominium buildings is flush with the ground surface and has a concrete cover. MassDEP personnel noted that the well did not appear to be sealed adequately. The condominium representative confirmed that the septic system from both buildings was located in the front yards, which are elevated higher than the private well. MassDEP noted that runoff from the parking lots also appears likely to flow toward the area of the private well based on the observed topography. The condominium representative stated that the 25 Providence Street building previously had its own well, but it had been abandoned and

now shares the well supplying 19 Providence Street. The condominium representative did not know the reason the well at 25 Providence Street had been abandoned [15].

On 14 July 2015, MassDEP representatives oversaw Chicago Bridge & Iron Company (CB&I)/Shaw Group personnel purge and collect private drinking water supply samples from the kitchen taps of condominium units 19C and 25B Providence Street. In addition, CB&I/Shaw Group collected soil samples in the vicinity of the private drinking water well supplying the two condominium buildings [16]. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [17].

On 11 August 2015, MassDEP representatives oversaw CB&I personnel collect private drinking water supply samples from residential units at 22, 47A, 48, 51A, and 59A Providence Street, and 4 Afonso Way [18]. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [19-24].

On 12 August 2015, MassDEP representatives oversaw CB&I personnel collect private drinking water supply samples from residential units at 2, 3B, 37A, and 37B Providence Street [25]. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [26-29]. In addition, MassDEP and CB&I personnel collected water samples from the bathroom tub faucet (drinking water samples), as well as background indoor air samples and an indoor air sample from a steamy bathroom within condominium units 19C and 25B Providence Street [25]. See Attachment C, Table 1 for drinking water sample analytical results [30-31]. MassDEP reported that the bathroom faucet sample results in the two units were consistent with previous drinking water samples collected in July 2015. Results of the background indoor air samples in the two units confirmed that background levels inside the condominiums do not pose a significant risk. However, the steamy bathroom samples from both condominium units indicated that venting and minimizing the amount of time spent in the bathroom should continue for showering and bathing to reduce exposure until the point of entry treatment (POET) systems were installed [30-31].

On 21 August 2015, MassDEP representatives also oversaw the collection of liquid samples from the septic systems at 19 and 25 Providence Street. Both of these condominium septic systems are located to the northeast of the condominiums, along the southwest side of Providence Street. The liquid septic samples were analyzed via EPA Method 8260. Both TCE and PCE were detected in the two liquid septic samples (Attachment C, Table 2). Concentrations detected in the liquid septic samples were significantly lower than the levels detected in the private supply well serving both condominiums. MassDEP noted that the levels detected in the samples were consistent with the concentrations of TCE and PCE detected in the drinking water and processed through the septic system. Other non-chlorinated VOCs (i.e. toluene) were also detected in the liquid septic samples from 19 and 25 Providence Street and are summarized by MassDEP in their files [32-39].

On 21 August 2015, MassDEP representatives oversaw the collection of private drinking water supply samples from residential units at 65 Providence Street and 5 Harkness Road. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [40-41].

On 6 and 8 October 2015, MassDEP completed the installation and activation of the POET systems for the drinking water well serving the condominium units at 19 and 25 Providence Street, respectively. The POET systems are intended to reduce or eliminate the concentrations of

PCE and TCE to non-detectable concentrations or concentrations below state drinking water standards. The POET system installed by MassDEP at each location consists of two 300-pound fiberglass pressure vessels installed in series with virgin drinking-water-grade carbon. Valves were installed before and after the treatment system to isolate the equipment for the water supply. A by-pass line and valve were also installed as a contingency should system by-pass be necessary. Influent, mid-fluent, and effluent sample ports were installed for system monitoring. The POET system also included a sediment filter.

MassDEP oversaw the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 19 Providence Street on the first day (6 October 2015), and first and second weeks (13 October 2015 and 20 October 2015) of operation [42-44]. MassDEP has continued to oversee the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 19 Providence Street once a month following installation through December 2016 (see Attachment C, Table 3 for POET system sample results) [45-55; 114; 117; 123]. Sample results from each of the rounds of sampling indicate that the influent samples contain elevated levels of TCE and PCE above the state standards. However, as the water passes through the treatment system and reaches the midfluent and effluent collection locations, analytical results indicate that no concentrations above the reporting limit (RL) of 0.5 µg/L are present (listed in tables as not detectable at the reporting limit).

MassDEP also oversaw the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 25 Providence Street on the first day (8 October 2015), and first and second weeks (15 October 2015 and 22 October 2015) of operation [56-58]. MassDEP has continued to oversee the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 25 Providence Street once a month following installation through December 2016 (see Attachment C, Table 3 for POET system sample results) [59-69; 115; 118; 124]. Again, sample results from each of the rounds of sampling indicate that the influent samples contained elevated levels of TCE and PCE above the state standards. However, as the water passes through the treatment system and reaches the midfluent and effluent collection locations, analytical results indicate that no concentrations above the RL of 0.5 µg/L are present.

On 28 October 2015, MassDEP representatives oversaw the collection of private drinking water supply samples from residential units at 33B and 40 Providence Street, 157 Central Street, and 11 Harkness Road [70]. See Attachment A, Figure 6 and Attachment C, Table 1 for sample locations and analytical results [71-74].

On 28 October 2015, MassDEP representatives also oversaw the collection of liquid samples from the septic systems of 3, 7 and 15 Providence Street [70]. The liquid septic samples were analyzed via EPA Method 8260. TCE was detected in the liquid septic samples from 3 Providence Street, but no detectable concentrations (above method detection limit) of TCE were detected in liquid septic samples collected from 7 and 15 Providence Street. PCE was not detected in the liquid septic samples (above method detection limit) in samples from 3, 7, 15 Providence Street (Attachment C, Table 3) [75]. According to MassDEP, the samples collected from 3 Providence Street were consistent with the concentrations of TCE and PCE found in drinking water and processed through the septic system, prior to the activation of the POET system. The concentrations detected in the liquid septic sample from 3 Providence Street were significantly lower than the levels detected in the private water supply well serving this building. Furthermore, MassDEP noted that the properties at 7 and 15 Providence Street use separate septic systems but are served by a shared drinking water well, which is not known to be impacted

by PCE and TCE. The results of liquid septic samples collected from 7 and 15 Providence Street did not show PCE or TCE detections. Other non-chlorinated VOCs (i.e. toluene) were also detected in the liquid septic samples from 3 and 15 Providence Street and are summarized by MassDEP in their files [75].

On 4 November 2015, MassDEP completed the installation and activation of the POET system for the drinking water well serving 3 Providence Street. MassDEP also oversaw the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 3 Providence Street on the first day (4 November 2015), and first and second weeks (11 November 2015 and 18 November 2015) of operation [76]. MassDEP has continued to oversee the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 3 Providence Street once a month following installation through December 2016 (see Attachment C, Table 3 for POET system sample results) [77-85; 116; 119; 125]. Sample results from each of the rounds of sampling indicate that the influent samples contained detectable levels of PCE and elevated levels of TCE above the state standards. However, as the water passes through the treatment system and reaches the midfluent and effluent collection locations, analytical results indicate that no concentrations above the RL of 0.5 µg/L are present.

MassDEP continues to collect data regarding the private drinking water wells in the area and to investigate possible sources of the contamination. Other areas of concern (AOCs) in the general vicinity include Mendon Street Automotive (7 Providence Street), the Louis Iarussi Property (171 Central Street), Rudy's Service Station (190 Central Street) in Millville, MA; and Mechanic Street Groundwater Contamination Site (Mechanic Street) in North Smithfield, RI (Attachment A, Figure 3).

In summary, since the initial report indicating a release of CVOCs to MassDEP on 8 July 2015, by a condominium unit resident at 19 Providence Street, MassDEP has collected numerous drinking water samples from the area including from 14 properties along Providence Street, two properties along Harkness Road, one property along Central Street, and one property along Afonso Way. In addition, MassDEP has collected samples from five septic systems associated with the residences located at 3, 7, 11, 19 and 25 Providence Street. MassDEP has also collected indoor air samples from two residential units at 19 and 25 Providence Street and installed POET systems on three water supplies.

The initial MassDEP report (8 July 2015) indicated that a resident of one of the condominium units at 19 Providence Street had a drinking water sample collected and analyzed through a private laboratory. Analytical results of this sample indicated TCE and PCE above state standards at concentrations of 17 µg/L and 8.6 µg/L, respectively (Attachment C, Table 1).

To date, MassDEP has collected drinking water samples from 18 different residential units. Analytical results of the MassDEP investigation indicated detectable levels of TCE and PCE above applicable state standards at 3, 19, and 25 Providence Street. Concentrations in drinking water samples collected from a shared well that serves 19 and 25 Providence Street have indicated maximum concentrations of 17 µg/L and 8.6 µg/L for TCE and PCE, respectively. Drinking water samples collected from the 3 Providence Street well have indicated a maximum concentration of 10 µg/L and 3.6 µg/L for TCE and PCE, respectively. Drinking water samples collected by MassDEP from the other 15 units sampled to date are reported as not detectable at the RL (or method detection limit, or estimated detection limit, if shown) for both TCE and PCE (Attachment C, Table 1).

MassDEP has collected liquid samples from the septic systems located on the following five properties: 3, 7, 11, 19 and 25 Providence Street. TCE and PCE concentrations were detected in the liquid septic system samples collected from 3, 19 and 25 Providence Street. The maximum TCE and PCE concentrations detected in the five liquid septic system samples were 3 µg/L and 1.2 µg/L, respectively. The maximum values for both were detected in the 25 Providence Street sample. These concentrations are well below the concentration detected in the drinking water samples. Liquid septic system sample results for 7 and 11 Providence Street were listed as not detectable above the RLs (Attachment C, Table 2).

On 6 through 8 September 2016, as part of the 254 Old Great Road PA, START personnel conducted sampling activities on the 254 Old Great Road property. Soil/source sampling was conducted on areas of the property to identify potential hazardous substances associated with potential on-site source areas (Attachment A, Figure 4). Based on analytical results of soil/waste source samples, one VOC [2-propanone (acetone)] has been detected in two soil/waste source samples. Analytical results of soil/waste source samples are discussed in greater detail below in this section of this report [111].

In addition, five sediment samples were collected from an unnamed stream and pond/wetland area located on the 254 Old Great Road property, to identify hazardous substances associated with potential on-site source areas and potential impacts to the surface water pathway (Attachment A, Figure 4). Based on analytical results of the sediment samples, one VOC (PCE) been detected in one sediment sample. Analytical results of sediment samples are discussed in greater detail in the Surface Water Migration Pathway section of this report [108-109].

Three drinking water samples, including one duplicate, were also collected from the 254 and 250 Old Great Road residential drinking water supplies to evaluate if the groundwater beneath the property had been impacted by potential on-site source areas and/or potential source of unknown origin. Based on analytical results of the drinking water samples, a release of five VOCs to drinking water has been documented, including TCE and PCE. Analytical results of drinking water samples are discussed in greater detail in the Groundwater Migration Pathway section of this report [107].

Sampling tasks were conducted in accordance with the PA scope of work outlined in the EPA-approved Site-Specific Quality Assurance Project Plan (SS-QAPP) and technical specifications provided by EPA Region I [1].

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Table 2 presents identified structures or areas associated with the 254 Old Great Road property that are documented or potential sources of contamination, the containment features associated with each source, and the relative location of each source.

Table 2

Source Evaluation for the 254 Old Great Road Property

Source Area	Containment Features	Spatial Location
Unknown Underground Plume	None	Unknown – Potentially on 250 or 254 Old Great Road

[107-112]

Table 3 summarizes the types of potentially hazardous substances which have been disposed of, used, or stored on the areas associated with the 254 Old Great Road property.

Table 3

Hazardous Waste Quantity for the 254 Old Great Road Property

Substance	Quantity or Volume/Area	Years of Use/Storage	Years of Disposal	Source Area
VOCs (including TCE and PCE)	Unknown	Unknown	Unknown	Groundwater Plume – No Identified Source

VOCs = Volatile Organic Compounds.

[107-112]

There are six other sites in North Smithfield, RI listed in the SEMS database [87,140,141]. There are 61 sites located in North Smithfield, RI listed in the Resource Conservation and Recovery Act Information System (RCRIS) [88].

WASTE/SOURCE SAMPLING

Historical Waste/Source Sampling

File information does not indicate that any source samples have been collected from the 254 Old Great Road property. However, based on the contamination detected in the groundwater plume(s) within the area, the primary contaminants of concern associated with this PA are CVOCs, including TCE and PCE. Generally TCE and PCE are among the most common chlorinated solvents released to the environment [142]. TCE and PCE are widely used organic solvents which may be contained in commercial, industrial, and residential products [143]. TCE is a colorless, highly volatile liquid that is miscible with water and a number of organic solvents. TCE is mainly used as a solvent to remove grease from metal parts, but is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers. TCE does not occur naturally in the environment. However, it has been found in underground water sources and many surface waters as a result of the manufacture, use, and disposal of the chemical [142; 143].

EPA Site Inspection Waste/Source Sampling

On 7 and 8 September 2016, as part of the EPA PA of the 254 Old Great Road property, START personnel performed soil/waste source sampling at selected locations on the property, to identify hazardous substances associated with potential on-site source areas. Sample locations were selected based on site observation [1]. START personnel collected a total of 14 soil/waste source samples (SS-01 through SS-14), including one field duplicate, from 13 locations on the property [1]. Soil/waste source samples were collected at depths no deeper than 2.5 feet below ground surface (bgs) [1]. Attachment D, Table 1A, provides summary descriptions of the soil/source samples collected by START on 7 and 8 September 2016. All 14 samples were submitted to EPA Office of Environmental Measurement and Evaluation (OEME) New England Regional Laboratory (NERL) for VOC analysis [1].

Complete analytical results of soil/source samples collected by START, including quantitation and RLs, are presented in Attachment E, Table 2 of this report [111]. Sample results qualified with an "ND" on analytical tables indicate the substance was analyzed for, but not detected, and the associated numerical value is the OEME Laboratory RL. Sample results qualified with an "E" on analytical tables indicate that the value exceeds the calibration range. The reasons for sample qualifiers are provided in the footnotes of the individual data tables included in Attachment E of this report [111].

All 14 soil/waste source samples were submitted to OEME NERL for method low level analysis ("VOAs in Soil Low Level Method") [1; 111]. However, all the samples were analyzed using EPA OEME NERL method "VOAs in Soil High Level Method". The RLs for these samples using the high level method ranged from 60 micrograms per Kilogram (µg/Kg) to 280 µg/Kg. All VOC substances tested for in these 14 soil/waste source samples were reported by NERL as ND at the high RL, with the exception of one compound in two samples [111].

Attachment D, Tables 1D and 1E, summarize the aqueous Quality Assurance/Quality Control (QA/QC) samples and Performance Evaluation (PE) samples associated with soil/waste source sampling conducted by START on 7 and 8 September 2016. Complete analytical results of equipment, rinsate, trip, and preservative blank samples, collected by START in accordance with the Site-Specific QAPP, are presented in Attachment E of this report (Tables 4A through 4C) [110-111].

EPA OEME NERL analytical results indicate that one VOC [2-propanone (acetone)] was detected in soil/waste source samples collected from the 250 Old Great Road property above their respective OEME laboratory RL (Attachment E, Table 2). Two samples, SS-01 and SS-03, showed detections of 2-propanone (acetone) at concentrations of 77 and 79 µg/Kg. The OEME laboratory RL for 2-propanone (acetone) in samples SS-01 and SS-03 is 75 µg/Kg and 68 µg/Kg., respectively [111].

Analytical results of soil/waste source samples submitted for VOC analyses were also compared against their respective RIDEM Method 1 Direct Exposure Criteria (DEC) Industrial and Residential Standards [111; 120]. No VOCs were detected at concentrations exceeding the RIDEM Method 1 DEC Standards [111; 120]. The OEME Laboratory RLs for the "VOAs in Soil High Level Method" are higher than their respective RIDEM Method 1 DEC Industrial and/or Residential Standards for two VOCs, 1,2-Dibromoethane and Vinyl Chloride [111; 120].

Attachment D, Tables 1D and 1E, provides a summary of the aqueous QA/QC samples and PE samples associated with soil/source sampling conducted by START on 7 and 8 September 2016. Complete analytical results of START equipment rinsate, trip, and preservative blank samples, collected by START in accordance with the Site-Specific QAPP for the Region I START IV Contract, are presented in Attachment E of this report (Tables 4A through 4C) [110-111].

Due to the reporting limits of the data, soil/source samples were not compared to a background sample, as a sample representative of the site background levels could not be determined. Therefore, a release of hazardous substances to soils at the 254 Old Great Road Property could not be determined.

In summary, no TCE or PCE was detected in any of the soil/waste source samples, and the detection of the one compound detected above the OEME RL, 2-propanone (acetone), may be a result of non-site-related contamination, as noted below.

According to the US EPA Guidance for Usability Risk Assessment (Part A) and New Jersey Department of Environmental Protection Data Quality Assessment and Data Usability Evaluation Technical Guidance, low concentrations of contaminants may be detected in samples as a result of non-site-related contamination. Several common laboratory solvents are also found as typical laboratory contaminants. Organic compounds typically found as laboratory contaminants include, but are not limited to, 2-butanone [methyl ethyl ketone (MEK)], 2-propanone [acetone], 2-butanone, and methylene chloride [127; 128].

Acetone is a manufactured chemical that is also found naturally in the environment. It occurs naturally in plants, trees, forest fires, and as a product of the breakdown of fat [132]. It is also present in vehicle exhaust, tobacco smoke, as well as contaminated sites. Industrial processes contribute more acetone to the environment than natural processes [132].

GROUNDWATER PATHWAY

The mean annual precipitation of Worcester, MA, which is located approximately 20 miles northwest of the property, is 44.1 inches [89]. For the purposes of this report, START assumes that 44.1 inches of rain per year is representative of the mean annual precipitation rate at the 254 Old Great Road property. Depth to groundwater in overburden materials in the area ranges between 7.25 and 12.05 feet bgs, as measured on the 190 Central Street (Rudy's Service Station) property [7, p. 13]. Based on previous investigations and groundwater elevation measurements, groundwater flow direction is generally toward the south-southeast [7, p. 13].

Based on the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey, there are four major soil classifications found throughout the 254 Old Great Road property [90]. The northern portion of the property, on the MA side of the state line, is classified as Udorthents, smoothed. On the RI side of the state line, the eastern edge of the property is classified as Hinckley loamy sand (15-25 % slopes); the southwestern corner of the property is classified as Swansea muck (0-1% slopes); and the central portion of the property is classified as Udorthents-Urban land complex [90].

According to the Bedrock Geology Map of the Blackstone Quadrangle of Massachusetts, the bedrock underlying the 254 Old Great Road property site is Scituate Granite-Gneiss, which is a gneissic granite containing biotite in small clots, similar to parts of what was formerly called Northbridge granite Gneiss, and undivided-quartzite, schist, phyllite, marble, and metavolcanic rocks [91]. According to previous reports, bedrock has not been encountered (at the 190 Central Street property) and therefore is estimated to be more than 20 feet bgs in the area [7, p. 12].

The groundwater beneath the 254 Old Great Road property is classified by RIDEM as GAA. The classification indicates groundwater that is presumed suitable for drinking without treatment and is located in one of three areas [92]. The 254 Old Great Road Property is not located within a wellhead protection area [93]. Depth to groundwater on the 254 Old Great Road Property is unknown but presumed by START to be less than 20 feet bgs and to flow south-southeast, based on previous environmental activities conducted in the area [7, p. 13]. The depth and screen interval of the on-site drinking water well is unknown by START [1].

All or part of the following four MA towns and three RI town are located within 4 radial miles of the 254 Old Great Road Property: Millville, MA (population: 3,190); Mendon, MA (population: 5,839); Uxbridge, MA (population: 13,457); Blackstone, MA (population: 9,026); Burrillville, RI

(population: 15,955); North Smithfield, RI (population: 11,967); and Woonsocket, RI (population: 41,186) [94].

Residents of the Town of Millville, MA are served by both public and private drinking water supply sources. There is one public drinking water supply well that constitutes the Blackstone/Millville School system (PWS ID No. MA2188004), which is located within the 1 to 2 mile radial distance ring for the 254 Old Great Road property. The Blackstone/Millville School system serves approximately 575 people from one supply well [95]. The Blackstone/Millville School system is a non-transient non-community (NTNC) water system [96]. A NTNC water system supplies water to 25 or more of the same people at least 6 months per year in places other than their residences [96]. Based on Geographic Information System (GIS) data from the EPA, a portion of the residents within Millville, MA are served by private drinking water supply wells; however, the exact locations are unknown [97].

Residents of the Town of Mendon, MA are served only by private drinking water supply sources; however, the exact locations are unknown and the exact number could not be determined [95-97].

Residents of the Town of Uxbridge, MA are served by both public and private drinking water supply sources. There is one public drinking water supply well which constitutes the BJs Wholesale Distribution Center [Public Water System Identification Number (PWS ID No.) MA2304013], which is located between 1 and 2 radial miles from the 254 Old Great Road Property. The BJs Wholesale Distribution Center, an NTNC, serves approximately 225 people from one supply well [95; 96]. Based on GIS data from the EPA, a portion of the residents within Uxbridge, MA are served by private drinking water supply wells; however, the exact locations are unknown [97].

Residents of the Town of Blackstone, MA are served by both public and private drinking water supply sources. There are two public drinking water supply wells, located between 2 and 3 radial miles from the 254 Old Great Road Property, which constitute the Blackstone Water Department community water system (PWS ID No. MA2032000) [95; 96]. A community water system supplies drinking water to 25 or more of the same people year-round [96]. The Blackstone Water District serves approximately 3,553 people from the two supply wells. For the purposes of this evaluation, START assumes each well contributes equally to the system and serves 1,776 people [95]. Based on GIS data from the EPA, a portion of the residents within Blackstone, MA are served by private drinking water supply wells; however, the exact locations are unknown and the exact number could not be determined [97].

Residents of the Town of Burrillville, RI are served by public and private drinking water supply sources. There is one public drinking water supply well which constitutes the Glendale Water Association (PWS ID No. RI1583825) community water system [95; 96]. The Glendale Water Association serves approximately 100 people from a single supply well located between 3 and 4 miles from the 254 Old Great Road Property [95; 96]. In addition, there are three NTNC water systems public drinking water supply wells located in the Town of Burrillville, RI: Wrights Farm Corp. (PWS ID No. RI2973119); the Bruin Plastics Company Inc. (PWS ID No. RI2980311); and the Burrillville Middle School (PWS ID No. RI1900028) [88; 96]. The Wrights Farm Corp. is located between 2 and 3 miles from the 254 Old Great Road Property and serves approximately 1,200 people from two supply wells. For the purposes of this evaluation, START assumes each well contributes equally to the system and serves 600 people. The Bruin Plastics Company Inc. and the Burrillville Middle School are located between 3 and 4 miles from the 254

Old Great Road Property. The Bruin Plastics Company, Inc. serves approximately 50 people from one supply well. The Burrillville Middle School serves approximately 780 people from one supply well [95]. Based on GIS data from the EPA, a portion of the residents within Burrillville, RI are served by private drinking water supply wells; however, the exact locations are unknown and the exact number could not be determined [97].

