
**POST-TEMPORARY SOLUTION
STATUS REPORT NO. 3
FORMER GENERAL ELECTRIC FACILITY
50 FORDHAM ROAD, WILMINGTON, MA
RTN 3-0518**

Prepared for:
Lockheed Martin Corporation

Prepared by:
AECOM

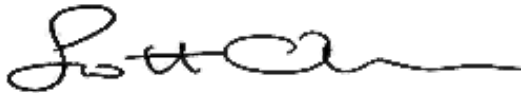
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TABLE OF CONTENTS

Section	Page
Table Of Contents	i
List of Figures	iii
List of Tables	iii
Appendices.....	iii
Acronyms and Abbreviations	iv
Section 1 Introduction	1-1
1.1 Background.....	1-1
1.2 Objective	1-3
1.3 List of Contacts	1-3
1.4 Report Organization	1-3
Section 2 Monitoring and Field Activities	2-1
2.1 Indoor Air Sampling.....	2-1
2.2 Light Non-Aqueous Phase Liquid Monitoring and Product Recovery.....	2-3
2.2.1 June 2018 Gauging Event	2-3
2.2.2 September 2018 Gauging Event	2-3
2.3 Groundwater Monitoring.....	2-3
2.4 Release Abatement Measure.....	2-4
2.5 Investigation-Derived Waste Management	2-4
Section 3 Indoor Air Sampling Results	3-5
3.1 Quality Assurance And Quality Control.....	3-5
3.2 Indoor Air Analytical Results	3-5
Section 4 Light Non-Aqueous Phase Liquid Monitoring and Product Recovery .	4-1
4.1 Light Non-Aqueous Phase Liquid Free Product Recovery	4-1
4.2 Light Non-Aqueous Phase Liquid Monitored Natural Attenuation Performance	4-1
4.2.1 Demonstration that Monitored Natural Attenuation is Occurring as Expected for Light Non-Aqueous Phase Liquid	4-1
4.2.2 Change in Conditions Affecting Light Non-Aqueous Phase Liquid Monitored Natural Attenuation.....	4-2

4.2.3	Verification That the Light Non-Aqueous Phase Liquid Plume is Not Expanding	4-2
4.2.4	Verification of the Absence of Non-Stable Light Non-Aqueous Phase Liquid.....	4-3
4.2.5	Verification of Attainment of Remedial Objectives for Light Non-Aqueous Phase Liquid	4-3
Section 5 Demonstration of Effective Institutional Controls.....		5-1
Section 6 Conditions or Problems Affecting the Remedial Action		6-1
Section 7 Future Monitoring.....		7-1
Section 8 Modifications to the Monitoring Program		8-1
Section 9 Licensed Site Professional Opinion and Conclusions		9-1
Section 10 Public Notification.....		10-1
Section 11 References		11-1

TABLE OF CONTENTS (CONTINUED)

LIST OF FIGURES

Figure 1-1	Site Location Map
Figure 1-2	Site Plan
Figure 1-3	Monitoring Well Locations
Figure 2-1	Indoor and Ambient Air Sample Locations – Buildings 1/1A, Guard Shack
Figure 2-2	Indoor Air Sample Locations – Building 1 Second Floor
Figure 4-1	Tank Farm-EPL Extent of LNAPL Impacts
Figure 4-2	CW-1 – Depth to Water versus LNAPL Thickness
Figure 4-3	CW-2 – Depth to Water versus LNAPL Thickness
Figure 4-4	PZ-2S – Depth to Water versus LNAPL Thickness
Figure 4-5	TRC-101 – Depth to Water versus LNAPL Thickness

LIST OF TABLES

Table 2-1	Summary of Historical LNAPL Gauging and Removal Results
Table 3-1	Summary of Historical Indoor and Ambient Air Analytical Results through February 2018
Table 7-1	Post-Temporary Solution Operations, Maintenance, and Monitoring Schedule

APPENDICES

Appendix A	Indoor Air Sampling Field Records
Appendix B	LNAPL Monitoring Record Field Records
Appendix C	Laboratory Analytical and Data Validation Reports – Indoor Air
Appendix D	Public Notification Documentation

ACRONYMS AND ABBREVIATIONS

AUL	Activity and Use Limitation
AECOM	AECOM Technical Services, Inc.
BOH	Board of Health
BWSC	Bureau of Waste Site Cleanup
CAM	Compendium of Analytical Methods
CHES	Clean Harbors Environmental Services, Inc.
CMO	chief municipal officer
CMR	Code of Massachusetts Regulations
COC	chemical(s) of concern
C/I	commercial/industrial
CSA	Comprehensive Site Assessment
CVOC	chlorinated volatile organic compound
1,2-DCA	1,2-dichloroethane
1,4-D	1,4-dioxane
DNAPL	dense non-aqueous phase liquid
EPH	extractable petroleum hydrocarbons
EPL	Eastern Parking Lot
°F	Fahrenheit
ft	foot/feet
GE	General Electric Company
HVAC	heating, ventilation, and air conditioning
IDW	investigation derived waste
LNAPL	light non-aqueous phase liquid
Lockheed Martin	Lockheed Martin Corporation
LSP	licensed site professional
MassDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan

Hg	mercury
µg/m ³	micrograms per cubic meter
MNA	monitored natural attenuation
No.	number
OMM	operation, maintenance, and/or monitoring
OU	operable unit
ppbv	part-per-billion by volume
ppmv	part-per-million by volume
PCE	tetrachloroethene
PID	photoionization detector
PIP	public involvement plan
PRP	potentially responsible party
RAM	release abatement measure
RAO	response action outcome
RAP	remedial action plan
RMR	remedial monitoring report
ROS	remedy operation status
RP	responsible party
RTN	release tracking number
SIM	selective ion monitoring
TCE	trichloroethene
TRC	TRC Companies, Inc.
VOC	volatile organic compound
VPH	volatile petroleum hydrocarbon
WRT	Wilmington Realty Trust

SECTION 1 INTRODUCTION

AECOM Technical Services, Inc. (AECOM) has prepared this Post-Temporary Solution Status Report Number (No.) 3 on behalf of Lockheed Martin Corporation (Lockheed Martin) in fulfillment of the requirements of Post-Temporary Solution Operation, Maintenance, and/or Monitoring (OMM) under the Massachusetts Contingency Plan (MCP), 310 Code of Massachusetts Regulations (CMR) 40.0897. This report is also being prepared in accordance with the Temporary Solution Statement (AECOM, 2017a) submitted in May 2017 for release tracking number (RTN) 3-0518, which is located at the former General Electric Company (GE) Facility, 50 Fordham Road, Wilmington, Massachusetts (site). The site location is depicted on Figure 1-1.

This report is being submitted electronically via eDEP, the electronic filing site for the Massachusetts Department of Environmental Protection (MassDEP), along with the Comprehensive Response Action Transmittal Form and Phase 1 Completion Statement (Bureau of Waste Site Cleanup [BWSC]-108) and the Remedial Monitoring Report Form, which provide additional responsible party (RP) and Licensed Site Professional (LSP) certifications.

1.1 BACKGROUND

Contamination of the Stickney Well, a currently inactive public supply well for the Town of North Reading, was discovered in the late 1970s. Subsequent investigations of multiple surrounding properties, including the GE property, began in the early 1980s. On October 9, 1987, the MassDEP classified the former GE facility as a Priority Disposal Site, prior to the adoption of the MCP in 1988. Under the MCP (MassDEP, 2014), the site is a Tier 1 Classified site, under RTN 3-0518, with four original operable units (OUs), as listed below and further defined in previous reports submitted to the MassDEP.

- OU-1—Former Tank Farm source area (includes Pump House/Vault and Oil House) and adjacent Eastern Parking Lot
- OU-2—Former Tank Farm source area and downgradient groundwater plume both on- and off-property

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- OU-3—Storm water/Wastewater Outfalls 001 and 002
 - OU-4—Former Tank K Source Area and immediately downgradient groundwater plume

Areas relating to sediment at storm water/wastewater Outfalls 001 and 002 within OU-3 have been resolved and closed via a partial Response Action Outcome (RAO, Class A-2) submitted in December 2004 by TRC Companies, Inc. (TRC) (TRC, 2004). The former Tank K area that comprised OU-4 has been resolved and closed via a partial RAO (Class A-2) dated November 9, 2010 (TRC, 2010). The remaining two areas, OU-1 (petroleum contamination in former Tank Farm and Eastern Parking Lot [EPL] areas) and OU-2 (chlorinated volatile organic compounds [CVOCs] in former Tank Farm and downgradient groundwater plume), make up RTN 3-0518. Figure 1-2 depicts an overview of the disposal site, including relevant site features, and Figure 1-3 depicts all monitoring wells located within the site boundary, and in the general vicinity of the site.

A Tier 1A Permit was in place from 1999 until a Remedy Operation Status (ROS) Opinion was filed on April 20, 2006 (TRC, 2006). Lockheed Martin and AECOM determined on February 28, 2013, that the requirements to maintain ROS were no longer being met, and therefore submitted the required ROS Termination Notice and a Tier 1 Permit Extension Application on March 27, 2013, returning the site to Phase II/Phase III status of the MCP (AECOM, 2013). On October 10, 2014, Lockheed Martin submitted a Tier Classification Extension (AECOM, 2014) that was approved by the MassDEP, extending the Tier Classification deadline to May 3, 2017. On May 2, 2017, Lockheed electronically submitted to the MassDEP the required reports including a Phase II Comprehensive Site Assessment (CSA) with a Method 3 Risk Characterization (AECOM, 2017b), a Phase III Remedial Action Plan (RAP) (AECOM, 2017c), and a Temporary Solution Statement (AECOM, 2017a). The MassDEP acknowledged receipt of the reports on May 2, 2017 via electronic stamp on the BWSC transmittal form. Currently, the site is in Temporary Solution status and, therefore, Post-Temporary Solution Status and Remedial Monitoring Reports are required to be submitted to the MassDEP every six months, by May 2 and November 2 each year, with evaluations of the Temporary Solution conducted every five years. The first Five-Year Review submittal is due May 2, 2022.

Additional details related to RTN 3-0518 (comprehensive release history, site assessment, and completed remedial activities) can be found in reports previously submitted to the MassDEP,

specifically the Phase II CSA (AECOM, 2017b), Phase III RAP (AECOM, 2017c), and Temporary Solution Statement (AECOM, 2017a).

1.2 OBJECTIVE

The objective of this Post-Temporary Solution Status Report No. 3 is to document the monitoring activities conducted at the site during the six-month reporting period of May 2 through November 1, 2018, in accordance with the OMM Plan detailed in the Temporary Solution Statement submitted to the MassDEP in May 2017.

1.3 LIST OF CONTACTS

This section identifies the potentially responsible party, the LSP-of-record, and the owner of the site.

Potentially Responsible Party:

Lockheed Martin Corporation
6801 Rockledge Drive
MP CCT246
Bethesda, MD 20817
Contact: Mr. Paul E. Calligan
Phone: (240) 687-1813

LSP-of-Record:

AECOM
250 Apollo Drive
Chelmsford, MA 01824
Contact: Mr. Daniel Folan (LSP License No. 1736)
Phone: (978) 905-2205

Current Property Owner:

Wilmington Realty Trust (WRT)
424 Broadway
Somerville, MA 02145
Contact: Mr. Gary Stanieich
Phone: (603) 860-5508

1.4 REPORT ORGANIZATION

This Post-Temporary Solution Status Report is organized as follows:

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- **Section 2**—provides a description of the type and frequency of monitoring and field activities conducted during this reporting period, including activities related to site construction and re-development.
 - **Section 3**—presents a description of the indoor air sampling activities as well as laboratory analytical results and data validation activities completed during the reporting period.
 - **Section 4**—presents a description and the results of the light non-aqueous phase liquid (LNAPL) monitoring and subsequent product recovery, a discussion of the performance of the monitored natural attenuation (MNA) relating to the LNAPL, and a discussion of the remedial objectives related to the LNAPL and the progress during the reporting period toward meeting these objectives.
 - **Section 5**—provides a description of the effective institutional controls in place at the site.
 - **Section 6**—provides a description of conditions identified during the monitoring period, which may be affecting the performance of the remedial action.
 - **Section 7**—provides a description of the schedule for future monitoring activities.
 - **Section 8**—provides a description of significant modifications made to the monitoring program.
 - **Section 9**—provides the conclusions and LSP Opinion regarding this report.
 - **Section 10**—provides a discussion of the public notification requirements for the site and copies of any required notifications.
 - **Section 11**—provides a list of references.

SECTION 2

MONITORING AND FIELD ACTIVITIES

The Post-Temporary Solution OMM Program continued during this reporting period in accordance with the monitoring plan presented in the Temporary Solution Statement submitted to the MassDEP on May 2, 2017 and the updated post-Temporary Solution OMM annual groundwater monitoring plan submitted to MassDEP on September 6, 2018. The activities completed as part of the OMM Program during this reporting period (May 2 through November 1, 2018) are discussed below.

2.1 INDOOR AIR SAMPLING

In accordance with the OMM Program, AECOM performed annual indoor air monitoring during the heating season in February 2018. The United Parcel Service (UPS) began occupation of Building 1, under a lease with WRT, in October 2017, and conducted seasonal operations from October to December 2017. UPS was not present and their operations were dormant during the indoor air sampling on February 7, 2018.

Meteorological data from a personal weather station (KMAWILMI8) located three miles to the southwest in Wilmington, Massachusetts were obtained online from www.weatherunderground.com. On February 7, 2018, the ambient temperature ranged from a low of 16.3 Fahrenheit (°F) to a daytime high of 33°F. Building 1 indoor air temperatures ranged from 54.5 to 61°F on the first floor and from 55 to 59°F on the second floor. The heating, ventilation, and air conditioning (HVAC) units were operational in Building 1 during the sampling event. The units were preset by UPS to certain temperatures to maintain cool conditions while UPS is not actively present in the building. As a result, the heating units kicked on/off occasionally but were not continually running during the February 7, 2018 sampling event.

Barometric pressure readings taken onsite within Building 1 ranged from 29.85-30.18 inches mercury (Hg), with one outdoor pressure reading noted of 30.21 inches Hg. Barometric pressure readings from the Weather Underground station steadily dropped throughout the day on February 7, 2018 from 30.54-29.97 inches Hg.

Prior to and during the sample collection, on January 24 and February 7, 2018, AECOM completed an indoor air quality building survey per WSC #16-435 Vapor Intrusion Guidance dated October 14, 2016 (MassDEP, 2016a). The purpose of the survey is to document general building information such as construction, structural integrity, utility, materials storage, operations, and occupancy information that could be relevant to the indoor air sampling event. The survey was completed based on visual inspection of the building and information contained in prior survey forms. A copy of the completed survey is included in Appendix A.

Indoor air screening for volatile organic compounds (VOCs) was conducted with a photoionization detector (PID) (ppbRAE® 3000 with 10.6 eV lamp) on February 7, 2018, concurrent with the sample collection. The PID readings were recorded at each of the indoor air sample locations, at holes, drains, trenches, or cracks in the floor, and near the materials that could potentially be sources of VOCs. The readings at the indoor air sample locations ranged from 83 to 112 part-per-billion by volume (ppbv) with a 31 ppbv reading at the ambient (outdoor) air sample location. PID readings observed walking throughout Building 1 ranged from 54 to 116 ppbv on the first floor and from 105 to 111 ppbv on the second floor, all less than 1 part-per-million by volume (ppmv). These PID readings are all similar to past PID screenings within Building 1.

The February 7, 2018 indoor air sampling event consisted of the collection of air samples from six indoor sampling locations within Building 1, five locations on the first floor (IA-2, IA-3, IA-4, IA-7, and IA-8) and one location (IA-9) from the second floor. All indoor air samples were co-located, within approximately 10 to 20 feet, with the prior indoor sample locations collected from 2009 - 2016. One field duplicate sample was collected at location IA-8 by collecting two canisters concurrently immediately adjacent to each other.

One ambient background air sample (18A-AA1-1) was collected outside the southern end of Building 1 during the same period as the indoor air samples. The ambient air sample location south of Building 1 under the awning was selected to shield the canister from snow that was falling on February 7, 2018. All sample locations are shown in Figures 2-1 and 2-2. The field records, including indoor air sampling records and photographs are provided in Appendix A.

All samples were collected into 6-liter, batch-certified SUMMA canisters using eight-hour calibrated regulators set by the laboratory. The SUMMA canisters were submitted to Alpha Analytical, located in Mansfield, Massachusetts under chain-of-custody within 24 hours of

sampling. All samples were analyzed for MCP volatile organics in air via Method TO-15 with selective ion monitoring (SIM). Analytical results are discussed in Section 3 of this document.

2.2 LIGHT NON-AQUEOUS PHASE LIQUID MONITORING AND PRODUCT RECOVERY

In accordance with the OMM Program, AECOM conducted quarterly LNAPL monitoring and product recovery from select monitoring wells in June and September 2018. These gauging events are summarized below. Monitoring wells gauged during the reporting period are depicted on Figure 1-3, and Table 2-1 includes a summary of historical LNAPL gauging and removal data. A copy of the field records completed during the LNAPL gauging events are included in Appendix B. An evaluation of the LNAPL monitoring results is presented in Section 4.

2.2.1 June 2018 Gauging Event

On June 14, 2018, AECOM gauged seven overburden monitoring wells for the depth to groundwater and for the presence of LNAPL: AE-3, AE-4, CW-1, CW-2, GZA-102S, PZ-2S, and TRC-101. None of the wells had an absorbent sock at the time of gauging. LNAPL was not detected in any of the monitoring wells gauged. Sheen was observed on top of the water within the eight-inch diameter monitoring wells CW-1 and CW-2. AECOM deployed a bailer in monitoring well CW-2 to confirm the lack of measurable LNAPL in the well. Based on the lack of measurable LNAPL, AECOM did not deploy any absorbent socks in CW-1 or CW-2.

2.2.2 September 2018 Gauging Event

On September 17, 2018, AECOM gauged seven overburden monitoring wells for the depth to groundwater and for the presence of LNAPL: AE-3, AE-4, CW-1, CW-2, GZA-102S, PZ-2S, and TRC-101. None of the wells had an absorbent sock at the time of gauging. LNAPL was not detected in any of the monitoring wells gauged. Based on the lack of measurable LNAPL, AECOM did not deploy any absorbent socks in CW-1 or CW-2.

2.3 GROUNDWATER MONITORING

In accordance with the OMM Program, annual groundwater monitoring was conducted in September – October 2018. On September 6, 2018, Lockheed Martin submitted the updated post-Temporary Solution OMM annual groundwater monitoring plan to the MassDEP. The groundwater analytical results from the annual 2018 sampling have been received and are

currently being evaluated. Details of the 2018 annual groundwater monitoring event along with a summary of the analytical results will be included in the next Temporary Solution Status Report, scheduled to be submitted to the MassDEP in May 2019.

2.4 RELEASE ABATEMENT MEASURE

Site redevelopment and construction were initiated during previous monitoring periods by the property owner (WRT) to prepare for new tenants moving into Building 1. These activities were completed during this monitoring period in June 2018. Excavation, management and relocation of soils within the disposal site were conducted under a Release Abatement Measure (RAM) Plan submitted to the MassDEP on July 3, 2017. Monitoring of these activities was required as specified in the RAM Plan and discussed in RAM Status Report No. 1 submitted to the MassDEP on October 31, 2017, in RAM Status Report No. 2 submitted to the MassDEP on April 27, 2018, and in the RAM Completion Report submitted to the MassDEP on August 6, 2018.

2.5 INVESTIGATION-DERIVED WASTE MANAGEMENT

During the groundwater monitoring event completed in October 2018, six 55-gallon drums of purge water and decontamination rinse water were generated. AECOM properly containerized the investigation-derived waste (IDW) and is temporarily storing the containers at a central staging area on-site. In October 2018, AECOM characterized the IDW in accordance with Lockheed Martin procedures and has subcontracted Clean Harbors Environmental Services (CHES) to transport and dispose the purge water IDW at a Lockheed Martin approved facility in early November. Copies of the waste manifests will be included in Post-Temporary Solution Status Report No. 4 in May 2019.

SECTION 3

INDOOR AIR SAMPLING RESULTS

Table 3-1 presents a summary of the historical laboratory analytical results for each of the air sample locations. A copy of the Alpha Analytical Laboratory data package from the February 2018 sampling event is included as Appendix C. Results from the February 2018 air sampling event are summarized below.

3.1 QUALITY ASSURANCE AND QUALITY CONTROL

The quality of the analytical data from the February 7, 2018 sampling event is acceptable for decision-making purposes. All sampling canisters were batch-certified by the laboratory prior to sampling. There was good precision in the data based on the close agreement of the parent and duplicate samples from IA-8, as observed in Table 3-1. The VOC data were validated and are discussed in detail in the data validation summary memorandum included in Appendix C. The chemical data appeared valid as reported. Data were evaluated and all were accepted without qualification as noted in the data validation memorandum. All results were in compliance with the applicable MassDEP Compendium of Analytical Methods (CAM) performance standards listed in Policy WSC-02-320 (MassDEP, 2010).

3.2 INDOOR AIR ANALYTICAL RESULTS

The ambient air analytical results obtained outside the building indicated that a number of VOC compounds were detected at low concentrations; however, none were above the MassDEP Commercial/Industrial (C/I) Threshold Values (*Vapor Intrusion Guidance WSC#16-435*, October 14, 2016).

The indoor air analytical results indicated that a number of solvent and petroleum-related VOCs of concern were detected at low concentrations, above laboratory method detection limits (MDLs). The detected compounds in Building 1 are consistent with compounds detected in previous indoor air sampling events from 2009 to 2017. The detected concentrations of these compounds in February 2018 are fairly consistent for each sampling location. In past sampling events, the detected concentrations at location IA-8 were typically the highest concentrations in Building 1. In

2018 the concentrations detected in most of the other indoor air samples are similar to the concentrations detected in IA-8, with the exception of trichloroethene (TCE) and tetrachloroethene (PCE) which are still highest at IA-8.

The concentrations detected in indoor air at locations in Building 1 were compared to the MassDEP C/I Threshold Values, as shown in Table 3-1. All concentrations in Building 1 were below their respective C/I Threshold Values with the exception of 1,2-dichloroethane (1,2-DCA), which exceeds the C/I Threshold Value (0.44 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$]) in one sample at location IA-4 (1.07 $\mu\text{g}/\text{m}^3$).

This compound, 1,2-DCA, had never been detected within indoor air samples in Building 1 from 2009 – 2017, nor within sub-slab vapor samples collected beneath Building 1 from 2009 – 2013, nor in over 1,000 groundwater samples collected from the site over twenty-five years. This compound was detected in all February 2018 samples within Building 1 as well as samples IA-11 through IA-14 from Building 1A in April and June 2017. Concentrations of 1,2-DCA measured within Building 1A in April and June 2017 were higher than concentrations measured in Building 1 in February 2018.

It is AECOM's opinion that the presence of 1,2-DCA is not attributable to a subsurface source beneath the building, as no groundwater or sub-slab vapor samples ever obtained at the site contained this compound. The compound 1,2-DCA is likely attributable to indoor source(s) associated with the tenant operations in Buildings 1 and 1A. The compound, 1,2-DCA, may be present in fuels and exhaust from tenant's trucks that periodically drive in and out of, and park within Building 1, and/or from molded plastic and other materials used by tenants in Building 1A. The presence of 1,2-DCA in indoor air above the C/I Threshold does not constitute a substantial release migration (SRM), nor does it indicate that a critical exposure pathway (CEP) exists as defined in the MCP (40.0006) because the site is not currently used as a school, daycare or child care center, or as an occupied residential dwelling, and the source is not present in the subsurface.

The Threshold Values were developed by MassDEP as a screening tool to evaluate whether VOC concentrations in indoor air may be related to the vapor intrusion pathway. Therefore, AECOM conducted a screening level risk evaluation using the MassDEP Imminent Hazard (IH) eShort form for potential indoor air exposures (<https://www.mass.gov/lists/risk-assessment-information#shortforms:-method-3-human-health-risk-assessment>). While not a formal IH

evaluation as per 40.0950, the screening results show that the 1,2-DCA indoor air concentrations from 2017 and 2018 are well below both the long-term risk limits and the IH limits. The short form assumes a 5-year exposure for the most sensitive receptors (office and school workers, pregnant women, small children, etc.).

Based on the above, and over 20 years of site data and investigation, 1,2-DCA is not considered a chemical of concern (COC) at the site.

SECTION 4

LIGHT NON-AQUEOUS PHASE LIQUID MONITORING AND PRODUCT RECOVERY

4.1 LIGHT NON-AQUEOUS PHASE LIQUID FREE PRODUCT RECOVERY

AECOM performs LNAPL free product recovery intermittently as detailed in the Temporary Solution Statement. AECOM did not deploy any absorbent socks this monitoring period, as a measurable thickness of LNAPL was not detected in any monitoring wells gauged during the monitoring events completed in June and September 2018.

4.2 LIGHT NON-AQUEOUS PHASE LIQUID MONITORED NATURAL ATTENUATION PERFORMANCE

The sections below include details related to the presence of LNAPL at the site and the MNA of site LNAPL.

4.2.1 Demonstration that Monitored Natural Attenuation is Occurring as Expected for Light Non-Aqueous Phase Liquid

During this reporting period, LNAPL was not detected at a measurable thickness in any monitoring wells when gauged. This decrease in measurable LNAPL is consistent with seasonal fluctuations observed since 2010, and the thicknesses and frequency of LNAPL detections have decreased overall. The presence of LNAPL over the past 10 years has been limited to wells CW-1 and CW-2 with occasional sheen in well PZ-2S. Wells CW-1 and CW-2 are shallow wells installed within a former excavation immediately downgradient of where the bedrock surface dips to the east beneath the EPL. The presence of LNAPL in these wells typically results when increases in the depth to groundwater allow small amounts of residual LNAPL to weep from bedrock into the wells. Table 2-1 includes a summary of the historical LNAPL measurements, and Figure 4-1 depicts the reduction of the LNAPL plume on-site from 1992 to the present.

Although the very limited LNAPL plume size has not changed significantly in some time, it continues to generate a dissolved plume of petroleum hydrocarbons. These extractable petroleum

hydrocarbon (EPH) and volatile petroleum hydrocarbon (VPH) fraction concentrations can become meaningful indicators of natural source-zone depletion. Long-term changes in these concentrations will be monitored in wells adjacent to the LNAPL plume to determine the effect MNA has on the plume. This monitoring may include additional parameters in the future.

4.2.2 Change in Conditions Affecting Light Non-Aqueous Phase Liquid Monitored Natural Attenuation

During this reporting period, there have been no changes in conditions affecting LNAPL MNA. As shown in Figures 4-2 through 4-5, detectable LNAPL thicknesses generally coincide with increased depth to groundwater. The depths to water measured in monitoring wells during this reporting period are similar to past periods when little to no measurable LNAPL was detected.

4.2.3 Verification That the Light Non-Aqueous Phase Liquid Plume is Not Expanding

Response actions have previously been performed to assess LNAPL mobility and to meet the requirements of 310 CMR 40.1003(7)(b). Based on the extensive measurement and evaluation of the LNAPL present at the site, it is apparent that the LNAPL is stable, as defined at 310 CMR 40.0006. The LNAPL footprint is not expanding as shown in Figure 4-1, nor is LNAPL migrating through any subsurface strata or discharging to a surface water body, structure or utility. The extent of LNAPL has been well defined and measured regularly, with successful product removal via three former recovery wells operating between 1992 and 2002 and through subsequent manual and passive measures from 1999-2018. LNAPL at the site has micro-scale mobility, as it continues to be observed in small amounts intermittently in wells CW-1 and CW-2 when the water table is depressed sufficiently for residual LNAPL to weep from bedrock into soil.

Graphs of the depth to groundwater compared to LNAPL thickness over time in wells CW-1, CW-2, PZ-2S, and TRC-201, are presented in Figures 4-2 through 4-5. These graphs show that, in general, greater LNAPL thickness tends to coincide with increased depth to groundwater. The amount of LNAPL recoverable during periods of low water levels has decreased over time due to the LNAPL removal efforts. As a result, LNAPL removal via passive measures is currently minimal. The lack of LNAPL in monitoring wells TRC-101, AE-03, AE-04, PZ-2S, and GZA-102S bounds the area around CW-1 and CW-2, where LNAPL is still periodically detected.

4.2.4 Verification of the Absence of Non-Stable Light Non-Aqueous Phase Liquid

Since December 2010, well CW-1 has had little evidence of LNAPL while CW-2 generally exhibits a sheen. Both wells have had periodic measurable LNAPL thickness generally ranging from 0.01 to 0.03 feet (ft), with the thickest measurements of 0.12 ft in CW-1 observed in September 2016 and 0.08 ft in CW-2 in September 2015. The two thickest measurements were taken when the groundwater was the lowest observed on-site in over 10 years. LNAPL has not been detected in TRC-101 since 2002. LNAPL has not been detected in wells AE-03 or AE-04 since their installation in 2012. It is apparent that the LNAPL remaining at the site is limited, stable and only has micro-scale mobility at most, based on the behavior of the LNAPL in the wells.

4.2.5 Verification of Attainment of Remedial Objectives for Light Non-Aqueous Phase Liquid

The remedial objectives for LNAPL—continued monitoring and passive recovery (when possible) - as detailed below and in the Temporary Solution Statement submitted to the MassDEP in May 2017, are being attained. Given the intermittent presence of LNAPL in monitoring wells in the EPL area and the limited recoverability of LNAPL (approximately 2.81 gallons removed between December 2010 and September 2018) it has been demonstrated, in accordance with the MassDEP LNAPL Guidance (MassDEP, 2016b), that active LNAPL recovery is no longer feasible. However, based on recent gauging data, LNAPL with micro-scale mobility remains within the area adjacent to the former Tank Farm and EPL.

A remedial alternative evaluation was presented as Table 5-1 of the Phase III RAP (AECOM, 2017c) relating to residual petroleum contaminants at the aquifer capillary fringe in the former Tank Farm and EPL areas, where free product with micro-scale mobility has been observed. Continued monitoring of natural attenuation processes and passive recovery of product, if possible, was selected as the alternative for LNAPL present in these areas. These areas have been shown to have low levels of VOCs in groundwater and soils, but contain VPH, particularly the C9-C10 aromatic fraction, above standards, in addition to free-phase LNAPL with micro-scale mobility.

The selected remedial alternative, which entails monitoring and passive removal of LNAPL (if present), is being performed, and appears to be proceeding toward attainment of the remedial objectives for LNAPL.

SECTION 5

DEMONSTRATION OF EFFECTIVE INSTITUTIONAL CONTROLS

The Temporary Solution for the site includes the implementation of an activity and use limitation (AUL) to eliminate the potential for future residential indoor air exposure/risk, contact with residual soil contamination, and potential contact with residual LNAPL.

On July 13, 2015, WRT placed an AUL on the portion of the site owned by WRT, encompassing Buildings 1, 1A, and 2. This AUL was established to prevent uses of the former GE property that would be inconsistent with maintaining a condition of No Substantial Hazard under the MCP. These prohibited uses include the following:

- Residential, school, playground, park or daycare use
- Activities that would result in exposure to or the disturbance of potentially contaminated soils, bedrock, groundwater, and indoor air, unless appropriate precautions to prevent human exposure are taken, as described in the AUL

In addition, the AUL imposes certain obligations and conditions to maintain a condition of No Substantial Hazard, including maintenance of concrete floors, management of any excavated soil and/or bedrock under Soil Management Procedures set forth in 310 CMR 40.0030, and appropriate management of any groundwater removed during dewatering activities. Lastly, any activities, which could result in exposure to or disturbance of soil, bedrock, or groundwater, must be conducted in accordance with some or all of the following, as determined by a LSP:

- the performance standards for RAMs set forth by the MCP at 310 CMR 40.0440 (MassDEP, 2014)
- the soil management procedures pursuant to 310 CMR 40.0030, the Similar Soils Provisions Guidance (WSC# 13-500; MassDEP, 2014)
- Construction of Buildings in Contaminated Areas (Policy WSC# 00 425; MassDEP, 2000a)
- applicable health and safety procedures outlined in 310 CMR 40.0018

The objectives of the AUL are being met and the institutional controls in place at the site are effectively maintaining a condition of No Substantial Hazard.

SECTION 6

CONDITIONS OR PROBLEMS AFFECTING THE REMEDIAL ACTION

No conditions or problems were identified during this reporting period that may have the potential to affect the remedial action.

SECTION 7 FUTURE MONITORING

The Post-Temporary Solution OMM Plan will continue to be implemented according to the schedule presented in Table 7-1, which includes activities described below to be completed up to submittal of the first five-year review of the Temporary Solution.

- Annual indoor air monitoring of pertinent on-site buildings during the heating season (typically in February) to monitor indoor air conditions. During this event, indoor air samples will be collected from approximately 7 to 10 locations in Building 1/1A. Samples will be collected following procedures contained in the MassDEP Vapor Intrusion Guidance Policy #WSC-16-435 dated October 14, 2016 (MassDEP, 2016a). One ambient air sample will be collected during each annual event. Samples will be analyzed for VOCs via TO-15 SIM including Freon-113. Meteorological data will be obtained from a weather station within a few miles of the site. The results of each indoor air-sampling event will be presented in the November status report each year. The next indoor air-sampling event is scheduled to take place in February 2019.
- Quarterly LNAPL gauging of seven monitoring wells (i.e., AE-03, AE-04, CW-1, CW-2, GZA-102S, PZ-2S, and TRC-101) located in the western portion of the EPL to monitor the presence/absence of LNAPL in this area. In the event that LNAPL thickness of greater than 0.1 ft is detected in a well, an absorbent sock will be deployed to absorb the LNAPL for subsequent disposal. Gauging events will be conducted in March, June, September, and December, annually, with the December and March results presented in May, and the June and September results presented in November. The next quarterly LNAPL gauging event is scheduled to take place in December 2018. The remedial alternative selected for LNAPL is MNA. To monitor the progress of LNAPL behavior more specifically, the dissolved phase petroleum hydrocarbon “halo” surrounding the LNAPL area will be evaluated over time. This will provide a leading indicator of the potential dissolution of LNAPL and subsequent natural degradation of the associated dissolved phase plume.
- Annual groundwater sampling of select monitoring wells for analysis of site chemicals of concern (i.e., CVOCs, 1,4-dioxane [1,4-D], petroleum hydrocarbons, and arsenic) and relevant MNA parameters in overburden and bedrock groundwater. Each groundwater sampling event will include a site-wide water level measurement round. The next annual groundwater sampling event will be conducted in September-October 2019.
- Submittal of semiannual Post-Temporary Solution Status and Remedial Monitoring Reports. The next semiannual report is due to the MassDEP in May 2019.

-
- Submittal of a periodic review of site conditions every five years to evaluate new technologies and their potential to achieve a Permanent Solution. The next five-year review of the Temporary Solution is due to the MassDEP in May 2022.

SECTION 8

MODIFICATIONS TO THE MONITORING PROGRAM

Two modifications to the monitoring program were made during this monitoring period. The first modification included minor changes to the indoor air sample locations within Building 1 based on renovations to the building. The second modification included implementation of an updated OMM groundwater monitoring plan as communicated to the MassDEP in a letter submitted September 6, 2018. The updated OMM groundwater monitoring plan was performed during the fall 2018 monitoring event.

SECTION 9 LICENSED SITE PROFESSIONAL OPINION AND CONCLUSIONS

Comprehensive Response Actions at the site are limited to active remedial monitoring that includes MNA under Post-Temporary Solution status. It is AECOM's opinion that the performance standards outlined in 310 CMR 40.0897, and as presented in the Temporary Solution Statement submitted to the MassDEP by AECOM in May 2017, are being accomplished. Based upon indoor air data collected to date, a Critical Exposure Pathway (CEP) or Imminent Hazard does not exist within Buildings 1 and 1A. Based upon LNAPL gauging data collected during this reporting period, the existing LNAPL has micro-scale mobility (can flow into a well); however, the LNAPL is stable and not expanding.

The seal and signature of the LSP who prepared this Post-Temporary Solution Status Report No. 3 are contained on the applicable MassDEP BWSC transmittal forms (BWSC-108) submitted via eDEP.

SECTION 10 PUBLIC NOTIFICATION

The former GE facility is part of a joint Public Involvement Plan (PIP) with other potentially responsible parties (PRPs) that was prepared in 2000 by the MassDEP. Because the site is a PIP site, additional regulatory requirements above the minimum requirements of the MCP apply.

During the Post-Temporary Solution period, Post-Temporary Solution Status Reports are required by the MCP to be submitted every six months to the MassDEP. In accordance with the November 17, 2000 PIP (MassDEP, 2000b), these Status Reports are also required to be provided to the designated information repository established in the PIP (Flint Memorial Library, Town of North Reading). All members of the PIP mailing list, including the Chief Municipal Officer (CMO) and Board of Health (BOH) agent for the towns of Reading, North Reading, and Wilmington, were notified of the availability of this report by mail. A copy of the letter sent to the PIP mailing list concerning the availability of documents in the repository, as required under the PIP (MassDEP, 2000b) was included in the initial Post-Temporary Solution Status Report, submitted to the MassDEP in November 2017. This PIP notice informed the mailing list of the availability of semi-annual Post-Temporary Solution Status Reports every six months from November 2017 through May 2022.

Prior to indoor air sampling activities completed during this reporting period and after receipt of associated laboratory analytical results, AECOM sent notification using MassDEP Form BWSC-123 to the property owner listed below:

- Wilmington Realty Trust (WRT) – 40-50 Fordham Road

Appendix D includes copies of the BWSC forms and related notifications sent to property owners documenting the prior notification of the sampling event and the presentation of the analytical results resulting from that sampling event, as required by the MCP.

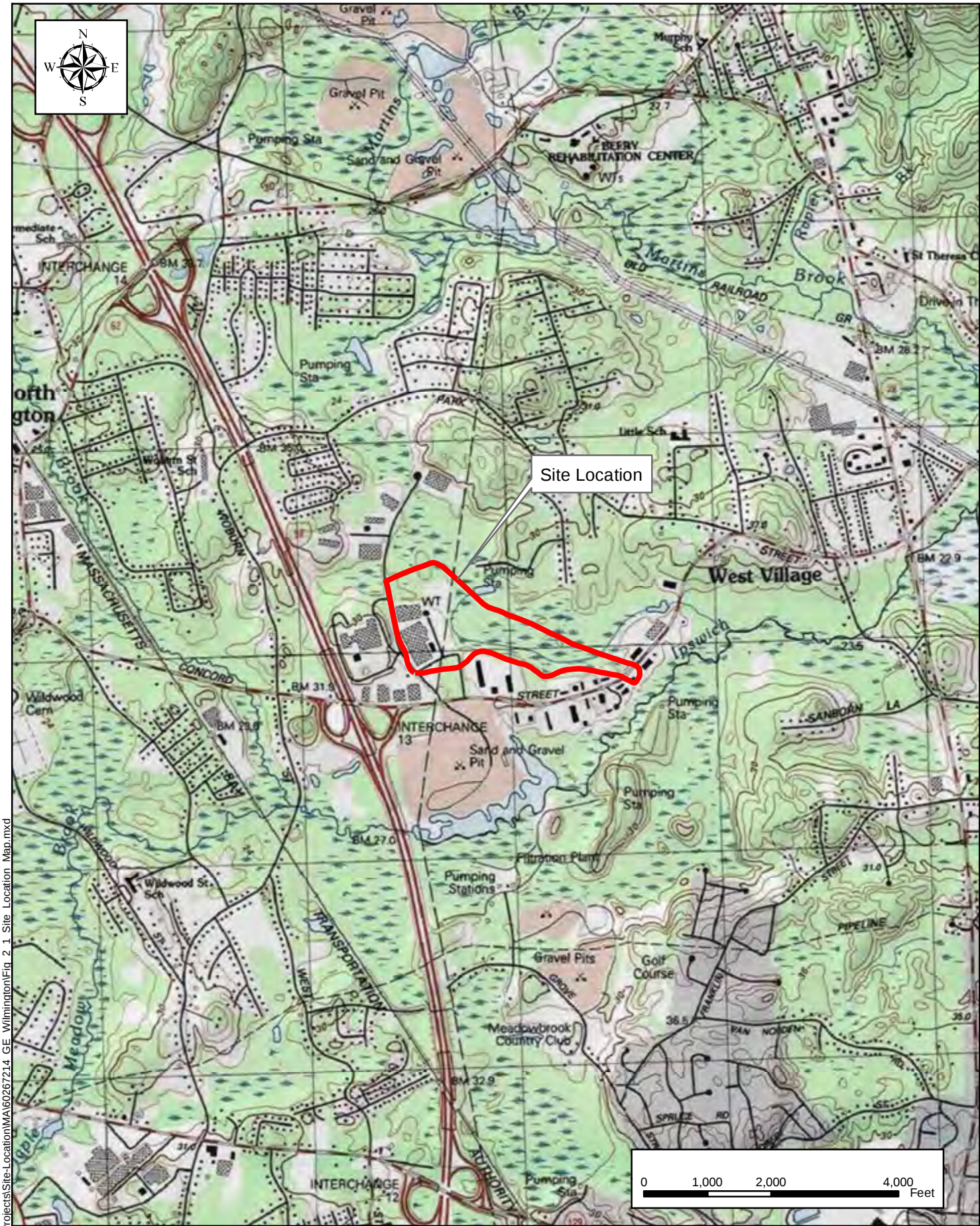
Appendix D also includes a Notice of Availability of the Post-Temporary Solution Updated OMM Groundwater Monitoring Plan submitted to the MassDEP and placed in the PIP document repository on September 6, 2018.

SECTION 11 REFERENCES

- AECOM Technical Services, Inc. (AECOM) 2013. Remedy Operation Status Report, ROS Termination, and Tier 1A Permit Extension, Former General Electric Site, 50 Fordham Road, Wilmington, MA. March 2013.
- _____, 2014. Tier Classification Extension Supporting Documentation, Former General Electric Site, 50 Fordham Road, Wilmington, MA, RTN 3-0518, October 10, 2014.
- _____, 2017a. Draft Temporary Solution Statement, Former General Electric Facility, 50 Fordham Road, Wilmington, MA, RTN 3-0518. May 2017.
- _____, 2017b. Draft MCP Phase II Comprehensive Site Assessment, Former General Electric Facility, 50 Fordham Road, Wilmington, MA, RTN 3-0518. May 2017.
- _____, 2017c. Draft Phase III Remedial Action Plan, Former General Electric Facility, 50 Fordham Road, Wilmington, MA, RTN 3-0518. May 2017.
- Massachusetts Department of Environmental Protection (MassDEP), 2000a. Construction of Buildings in Contaminated Areas, Policy WSC# 00 425; MassDEP, 2000a).
- _____, 2000b. Public Involvement Plan, MSM Industries, Former Sterling Supply Corporation Disposal Site, Roadway Express Disposal Site, Former General Electric Disposal Site, Wilmington and North Reading, Massachusetts. November 2000.
- _____, 2010. The Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods Used in Support of Response Actions for the Massachusetts Contingency Plan (MCP), WSC-02-320. July 1, 2010.
- _____, 2014. Massachusetts Contingency Plan, 310 CMR 40.0000, December 31, 2007, Amended April 25, 2014 and June 20, 2014.
- _____, 2016a. Vapor Intrusion Guidance: Site Assessment, Mitigation and Closure, Policy #WSC-16-435. October 14, 2016.
- _____, 2016b. Light Non-Aqueous Phase Liquids (LNAPL) and the MCP: Guidance for Site Assessment and Closure, Policy #WSC-16-450. February 19, 2016.
- TRC, 2004. Phase IV As-Built and Final Inspection Report and Partial Response Action Outcome Statement (RAO) - Wetlands, Former GE Facility (RTN# 3-0518), Wilmington, Massachusetts. December 2004.
- _____, 2006. Remedy Operation Status Opinion, Former GE Facility, RTN#3-0518, Wilmington, Massachusetts. April 20, 2006.

_____, 2010. Partial Response Action Outcome, Tank K Area, Former GE Facility (RTN 3-0518), Wilmington, Massachusetts. November 2010.

FIGURES



AECOM

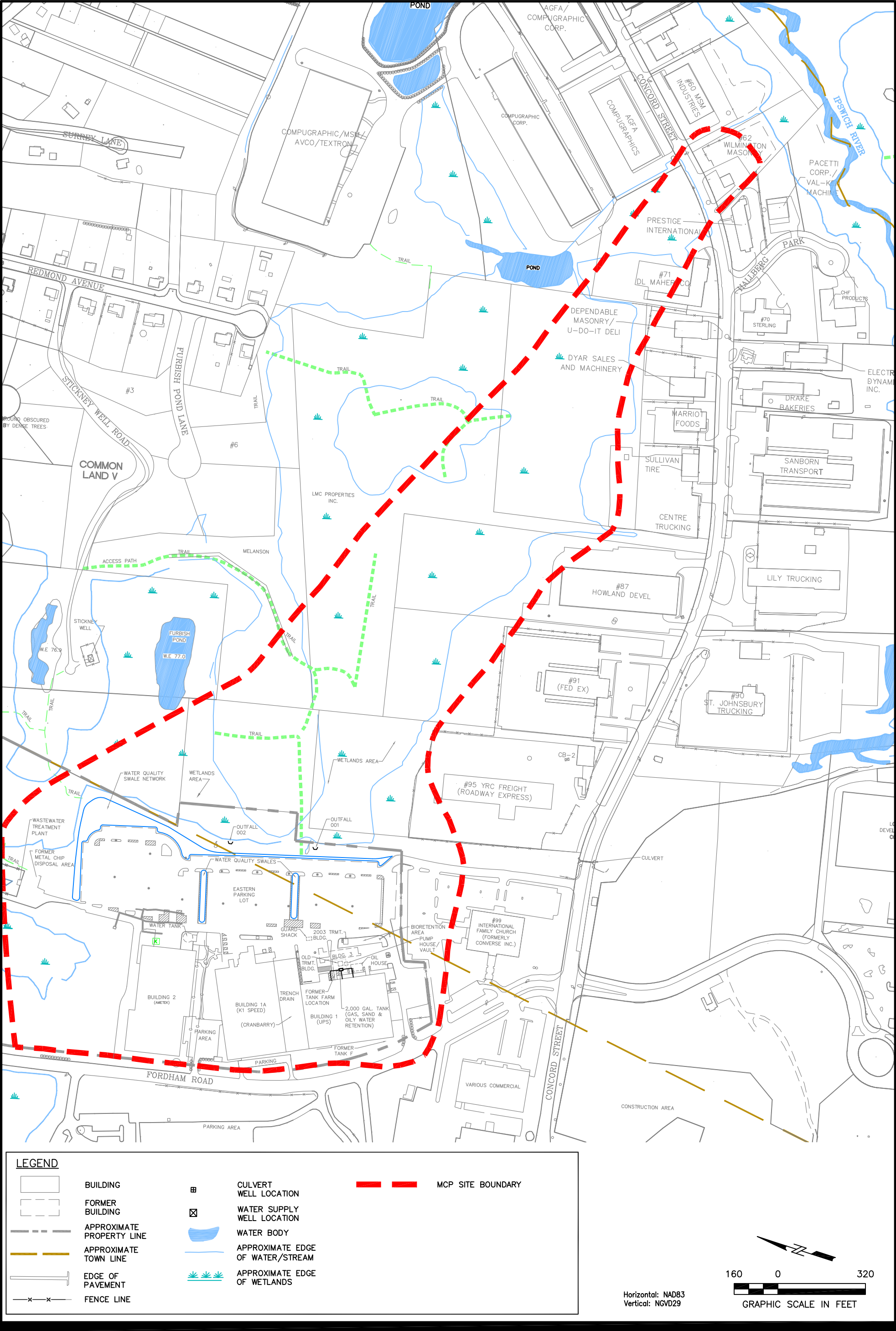
Former GE Facility
50 Fordham Road, Wilmington, MA

SITE LOCATION MAP

DATE: 10/10/2017

PROJECT: 60552044

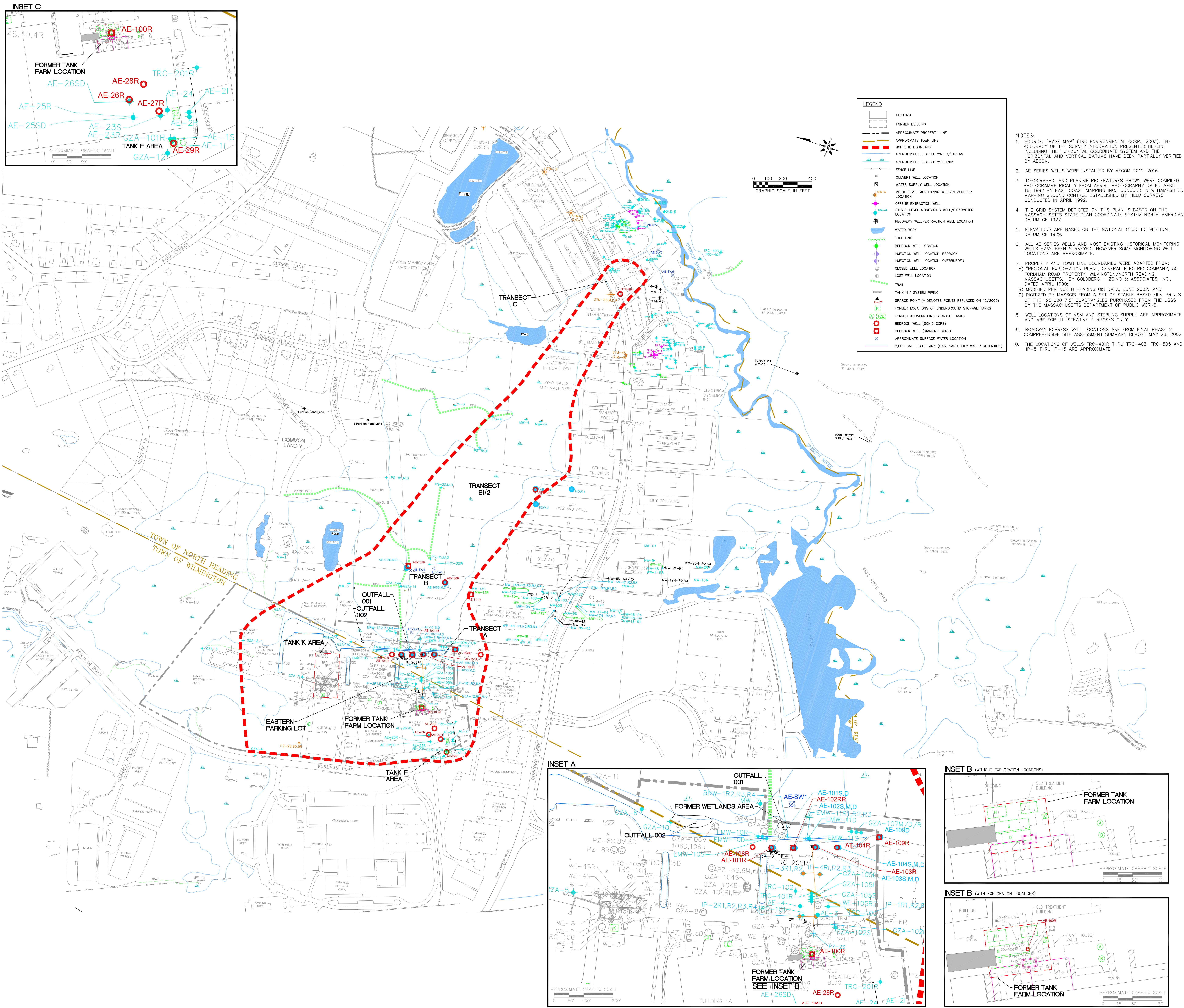
FIGURE: 1-1



Former GE Facility - 50 Fordham Rd, Wilmington, MA
Lockheed Martin Corporation

SITE PLAN

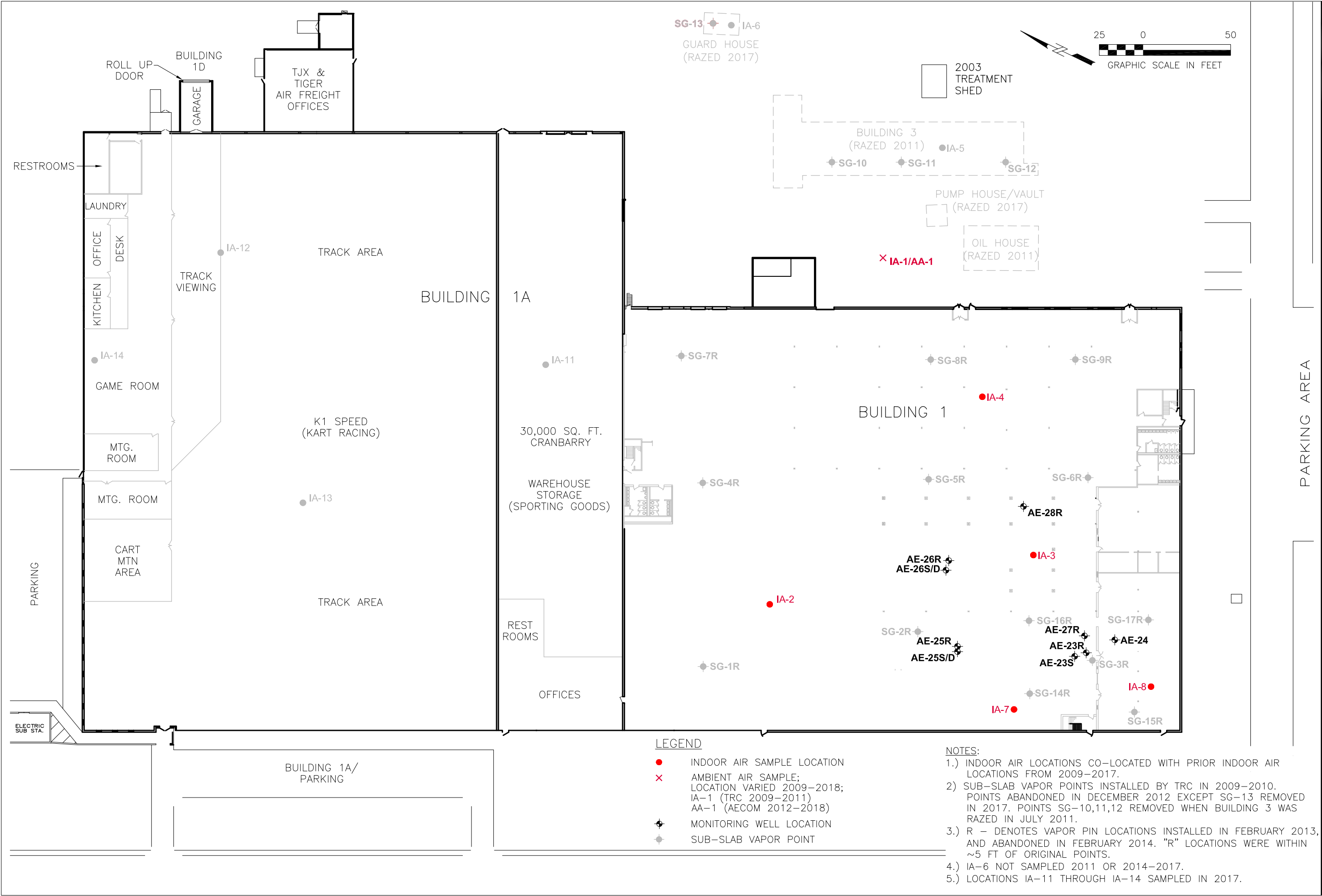


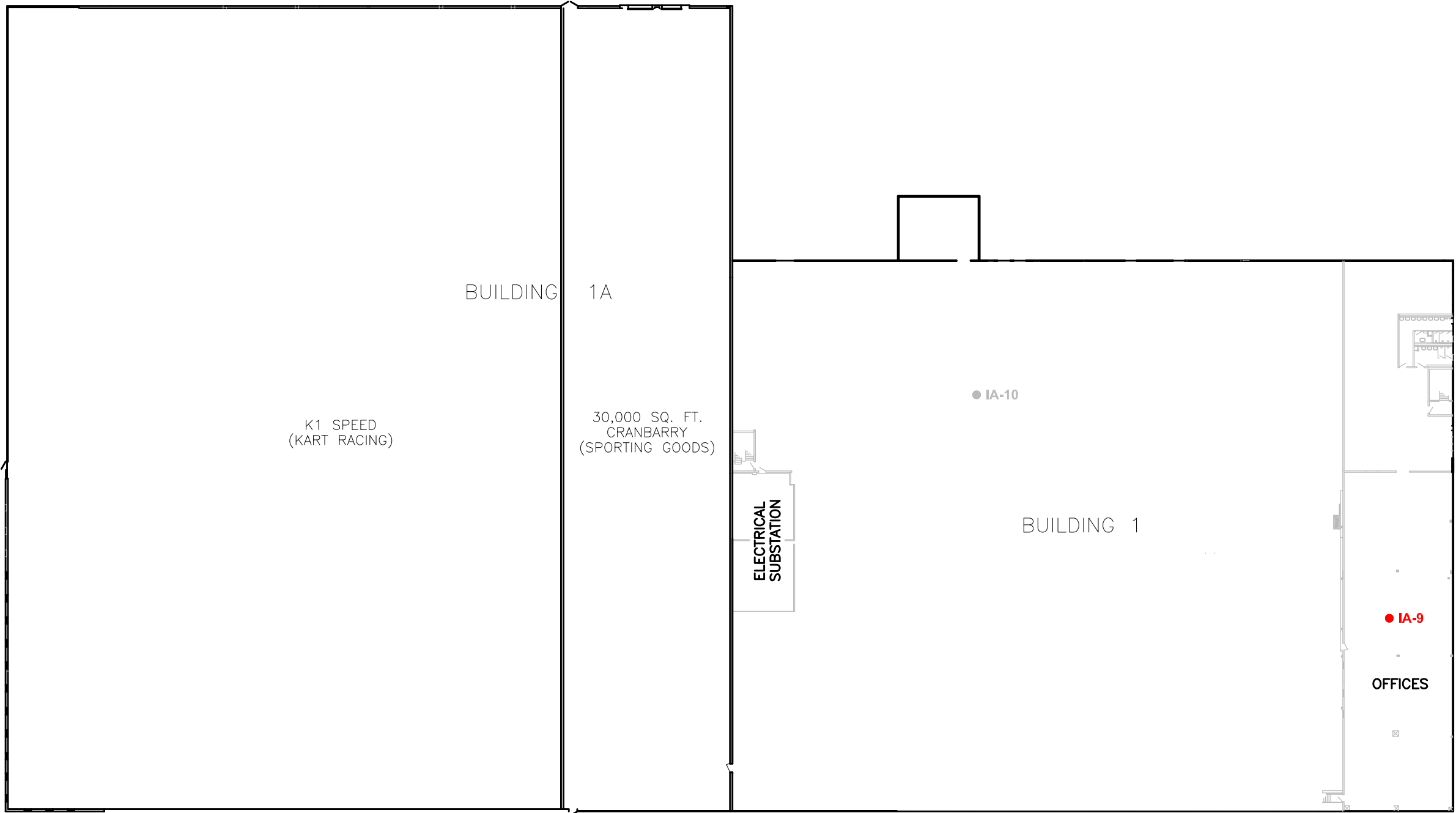


MONITORING WELL LOCATIONS

Former GE Facility - 50 Fordham Rd, Wilmington, MA

Lockheed Martin Corporation



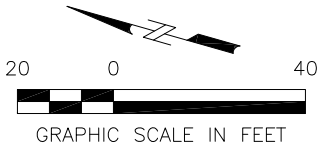
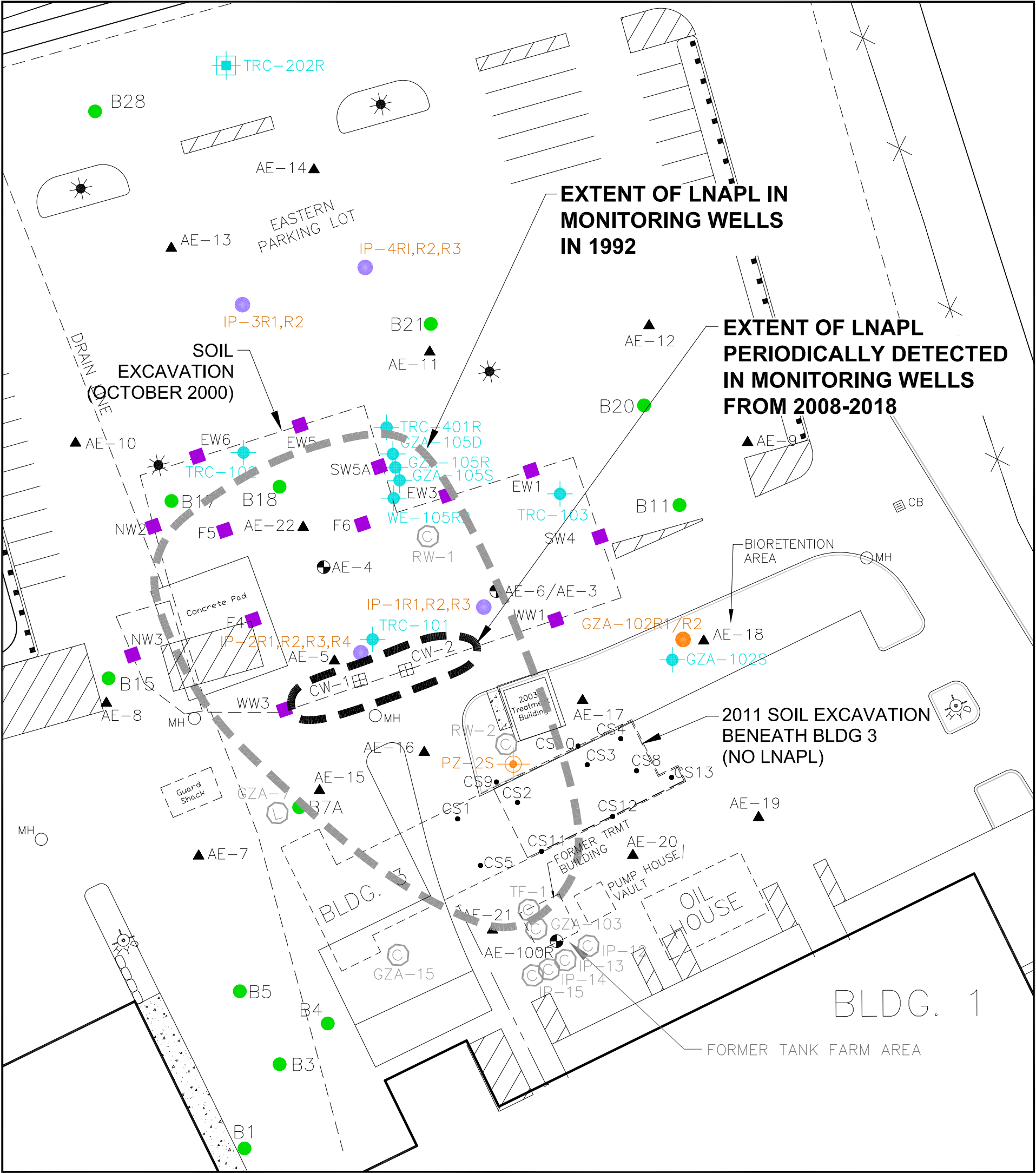


LEGEND

● INDOOR AIR SAMPLE LOCATION

NOTES:

- 1.) INDOOR AIR LOCATIONS IA-9 AND IA-10 WERE ADDED IN AUGUST 2012 ON MEZZANINE (2nd FLOOR) OF BUILDING 1.
- 2.) MEZZANINE RENOVATED 2017. LOCATION IA-10 NO LONGER EXISTS.