Residents of the Town of North Smithfield, RI are served by public and private drinking water supply sources. There are two NTNC public drinking water supply wells that are part of the North Smithfield 282 Combat Communication system (PWS ID No. RI1900004), located in the Town of North Smithfield, RI, between 3 and 4 miles from the 254 Old Great Road Property [95; 96]. The North Smithfield 282 Combat Communication wells serve approximately 25 people from the two supply wells. For the purposes of this evaluation, START assumes each well contributes equally to the system and serves 12 people [95]. Based on GIS data from the EPA, a portion of the residents within North Smithfield, RI are served by private drinking water supply wells; however, the exact locations are unknown and the exact number could not be determined [97].

In addition, there is an emergency water system that serves the residents of the Town of North Smithfield, RI. The Slatersville Public Supply Well (PWS ID No. RI1615614) is located in the Town of North Smithfield, RI between 1 and 2 miles from the 254 Old Great Road Property. The Slatersville Public Supply well serves approximately 3,000 people from one supply well [95]. The Slatersville Public Supply Well is a community water system [96]. Based on GIS data from the EPA, a portion of the residents within North Smithfield, RI are served by private drinking water supply wells; however, the exact locations are unknown and the exact number could not be determined [97].

Residents of the Town of Woonsocket, RI are served by the Woonsocket Water Division and private drinking water supply sources. The Woonsocket Water Division is comprised of surface water sources located between 3 and 4 miles from the 254 Old Great Road Property [95]. Based on GIS data from the EPA, a portion of the residents within Woonsocket, RI are served by private drinking water supply wells; however, the exact locations are unknown, and the exact number could not be determined [97].

Table 4 summarizes public groundwater supply sources within 4 radial miles of the 254 Old Great Road Property.

Table 4

Public Groundwater Supply Sources
Within 4 Radial Miles of the 254 Old Great Road Property

Distance from Site (miles)	Source Name	PWS ID No./Type	Location of Source[a]	Estimated Population Served	Source Type[b]
1-2	Blackstone/Millville School (1 well) Well 1	MA2188004/ NTNC	Millville, MA	575	Overburden
	BJs Wholesale Distribution Center (1 well) Well 1	MA2304013/ NTNC	Uxbridge, MA	225	Unknown
	Slatersville Public Supply (1 well) TIFFT Road Well *	RI1615614/ Comm.	North Smithfield, RI	3,000	Unknown
2-3	Wrights Farm Corp. (2 wells) Drilled Well # 4, Well # 2	RI2973119/ NTNC	Harrisville (Burrillville), RI	1,200	Unknown
	North Smithfield 282 Combat Communication (2 wells) Drilled Well #1, Drilled Well #2	RI1900004/ NTNC	North Smithfield, RI	25	Unknown
3-4	Blackstone Water Department (2 wells) Well #2 Park & Summer St, Well 7 Park & Summer St	MA2032000/ Comm.	Blackstone, MA	3,553	Unknown
	Glendale Water Association (1 well) Drilled Rock Well	RI1583825/ Comm.	Burrillville, RI	100	Bedrock
	Burrillville Middle School (1 well) Drilled Well	RI1900028/ NTNC	Burrillville, RI	780	Unknown
	Bruin Plastics Company, Inc. (1 well) Drilled Well #1	RI2980311/ NTNC	Glendale (Burrillville), RI	50	Unknown

[a] Indicates Town in which well is located.
[b] Overburden, Bedrock, or Unknown.
* Slatersville Public Supply Well is classified as an emergency water system.

Comm. = Community water system.
PWS ID No. = Public Water System Identification Number.
No. = Number.

[95]

The EPA New England GIS Center provided START with the following three maps for the 254 Old Great Road property: Population by Radius (1990 U.S. Census) within 4 Radial Miles of the 254 Old Great Road property; Population by Radius on Wells (1990 U.S. Census) within 4 Radial Miles of the 254 Old Great Road Property; and Population by Radius (2010 U.S. Census)

within 4 Radial Miles of the 254 Old Great Road Property. The EPA GIS Center calculated the population data by using shapefiles of the population block group data from the respective census and overlaying that onto a basemap which contained the property boundary and associated radial rings around the boundary (*i.e.* property boundary to ¼ mile, ¼ mile to ½ mile, ½ to l mile, 1 mile to 2 miles, 2 miles to 3 miles, and 3 miles to 4 miles). For block groups that overlapped radial rings, the EPA GIS Center calculated the percentage of the block group which fell within each of the radial rings, which translated to the population within that block group which fell within each of the radial rings [97].

As part of the 1990 U.S. Census, the source of survey participants' drinking water was requested as part of the questionnaire. This information, which was grouped by the U.S. Census Bureau into block groups, was used to determine the number of people within radial rings of the property who relied on private drinking water wells as their source of drinking water. The 2010 U.S. Census questionnaire did not request the source of water; therefore, START utilized the information provided by the three EPA GIS Center maps to determine the approximate population currently served by private drinking water wells. START calculated the percentage change in total population for the entire 4-mile radius *(i.e.* percentage change was not calculated for each individual radial ring). Once the percentage change in total population was calculated, START applied that percentage change to determine the estimated population utilizing private drinking water wells for their drinking water within each radial ring [97].

The nearest off-site private drinking water supply well is located between 0 and 0.25 miles from the property and includes the residences along Providence Street [97]. The total population which relies on groundwater as a potable drinking water supply source within 4 radial miles of the 254 Old Great Road property is estimated to be 21,093 [95; 97]. Table 5 summarizes the estimated drinking water populations served by public and private groundwater sources within 4 radial miles of the 254 Old Great Road property.

Table 5

Estimated Drinking Water Populations Served by Groundwater Sources Within 4 Radial Miles of the 254 Old Great Road Property

Radial Distance From 254 Old Great Road (miles)	Estimated Population Served by Private Wells	Estimated Population Served by Public Wells	Total Estimated Population Served by Groundwater Sources Within the Ring
0.00 < 0.25	119	0	119
0.25 < 0.50	317	0	317
0.50 < 1.00	1,567	0	1,567
1.00 < 2.00	2,970	3,800	6,770
2.00 < 3.00	3,288	1,225	4,513
3.00 < 4.00	3,324	4,483	7,807
TOTAL	11,585	9,508	21,093

Notes:
< = Less than
[95; 97]

As noted previously, based on a lack of historical sampling activities, and the proximity of the contaminated groundwater plume of unknown origin identified in 2015 along Providence Street, Millville MA, the 254 Old Great Road Property is being investigated to determine if it contains sources areas which could be contributing to, or if it has been impacted by, the contamination plume.

As noted previously, on 8 July 2015, MassDEP received a phone call from the resident at 19B (originally reported erroneously as 19C) Providence Street, Millville, MA reporting that they had received sample results for their private residential drinking water supply well indicating the well was contaminated with chlorinated solvents at levels elevated above state drinking water standards [12-13]. TCE was detected at 17 µg/L and PCE was detected at 8.6 µg/L [14]. The state drinking water standard for both TCE and PCE is 5.0 µg/L. The caller further noted that the contaminated well is shared by 19 residents in eight separate condominium units, located at 19 and 25 Providence Street, Millville, MA. The MassDEP representative advised the caller to stop drinking the water and switch to bottled water immediately [12].

On 9 July 2015, MassDEP personnel met with a representative of the two condominiums, located at 19 and 25 Providence Street. MassDEP personnel reconnoitered the property, and observed the private well that serves both condominiums and water supply storage tank (located in the basement of the condominium). MassDEP personnel noted that the private well that currently serves the two condominium buildings is flush with the ground surface and has a concrete cover. MassDEP personnel noted that the well did not appear to be sealed adequately. The condominium representative confirmed that the septic system from both buildings was located in the front yards, which are elevated higher than the private well. MassDEP noted that runoff from the parking lots also appears likely to flow toward the area of the private well based on the observed topography. The condominium representative stated that the 25 Providence Street building previously had its own well, but it had been abandoned and now shares the well supplying 19 Providence Street. The condominium representative did not know the reason the well at 25 Providence Street had been abandoned [15].

On 14 July 2015, MassDEP representatives oversaw CB&I/Shaw Group personnel purge and collect private drinking water supply samples from the kitchen taps of condominium units 19C and 25B Providence Street [16]. Drinking water samples collected from the kitchen taps of condominium units 19C and 25B Providence Street indicated TCE concentrations of 17 µg/L and 15 µg/L, and PCE concentrations of 8.2 µg/L and 7.2 µg/L, respectively. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [17].

On 11 August 2015, MassDEP representatives oversaw CB&I personnel collect private drinking water supply samples from residential units at 22, 47A, 48, 51A, and 59A Providence Street, and 4 Alfonso Way [18]. The concentrations of TCE and PCE in the drinking water from these homes were not detectable at the analysis RLs. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [19-24].

On 12 August 2015, MassDEP representatives oversaw CB&I personnel collect private drinking water supply samples from residential units at 2, 3B, 37A, and 37B Providence Street [25]. The concentrations of TCE and PCE in the drinking water from these homes were not detectable at the analysis RLs. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [26-29]. MassDEP and CB&I personnel also collected water samples from the bathroom tub faucet (drinking water samples) within condominium units

19B and 25D Providence Street [25]. Drinking water samples collected from the bathroom tub faucets of condominium units 19C and 25B Providence Street indicated TCE concentrations of 15 µg/L and PCE concentrations of 6.9 µg/L in both units. See Attachment C, Table 1 for drinking water sample analytical results [30-31]. MassDEP reported that the bathroom faucet sample results in the two units were consistent with previous drinking water samples collected in July 2015 [30-31].

On 21 August 2015, MassDEP representatives oversaw the collection of private drinking water supply samples from residential units at 65 Providence Street and 5 Harkness Road. The concentrations of TCE and PCE in the drinking water from these homes were not detectable at the analysis RLs. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [40-41]. On 21 August 2015, MassDEP representatives also oversaw the collection of private drinking water supply samples from the well serving 7 and 15 Providence Street. Analytical results indicated that no TCE or PCE was detected in the drinking water from this shared well. See Attachment A, Figure 6 and Attachment C, Table 1 for drinking water sample locations and analytical results [126].

On 6 and 8 October 2015, MassDEP completed the installation and activation of the POET systems for the drinking water well serving the condominium units at 19 and 25 Providence Street, respectively. The POET systems are intended to reduce or eliminate the concentrations of PCE and TCE to non-detectable concentrations or concentrations below state drinking water standards. The POET system installed by MassDEP at each location consists of two 300-pound fiberglass pressure vessels installed in series with virgin drinking water grade carbon. Valves were installed before and after the treatment system to isolate the equipment for the water supply. A by-pass line and valve were also installed as a contingency should system by-pass be necessary. Influent, mid-fluent, and effluent sample ports were installed for system monitoring. The POET system also included a sediment filter.

MassDEP oversaw the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 19 Providence Street on the first day (6 October 2015), and first and second weeks (13 October 2015 and 20 October 2015) of operation [42-44]. MassDEP has continued to oversee the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 19 Providence Street once a month following installation through December 2016 (see Attachment C, Table 3 for POET system sample results) [45-55; 114; 117; 123]. Sample results from each of the rounds of sampling indicate that the influent samples contain elevated levels of TCE and PCE above the state standards. However, as the water passes through the treatment system and reaches the midfluent and effluent collection locations, analytical results indicate that no concentrations above the RL of 0.5 µg/L are present. Monthly sampling of the influent water samples from the POET system at 19 Providence Street has indicated a maximum concentration of TCE at 29.9 µg/L (August 2016) and PCE at 12.5 µg/L (September 2016) (see Attachment C, Table 3 for POET system sample results) [45-55; 114; 117; 123].

MassDEP also oversaw the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 25 Providence Street on the first day (8 October 2015), and first and second weeks (15 October 2015 and 22 October 2015) of operation [56-58]. MassDEP has continued to oversee the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 25 Providence Street once a month following installation through December 2016 (see Attachment C, Table 3 for POET system sample results) [59-69; 115; 118; 124]. Again, sample results from each of the rounds of sampling

indicate that the influent samples contained elevated levels of TCE and PCE above the state standards. However, as the water passes through the treatment system and reaches the midfluent and effluent collection locations, analytical results indicate that no concentrations above the RL of 0.5 µg/L are present. Monthly sampling of the influent water samples from the POET system at 25 Providence Street has indicated a maximum concentration of TCE at 28.5 µg/L (August 2016) and PCE at 11.4 µg/L (September 2016) (see Attachment C, Table 3 for POET system sample results) [59-69; 115; 118; 124].

On 28 October 2015, MassDEP representatives oversaw the collection of private drinking water supply samples from residential units at 33B and 40 Providence Street, 157 Central Street, and 11 Harkness Road [70]. The concentrations of TCE and PCE in the drinking water from these homes were not detectable at the analysis RLs. See Attachment A, Figure 6 and Attachment C, Table 1 for sample locations and analytical results [71-74].

On 4 November 2015, MassDEP completed the installation and activation of the POET system for the drinking water well serving 3 Providence Street. MassDEP also oversaw the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 3 Providence Street on the first day (4 November 2015), and first and second weeks (11 November 2015 and 18 November 2015) of operation [76]. MassDEP has continued to oversee the collection of the POET system's influent, midfluent, and effluent water samples from the POET system at 3 Providence Street once a month following installation through December 2016 (see Attachment C, Table 3 for POET system sample results) [77-85; 116; 119; 125]. Sample results from each of the rounds of sampling indicate that the influent samples contained detectable levels of PCE and elevated levels of TCE above the state standards. However, as the water passes through the treatment system and reaches the midfluent and effluent collection locations, analytical results indicate that no concentrations above the RL of 0.5 µg/L are present. Monthly sampling of the influent water samples from the POET system at 25 Providence Street has indicated a maximum concentration of TCE at 10.6 µg/L (May 2016) and PCE at 3.8 µg/L (May and June 2016) (see Attachment C, Table 3 for POET system sample results) [77-85; 116; 119; 125].

In addition to the detection of TCE and PCE, MassDEP has also encountered detected levels of 1,1,1-Trichloroethane (1,1,1-TCA), 1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113), and Chloromethane (Freon/Refrigerant-40) in samples collected from the residential POET systems. The detectable concentrations of these compounds found in the POET samples did not exceed their respective State Standards [45-55; 59-69; 77-85; 114-119; 123-125].

To date, it has been documented that TCE and PCE concentrations have exceed state standards in in groundwater at the adjacent Millville TCE site. TCE and PCE contamination has been detected in two private residential drinking water wells, impacting three residential units containing an estimated 15 people. As a result, MassDEP has installed POET systems at these three residential units, and demonstrated the effectiveness of the system. Monthly sampling and analysis indicate that water entering the POET system continues to document elevated concentrations of TCE and PCE above state standards. However, effluent water samples collected following POET system treatment have indicated that TCE and PCE concentrations at the three residences has been reduced to non-detectable concentrations. MassDEP continues to monitor and assess groundwater contamination in the area of the 254 Old Great Road Property.

EPA Preliminary Assessment Drinking Water Sampling

On 6 and 7 September 2016, as part of the EPA PA of the 254 Old Great Road Property, START personnel collected three drinking water samples. START collected two drinking water samples (including a field duplicate sample) (DW-01 and DW-03) from the 254 Old Great Road Property and one drinking water sample (DW-02) from the 250 Old Great Road property (Attachment A, Figure 4). The three drinking water samples were submitted to the EPA NERL/OEME laboratory for VOC analysis. Drinking water samples were collected to determine if the contamination plume of unknown origin had impacted the on-site drinking water well supply and to identify any potential hazardous substances associated with any on-site source areas.

Attachment D, Table 1, provides a description of the drinking water samples collected by START on 6 and 7 September 2016. Samples DW-01, DW-02, and DW-03 were analyzed using EPA OEME method "EIASOP-VOAGCMS9, VOAs in Drinking Water Method. The RLs for samples using this method range from 1.0 - 2.5 µg/L.

Complete analytical results of drinking water samples collected by START, including quantitation and RLs, are presented in Attachment E, Table 1 of this report [107]. Sample results qualified with an "ND" on analytical tables indicate the substances were analyzed for, but not detected, and the associated numerical value is the OEME Laboratory RL. Sample results qualified with a "B" on analytical tables are associated with the lab blank or trip blank contamination. The reasons for sample qualifiers are provided in the footnotes of the individual data tables included as Attachment E of this report.

Attachment D, Tables 1D and 1E, summarize the aqueous QA/QC samples associated with drinking water sampling conducted by START on 6 and 7 September 2016. Complete analytical results of trip blank samples, collected by START in accordance with the Site-Specific QAPP, are presented in Attachment E Table 4C of this report [107].

Since no background sample was collected and the contaminants of concern (TCE and PCE) are not naturally occurring, the sample results were compared against their respective OEME RL. For this report, any concentration in drinking water samples above the OEME RL is considered a detectable level. Analytical results of drinking water samples were also compared against their respective National Primary Drinking Water Regulations (NPDWR) MCL and RIDEM GA GW Standards. In Attachment E, Table 1, bolded values indicate the compound was detected above the OEME RL (Attachment E, Table 1) [107]. Shaded values indicate the compound was detected above its respective NPDWR MCL and RIDEM GA GW Standard (Attachment E, Table 1) [107; 119-120].

Based on OEME analytical results, five VOCs were detected above OEME Laboratory RLs in the three drinking water samples submitted for analysis as part of the 254 Old Great Road Property PA (Attachment E, Table 1) [107]. Analytical results of the 254 Old Great Road Property samples (DW-01 and DW-03) indicate the following five VOCs were detected above RLs (maximum concentration and sample location in parentheses): 1,1,1-TCA (1.4 µg/Kg in DW-03); 1,1,2-trichloro-1,2,2-trifluoroethane (21 µg/Kg in DW-03); 2-propane (acetone) (7.7 B µg/Kg in DW-03); PCE (17 µg/Kg in DW-03); and TCE (44 µg/Kg in DW-03). Analytical results of the 250 Old Great Road samples (DW-02) indicate the same five VOCs were also detected: 1,1,1-TCA (1.2 µg/Kg); 1,1,2-trichloro-1,2,2-trifluoroethane (2.9 µg/Kg); 2-propane (acetone) (7.72B µg/Kg); PCE (19 µg/Kg); and TCE (47 µg/Kg) [107]. PCE and TCE were both

detected at concentrations exceeding their respective NPDWR MCL and RIDEM GA GW Standards of 5 µg/Kg (Attachment E, Table 1) [107; 119-120].

Analytical results of the drinking water samples indicate that several VOCs, including PCE and TCE, are detected at elevated concentrations in the groundwater beneath the 254 Old Great Road Property [107]. PCE and TCE concentrations in the 250 Old Great Road and 254 Old Great Road samples are higher than the historical concentrations detected in the Providence Street and Mechanic Street impacted residential wells samples discussed earlier in this section of the report [9-10; 45-55; 59-69; 77-85; 107; 114-119; 123-125].

Furthermore, analytical results of the drinking water samples suggest that the PCE and TCE contamination plume of unknown origin noted in the vicinity of the 254 Old Great Road Property likely extends beneath the 250 Old Great Road and 254 Old Great Road properties and has impacted the private drinking water wells which supply these two residences.

SURFACE WATER PATHWAY

The 254 Old Great Road Property is located in the Blackstone Watershed [98]. The drainage area of the Blackstone Watershed basin is 416 square miles (mi^2) [99]. The 254 Old Great Road Property is not located within a flood plain [100].

Surface topography of the property was observed to generally slope to the southwest. The northern portion of the property (the residential area) is generally flat (except for the areas of the Soil/Loam Pile and Mixed Soil and Construction Debris Pile) with a steep slope along the sides of the driveway near the subterranean residential building. A steep slope was observed trending from east-southeast to west-northwest, northeast of the commercial area containing the Steel Garage/Warehouse building and Dirt Parking Lot. Generally at the toe of this slope, where the Steel Garage/Warehouse building and the Dirt Parking Lot are located, the surface topography levels off. To the southwest of the Steel Garage/Warehouse building and Parking Lot area, there is a steep step down (partially created by a retaining wall) to a flat area with wetlands and the Unnamed Stream [1; 135]. Based on surface topography of the property and on-site observations, stormwater runoff/overland flow from the property flows south-southwest toward the Unnamed Stream/on-site and off-site wetlands [1].

The probable point of entry (PPE) to the 254 Old Great Road Property 15-mile downstream surface water pathway (SWP) is within the southwestern portion of the property, where the Unnamed Stream flows onto the property [1; 135].

The 15-mile downstream SWP from the 254 Old Great Road Property is located in the Blackstone River Watershed, and includes the following surface water bodies: Unnamed Stream (0.10 miles), Pratt Pond (0.20 miles), Dawley Brook (0.97 miles), the Branch River (2.01 miles), and the Blackstone River (11.72 miles) (Attachment A, Figure 5). The 15-mile downstream SWP terminus is located along the Blackstone River in the vicinity of the border of Lincoln and Cumberland, RI [99].

There are two U.S. Geological Survey (USGS) gauging stations located along the SWP on the Branch River and the Blackstone River. To estimate additional flow rates for the Unnamed Stream, Pratt Pond, and Dawley Brook, START utilized the USGS MA and RI StreamStats website [99].

The drainage area at the PPE, located along the Unnamed Stream, is 0.22 mi^2. The drainage area at the terminus of the Unnamed Stream at Pratt Pond is 0.22 mi^2. The distance between the PPE and the convergence of the Unnamed Stream and Pratt Pond is approximately 0.10 miles. Using the USGS conversion factor of 1.8 cubic feet per second (cfs)/mi^2, the flow rate for the Unnamed Stream at the convergence is 0.396 cfs [99].

The 15-mile SWP continues through Pratt Pond for approximately 0.20 miles before discharging into Dawley Brook. The drainage area at the terminus of Pratt Pond, located approximately 0.30 miles from the PPE, is 0.57 mi^2. Using the USGS conversion factor of 1.8 cfs/mi^2, the flow rate for Pratt Pond ranges from 0.396 cfs to 1.026 cfs [99].

The 15-mile SWP continues through Dawley Brook for approximately 0.97 miles before discharging into the Branch River. The drainage area at the Dawley Brook terminus, and approximately 1.27 miles downstream of PPE, is 1.12 mi^2. Using the USGS conversion factor of 1.8 cfs/mi^2, the flow rate for Dawley Brook ranges from 1.026 cfs to 2.016 cfs [99].

Flow rates for the Branch River were determined based on flow rate information at a USGS gaging station at Forestdale, RI (USGS No. 01111500), located approximately 1.70 miles downstream from the PPE, and the drainage area at the Branch River terminus (confluence with the Blackstone River), approximately 3.28 miles downstream of the PPE. The drainage basin of the Branch River at USGS No. 01111500 is approximately 91.2 mi^2. Using the USGS conversion factor of 1.8 cfs/mi^2, the estimated flow rate of the Branch River at USGS No. 01111500 is approximately 164.16 cfs. The drainage basin of the Branch River at the confluence of the Blackstone River is approximately 93.1 mi^2. Using the USGS conversion factor of 1.8 cfs/mi^2, the estimated flow rate of the Branch River at the confluence of the Blackstone River is approximately 167.58 cfs. The flow rate for the Branch River ranges from 164.16 cfs to 167.58 cfs [99].