LEGEND

MONITORING WELL LOCATIONS

2012 SOIL BORING LOCATION

1999-2000 SOIL BORING LOCATION (APPROXIMATE)

2011 BUILDING 3 POST EXCAVATION SOIL SAMPLE LOCATION (APPROXIMATE)

2000 EPL POST EXCAVATION SOIL SAMPLE LOCATION (APPROXIMATE)

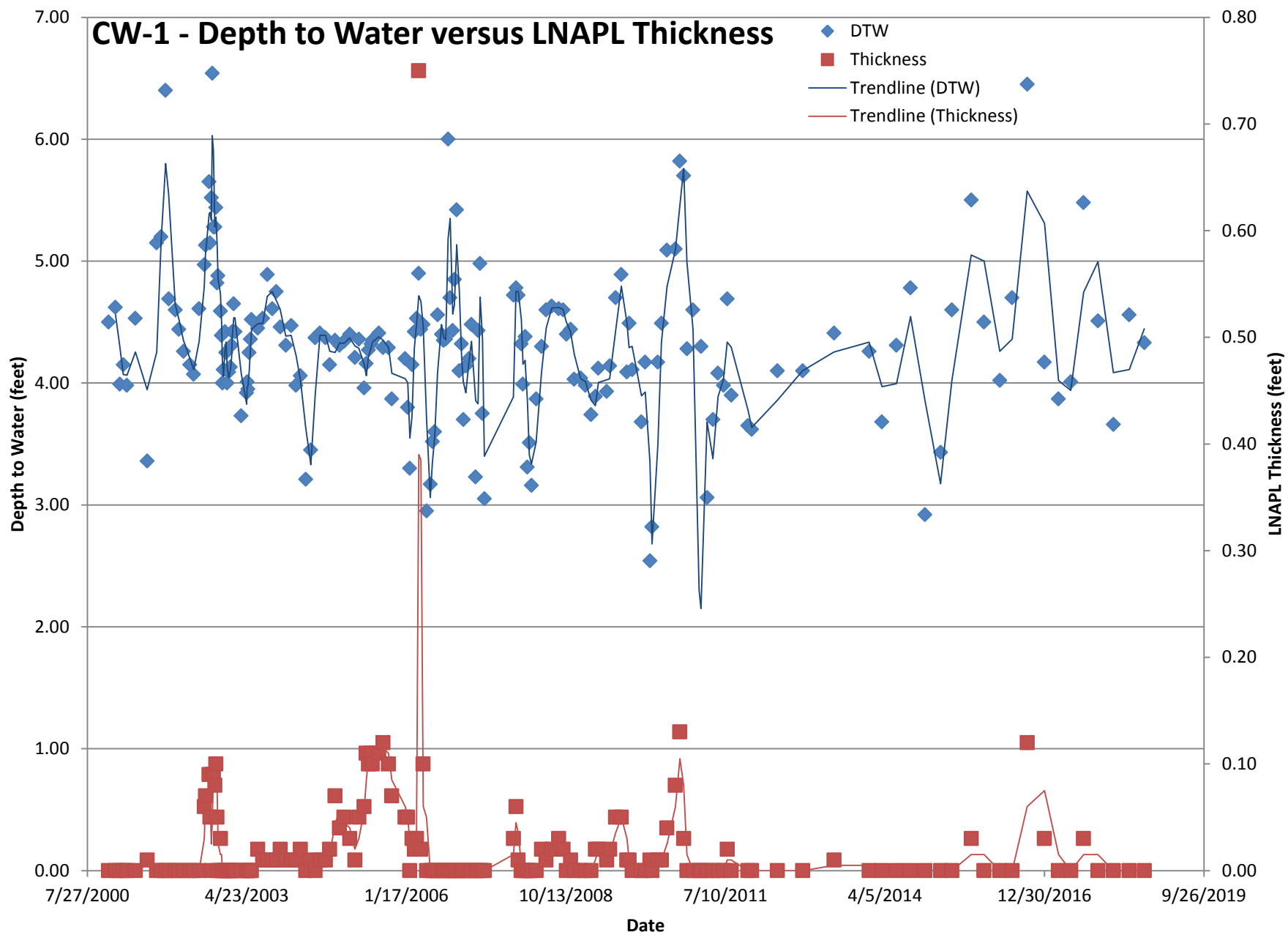
CLOSED WELL LOCATION

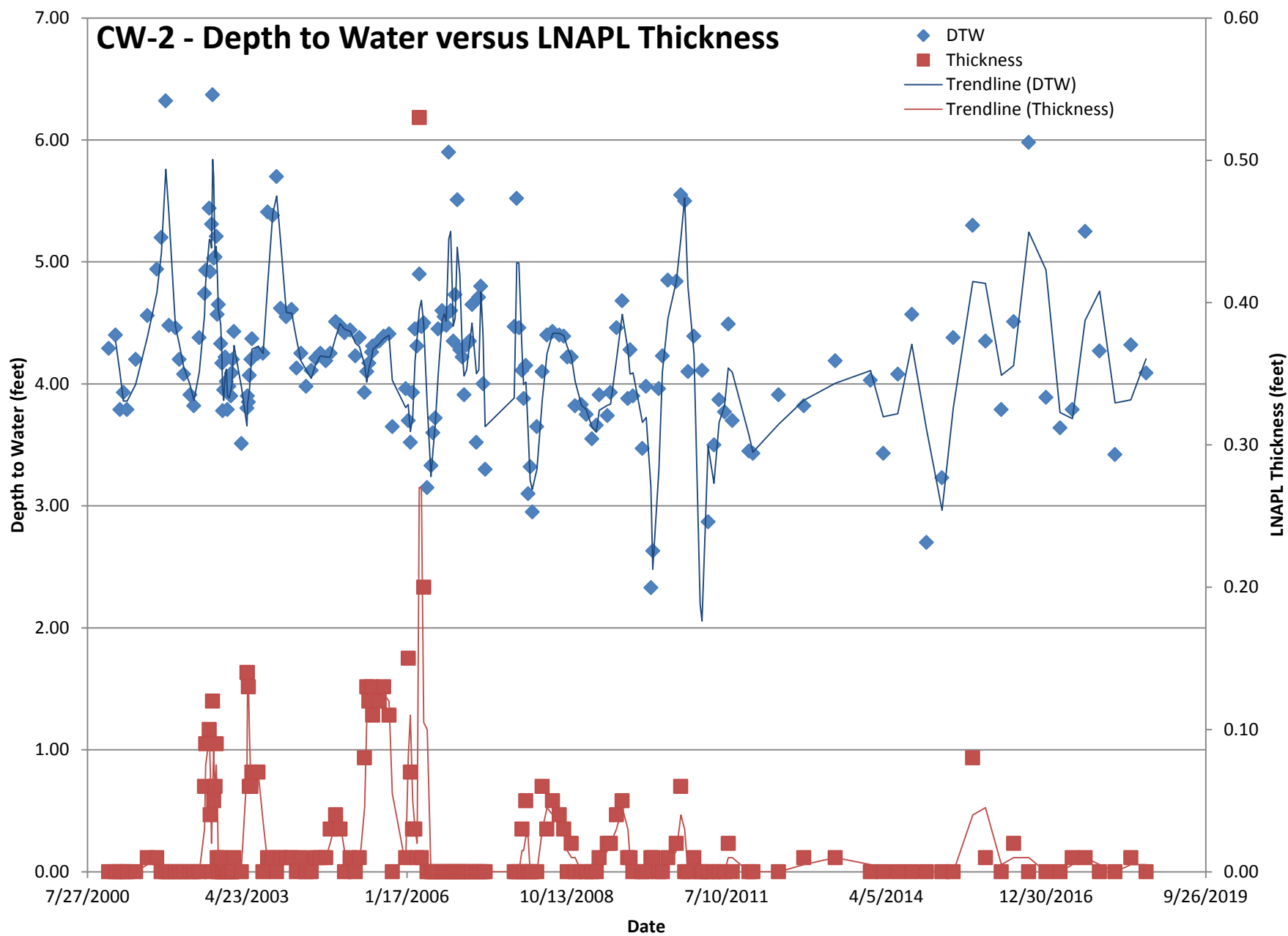
LOST WELL LOCATION

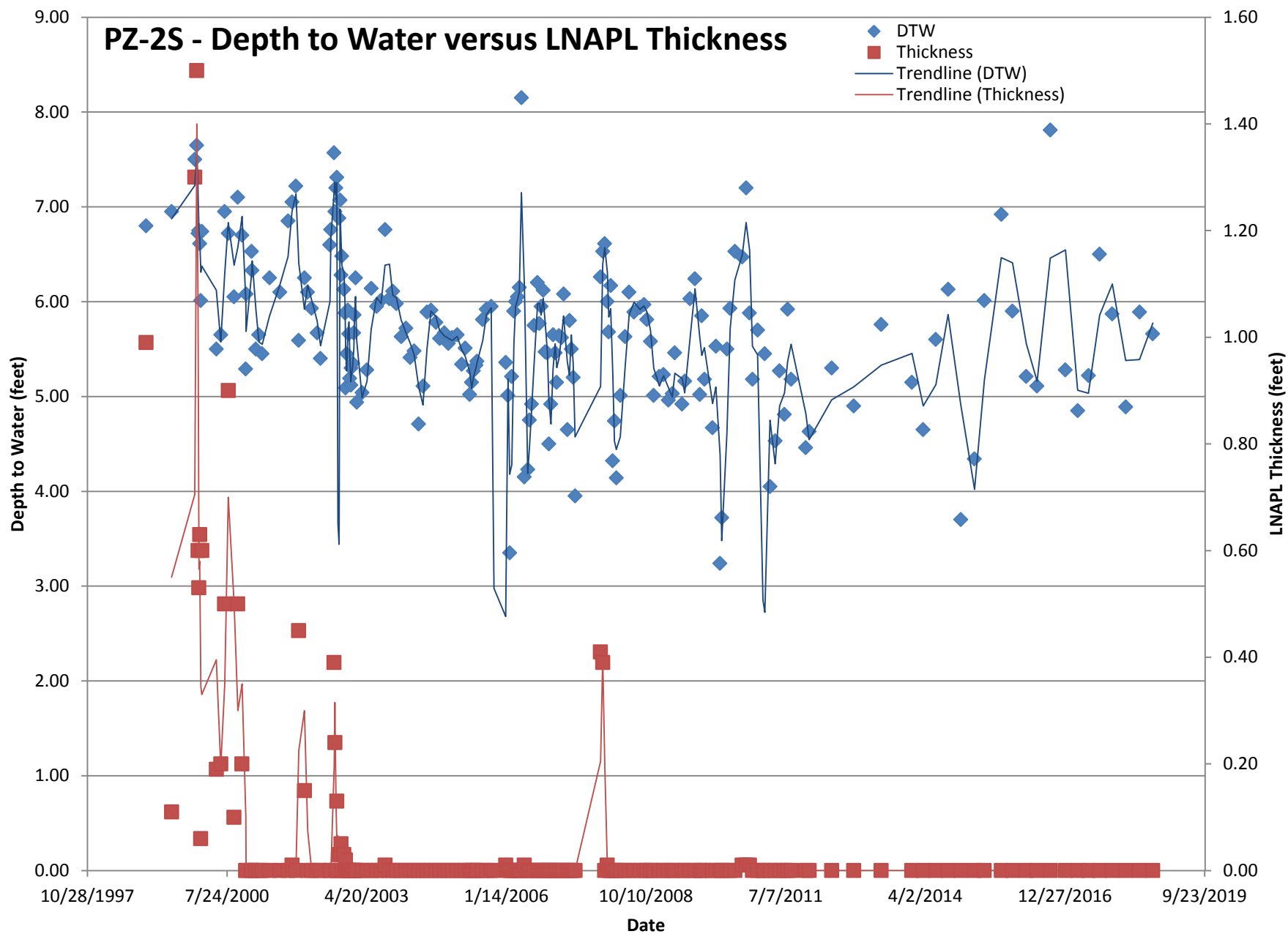
APPROXIMATE EXTENT OF LNAPL IN 2008-2012 (CW-1, CW-2) [APPROX. 1,792.8 SQ. FT.]

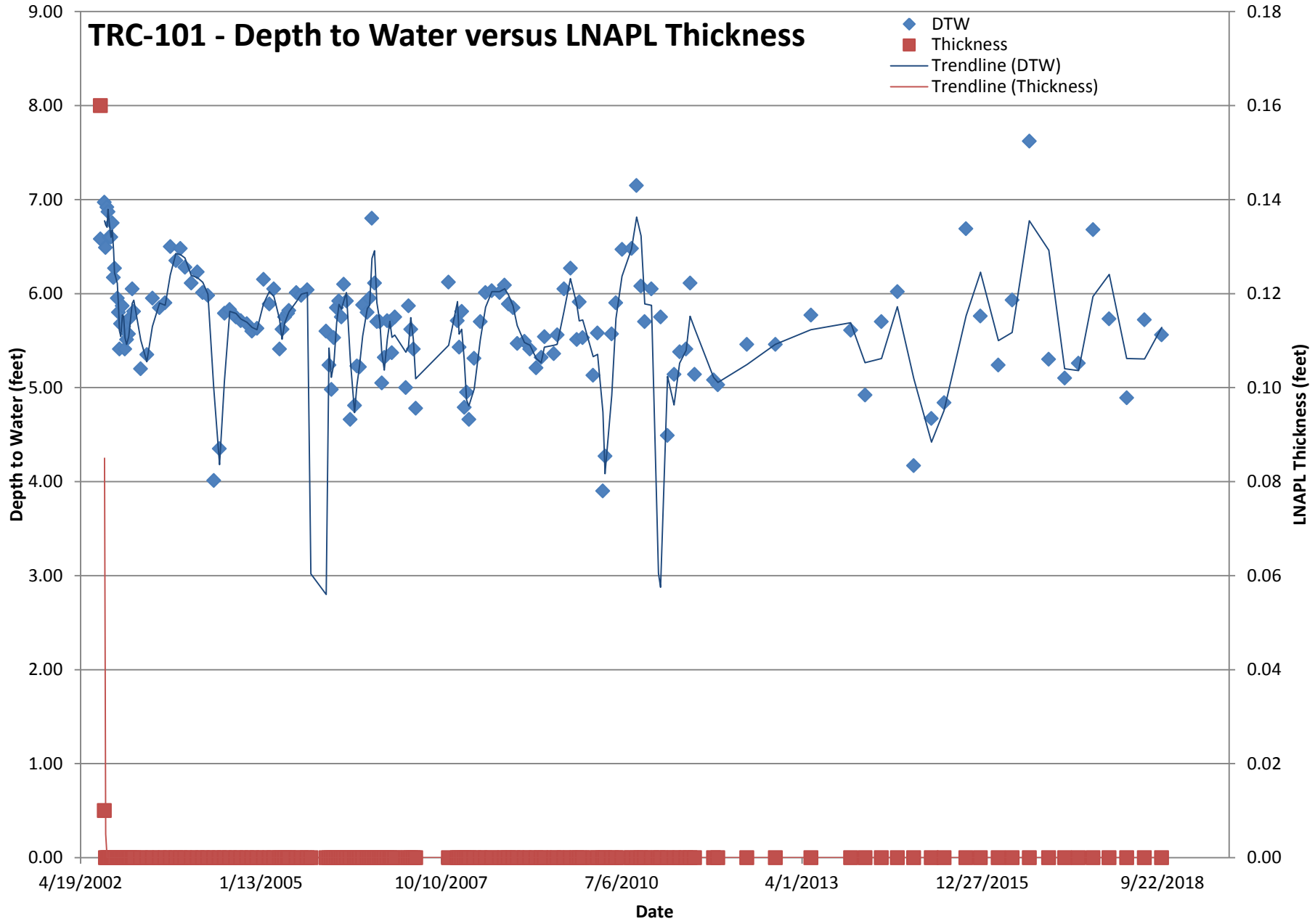
APPROXIMATE EXTENT OF LNAPL IN 1992 (TF-1, RW-1, RW-2, PZ-2S, GZA-105S, DP-5, DP-6) [APPROX. 19,574.3 SQ. FT.]

- SOURCE:**
- EPL Soil Borings (B1, B4, B11, B15, B17, B18, B21, B28) from Phase III RAP Addendum Report (TRC, March 2000)
 - Post Excavation Soil Samples (floor and side walls) and Confirmatory Soil Boring Samples (B7A, B20) from Phase IV As-Built Construction and Final Inspection Report (TRC, January 2001)
 - Building 3 Post Excavation Soil Samples (CS-1 through CS-5, CS-8 through CS-12) from RAM Completion Report (TetraTech, March 2012)
 - Eastern Parking Lot Soil Borings (AE-4 through AE-22, excluding AE-12, -13, -14) from Phase II Comprehensive Site Assessment (AECOM, 2017)









TABLES

Table 2-1
Summary of Historical LNAPL Gauging and Removal Results
Former GE Facility, 50 Fordham Road, Wilmington, MA

Date	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)
4/15/1994	(1)	(1)	0.85	(2)	(3)				(3)				(3)				(3)				(3)			
6/20/1994	(1)	(1)	0.22	(2)	(3)				(3)				(3)				(3)				(3)			
12/14/1994	(1)	(1)	0.39	(2)	(3)				(3)				(3)				(3)				(3)			
6/14/1995	(1)	(1)	0	(2)	(3)				(3)				(3)				(3)				(3)			
12/19/1995	(1)	(1)	0.25	(2)	(3)				(3)				(3)				(3)				(3)			
6/10/1996	(1)	(1)	0.21	(2)	(3)				(3)				(3)				(3)				(3)			
12/9/1996	(1)	(1)	0.83	(2)	(3)				(3)				(3)				(3)				(3)			
6/30/1997	(1)	(1)	0.17	(2)	(3)				(3)				(3)				(3)				(3)			
12/29/1997	(1)	(1)	0	(2)	(3)				(3)				(3)				(3)				(3)			
9/11/1998	(1)	(1)	0.15	(2)	(3)				(3)				(3)				(3)				(3)			
12/23/1998	6.8	5.81	0.99	(2)	(3)				(3)				(3)				(3)				(3)			
6/23/1999	6.95	6.84	0.11	(2)	(3)				(3)				(3)				(3)				(3)			
12/6/1999	7.5	6.2	1.3	0.2	(3)				(3)				(3)				(3)				(3)			
12/20/1999	7.65	6.15	1.5	0.26	(3)				(3)				(3)				(3)				(3)			
12/29/1999	6.72	6.12	0.6	0.13	(3)				(3)				(3)				(3)				(3)			
1/4/2000	6.75	6.22	0.53	0.13	(3)				(3)				(3)				(3)				(3)			
1/10/2000	6.61	5.98	0.63	0.13	(3)				(3)				(3)				(3)				(3)			
1/18/00 ⁽⁴⁾	6.01	5.95	0.06	0.13	(3)				(3)				(3)				(3)				(3)			
1/25/2000	6.74	6.14	0.6	0.13	(3)				(3)				(3)				(3)				(3)			
5/8/00*	5.5	5.31	0.19	0.01	(3)				(3)				(3)				(3)				(3)			
6/9/2000	5.65	5.45	0.2	0.01	(3)				(3)				(3)				(3)				(3)			
7/7/2000	6.95	6.45	0.5	0.02	(3)				(3)				(3)				(3)				(3)			
8/2/2000	6.72	5.82	0.9	0.04	(3)				(3)				(3)				(3)				(3)			
9/12/2000	6.05	5.95	0.1	0.01	(3)				(3)				(3)				(3)				(3)			
10/9/2000	7.1	6.6	0.5	0.03	(3)				(3)				(3)				(3)				(3)			
11/8/2000	6.7	6.5	0.2	0.01	NM				NM				(3)				(3)				(3)			
12/5/00 ⁽⁵⁾	5.29	NA	0	0	NM				NM				NM				(3)				(3)			
12/7/2000	6.08 ⁽⁶⁾	NA	0	0	4.50 ⁽⁶⁾	NA	0	0.00	4.29 ⁽⁶⁾	NA	0	0.00	NM				(3)				(3)			
1/16/2001	6.53 ⁽⁶⁾	NA	0	0	NM				NM				NM				(3)				(3)			
1/19/2001	6.33 ⁽⁶⁾	NA	0	0	4.62	NA	0	0.00	4.4	NA	0	0.00	NM				(3)				(3)			
2/15/2001	5.5	NA	0	0	3.99 ⁽⁶⁾	NA	0	0.00	3.79 ⁽⁶⁾	NA	0	0.00	NM				(3)				(3)			
3/9/2001	5.65 ⁽⁶⁾	NA	0	0	4.15 ⁽⁶⁾	NA	0	0.00	3.93 ⁽⁶⁾	NA	0	0.00	NM				(3)				(3)			
4/01	5.45	NA	0	0	3.98 ⁽⁶⁾	NA	0	0.00	3.79 ⁽⁶⁾	NA	0	0.00	NM				(3)				(3)			
5/24/2001	6.25	NA	0	0	4.53 ⁽⁶⁾	NA	0	0.00	4.2 ⁽⁶⁾	NA	0	0.00	NM				(3)				(3)			
8/6/2001	6.1	NA	0	0	3.36	3.35	0.01	0.00	4.56	4.55	0.01	0.00	NM				(3)				(3)			
10/4/2001	6.85	NA	0	0	5.15 ⁽⁶⁾	NA	0	0.00	4.94	4.93	0.01	0.00	NM				(3)				(3)			
11/1/2001	7.05	7.04	0.01	0	5.2	NA	0	0.00	5.2	NA	0	0.00	NM				(3)				(3)			
11/29/2001	7.22	NA	0	0	6.4	NA	0	0.00	6.32	NA	0	0.00	NM				(3)				(3)			
12/19/2001	5.59	5.14	0.45	0	4.69	NA	0	0.00	4.48	NA	0	0.00	NM				(3)				(3)			
1/9/2002	NA	NA	NA	0.26	NA	NA	0	0.00	NA	NA	0	0.00	NM				(3)				(3)			
1/29/2002	6.25	6.1	0.15	0	4.6	NA	0	0.00	4.46	NA	0	0.00	NM				(3)				(3)			
2/18/2002	LNAPL removed via vacuum extraction at PZ-2S, CW-1, and CW-2.												NM				(3)				(3)			
2/21/2002	Tank Farm System is turned off. Booms are removed from CW-1 and CW-2.												NM				(3)				(3)			
2/21/2002	6.1	NA	0	0	4.44	NA	0	0.00	4.2	NA	0	0.00	NM				(3)				(3)			
3/21/2002	5.93	NA	0	0	4.26	NA	0	0.00	4.08	NA	0	0.00	NM				(3)				(3)			
4/30/2002	5.67	NA	0	0	4.15	NA	0	0.00	3.91	NA	0	0.00	NM				(3)				(3)			
5/24/2002	5.4	NA	0	0	4.07	NA	0	0.00	3.82	NA	0	0.00	NM				(3)				(3)			
6/27/2002		NA	0	0	4.61	NA	0	0.00	4.38	NA	0	0.00	NM				(3)				(3)			

Notes:
LNAPL gauging results above from 1994 through 2011 collected by TRC or others. Data collection by AECOM started in 2012.
Bgs – Below ground surface.
NA – Not Applicable.
NM – Not Measured.
* LNAPL gauging at monitoring well PZ-2S was conducted on a semi-annual basis from April 1994 through May 2000.
TRC then increased gauging frequency to monthly. MA DEP then requested that monthly LNAPL gauging continue at PZ-2S, CW-1, and CW-2 as part of the requirements of the Phase V O&M program, beginning December 2000.

- (1) Not documented by Emcon.
- (2) No recoverable LNAPL present.
- (3) Well not installed.
- (4) Water level meter may have been unreliable due to low temperature.
- (5) Four-inch diameter well installed on November 30, 2000 to replace existing PZ-2S 0.5-inch diameter well.
- (6) Noted a sheen on water surface.
- (7) Product was detected with interface probe but not a measurable amount (product thickness < 0.01 ft)
- (8) It is not understood why in November and December of 2011 that 3 gallons were indicated as removed from wells PZ-2S and TRC-101R when no LNAPL was detected. These 3 gallons are not included in approximate total LNAPL volume removed from these wells.