Flow rates for the Blackstone River were determined based on flow rate information at a USGS gaging station at Woonsocket, RI (USGS No. 01112500), located approximately 7.43 miles downstream from the PPE, and the drainage area of the Blackstone River at the 15-mile SWP terminus. The drainage basin of the Blackstone River at USGS No. 01112500 is approximately 416 mi^2. Using the USGS conversion factor of 1.8 cfs/mi^2, the estimated flow rate of the Blackstone River at USGS No. 01112500 is approximately 748.8 cfs. The drainage basin of the Blackstone River at the 15-mile SWP terminus is approximately 442 mi^2. Using the USGS conversion factor of 1.8 cfs/mi^2, the estimated flow rate of the Blackstone River at the 15-mile SWP terminus is approximately 795.6 cfs. The flow rate for the Blackstone River ranges from 748.8 cfs to 795.6 cfs [99].

Table 6 summarizes surface water bodies along the 15-mile downstream SWP from the 254 Old Great Road Property.

Table 6

Surface Water Bodies Along the 15-Mile Downstream Surface Water Pathway from the 254 Old Great Road Property

Surface Water Body	Descriptor[a]	Length of Reach (miles)*	Flow Characteristics (cfs)[b]	Length of Wetlands (miles)
Unnamed Stream	Minimal stream	0.10	0.396	0.144
Pratt Pond	Minimal stream	0.20	0.396 to 1.026	0.40
Dawley Brook	Minimal stream	0.97	1.026 to 2.016	1.37
Branch River	Moderate to large stream	2.01	164.16 to 167.58	3.10
Blackstone River	Moderate to large stream	11.72	748.8 to 795.6	23.44

[a] Minimal stream <10 cfs. Moderate to large stream (flow = >100 cfs to 1,000 cfs).
[b] Cubic feet per second
* Distance measured from PPE.

[99; 101]

The Branch River and Blackstone River are trout-stocked water bodies; however, START is unaware of the status of a fishery within both the Branch River and the Blackstone River [102].

The Branch River is the most upstream Clean Water Act (CWA)-protected water body along the 15-mile downstream SWP. In addition, there are approximately 28.45 miles of wetland frontage located along the SWP [101]. There are five State-listed and/or Federally-listed endangered species habitat along the 15-mile downstream SWP [103].

Table 7 summarizes sensitive environments along the 15-mile downstream SWP from the 254 Old Great Road Property.

Table 7

Sensitive Environments Along the 15-Mile Downstream Surface Water Pathway from the 254 Old Great Road Property

Sensitive Environment Name	Sensitive Environment Type	Surface Water Body	Downstream Distance from PPE (miles)	Flow Rate at Environment (cfs)[a]
Unnamed Stream - Wetlands	Wetlands	Unnamed Stream	0.10	0.396
Pratt Pond - Wetlands	Wetlands	Pratt Pond	0.10 to 0.30	0.396 to 1.026
Dawley Brook - Clean Water Act	Clean Water Act Water body	Dawley Brook	0.30 to 1.27	1.026 to 2.016
Dawley Brook - Wetlands	Wetlands	Dawley Brook	0.30 to 1.27	1.026 to 2.016
Branch River - Clean Water Act	Clean Water Act Water body	Branch River	1.27 to 3.28	164.16 to 167.58
Branch River - Wetlands	Wetlands	Branch River	1.27 to 3.28	164.16 to 167.58
Branch River – Sensitive Environment	Priority Habitat 1	Branch River	2.8 to 3.8	164.16 to 167.58
Branch River – Sensitive Environment	Priority Habitat 2	Branch River	1.6 to 2.5	164.16 to 167.58
Blackstone River - Clean Water Act	Clean Water Act Water body	Blackstone River	3.28 to 15	748.8 to 795.6
Blackstone River - Wetlands	Wetlands	Blackstone River	3.28 to 15	748.8 to 795.6
Blackstone River - Sensitive Environment	Priority Habitat 3	Blackstone River	5.1 to 5.8	748.8 to 795.6
Blackstone River - Sensitive Environment	Priority Habitat 4	Blackstone River	7.9 to 9.5	748.8 to 795.6
Blackstone River - Sensitive Environment	Priority Habitat 5	Blackstone River	10.6 to 12.5 and 12.9 to 14.4	748.8 to 795.6

[a] Cubic feet per second PPE = Probable Point of Entry.

[99; 103]

File information does not indicate that any SWP samples have been collected from the 254 Old Great Road Property or in the vicinity. However, the primary contaminants of concern associated with the PA are CVOCs including TCE and PCE. TCE and PCE are among the most common chlorinated solvents released to the environment. TCE and PCE are widely used organic solvents which may be contained in commercial, industrial, and residential products. TCE is a colorless, highly volatile liquid that is miscible with water and a number of organic solvents. TCE is mainly used as a solvent to remove grease from metal parts, but is also an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers. TCE does not occur naturally in the environment. However, it has been found in underground water sources and many surface waters as a result of the manufacture, use, and disposal of the chemical.

EPA Preliminary Assessment Sediment Sampling

On 6 September 2016, as part of the EPA PA of the 254 Old Great Road Property, START personnel collected five sediment samples (SD-01 through SD-05), including one field duplicate, from four locations on the 254 Old Great Road property, along the downstream SWP (Attachment A, Figure 4). Sediment samples were collected to determine if the SWP has been impacted by hazardous substances potentially associated with on-site source areas. Sediment samples were collected at depths no greater than 12 inches below the sediment/water interface [1]. Depth of water ranged from less than 2 inches to approximately 6 inches [1]. Attachment D, Table 1C, provides summary descriptions of the sediment samples collected.

Attachment D, Tables 1D and 1E, provides a summary of the aqueous QA/QC samples and PE samples associated with sediment sampling conducted by START on 6 September 2016. Complete analytical results of equipment rinsate, preservative, and trip blank samples, collected by START in accordance with the Site-Specific QAPP for the Region I START IV Contract, are presented in Attachment E of this report (Tables 4A through 4C) [108-109].

All five sediment samples were submitted to the EPA OEME NERL laboratory for VOC analysis [1]. Complete analytical results of sediment samples collected by START, including quantitation and RLs, are presented in Attachment E, Table 3 of this report [108-109]. Sample results qualified with an "ND" on analytical tables indicate the substances were analyzed for, but not detected, and the associated numerical value is the OEME Laboratory RL. Sample results qualified with a "J" on analytical tables are estimated. Sample results qualified with a "B" on analytical tables are associated with the lab blank or trip blank contamination. The reasons for sample qualifiers are provided in the footnotes of the individual data tables included as Attachment E of this report [108-110].

Sample SD-03 was analyzed using EPA OEME method "VOAs in Soil Low Level Method". The RL for this sample using the low level method is 1 µg/Kg. Samples SD-01, SD-02, SD-04, and SD-05 were analyzed using EPA OEME method "VOAs in Soil High Level Method". The RLs for these four samples, using the high level method, were higher, ranging from 95 µg/Kg to 1,500 µg/Kg. All VOC substances tested for in the four samples analyzed using the high level method were reported by NERL as ND at the higher RLs (Attachment E, Table 3) [108-109].

Based on OEME analytical results for the single sample analyzed using the low level method (SD-03), detectable levels of one VOC (PCE) were detected above OEME Laboratory RLs in the sediment samples submitted for analysis. PCE was detected at 1.7 µg/Kg in SD-03 [108, 109].

Although PCE was detected in sediment sample SD-03, since all the other sediment samples, both upstream and downstream, were analyzed using the high level method with RLs ranging from 95 µg/Kg to 1,500 µg/Kg, no background sample is available for comparison. Since PCE is not naturally occurring, the PCE detected is considered a release to the environment. However, START is unable to determine if the PCE is migrating onto the property from the stream via an on-site or off-site release. Therefore, a release of hazardous substances to sediments at the 254 Old Great Road property could not be determined.

For comparison purposes only, analytical results of the sediment samples are compared to National Oceanic and Atmospheric Administration (NOAA) Screening Quick Reference Tables (SQuiRTs) Threshold Effects Level (TEL) and/or Probable Effects Level (PEL) values for

freshwater sediment (Attachment E, Table 3) [108-109; 121]. NOAA SQuiRTs have two values for comparison (TELs and PELs), which represent the level at which adverse effects to benthic organisms are expected [122]. TELs represent the concentration below which adverse effects are expected to occur only rarely. PELs represent the level above which adverse effects are frequently expected to occur. Screening with conservative, lower-threshold values (e.g. TELs) ensures, with a high degree of confidence, that any contamination sources eliminated from future consideration pose no potential threat. Conversely, it does not predict toxicity. Upper threshold values (e.g. PELs) identify compounds which are more probably elevated to toxic levels. NOAA SQuiRTs TELs and PELs were developed for screening purposes only. The NOAA SQuiRTs TELs and PELs are not enforceable by law, nor do they constitute criteria or clean-up levels, and are intended for comparison purposes only [121].The data comparison indicates that none of the VOCs were detected at concentrations exceeding the NOAA SQuiRT Standards (Attachment E, Table 3) [108-109; 121].

In summary, PCE was the only VOC detected above the OEME Laboratory RL in the one sediment sample (SD-03) analyzed using the low level method. The other four sediment samples collected were analyzed using the OEME high level method with RLs ranging from 95 µg/Kg to 1,500 µg/Kg, resulting in no detectable concentrations of any VOCs above their RLs in these samples.

Although PCE was detected in sediment sample SD-03, since only the one sample was analyzed using the OEME low level method and that sample indicated a detectable level of VOC contamination, and the other four upstream and downstream sediment samples were analyzed via the OEME high level method with significantly higher RLs, START was not able to establish a background sediment sample or reference criteria for comparison purposes. Since PCE is not naturally occurring, the PCE concentration detected is considered a release to the environment. However, START is unable to determine if the PCE is migrating onto the property via the stream or from an on-site release. Therefore, a release of hazardous substances to sediments at the 254 Old Great Road Property could not be documented. Furthermore, PCE was not detected at concentrations exceeding the NOAA SQuiRT Standards (Attachment E, Table 3) [108-109; 121].

Based on the limited sediment sampling that has been conducted on the 254 Old Great Road Property, site observations and conditions, and 2016 analytical sampling results, no significant impacts to the SWP or nearby residential populations are documented. However, potential impacts to the SWP continue to be suspected due to the detectable concentration in SD-03 and the lack of low level analytical sample data from along the remainder of the 254 Old Great Road Property upstream and downstream SWP.

SOIL EXPOSURE PATHWAY

The 254 Old Great Road Property has two main areas on the property: a residential area on the north/northeast portion of the property, and a commercial area located on the south/southwestern portion of the property [1; 2; 4]. The residential area contains a single-family, modern, partially subterranean residential structure with one occupant on the property [1; 2; 4]. The nearest off-site residence is located south of the property, at 252 Old Great Road, approximately 230 feet to the south [2]. An estimated 3,173 and 48,371 people reside within 1 radial mile and 4 radial miles of the 254 Old Great Road Property, respectively [97]. There are no known state and/or federally designated endangered species habitats located on the 252 Old Great Road property [103].

There are no known schools or day-care facilities located within 200 feet of known source areas located on the 254 Old Great Road property [104; 105]. The nearest known daycare facility, Donna's Daycare, is located approximately 1.5 miles northeast of the property [104]. The nearest school, Halliwell Memorial School, is located approximately 1 mile southeast of the property [105].

Vehicle and pedestrian access to the property is partially restricted by a latched, unlocked gate and two locked gates. Evidence of trespassing had not been observed during on-site activities conducted as part of the PA [1].

EPA Preliminary Assessment Surface Soil Sampling

As discussed and summarized previously in the Waste/Source Section of this report, as part of EPA PA sampling activities, on 7 and 8 September 2016, START personnel performed soil sampling on the 254 Old Great Road Property. Fourteen soil samples were collected from 13 locations within potential source areas on the 254 Old Great Road Property. Thirteen of the soil samples were collected from less than 2 feet bgs and are considered surface soil samples for this report. One additional soil sample (SS-05, a subsurface soil sample) was collected from a depth of 2.5 feet bgs. The 14 soil samples were submitted to the EPA OEME laboratory for VOC analysis. Surface soil samples were collected to identify potential hazardous substances associated with the on-site source areas. Surface soils samples SS-01, SS-02, SS-03, SS-04, SS-06, and SS-13 were collected from within 200 feet of the residence [1]. Surface soil samples SS-07, SS-08, SS-09, SS-10, SS-11, SS-12, and SS-14 were collected within the on-site commercial area where workers may have direct contact with the potentially contaminated soil materials [1].

Attachment D, Table 1A, provides a summary of the soil samples collected by START on 7 and 8 September 2016 [111]. All 14 soil samples were submitted to EPA OEME NERL for VOC analysis [1].

Complete analytical results of surface samples collected by START, including quantitation and RLs, are presented in Attachment E, Table 2 of this report [111]. Sample results qualified with an "ND" on analytical tables indicate the substance was analyzed for, but not detected, and the associated numerical value is the OEME Laboratory RL. Sample results qualified with an "E" on analytical tables indicate that the value exceeds the calibration range. The reasons for sample qualifiers are provided in the footnotes of the individual data tables included in Attachment E of this report [111].

All 14 soil samples were submitted to OEME NERL for method low level analysis ("VOAs in Soil Low Level Method") [1; 111]. However, all the samples were analyzed using EPA OEME NERL method "VOAs in Soil High Level Method". The RLs for these samples using the high level method range from 60 µg/Kg to 280 µg/Kg. All VOC substances tested for in these 14 soil samples were reported by NERL as ND at the high RL, with the exception of one compound in two samples [111].

Attachment D, Tables 1D and 1E summarize the aqueous QA/QC samples and PE samples associated with soil/waste source sampling conducted by START on 7 and 8 September 2016. Complete analytical results of equipment, rinsate, trip, and preservative blank samples, collected by START in accordance with the Site-Specific QAPP, are presented in Attachment E of this report (Tables 4A through 4C) [110-111].

EPA OEME NERL analytical results indicate that one VOC [2-propanone (acetone)] was detected in two surface soil samples collected from the 250 Old Great Road property above their respective OEME laboratory RL (Attachment E, Table 2). Samples SS-01 and SS-03 showed detections of 2-propanone (acetone) at concentrations of 77 µg/Kg and 79 µg/Kg, respectively. The OEME laboratory RLs for 2-propanone (acetone) in samples SS-01 and SS-03 are 75 µg/Kg and 68 µg/Kg, respectively [111].

Analytical results of the surface soil samples submitted for VOC analyses were also compared against their respective RIDEM Method 1 DEC Industrial and Residential Standards [111; 120]. No VOCs were detected at concentrations exceeding the RIDEM Method 1 DEC Standards [111; 120]. The OEME Laboratory RLs for the "VOAs in Soil High Level Method" are higher than their respective RIDEM Method 1 DEC Industrial and/or Residential Standards for two VOCs, 1,2-Dibromoethane and Vinyl Chloride [111; 120].

Attachment D, Tables 1D and 1E, provides a summary of the aqueous QA/QC samples and PE samples associated with soil/source sampling conducted by START on 7 and 8 September 2016. Complete analytical results of START equipment rinsate, trip, and preservative blank samples, collected by START in accordance with the Site-Specific QAPP for the Region I START IV Contract, are presented in Attachment E of this report (Tables 4A through 4C) [110-111].

Due to the reporting limits of the data, surface soil samples were not compared to a background sample, as a sample representative of the site background levels could not be determined. Therefore, a release of hazardous substances to the soil exposure pathway at the 254 Old Great Road Property could not be determined.

In summary, no TCE or PCE was detected in any of the surface soil samples, and the detection of the one compound detected above the OEME RL, 2-propanone (acetone), may be a result of non-site-related contamination, as noted in the Waste Source section of this report.

Based on the limited surface soil sampling conducted on the 254 Old Great Road Property, site observations and conditions, and 2016 surface soil analytical sampling results, no potential surface soil exposure has been documented, at the present time. However, due to the lack of low level analytical sample data, a potential for low level contamination and direct soil exposure at the 254 Old Great Road Property remains a possibility.

AIR PATHWAY

There is a single-family residence on the 254 Old Great Road Property occupied by one resident [1]. The nearest off-site residence is located approximately 230 feet south of the property, at 252 Old Great Road [1; 2].

There are no known schools or day-care facilities located within 200 feet of known source areas located on the 254 Old Great Road Property [104; 105]. The nearest known daycare facility, Donna's Daycare, is located approximately 1.5 miles northeast of the property [104]. The nearest school, Halliwell Memorial School, is located approximately 1 mile southeast of the property [105].

Vehicle and pedestrian access to the property is partially restricted by latched unlocked gate and two locked gates. Evidence of trespassing had not been observed during on-site activities conducted as part of the PA [1].

An estimated 48,370 people reside within 4 radial miles of the 254 Old Great Road Property [97].

Table 8 summarizes the estimated population within 4 radial miles of the 254 Old Great Road Property.

Table 8

Estimated Population Within 4 Radial Miles of the 254 Old Great Road Property

Radial Distance From the 254 Old Great Road Property (miles)	Estimated Population
On Property	1
> 0.00 to < 0.25	176
> 0.25 to < 0.50	586
> 0.50 to < 1.00	2,409
> 1.00 to < 2.00	5,794
> 2.00 to < 3.00	13,621
> 3.00 to < 4.00	25,783
TOTAL	48,370

< = Less than. > = Greater than.

[97]

Approximately 4,171.58 acres of wetlands, a CWA-protected water body, and 11 listed threatened species habitats are located within 4 radial miles of the 254 Old Great Road Property [101; 106]. Information regarding the specific type of priority habitat (State Threatened, State Endangered, Federal Threatened, or Federal Endangered), or the names of the listed threatened or endangered species habitats, was not available during the writing of this report.

Table 9 summarizes sensitive environments located within 4 radial miles of the 254 Old Great Road Property.

Table 9

Sensitive Environments Located Within 4 Radial Miles of the 254 Old Great Road Property

Radial Distance From 254 Old Great Road Property (miles)	Sensitive Environments/Species (status)
On Property	0.20 acres of wetlands
0 to < 0.25	25.13 acres of wetlands
> 0.25 to < 0.50	30.93 acres of wetlands
> 0.50 to < 1.00	110.70 acres of wetlands
	Clean Water Act-protected water body
	Four listed priority species habitats
> 1.00 to < 2.00	756.18 acres of wetlands
	Six listed priority species habitats
> 2.00 to < 3.00	990.90 acres of wetlands
	Four listed priority species habitats
> 3.00 to < 4.00	2,257.54 acres of wetlands
	Six listed priority species habitats

[101, 106]

No quantitative laboratory-analyzed air samples are known to have been collected from the 254 Old Great Road Property. START did not conduct Air Pathway sampling as part of this PA. Based on the lack of quantitative data, no release of hazardous substances to the ambient air from on-site sources has been documented. No impacts to nearby residential populations or sensitive environments are known or suspected.

SUMMARY

The 254 Old Great Road Property site is identified in the North Smithfield Tax Records as Map 2, Lot 1 [4]. The geographic coordinates for the site, as measured from the approximate center of the property, are 42° 00′ 48.67″ north latitude and 71° 34′ 43.57″ west longitude [5]. The parcel is approximately 5 acres and is classified as residential. According to town records, a small portion of the property is located in Millville, MA, but 100 percent of the frontage (road) and over 90 percent of the area was located in North Smithfield, RI [4].

The property consists of two main areas, a residential area and a commercial area. The residential area, located on the northeastern portion of the property, contains a partially buried subterranean house, surrounded by fill material on three sides; a Red Garage/Storage Shed used for storage; a large Soil/Loam Pile, approximately 80 feet in diameter by 15 to 20 feet high; a Mixed Soil and Road Construction Debris Pile that extends off site; and a private drinking water well. The commercial area, located on the southwestern portion of the property, contains a large Steel Garage/Warehouse building, a large open Dirt Parking Lot, as well as several smaller sheds, trailers, trucks, vehicles, and miscellaneous equipment and supplies. A Petroleum Pipeline Easement traverses the property along a general east to west trend between the residential and commercial areas, south of the house and north of the Steel Garage/Warehouse structure. Several potential waste sources, including 30- and 55-gallon drums, miscellaneous containers, stained soil areas, and piles, were observed throughout the property [1; 2].

Two additional sites currently under investigation by EPA, the TCE Millville site (the Louis Iarussi Property - 171 Central Street portion) and the 465 Central Street Property site, border the 254 Old Great Road Property to the north and west, respectively [1, 87].

The 254 Old Great Road Property has been identified and is being investigated based on its proximity to one or more contamination plumes of unknown origin, encompassing two groups of private residential drinking water supply wells located along Providence Street, Millville, MA and Mechanic Street, North Smithfield, RI, as well as on site observations.

Based on a lack of historical sampling activities, and the proximity of the contaminated groundwater plume of unknown origin identified in 2015 along Providence Street, Millville MA, the 254 Old Great Road Property is being investigated to determine if it contains sources areas which could be contributing to, or if it has been impacted by, the contamination plume.

As part of the 2016 EPA PA, soil/source sampling was conducted on the 254 Old Great Road Property. START personnel collected a total of 14 soil/source from 13 locations. All 14 soil/waste source samples were submitted to OEME NERL for method low level analysis ("VOAs in Soil Low Level Method") [1; 111]. However, all the samples were analyzed using EPA OEME NERL method "VOAs in Soil High Level Method". The RLs for these samples using the high level method ranged from 60 micrograms per Kilogram (µg/Kg) to 280 µg/Kg. All VOC substances tested for in these 14 soil/waste source samples were reported by NERL as ND at the high RL, with the exception of one compound in two samples [111]. EPA OEME NERL analytical results indicate that one VOC [2-propanone (acetone)] was detected in soil/waste source samples collected from the 250 Old Great Road property above their respective OEME laboratory RL. Two samples, SS-01 and SS-03, showed detections of 2-propanone (acetone) at concentrations of 77 and 79 µg/Kg. The OEME laboratory RL for 2-propanone (acetone) in samples SS-01 and SS-03 is 75 µg/Kg and 68 µg/Kg., respectively [111]. Due to the reporting limits of the data, soil/source samples were not compared to a background sample, as a

sample representative of the site background levels could not be determined. Therefore, a release of hazardous substances to soils at the 254 Old Great Road Property could not be determined. In addition, the detection of the one compound detected above the OEME RL, 2-propanone (acetone), is common laboratory contaminant and may be a result of non-site-related contamination, as noted below.

The total population which relies on groundwater as a potable drinking water supply source within 4 radial miles of the 254 Old Great Road property is estimated to be 21,093 [95; 97]. The nearest off-site private drinking water supply well is located between 0 and 0.25 miles from the property and includes the residences along Providence Street [97].

On 6 and 7 September 2016, as part of the EPA PA of the 254 Old Great Road Property, START personnel collected three drinking water samples: two drinking water samples (DW-01 and DW-03) from the 254 Old Great Road Property, and one drinking water sample (DW-02) from the 250 Old Great Road property. The three drinking water samples were submitted to the EPA NERL/OEME laboratory for VOC analysis. Drinking water samples were collected to determine if the contamination plume of unknown origin had impacted the on-site drinking water well supply and to identify any potential hazardous substances associated with any on-site source areas.

Since no background sample was collected and the contaminants of concern (TCE and PCE) are not naturally occurring, the sample results were compared against their respective OEME RL. For this report, any concentration in drinking water samples above the OEME RL is considered a detectable level. Analytical results of drinking water samples were also compared against their respective National Primary Drinking Water Regulations (NPDWR) MCL and RIDEM GA GW Standards. OEME analytical results of the drinking water samples indicated that five VOCs, including PCE and TCE, were detected at elevated concentrations in the groundwater beneath the 254 Old Great Road Property [107]. PCE and TCE concentrations exceeded NPDWR MCL and RIDEM GA GW Standards and are higher than the historical concentrations detected in the Providence Street and Mechanic Street impacted residential wells samples [9-10; 45-55; 59-69; 77-85; 107; 114-119; 123-125].

The 15-mile downstream SWP from the 254 Old Great Road Property is located in the Blackstone River Watershed, and includes the following surface water bodies: the Unnamed Stream, Pratt Pond, Dawley Brook, the Branch River, and the Blackstone River. The 15-mile downstream SWP terminus is located along the Blackstone River in the vicinity of the border of Lincoln and Cumberland, RI [99]. The Branch River is the most upstream Clean Water Act (CWA)-protected water body along the 15-mile downstream SWP. In addition, there are approximately 28.45 miles of wetland frontage located along the SWP [101]. There are five State-listed and/or Federally-listed endangered species habitats along the 15-mile downstream SWP [103].

As part of the EPA PA of the 254 Old Great Road Property, START collected five sediment samples from four locations. All five sediment samples were submitted to the EPA OEME NERL laboratory for VOC analysis [1]. One sample (SD-03) was analyzed using EPA OEME method "VOAs in Soil Low Level Method" with a RL of 1 µg/Kg. The other four samples (SD-01, SD-02, SD-04, and SD-05) were analyzed using EPA OEME method "VOAs in Soil High Level Method". The RLs for these four samples, using the high level method, were higher, ranging from 95 µg/Kg to 1,500 µg/Kg. All VOC substances tested for in the four samples analyzed using the high level method were reported by NERL as ND at the higher RLs

(Attachment E, Table 3) [108-109]. Based on OEME analytical results for the single sample analyzed using the low level method (SD-03), detectable levels of one VOC (PCE) were detected above OEME Laboratory RLs in the sediment samples submitted for analysis. PCE was detected at 1.7 µg/Kg in SD-03 [108, 109].

Although PCE was detected in sediment sample SD-03, since all the other sediment samples, both upstream and downstream, were analyzed using the high level method with RLs ranging from 95 µg/Kg to 1,500 µg/Kg, no background sample is available for comparison. Since PCE is not naturally occurring, the PCE detected is considered a release to the environment. However, START is unable to determine if the PCE is migrating onto the property from the stream via an on-site or off-site release. Therefore, a release of hazardous substances to sediments at the 254 Old Great Road property could not be determined.

Based on the limited sediment sampling that has been conducted on the 254 Old Great Road Property, site observations and conditions, and 2016 analytical sampling results, no significant impacts to the surface water pathway or nearby residential populations are documented, but potential impacts to the SWP continue to be suspected due to the detectable concentration in SD-03 and the lack of low level analytical sample data from along the remainder of the 254 Old Great Road Property upstream and downstream SWP.

There is an occupied residence, with one person living on the property [2]. There are no state-listed endangered species habitats located on the 254 Old Great Road property [103]. There are no schools or day-care facilities located within 200 feet of known source areas located on the 254 Old Great Road property. The nearest daycare facility, Donna's Daycare, is located approximately 1.5 miles northeast of the property [104]. The nearest school, Halliwell Memorial School, is located approximately 1.1 miles southeast of the property [105]. The nearest off-site residence is located south of the property, at 252 Old Great Road, approximately 230 feet to the south [2]. An estimated 3,173 and 48,371 people reside within 1 radial mile and 4 radial miles of the 254 Old Great Road Property, respectively [97].

As part of EPA PA sampling activities, START personnel performed soil sampling on the 254 Old Great Road Property. Fourteen soil samples were collected from 13 locations within potential source areas. Thirteen of the soil samples were collected from less than 2 feet bgs and are considered surface soil samples for this report. The surface soil samples were collected to identify potential hazardous substances associated with the on-site source areas and submitted to the EPA OEME laboratory for VOC analysis. Surface soils samples SS-01, SS-02, SS-03, SS-04, SS-06, and SS-13 were collected from within 200 feet of the residence [1]. Surface soil samples SS-07, SS-08, SS-09, SS-10, SS-11, SS-12, and SS-14 were collected within the on-site commercial area where workers may have direct contact with the potentially contaminated soil materials [1].

All 14 soil samples were submitted to OEME NERL for method low level analysis ("VOAs in Soil Low Level Method") [1; 111]. However, all the samples were analyzed using EPA OEME NERL method "VOAs in Soil High Level Method". The RLs for these samples using the high level method range from 60 µg/Kg to 280 µg/Kg. All VOC substances tested for in these 14 soil samples were reported by NERL as ND at the high RL, with the exception of one compound [2-propanone (acetone)] in two samples [111]. Due to the reporting limits of the data, surface soil samples were not compared to a background sample, as a sample representative of the site background levels could not be determined. Therefore, a release of hazardous substances to the soil exposure pathway at the 254 Old Great Road Property could not be determined.

Based on the limited surface soil sampling conducted on the 254 Old Great Road Property, site observations and conditions, and 2016 surface soil analytical sampling results, no potential surface soil exposure has been documented, at the present time. However, due to the lack of low level analytical sample data, a potential for low level contamination and direct soil exposure at the 254 Old Great Road Property remains a possibility.

No quantitative laboratory-analyzed air samples are known to have been collected from the 254 Old Great Road Property. START did not conduct Air Pathway sampling as part of this PA. There are approximately 4,170 acres of wetlands, CWA-protected water bodies, and 11 listed threatened species habitats are located within 4 radial miles of the 254 Old Great Road property [101; 106]. Based on the lack of quantitative data, no release of hazardous substances to the ambient air from on-site sources has been documented. No impacts to nearby residential populations or sensitive environments are known.

Based on analytical results of samples collected during the 2016 EPA PA, several VOCs were detected in groundwater including TCE and PCE at concentrations that exceed NPDWR MCL and RIDEM GA GW Standards, and that are higher than the historical concentrations detected in the Providence Street and Mechanic Street impacted residential well samples. Due to the limited data and high reporting limits of the data for waste source, surface soil, and sediment samples, limited conclusions can be made at this time regarding if on-site sources or a release of hazardous substances to the soil exposure and SWP pathway for 254 Old Great Road Property exist.

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ATTACHMENT A

254 OLD GREAT ROAD STREET
FIGURES

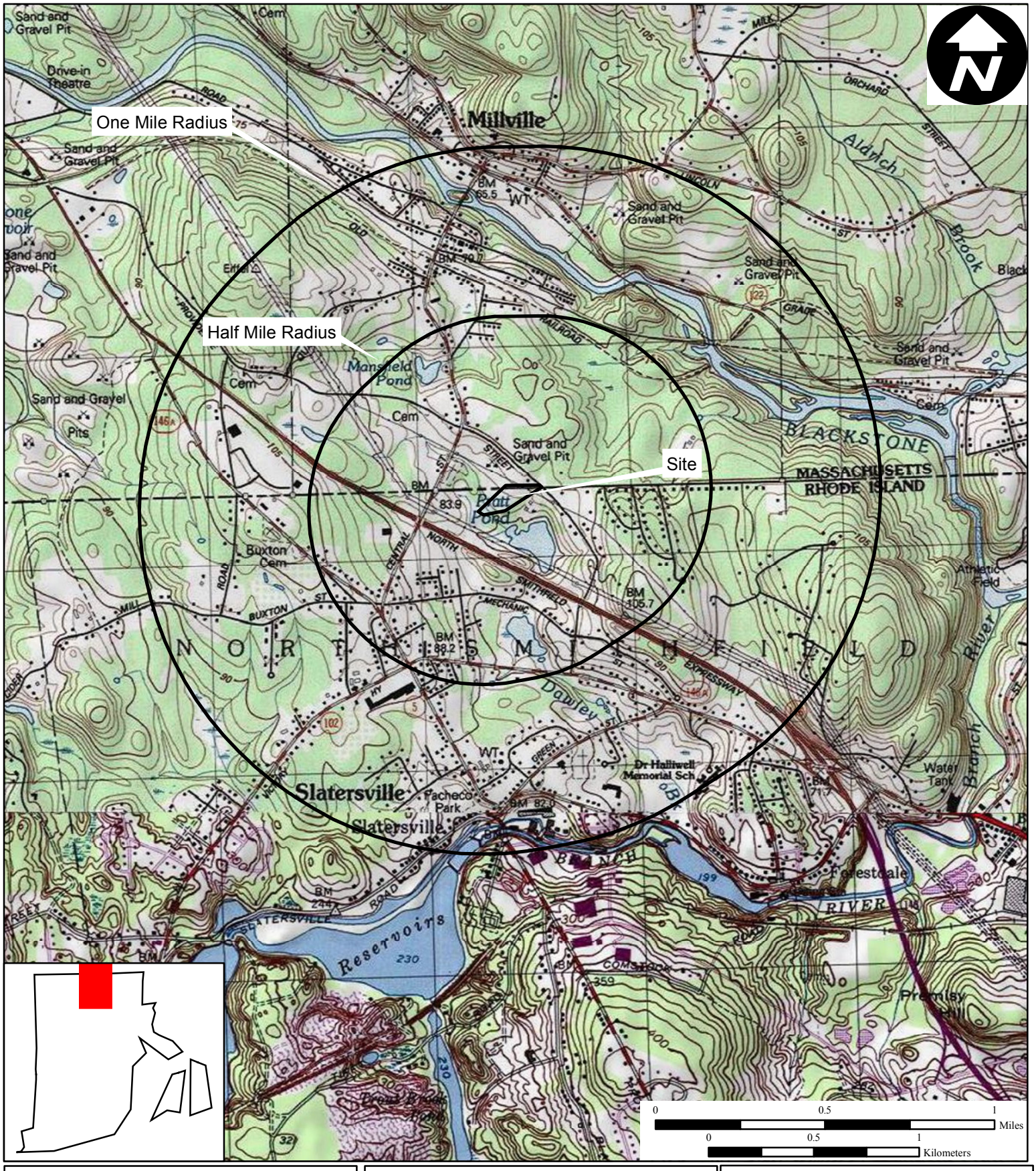

Figure 1

Site Location Map

254 Old Great Road Property
254 Old Great Road
North Smithfield, Rhode Island

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01

TDD Number:	TO1-01-16-03-0011
Created by:	S. Evarts
Created on:	22 June 2016
Modified by:	S. Evarts
Modified on:	30 September 2016

Data Sources:
Topos: © 2013 National Geographic Society, i-cubed
Quadrangle Name(s): Blackstone, MA-RI
Georgiaville, RI
All other data: START

WESTON SOLUTIONS

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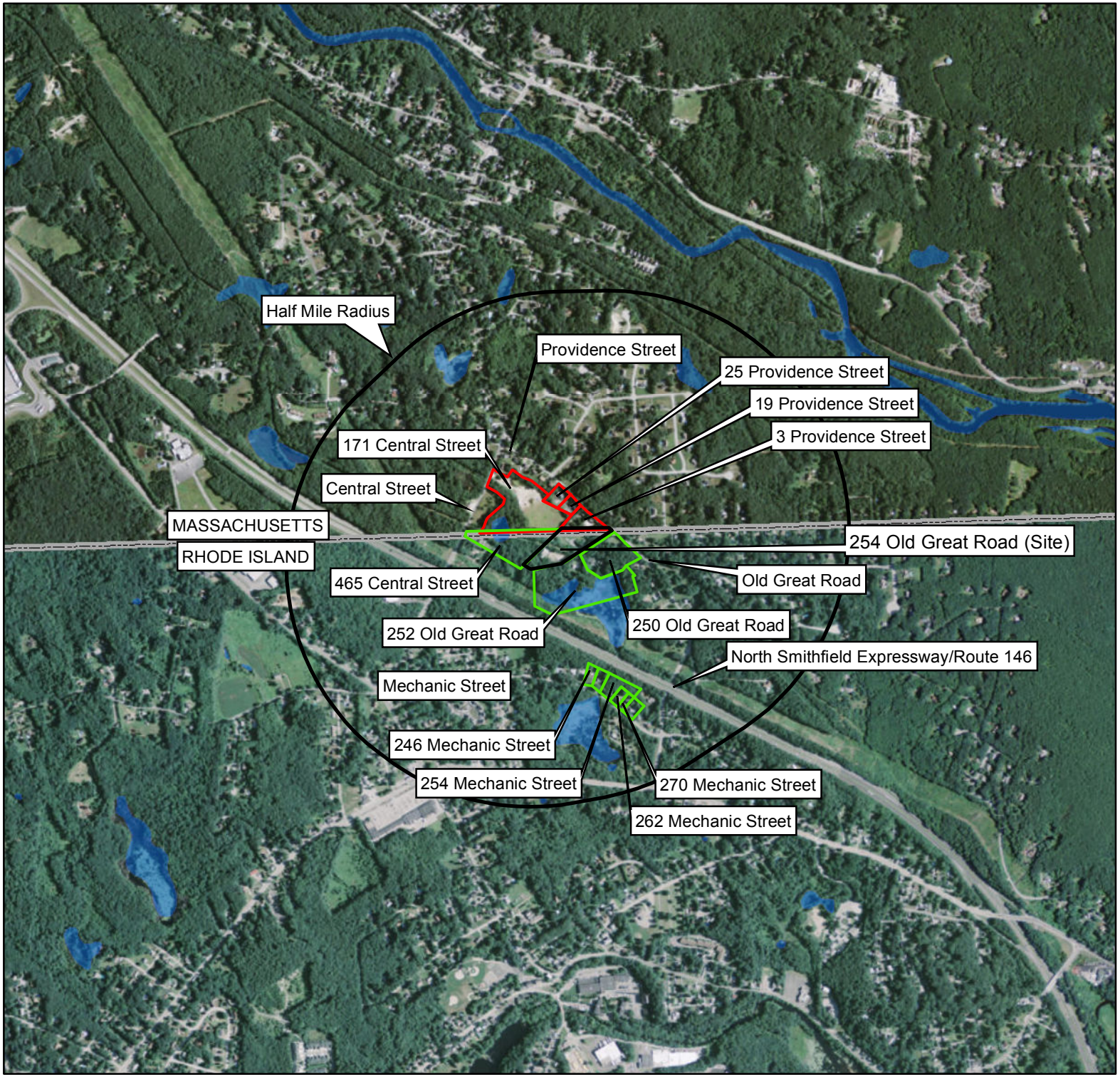

Figure 2

Area Diagram

254 Old Great Road Property
254 Old Great Road
North Smithfield, Rhode Island

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01
TDD Number: TO1-01-16-03-0011
Created by: S. Evarts
Created on: 22 June 2016
Modified by: S. Evarts
Modified on: 8 August 2016

LEGEND

- Property Boundary
- Massachusetts Properties
- Rhode Island Properties
- Waterbodies
- State Line

N

0 250 500 1,000 1,500 2,000 Feet

Data Sources:
Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Topos: MicroPath
All other data: START

WESTON SOLUTIONS

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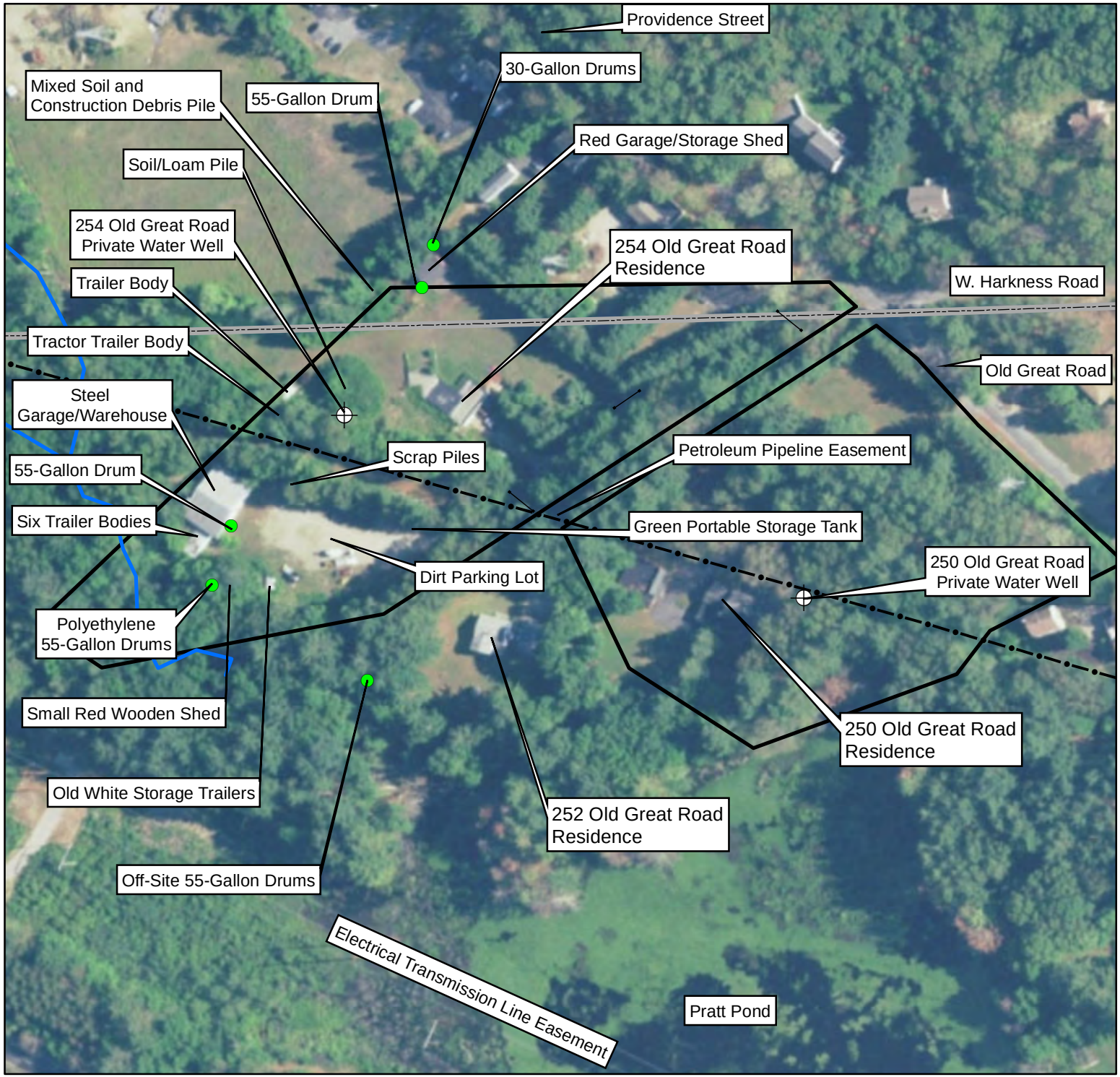

Figure 3

Site Diagram

254 Old Great Road Property
254 Old Great Road
North Smithfield, Rhode Island

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01
TDD Number: TO1-01-16-03-0011
Created by: S. Evarts
Created on: 22 June 2016
Modified by: S. Evarts
Modified on: 8 March 2017

LEGEND

- Private Water Well
- Gate
- Drum
- Pipeline
- Approximate Unnamed Stream
- Property Boundary
- State Line

N

0 125 250
Feet

Data Sources:
Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Topos: MicroPath
All other data: START

WESTON SOLUTIONS

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Figure 4

Sampling Locations

254 Old Great Road Property
254 Old Great Road
North Smithfield, Rhode Island

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01

TDD Number: TO1-01-16-03-0011
Created by: S. Evarts
Created on: 22 June 2016
Modified by: B. Mace
Modified on: 17 February 2017

LEGEND

- Private Water Well
- Soil/Source Samples
- Sediment Samples
- Approximate Unnamed Stream
- State Line
- Property Boundary

N

0 100 200 Feet

Data Sources:
Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Topos: MicroPath
All other data: START

WESTON SOLUTIONS

E:\RI_gis\254 Old Great Road Property\MXDs\PA\Fig 4.mxd

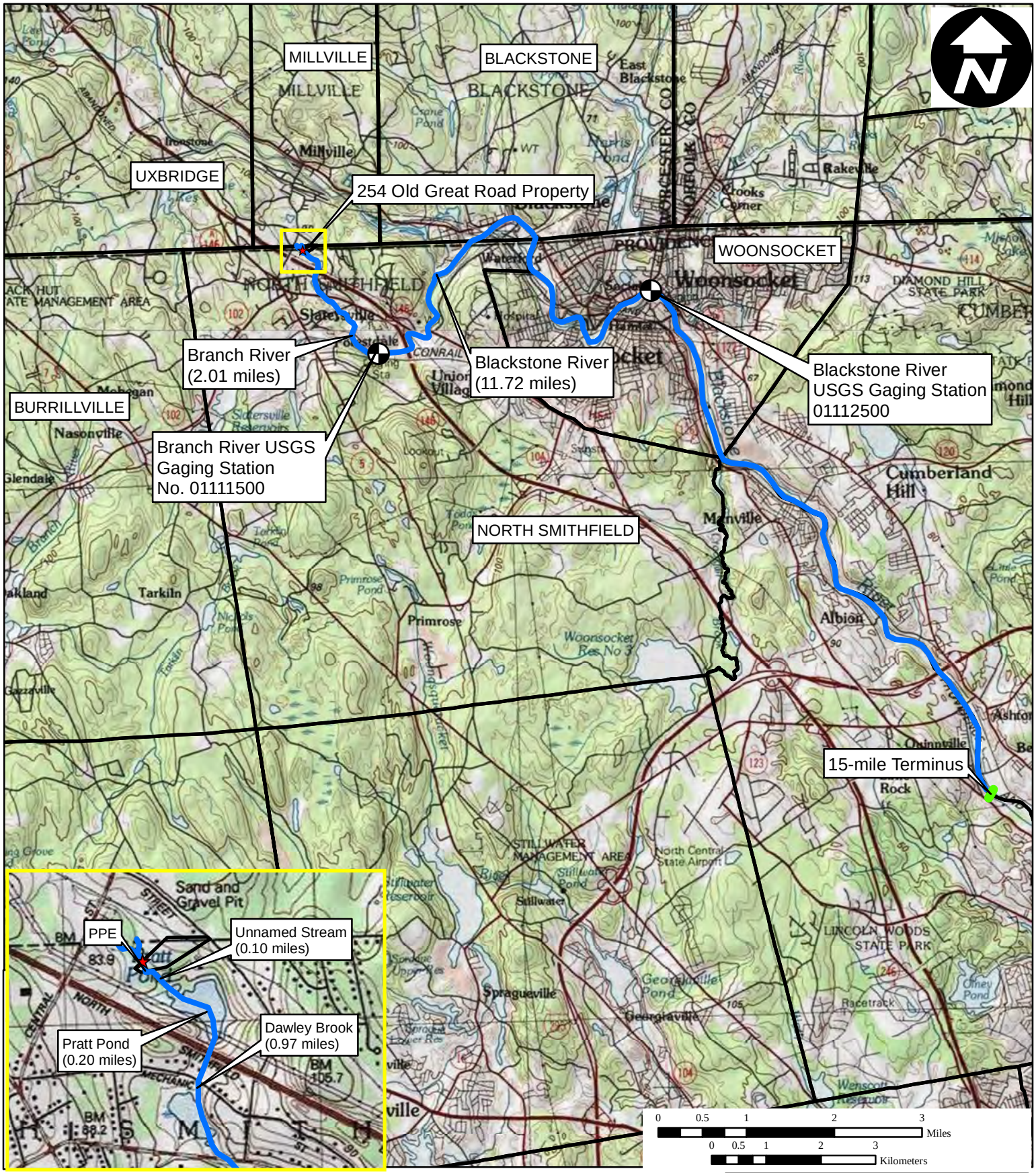

Figure 5

15-Mile Downstream
Surface Water Pathway Map

254 Old Great Road Property
254 Old Great Road
North Smithfield, Rhode Island

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01

TDD Number:	TO1-01-16-03-0011
Created by:	S. Evarts
Created on:	22 June 2016
Modified by:	S. Evarts
Modified on:	8 March 2017