Table 2-1
Summary of Historical LNAPL Gauging and Removal Results
Former GE Facility, 50 Fordham Road, Wilmington, MA

Date	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)
	Monitoring Frequency Increased to Weekly																(3)				(3)			
7/30/2002	6.60	NA	0	0	4.97 ⁽⁶⁾	4.91	0.06	0	4.74 ⁽⁶⁾	4.68	0.06	0	NM	NM	NA	0	(3)				(3)			
8/6/2002	6.76	NA	0	0	5.13 ⁽⁶⁾	5.06	0.07	0	4.93 ⁽⁶⁾	4.84	0.09	0	6.58	6.42	0.16	0	(3)				(3)			
8/9/2002	LNAPL removed via vacuum extraction at PZ-2S, CW-1, CW-2, and TRC-101.																(3)				(3)			
8/23/2002	NA	NA	0	0	NA	NA	0.003	0.05	NA	NA	0.003	0.025	NA	NA	0.001	0	(3)				(3)			
8/29/2002	7.57	7.18	0.39	0.13	5.65 ⁽⁶⁾	5.56	0.09	0.13	5.44	5.34	0.10	0.13	6.97	6.96	0.01	0	(3)				(3)			
9/4/2002	LNAPL removed via vacuum extraction at PZ-2S, CW-1, CW-2, and TRC-101.																(3)				(3)			
9/4/2002	6.95	6.71	0.24	0	5.15 ⁽⁶⁾	5.10	0.05	0.00	4.92	4.88	0.04	0	6.49	NA	0	0	(3)				(3)			
9/12/2002	7.20	NA	0	0	5.52 ⁽⁶⁾	NA	0	0	5.31	NA	0	0	6.92	NA	0	0	(3)				(3)			
9/18/2002	7.31	7.18	0.13	0.11	6.54 ⁽⁶⁾	6.45	0.09	0.04	6.37	6.25	0.12	0.05	6.87	NA	0	0	(3)				(3)			
9/25/2002	6.85 ⁽⁶⁾	6.85	0	0	5.28 ⁽⁶⁾	5.19	0.09	1.50	5.03	4.98	0.05	0.13	6.60	NA	0	0	(3)				(3)			
10/4/2002	6.88	6.85	0.03	0	5.28 ⁽⁶⁾	5.20	0.08	0.00	5.04	4.98	0.06	0.00	6.60	NA	0	0	(3)				(3)			
10/11/2002	7.07	7.04	0.03	0	5.44 ⁽⁶⁾	5.34	0.10	0.00	5.21	5.12	0.09	0.00	6.75	NA	0	0	(3)				(3)			
10/18/2002	6.28	6.23	0.05	0	4.82 ⁽⁶⁾	4.77	0.05	0.00	4.57	4.56	0.01	0.00	6.17	NA	0	0	(3)				(3)			
10/24/2002	6.48	NA	0	0	4.88 ⁽⁶⁾	NA	0	0	4.65 ⁽⁶⁾	NA	0	0	6.27	NA	0	0	(3)				(3)			
11/8/2002	6.13	6.10	0.03	0	4.59 ⁽⁶⁾	4.56	0.03	0	4.33	4.32	0.01	0	5.95	NA	0	0	(3)				(3)			
11/15/2002	5.88	NA	0	0	4.39 ⁽⁶⁾	NA	0	0	4.17	NA	0	0	5.80	NA	0	0	(3)				(3)			
11/20/2002	5.09	5.07	0.02	0.01	4.00 ⁽⁶⁾	NA	0	0	3.78 ⁽⁶⁾	NA	0	0	5.41	NA	0	0	(3)				(3)			
11/27/2002	5.45	NA	0	0	4.11 ⁽⁶⁾	NA	0	0	3.95 ⁽⁶⁾	NA	0	0	5.68	NA	0	0	(3)				(3)			
12/6/2002	5.91	NA	0	0	4.42 ⁽⁶⁾	4.42 ⁽⁷⁾	0	0	4.22 ⁽⁶⁾	NA	0	0	5.87	NA	0	0	(3)				(3)			
12/13/2002	5.66	NA	0	0	4.25 ⁽⁶⁾	NA	0	0	4.02 ⁽⁶⁾	4.02 ⁽⁷⁾	0	0	5.65	NA	0	0	(3)				(3)			
12/20/2002	5.19	NA	0	0	4.00 ⁽⁶⁾	NA	0	0	3.79 ⁽⁶⁾	NA	0	0	5.41	NA	0	0	(3)				(3)			
12/27/2002	5.12	NA	0	0	NM	NM	NM	0	NM	NM	NM	0	NM	NM	NM	0	(3)				(3)			
12/30/2002	5.30	NA	0	0	4.09 ⁽⁶⁾	NA	0	0	3.98 ⁽⁶⁾	NA	0	0	5.51	NA	0	0	(3)				(3)			
1/10/2003	5.35	NA	0	0	4.13 ⁽⁶⁾	NA	0	0	3.90 ⁽⁶⁾	NA	0	0	5.57	NA	0	0	(3)				(3)			
1/17/2003	5.67	NA	0	0	4.31 ⁽⁶⁾	NA	0	0	4.09 ⁽⁶⁾	4.09 ⁽⁷⁾	0	0	5.74	NA	0	0	(3)				(3)			
1/21/2003	5.86	NA	0	0	4.42 ⁽⁶⁾	NA	0	0	4.20 ⁽⁶⁾	4.20 ⁽⁷⁾	0	0	NA	NA	NA	NA	(3)				(3)			
1/30/2003	6.25	NA	0	0	4.65 ⁽⁶⁾	NA	0	0	4.43 ⁽⁶⁾	4.44	0.01	0	6.05	NA	0	0	(3)				(3)			
2/7/2003	4.94	NA	0	0	4.42	NA	0	0	NM	NM	NM	0	5.81	NA	0	0	(3)				(3)			
	Monitoring Frequency Decreased to Monthly																(3)				(3)			
3/18/2003	5.04	NA	0	0	3.73 ⁽⁶⁾	NA	0	0	3.51 ⁽⁶⁾	NA	0	0	5.20	NA	0	0	(3)				(3)			
4/21/2003	5.28	NA	0	0	3.92	NA	0	0	3.80	3.66	0.14	0	5.35	NA	0	0	(3)				(3)			
4/25/2003	NM	NM	0	0	4.01	NA	0	0	3.90	3.76	0.14	0.5	NM	NM	0	0	(3)				(3)			
4/30/2003	NM	NM	0	0	3.95	NA	0	0	3.85	3.72	0.13	0	NM	NM	0	0	(3)				(3)			
4/30/2003	LNAPL removed via vacuum extraction at CW-1, and CW-2.																(3)				(3)			
5/7/2003	NM	NM	0	0	4.25	NA	0	0	4.07	4.01	0.06	0	NM	NM	0	0	(3)				(3)			
5/16/2003	NM	NM	0	0	4.36	NA	0	0	4.20	4.14	0.06	0	NM	NM	0	0	(3)				(3)			
5/22/2003	6.14	NA	0	0	4.52	NA	0	0	4.37	4.30	0.07	0	5.95	NA	0	0	(3)				(3)			
6/30/2003	5.95	NA	0	0	4.45	4.43	0.02	0	4.25	4.18	0.07	0	5.85	NA	0	0	(3)				(3)			
7/31/2003	6.01	NA	0	0	4.53	4.52	0.01	0	4.25	NA	sheen	0	5.9	NA	0	0	(3)				(3)			
8/29/2003	6.76	6.75	0.01	0	4.89	4.88	0.01	0	5.41	5.40	0.01	0	6.5	NA	0	0	(3)				(3)			
9/29/2003	6.03	NA	sheen	0	4.61	4.6	0.01	0	5.38	5.37	0.01	0	6.35	NA	0	0	(3)				(3)			
10/24/2003	6.11	NA	sheen	0	4.75	4.74	0.01	0	5.7	NA	sheen	0	6.48	NA	0	0	(3)				(3)			
11/18/2003	5.98	NA	sheen	0	4.46	4.44	0.02	0	4.62	4.61	0.01	0	6.28	NA	0	0	(3)				(3)			
12/23/2003	5.63	NA	sheen	0	4.31	4.30	0.01	0	4.55	4.54	0.01	0	6.11	NA	0	0	(3)				(3)			
1/26/2004	5.72	NA	sheen	0	4.47	4.46	0.01	0	4.61	4.6	0.01	0	6.23	NA	0	0	(3)				(3)			
2/25/2004	5.41	NA	sheen	0	3.98	3.99	0.01	0	4.13	4.13	sheen	0	6.01	NA	0	0	(3)				(3)			
3/24/2004	5.48	NA	sheen	0	4.06	4.04	0.02	0	4.25	4.24	0.01	0	5.98	NA	0	0	(3)				(3)			
4/26/2004	4.71	NA	sheen	0	3.21	NA	sheen	0	3.98	NA	sheen	0	4.01	NA	0	0	(3)				(3)			
5/27/2004	5.11	NA	sheen	0	3.45	3.44	0.01	0	4.11	NA	sheen	0	4.35	NA	0	0	(3)				(3)			

Notes:
LNAPL gauging results above from 1994 through 2011 collected by TRC or others. Data collection by AECOM started in 2012.
Bgs – Below ground surface.
NA – Not Applicable.
NM – Not Measured.
* LNAPL gauging at monitoring well PZ-2S was conducted on a semi-annual basis from April 1994 through May 2000.
TRC then increased gauging frequency to monthly. MA DEP then requested that monthly LNAPL gauging continue at PZ-2S, CW-1, and CW-2 as part of the requirements of the Phase V O&M program, beginning December 2000.

- (1) Not documented by Emcon.
- (2) No recoverable LNAPL present.
- (3) Well not installed.
- (4) Water level meter may have been unreliable due to low temperature.
- (5) Four-inch diameter well installed on November 30, 2000 to replace existing PZ-2S 0.5-inch diameter well.
- (6) Noted a sheen on water surface.
- (7) Product was detected with interface probe but not a measurable amount (product thickness < 0.01 ft)
- (8) It is not understood why in November and December of 2011 that 3 gallons were indicated as removed from wells PZ-2S and TRC-101R when no LNAPL was detected. These 3 gallons are not included in approximate total LNAPL volume removed from these wells.

Table 2-1
Summary of Historical LNAPL Gauging and Removal Results
Former GE Facility, 50 Fordham Road, Wilmington, MA

Date	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)
6/24/2004	5.89	NA	sheen	0	4.37	NA	sheen	0	4.21	4.2	0.01	0	5.79	NA	0	0	(3)				(3)			
7/23/2004	5.91	NA	sheen	0	4.41	4.40	0.01	0	4.25	4.24	0.01	0	5.83	NA	0	0	(3)				(3)			
8/27/2004	5.78	NA	sheen	0	4.37	4.36	0.01	0	4.19	4.18	0.01	0	5.75	NA	0	0	(3)				(3)			
9/23/2004	5.61	NA	sheen	0	4.15	4.13	0.02	0	4.25	4.22	0.03	0	5.71	NA	0	0	(3)				(3)			
10/27/2004	5.67	NA	sheen	0	4.35	4.28	0.07	0	4.51	4.47	0.04	0	5.68	NA	0	0	(3)				(3)			
11/24/2004	5.56	NA	sheen	0	4.31	4.27	0.04	0	4.48	4.45	0.03	0	5.60	NA	0	0	(3)				(3)			
12/22/2004	5.62	NA	sheen	0	4.34	4.29	0.05	0	4.42	NA	sheen	0	5.63	NA	0	0	(3)				(3)			
1/27/2005	5.65	NA	sheen	0	4.40	4.37	0.03	0	4.44	4.43	0.01	0	6.15	NA	0	0	(3)				(3)			
2/28/2005	5.34	NA	sheen	0	4.21	4.20	0.01	0	4.23	4.23	sheen	0	5.89	NA	0	0	(3)				(3)			
3/25/2005	5.51	NA	sheen	0	4.36	4.31	0.05	0	4.38	4.35	0.01	0	6.05	NA	0	0	(3)				(3)			
4/26/2005	5.02	NA		0	3.96	3.90	0.06	3	3.93	3.85	0.08	6	5.41	NA	0	0	(3)				(3)			
4/26/2005	LNAPL removed via peristaltic pump at CW-1, and CW-2.																(3)				(3)			
4/26/2005	Gauging after LNAPL removal:				3.95	3.92	0.03		3.84	3.86	0.02						(3)				(3)			
5/1/2005	Installed 3 TB-400 Soakease Absorbent booms into both CW-1 and CW-2																(3)				(3)			
5/10/2005	5.15	NA		0	4.16	4.05	0.11	2.25	4.10	3.97	0.13	2.25	5.62	NA	0	0	(3)				(3)			
5/10/2005	Removed and replaced 3 Soakease Absorbent booms in CW-1 and CW-2																(3)				(3)			
5/24/2005	5.27	NA		0	4.27	4.17	0.10	2.25	4.17	4.05	0.12	2.25	5.75	NA	0	0	(3)				(3)			
5/24/2005	Removed and replaced 3 Soakease Absorbent booms in both CW-1 and CW-2																(3)				(3)			
6/10/2005	5.33	NA		0	4.32	4.21	0.11	2.25	4.26	4.13	0.13	2.25	5.79	NA	0	0	(3)				(3)			
6/10/2005	Removed 3 Soakease Absorbent booms in both CW-1 and CW-2																(3)				(3)			
6/17/2005	5.37	NA		0	4.35	4.25	0.10	0	4.31	4.20	0.11	0	5.82	NA	0	0	(3)				(3)			
7/5/2005	LNAPL removed via peristaltic pump at CW-1 and CW-2																(3)				(3)			
7/5/2005							0.01	10			0.04	3					(3)				(3)			
7/6/2005							0.05	0			0.07	0					(3)				(3)			
7/28/2005	5.81	NA		0	4.41	4.30	0.11	0	4.35	4.23	0.12	0	6.01	NA	0	0	(3)				(3)			
8/24/2005	5.92	NA		0	4.29	4.41	0.12	0	4.39	4.26	0.13	0	5.98	NA	0	0	(3)				(3)			
9/27/2005	5.95	NA		0	4.29	4.39	0.1	0	4.41	4.30	0.11	0	6.04	NA	0	0	(3)				(3)			
10/17/2005	NA	NA		0	3.87	3.94	0.07	10	3.65	3.65	sheen	0	NA	NA	0	0	(3)				(3)			
10/17/2005	LNAPL removed via peristaltic pump at CW-1																(3)				(3)			
1/9/2006	5.36	5.35	0.01	0	4.2	4.15	0.05	2.25	3.96	3.95	0.01	2.25	5.60	NA	NA	0	(3)				(3)			
1/9/2006	Removed and replaced 3 Soakease Absorbent booms in CW-1 and CW-2																(3)				(3)			
1/9/2006	Gauging after LNAPL removal:				4.17	4.15	0.02		3.98	3.95	0.03						(3)				(3)			
1/25/2006	5.01	5.01	sheen	0	3.8	3.75	0.05	2.5	3.7	3.55	0.15	2.5	5.24	NA	NA	0	(3)				(3)			
1/25/2006	Removed and replaced 3 Soakease Absorbent booms in CW-1 and CW-2																(3)				(3)			
1/25/2006	Gauging after LNAPL removal:				3.81	3.80	0.01		3.6	NA	sheen						(3)				(3)			
2/7/2006	3.35	NA	sheen	0	3.30	NA	sheen	1.5	3.52	3.45	0.07	1.5	4.98	NA	NA	0	(3)				(3)			
2/7/2006	Removed and replaced 3 Soakease Absorbent booms in CW-1 and CW-2																(3)				(3)			
2/7/2006	Gauging after LNAPL removal:				3.52	3.5	0.02		3.3	NA	sheen						(3)				(3)			
2/21/2006	5.21	NA	sheen	0	4.15	4.12	0.03	0	3.93	3.9	0.03	0	5.53	NA	NA	0	(3)				(3)			
3/8/2006	5.9	NA	sheen	0	4.42	4.4	0.02	0	4.45	4.42	0.03	0	5.85	NA	NA	0	(3)				(3)			
3/21/2006	6	NA	sheen	0	4.53	4.5	0.03	0	4.31	4.3	0.01	0	5.92	NA	NA	0	(3)				(3)			
4/4/2006	6.05	NA	sheen	0	4.90	4.15	0.75	2.25	4.9	4.37	0.53	2.25	5.75	NA	NA	0	(3)				(3)			
4/4/2006	Removed and replaced 3 Soakease Absorbent booms in CW-1 and CW-2																(3)				(3)			
4/4/2006	Gauging after LNAPL removal:				4.25	4.15	0.1		4.6	4.37	0.23						(3)				(3)			
4/17/2006	6.15	NA	sheen	0	4.44	4.42	0.02	0	4.47	4.46	0.01	0	6.10	NA	NA	0	(3)				(3)			
5/2/2006	8.15	NA	sheen	0	4.48	4.38	0.1	2.25	4.5	4.3	0.2	2.25	5.92	NA	NA	0	(3)				(3)			
5/2/2006	Removed and replaced 3 Soakease Absorbent booms in CW-1 and CW-2																(3)				(3)			
5/2/2006	Gauging after LNAPL removal:				4.49	4.49	sheen		4.5	4.49	0.01						(3)				(3)			
5/23/2006	4.15	4.14	0.01	0	2.95	NA	NA	2.25	3.15	NA	NA	2.25	4.66	NA	NA	0	(3)				(3)			
5/23/2006	Removed and replaced 3 Soakease Absorbent booms in CW-1 and CW-2																(3)				(3)			
5/23/2006	Gauging after LNAPL removal:				2.95		sheen		3.15		sheen						(3)				(3)			

Notes:

LNAPL gauging results above from 1994 through 2011 collected by TRC or others. Data collection by AECOM started in 2012.

Bgs – Below ground surface.

NA – Not Applicable.

NM – Not Measured.

* LNAPL gauging at monitoring well PZ-2S was conducted on a semi-annual basis from April 1994 through May 2000.

TRC then increased gauging frequency to monthly. MA DEP then requested that monthly LNAPL gauging continue at

PZ-2S, CW-1, and CW-2 as part of the requirements of the Phase V O&M program, beginning December 2000.

(1) Not documented by Emcon.

(2) No recoverable LNAPL present.

(3) Well not installed.

(4) Water level meter may have been unreliable due to low temperature.

(5) Four-inch diameter well installed on November 30, 2000 to replace existing PZ-2S 0.5-inch diameter well.

(6) Noted a sheen on water surface.

(7) Product was detected with interface probe but not a measurable amount (product thickness < 0.01 ft)

(8) It is not understood why in November and December of 2011 that 3 gallons were indicated as removed from wells PZ-2S and

TRC-101R when no LNAPL was detected. These 3 gallons are not included in approximate total LNAPL volume

removed from these wells.

Table 2-1
Summary of Historical LNAPL Gauging and Removal Results
Former GE Facility, 50 Fordham Road, Wilmington, MA

Date	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)
6/16/2006	4.23	NA	sheen	0	3.17	NA	NA	0	3.33	NA	sheen	0	4.81	NA	NA	0	(3)				(3)			
6/29/2006	4.75	NA	sheen	0	3.52	NA	sheen	0	3.6	NA	NA	0	5.23	NA	NA	0	(3)				(3)			
7/13/2006	4.92	NA	sheen	0	3.6	NA	sheen	0	3.72	NA	sheen	0	5.22	NA	NA	0	(3)				(3)			
7/31/2006	5.75	NA	sheen	0	4.56	NA	sheen	0	4.45	NA	sheen	0	5.88	NA	NA	0	(3)				(3)			
8/25/2006	6.2	NA	sheen	0	4.4	NA	sheen	0	4.6	NA	sheen	0	5.8	NA	NA	0	(3)				(3)			
9/7/2006	5.77	NA	sheen	0	4.35	NA	sheen	0	4.55	NA	sheen	0	5.95	NA	NA	0	(3)				(3)			
9/20/2006	5.95	NA	sheen	0	4.36	NA	sheen	0	4.48	NA	sheen	0	6.8	NA	NA	0	(3)				(3)			
10/5/2006	6.12	NA	sheen	0	6	NA	sheen	0	5.9	NA	sheen	0	6.11	NA	NA	0	(3)				(3)			
10/18/2006	5.47	NA	sheen	0	4.7	NA	sheen	0	4.6	NA	sheen	0	5.7	NA	NA	0	(3)				(3)			
11/3/2006	5.46	NA	sheen	0	4.43	NA	sheen	0	4.35	NA	sheen	0	5.7	NA	NA	0	(3)				(3)			
11/14/2006	4.5	NA	NA	0	4.85	NA	sheen	0	4.73	NA	sheen	0	5.05	NA	NA	0	(3)				(3)			
11/28/2006	4.92	NA	NA	0	5.42	NA	sheen	0	5.51	NA	sheen	0	5.32	NA	NA	0	(3)				(3)			
12/14/2006	5.65	NA	NA	0	4.10	NA	sheen	0	4.28	NA	sheen	0	5.71	NA	NA	0	(3)				(3)			
12/29/2006	5.46	NA	NA	0	4.32	NA	sheen	0	4.22	NA	NA	0	5.70	NA	NA	0	(3)				(3)			
1/9/2007	5.15	NA	NA	0	3.70	NA	NA	0	3.91	NA	sheen	0	5.37	NA	NA	0	(3)				(3)			
1/25/2007	5.64	NA	NA	0	4.14	NA	sheen	0	4.32	NA	sheen	0	5.75	NA	NA	0	(3)				(3)			
2/13/2007	5.62	NA	NA	0	4.20	NA	sheen	0	4.35	NA	NA	0	NM	NM	NM	0	(3)				(3)			
2/28/2007	6.08	NA	NA	0	4.48	NA	sheen	1	4.65	NA	sheen	1	NM	NM	NM	0	(3)				(3)			
3/27/2007	4.65	NA	NA	0	3.23	NA	sheen	0	3.52	NA	sheen	0	5.00	NA	NA	0	(3)				(3)			
4/11/2007	5.8	NA	NA	0	4.43	NA	NA	0	4.71	NA	sheen	0	5.87	NA	NA	0	(3)				(3)			
4/24/2007	5.50	NA	NA	0	4.98	NA	sheen	0	4.80	NA	NA	0	5.62	NA	NA	0	(3)				(3)			
5/8/2007	5.20	NA	NA	0	3.75	NA	sheen	0	4.00	NA	NA	0	5.41	NA	NA	0	(3)				(3)			
5/21/2007	3.95	NA	NA	0	3.05	NA	sheen	0	3.30	NA	NA	0	4.78	NA	sheen	0	(3)				(3)			
11/19/2007	6.26	5.85	0.41	0	4.72	4.69	0.03	0	4.47	NA	sheen	0	6.12	NA	NA	0	(3)				(3)			
12/5/2007	6.53	6.14	0.39	0	4.78	4.72	0.06	0	5.52	NA	sheen	0	NM	NM	NM	0	(3)				(3)			
12/19/2007	6.61	NA	NA	0	4.72	4.71	0.01	0	4.46	NA	NA	0	NM	NM	NM	0	(3)				(3)			
1/7/2008	6.00	5.99	0.01	0	4.32	NA	sheen	0	4.11	4.08	0.03	0	5.71	NA	NA	0	(3)				(3)			
1/17/2008	5.68	NA	NA	0	3.99	NA	NA	0	3.88	NA	NA	0	5.43	NA	NA	0	(3)				(3)			
1/31/2008	6.17	NA	sheen	0.35	4.38	NA	sheen	0.35	4.15	4.20	0.05	1.3	5.81	NA	NA	0	(3)				(3)			
2/14/2008	4.32	NA	sheen	0	3.31	NA	sheen	0	3.10	NA	sheen	0	4.79	NA	NA	0	(3)				(3)			
2/27/2008	4.74	NA	sheen	0	3.51	NA	sheen	0	3.32	NA	sheen	1.1	4.95	NA	NA	0	(3)				(3)			
3/11/2008	4.14	NA	sheen	0	3.16	NA	sheen	0	2.95	NA	sheen	0	4.66	NA	NA	0	(3)				(3)			
4/9/2008	5.01	NA	sheen	0	3.87	NA	sheen	0	3.65	NA	sheen ⁷	0	5.31	NA	NA	0	(3)				(3)			
5/13/2008	5.63	NA	NA	0	4.30	4.28	0.02	0	4.10	4.04	0.06	0	5.70	NA	NA	0	(3)				(3)			
6/11/2008	6.10	NA	NA	0	4.60	4.59	0.01	0	4.40	4.37	0.03	1.1	6.01	NA	NA	0	(3)				(3)			
7/16/2008	5.89	NA	NA	0	4.63	4.61	0.02	0	4.43	4.38	0.05	1.2	6.03	NA	NA	0	(3)				(3)			
8/28/2008	5.94	NA	NA	0	4.61	4.58	0.03	0	4.40	4.36	0.04	1.4	6.01	NA	NA	0	(3)				(3)			
9/25/2008	5.97	NA	NA	0	4.60	4.58	0.02	1.5	4.39	4.36	0.03	1.1	6.09	NA	NA	0	(3)				(3)			
10/16/2008	5.81	NA	NA	0	4.40	NA	sheen	0.75	4.22	NA	sheen	0.75	5.89	NA	NA	0	(3)				(3)			
11/11/2008	5.58	NA	NA	0	4.44	4.43	0.01	0	4.22	4.20	0.02	0	5.85	NA	NA	0	(3)				(3)			
12/4/2008	5.01	NA	NA	0	4.03	NA	sheen	1	3.82	NA	sheen	0.5	5.47	NA	NA	0	(3)				(3)			
1/13/2009	5.21	NA	NA	0	4.04	NA	sheen	0	3.83	NA	sheen	0	5.49	NA	NA	0	(3)				(3)			
2/12/2009	5.23	NA	NA	0	3.98	NA	sheen	0	3.75	NA	sheen	0	5.41	NA	NA	0	(3)				(3)			
3/19/2009	4.96	NA	NA	0	3.74	NA	sheen	0	3.55	NA	sheen	0	5.21	NA	NA	0	(3)				(3)			
4/16/2009	5.03	NA	NA	0	3.89	3.87	0.02	0	3.66	NA	NA	0	5.32	NA	NA	0	(3)				(3)			
5/4/2009	5.46	5.46 ⁽⁷⁾	0	0	4.12	4.10	0.02	0	3.91	3.90	0.01	0	5.54	NA	NA	0	(3)				(3)			
6/25/2009	4.92	NA	sheen	0	3.93	3.92	0.01	0	3.74	3.72	0.02	0	5.36	NA	NA	0	(3)				(3)			
7/14/2009	5.16	NA	NA	0	4.14	4.12	0.02	0	3.93	3.91	0.02	0	5.56	NA	NA	0	(3)				(3)			
8/20/2009	6.03	NA	NA	0	4.70	4.65	0.05	0	4.46	4.42	0.04	0	6.05	NA	NA	0	(3)				(3)			
9/25/2009	6.24	NA	NA	0	4.89	4.84	0.05	1.5	4.68	4.63	0.05	1.1	6.27	NA	NA	0	(3)				(3)			
10/30/2009	5.02	NA	NA	0	4.09	4.08	0.01	1.5	3.88	3.87	0.01	1.5	5.51	NA	NA	0	(3)				(3)			

Notes:
LNAPL gauging results above from 1994 through 2011 collected by TRC or others. Data collection by AECOM started in 2012.
Bgs – Below ground surface.
NA – Not Applicable.
NM – Not Measured.
* LNAPL gauging at monitoring well PZ-2S was conducted on a semi-annual basis from April 1994 through May 2000.
TRC then increased gauging frequency to monthly. MA DEP then requested that monthly LNAPL gauging continue at PZ-2S, CW-1, and CW-2 as part of the requirements of the Phase V O&M program, beginning December 2000.

- (1) Not documented by Emcon.
- (2) No recoverable LNAPL present.
- (3) Well not installed.
- (4) Water level meter may have been unreliable due to low temperature.
- (5) Four-inch diameter well installed on November 30, 2000 to replace existing PZ-2S 0.5-inch diameter well.
- (6) Noted a sheen on water surface.
- (7) Product was detected with interface probe but not a measurable amount (product thickness < 0.01 ft)
- (8) It is not understood why in November and December of 2011 that 3 gallons were indicated as removed from wells PZ-2S and TRC-101R when no LNAPL was detected. These 3 gallons are not included in approximate total LNAPL volume removed from these wells.

Table 2-1
Summary of Historical LNAPL Gauging and Removal Results
Former GE Facility, 50 Fordham Road, Wilmington, MA

Date	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)	DTW (ft.)	DTP (ft.)	Thickness (ft.)	Volume Removed (gal.)
11/13/2009	5.85	NA	NA	0	4.49	4.48	0.01	0	4.28	4.27	<0.01	0	5.91	NA	NA	0	(3)				(3)			
12/2/2009	5.18	NA	NA	0	4.11	NA	sheen	0	3.90	NA	sheen	0	5.53	NA	NA	0	(3)				(3)			
1/29/2010	4.67	NA	NA	0	3.68	3.68 ⁽⁷⁾	0	0	3.47	NA	sheen	0	5.13	NA	NA	0	(3)				(3)			
2/22/2010	5.53	NA	NA	0	4.17	NA	sheen	0	3.98	NA	sheen	0	5.58	NA	NA	0	(3)				(3)			
3/24/2010	3.24	NA	sheen	0	2.54	2.53	0.01	0	2.33	2.32	0.01	0	3.90	NA	NA	0	(3)				(3)			
4/5/2010	3.72	NA	NA	0	2.82	2.82 ⁽⁷⁾	0	0	2.63	2.62	0.01	0	4.27	NA	NA	0	(3)				(3)			
5/12/2010	5.50	NA	NA	0	4.17	4.16	0.01	0	3.96	NA	sheen	0	5.57	NA	NA	0	(3)				(3)			
6/4/2010	5.93	NA	NA	0	4.49	4.48	0.01	0	4.23	NA	sheen	0	5.90	NA	NA	0	(3)				(3)			
7/8/2010	6.53	NA	NA	0	5.09	5.05	0.04	0	4.85	4.84	0.01	0	6.47	NA	NA	0	(3)				(3)			
8/30/2010	6.47	6.46	0.01	0	5.10	5.02	0.08	0	4.84	4.82	0.02	0	6.48	NA	NA	0	(3)				(3)			
9/27/2010	7.20	7.19	0.01	0	5.82	5.69	0.13	1.1	5.55	5.49	0.06	0.75	7.15	NA	NA	0	(3)				(3)			
10/21/2010	5.88	5.87	0.01	0	5.70	5.67	0.03	1.5	5.50	NA	sheen	1.1	6.08	NA	NA	0	(3)				(3)			
11/11/2010	5.18	NA	sheen	0	4.28	NA	NA	1.5	4.10	NA	NA	0	5.70	NA	NA	0	(3)				(3)			
12/18/2010	5.70	NA	NA	0	4.60	4.60 ⁽⁷⁾	0	0	4.39	4.38	0.01	0	6.05	NA	NA	0	(3)				(3)			
1/26/2011	NA	NA	NA	0	NA	NA	NA	0	NA	NA	NA	0	NA	NA	NA	0	(3)				(3)			
2/7/2011	5.45	NA	NA	0	4.3	NA	NA	0	4.11	NA	NA	0	5.75	NA	NA	0	(3)				(3)			
3/17/2011	4.05	NA	NA	0	3.06	NA	NA	0	2.87	NA	film	0	4.49	NA	NA	0	(3)				(3)			
4/23/2011	4.53	NA	NA	0	3.7	NA	NA	0	3.5	NA	NA	0	5.14	NA	NA	0	(3)				(3)			
5/24/2011	5.27	NA	NA	0	4.08	NA	NA	0	3.87	NA	NA	0	5.38	NA	NA	0	(3)				(3)			
6/28/2011	4.81	NA	NA	0	3.98	NA	NA	0.00	3.77	NA	sheen	0.00	5.41	NA	NA	0	(3)				(3)			
7/21/2011	5.92	NA	NA	0	4.69	4.67	0.02	0.00	4.49	4.47	0.02	0.00	6.11	NA	NA	0	(3)				(3)			
8/15/2011	5.18	NA	NA	0	3.90	NA	sheen	0.00	3.70	NA	NA	0.00	5.14	NA	NA	0	(3)				(3)			
11/28/2011	4.46	NA	NA	1 ⁽⁸⁾	3.65	NA	NA	0	3.45	NA	NA	0.00	5.08	NA	NA	1 ⁽⁸⁾	(3)				(3)			
12/22/2011	4.63	NA	NA	2 ⁽⁸⁾	3.62	NA	NA	0	3.43	NA	sheen	0.00	5.03	NA	NA	2 ⁽⁸⁾	(3)				(3)			
5/31/2012	5.30	NA	NA	0	4.10	NA	NA	0	3.91	NA	sheen	0.00	5.46	NA	NA	0	(3)				(3)			
11/5/2012	4.90	NA	NA	0	4.10	NA	NA	0	3.82	3.81	0.01	0.00	5.46	NA	NA	0	5.44	NA	NA	0	5.08	NA	NA	0
5/21/2013	5.76	NA	NA	0	4.41	4.40	0.01	0.00	4.19	4.18	0.01	0.00	5.77	NA	NA	0	5.80	NA	NA	0	5.42	NA	NA	0
12/27/2013	5.15	NA	NA	0	4.26	NA	NA	0	4.03	NA	NA	0.00	5.61	NA	NA	0	5.66	NA	NA	0	5.31	NA	NA	0
3/17/2014	4.65	NA	NA	0	3.68	NA	NA	0	3.43	NA	NA	0.00	4.92	NA	NA	0	5.10	NA	NA	0	4.75	NA	NA	0
6/16/2014	5.60	NA	NA	0	4.31	NA	NA	0	4.08	NA	NA	0.00	5.70	NA	NA	0	5.72	NA	NA	0	5.28	NA	NA	0
9/12/2014	6.13	NA	NA	0	4.78	NA	NA	0	4.57	NA	NA	0.00	6.02	NA	NA	0	6.22	NA	NA	0	5.80	NA	NA	0
12/12/2014	3.70	NA	NA	0	2.92	NA	NA	0	2.70	NA	NA	0.00	4.17	NA	NA	0	4.38	NA	NA	0	4.05	NA	NA	0
3/20/2015	4.34	NA	NA	0	3.43	NA	NA	0	3.23	NA	NA	0.00	4.67	NA	NA	0	4.96	NA	NA	0	4.51	NA	NA	0
5/29/2015	6.01	NA	NA	0	4.60	NA	NA	0	4.38	NA	NA	0.00	4.84	NA	NA	0	6.07	NA	NA	0	4.55	NA	NA	0
9/28/2015	6.92	NA	NA	0	5.50	5.47	0.03	0.00	5.30	5.22	0.08	0.75	6.69	NA	NA	0	6.92	NA	NA	0	6.50	NA	NA	0
12/17/2015	5.90	NA	NA	0	4.50	NA	NA	0.00	4.35	4.34	0.01	0.00	5.76	NA	NA	0	6.01	NA	NA	0	5.55	NA	NA	0
3/25/2016	5.21	NA	NA	0	4.02	NA	NA	0.00	3.79	NA	NA	0.00	5.24	NA	NA	0	5.45	NA	NA	0	4.89	NA	NA	0
6/10/2016	5.11	NA	NA	0	4.70	NA	NA	0.00	4.51	4.49	0.02	0.00	5.93	NA	NA	0	6.15	NA	NA	0	4.61	NA	NA	0
9/13/2016	7.81	NA	NA	0	6.45	6.33	0.12	0.75	5.98	NA	NA	0.00	7.62	NA	NA	0	7.79	NA	NA	0	7.39	NA	NA	0
12/30/2016	5.28	NA	NA	0	4.17	4.14	0.03	0.75	3.89	NA	NA	0.00	5.30	NA	NA	0	5.51	NA	NA	0	5.12	NA	NA	0
3/28/2017	4.85	NA	NA	0	3.87	NA	NA	0.00	3.64	NA	NA	0.00	5.10	NA	NA	0	5.30	NA	NA	0	4.78	NA	NA	0
6/13/2017	5.22	NA	NA	0	4.01	NA	NA	0.00	3.79	3.78	0.01	0.00	5.26	NA	NA	0	5.44	NA	NA	0	4.89	NA	NA	0
9/1/2017	6.50	NA	NA	0	5.48	5.45	0.03	0.00	5.25	5.24	0.01	0.00	6.68	NA	NA	0	6.89	NA	NA	0	6.30	NA	NA	0
11/30/2017	5.87	NA	NA	0	4.51	NA	NA	0.56	4.27	NA	NA	0.00	5.73	NA	NA	0	5.96	NA	NA	0	5.55	NA	NA	0
3/7/2018	4.89	NA	NA	0	3.66	NA	NA	0.00	3.42	NA	NA	0.00	4.89	NA	NA	0	4.12	NA	NA	0	4.63	NA	NA	0
6/14/2018	5.89	NA	NA	0	4.56	4.55	0.01 (sheen)	0.00	4.32	4.31	0.01 (sheen)	0.00	5.72	NA	NA	0	6.99	NA	NA	0	5.49	NA	NA	0
9/17/2018	5.66	NA	NA	0	4.33	NA	NA	0.00	4.09	NA	NA	0.00	5.56	NA	NA	0	5.79	NA	NA	0	5.31	NA	NA	0
gals removed (approx.):				2.1																				