Data Sources:
Topos: © 2013 National Geographic Society, i-cubed
Quadrangle Name(s): Blackstone, MA-RI
Georgiaville, RI
All other data: START/USGS

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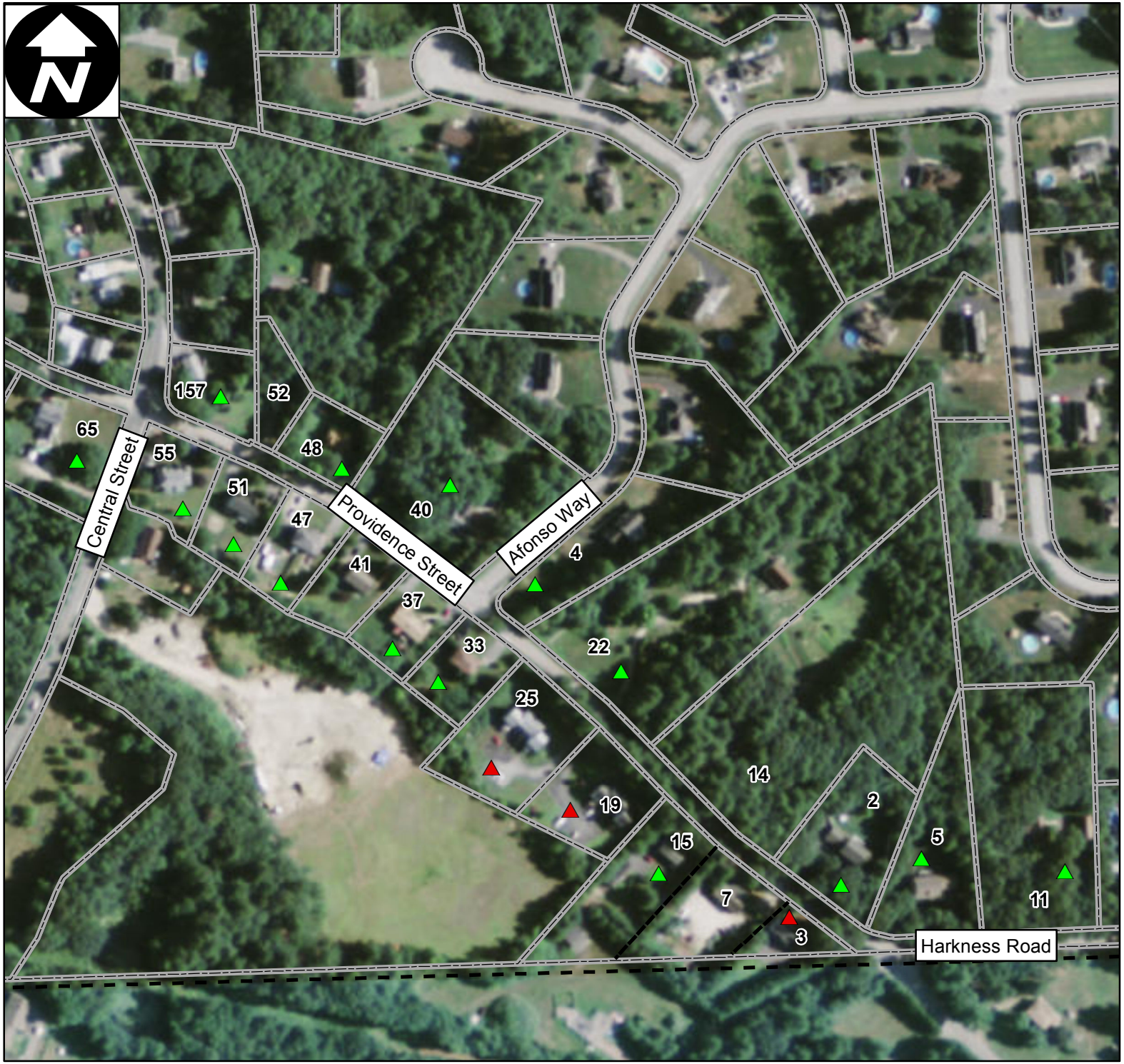


Figure 6

MassDEP Residential Drinking Water Sample Locations

Millville TCE
19/25 Providence Street
Millville, Massachusetts

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01

TDD Number:	TO1-01-15-09-0003
Created by:	S. Evarts
Created on:	23 September 2015
Modified by:	S. Evarts
Modified on:	30 December 2016

Legend

- State Border
- Approx. Parcel Boundary
- Approx. Residential Boundary

MassDEP DW Sample Locations

- Above DW Standard
- Below DW Standard

MassDEP = Massachusetts Department of Environmental Protection
DW = Drinking Water

0 250 500
Feet

Data Sources:
Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo
Topos: MicroPath/USGS/USA Topo Maps
All other data: START, MassDEP

WESTON SOLUTIONS

E:\MA_gis\Millville TCE PA\Figure 6.mxd

ATTACHMENT B

254 OLD GREAT ROAD
PHOTODOCUMENTATION LOG

PHOTODOCUMENTATION LOG
254 Old Great Road● North Smithfield, Rhode Island

SCENE: View of 254 Old Great Road residence. The two-story house is buried on three sides by fill material, including large boulders apparently from a blast excavation area (blast drill holes noted), as well as silt, sand, gravel, and cobble size material. Photograph taken facing northwest.
DATE: 23 June 2016 **TIME:** 0929 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the red garage/storage shed north of the residence on the elevated portion of the property. Photograph taken facing northwest.
DATE: 23 June 2016 **TIME:** 0930 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of empty, partially corroded 55-gallon steel drum located along the southwest side of the red garage/storage shed. Photograph taken facing northeast.
DATE: 23 June 2016 **TIME:** 0933 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of "DuPont" label on the empty, partially corroded 30-gallon steel drum located at the northwest side of the red garage/storage shed. Photograph taken facing north.
DATE: 23 June 2016 **TIME:** 0936 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of four empty, partially corroded 30-gallon steel drums located at the northwest side of the red garage/storage shed. Photograph taken facing north.
DATE: 23 June 2016 **TIME:** 0936 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of large soil pile west of the residence. Photograph taken facing southwest.

DATE: 23 June 2016 **TIME:** 0940 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the flat, gravel/tar rooftop of the residence. Photograph taken facing south.

DATE: 23 June 2016 **TIME:** 0942 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of junked passenger van and open trailer body containing duct work and other equipment. Photograph taken facing southwest.
DATE: 23 June 2016 **TIME:** 0942 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the open trailer containing duct work, electrical panels, and a stove. Photograph taken facing southwest.

DATE: 23 June 2016 **TIME:** 0943 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the 5-gallon container containing tar-like material inside a wooden bin. Photograph taken facing south.

DATE: 23 June 2016 **TIME:** 0943 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the tractor trailer body containing office supplies. Photograph taken facing south.

DATE: 23 June 2016 **TIME:** 0946 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the partially closed tractor trailer body containing office supplies and a water pressure tank. Photograph taken facing northwest.
DATE: 23 June 2016 **TIME:** 1006 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of the partially closed tractor trailer body containing office supplies and a water pressure tank. Photograph taken facing northwest.
DATE: 23 June 2016 **TIME:** 1007 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of the tractor trailer body located along the northwestern side of the large steel garage/warehouse building located in the southwestern portion of the property. Photograph taken facing east.
DATE: 23 June 2016 **TIME:** 0949 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the tractor trailer bodies located along the southwestern side of the large steel garage/warehouse building. Photograph taken facing northeast.
DATE: 23 June 2016 **TIME:** 0950 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the small red wooden shed, containing construction supplies, located at the southern end of the property. Photograph taken facing south.
DATE: 23 June 2016 **TIME:** 1011 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the contents of the small red wooden shed (construction supplies). Photograph taken facing southwest.
DATE: 23 June 2016 **TIME:** 1012 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of the rusty, partially corroded 55-gallon steel drum inside the large steel garage/warehouse building. Photograph taken facing northeast.
DATE: 23 June 2016 **TIME:** 1014 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of wood pieces and planks located inside a tractor trailer body nested and opening up to the large steel garage/warehouse building. Photograph taken facing southwest.
DATE: 23 June 2016 **TIME:** 1015 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of scaffolding materials located inside a trailer a tractor trailer body nested and opening up to the large steel garage/warehouse building. Photograph taken facing southwest.
DATE: 23 June 2016 **TIME:** 1015 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the inside of the southwestern portion of the large steel garage/warehouse building. Bins of construction materials are located to the right and stained concrete is visible in the foreground. Photograph taken facing northwest.
DATE: 23 June 2016 **TIME:** 1016 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of a sign inside of the southwestern portion of the large steel garage/warehouse building. Photograph taken facing southwest.
DATE: 23 June 2016 **TIME:** 1027 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of a sign inside of the southwestern portion of the large steel garage/warehouse building. Photograph taken facing southwest.
DATE: 23 June 2016 **TIME:** 1027 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of three empty 55-gallon polyethylene drums and two empty 5-gallon containers located behind (south of) the small red wooden shed. Photograph taken facing south.
DATE: 23 June 2016 **TIME:** 1018 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the black high density poly tubing with a syphon screen observed at the stone wall located along the southwestern property boundary. Photograph taken facing south.
DATE: 23 June 2016 **TIME:** 1022 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of the two 5-gallon poly containers between the two old white storage trailers. Photograph taken facing south.
DATE: 23 June 2016 **TIME:** 1025 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of the two 40-pound propane storage cylinders between the two white storage trailers.
DATE: 23 June 2016 **TIME:** 1025 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of the two white storage trailers (foreground) and the large steel garage/warehouse building (partial roof in the background). Photograph taken facing north.
DATE: 23 June 2016 **TIME:** 1026 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the stained concrete floor inside the large steel garage/warehouse building. Photograph taken facing west.

DATE: 23 June 2016 **TIME:** 1027 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the intersection of the large steel garage/warehouse building concrete floor with the dirt parking lot. Note the dark staining on both the concrete floor and the soil. Photograph taken facing west.
DATE: 23 June 2016 **TIME:** 1028 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the outside of the large steel garage/warehouse building. Only the open bay to the left was accessible. Photograph taken facing west.
DATE: 23 June 2016 **TIME:** 1029 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the scrap pile containing tires, rubber, and corrugated pipe materials along the east side of the dirt parking lot. Photograph taken facing north.
DATE: 23 June 2016 **TIME:** 1029 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of cinder blocks and scrap metal materials located along the east side of the dirt parking lot. Photograph taken facing northeast.
DATE: 23 June 2016 **TIME:** 1029 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of a small, soft sandy depression in the ground surface located next to the scrap tire and rubber pile. Photograph taken facing north.
DATE: 23 June 2016 **TIME:** 1031 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the Cavedon Tree Service truck located on the dirt parking lot. Photograph taken facing southeast.

DATE: 23 June 2016 **TIME:** 1031 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the dilapidated truck (left) and assumed operational tree chipping machine (right) located on the dirt parking lot. Photograph taken facing southeast.
DATE: 23 June 2016 **TIME:** 1034 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the four rusted 55-gallon drums visible from the edge of 254 Old Great Road property line. Photograph taken facing south.
DATE: 23 June 2016 **TIME:** 1037 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the empty estimated 600-gallon green portable storage tank. Photograph taken facing northeast.

DATE: 23 June 2016 **TIME:** 1039 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the petroleum pipeline warning sign observed on the road from the dirt parking lot to the house. Photograph taken facing east.
DATE: 23 June 2016 **TIME:** 1041 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of the two blue 10-gallon poly containers observed near the residence. Photograph taken facing northwest.

DATE: 23 June 2016 **TIME:** 1043 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of the large boulders used as fill material observed near the residence. Photograph taken facing northwest.

DATE: 23 June 2016 **TIME:** 1043 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of large boulders with blast drill holes used to line the road from the dirt parking lot area to the house. Photograph taken facing northwest.
DATE: 23 June 2016 **TIME:** 1044 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

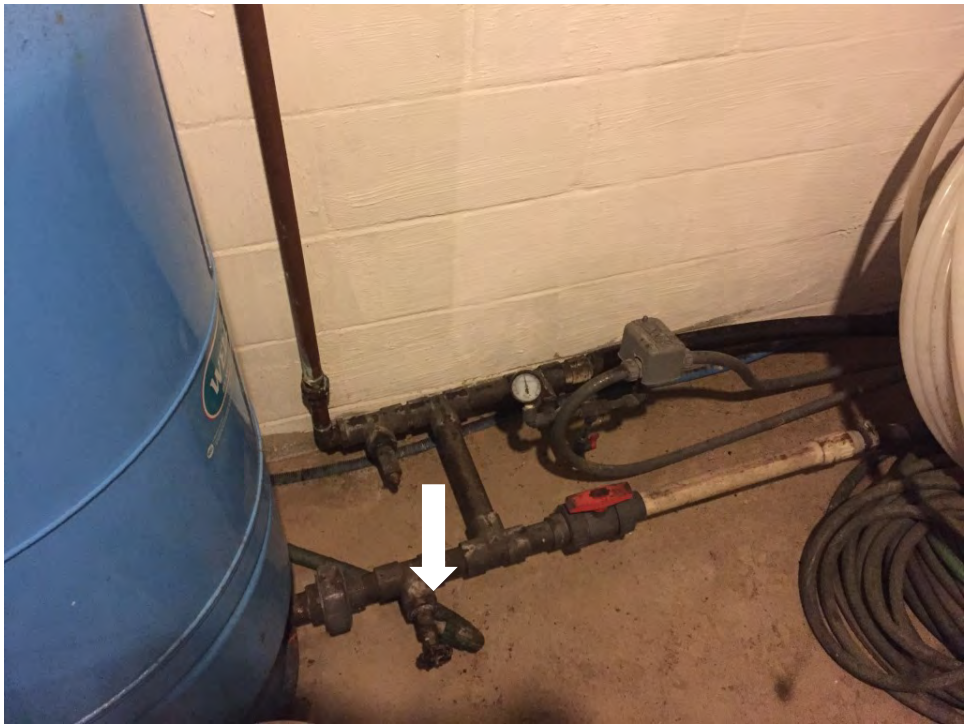
PHOTODOCUMENTATION LOG
254 Old Great Road ● North Smithfield, Rhode Island

SCENE: View of sediment sample SD-01 collected from the Unnamed Stream and wetlands area along the northern edge of the property, on the western portion of the property. Photograph taken facing northwest.
DATE: 6 September 2016 **TIME:** 1225 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of sediment sample SD-02 collected from the Unnamed Stream and wetlands area along the southwestern edge of the property. Photograph taken facing northeast.
DATE: 6 September 2016 **TIME:** 1155 hours
PHOTOGRAPHER: A. Danikas **CAMERA:** iPhone 6

SCENE: View of sediment sample SD-03 collected from the Unnamed Stream near southern edge of the wetlands area at the southwestern edge of the property. Photograph taken facing southeast.
DATE: 6 September 2016 **TIME:** 1225 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

SCENE: View of sediment sample SD-04/SD-05 collected from the Unnamed Stream/southern edge of the wetlands area along the southwestern edge of the property. Photograph taken facing northeast.
DATE: 6 September 2016 **TIME:** 1225 hours
PHOTOGRAPHER: A. Danikas **CAMERA:** iPhone 6



SCENE: View of the sampling location for drinking water sample DW-01 and duplicate DW-03 at 254 Old Great Road. Sample was collected from the valve prior to the holding tank
DATE: 7 September 2016 **TIME:** 1358 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

T
O
P

SCENE: View of the holding tank in the basement/garage area of 250 Old Great Road. Drinking water sample DW-02 was collected at the kitchen faucet due to the lack of sampling valves at the holding tank.
DATE: 6 September 2016 **TIME:** 1857 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of soil/source sample SS-01 collected from the front lawn to the southwest side of the 254 Old Great Road residence. Photograph taken facing northwest.
DATE: 8 September 2016 **TIME:** 1359 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

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SCENE: View of soil/source sample SS-02 collected from the northern portion of the property between the residence and the Red Garage/Storage Shed. Note subterranean residence roof in background. Photograph taken facing northwest.
DATE: 8 September 2016 **TIME:** 1359 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of soil/source sample SS-03 taken near empty discarded 30-gallon steel drums to the north of the Red Garage/Storage Shed. Photograph taken facing southwest.
DATE: 8 September 2016 **TIME:** 1405 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of soil/source sample SS-04 taken near an open 55-gallon steel drum to the west of the Red Garage/Storage Shed. Photograph taken facing north.
DATE: 8 September 2016 **TIME:** 1403 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of soil/source sample SS-05 collected from the northernmost portion of the property from the Mixed Soil and Construction Debris Pile, southwest of the Red Garage/Storage Shed. Photograph taken facing north.
DATE: 8 September 2016 **TIME:** 1410 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of soil/source sample SS-06 collected from western side of Soil/Loam Pile on the west-central portion of the property, west of on-site residence. Photograph taken facing southeast.
DATE: 8 September 2016 **TIME:** 1415 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

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SCENE: View of soil/source sample SS-07 collected from the southwestern portion of the property from between the trailers to the west of the Steel Garage/Warehouse. Photograph taken facing northeast.
DATE: 8 September 2016 **TIME:** 1343 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

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SCENE: View of soil/source sample SS-08 collected from the southern portion of the property near the polyethylene drums behind the Small Red Wooden Shed. Photograph taken facing north.
DATE: 8 September 2016 **TIME:** 0926 hours
PHOTOGRAPHER: B. Mace **CAMERA:** iPhone 6

SCENE: View of soil/source sample SS-09 collected from the southern portion of the property, adjacent to 5-gallon polyethylene containers adjacent to Old White Storage Trailers. Photograph taken facing north-northwest.
DATE: 8 September 2016 **TIME:** 1354 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

SCENE: View of soil/source sample SS-10 and duplicate SS-14 collected from a stained soil area east of the Steel Garage/Warehouse entrance. Photograph taken facing west.
DATE: 8 September 2016 **TIME:** 0853 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

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SCENE: View of soil/source sample SS-11 collected from a stained soil area in a lower level loading dock area, southeast of the Steel Garage/Warehouse. Photograph taken facing northwest.
DATE: 8 September 2016 **TIME:** 0900 hours
PHOTOGRAPHER: B. Mace **CAMERA:** iPhone 6

SCENE: View of soil/source sample SS-12 collected from the scrap pile area, east of the Steel Garage/Warehouse on the west-central portion of the property. Photograph taken facing northeast.
DATE: 8 September 2016 **TIME:** 0935 hours
PHOTOGRAPHER: S. Evarts **CAMERA:** iPhone 6

PHOTODOCUMENTATION LOG
254 Old Great Road ● North Smithfield, Rhode Island

SCENE: View of soil/source sample SS-13 collected from a grassy area on fill material on the northern portion of the property between the residence and the Soil/Loam Pile. Note subterranean residence roof in background. Photograph taken facing east.

DATE: 8 September 2016 **TIME:** 0935 hours
PHOTOGRAPHER: J. Kelly **CAMERA:** iPhone 6

ATTACHMENT C

254 OLD GREAT ROAD
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
DRINKING WATER RESULTS

Table 1

TCE/PCE Drinking Water Results
TCE Millville Site

Sample Location (Millville Address)	Sampling Date	Trichloroethylene (TCE) (µg/L)	Tetrachloroethylene (PCE) (µg/L)	Comments
MassDEP GW-1 Standards	---	5	5	State Drinking Water Standards
19C Providence Street	7/1/2015	**17**	**8.6**	Initial Sampling by Resident.
	7/14/2015	**17**	**8.2**	Drinking Water well sample.
	8/12/2015	**14**	**6.5**	Bathroom faucet sample.
	8/12/2015	**15**	**6.9**	Duplicate sample, Bathroom faucet sample.
	10/6/2015	**10.5**	**5.2**	POET System -Influent sample.
	10/13/2015	**14.6**	**7.2**	POET System -Influent sample.
	10/20/2015	**14.8**	**6.6**	POET System -Influent sample.
	10/30/2015	ND	ND	Bathroom faucet "cold water" sample collected after POET system installed.
	10/30/2015	ND	ND	Duplicate sample, Bathroom faucet "cold water" sample collected after POET system installed.
	10/30/2015	ND	ND	Bathroom faucet "hot water" sample collected after POET system installed.
	10/30/2015	ND	ND	Duplicate sample, Bathroom faucet "hot water" sample collected after POET system installed.
25B Providence Street	7/14/2015	**15**	**7.2**	Drinking Water well sample.
	8/12/2015	**15**	**6.9**	Bathroom faucet sample.
	8/12/2015	**15**	**6.9**	Bathroom faucet sample, Duplicate sample
	10/8/2015	**16.7**	**8.1**	POET System -Influent sample.
	10/15/2015	**14.6**	**6.7**	POET System -Influent sample.
	10/22/2015	**13**	**5.8**	POET System -Influent sample.
2 Providence Street	8/12/2015	ND	ND	Drinking Water well sample.
3B Providence Street	8/12/2015	**10**	**3.9**	Drinking Water well sample.
15B Providence Street	8/21/2015	ND	ND	Drinking Water well sample from private well shared with 7 Providence Street.

Table 1

TCE/PCE Drinking Water Results
TCE Millville Site

Sample Location (Millville Address)	Sampling Date	Trichloroethylene (TCE) (µg/L)	Tetrachloroethylene (PCE) (µg/L)	Comments
22 Providence Street	8/11/2015	ND	ND	Drinking Water well sample.
33 B Providence Street	10/28/2015	ND	ND	Drinking Water well sample.
37 B Providence Street	8/12/2015	ND	ND	Drinking Water well sample.
40 Providence Street	10/28/2015	ND	ND	Drinking Water well sample.
47A Providence Street	8/11/2015	ND	ND	Drinking Water well sample.
48 Providence Street	8/11/2015	ND	ND	Drinking Water well sample.
51 A Providence Street	8/11/2015	ND	ND	Drinking Water well sample.
59 A&B Providence Street	8/11/2015	ND	ND	Drinking Water well sample.
65 Providence	8/21/2015	ND	ND	Drinking Water well sample.
5 Harkness Road	8/21/2015	ND	ND	Drinking Water well sample.
11 Harkness Road	10/28/2015	ND	ND	Drinking Water well sample.
4 Afonso Way	8/11/2015	ND	ND	Drinking Water well sample.
157 Central Street	10/28/2015	ND	ND	Drinking Water well sample.