Table 3-1
Summary of Historical Indoor and Ambient Air Results through February 2018
Former GE Facility, 50 Fordham Rd, Wilmington, MA

Site Location:			Ambient Air - Outdoors (IA-01 by TRC; AA-01 by AECOM)															
	Sample Location ID:		IA-01					AA-01										
	Sample Date:		8/20/2009	4/5/2010	4/8/2010	4/15/2010	1/26/2011	8/23/2012	8/28/2012	2/27/2013	5/21/2013	3/7/2014	2/17/2015	2/11/2016	4/13/2017	7/13/2017	2/7/2018	
	Sample ID:		IA-1.08.20.09	IA-1.04.05.10	IA-1.04.08.10	IA-1.04.15.10	IA-1.01.26.11	12A-AA1-1	12B-AA1-1	13A-AA1-1	13B-AA1-1	14A-AA1-1	15A-AA1-1	16A-AA1-1	17A-AA1-1	17B-AA1-1	18A-AA1-1	
	HVAC System Status:		Off	Off	On	On	On	Off	On	On	Off	On	On	On	On	N/A	AC On	On
CHEMICAL NAME	CAS Number	MA - C/I (October 2016)																
MADEP APH (2008-2009); APH (2010)																		
1,3-BUTADIENE	106-99-0	NE	2 U	2 U	2 U	--	--	--	--	--	--	--	--	--	--	--	--	
BENZENE	71-43-2	11	2 U	2 U	2 U	--	--	--	--	--	--	--	--	--	--	--	--	
C5-C8 ALIPHATIC HYDROCARBONS	C5C8	330	31.6	16	98	--	--	--	--	--	--	--	--	--	--	--	--	
C9-C10 AROMATIC HYDROCARBONS	C9C10	44	10 U	10 U	10 U	--	--	--	--	--	--	--	--	--	--	--	--	
C9-C12 ALIPHATIC HYDROCARBONS	C9C12	220	31.6	14 U	490	--	--	--	--	--	--	--	--	--	--	--	--	
ETHYLBENZENE	100-41-4	880	2 U	2 U	2 U	--	--	--	--	--	--	--	--	--	--	--	--	
METHYL TERT-BUTYL ETHER	1634-04-4	2700	2 U	2 U	2 U	--	--	--	--	--	--	--	--	--	--	--	--	
NAPHTHALENE	91-20-3	2.7	2 U	2 U	2 U	--	--	--	--	--	--	--	--	--	--	--	--	
TOLUENE	108-88-3	4400	2 U	2.5	2 U	--	--	--	--	--	--	--	--	--	--	--	--	
M,P-XYLENE	MPXYLENE	88 **	4 U	4 U	4 U	--	--	--	--	--	--	--	--	--	--	--	--	
O-XYLENE	95-47-6	88 **	2 U	2 U	2 U	--	--	--	--	--	--	--	--	--	--	--	--	
TO15																		
CARBON DISULFIDE	75-15-0	NE	--	--	--	--	--	0.623 U	0.623 U	0.623 U	--	--	--	--	--	--	--	
TO15 SIM																		
1,1,1-TRICHLOROETHANE	71-55-6	4400	0.1 U	0.109 U	0.196	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.2	--	0.137 U	0.1 U	0.1 U	0.1 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	
1,1,2-TRICHLOROETHANE	79-00-5	0.72	--	0.109 U	0.1 U	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	
1,1-DICHLOROETHANE	75-34-3	710	0.081 U	0.081 U	0.08 U	0.08 U	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	
1,1-DICHLOROETHYLENE	75-35-4	180	0.08 U	0.079 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	
1,2,4-TRICHLOROBENZENE	120-82-1	3.4	--	0.371 U	0.371 U	0.4 U	0.4 U	0.371 U	0.371 U	0.371 U	0.668	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	
1,2-DIBROMOETHANE	106-93-4	0.038	--	0.2 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	
1,2-DICHLOROBENZENE	95-50-1	710	--	0.12 U	0.12 U	0.1 U	0.1 U	0.12 U	0.12 U	0.120 U	0.168	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	
1,2-DICHLOROETHANE	107-06-2	0.44	--	0.081 U	0.081 U	0.08 U	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	
1,2-DICHLOROPROPANE	78-87-5	0.6	--	0.092 U	0.09 U	0.09 U	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	
1,3-DICHLOROBENZENE	541-73-1	710	--	0.12 U	0.1 U	0.12 U	0.1 U	0.12 U	0.12 U	0.120 U	0.126	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	
1,4-DICHLOROBENZENE	106-46-7	1.7	--	0.12 U	0.1 U	0.1 U	0.1 U	0.12 U	0.12 U	0.120 U	0.174	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	
1,4-DIOXANE	123-91-1	2.3	--	0.4 U	0.4 U	0.4 U	0.4 U	0.36 U	0.36 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	
2-BUTANONE	78-93-3	4400	--	1.47 U	1 U	1 U	1.12	0.787	0.885	0.596	3.48	0.808	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U	
4-METHYL-2-PENTANONE	108-10-1	2700	--	2.05 U	2 U	2 U	0.819 U	0.82 U	0.82 U	0.820 U	0.820 U	0.820 U	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U	
ACETONE	67-64-1	710	--	5.77	7.31	4.75 U	6.34	8.76	8.53	9.81	17.1	5.04	2.45	2.38 U	4.73	5.65	3.71	
BENZENE	71-43-2	11	--	0.658	0.472	0.351	1.93	0.319 U	0.319 U	0.425	0.367	0.939	0.565	0.367	0.319 U	0.319 U	0.856	
BROMODICHLOROMETHANE	75-27-4	0.65	--	0.134 U	0.134 U	0.1 U	0.1 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	
BROMOFORM	75-25-2	10	--	0.2 U	0.2 U	0.2 U	0.206 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	
BROMOMETHANE	74-83-9	4.4	--	0.08 U	0.08 U	0.078 U	0.08 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	
CARBON DISULFIDE	75-15-0	NE	--	--	--	--	--	--	--	--	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	
CARBON TETRACHLORIDE	56-23-5	1.9	--	0.48	0.57	0.553	0.44	0.308	0.289	0.403	0.453	0.440	0.560	0.384	0.434	0.359	0.484	
CHLOROBENZENE	108-90-7	44	--	0.092 U	0.092 U	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.461 U	0.461 U	0.461 U	
CHLOROETHANE	75-00-3	NE	--	--	--	--	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	
CHLOROFORM	67-66-3	3	--	0.098 U	0.141	0.1 U	0.1 U	0.098 U	0.098 U	0.112	0.098 U	0.098 U	0.098 U	0.098 U	0.122	0.098	0.098 U	
CHLOROMETHANE	74-87-3	NE	--	--	--	--	--	1.03 U	1.03 U	1.08	1.18	1.08	0.985	1.08	0.898	0.925	0.869	
CIS-1,2-DICHLOROETHENE	156-59-2	5.3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.9 *	--	0.09 U	0.09 U	0.09 U	0.09 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	
DIBROMOCHLOROMETHANE	124-48-1	0.48	--	0.2 U	0.2 U	0.2 U	0.2 U	0.17 U	0.17 U	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U	
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	--	--	--	--	--	1.69	0.658	1.13	1.57	1.33	1.79	1.66	1.27	1.26	2.38	
ETHYLBENZENE	100-41-4	880	--	0.321	0.23	0.09 U	0.529	0.087 U	0.087 U	0.087 U	0.169	0.208	0.091	0.087 U	0.087 U	0.087 U	0.139	
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	--	--	--	--	--	0.475	0.452	0.475	0.491	0.468	0.452	0.429	0.506	0.414	0.498	
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	--	0.192 U	0.5 U	0.5 U	0.5 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	
METHYL TERT-BUTYL ETHER	1634-04-4	2700	--	0.07 U	0.07 U	0.07 U	0.07 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.721 U	0.721 U	0.721 U	0.721 U	
METHYLENE CHLORIDE	75-09-2	530	1.74 U	1.74 U	2 U	1.74 U	4.9 U	4.86 U	4.86 U	4.86 U	6.74	4.86 U	4.03	1.74 U	13.6	1.74 U	1.74 U	
NAPHTHALENE	91-20-3	2.7	--	0.3 U	0.262 U	0.262 U	0.471	0.262 U	0.262 U	0.262 U	0.881	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	
STYRENE (MONOMER)	100-42-5	20	--	0.085 U	0.085 U	0.09 U	0.13	0.085 U	0.085 U	0.085 U	0.183	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	
TETRACHLOROETHENE	127-18-4	4.1	0.176	0.244	0.49	0.1 U	0.318	0.136 U	0.136 U	0.136 U	0.142	0.142	0.136 U	0.136 U	0.136 U	0.136 U	0.136 U	
TOLUENE	108-88-3	4400	--	2.05	1.1	0.267	2.8	0.456	0.607	1.47	11.5	1.94	0.467	0.226	0.328	0.283	1.06	
TRANS-1,2-DICHLOROETHENE	156-60-5	53	0.08 U	0.079 U	0.08 U	0.079 U	0.08 U	0.079 U	0.079 U	0.079 U	0.111	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	
TRANS-1,3-DICHLOROPROPENE	10061-02-6	2.9 *	--	0.09 U	0.09 U	0.09 U	0.09 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	
TRICHLOROETHYLENE	79-01-6	1.8	0.107 U	0.107 U	0.1 U	0.1 U	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U	
VINYL CHLORIDE	75-01-4	1.3	0.05 U	0.051 U	0.051 U	0.05 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	
M,P-XYLENE	MPXYLENE	88 **	--	0.915	0.655	0.2 U												

Notes:

All units are in micrograms per cubic meter (µg/m³)

Detected values are shown in bold.

Detection Limit indicated is above the MA-C/I threshold value

Detected value is above the MA-C/I threshold value

MA - C/I = Mass Industrial/Commercial threshold values from MassDEP Vapor Intrusion Guidance Policy #WSC-16-435 of October 2016.

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Table 3-1
Summary of Historical Indoor and Ambient Air Results through February 2018
Former GE Facility, 50 Fordham Rd, Wilmington, MA

Site Location:			Building 1 - First Floor												Building 1 - First Floor											
	Sample Location ID:		IA-02												IA-03											
	Sample Date:	Sample ID:	8/20/2009	4/15/2010	1/26/2011	8/23/2012	8/28/2012	2/27/2013	5/21/2013	3/7/2014	2/17/2015	2/11/2016	4/13/2017	2/7/2018	8/20/2009	4/15/2010	1/26/2011	8/23/2012	8/28/2012	2/27/2013	5/21/2013	3/7/2014	2/17/2015	2/11/2016	4/13/2017	2/7/2018
			Off	On	On	Off	On	On	Off	On	On	On	On	N/A	On	Off	On	On	Off	On	On	Off	On	On	On	N/A
	HVAC System Status:		Off	On	On	Off	On	On	Off	On	On	On	N/A	On	Off	On	On	Off	On	On	Off	On	On	On	N/A	On
CHEMICAL NAME	CAS Number	MA - C/I (October 2016)																								
MADEP APH (2008-2009); APH (2010)																										
1,3-BUTADIENE	106-99-0	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
BENZENE	71-43-2	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C5-C8 ALIPHATIC HYDROCARBONS	C5C8	330	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C10 AROMATIC HYDROCARBONS	C9C10	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
C9-C12 ALIPHATIC HYDROCARBONS	C9C12	220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ETHYLBENZENE	100-41-4	880	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
METHYL TERT-BUTYL ETHER	1634-04-4	2700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	91-20-3	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOLUENE	108-88-3	4400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M,P-XYLENE	MPXYLENE	88 **	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
O-XYLENE	95-47-6	88 **	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TO15																										
CARBON DISULFIDE	75-15-0	NE	--	--	--	0.623 U	0.623 U	0.623 U	--	--	--	--	--	--	--	--	--	0.623 U	0.623 U	0.623 U	--	--	--	--	--	--
TO15 SIM																										
1,1,1-TRICHLOROETHANE	71-55-6	4400	0.142	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 UJ	0.109 U	0.109 U	0.109 U	0.13	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 UJ	0.109 U	0.109 U	0.109 U	0.109 U
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.2	--	0.137 U	0.1 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 UJ	0.137 U	0.137 U	0.137 U	--	0.137 U	0.1 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 UJ	0.137 U	0.137 U	0.137 U	0.137 U
1,1,2-TRICHLOROETHANE	79-00-5	0.72	--	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 UJ	0.109 U	0.109 U	0.109 U	--	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 UJ	0.109 U	0.109 U	0.109 U	0.109 U
1,1-DICHLOROETHANE	75-34-3	710	0.08 U	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 U	0.081 U	0.081 U	0.08 U	0.08 U	0.08 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U
1,1-DICHLOROETHYLENE	75-35-4	180	0.08 U	0.08 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 UJ	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 UJ	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
1,2,4-TRICHLOROBENZENE	120-82-1	3.4	--	0.4 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 UJ	0.371 U	0.371 U	0.371 U	--	0.4 U	0.4 U	0.371 U	0.371 U	0.371 U	0.371 UJ	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U
1,2-DIBROMOETHANE	106-93-4	0.038	--	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 UJ	0.154 U	0.154 U	0.154 U	--	0.2 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 UJ	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U
1,2-DICHLOROBENZENE	95-50-1	710	--	0.12 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.120 U	0.120 U	0.120 U	--	0.12 U	0.1 U	0.12 U	0.12 U	0.120 U	0.120 UJ	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U
1,2-DICHLOROETHANE	107-06-2	0.44	--	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 U	0.081 U	0.113	--	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 U	0.081 U	0.081 U	0.081 U	0.243
1,2-DICHLOROPROPANE	78-87-5	0.6	--	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 UJ	0.092 U	0.092 U	0.092 U	--	0.09 U	0.09 U	0.092 U	0.092 U	0.092 U	0.092 UJ	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U
1,3-DICHLOROBENZENE	541-73-1	710	--	0.1 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.120 U	0.120 U	0.120 U	--	0.12 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 UJ	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U
1,4-DICHLOROBENZENE	106-46-7	1.7	--	0.1 U	0.120 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.126	0.120 U	0.120 U	--	0.12 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 UJ	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U
1,4-DIOXANE	123-91-1	2.3	--	0.4 U	0.36 U	0.36 U	0.36 U	0.360 U	0.360 U	0.360 U	0.360 UJ	0.360 U	0.360 U	0.360 U	--	0.36 U	0.4 U	0.36 U	0.36 U	0.360 U	0.360 UJ	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U
2-BUTANONE	78-93-3	4400	--	1.47 U	1.28	0.976	0.734	0.864	1.10	0.770	1.47 UJ	1.47 U	1.47 U	1.47 U	--	1.47 U	1.41	1.1	0.625	0.852	1.50	0.820 J	3.48	1.47 U	1.47 U	1.47 U
4-METHYL-2-PENTANONE	108-10-1	2700	--	2 U	0.8 U	0.82 U	0.82 U	0.820 U	0.820 U	0.820 U	2.05 UJ	2.05 U	2.05 U	2.05 U	--	2 U	0.819 U	0.82 U	0.82 U	0.820 U	0.820 UJ	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U
ACETONE	67-64-1	710	--	15.4	8.5	12.1	8.08	7.84	9.29	9.36	3.66 J	12.4	7.79	4.06 J	--	13.3	9.88	13.5	7.84	8.05	10.1	9.95 J	15.7	14.2	8.72	4.32 J
BENZENE	71-43-2	11	--	0.466	2.66	0.502	0.319 U	0.387	0.319 U	1.51	0.591 J	0.511	0.319 U	0.917	--	0.463	2.83	0.511	0.319 U	0.419	0.425	1.65 J	0.649	0.518	0.319 U	0.958
BROMODICHLOROMETHANE	75-27-4	0.65	--	0.1 U	0.1 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 UJ	0.134 U	0.134 U	0.134 U	--	0.1 U	0.1 U	0.134 U	0.134 U	0.134 U	0.134 UJ	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U
BROMOFORM	75-25-2	10	--	0.2 U	0.2 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 UJ	0.207 U	0.207 U	0.207 U	--	0.2 U	0.206 U	0.207 U	0.207 U	0.207 U	0.207 UJ	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U
BROMOMETHANE	74-83-9	4.4	--	0.08 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 UJ	0.078 U	0.078 U	0.078 U	--	0.07										

Table 3-1
Summary of Historical Indoor and Ambient Air Results through February 2018
Former GE Facility, 50 Fordham Rd, Wilmington, MA

Site Location:			Building 1 - First Floor												Building 3 (Razed 2011)				
	Sample Location ID:		IA-04												IA-05				
	Sample Date:		8/20/2009	4/15/2010	1/26/2011	8/23/2012	8/28/2012	2/27/2013	5/21/2013	3/7/2014	2/17/2015	2/11/2016	4/13/2017	2/7/2018	8/20/2009	8/20/2009	4/5/2010	4/8/2010	4/8/2010
	Sample ID:		IA-4.08.20.09	IA-4.04.15.10	IA-4.01.26.11	12A-IA4-1	12B-IA4-1	13A-IA4-1	13B-IA4-1	14A-IA4-1	15A-IA4-1	16A-IA4-1	17A-IA4-1	18A-IA4-1	IA-5.08.20.09	IA-901.08.20.09	IA-5.04.05.10	IA-5.04.08.10	IA-901.04.08.10
	HVAC System Status:		Off	On	On	Off	On	On	Off	On	On	On	N/A	On	Off	Off	Off	On	On
CHEMICAL NAME	CAS Number	MA - C/I (October 2016)														duplicate			duplicate
MADEP APH (2008-2009); APH (2010)																			
1,3-BUTADIENE	106-99-0	NE	--	--	--	--	--	--	--	--	--	--	--	--	2 U	2 U	2 U	2 U	2 U
BENZENE	71-43-2	11	--	--	--	--	--	--	--	--	--	--	--	--	2 U	2 U	3.5	2 U	2 U
C5-C8 ALIPHATIC HYDROCARBONS	C5C8	330	--	--	--	--	--	--	--	--	--	--	--	--	597	508	320	29	17
C9-C10 AROMATIC HYDROCARBONS	C9C10	44	--	--	--	--	--	--	--	--	--	--	--	--	45.7	37.3	32	10 U	10 U
C9-C12 ALIPHATIC HYDROCARBONS	C9C12	220	--	--	--	--	--	--	--	--	--	--	--	--	8940	7260	4800	690	420
ETHYLBENZENE	100-41-4	880	--	--	--	--	--	--	--	--	--	--	--	--	2.23	2.12	2.8	2 U	2 U
METHYL TERT-BUTYL ETHER	1634-04-4	2700	--	--	--	--	--	--	--	--	--	--	--	--	2 U	2 U	2 U	2 U	2 U
NAPHTHALENE	91-20-3	2.7	--	--	--	--	--	--	--	--	--	--	--	--	2 U	2 U	2 U	2 U	2 U
TOLUENE	108-88-3	4400	--	--	--	--	--	--	--	--	--	--	--	--	2.45	2.25	14	2 U	2 U
M,P-XYLENE	MPXYLENE	88 **	--	--	--	--	--	--	--	--	--	--	--	--	7.65	7.07	10	4 U	4 U
O-XYLENE	95-47-6	88 **	--	--	--	--	--	--	--	--	--	--	--	--	2.47	2.26	3.6	2 U	2 U
TO15																			
CARBON DISULFIDE	75-15-0	NE	--	--	--	0.623 U	0.623 U	0.623 U	--	--	--	--	--	--	--	--	--	--	--
TO15 SIM																			
1,1,1-TRICHLOROETHANE	71-55-6	4400	0.1 U	0.1 U	0.109 U	0.125	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.1 U	0.109 U
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.2	--	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	--	--	0.1 U	0.1 U	0.137 U
1,1,2-TRICHLOROETHANE	79-00-5	0.72	--	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	--	--	0.1 U	0.109 U	0.1 U
1,1-DICHLOROETHANE	75-34-3	710	0.08 U	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.08 U
1,1-DICHLOROETHYLENE	75-35-4	180	0.079 U	0.08 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.08 U	0.079 U
1,2,4-TRICHLOROBENZENE	120-82-1	3.4	--	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	--	--	0.371 U	0.371 U	0.4 U
1,2-DIBROMOETHANE	106-93-4	0.038	--	0.154 U	0.2 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	--	--	0.2 U	0.2 U	0.154 U
1,2-DICHLOROBENZENE	95-50-1	710	--	0.1 U	0.1 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	--	--	0.12 U	0.1 U	0.1 U
1,2-DICHLOROETHANE	107-06-2	0.44	--	0.08 U	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	1.07	--	--	0.081 U	0.081 U	0.08 U
1,2-DICHLOROPROPANE	78-87-5	0.6	--	0.09 U	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	--	--	0.092 U	0.092 U	0.09 U
1,3-DICHLOROBENZENE	541-73-1	710	--	0.1 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	--	--	0.12 U	0.12 U	0.1 U
1,4-DICHLOROBENZENE	106-46-7	1.7	--	0.1 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	--	--	0.12 U	0.12 U	0.1 U
1,4-DIOXANE	123-91-1	2.3	--	0.4 U	0.36 U	0.36 U	0.36 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	--	--	0.4 U	0.36 U	0.36 U
2-BUTANONE	78-93-3	4400	--	1.47 U	1.13	1.16	0.708	0.864	2.62	0.773	3.36	1.47 U	1.47 U	1.47 U	--	--	1	1 U	1.47 U
4-METHYL-2-PENTANONE	108-10-1	2700	--	2.05 U	0.819 U	0.82 U	0.82 U	0.820 U	0.820 U	0.820 U	2.05 U	2.05 U	2.05 U	2.05 U	--	--	2.05 U	2.05 U	2 U
ACETONE	67-64-1	710	--	9.69	7.46	12	8.81	10.2	8.48	8.34	18.6	12.3	8.36	4.09 J	--	--	22.5	7.88	5 U
BENZENE	71-43-2	11	--	0.405	2.42	0.511	0.319 U	0.355	0.371	1.44	0.636	0.489	0.319 U	0.930	--	--	2.85	0.338	0.3 U
BROMODICHLOROMETHANE	75-27-4	0.65	--	0.1 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	--	--	0.1 U	0.134 U	0.134 U
BROMOFORM	75-25-2	10	--	0.2 U	0.206 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	--	--	0.2 U	0.206 U	0.206 U
BROMOMETHANE	74-83-9	4.4	--	0.08 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	--	--	0.08 U	0.078 U	0.08 U
CARBON DISULFIDE	75-15-0	NE	--	--	--	--	--	--	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	--	--	--	--	--
CARBON TETRACHLORIDE	56-23-5	1.9	--	0.52	0.415	0.314	0.321	0.396	0.453	0.440	0.585	0.396	0.403	0.434	--	--	0.47	0.541	0.459
CHLOROBENZENE	108-90-7	44	--	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.461 U	0.461 U	--	--	0.092 U	0.092 U	0.09 U
CHLOROETHANE	75-00-3	NE	--	--	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	--	--	--	--	--
CHLOROFORM	67-66-3	3	--	0.1 U	0.11	0.186	0.098 U	0.186	0.117	0.103	0.098 U	0.122	0.098 U	0.107	--	--	0.156	0.098 U	0.1 U
CHLOROMETHANE	74-87-3	NE	--	--	--	1.11	1.03 U	1.03 U	1.22	1.10	1.01	1.12	0.987	0.845	--	--	--	--	--
CIS-1,2-DICHLOROETHENE	156-59-2	5.3	0.079 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.08 U	0.08 U	0.079 U	0.08 U
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.9 *	--	0.09 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	--	0.09 U	0.091 U	0.09 U
DIBROMOCHLOROMETHANE	124-48-1	0.48	--	0.096 U	0.17 U	0.17 U	0.17 U	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U	--	--	0.2 U	0.096 U	0.2 U
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	--	--	--	1.94	1.35	0.940	1.81	1.30	0.989 U	1.48	1.56	2.40	--	--	--	--	--
ETHYLBENZENE	100-41-4	880	--	0.186	0.660	0.395	0.108	0.104	0.248	0.317	4.02	0.200	0.404	0.226	--	--	2.3	0.156	0.10
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	--	--	--	0.659	0.56	0.583	0.537	0.697	0.774	1.10	0.606	0.506	--	--	--	--	--
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	--	0.192 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	--	--	0.192 U	0.192 U	0.5 U
METHYL TERT-BUTYL ETHER	1634-04-4	2700	--	0.07 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.721 U	0.721 U	0.721 U	0.721 U	--	--	0.07 U	0.072 U	0.072 U
METHYLENE CHLORIDE	75-09-2	530	1.74 U	1.74 U	4.86 U	6.56	4.86 U	4.86 U	13.9	4.86 U	1.74 U	1.74 U	1.74 U	1.74 U	1.74 U	2 U	2 U	1.74 U	1.74 U
NAPHTHALENE	91-20-3	2.7	--	0.3 U	0.3 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.283	--	--	0.807	0.262 U	0.262 U
STYRENE (MONOMER)	100-42-5	20	--	0.09 U	0.153	0.174	1.54	0.085 U	0.123	0.089	0.085 U	0.260	0.085 U	0.094	--	--	0.23	0.085 U	0.085 U
TETRACHLOROETHENE	127-18-4	4.1	0.346	0.58	0.759	0.644	0.278	0.305	0.366	0.549	0.197	0.502	0.359	0.529	0.684	0.64	6.85	0.603	0.51
TOLUENE	108-88-3	4400	--	0.874	4.1	2.12	0.848	0.494	1.32	2.67	3.58	1.34	1.63	1.72	--	--	11.6	0.761	0.588
TRANS-1,2-DICHLOROETHENE	156-60-5	53	0.079 U	0.2	0.103	0.127	0.079 U	0.079 U	0.079 U	0.230	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.08 U	0.079 U	0.08 U	0.08 U
TRANS-1,3-DICHLOROPROPENE	10061-02-6	2.9 *	--	0.09 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	--	0.091 U	0.091 U	0.09 U
TRICHLOROETHYLENE	79-01-6	1.8	2.43	0.24	0.2	1.05	0.107 U	0.107 U	0.188	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U	0.13	0.123	0.20	0.107 U	0.107 U
VINYL CHLORIDE	75-01-4	1.3	0.051 U	0.051 U	0.05 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.05 U	0.051 U	0.051 U	0.051 U
M,P-XYLENE	MPXYLENE	88 **	--	0.681	1.85	1.18	0.317	0.339	0.760	0.882	16.9	0.656	1.47	0.695	--	--	8.63	0.538 J	0.34 J
O-XYLENE	95-47-6	88 **	--	0.24	0.699	0.452	0.13	0.148	0.317	0.326	5.52	0.248	0.478	0.282	--	--	3.07	0.204 J	0.13 J

Notes:

All units are in micrograms per cubic meter (µg/m³)

Detected values are shown in bold.