NOTES:

Results reported in micrograms per liter (µg/L).

Bold values detected above laboratory detection limits.

Highlighted values are detected above their respective state drinking water standards (MassDEP GW-1 Standard).

ND = Not detectable at the reporting limit (or method detection limit, or estimated detection limit).

POET = Point Of Entry Treatment.

Table 2

Liquid Septic System Sample TCE/PCE Results
TCE Millville Site

Sample Location (Millville Address)	Sampling Date	Trichloroethylene (TCE) (µg/L)	Tetrachloroethylene (PCE) (µg/L)	Comments
19 Providence Street	8/21/2015	2.5	1.0	According to MassDEP, the samples were consistent with the concentrations of TCE and PCE found in drinking water and thus processed through the septic system. No anomalous concentrations of PCE or TCE were detected in the septic tank.
25 Providence Street	8/21/2015	3.0	1.0	According to MassDEP, the samples were consistent with the concentrations of TCE and PCE found in drinking water and thus processed through the septic system. No anomalous concentrations of PCE or TCE were detected in the septic tank.
3 Providence Street	10/28/2015	1.8 J	<2.0	According to MassDEP, the samples were consistent with the concentrations of TCE and PCE found in drinking water and thus processed through the septic system, prior to the activation of the Point of Entry Treatment (POET) system.
7 Providence Street	10/28/2015	<2.0	<2.0	Properties at 7 and 15 Providence Street use separate septic systems but are served by a shared drinking water well, which is not known to be impacted by PCE and TCE. Septic liquid sample results did not detect PCE or TCE.
15 Providence Street	10/28/2015	<5.0	<5.0	Properties at 15 and 7 Providence Street use separate septic systems but are served by a shared drinking water well, which is not known to be impacted by PCE and TCE. Septic liquid sample results did not detect PCE or TCE.

NOTES:

Results reported in micrograms per liter (µg/L).

< = Less than.

J = Qualified result is less than the Reporting Limit, but greater than or equal to the method detection limit and the concentration if an approximate value.

Samples were analyzed via EPA Method 8260.

POET = Point of Entry Treatment.

Table 3

POET System TCE/PCE Results
TCE Millville Site

Sample Location (Millville Address)	Sampling Date	POET System Sampling Port	Trichloroethylene (TCE) (µg/L)	Tetrachloroethylene (PCE) (µg/L)	Comments
Drinking Water Standards	---		5	5	MassDEP GW-1 Standards
19 Providence Street	10/6/2015	Influent sample - pretreatment.	**10.5**	**5.2**	Sampled on first day after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	10/13/2015	Influent sample - pretreatment.	**14.6**	**7.2**	Sampled one week after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	10/20/2015	Influent sample - pretreatment.	**14.8**	**6.6**	Sampled second week after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	11/4/2015	Influent sample - pretreatment.	**15.8**	**7**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	12/2/2015	Influent sample - pretreatment.	**13.8**	**6.2**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	1/12/2016	Influent sample - pretreatment.	**12.5**	**6.1**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	2/2/2016	Influent sample - pretreatment.	**13**	**6.4**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	3/2/2016	Influent sample - pretreatment.	**14**	**5.7**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	4/6/2016	Influent sample - pretreatment.	**18.5**	**7.5**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	5/2/2016	Influent sample - pretreatment.	**21.3**	**9.2**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	6/8/2016	Influent sample - pretreatment.	**21.9**	**10.1**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	7/8/2016	Influent sample - pretreatment.	**21.7**	**9.9**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	8/8/2016	Influent sample - pretreatment.	**29.9**	**11.2**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	9/14/2016	Influent sample - pretreatment.	**26.9**	**12.5**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	10/10/2016	Influent sample - pretreatment.	**21.6**	**9.6**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	11/8/2016	Influent sample - pretreatment.	**21.1**	**10**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	12/7/2016	Influent sample - pretreatment.	**20.8**	**9.1**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	

Table 3

POET System TCE/PCE Results
TCE Millville Site

Sample Location (Millville Address)	Sampling Date	POET System Sampling Port	Trichloroethylene (TCE) (µg/L)	Tetrachloroethylene (PCE) (µg/L)	Comments
Drinking Water Standards	---		5	5	MassDEP GW-1 Standards
25 Providence Street	10/8/2015	Influent sample - pretreatment.	**16.7**	**8.1**	Sampled on first day after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	10/15/2015	Influent sample - pretreatment.	**14.6**	**6.7**	Sampled one week after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	10/22/2015	Influent sample - pretreatment.	**13**	**5.8**	Sampled second week after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	11/4/2015	Influent sample - pretreatment.	**15**	**6.6**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	12/2/2015	Influent sample - pretreatment.	**11.6**	**4.7**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	1/4/2016	Influent sample - pretreatment.	**11.7**	**5.7**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	2/2/2016	Influent sample - pretreatment.	**11.6**	**5.7**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	3/2/2016	Influent sample - pretreatment.	**13.4**	**5.8**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	4/6/2016	Influent sample - pretreatment.	**17**	**7.3**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	5/2/2016	Influent sample - pretreatment.	**19**	**8.8**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	6/8/2016	Influent sample - pretreatment.	**19.8**	**9.1**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	7/8/2016	Influent sample - pretreatment.	**21.7**	**9.7**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	8/8/2016	Influent sample - pretreatment.	**28.5**	**10.3**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	9/14/2016	Influent sample - pretreatment.	**25.5**	**11.4**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	10/10/2016	Influent sample - pretreatment.	**23.9**	**10.6**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	11/8/2016	Influent sample - pretreatment.	**22.5**	**10.5**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	12/7/2016	Influent sample - pretreatment.	**17.9**	**8.1**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	

Table 3

POET System TCE/PCE Results
TCE Millville Site

Sample Location (Millville Address)	Sampling Date	POET System Sampling Port	Trichloroethylene (TCE) (µg/L)	Tetrachloroethylene (PCE) (µg/L)	Comments
Drinking Water Standards	---		5	5	MassDEP GW-1 Standards
3 Providence Street	11/4/2015	Influent sample - pretreatment.	**13.2**	**4.4**	Sampled on first day after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	11/11/2015	Influent sample - pretreatment.	**9**	**3.3**	Sampled one week after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	11/18/2015	Influent sample - pretreatment.	**9.4**	**3.5**	Sampled second week after install.
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	12/2/2015	Influent sample - pretreatment.	**8.7**	**2.9**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	1/4/2016	Influent sample - pretreatment.	**9.5**	**3.6**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	2/2/2016	Influent sample - pretreatment.	**9.5**	**3.4**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	3/2/2016	Influent sample - pretreatment.	**9.7**	**3.2**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	4/6/2016	Influent sample - pretreatment.	**8.5**	**3**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	5/2/2016	Influent sample - pretreatment.	**10.6**	**3.8**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	6/8/2016	Influent sample - pretreatment.	**10.4**	**3.8**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	7/8/2016	Influent sample - pretreatment.	**9.4**	**3.3**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	8/8/2016	Influent sample - pretreatment.	**6**	**1.9**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	9/14/2016	Influent sample - pretreatment.	**9.6**	**3.6**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	10/10/2016	Influent sample - pretreatment.	**9.8**	**3.4**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	11/8/2016	Influent sample - pretreatment.	**10.1**	**3.5**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	
	12/7/2016	Influent sample - pretreatment.	**9.8**	**3.3**	
		Midfluent sample - partial treatment.	ND	ND	
		Effluent sample - after treatment.	ND	ND	

NOTES:

Results reported in micrograms per liter (µg/L).

Bold values detected above laboratory detection limits.

Highlighted values are detected above their respective state drinking water standards (MassDEP GW-1 Standard).

ND = not detectable at the reporting limit (or method detection limit, or estimated detection limit).

ATTACHMENT D

254 OLD GREAT ROAD
SAMPLE DESCRIPTION AND RATIONALE TABLES
Samples Collected from 6 to 8 September 2016

TABLE 1A
SOIL/SOURCE SAMPLES

Station Location	Location Description/Rationale	Sample Depth (inches)	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Soil/Source						
SS-01	Grab surface soil/source sample collected from the lawn on the southwest side of the entrance to the residence at 254 Old Great Road. Sample collected to determine the presence of hazardous substances. 42.013504636 North Latitude 71.578632240 West Longitude	12"	RO1-160907MB-0001	9/8/2016 1000 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as brown SAND, some gravel. CGI/O_2 (LEL/%) = NR; PID = NR.
SS-02	Grab surface soil/source sample collected from the northern portion of the property, between the residence and the Red Garage/Storage Shed, to represent the fill material surrounding the residence. Sample collected to determine the presence of hazardous substances. 42.013779503 North Latitude 71.578602105 West Longitude	12"	RO1-160907MB-0002	9/7/2016 1633 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown fine SAND, some medium to coarse gravel. CGI/O_2 (LEL/%) = NR; PID = NR.
SS-03	Grab surface soil/source sample collected from the northernmost portion of the property, from the area with discarded 30-gallon drums, north of the Red Garage/Storage Shed. Samples collected to determine the presence of hazardous substances. 42.014170612 North Latitude 71.578869062 West Longitude	6"	RO1-160907MB-0003	9/7/2016 1537 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown fine SAND, little coarse GRAVEL, trace organics (roots) and debris (plastic). CGI/O_2 (LEL/%) = NR; PID = NR.

TABLE 1A
SOIL/SOURCE SAMPLES

Station Location	Location Description/Rationale	Sample Depth (inches)	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Soil/Source						
SS-04	Grab surface soil/source sample collected from the northernmost portion of the property near an open 55-gallon drum, west of the Red Garage/Storage Shed. Sample collected to determine the presence of hazardous substances. 42.014010463 North Latitude 71.578860956 West Longitude	6"	RO1-160907MB-0004	9/7/2016 1544 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown fine SAND, some medium gravel, trace organics (roots). CGI/O_2 (LEL/%) = NR; PID = NR.
SS-05	Grab surface soil/source sample collected from the northernmost portion of the property from the Mixed Soil and Construction Debris Pile, southwest of the Red Garage/Storage Shed. Sample collected to determine the presence of hazardous substances. 42.013932982 North Latitude 71.578966778 West Longitude	30"	RO1-160907MB-0005	9/7/2016 1602 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown SAND. Sample material collected below 0-24" of material described as wood chips. CGI/O_2 (LEL/%) = NR; PID = NR.
SS-06	Grab surface soil/source sample collected from the western central portion of the property from the western side of the purported screened loam pile, to determine the presence of hazardous substances. 42.013706982 North Latitude 71.579264491 West Longitude	24"	RO1-160907MB-0006	9/7/2016 1724 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown fine SAND, trace fine to medium gravel. CGI/O_2 (LEL/%) = NR; PID = NR.

TABLE 1A
SOIL/SOURCE SAMPLES

Station Location	Location Description/Rationale	Sample Depth (inches)	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Soil/Source						
SS-07	Grab surface soil/source sample collected from the southwestern portion of the property from between the trailers to the west of the Steel Garage/Warehouse. Sample collected to determine the presence of hazardous substances. 42.013144493 North Latitude 71.579877059 West Longitude	1'	RO1-160907MB-0007	9/8/2016 0859 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown SILT, little silt. CGI/O_2 (LEL/%) = NR; PID =NR.
SS-08	Grab surface soil/source sample collected from the southern portion of the property near the polyethylene drums behind the Small Red Wooden Shed. Sample collected to determine the presence of hazardous substances. 42.012976354 North Latitude 71.579613620 West Longitude	24"	RO1-160907MB-0008	9/8/2016 0921 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown fine SAND, trace fine to medium gravel. CGI/O_2 (LEL/%) = NR; PID = NR.
SS-09	Grab surface soil/source sample collected from the southern portion of the property, adjacent to 5-gallon polyethylene containers adjacent to the Old White Storage Trailers. Sample collected to determine the presence of hazardous substances. 42.012993407 North Latitude 71.579498272 West Longitude	13"	RO1-160907MB-0009	9/8/2016 0917 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as brown SILT, some sand, trace fine gravel. CGI/O_2 (LEL/%) = NR; PID = NR.

TABLE 1A
SOIL/SOURCE SAMPLES

Station Location	Location Description/Rationale	Sample Depth (inches)	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Soil/Source						
SS-10	Grab surface soil/source sample collected from a stained soil area east of the Steel Garage/ Warehouse entrance. Sample collected to determine the presence of hazardous substances. 42.013213818 North Latitude 71.579608085 West Longitude	0-3"	RO1-160907MB-0010	9/8/2016 0845 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a shovel to remove surficial material. Material was described as brown-grey SAND, some silt and gravel. CGI/O_2 (LEL/%) = NR; PID = 0.0 ppm.
SS-11	Grab surface soil/source sample collected from a stained soil area in a lower level loading dock area, southeast of the Steel Garage/ Warehouse. Sample collected to determine the presence of hazardous substances. 42.013110192 North Latitude 71.579667464 West Longitude	24"	RO1-160907MB-0011	9/8/2016 0854 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown fine to medium SAND, some coarse gravel, little medium gravel. CGI/O_2 (LEL/%) = NR; PID = NR.
SS-12	Grab surface soil/source sample collected from the scrap pile area, east of the Steel Garage/ Warehouse on the west-central portion of the property. Sample collected to determine the presence of hazardous substances. 42.013331831 North Latitude 71.579409552 West Longitude	12"	RO1-160907MB-0012	9/8/2016 0926 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as light brown and orange SAND, some coarse gravel. CGI/O_2 (LEL/%) = NR; PID =NR.

TABLE 1A
SOIL/SOURCE SAMPLES

Station Location	Location Description/Rationale	Sample Depth (inches)	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Soil/Source						
SS-13	Grab surface soil/source sample collected from a grassy area in the fill material on the northern portion of the property between the residence and the Soil/Loam Pile. Sample collected to determine the presence of hazardous substances. 42.013607370 North Latitude 71.578880494 West Longitude	13"	RO1-160907MB-0013	9/8/2016 1013 hours	VOCs (Low/Medium), Percent Solids	Sample was collected using a hand auger. Material was described as brown SAND, some silt. CGI/O_2 (LEL/%) = NR; PID = NR.
SS-14	Field duplicate of SS-10 collected for quality control.	0-3"	RO1-160907MB-0014	9/8/2016 0845 hours	VOCs (Low/Medium), Percent Solids	See sample description for SS-10.

CLP = Contract Laboratory Program
CGI/O_2 (LEL/%) = Combustible Gas Indicator/Oxygen Meter (Lower Explosive Limit/Percent)
PID = Photoionization Detector
COC = Chain of Custody
ppm = parts per million
No. = Number
NR = Not Recorded

Analyses: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil High Level Method.

TABLE 1B
DRINKING WATER SAMPLES

Station Location	Location Description/Rationale	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Ground Water					
DW-01	Drinking water sample collected from the on-site occupied residence at 254 Old Great Road. Sample collected to determine the presence of hazardous substances in private water supply well. Sample collected from the active well inlet prior to water flow into the pressure tank located in the upper level of the garage. The well is located approximately 140 feet to the west of the residence. GPS location of the well is 42.0135581, -71.5791094	RO1-160907MB-0030	9/7/2016 1422 hours	VOCs (trace)	The water quality parameters at the time of sample collection were as follows: Temp (°C) = NR; Spec. Cond. (µS/cm) = 667; pH = 7.56; ORP (mV) = NR; DO (mg/L) = NR; Turbidity (NTU) = 5.96; PID = NR; Purge Rate = approximately 10 gallons/min; Volume purge = approximately 100 gallons. Comments: According to the owner, there is no filter system associated with this well.
DW-02	Drinking water sample collected from the on-site occupied residence at 250 Old Great Road. Sample collected to determine the presence of hazardous substances in private water supply well. Sample collected from the kitchen faucet, after the water flowed for 30 minutes. Sample collected after water flows though pressure tank and piping system. Well is located approximately 5 feet to the northeast of the residence. GPS location of the well is 42.0129611, -71.5771694	RO1-160907MB-0031	9/6/2016 1904 hours	VOCs (trace)	The water quality parameters at the time of sample collection were as follows: Temp (°C) = 16.2; Spec. Cond. (µS/cm) = 277.4; pH = 7.43; ORP (mV) = NR; DO (mg/L) = NR; Turbidity (NTU) = 0.40; PID = NR. Purge Rate = NR; Volume purged = NR. Comments: None
DW-03	Field duplicate of DW-01 collected for quality control.	RO1-160907MB-0032	9/7/2016 1422 hours	VOCs (trace)	See sample description for DW-01.

PID = Photoionization Detector
COC = Chain of Custody
No. = Number
Temp (°C) = Temperature (degrees Celsius)
µS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Units
NR = Not recorded.

Analyses: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Drinking Water.

TABLE 1C
SEDIMENT SAMPLES

Station Location	Location Description/Rationale	Sample Depth* (inches)	Water Depth (inches)	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Sediment							
SD-01	Grab sediment sample collected from the Unnamed Stream and wetlands area along the northern edge of the property, on the western portion of the property. Sample collected to determine the presence of hazardous substances and to evaluate potential contamination at the most-upstream edge of the site. 42.013138190 North Latitude 71.580178011 West Longitude	'12"	6"	RO1-160907MB-0015	9/6/2016 1202 hours	VOCs (Low/Medium) Percent Solids	Sample was collected using a hand auger. Spec. Cond. (µS/cm) = 474.2; Temp. (°C) = 16.8; Turbidity (NTU) = 0.93; pH = 7.38; CGI/O_2 (LEL/%) = NR; PID = NR.
SD-02	Grab sediment sample collected from the Unnamed Stream and wetlands area along the western edge of the property, southwest of SD-01, near the dirt access road from the Steel Garage/Warehouse. Collected to determine and to evaluate the presence of hazardous substances. 42.012995414 North Latitude 71.580197351 West Longitude	0-12	2"	RO1-160907MB-0016	9/6/2016 1150 hours	VOCs (Low/Medium) Percent Solids	Sample was collected using a hand auger. Spec. Cond. (µS/cm) = 359; Temp. (°C) = 17.2; Turbidity (NTU) = 203; pH = NR; CGI/O_2 (LEL/%) = NR; PID = NR.
SD-03	Grab sediment sample collected from the Unnamed Stream near the western edge of the wetlands area along the southwestern edge of the property. Sample collected to determine the presence of hazardous substances and to evaluate potential contamination from sources in the commercial area of the property (storage shed/trailer/garage structures). 42.012824982 North Latitude 71.579928410 West Longitude	'12"	6"	RO1-160907MB-0017	9/6/2016 1145 hours	VOCs (Low/Medium) Percent Solids	Sample was collected using a hand auger. Spec. Cond. (µS/cm) = 280.3; Temp. (°C) = 16.7; Turbidity (NTU) = 0.68; pH = 6.79; CGI/O_2 (LEL/%) = NR; PID = NR.

TABLE 1C
SEDIMENT SAMPLES

Station Location	Location Description/Rationale	Sample Depth* (inches)	Water Depth (inches)	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Sediment							
SD-04	Grab sediment sample collected from the Unnamed Stream and wetland area along the southern property border, east of SD-03. Sample collected to determine the presence of hazardous substances and to evaluate potential contamination from sources in commercial area of the property (storage shed/trailer /garage structures). 42.012840324 North Latitude 71.579740174 West Longitude	'12"	4"	RO1-160907MB-0018	9/6/2016 1135 hours	VOCs (Low/Medium) Percent Solids	Sample was collected using a hand auger. Spec. Cond. (µS/cm) = 334; Temp. (°C) = 16.3; Turbidity (NTU) = NR; pH = 5.92; CGI/O_2 (LEL/%) = NR; PID = NR.
SD-05	Field duplicate of SD-04 collected for quality control.	12"	4"	RO1-160907MB-0019	9/6/2016 1135 hours	VOCs (Low/Medium) Percent Solids	See sample description for SD-04.

Temp (°C) = Temperature (degrees Celsius)
Spec. Cond. (µS/cm) = Specific Conductivity (microSiemens per centimeter)
CGI/O_2 (LEL/%) = Combustible Gas Indicator/Oxygen Meter (Lower Explosive Limit/Percent)
NTU = Nephelometric Turbidity Units
PID = Photoionization Detector
COC = Chain of Custody
ppm = parts per million
No. = Number
NR = Not Recorded.
* = Below the sediment/water interface.

Analyses: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil High Level Method.
EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil Low Level Method.

TABLE 1D
AQUEOUS QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

Station Location	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Aqueous QA/QC				
TB-03	RO1-160907MB-0021	9/6/16 1730 hours	VOCs	Trip blank sample, collected for quality control.
RB-01	RO1-160907MB-0022	9/7/16 1800 hours	VOCs	Soil/Source sampling equipment (hand auger) rinsate blank sample, collected for quality control.
RB-02	RO1-160907MB-0023	9/6/16 1736 hours	VOCs	Sediment sampling equipment (hand auger) rinsate blank sample, collected for quality control.
PB-01	RO1-160907MB-0024	9/8/16 1200 hours	VOCs	Sodium bisulfate preservative blank sample, collected for quality control.
PB-02	RO1-160907MB-0025	9/8/16 1200 hours	VOCs	Methanol preservative blank sample, collected for quality control.
PB-03	RO1-160907MB-0026	9/6/16 1730 hours	VOCs	Ultrapure water preservative blank sample, collected for quality control.
PB-04	RO1-160907MB-0027	9/6/16 1730 hours	VOCs	Methanol preservative blank sample, collected for quality control.
TB-02	RO1-160907MB-0033	9/7/16 1758 hours	VOCs	Trip blank sample, collected for quality control.
RB-03	RO1-160907MB-0037	9/8/16 1202 hours	VOCs	Soil/Source sampling equipment (hand auger) rinsate blank sample, collected for quality control.

COC = Chain of Custody
No. = Number
QA/QC = Quality Assurance/Quality Control

Analyses: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Water.
EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil Low Level Method.
EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Drinking Water.

TABLE 1E
PERFORMANCE EVALUATION SAMPLES

Station Location	COC Sample No.	Date and Time (hours)	Analysis	Sample Description
MATRIX: Performance Evaluation Samples				
PE-VS2116	RO1-160907MB-0028	9/8/2016 1200 hours	VOCs (low)	Aqueous PE sample for VOCs (soil samples).
PE-VS2115	RO1-160907MB-0029	9/6/2016 1730 hours	VOCs (low)	Aqueous PE sample for VOCs (sediment samples).
PE-MLV0228	RO1-160907MB-0035	9/8/2016 1200 hours	VOCs (medium)	Aqueous PE sample for VOCs (soil samples).
PE-MLV0227	RO1-160907MB-0036	9/6/2016 1730 hours	VOCs (medium)	Aqueous PE sample for VOCs (sediment samples).
PE-VT01052	RO1-160907MB-0034	9/8/2016 1200 hours	VOCs (trace)	Aqueous PE sample for VOCs (drinking water samples).

COC = Chain of Custody
No. = Number

Analyses: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil High Level Method.
EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil Low Level Method.
EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Drinking Water.