Detection Limit indicated is above the MA-C/I threshold value

Detected value is above the MA-C/I threshold value

MA - C/I = Mass Industrial/Commercial threshold values from MassDEP Vapor Intrusion Guidance Policy #WSC-16-

Table 3-1
Summary of Historical Indoor and Ambient Air Results through February 2018
Former GE Facility, 50 Fordham Rd, Wilmington, MA

Site Location:			Building 1 - First Floor											Building 1 - First Floor														
	Sample Location ID:		IA-07											IA-08														
			4/15/2010	1/26/2011	8/23/2012	8/28/2012	2/27/2013	5/21/2013	3/7/2014	2/17/2015	2/11/2016	4/13/2017	2/7/2018	4/15/2010	1/26/2011	8/23/2012	8/23/2012	8/28/2012	8/28/2012	2/27/2013	2/27/2013	5/21/2013	5/21/2013	3/7/2014	3/7/2014	2/17/2015	2/17/2015	
	Sample Date:	Sample ID:	On	On	Off	On	On	Off	On	On	On	N/A	On	On	On	Off	Off	On	On	On	On	Off	Off	On	On	On	On	
	HVAC System Status:	MA - C/I (October 2016)	IA-7.04.15.10	IA-7.01.26.11	12A-IA7-1	12B-IA7-1	13A-IA7-1	13B-IA7-1	14A-IA7-1	15A-IA7-1	16A-IA7-1	17A-IA7-1	18A-IA7-1	IA-8.04.15.10	IA-8.01.26.11	12A-IA8-1	12A-IA8-2	12B-IA8-2	12B-IA8-1	13A-IA8-1	13A-IA8-2	13B-IA8-1	13B-IA8-2	14A-IA8-1	14A-IA8-2	15A-IA8-1	15A-IA8-2	
CHEMICAL NAME	CAS Number		On	On	Off	On	On	Off	On	On	On	N/A	On	On	On	Off	Off	On	On	On	On	Off	Off	On	On	On	On	
MADEP APH (2008-2009); APH (2010)																duplicate	duplicate			duplicate		duplicate		duplicate		duplicate		
1,3-BUTADIENE	106-99-0	NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
BENZENE	71-43-2	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
C5-C8 ALIPHATIC HYDROCARBONS	C5C8	330	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
C9-C10 AROMATIC HYDROCARBONS	C9C10	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
C9-C12 ALIPHATIC HYDROCARBONS	C9C12	220	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
ETHYLBENZENE	100-41-4	880	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
METHYL TERT-BUTYL ETHER	1634-04-4	2700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
NAPHTHALENE	91-20-3	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
TOLUENE	108-88-3	4400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
M,P-XYLENE	MPXYLENE	88 **	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
O-XYLENE	95-47-6	88 **	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
TO15																												
CARBON DISULFIDE	75-15-0	NE	--	--	0.623 U	0.623 U	0.623 U	--	--	--	--	--	--	--	--	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	--	--	--	--	--		
TO15 SIM																												
1,1,1-TRICHLOROETHANE	71-55-6	4400	0.1 U	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 UJ	0.109 U	0.109 U	0.109 U	0.109 U	0.1 U	0.109 U	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 UJ	0.109 U		
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.2	0.1 U	0.1 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 UJ	0.137 U	0.137 U	0.137 U	0.1 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 UJ	0.137 U		
1,1,2-TRICHLOROETHANE	79-00-5	0.72	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 UJ	0.109 U	0.109 U	0.109 U	0.109 U	0.1 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 UJ	0.109 U		
1,1-DICHLOROETHANE	75-34-3	710	0.08 U	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 U			
1,1-DICHLOROETHYLENE	75-35-4	180	0.08 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 UJ	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 UJ	0.079 U			
1,2,4-TRICHLOROBENZENE	120-82-1	3.4	0.4 U	0.4 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 UJ	0.371 U	0.371 U	0.371 U	0.4 U	0.4 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	0.371 UJ	0.371 U			
1,2-DIBROMOETHANE	106-93-4	0.038	0.2 U	0.2 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 UJ	0.154 U	0.154 U	0.154 U	0.2 U	0.2 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	0.154 UJ	0.154 U			
1,2-DICHLOROBENZENE	95-50-1	710	0.1 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.120 U	0.120 U	0.120 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.120 U			
1,2-DICHLOROETHANE	107-06-2	0.44	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 U	0.081 U	0.194	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 U				
1,2-DICHLOROPROPANE	78-87-5	0.6	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.116	0.092 U	0.092 UJ	0.092 U	0.092 U	0.092 U	0.092 U	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 UJ	0.092 U				
1,3-DICHLOROBENZENE	541-73-1	710	0.12 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.120 U	0.120 U	0.120 U	0.1 U	0.1 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.120 U				
1,4-DICHLOROBENZENE	106-46-7	1.7	0.1 U	0.1 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.126	0.120 U	0.120 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 U	0.120 UJ	0.120 U					
1,4-DIOXANE	123-91-1	2.3	0.4 U	0.36 U	0.36 U	0.36 U	0.360 U	0.360 U	0.360 U	0.360 UJ	0.360 U	0.360 U	0.360 U	0.4 U	0.4 U	0.36 U	0.36 U	0.36 U	0.360 U	0.360 U	0.360 U	0.360 UJ	0.360 U					
2-BUTANONE	78-93-3	4400	1 U	1.32	1.13	0.655	0.917	1.79	0.734	3.72 J	1.47 U	1.47 U	1.47 U	1.11	1.05	1.06	0.849	0.773	0.935	0.920	1.41	1.80	0.764	0.779	5.19 J	5.25		
4-METHYL-2-PENTANONE	108-10-1	2700	2.05 U	0.8 U	0.82 U	0.82 U	0.820 U	0.820 U	0.820 U	2.05 U	2.05 U	2.05 U	2.05 U	2 U	0.8 U	0.82 U	0.82 U	0.82 U	0.820 U	0.820 U	0.820 U	0.820 UJ	2.05 UJ	2.05 U				
ACETONE	67-64-1	710	13.8	10.2	11.5	8.34	8.55	12.2	9.31	17.4 J	13.4	8.86	3.90 J	14.3	8.19	11.3	11.4	9.57	8.12	8.15	8.29	10.0	11.4	9.83	9.64	18.8 J	18.7	
BENZENE	71-43-2	11	0.437	3.03	0.473	0.319 U	0.387	0.399	1.52	0.626 J	0.508	0.319 U	0.942	0.460	2.57	0.482	0.47	0.319 U	0.319 U	0.403	0.393	0.425	0.431	1.50	1.60	0.617 J	0.617	
BROMODICHLOROMETHANE	75-27-2	0.65	0.134 U	0.1 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 UJ	0.134 U	0.134 U	0.134 U	0.1 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 UJ	0.134 U					
BROMOFORM	75-25-2	10	0.206 U	0.2 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 UJ	0.207 U	0.207 U	0.207 U	0.206 U	0.206 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 UJ	0.207 U					
BROMOMETHANE	74-83-9	4.4	0.08 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 UJ	0.078 U	0.078 U	0.078 U	0.08 U	0.08 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 UJ	0.078 U							
CARBON DISULFIDE	75-15-0	NE	--	--	--	--	--	0.623 U	0.623 U	0.623 UJ	0.623 U	0.623 U	0.623 U	--	--	--	--	--	--	--	0.623 U	0.623 U	0.623 UJ	0.623 U				
CARBON TETRACHLORIDE	56-23-5	1.9	0.50	0.47	0.302	0.308	0.396	0.453	0.428	0.579 J	0.403	0.403	0.510	0.50	0.45	0.302	0.302	0.308	0.302	0.403	0.396	0.453	0.459	0.434	0.434	0.572 J	0.566	
CHLOROBENZENE	108-90-7	44	0.092 U	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 UJ	0.092 U	0.461 U	0.461 U	0.092 U	0.09 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 UJ	0.092 U						
CHLOROETHANE	75-00-3	NE	--	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 UJ	0.053 U	0.053 U	0.053 U	--	--	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 UJ	0.053 U						
CHLOROFORM	67-66-3	3	0.098 U	0.14	0.186	0.098 U	0.391	0.342	0.103	0.098 UJ	0.098 U	0.098	0.103	0.1 U	0.12	0.19	0.195	0.098 U	0.098 U	0.195	0.186	0.147	0.156	0.098	0.103	0.098 UJ	0.098 U	
CHLOROMETHANE	74-87-3	NE	--	--	1.05	1.03 U	1.03 U	1.30	1.10	0.958 J	1.14	0.991	0.867	--	--	1.03 U	1.03 U	1.03 U	1.03 U	1.22	1.25	1.10	1.11	0.946 J	0.940			
CIS-1,2-DICHLOROETHENE	156-59-2	5.3	0.079 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 UJ	0.079 U	0.079 U	0.079 U	0.08 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 UJ	0.079 U							
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.9 *	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 UJ	0.091 U	0.091 U	0.091 U	0.09 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 UJ	0.091 U							
DIBROMOCHLOROMETHANE	124-48-1	0.48	0.096 U	0.2 U	0.17 U	0.17 U	0.170 U	0.170 U	0.170 U	0.170 UJ	0.170 U	0.170 U	0.170 U	0.096 U	0.17 U	0.17 U	0.17 U	0.17 U	0.170 U	0.170 UJ	0.170 U							
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	--	--	1.12	1.14	1.19	1.77	1.72	1.45 J	1.26	1.17	2.41	--	--	1.39	1.38	1.34	0.93	1.34	1.45	1.73	1.68	1.26	1.37	1.78 J	1.41	
ETHYLBENZENE	100-41-4	880	0.21	0.812	0.317	0.096	0.213	0.230	0.347	3.37 J	0.248	0.378	0.217	0.208	0.647	0.304	0.317	0.091	0.087 U	0.217	0.217	0.256	0.261	0.334	0.369	2.16 J	2.15	
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	--	--	0.759	0.56	0.743	0.828	1.39	1.52 J	1.36	0.552	0.537	--	--	2.48	2.6	0.828	0.743	1.66	1.64	2.46	2.75	3.31	3.40	3.81 J	3.79	
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	0.192 U	0.5 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 UJ	0.533 U	0.533 U	0.533 U	0.192 U	0.5 U	0.533 U	0.533 U	0.533 U	0.533 UJ	0.533 U	0.533 UJ	0.533 U	0.533 UJ	0.533 U				
METHYL TERT-BUTYL ETHER	1634-04-4	2700	0.07 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 UJ	0.721 U	0.721 U	0.721 U	0.072 U	0.07 U	0.072 U	0.072 U	0.072 U	0.072 U									

Notes:

All units are in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Detected values are shown in bold.

Detection Limit indicated is above the MA-C/I threshold value

Detected value is above the MA-C/I threshold value
MA - C/I = Mass Industrial/Commercial threshold values from MassDEP
Vapor Intrusion Guidance Policy #WSC-16-435 of October 2016.

* MA - C/I value shown for cis- and trans- 1,3-dichloropropene

** MA - C/I value shown for xylenes is for total xylenes

J = Estimated value

U = Not detected at the reported detection limit for the sample.

UJ = Not detected above laboratory detection limit; detection limit is estimated.

NE = Not established

IA - Indoor Air samples except as noted above for IA-01 (ambient air samples 2009-11)

AA - Ambient air samples (outdoors)

APH - Air-phase Petroleum Hydrocarbons

MassDEP - Massachusetts Department of Environmental Protection

SIM - Selective Ion Monitoring

J = Estimated value

U = Not detected at the reported detection limit for the sample.

UJ = Not detected above laboratory detection limit; detection limit is estimated.

NE = Not established

IA - Indoor Air samples except as noted above for IA-01 (ambient air samples 2009-11)

AA - Ambient air samples (outdoors)

APH - Air-phase Petroleum Hydrocarbons

MassDEP - Massachusetts Department of Environmental Protection

SIM - Selective Ion Monitoring

Table 3-1

[illegible]

J = Estimated value

U = Not detected at the reported detection limit for the sample.

UJ = Not detected above laboratory detection limit; detection limit is estimated.

NE = Not established

IA - Indoor Air samples except as noted above for IA-01 (ambient air samples 2009-11)

AA - Ambient air samples (outdoors)
 APH - Air-phase Petroleum Hydrocarbons
 MassDEP - Massachusetts Department of Environmental Protection
 SIM - Selective Ion Monitoring

MassDEP - Massachusetts Department of

SIM - Selective Ion Monitoring

Table 1. Descriptive Data on the Sample

Table 3-1
Summary of Historical Indoor and Ambient Air Results through February 2018
Former GE Facility, 50 Fordham Rd, Wilmington, MA

Site Location:			Building 1A CranBarry	Building 1A K1 Speed				Guard Shack (razed 2017) [Not sampled 2014-2016]				
	Sample Location ID:		IA-11	IA-12		IA-13	IA-14	IA-06				
	Sample Date:		4/13/2017	4/13/2017	7/13/2017	7/13/2017	7/13/2017	8/20/2009	4/5/2010	8/23/2012	3/6/2013	5/21/2013
	Sample ID:		17A-IA11-1	17A-IA12-1	17B-IA12-1	17A-IA13-1	17A-IA14-1	IA-6.08.20.09	IA-6.04.05.10	12A-IA6-1	13A-IA6-1	13B-IA6-1
	HVAC System Status:		On	On	AC On	AC On	AC On	Off	Off	Off	Off	Off
CHEMICAL NAME	CAS Number	MA - C/I (October 2016)										
MADEP APH (2008-2009); APH (2010)												
1,3-BUTADIENE	106-99-0	NE	--	--	--	--	--	2 U	2 U	--	--	--
BENZENE	71-43-2	11	--	--	--	--	--	2 U	2 U	--	--	--
C5-C8 ALIPHATIC HYDROCARBONS	C5C8	330	--	--	--	--	--	56.2	19	--	--	--
C9-C10 AROMATIC HYDROCARBONS	C9C10	44	--	--	--	--	--	10 U	10 U	--	--	--
C9-C12 ALIPHATIC HYDROCARBONS	C9C12	220	--	--	--	--	--	14 U	14 U	--	--	--
ETHYLBENZENE	100-41-4	880	--	--	--	--	--	2 U	2 U	--	--	--
METHYL TERT-BUTYL ETHER	1634-04-4	2700	--	--	--	--	--	2 U	2 U	--	--	--
NAPHTHALENE	91-20-3	2.7	--	--	--	--	--	2 U	2 U	--	--	--
TOLUENE	108-88-3	4400	--	--	--	--	--	2.02	2 U	--	--	--
M,P-XYLENE	MPXYLENE	88 **	--	--	--	--	--	2 U	2 U	--	--	--
O-XYLENE	95-47-6	88 **	--	--	--	--	--	4 U	4 U	--	--	--
TO15												
CARBON DISULFIDE	75-15-0	NE	--	--	--	--	--	--	--	0.623 U	0.623 U	--
TO15_SIM												
1,1,1-TRICHLOROETHANE	71-55-6	4400	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.1 U	0.109 U	0.109 U	0.109 U
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.2	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	--	0.1 U	0.137 U	0.137 U	0.137 U
1,1,2-TRICHLOROETHANE	79-00-5	0.72	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	--	0.1 U	0.109 U	0.109 U	0.109 U
1,1-DICHLOROETHANE	75-34-3	710	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.08 U	0.081 U	0.081 U	0.081 U
1,1-DICHLOROETHYLENE	75-35-4	180	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
1,2,4-TRICHLOROBENZENE	120-82-1	3.4	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U	--	0.4 U	0.371 U	0.371 U	0.371 U
1,2-DIBROMOETHANE	106-93-4	0.038	0.154 U	0.154 U	0.154 U	0.154 U	0.154 U	--	0.2 U	0.154 U	0.154 U	0.154 U
1,2-DICHLOROBENZENE	95-50-1	710	0.120 U	0.120 U	0.144	0.138	0.120 U	--	0.1 U	0.12 U	0.120 U	0.120 U
1,2-DICHLOROETHANE	107-06-2	0.44	0.097	1.64	2.23	2.18	2.77	--	0.08 U	0.081 U	0.081 U	0.081 U
1,2-DICHLOROPROPANE	78-87-5	0.6	0.092 U	0.092 U	0.139	0.139	0.111	--	0.09 U	0.092 U	0.092 U	0.092 U
1,3-DICHLOROBENZENE	541-73-1	710	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	--	0.12 U	0.12 U	0.120 U	0.120 U
1,4-DICHLOROBENZENE	106-46-7	1.7	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	--	0.1 U	0.12 U	0.120 U	0.120 U
1,4-DIOXANE	123-91-1	2.3	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	--	0.36 UJ	0.36 U	0.360 U	0.360 U
2-BUTANONE	78-93-3	4400	1.47 U	1.47 U	2.70	2.75	2.00	--	1 U	0.879	0.590 U	0.782
4-METHYL-2-PENTANONE	108-10-1	2700	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U	--	2 U	0.82 U	0.820 U	0.820 U
ACETONE	67-64-1	710	9.36	27.6	23.8	24.0	125	--	7.45	11.3	2.66	6.49
BENZENE	71-43-2	11	0.319 U	0.607	0.319 U	0.319 U	0.319 U	--	0.488	0.319 U	0.326	0.319 U
BROMODICHLOROMETHANE	75-27-4	0.65	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	--	0.1 U	0.134 U	0.134 U	0.134 U
BROMOFORM	75-25-2	10	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	--	0.2 U	0.207 U	0.207 U	0.207 U
BROMOMETHANE	74-83-9	4.4	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	--	0.08 U	0.078 U	0.078 U	0.078 U
CARBON DISULFIDE	75-15-0	NE	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	--	--	--	--	0.623 U
CARBON TETRACHLORIDE	56-23-5	1.9	0.415	0.390	0.365	0.346	0.346	--	0.49	0.308	0.403	0.447
CHLOROBENZENE	108-90-7	44	0.461 U	0.461 U	0.461 U	0.461 U	0.461 U	--	0.092 U	0.092 U	0.092 U	0.092 U
CHLOROETHANE	75-00-3	NE	0.053 U	0.053 U	0.053 U	0.053 U	0.053 U	--	--	0.053 U	0.053 U	0.053 U
CHLOROFORM	67-66-3	3	0.176	0.137	0.142	0.137	0.127	--	0.1 U	0.098 U	0.098 U	0.098 U
CHLOROMETHANE	74-87-3	NE	1.06	1.11	1.32	1.16	1.18	--	--	1.03 U	1.03 U	1.11
CIS-1,2-DICHLOROETHENE	156-59-2	5.3	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.08 U	0.08 U	0.079 U	0.079 U	0.079 U
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.9 *	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	0.091 U	0.091 U	0.091 U	0.091 U
DIBROMOCHLOROMETHANE	124-48-1	0.48	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U	--	0.2 U	0.17 U	0.170 U	0.170 U
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	1.50	1.40	1.57	1.01	1.33	--	--	1.43	1.35	1.52
ETHYLBENZENE	100-41-4	880	0.347	0.890	3.60	3.71	2.24	--	0.2	0.135	0.087 U	0.139
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	0.498	0.606	0.422	0.406	0.414	--	--	0.483	0.475	0.475
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	--	0.5 U	0.533 U	0.533 U	0.533 U
METHYL TERT-BUTYL ETHER	1634-04-4	2700	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	--	0.072 U	0.072 U	0.072 U	0.072 U
METHYLENE CHLORIDE	75-09-2	530	8.44	1.74 U	1.74 U	1.74 U	1.74 U	2.19	2 U	4.86 U	27.8	4.86 U
NAPHTHALENE	91-20-3	2.7	0.530	3.16	1.22	1.27	1.04	--	0.3 U	0.262 U	0.262 U	0.262 U
STYRENE (MONOMER)	100-42-5	20	0.085	0.307	0.302	0.298	0.392	--	0.09 U	0.085 U	0.085 U	0.085 U
TETRACHLOROETHENE	127-18-4	4.1	0.197	0.332	0.197	0.190	0.142	0.31	0.31	0.142	0.136 U	0.136 U
TOLUENE	108-88-3	4400	2.60	13.5	7.24	7.39	4.11	--	1.58	0.878	0.264	1.96
TRANS-1,2-DICHLOROETHENE	156-60-5	53	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.08 U	0.079 U	0.079 U	0.079 U
TRANS-1,3-DICHLOROPROPENE	10061-02-6	2.9 *	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	0.091 U	0.091 U	0.091 U	0.091 U
TRICHLOROETHYLENE	79-01-6	1.8	0.124	0.113	0.107 U	0.107 U	0.107 U	0.107 U	0.13	0.107 U	0.107 U	0.107 U
VINYL CHLORIDE	75-01-4	1.3	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.05 U	0.05 U	0.051 U	0.051 U	0.051 U
M,P-XYLENE	MPXYLENE	88 **	1.49	3.44	15.4	15.9	9.77	--	0.486	0.208	0.174 U	0.326
O-XYLENE	95-47-6	88 **	0.756	1.38	6.08	6.25	4.01	--	0.2	0.1	0.087 U	0.139

Notes:

All units are in micrograms per cubic meter (µg/m³)

Detected values are shown in bold.

Detection Limit indicated is above the MA-C/I threshold value

Detected value is above the MA-C/I threshold value

MA - C/I = Mass Industrial/Commercial threshold values from MassDEP
Vapor Intrusion Guidance Policy #WSC-16-435 of October 2016.

* MA - C/I value shown for cis- and trans- 1,3-dichloropropene

** MA - C/I value shown for xylenes is for total xylenes

J = Estimated value

U = Not detected at the reported detection limit for the sample.

UJ = Not detected above laboratory detection limit; detection limit is estimated.

NE = Not established

IA - Indoor Air samples except as noted above for IA-01 (ambient air samples 2009-11)

AA - Ambient air samples (outdoors)

APH - Air-phase Petroleum Hydrocarbons

MassDEP - Massachusetts Department of Environmental Protection

SIM - Selective Ion Monitoring

APPENDIX A – INDOOR AIR SAMPLING FIELD RECORDS – FEBRUARY 2018



Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation
Project Name: Former GE Facility 50 Fordham Rd Wilmington, MA
Project Number: 60552044 Task 06
Date: 2-7-18
Sampler: Tom Croft
Weather: 20s-30s ; snow showers after 11am
Sample Location: background, upwind of Building 1
Sample ID: 18A-AAI-1
SUMMA Canister No.: 608
Summar Canister Vol. (L): 6 L
Regulator No.: 0908
Sample Duration (Circle one): Instant 1hr 2hr 4hr 8hr Other: _____ hrs

	Time (24 hr)	Pressure (units <u>in. Hg</u>)
Sample Start:	<u>0825</u>	<u>-30.92</u>
Check:	<u>0915</u>	<u>-27.5</u>
Check:	<u>1130</u>	<u>-21.8</u>
Check:	<u>1245</u>	<u>-17.5</u>
Check:	<u>1435</u>	<u>-11.02</u>
Sample Finish :	<u>1631</u>	<u>-4.90</u>

PID Reading (^{ppb}~~ppm~~) at sample location: 31 Time (24 hr): 1130

Comments:

(see MassDEP Building Inventory and photographs for further details)



Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation
Project Name: Former GE Facility 50 Fordham Rd Wilmington, MA
Project Number: 60552044 Task 06
Date: 2-7-18
Sampler: Tom Croft
Weather: 20s-30s, snow showers after 11am
Sample Location: Building 1 - NW area
Sample ID: 18A-IA-2-1
SUMMA Canister No.: 2125
Summar Canister Vol. (L): 6L
Regulator No.: 01047
Sample Duration (Circle one): Instant 1hr 2hr 4hr 8hr Other: _____ hrs

	Time (24 hr)	Pressure (units <u>in. Hg</u>)
Sample Start:	<u>0746</u>	<u>-36.25</u>
Check:	<u>0920</u>	<u>-26.1</u>
Check:	<u>1135</u>	<u>-20.6</u>
Check:	<u>1250</u>	<u>-16.2</u>
Check:	<u>1445</u>	<u>-11.42</u>
Sample Finish :	<u>1549</u>	<u>-9.06</u>

PID Reading (^{ppb}ppm) at sample location: 101 Time (24 hr): 1135

Comments:

(see MassDEP Building Inventory and photographs for further details)



Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation
Project Name: Former GE Facility 50 Fordham Rd Wilmington, MA
Project Number: 60552044 Task 06
Date: 2-7-18
Sampler: Tom Coft
Weather: 20s-30s; snow showers after 11am
Sample Location: Building 1 - Southern, central area
Sample ID: 18A-IA-3-1
SUMMA Canister No.: 1848
Summar Canister Vol. (L): 6L
Regulator No.: 0909
Sample Duration (Circle one): Instant 1hr 2hr 4hr 8hr Other: _____ hrs

	Time (24 hr)	Pressure (units <u>in. Hg</u>)
Sample Start:	<u>0806</u>	<u>-31.00</u>
Check:	<u>0925</u>	<u>-27.9</u>
Check:	<u>1130</u>	<u>-20.2</u>
Check:	<u>1255</u>	<u>-16.8</u>
Check:	<u>1441</u>	<u>-10.86</u>
Sample Finish :	<u>1612</u>	<u>-7.82</u>

PID Reading (^{ppb}~~ppm~~) at sample location: 112 Time (24 hr): 1138

Comments: _____

(see MassDEP Building Inventory and photographs for further details)



Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation
Project Name: Former GE Facility 50 Fordham Rd Wilmington, MA
Project Number: 60552044 Task 06
Date: 2-7-18
Sampler: Tom Croft
Weather: 20s-30s ; snow showers after 11am
Sample Location: Building 1 - SE area
Sample ID: 18A-IA-4-1
SUMMA Canister No.: 690
Summar Canister Vol. (L): 6L
Regulator No.: 0803
Sample Duration (Circle one): Instant 1hr 2hr 4hr 8hr Other: _____ hrs

	Time (24 hr)	Pressure (units <u>In. Hg</u>)
Sample Start:	<u>0808</u>	<u>-31.15</u>
Check:	<u>0930</u>	<u>-16.9</u>
Check:	<u>1141</u>	<u>-20.1</u>
Check:	<u>1300</u>	<u>-16.0</u>
Check:	<u>1440</u>	<u>-10.46</u>
Sample Finish :	<u>1614</u>	<u>-6.52</u>

PID Reading (^{ppb}~~ppm~~) at sample location: 110 Time (24 hr): 1141

Comments:

(see MassDEP Building Inventory and photographs for further details)



Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation
Project Name: Former GE Facility 50 Fordham Rd Wilmington, MA
Project Number: 60552044 Task 06
Date: 2-7-18
Sampler: Tom Cett
Weather: 20s-30s; snow showers after 11am
Sample Location: Building 1 - SW area
Sample ID: 18A- IA-7-1
SUMMA Canister No.: 1533
Summar Canister Vol. (L): 6L
Regulator No.: 0280
Sample Duration (Circle one): Instant 1hr 2hr 4hr 8hr Other: _____ hrs

	Time (24 hr)	Pressure (units <u>in. Hg</u>)
Sample Start:	<u>0804</u>	<u>-31.00</u>
Check:	<u>0935</u>	<u>-17.0</u>
Check:	<u>1144</u>	<u>-20.0</u>
Check:	<u>1305</u>	<u>-16.0</u>
Check:	<u>1444</u>	<u>-9.12</u>
Sample Finish :	<u>1600</u>	<u>-4.71</u>

PID Reading (^{ppb}~~ppm~~) at sample location: 110 Time (24 hr): 1144

Comments:

(see MassDEP Building Inventory and photographs for further details)



Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation
Project Name: Former GE Facility 50 Fordham Rd Wilmington, MA
Project Number: 60552044 Task 06
Date: 2-7-18
Sampler: Tom Croft
Weather: 20s-30s; snow showers after 11am
Sample Location: Building 1 - SW corner room
Sample ID: 18A-IA-8-1
SUMMA Canister No.: 939
Summar Canister Vol. (L): 6L
Regulator No.: 0636
Sample Duration (Circle one): Instant 1hr 2hr 4hr 8hr Other: _____ hrs

	Time (24 hr)	Pressure (units <u>in Hg</u>)
Sample Start:	<u>0755</u>	<u>-30.85</u>
Check:	<u>0940</u>	<u>-25.8</u>
Check:	<u>1150</u>	<u>-18.0</u>
Check:	<u>1310</u>	<u>-14.1</u>
Check:	<u>1443</u>	<u>-9.37</u>
Sample Finish :	<u>1556</u>	<u>-6.42</u>

PID Reading (^{ppb}ppm) at sample location: 83 Time (24 hr): 1150

Comments:

(see MassDEP Building Inventory and photographs for further details)



Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation
Project Name: Former GE Facility 50 Fordham Rd Wilmington, MA
Project Number: 60552044 Task 06
Date: 2-7-18
Sampler: Tom Croft
Weather: 20s-30s; snow showers after 11am
Sample Location: Building 1- SW corner room ; duplicate
Sample ID: 18A-IA8-2
SUMMA Canister No.: 1644
Summar Canister Vol. (L): 6L
Regulator No.: 0121
Sample Duration (Circle one): Instant 1hr 2hr 4hr 8hr Other: _____ hrs

	Time (24 hr)	Pressure (units <u>in. Hg</u>)
Sample Start:	<u>0755</u>	<u>-30.35</u>
Check:	<u>0940</u>	<u>-25.7</u>
Check:	<u>1150</u>	<u>-18.0</u>
Check:	<u>1310</u>	<u>-14.2</u>
Check:	<u>1443</u>	<u>-9.73</u>
Sample Finish :	<u>1546</u>	<u>-5.94</u> <u>-5.97</u>

PID Reading (^{ppb}~~ppm~~) at sample location: 03 Time (24 hr): 1150

Comments:

(see MassDEP Building Inventory and photographs for further details)



Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

Project Name: Former GE Facility 50 Fordham Rd Wilmington, MA

Project Number: 60552044 Task 06

Date: 2-7-10

Sampler: Tom Croft

Weather: 20s-30s; snow showers after 11am

Sample Location: Building 1 - 2nd Floor

Sample ID: 18A-IA9-1

SUMMA Canister No.: 707

Summar Canister Vol. (L): 6L

Regulator No.: FC0764

Sample Duration (Circle one): Instant 1hr 2hr 4hr 8hr Other: _____ hrs

	Time (24 hr)	Pressure (units <u>in. Hg</u>)
Sample Start:	<u>0817</u>	<u>-31.65</u>
Check:	<u>0945</u>	<u>-27.0</u>
Check:	<u>1155</u>	<u>-19.9</u>
Check:	<u>1315</u>	<u>-16.2</u>
Check:	<u>1437</u>	<u>-11.18</u>
Sample Finish :	<u>1624</u>	<u>-5.60</u>

PID Reading (^{ppb}ppm) at sample location: 107 Time (24 hr): 1155

Comments:

(see MassDEP Building Inventory and photographs for further details)

Indoor Air Quality Building SurveyDate: 1/24/2018RTN: 3-0518Address: 40 Fordham Rd Wilmington, MA

Building Contact: GARY STANIEICH of WRT Phone: Tel: _____
 Cell: 603-860-5508
 Work: _____

Current Occupants:

Bldg 1

INITIALS	AGE	SEX (M/F)
UPS (dormant)		
United Parcel Service		
Seasonal Use Only		
~ November & December		
Unknown	# employees	

Building Construction Characteristics: (Circle or underline appropriate responses)

Single Family

Multiple Family

School

Commercial

Ranch

2-Family

BLDG AGE ~43-45 YRS

Raised Ranch

Duplex

Cape

Apartment House

Colonial

of units _____

Split Level

Condominium

Colonial

of units _____

Mobile Home

Other _____

Other _____

General Description of Building Construction Materials:Wood Brick Stone Metal Other ConcreteHow many occupied stories does the building have? 2Has the building been weatherized with any of the following? NOT KNOWNInsulation Storm Windows Energy-Efficient Windows Other _____Assume Insulation present

Indoor Air Quality Building Survey, continued

What type of basement does the building have?