ATTACHMENT E

254 OLD GREAT ROAD
ANALYTICAL RESULTS TABLES
Samples Collected from 6 to 8 September 2016

Site: 254 Old Great Road Property
Project #: 16090018
Laboratory: NERL

250/254 OLD GREAT ROAD
NORTH SMITHFIELD, RHODE ISLAND

ANALYTICAL RESULTS TABLE 1
VOLATILE ORGANIC AQUEOUS ANALYSIS
DRINKING WATER SAMPLES

SAMPLE NUMBER	RO1-160907MB-0030		RO1-160907MB-0031		RO1-160907MB-0032		NPDWR	RIDEM
SAMPLE LOCATION	DW-01		DW-02		DW-03		MCL	GA GW
LABORATORY NUMBER	AB63363		AB63364		AB63365			
COMPOUND	**Concentration**	**RL**	**Concentration**	**RL**	**Concentration**	**RL**		
1,1,1,2-Tetrachloroethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,1,1-Trichloroethane	ND	2.5	**1.2**	1.0	**1.4**	1.0	200	200
1,1,2,2-Tetrachloroethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,1,2-Trichloro-1,2,2-Trifluoroethane	**20**	2.5	**29**	1.0	**21**	1.0	NL	NL
1,1,2-Trichloroethane	ND	2.5	ND	1.0	ND	1.0	5	5
1,1-Dichloroethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,1-Dichloroethylene	ND	2.5	ND	1.0	ND	1.0	7	7
1,1-Dichloropropene	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,2,3-Trichlorobenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,2,3-Trichloropropane	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,2,4-Trichlorobenzene	ND	2.5	ND	1.0	ND	1.0	70	NL
1,2,4-Trimethylbenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,2-Dibromo-3-Chloropropane	ND	2.5	ND	1.0	ND	1.0	0.2	0.2
1,2-Dibromoethane	ND	2.5	ND	1.0	ND	1.0	0.05[1]	0.05[1]
1,2-Dichlorobenzene	ND	2.5	ND	1.0	ND	1.0	600	NL
1,2-Dichloroethane	ND	2.5	ND	1.0	ND	1.0	5	5
1,2-Dichloropropane	ND	2.5	ND	1.0	ND	1.0	5	5
1,3,5-Trimethylbenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,3-Dichlorobenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,3-Dichloropropane	ND	2.5	ND	1.0	ND	1.0	NL	NL
1,4-Dichlorobenzene	ND	2.5	ND	1.0	ND	1.0	75	NL
2,2-Dichloropropane	ND	2.5	ND	1.0	ND	1.0	NL	NL
2-Butanone (MEK)	ND	2.5	ND	1.0	ND	1.0	NL	NL
2-Chlorotoluene	ND	2.5	ND	1.0	ND	1.0	NL	NL
2-Hexanone	ND	2.5	ND	1.0	ND	1.0	NL	NL
2-Propanone (acetone)	**7.5 B**	2.5	**7.2 B**	1.0	**7.7 B**	1.0	NL	NL
4-Chlorotoluene	ND	2.5	ND	1.0	ND	1.0	NL	NL
4-Methyl-2-Pentanone(MIBK)	ND	2.5	ND	1.0	ND	1.0	NL	NL
Acrylonitrile	ND	2.5	ND	1.0	ND	1.0	NL	NL
Benzene	ND	2.5	ND	1.0	ND	1.0	5	5
Bromobenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
Bromochloromethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
Bromodichloromethane	ND	2.5	ND	1.0	ND	1.0	NL	100[2]
Bromoform	ND	2.5	ND	1.0	ND	1.0	NL	100[2]
Bromomethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
c-1,3-dichloropropene	ND	2.5	ND	1.0	ND	1.0	NL	NL
Carbon Disulfide	ND	2.5	ND	1.0	ND	1.0	NL	NL
Carbon tetrachloride	ND	2.5	ND	1.0	ND	1.0	5	5
Chlorobenzene	ND	2.5	ND	1.0	ND	1.0	100	100
Chloroethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
Chloroform	ND	2.5	ND	1.0	ND	1.0	NL	100[2]
Chloromethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
cis-1,2-Dichloroethylene	ND	2.5	ND	1.0	ND	1.0	70	70
Dibromochloromethane	ND	2.5	ND	1.0	ND	1.0	NL	100[2]
Dibromomethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
Dichlorodifluoromethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
Ethyl Ether	ND	2.5	ND	1.0	ND	1.0	NL	NL
Ethylbenzene	ND	2.5	ND	1.0	ND	1.0	700	700
Hexachlorobutadiene	ND	2.5	ND	1.0	ND	1.0	NL	NL
Isopropylbenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
M/P Xylene	ND	5.0	ND	2.0	ND	2.0	10,000[3]	10,000[3]
Methylene Chloride	ND	2.5	ND	1.0	ND	1.0	5[4]	5
Methyl-t-Butyl Ether	ND	2.5	ND	1.0	ND	1.0	NL	40
Naphthalene	ND	2.5	ND	1.0	ND	1.0	NL	NL
N-Butylbenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
N-Propylbenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
Ortho Xylene	ND	2.5	ND	1.0	ND	1.0	10,000[3]	10,000[3]
Para-Isopropyltoluene	ND	2.5	ND	1.0	ND	1.0	NL	NL
Sec-Butylbenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
Styrene	ND	2.5	ND	1.0	ND	1.0	100	100
t-1,3-Dichloropropene	ND	2.5	ND	1.0	ND	1.0	NL	NL
Tert-Butylbenzene	ND	2.5	ND	1.0	ND	1.0	NL	NL
Tetrachloroethylene	**15**	2.5	**19**	1.0	**17**	1.0	5	5
Tetrahydrofuran	ND	2.5	ND	1.0	ND	1.0	NL	NL
Toluene	ND	2.5	ND	1.0	ND	1.0	1000	1,000
Trans-1,2-Dichloroethylene	ND	2.5	ND	1.0	ND	1.0	100	100
Trichloroethylene	**37**	2.5	**47**	1.0	**44**	1.0	5	5
Trichlorofluoromethane	ND	2.5	ND	1.0	ND	1.0	NL	NL
Vinyl Acetate	ND	2.5	ND	1.0	ND	1.0	NL	NL
Vinyl Chloride	ND	2.5	ND	1.0	ND	1.0	2	2
DILUTION FACTOR	5.0		2.0		2.0			
DATE SAMPLED	9/7/2016		9/6/2016		9/7/2016			
DATE ANALYZED	9/9/2016		9/9/2016		9/9/2016			

ANALYSIS

Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Drinking Water.

NOTES:

Results are reported in micrograms per Liter (µg/L).

Bold Result = Analyte detected.

Shaded result = Analyte detected above MCL and/or RI DEM standards.

NPDWR MCL = National Primary Drinking Water Regulations, Maximum Contaminant Level, July 2016

RIDEM = Rhode Island Department of Environmental Management

RIDEM GA GW = Rhode Island Department of Environmental Management
GA Groundwater Objectives, February 2004

RIDEM GA GW and NPDWR MCL values were converted from Milligrams per Liter (mg/L).

NL = Not Listed

RL = Reporting Limit.

ND = Not Detected

1 = Value for Ethylene Dibromide (EDB), synonym for 1,2-Dibromoethane is listed.

2 = Value for Total Trihalomethanes is listed.

3 = Value for Total Xylene is listed.

4 = Value for dichloromethane, synonym for Methylene chloride is listed.

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration of the blank.

Site: 254 Old Great Road Property
Project #: 16090018
Laboratory: NERL

254 OLD GREAT ROAD
NORTH SMITHFIELD, RHODE ISLAND

ANALYTICAL RESULTS TABLE 2
VOLATILE ORGANIC SOIL ANALYSIS
SOIL/SOURCE SAMPLES

SAMPLE NUMBER	RO1-160907MB-0001		RO1-160907MB-0002		RO1-160907MB-0003		RO1-160907MB-0004		RO1-160907MB-0005		RIDEM	RIDEM
SAMPLE LOCATION	SS-01		SS-02		SS-03		SS-04		SS-05		Method 1 DEC	Method 1 DEC
LABORATORY NUMBER	AB63345		AB63346		AB63347		AB63348		AB63349		Residential	Industrial/Commercial
SAMPLE DEPTH (inches)	12		12		6		6		30		(µg/Kg)	(µg/Kg)
COMPOUND	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL		
1,1,1,2-Tetrachloroethane	ND	75	ND	81	ND	68	ND	64	ND	140	2,200	220,000
1,1,1-Trichloroethane	ND	75	ND	81	ND	68	ND	64	ND	140	540,000	10,000,000
1,1,2,2-Tetrachloroethane	ND	75	ND	81	ND	68	ND	64	ND	140	1,300	29,000
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,1,2-Trichloroethane	ND	75	ND	81	ND	68	ND	64	ND	140	3,600	100,000
1,1-Dichloroethane	ND	75	ND	81	ND	68	ND	64	ND	140	920,000	10,000,000
1,1-Dichloroethylene	ND	75	ND	81	ND	68	ND	64	ND	140	200	9,500
1,1-Dichloropropene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,2,3-Trichlorobenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,2,3-Trichloropropane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,2,4-Trichlorobenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,2,4-Trimethylbenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,2-Dibromo-3-Chloropropane	ND	75	ND	81	ND	68	ND	64	ND	140	500	4,100
1,2-Dibromoethane	ND	75	ND	81	ND	68	ND	64	ND	140	10[1]	70[1]
1,2-Dichlorobenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,2-Dichloroethane	ND	75	ND	81	ND	68	ND	64	ND	140	900	63,000
1,2-Dichloropropane	ND	75	ND	81	ND	68	ND	64	ND	140	1,900	84,000
1,3,5-Trimethylbenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,3-Dichlorobenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,3-Dichloropropane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
1,4-Dichlorobenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
2,2-Dichloropropane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
2-Butanone (MEK)	ND	75	ND	81	ND	68	ND	64	ND	140	10,000,000[2]	10,000,000[2]
2-Chlorotoluene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
2-Hexanone	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
2-Propanone (acetone)	**77**	75	ND	81	**79**	68	ND	64	ND	140	7,800,000	10,000,000
4-Chlorotoluene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
4-Methyl-2-Pentanone(MIBK)	ND	75	ND	81	ND	68	ND	64	ND	140	1,200,000[3]	10,000,000[3]
Acrylonitrile	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Benzene	ND	75	ND	81	ND	68	ND	64	ND	140	2,500	200,000
Bromobenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Bromochloromethane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Bromodichloromethane	ND	75	ND	81	ND	68	ND	64	ND	140	10,000	92,000
Bromoform	ND	75	ND	81	ND	68	ND	64	ND	140	81,000	720,000
Bromomethane	ND	75	ND	81	ND	68	ND	64	ND	140	800	2,900,000
c-1,3-dichloropropene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Carbon Disulfide	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Carbon tetrachloride	ND	75	ND	81	ND	68	ND	64	ND	140	1,500	44,000
Chlorobenzene	ND	75	ND	81	ND	68	ND	64	ND	140	210,000	10,000,000
Chloroethane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Chloroform	ND	75	ND	81	ND	68	ND	64	ND	140	1,200	940,000
Chloromethane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
cis-1,2-Dichloroethylene	ND	75	ND	81	ND	68	ND	64	ND	140	630,000	10,000,000
Dibromochloromethane	ND	75	ND	81	ND	68	ND	64	ND	140	7,600	68,000
Dibromomethane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Dichlorodifluoromethane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Ethyl Ether	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Ethylbenzene	ND	75	ND	81	ND	68	ND	64	ND	140	71,000	1,000,000
Hexachlorobutadiene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Isopropylbenzene	ND	75	ND	81	ND	68	ND	64	ND	140	27,000	10,000,000
M/P Xylene	ND	150	ND	160	ND	140	ND	130	ND	280	110,000[4]	10,000,000[4]
Methylene Chloride	ND	75	ND	81	ND	68	ND	64	ND	140	45,000	760,000
Methyl-t-Butyl Ether	ND	75	ND	81	ND	68	ND	64	ND	140	390,000	10,000,000
Naphthalene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
N-Butylbenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
N-Propylbenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Ortho Xylene	ND	75	ND	81	ND	68	ND	64	ND	140	110,000[4]	10,000,000[4]
Para-Isopropyltoluene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Sec-Butylbenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Styrene	ND	75	ND	81	ND	68	ND	64	ND	140	13,000	190,000
t-1,3-Dichloropropene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Tert-Butylbenzene	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Tetrachloroethylene	ND	75	ND	81	ND	68	ND	64	ND	140	12,000	110,000
Tetrahydrofuran	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Toluene	ND	75	ND	81	ND	68	ND	64	ND	140	190,000	10,000,000
Trans-1,2-Dichloroethylene	ND	75	ND	81	ND	68	ND	64	ND	140	1,100,000	10,000,000
Trichloroethylene	ND	75	ND	81	ND	68	ND	64	ND	140	13,000	520,000
Trichlorofluoromethane	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Vinyl Acetate	ND	75	ND	81	ND	68	ND	64	ND	140	NL	NL
Vinyl Chloride	ND	75	ND	81	ND	68	ND	64	ND	140	20	3,000
DILUTION FACTOR	50		50		50		50		50			
DATE SAMPLED	9/8/2016		9/7/2016		9/7/2016		9/7/2016		9/7/2016			
DATE ANALYZED	9/14/2016		9/14/2016		9/14/2016		9/14/2016		9/14/2016			
SAMPLE WEIGHT (GRAMS)	6.887		6.407		7.750		8.179		3.657			
% SOLID	95		94		94		96		89			

ANALYSIS

Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil High Level Method.

NOTES:

Results are reported as dry weight in micrograms per kilogram (µg/kg).

Bold Result = Analyte detected.

RIDEM = Rhode Island Department of Environmental Management

RIDEM Method 1 DEC = Rhode Island Department of Environmental Management Method 1, Direct Exposure Criteria

RIDEM Method 1 DEC values were converted from Milligrams per Kilogram (mg/kg)

NL = Not Listed

RL = Reporting Limit.

ND = Not Detected

Sample SS-09 is a field duplicate of sample SS-05.

E = Estimated value exceeds the calibration range.

1 = Value for Ethylene Dibromide (EDB), synonym for 1,2-Dibromoethane is listed.

2 = Value for Methyl Ethyl Ketone, synonym for 2-Butanone is listed.

3 = Value for Methyl Isobutyl Ketone, synonym for 4-Methyl-2-Pentanone is listed.

4 = Value for Total Xylenes is listed.

Site: 254 Old Great Road Property
Project #: 16090018
Laboratory: NERL

254 OLD GREAT ROAD
NORTH SMITHFIELD, RHODE ISLAND

ANALYTICAL RESULTS TABLE 2
VOLATILE ORGANIC SOIL ANALYSIS
SOIL/SOURCE SAMPLES

SAMPLE NUMBER	RO1-160907MB-0006		RO1-160907MB-0007		RO1-160907MB-0008		RO1-160907MB-0009		RO1-160907MB-0010		RIDEM	RIDEM
SAMPLE LOCATION	SS-06		SS-07		SS-08		SS-09		SS-10		Method 1 DEC	Method 1 DEC
LABORATORY NUMBER	AB63350		AB63351		AB63352		AB63353		AB63354		Residential	Industrial/Commercial
SAMPLE DEPTH (inches)	24		12		24		13		0-3		(µg/Kg)	(µg/Kg)
COMPOUND	**Concentration**	**RL**	**Concentration**	**RL**	**Concentration**	**RL**	**Concentration**	**RL**	**Concentration**	**RL**		
1,1,1,2-Tetrachloroethane	ND	85	ND	100	ND	76	ND	80	ND	86	2,200	220,000
1,1,1-Trichloroethane	ND	85	ND	100	ND	76	ND	80	ND	86	540,000	10,000,000
1,1,2,2-Tetrachloroethane	ND	85	ND	100	ND	76	ND	80	ND	86	1,300	29,000
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,1,2-Trichloroethane	ND	85	ND	100	ND	76	ND	80	ND	86	3,600	100,000
1,1-Dichloroethane	ND	85	ND	100	ND	76	ND	80	ND	86	920,000	10,000,000
1,1-Dichloroethylene	ND	85	ND	100	ND	76	ND	80	ND	86	200	9,500
1,1-Dichloropropene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,2,3-Trichlorobenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,2,3-Trichloropropane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,2,4-Trichlorobenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,2,4-Trimethylbenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,2-Dibromo-3-Chloropropane	ND	85	ND	100	ND	76	ND	80	ND	86	500	4,100
1,2-Dibromoethane	ND	85	ND	100	ND	76	ND	80	ND	86	10[1]	70[1]
1,2-Dichlorobenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,2-Dichloroethane	ND	85	ND	100	ND	76	ND	80	ND	86	900	63,000
1,2-Dichloropropane	ND	85	ND	100	ND	76	ND	80	ND	86	1,900	84,000
1,3,5-Trimethylbenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,3-Dichlorobenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,3-Dichloropropane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
1,4-Dichlorobenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
2,2-Dichloropropane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
2-Butanone (MEK)	ND	85	ND	100	ND	76	ND	80	ND	86	10,000,000[2]	10,000,000[2]
2-Chlorotoluene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
2-Hexanone	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
2-Propanone (acetone)	ND	85	ND	100	ND	76	ND	80	ND	86	7,800,000	10,000,000
4-Chlorotoluene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
4-Methyl-2-Pentanone(MIBK)	ND	85	ND	100	ND	76	ND	80	ND	86	1,200,000[3]	10,000,000[3]
Acrylonitrile	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Benzene	ND	85	ND	100	ND	76	ND	80	ND	86	2,500	200,000
Bromobenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Bromochloromethane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Bromodichloromethane	ND	85	ND	100	ND	76	ND	80	ND	86	10,000	92,000
Bromoform	ND	85	ND	100	ND	76	ND	80	ND	86	81,000	720,000
Bromomethane	ND	85	ND	100	ND	76	ND	80	ND	86	800	2,900,000
c-1,3-dichloropropene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Carbon Disulfide	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Carbon tetrachloride	ND	85	ND	100	ND	76	ND	80	ND	86	1,500	44,000
Chlorobenzene	ND	85	ND	100	ND	76	ND	80	ND	86	210,000	10,000,000
Chloroethane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Chloroform	ND	85	ND	100	ND	76	ND	80	ND	86	1,200	940,000
Chloromethane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
cis-1,2-Dichloroethylene	ND	85	ND	100	ND	76	ND	80	ND	86	630,000	10,000,000
Dibromochloromethane	ND	85	ND	100	ND	76	ND	80	ND	86	7,600	68,000
Dibromomethane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Dichlorodifluoromethane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Ethyl Ether	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Ethylbenzene	ND	85	ND	100	ND	76	ND	80	ND	86	71,000	1,000,000
Hexachlorobutadiene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Isopropylbenzene	ND	85	ND	100	ND	76	ND	80	ND	86	27,000	10,000,000
M/P Xylene	ND	170	ND	200	ND	150	ND	160	ND	170	110,000[4]	10,000,000[4]
Methylene Chloride	ND	85	ND	100	ND	76	ND	80	ND	86	45,000	760,000
Methyl-t-Butyl Ether	ND	85	ND	100	ND	76	ND	80	ND	86	390,000	10,000,000
Naphthalene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
N-Butylbenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
N-Propylbenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Ortho Xylene	ND	85	ND	100	ND	76	ND	80	ND	86	110,000[4]	10,000,000[4]
Para-Isopropyltoluene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Sec-Butylbenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Styrene	ND	85	ND	100	ND	76	ND	80	ND	86	13,000	190,000
t-1,3-Dichloropropene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Tert-Butylbenzene	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Tetrachloroethylene	ND	85	ND	100	ND	76	ND	80	ND	86	12,000	110,000
Tetrahydrofuran	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Toluene	ND	85	ND	100	ND	76	ND	80	ND	86	190,000	10,000,000
Trans-1,2-Dichloroethylene	ND	85	ND	100	ND	76	ND	80	ND	86	1,100,000	10,000,000
Trichloroethylene	ND	85	ND	100	ND	76	ND	80	ND	86	13,000	520,000
Trichlorofluoromethane	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Vinyl Acetate	ND	85	ND	100	ND	76	ND	80	ND	86	NL	NL
Vinyl Chloride	ND	85	ND	100	ND	76	ND	80	ND	86	20	3,000
DILUTION FACTOR	50		50		50		50		50			
DATE SAMPLED	9/7/2016		9/8/2016		9/8/2016		9/8/2016		9/8/2016			
DATE ANALYZED	9/14/2016		9/14/2016		9/14/2016		9/14/2016		9/14/2016			
SAMPLE WEIGHT (GRAMS)	6.040		4.972		6.931		6.817		5.992			
% SOLID	95		96		93		88		97			

ANALYSIS

Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil High Level Method.

NOTES:

Results are reported as dry weight in micrograms per kilogram (µg/kg).

Bold Result = Analyte detected.

RIDEM = Rhode Island Department of Environmental Management

RIDEM Method 1 DEC = Rhode Island Department of Environmental Management Method 1, Direct Exposure Criteria

RIDEM Method 1 DEC values were converted from Milligrams per Kilogram (mg/kg)

NL = Not Listed

RL = Reporting Limit.

ND = Not Detected

Sample SS-09 is a field duplicate of sample SS-05.

E = Estimated value exceeds the calibration range.

1 = Value for Ethylene Dibromide (EDB), synonym for 1,2-Dibromoethane is listed.

2 = Value for Methyl Ethyl Ketone, synonym for 2-Butanone is listed.

3 = Value for Methyl Isobutyl Ketone, synonym for 4-Methyl-2-Pentanone is listed.

4 = Value for Total Xylenes is listed.