Full basement Crawlspace Slab-on-Grade Other _____What are the characteristics of the basement? Finished Unfinished Other N/ABasement Floor: Foundation Walls: Moisture:

Concrete Poured Concrete Wet

Dirt Block Damp

Stone Dry

Is a basement sump present? (Y/N) N/A

Does the basement have any of the following characteristics (i.e., preferential pathways into the building) that might permit soil vapor entry?

Cracks Pipes/Utility Conduits Foundation/slab drainage

Sump pumps Other _____

Heating and Ventilation System(s):

What type(s) of heating system are used in this building?

Hot Air Circulation Heat Pump

Hot Air Radiation Unvented Kerosene Heater Electric Baseboard

Forced Hot Water Steam Radiation Other _____

What type(s) of fuel are used in this building?

Natural Gas Electric Coal Other _____

Fuel Oil Wood Solar

What type(s) of mechanical ventilation system are present and/or currently operating in this building?

Central Air Conditioning Mechanical Fan Bathroom Ventilation Fan

Kitchen Range Hood Open Window Individual Air Conditioning Unit

Air-to-Air Heat Exchange Other _____

on 1/24/2018: 1st floor ~ 62°F2nd floor ~ 57-60°F

All preset to maintain indoor air temp

old HVAC units removed
from Bldg 1 April 2017
new: 2 Cambridge Units (fresh air)
for HIGH BAY
+ ~4 smaller units (recirc)
IA

Indoor Air Quality Building Survey, continuedSources of Chemical Contaminants:

Potential VOC Source	Check if present in building prior to sampling	Location of Source	Removed 48 hours prior to sampling? (Yes/No/NA)
Paints or paint thinners			
Gas-powered equipment			
Gasoline storage cans			
Cleaning solvents			
Air fresheners			
Oven cleaners			
Carpet/upholstery cleaners			
Hairspray			
Nail polish/polish remover			
Bathroom cleaner			
Appliance cleaner			
Furniture/floor polish			
Moth balls			
Fuel tank			
Wood stove			
Fireplace			
Perfume/colognes			
Hobby supplies (e.g., solvents, paints, lacquers, glues, photographic darkroom chemicals)			
Scented trees, wreaths, potpourri, etc.			
Other drum motor oil	✓	main floor SE corner	No
Other antifreeze	✓	"	No

1/24

1/24

2/7

2/7

unk

☐ YES ☐ NO

☐ YES ☒ NO

☒ YES ☐ NO

☒ YES ☐ NO

Do one or more smokers occupy this building on a regular basis?

Has anybody smoked in the building in the last 48 hours?

Does the building have an attached garage?

If so, is the garage used for parking cars?

 main floor - NE corner, near door
 main floor - NW corner, loaded area

NO

NO

 unknown when
 UPS in operation
 (currently dormant)

 UPS box trucks park overnight inside Bldg 1 to get
 loaded with parcels.

Indoor Air Quality Building Survey, continued

☐ YES ☐ NO *unk.* Do the occupants of the building frequently have their clothes dry-cleaned?

☒ YES ☐ NO

Was there any recent remodeling or painting done in the building?

*completed by UPS
October 2017*

☒ YES ☐ NO

Are there any new pressed wood products in the building (e.g., hardwood plywood, wall paneling, particleboard, fiberboard)?

*Wall board (type?)
installed Sep-Oct 2017*

☐ YES ☒ NO

Are there any new upholstery, drapes or other textiles in the building?

☐ YES ☐ NO

unk. Has the building interior been treated with any insecticides/pesticides?

*unknown if
ups treated.
(not likely)*

If yes, what chemicals are used and how often are they applied?

Outdoor Sources of Contamination/Conditions:

Do any of the occupants apply pesticides/herbicides in the yard or garden? If yes, what chemicals are used and how often are they applied? *N/A*

Is there any stationary emission source in the vicinity of the building?

*2 generators inside Bldg 1. Possibly in 2nd floor electrical
Substation area, but not confirmed as stairway to area is locked*

Are there any mobile emission sources (e.g., highway, bus stop, high-traffic area) in the vicinity of the building?

*Parking lot east of Bldg 1
Fordham Rd west of Bldg 1*

Type of ground cover (e.g., grass, pavement, etc.) outside the building:

Grass & Pavement

Other Information:

Is there other information about the structural features of the building, habits of its occupants or potential sources of contaminants to the indoor air that may be of significance to the evaluation of the indoor air quality of the building?

Weather Conditions during Sampling: *2/7/2018*

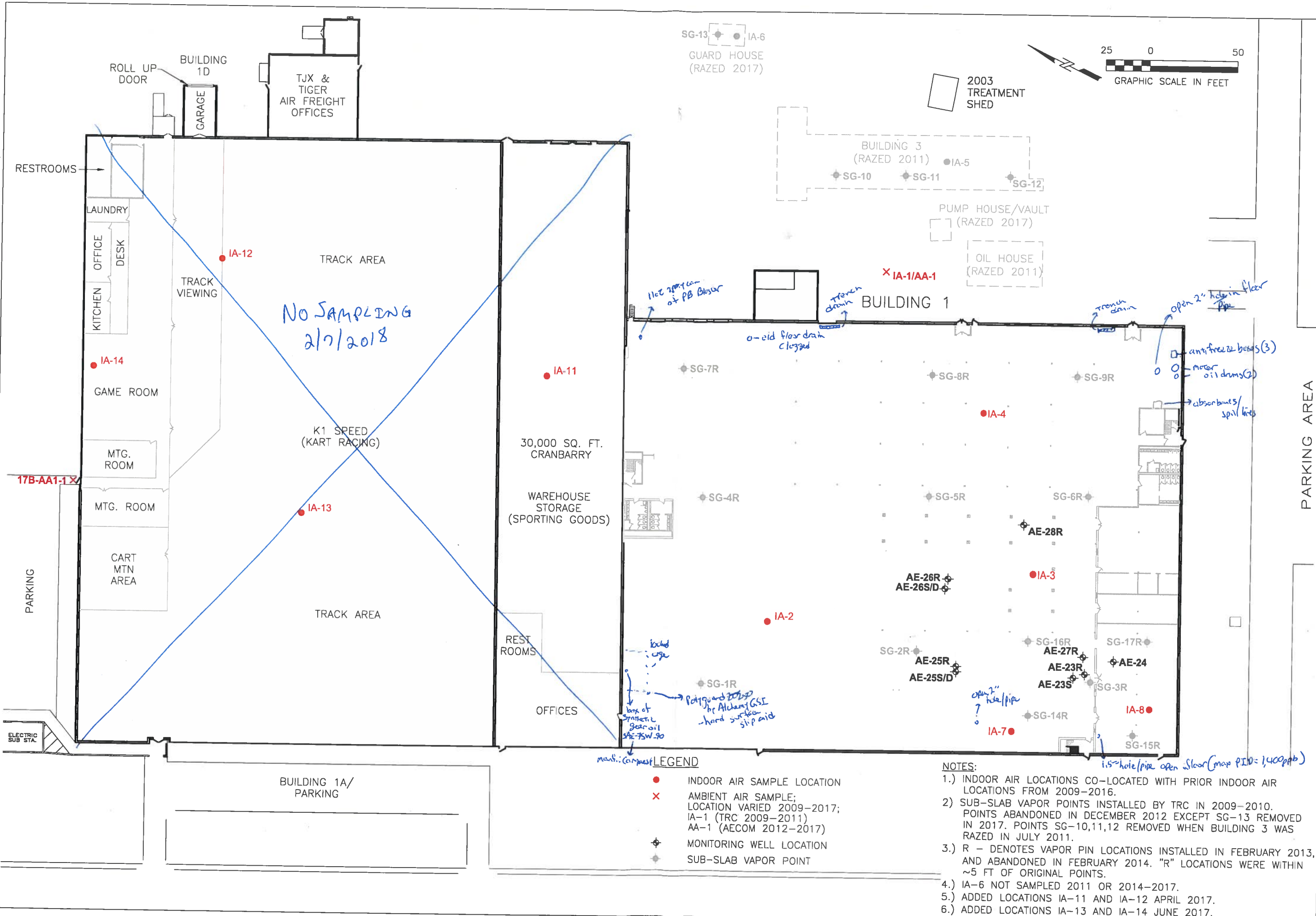
Outside Temperature (°F): *25-33*

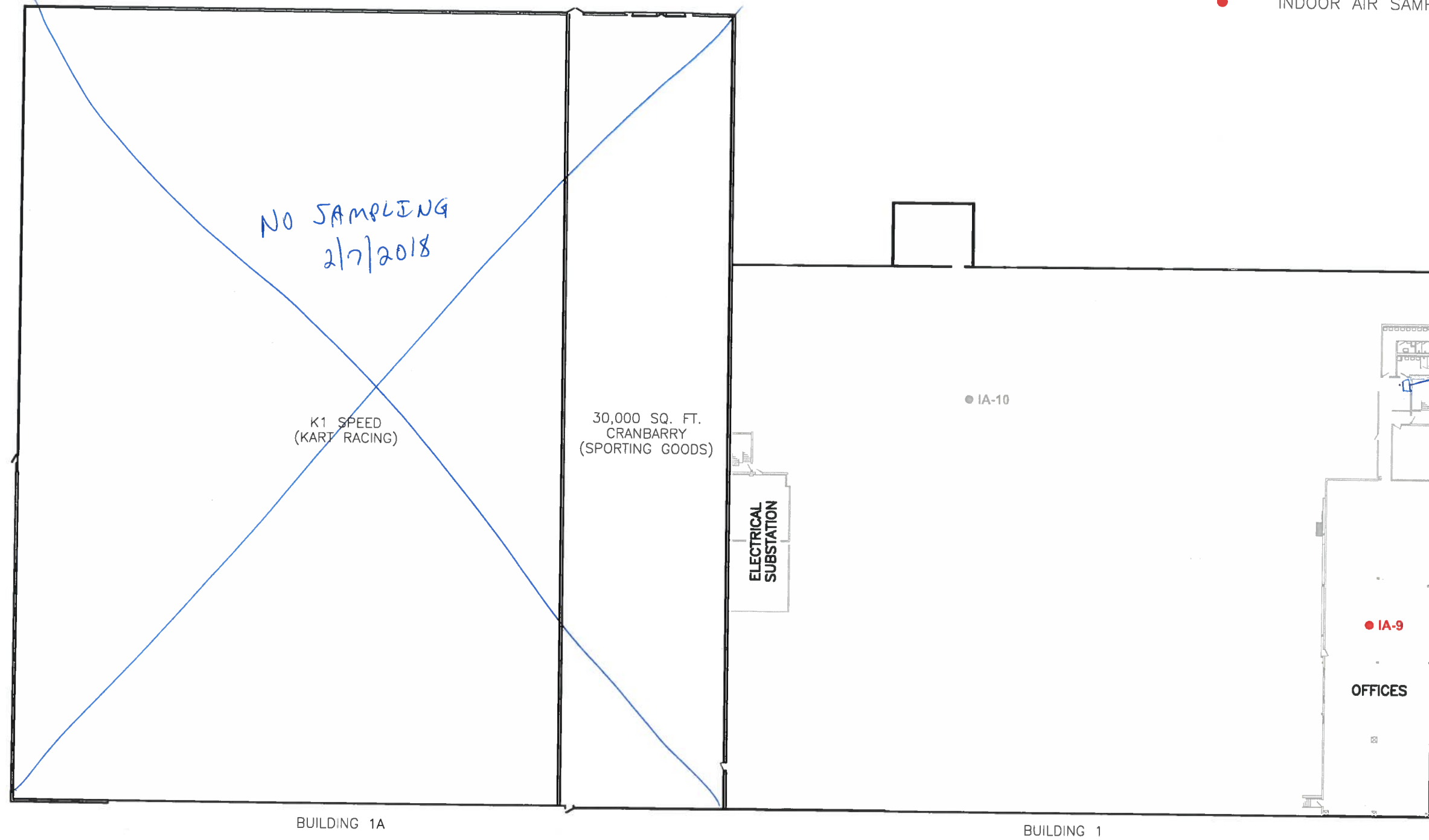
Prevailing wind direction and approximate wind speed: *N to NE, 5-7 mph*

Describe the general weather conditions (e.g., sunny, cloudy, rain): *cloudy; snow showers after 11am*

Was there significant precipitation (≥ 0.1 inches) within 12 hours preceding the sampling? *No*

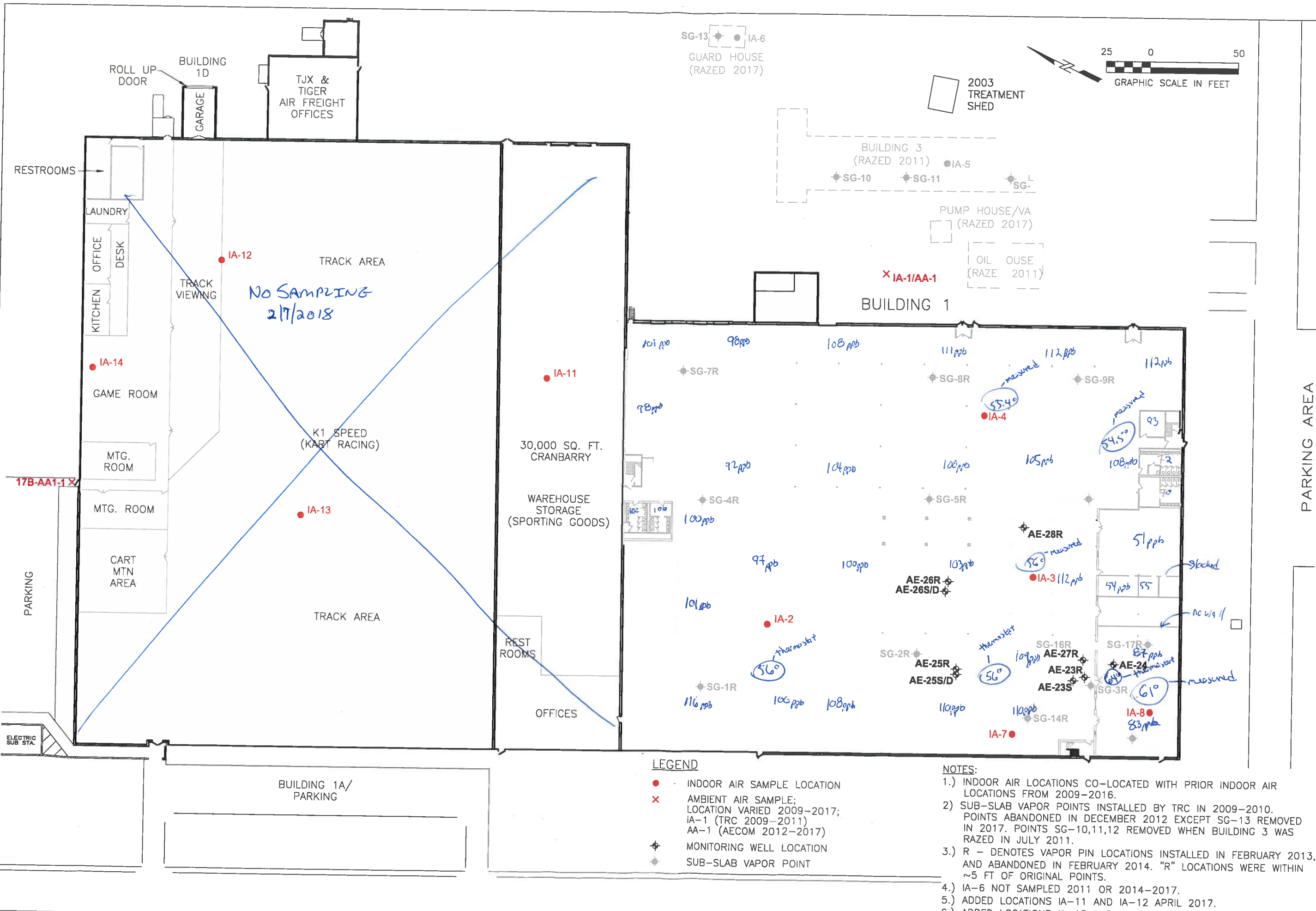
Building 1 main floor area has small gaps in most floor joints throughout. Also, there are gaps around edges of concrete repairs in floor throughout.

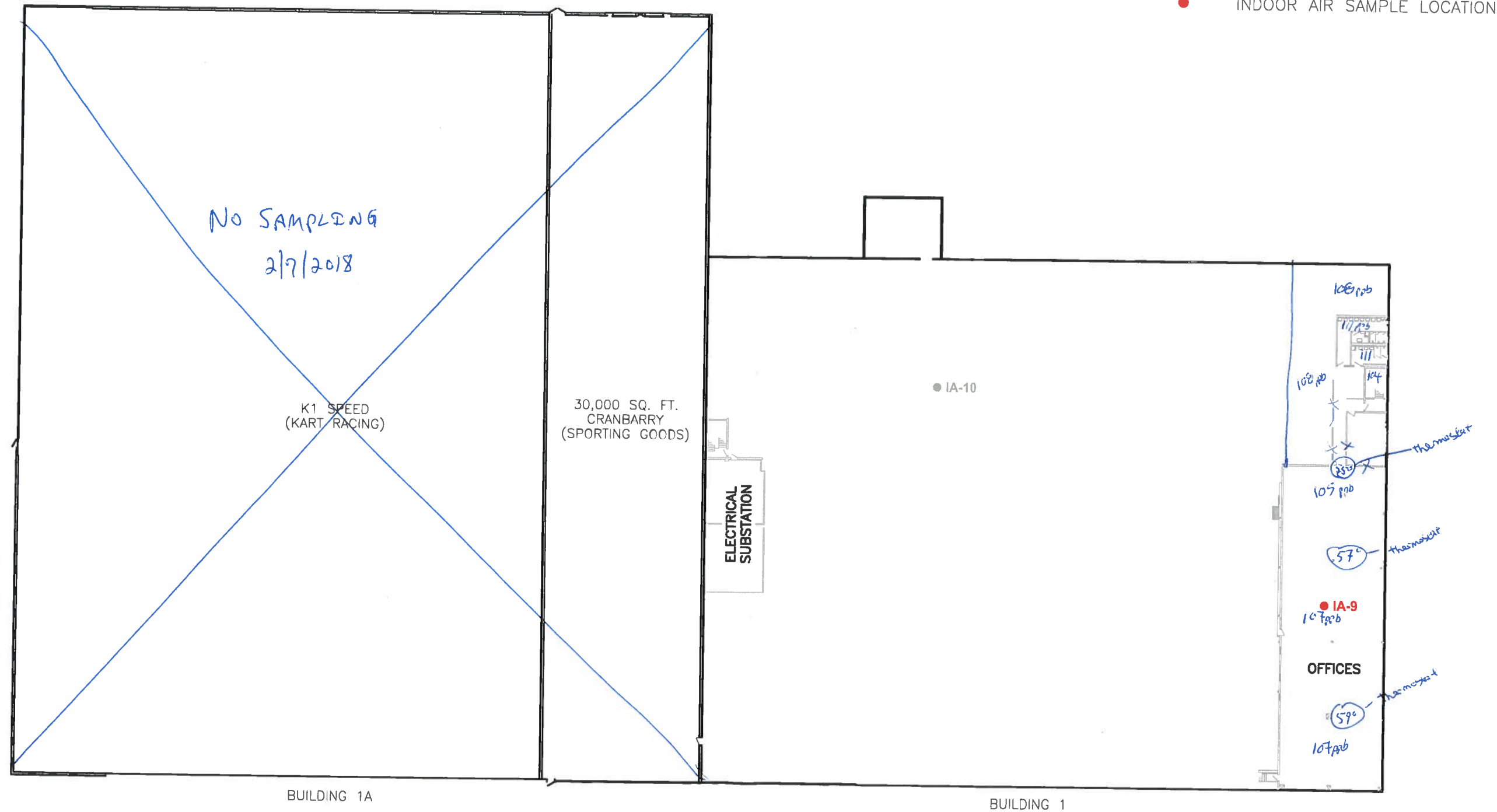




NOTES:

- 1.) INDOOR AIR LOCATIONS IA-9 AND IA-10 WERE ADDED IN AUGUST 2012 ON MEZZANINE (2nd FLOOR) OF BUILDING 1.
- 2.) MEZZANINE RENOVATED 2017. LOCATION IA-10 NO LONGER EXISTS.
- 3.) DEMOLITION & RENOVATIONS STILL IN PROGRESS AS OF APRIL 28, 2017.





- NOTES:
- 1.) INDOOR AIR LOCATIONS IA-9 AND IA-10 WERE ADDED IN AUGUST 2012 ON MEZZANINE (2nd FLOOR) OF BUILDING 1.
 - 2.) MEZZANINE RENOVATED 2017. LOCATION IA-10 NO LONGER EXISTS.
 - 3.) DEMOLITION & RENOVATIONS STILL IN PROGRESS AS OF APRIL 28, 2017.