Site: 254 Old Great Road Property
Project #: 16090018
Laboratory: NERL

254 OLD GREAT ROAD
NORTH SMITHFIELD, RHODE ISLAND

ANALYTICAL RESULTS TABLE 2
VOLATILE ORGANIC SOIL ANALYSIS
SOIL/SOURCE SAMPLES

SAMPLE NUMBER	RO1-160907MB-0011		RO1-160907MB-0012		RO1-160907MB-0013		RO1-160907MB-0014		RIDEM	RIDEM
SAMPLE LOCATION	SS-11		SS-12		SS-13		SS-14		Method 1 DEC	Method 1 DEC
LABORATORY NUMBER	AB63355		AB63356		AB63357		AB63358		Residential	Industrial/Commercial
SAMPLE DEPTH (inches)	24		12		13		0-3		(µg/Kg)	(µg/Kg)
COMPOUND	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL		
1,1,1,2-Tetrachloroethane	ND	83	ND	60	ND	94	ND	77	2,200	220,000
1,1,1-Trichloroethane	ND	83	ND	60	ND	94	ND	77	540,000	10,000,000
1,1,2,2-Tetrachloroethane	ND	83	ND	60	ND	94	ND	77	1,300	29,000
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	83	ND	60	ND	94	ND	77	NL	NL
1,1,2-Trichloroethane	ND	83	ND	60	ND	94	ND	77	3,600	100,000
1,1-Dichloroethane	ND	83	ND	60	ND	94	ND	77	920,000	10,000,000
1,1-Dichloroethylene	ND	83	ND	60	ND	94	ND	77	200	9,500
1,1-Dichloropropene	ND	83	ND	60	ND	94	ND	77	NL	NL
1,2,3-Trichlorobenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
1,2,3-Trichloropropane	ND	83	ND	60	ND	94	ND	77	NL	NL
1,2,4-Trichlorobenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
1,2,4-Trimethylbenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
1,2-Dibromo-3-Chloropropane	ND	83	ND	60	ND	94	ND	77	500	4,100
1,2-Dibromoethane	ND	83	ND	60	ND	94	ND	77	10[1]	70[1]
1,2-Dichlorobenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
1,2-Dichloroethane	ND	83	ND	60	ND	94	ND	77	900	63,000
1,2-Dichloropropane	ND	83	ND	60	ND	94	ND	77	1,900	84,000
1,3,5-Trimethylbenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
1,3-Dichlorobenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
1,3-Dichloropropane	ND	83	ND	60	ND	94	ND	77	NL	NL
1,4-Dichlorobenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
2,2-Dichloropropane	ND	83	ND	60	ND	94	ND	77	NL	NL
2-Butanone (MEK)	ND	83	ND	60	ND	94	ND	77	10,000,000[2]	10,000,000[2]
2-Chlorotoluene	ND	83	ND	60	ND	94	ND	77	NL	NL
2-Hexanone	ND	83	ND	60	ND	94	ND	77	NL	NL
2-Propanone (acetone)	ND	83	ND	60	ND	94	ND	77	7,800,000	10,000,000
4-Chlorotoluene	ND	83	ND	60	ND	94	ND	77	NL	NL
4-Methyl-2-Pentanone(MIBK)	ND	83	ND	60	ND	94	ND	77	1,200,000[3]	10,000,000[3]
Acrylonitrile	ND	83	ND	60	ND	94	ND	77	NL	NL
Benzene	ND	83	ND	60	ND	94	ND	77	2,500	200,000
Bromobenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
Bromochloromethane	ND	83	ND	60	ND	94	ND	77	NL	NL
Bromodichloromethane	ND	83	ND	60	ND	94	ND	77	10,000	92,000
Bromoform	ND	83	ND	60	ND	94	ND	77	81,000	720,000
Bromomethane	ND	83	ND	60	ND	94	ND	77	800	2,900,000
c-1,3-dichloropropene	ND	83	ND	60	ND	94	ND	77	NL	NL
Carbon Disulfide	ND	83	ND	60	ND	94	ND	77	NL	NL
Carbon tetrachloride	ND	83	ND	60	ND	94	ND	77	1,500	44,000
Chlorobenzene	ND	83	ND	60	ND	94	ND	77	210,000	10,000,000
Chloroethane	ND	83	ND	60	ND	94	ND	77	NL	NL
Chloroform	ND	83	ND	60	ND	94	ND	77	1,200	940,000
Chloromethane	ND	83	ND	60	ND	94	ND	77	NL	NL
cis-1,2-Dichloroethylene	ND	83	ND	60	ND	94	ND	77	630,000	10,000,000
Dibromochloromethane	ND	83	ND	60	ND	94	ND	77	7,600	68,000
Dibromomethane	ND	83	ND	60	ND	94	ND	77	NL	NL
Dichlorodifluoromethane	ND	83	ND	60	ND	94	ND	77	NL	NL
Ethyl Ether	ND	83	ND	60	ND	94	ND	77	NL	NL
Ethylbenzene	ND	83	ND	60	ND	94	ND	77	71,000	1,000,000
Hexachlorobutadiene	ND	83	ND	60	ND	94	ND	77	NL	NL
Isopropylbenzene	ND	83	ND	60	ND	94	ND	77	27,000	10,000,000
M/P Xylene	ND	170	ND	120	ND	190	ND	150	110,000[4]	10,000,000[4]
Methylene Chloride	ND	83	ND	60	ND	94	ND	77	45,000	760,000
Methyl-t-Butyl Ether	ND	83	ND	60	ND	94	ND	77	390,000	10,000,000
Naphthalene	ND	83	ND	60	ND	94	ND	77	NL	NL
N-Butylbenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
N-Propylbenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
Ortho Xylene	ND	83	ND	60	ND	94	ND	77	110,000[4]	10,000,000[4]
Para-Isopropyltoluene	ND	83	ND	60	ND	94	ND	77	NL	NL
Sec-Butylbenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
Styrene	ND	83	ND	60	ND	94	ND	77	13,000	190,000
t-1,3-Dichloropropene	ND	83	ND	60	ND	94	ND	77	NL	NL
Tert-Butylbenzene	ND	83	ND	60	ND	94	ND	77	NL	NL
Tetrachloroethylene	ND	83	ND	60	ND	94	ND	77	12,000	110,000
Tetrahydrofuran	ND	83	ND	60	ND	94	ND	77	NL	NL
Toluene	ND	83	ND	60	ND	94	ND	77	190,000	10,000,000
Trans-1,2-Dichloroethylene	ND	83	ND	60	ND	94	ND	77	1,100,000	10,000,000
Trichloroethylene	ND	83	ND	60	ND	94	ND	77	13,000	520,000
Trichlorofluoromethane	ND	83	ND	60	ND	94	ND	77	NL	NL
Vinyl Acetate	ND	83	ND	60	ND	94	ND	77	NL	NL
Vinyl Chloride	ND	83	ND	60	ND	94	ND	77	20	3,000
DILUTION FACTOR	50		50		50		50			
DATE SAMPLED	9/8/2016		9/8/2016		9/8/2016		9/8/2016			
DATE ANALYZED	9/14/2016		9/14/2016		9/14/2016		9/14/2016			
SAMPLE WEIGHT (GRAMS)	6.181		8.805		5.593		6.592			
% SOLID	96		94		91		98			

ANALYSIS

Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil High Level Method.

NOTES:

Results are reported as dry weight in micrograms per kilogram (µg/kg).

Bold Result = Analyte detected.

RIDEM = Rhode Island Department of Environmental Management

RIDEM Method 1 DEC = Rhode Island Department of Environmental Management Method 1, Direct Exposure Criteria

RIDEM Method 1 DEC values were converted from Milligrams per Kilogram (mg/kg)

NL = Not Listed

RL = Reporting Limit.

ND = Not Detected

Sample SS-09 is a field duplicate of sample SS-05.

E = Estimated value exceeds the calibration range.

1 = Value for Ethylene Dibromide (EDB), synonym for 1,2-Dibromoethane is listed.

2 = Value for Methyl Ethyl Ketone, synonym for 2-Butanone is listed.

3 = Value for Methyl Isobutyl Ketone, synonym for 4-Methyl-2-Pentanone is listed.

4 = Value for Total Xylenes is listed.

Site: 254 Old Great Road Property
Project #: 16090011
Laboratory: NERL

254 OLD GREAT ROAD
NORTH SMITHFIELD, RHODE ISLAND

ANALYTICAL RESULTS TABLE 3
VOLATILE ORGANIC SOIL ANALYSIS
SEDIMENT SAMPLES

SAMPLE NUMBER	RO1-160907MB-0015		RO1-160907MB-0016		RO1-160907MB-0017		RO1-160907MB-0018		RO1-160907MB-0019		NOAA SquiRTs		NOAA SquiRTs	
SAMPLE LOCATION	SD-01		SD-02		SD-03		SD-04		SD-05		TEL		PEL	
LABORATORY NUMBER	AB63290		AB63291		AB63292*		AB63292		AB63294		(µg/Kg)		(µg/Kg)	
COMPOUND	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL
1,1,1,2-Tetrachloroethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,1,1-Trichloroethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,1,2,2-Tetrachloroethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	750	ND	120	ND	2.0	ND	95	ND	130	NL		NL	
1,1,2-Trichloroethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,1-Dichloroethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,1-Dichloroethylene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,1-Dichloropropene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2,3-Trichlorobenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2,3-Trichloropropane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2,4-Trichlorobenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2,4-Trimethylbenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2-Dibromo-3-Chloropropane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2-Dibromoethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2-Dichlorobenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2-Dichloroethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,2-Dichloropropane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,3,5-Trimethylbenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,3-Dichlorobenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,3-Dichloropropane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
1,4-Dichlorobenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
2,2-Dichloropropane	ND	750	ND	120	ND J	1.0	ND	95	ND	130	NL		NL	
2-Butanone (MEK)	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
2-Chlorotoluene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
2-Hexanone	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
2-Propanone (acetone)	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
4-Chlorotoluene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
4-Methyl-2-Pentanone(MIBK)	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Acrylonitrile	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Benzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Bromobenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Bromochloromethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Bromodichloromethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Bromoform	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Bromomethane	ND	750	ND	120	ND	2.0	ND	95	ND	130	NL		NL	
c-1,3-dichloropropene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Carbon Disulfide	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Carbon tetrachloride	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Chlorobenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Chloroethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Chloroform	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Chloromethane	ND	750	ND	120	ND	2.0	ND	95	ND	130	NL		NL	
cis-1,2-Dichloroethylene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Dibromochloromethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Dibromomethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Dichlorodifluoromethane	ND	750	ND	120	ND	2.0	ND	95	ND	130	NL		NL	
Ethyl Ether	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Ethylbenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Hexachlorobutadiene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Isopropylbenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
M/P Xylene	ND	1500	ND	230	ND	2.0	ND	190	ND	260	NL		NL	
Methylene Chloride	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Methyl-t-Butyl Ether	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Naphthalene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
N-Butylbenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
N-Propylbenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Ortho Xylene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Para-Isopropyltoluene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Sec-Butylbenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Styrene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
t-1,3-Dichloropropene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Tert-Butylbenzene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Tetrachloroethylene	ND	750	ND	120	**1.7**	1.0	ND	95	ND	130	NL		NL	
Tetrahydrofuran	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Toluene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Trans-1,2-Dichloroethylene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Trichloroethylene	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Trichlorofluoromethane	ND	750	ND	120	ND	1.0	ND	95	ND	130	NL		NL	
Vinyl Acetate	ND	750	ND	120	ND J	1.0	ND	95	ND	130	NL		NL	
Vinyl Chloride	ND	750	ND	120	ND	2.0	ND	95	ND	130	NL		NL	
DILUTION FACTOR	50		50		1		50		50					
DATE SAMPLED	9/6/2016		9/6/2016		9/6/2016		9/6/2016		9/6/2016					
DATE ANALYZED	9/13/2016		9/13/2016		9/9/2016		9/13/2016		9/13/2016					
SAMPLE WEIGHT (GRAMS)	2.267		12.589		7.220		15.799		11.418					
% SOLID	20		74		73		76		74					

ANALYSIS

Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil High Level Method.

*Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil Low Level Method.

NOTES:

Results are reported as dry weight in micrograms per Liter (µg/kg).

Bold Result = Analyte detected.

NOAA SQuiRTs = National Oceanic and Atmospheric Administration Screening Quick Reference Tables

TEL = Threshold Effects Levels

PEL = Probable Effects Levels

RL = Reporting Limit.

NL = Not Listed.

ND = Not Detected.

% = Percent

J = Estimated value.

Site: 254 Old Great Road Property
Project #: 16090018
Laboratory: NERL

254 OLD GREAT ROAD
NORTH SMITHFIELD, RHODE ISLAND

ANALYTICAL RESULTS TABLE 4A
VOLATILE ORGANIC AQUEOUS ANALYSIS
SOIL/SOURCE PRESERVATIVE BLANK SAMPLES

SAMPLE NUMBER	RO1-160907MB-0025	
SAMPLE LOCATION	PB-02	
LABORATORY NUMBER	AB63361	
COMPOUND	**Concentration**	**RL**
1,1,1,2-Tetrachloroethane	ND	50
1,1,1-Trichloroethane	ND	50
1,1,2,2-Tetrachloroethane	ND	50
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50
1,1,2-Trichloroethane	ND	50
1,1-Dichloroethane	ND	50
1,1-Dichloroethylene	ND	50
1,1-Dichloropropene	ND	50
1,2,3-Trichlorobenzene	ND	50
1,2,3-Trichloropropane	ND	50
1,2,4-Trichlorobenzene	ND	50
1,2,4-Trimethylbenzene	ND	50
1,2-Dibromo-3-Chloropropane	ND	50
1,2-Dibromoethane	ND	50
1,2-Dichlorobenzene	ND	50
1,2-Dichloroethane	ND	50
1,2-Dichloropropane	ND	50
1,3,5-Trimethylbenzene	ND	50
1,3-Dichlorobenzene	ND	50
1,3-Dichloropropane	ND	50
1,4-Dichlorobenzene	ND	50
2,2-Dichloropropane	ND	50
2-Butanone (MEK)	ND	50
2-Chlorotoluene	ND	50
2-Hexanone	ND	50
2-Propanone (acetone)	ND	50
4-Chlorotoluene	ND	50
4-Methyl-2-Pentanone(MIBK)	ND	50
Acrylonitrile	ND	50
Benzene	ND	50
Bromobenzene	ND	50
Bromochloromethane	ND	50
Bromodichloromethane	ND	50
Bromoform	ND	50
Bromomethane	ND	50
c-1,3-dichloropropene	ND	50
Carbon Disulfide	ND	50
Carbon tetrachloride	ND	50
Chlorobenzene	ND	50
Chloroethane	ND	50
Chloroform	ND	50
Chloromethane	ND	50
cis-1,2-Dichloroethylene	ND	50
Dibromochloromethane	ND	50
Dibromomethane	ND	50
Dichlorodifluoromethane	ND	50
Ethyl Ether	ND	50
Ethylbenzene	ND	50
Hexachlorobutadiene	ND	50
Isopropylbenzene	ND	50
M/P Xylene	ND	100
Methylene Chloride	ND	50
Methyl-t-Butyl Ether	ND	50
Naphthalene	ND	50
N-Butylbenzene	ND	50
N-Propylbenzene	ND	50
Ortho Xylene	ND	50
Para-Isopropyltoluene	ND	50
Sec-Butylbenzene	ND	50
Styrene	ND	50
t-1,3-Dichloropropene	ND	50
Tert-Butylbenzene	ND	50
Tetrachloroethylene	ND	50
Tetrahydrofuran	ND	50
Toluene	ND	50
Trans-1,2-Dichloroethylene	ND	50
Trichloroethylene	ND	50
Trichlorofluoromethane	ND	50
Vinyl Acetate	ND	50
Vinyl Chloride	ND	50
DILUTION FACTOR	50.0	
DATE SAMPLED	9/8/2016	
DATE ANALYZED	9/14/2016	
SAMPLE WEIGHT (GRAMS)	N/A	
% SOLID	N/A	

ANALYSIS

Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, E

NOTES:

PB-02 results are reported in micrograms per liter (µg/L).

PB-01 was not analyzed.

RL = Reporting Limit.

ND = Not Detected.

N/A = Not Applicable

% = Percent

Site: 254 Old Great Road Property
Project #: 16090011
Laboratory: NERL

254 OLD GREAT ROAD
NORTH SMITHFIELD, RHODE ISLAND

ANALYTICAL RESULTS TABLE 4B
VOLATILE ORGANIC AQUEOUS ANALYSIS
SEDIMENT PRESERVATIVE BLANK SAMPLES

SAMPLE NUMBER	RO1-160907MB-0026		RO1-160907MB-0027	
SAMPLE LOCATION	PB-03		PB-04	
LABORATORY NUMBER	AB63297*		AB63298	
COMPOUND	Concentration	RL	Concentration	RL
1,1,1,2-Tetrachloroethane	ND	1.0	ND	50
1,1,1-Trichloroethane	ND	1.0	ND	50
1,1,2,2-Tetrachloroethane	ND	1.0	ND	50
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	ND	50
1,1,2-Trichloroethane	ND	1.0	ND	50
1,1-Dichloroethane	ND	1.0	ND	50
1,1-Dichloroethylene	ND	1.0	ND	50
1,1-Dichloropropene	ND	1.0	ND	50
1,2,3-Trichlorobenzene	ND	1.0	ND	50
1,2,3-Trichloropropane	ND	1.0	ND	50
1,2,4-Trichlorobenzene	ND	1.0	ND	50
1,2,4-Trimethylbenzene	ND	1.0	ND	50
1,2-Dibromo-3-Chloropropane	ND	1.0	ND	50
1,2-Dibromoethane	ND	1.0	ND	50
1,2-Dichlorobenzene	ND	1.0	ND	50
1,2-Dichloroethane	ND	1.0	ND	50
1,2-Dichloropropane	ND	1.0	ND	50
1,3,5-Trimethylbenzene	ND	1.0	ND	50
1,3-Dichlorobenzene	ND	1.0	ND	50
1,3-Dichloropropane	ND	1.0	ND	50
1,4-Dichlorobenzene	ND	1.0	ND	50
2,2-Dichloropropane	ND J	1.0	ND	50
2-Butanone (MEK)	ND	1.0	ND	50
2-Chlorotoluene	ND	1.0	ND	50
2-Hexanone	ND	1.0	ND	50
2-Propanone (acetone)	**2.4**	1.0	ND	50
4-Chlorotoluene	ND	1.0	ND	50
4-Methyl-2-Pentanone(MIBK)	**1.1 B**	1.0	ND	50
Acrylonitrile	ND	1.0	ND	50
Benzene	ND	1.0	ND	50
Bromobenzene	ND	1.0	ND	50
Bromochloromethane	ND	1.0	ND	50
Bromodichloromethane	ND	1.0	ND	50
Bromoform	ND	1.0	ND	50
Bromomethane	ND	2.0	ND	50
c-1,3-dichloropropene	ND	1.0	ND	50
Carbon Disulfide	ND	1.0	ND	50
Carbon tetrachloride	ND	1.0	ND	50
Chlorobenzene	ND	1.0	ND	50
Chloroethane	ND	1.0	ND	50
Chloroform	ND	1.0	ND	50
Chloromethane	ND	2.0	ND	50
cis-1,2-Dichloroethylene	ND	1.0	ND	50
Dibromochloromethane	ND	1.0	ND	50
Dibromomethane	ND	1.0	ND	50
Dichlorodifluoromethane	ND	2.0	ND	50
Ethyl Ether	ND	1.0	ND	50
Ethylbenzene	ND	1.0	ND	50
Hexachlorobutadiene	ND	1.0	ND	50
Isopropylbenzene	ND	1.0	ND	50
M/P Xylene	ND	2.0	ND	100
Methylene Chloride	ND	1.0	ND	50
Methyl-t-Butyl Ether	ND	1.0	ND	50
Naphthalene	ND	1.0	ND	50
N-Butylbenzene	ND	1.0	ND	50
N-Propylbenzene	ND	1.0	ND	50
Ortho Xylene	ND	1.0	ND	50
Para-Isopropyltoluene	ND	1.0	ND	50
Sec-Butylbenzene	ND	1.0	ND	50
Styrene	ND	1.0	ND	50
t-1,3-Dichloropropene	ND	1.0	ND	50
Tert-Butylbenzene	ND	1.0	ND	50
Tetrachloroethylene	ND	1.0	ND	50
Tetrahydrofuran	ND	1.0	ND	50
Toluene	ND	1.0	ND	50
Trans-1,2-Dichloroethylene	ND	1.0	ND	50
Trichloroethylene	ND	1.0	ND	50
Trichlorofluoromethane	ND	1.0	ND	50
Vinyl Acetate	ND J	1.0	ND	50
Vinyl Chloride	ND	2.0	ND	50
DILUTION FACTOR	1		50	
DATE SAMPLED	9/6/2016		9/6/2016	
DATE ANALYZED	9/9/2016		9/13/2016	
SAMPLE WEIGHT (GRAMS)	N/A		N/A	
% SOLID	N/A		N/A	

ANALYSIS

Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Water.

*Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Soil Low Level Method.

NOTES:

PB-03 results are reported in micrograms per Kilogram (µg/Kg), PB-04 results are reported in micrograms per Liter (µg/L).

RL = Reporting Limit.

ND = Not Detected.

N/A = Not Applicable

% = Percent

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.

J = Estimated value.

Site: 254 Old Great Road Property
Project #: 16090011/16090018
Laboratory: NERL

254 OLD GREAT ROAD
NORTH SMITHFIELD, RHODE ISLAND

ANALYTICAL RESULTS TABLE 4C
VOLATILE ORGANIC AQUEOUS ANALYSIS
QUALITY CONTROL SAMPLES

SAMPLE NUMBER	RO1-160907MB-0033		RO1-160907MB-0021		RO1-160907MB-0022		RO1-160907MB-0023		RO1-160907MB-0037	
SAMPLE LOCATION	TB-02		TB-03		RB-01		RB-02		RB-03	
LABORATORY NUMBER	AB63366*		AB63295		AB63359		AB63296		AB63344	
COMPOUND	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL	Concentration	RL
1,1,1,2-Tetrachloroethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1,1-Trichloroethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1,2,2-Tetrachloroethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1,2-Trichloroethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloroethylene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,1-Dichloropropene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2,3-Trichlorobenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2,3-Trichloropropane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2,4-Trichlorobenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2,4-Trimethylbenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dibromoethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dichlorobenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dichloroethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,2-Dichloropropane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,3,5-Trimethylbenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,3-Dichlorobenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,3-Dichloropropane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
1,4-Dichlorobenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
2,2-Dichloropropane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
2-Butanone (MEK)	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
2-Chlorotoluene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
2-Hexanone	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
2-Propanone (acetone)	**4.1 B**	0.5	**1.4**	1.0	ND	1.0	ND	1.0	ND	1.0
4-Chlorotoluene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
4-Methyl-2-Pentanone(MIBK)	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Acrylonitrile	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Benzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Bromobenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Bromochloromethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Bromodichloromethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Bromoform	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Bromomethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
c-1,3-dichloropropene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Carbon Disulfide	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Carbon tetrachloride	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Chlorobenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Chloroethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Chloroform	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Chloromethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
cis-1,2-Dichloroethylene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Dibromochloromethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Dibromomethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Dichlorodifluoromethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Ethyl Ether	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Ethylbenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Hexachlorobutadiene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Isopropylbenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
M/P Xylene	ND	1.0	ND	2.0	ND	2.0	ND	2.0	ND	2.0
Methylene Chloride	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Methyl-t-Butyl Ether	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Naphthalene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
N-Butylbenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
N-Propylbenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Ortho Xylene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Para-Isopropyltoluene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Sec-Butylbenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Styrene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
t-1,3-Dichloropropene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Tert-Butylbenzene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Tetrachloroethylene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Tetrahydrofuran	**0.96**	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Toluene	**1.7**	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Trans-1,2-Dichloroethylene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Trichloroethylene	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Trichlorofluoromethane	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Vinyl Acetate	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
Vinyl Chloride	ND	0.5	ND	1.0	ND	1.0	ND	1.0	ND	1.0
DILUTION FACTOR	1		1		1		1		1	
DATE SAMPLED	9/7/2016		9/6/2016		9/7/2016		9/6/2016		9/8/2016	
DATE ANALYZED	9/9/2016		9/13/2016		9/13/2016		9/13/2016		9/14/2016	
SAMPLE WEIGHT (GRAMS)	N/A		N/A		N/A		N/A		N/A	
% SOLID	N/A		N/A		N/A		N/A		N/A	

ANALYSIS

Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Water.

*Samples analyzed by U.S. EPA OEME as follows: VOCs: EPA Region I SOP, EIASOP-VOAGCMS9, VOAs in Drinking Water.

NOTES:

Results are reported in micrograms per Liter (µg/L).

Bold Result = Analyte detected.

RL = Reporting Limit

ND = Not Detected

N/A = Not Applicable

% = Percent

B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.