Photograph Log

Vapor Intrusion Monitoring

Former GE Facility
50 Fordham Rd Wilmington, MA

February 7, 2018

AECOM – Chelmsford, MA



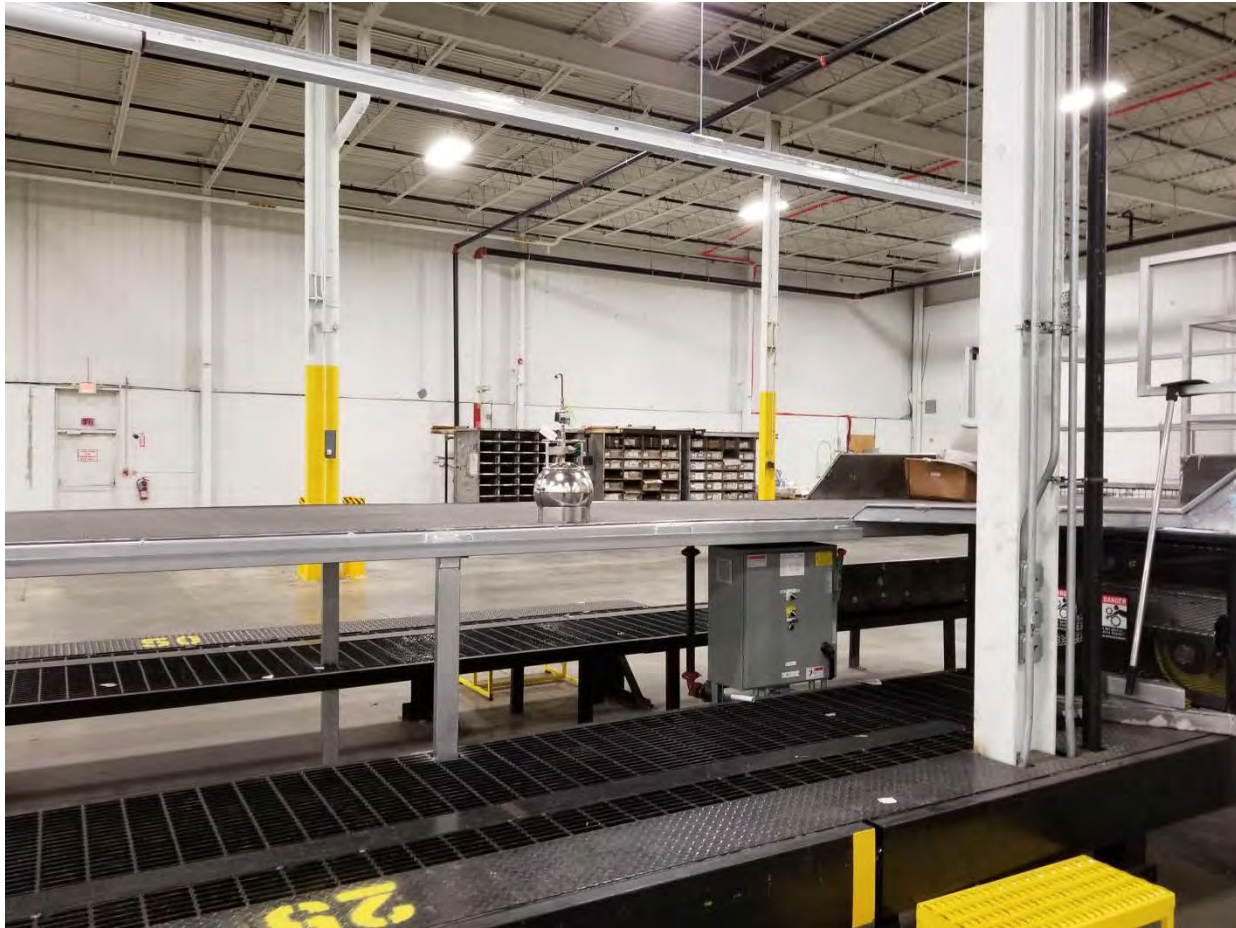
AA-1_1



AA-1_2



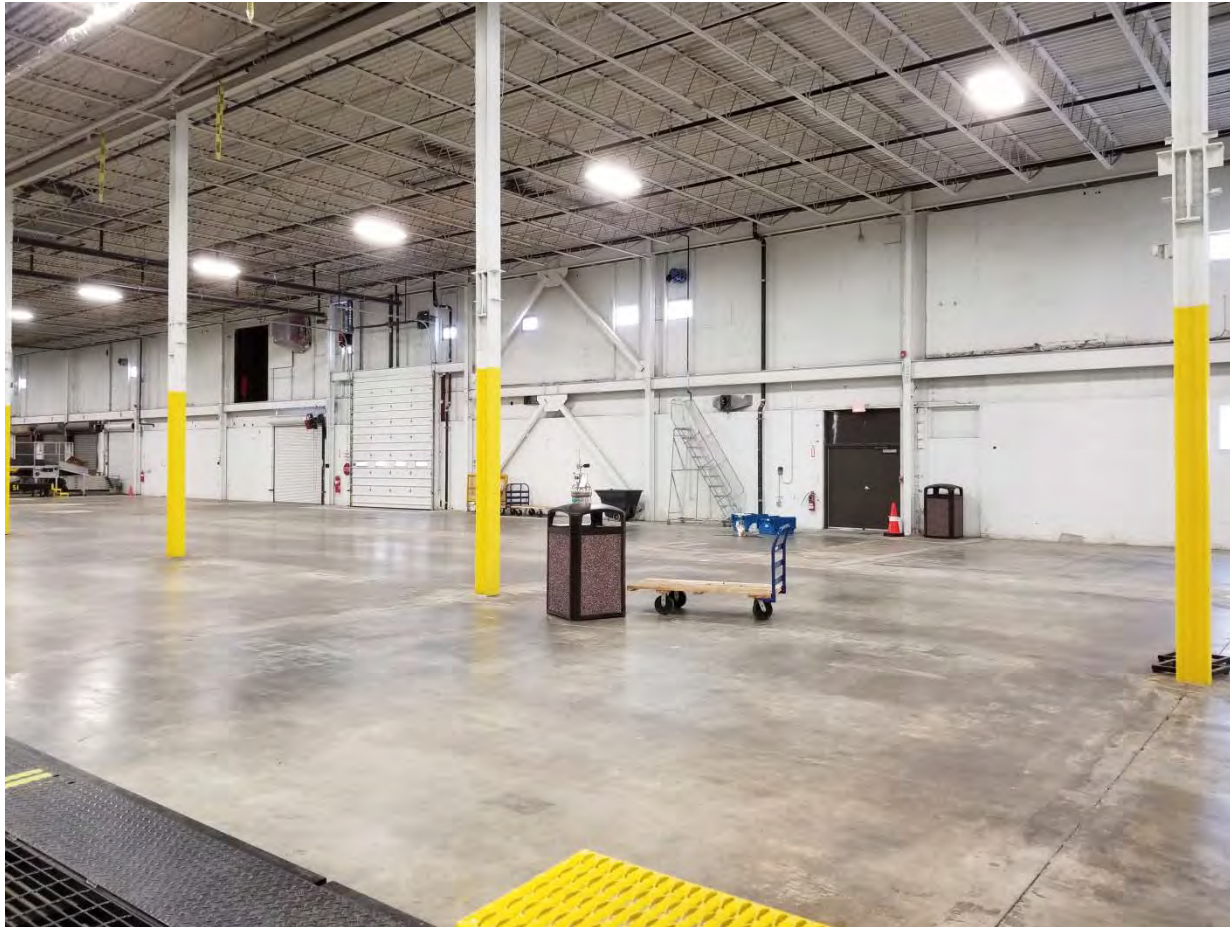
IA-2_1



IA-2_2



IA-3



IA-4



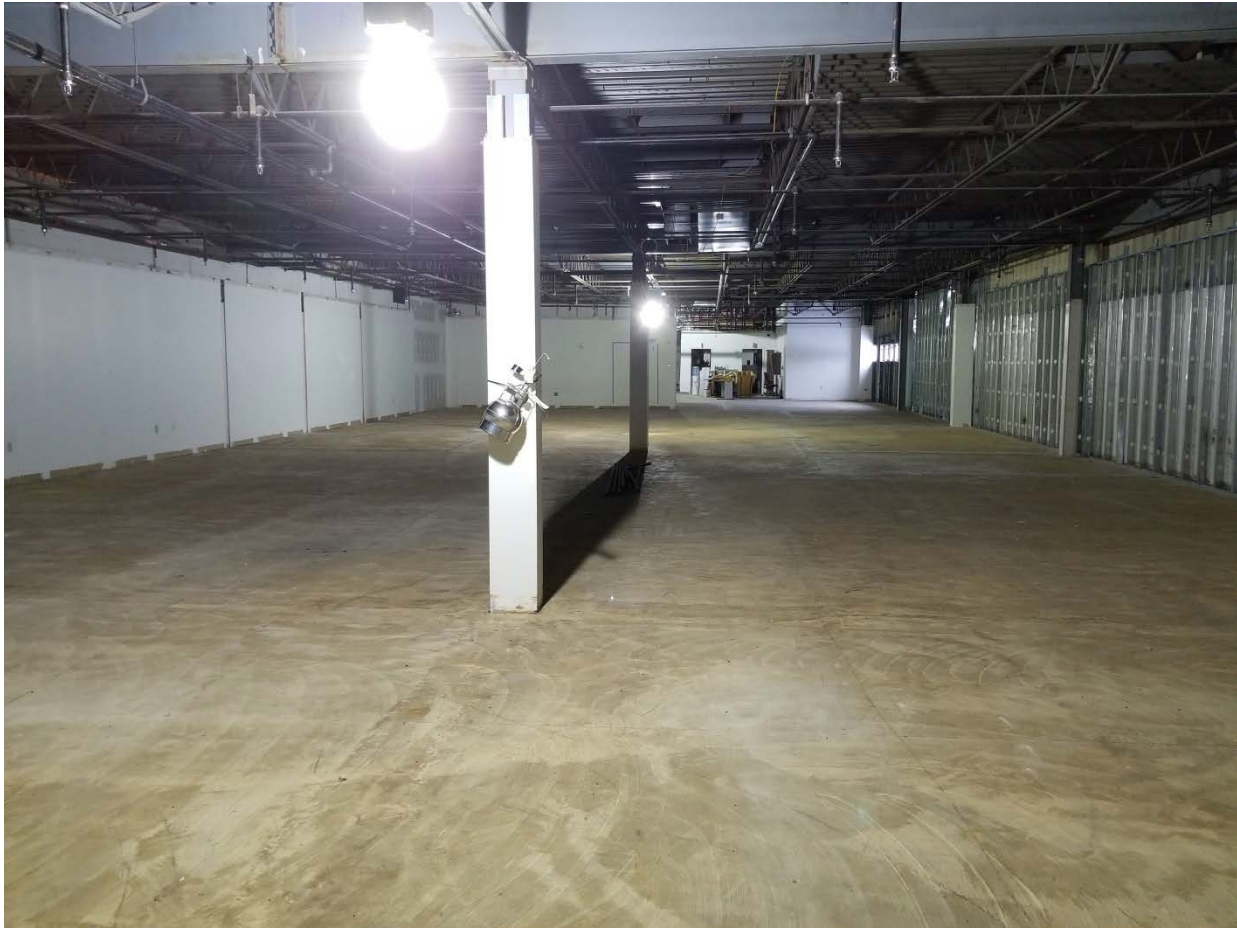
IA-7



IA-8 with Duplicate_1



IA-8 with Duplicate_2



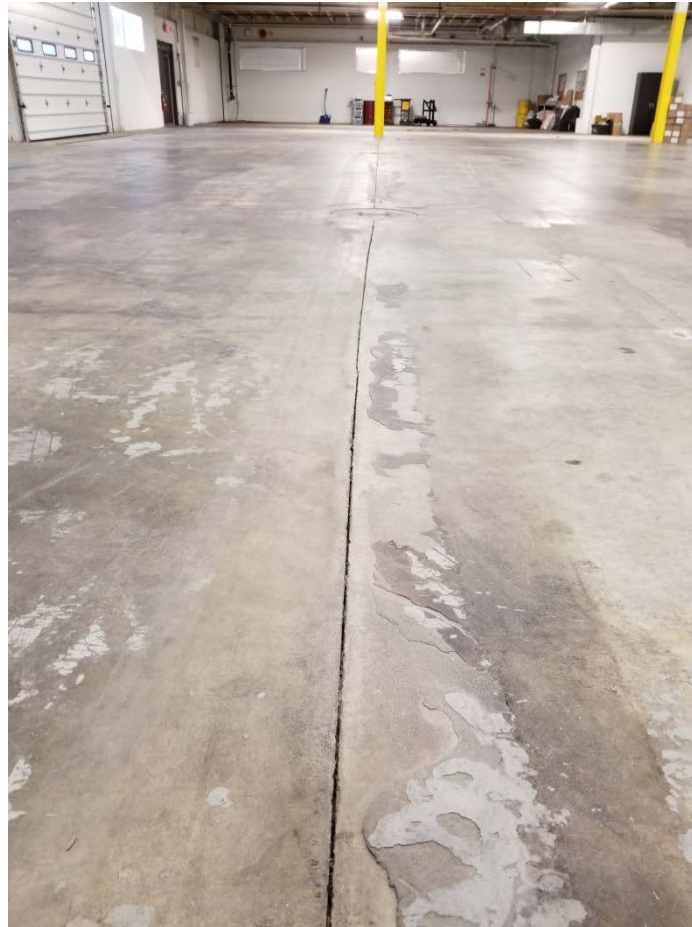
IA-9



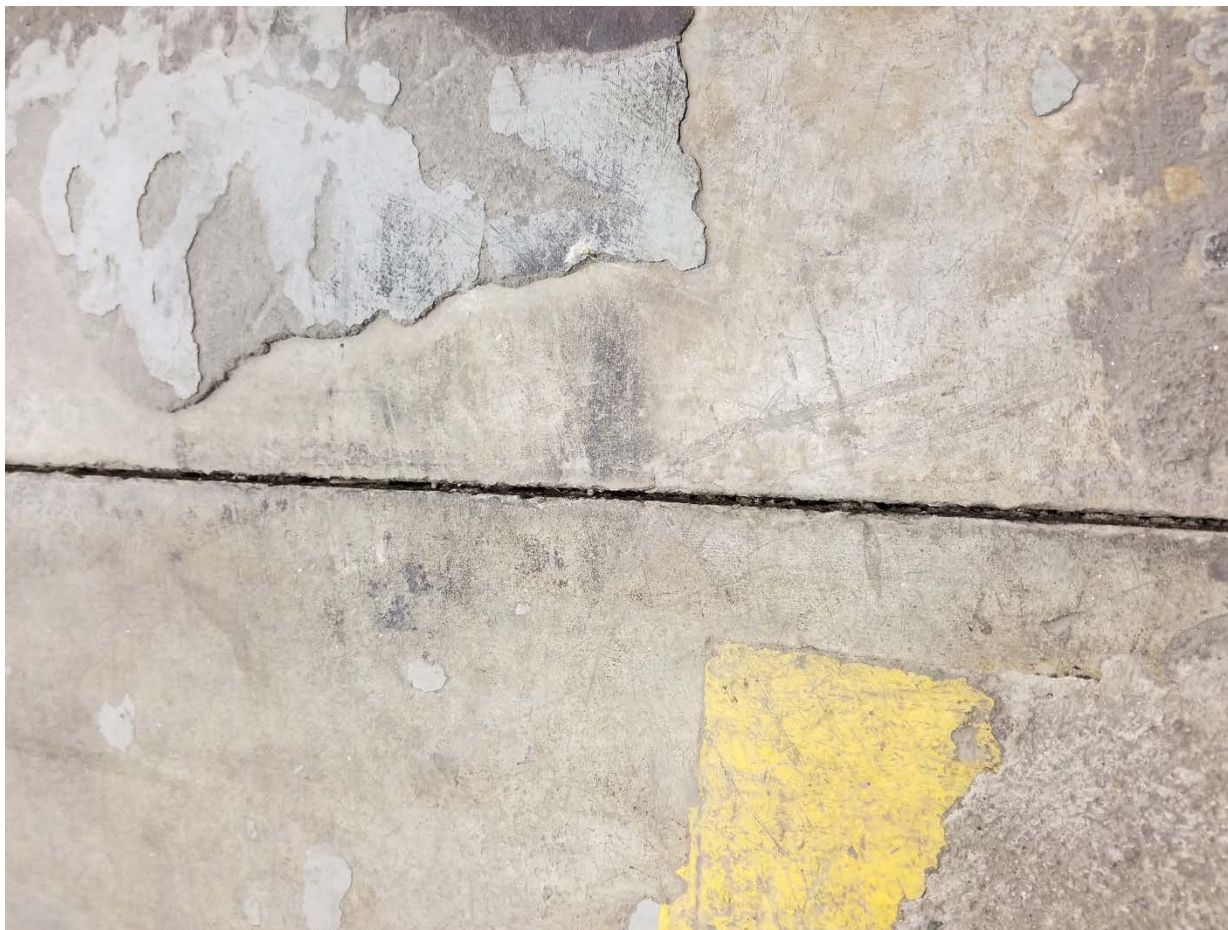
Floor Drain near IA-7_1



Floor Drain near IA-7_2



Gaps in Floor_Fisrt floor Building 1_1



Gaps in Floor_Fisrt floor Building 1_2



Gaps in Floor_Fisrt floor Building 1_3



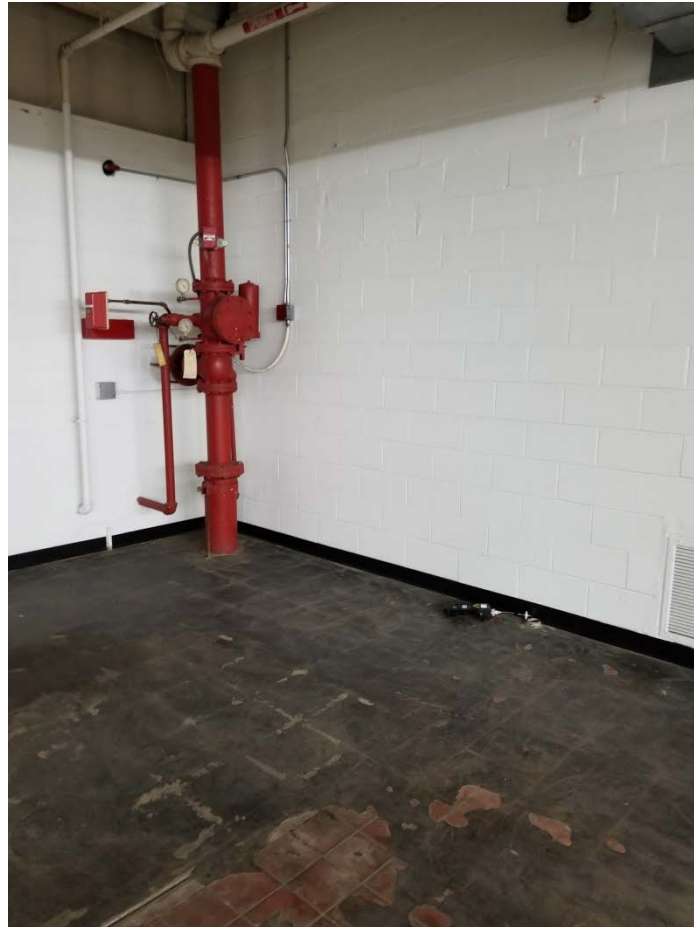
Gaps in Floor_Fisrt floor Building 1_4



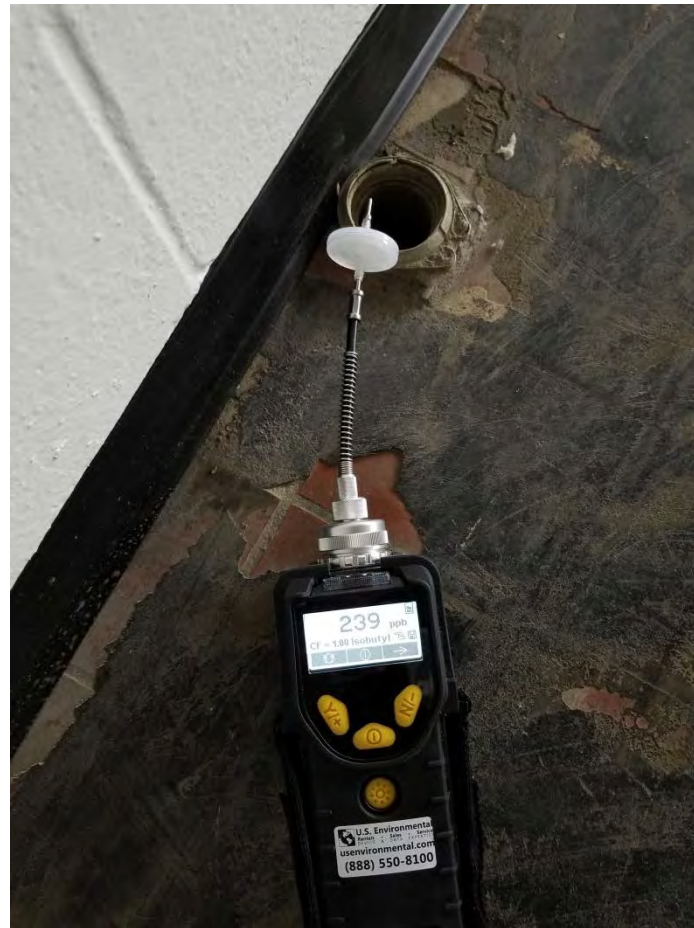
Gaps in Floor_Fisrt floor Building 1_5



Gaps in Floor_Fisrt floor Building 1_6



Hole in Floor by IA-8_1



Hole in Floor by IA-8_2



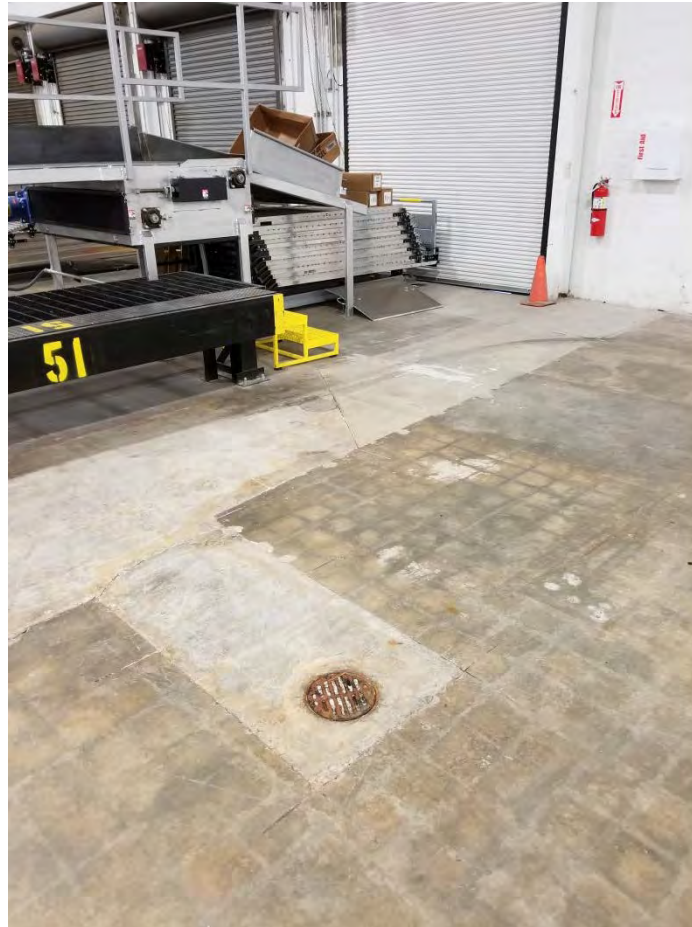
Hole in Floor_SE Corner_1



Hole in Floor_SE Corner_2



Hole in Floor_SE Corner_3



old clogged floor drain by loading docks_1



old clogged floor drain by loading docks_2



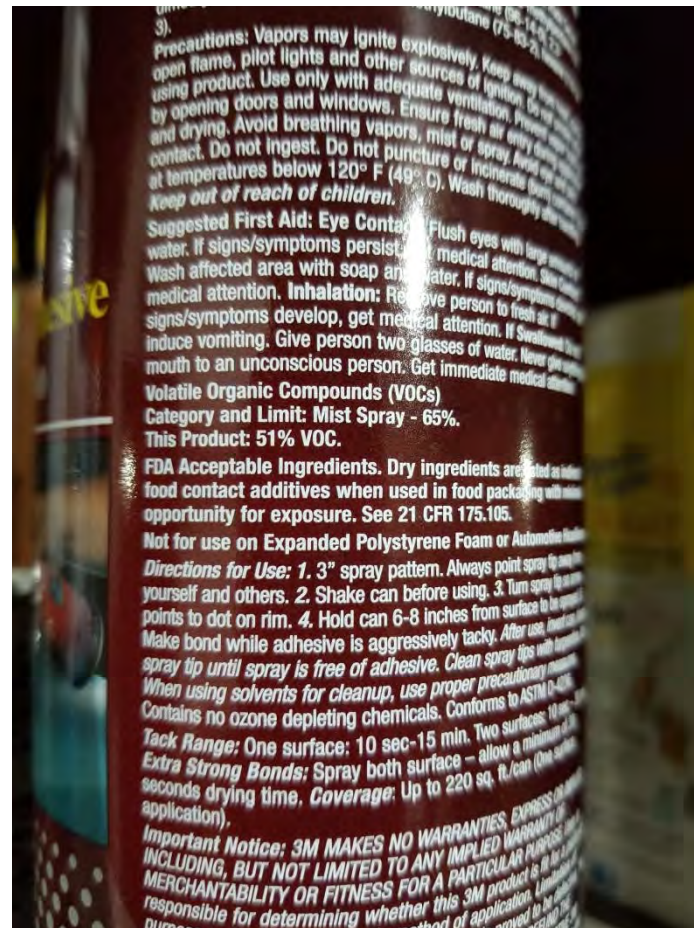
one of two trench drains at new overhead doors



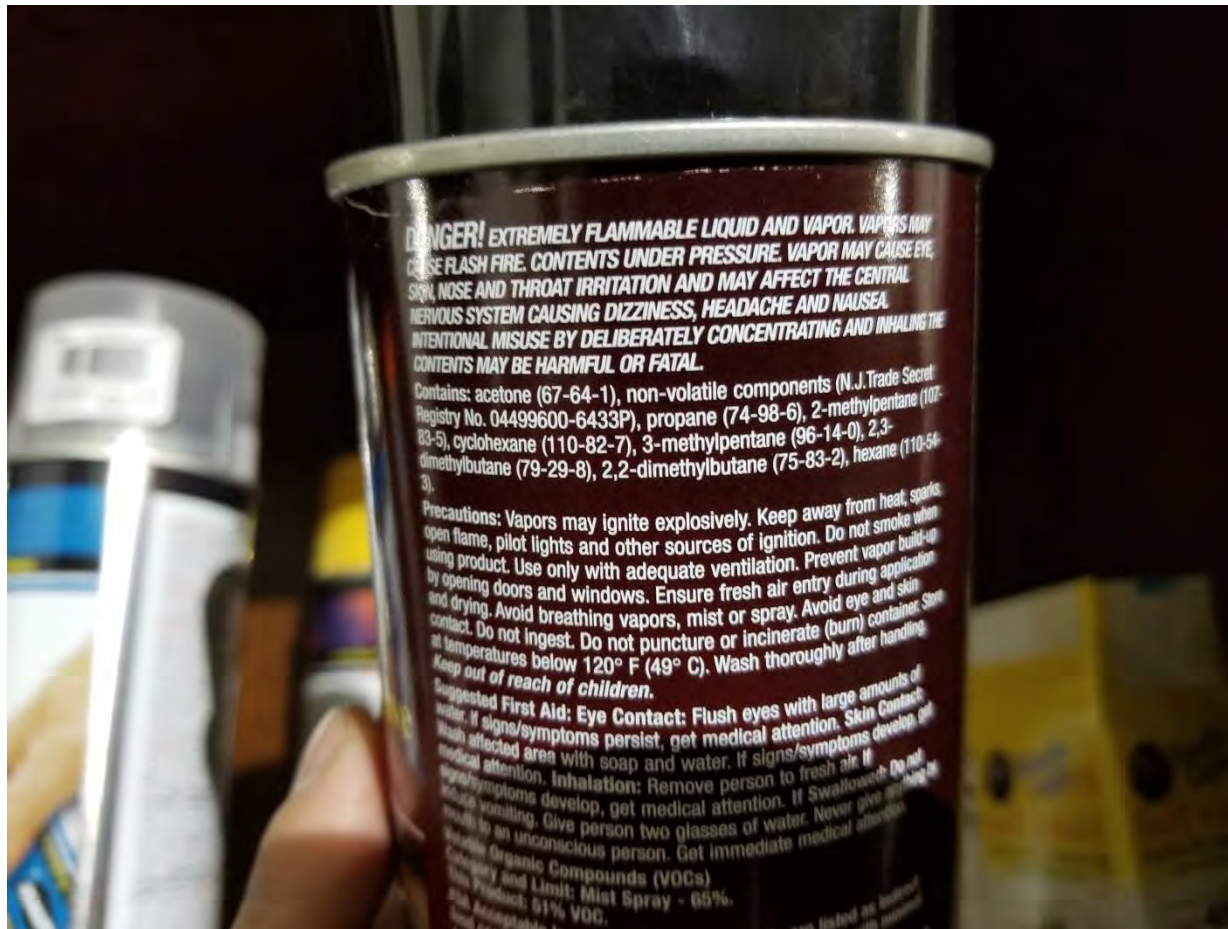
3M Super 77_1



3M Super 77_2



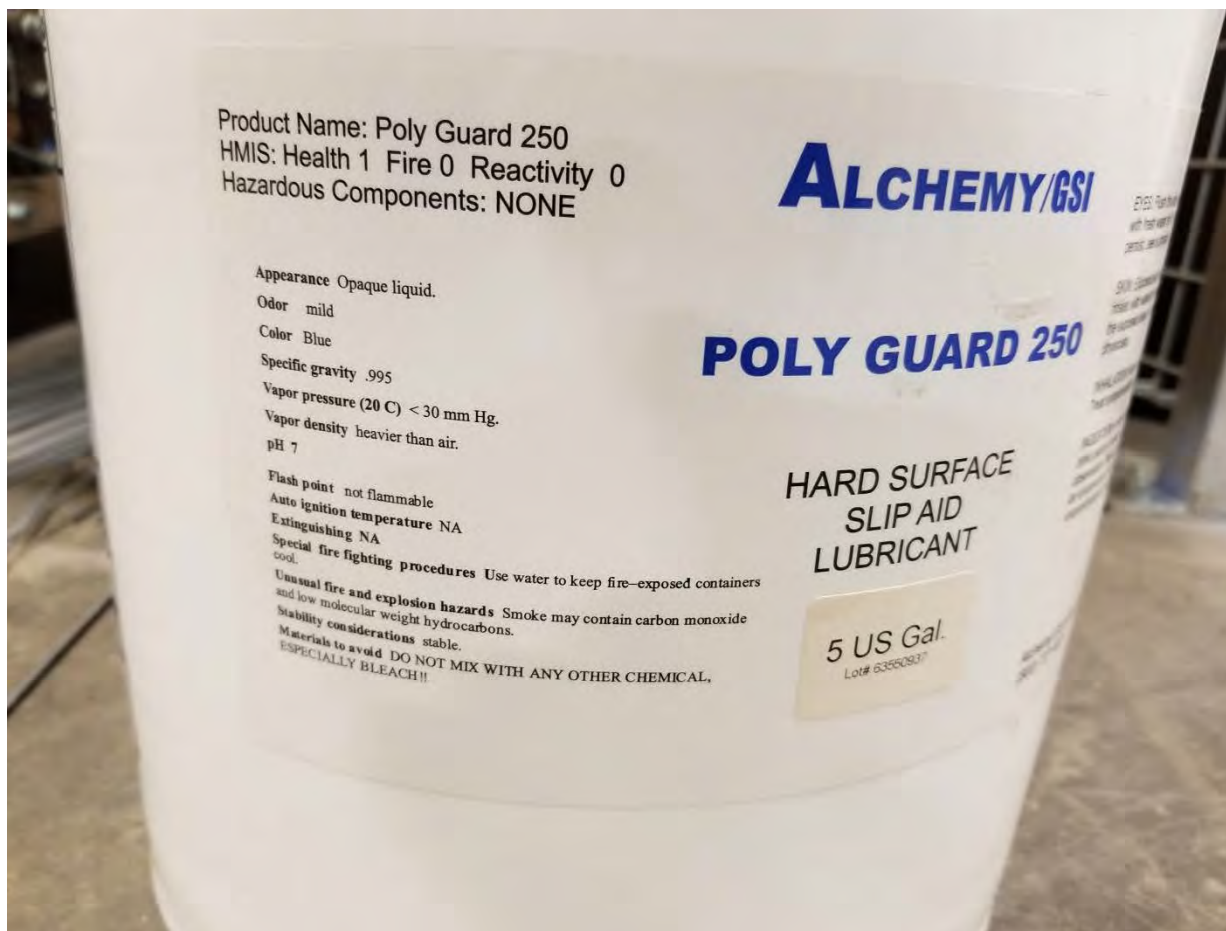
3M Super 77_3



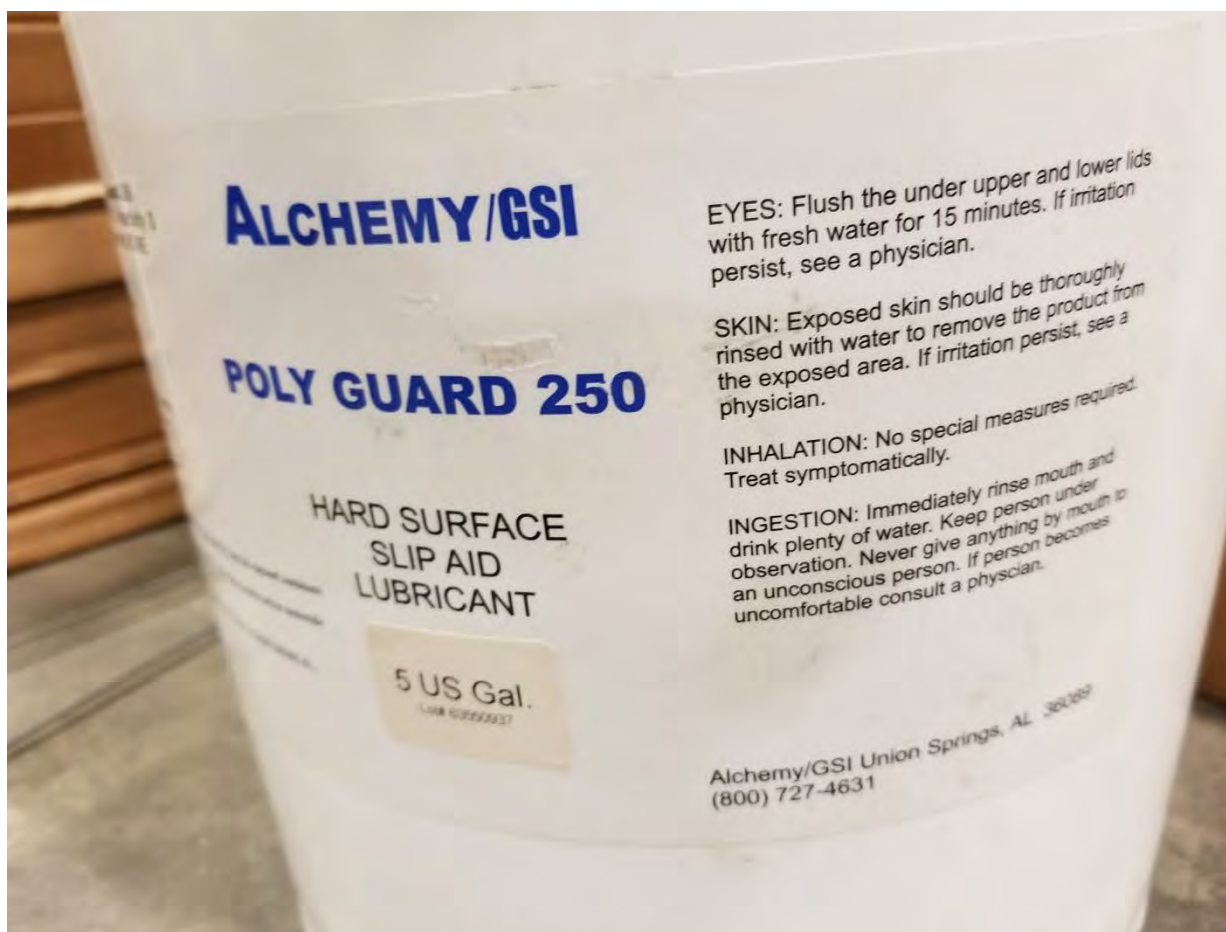
3M Super 77_4



Alchemy GSI_Polyguard 250_1



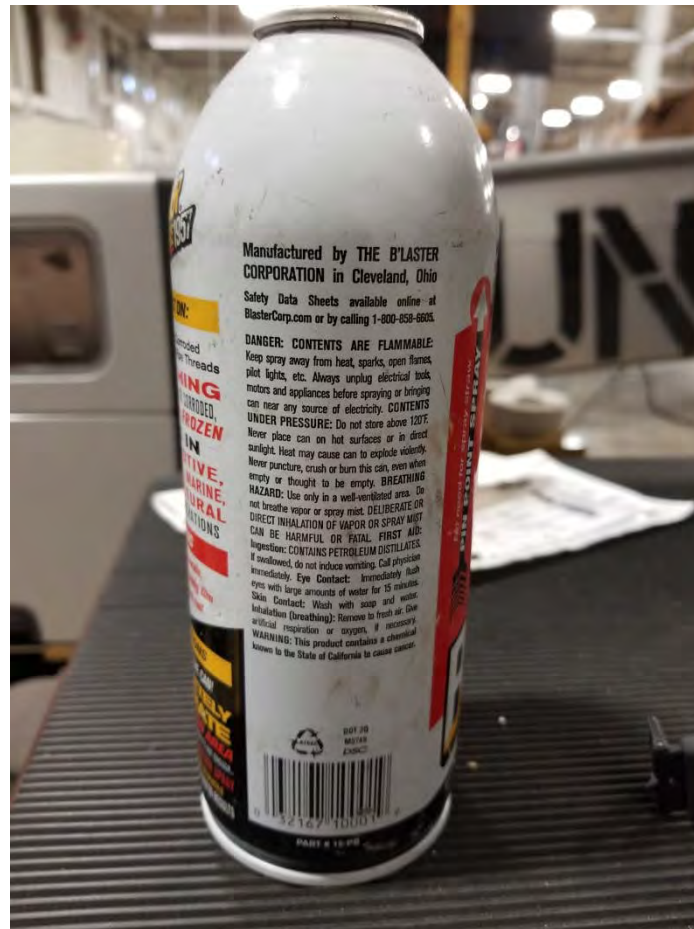
Alchemy GSI_Polyguard 250_2



Alchemy GSI_Polyguard 250_3



Blaster Penetrating Lubricant_1



Blaster Penetrating Lubricant_2



Blaster Penetrating Lubricant_3



Building 1_First Floor_NW Corner



Carquest Full Synthetic Gear Oil



Chemicals_Building 1_2nd floor



Clear Marking Coat_1



Clear Marking Coat_3



Const Marking Paint_1



Const Marking Paint_2



Const Marking Paint_3

Mobil™

MOBIL DELVAC™ 1300 SUPER 10W-30

MOTOR OIL SAE 10W-30

Meets or Exceeds the requirements of:
 API CK-4, CJ-4, CI-4 PLUS / SN
 CATERPILLAR ECF-3
 CUMMINS CES 20086, 20081

Approved by the following OEMs:
 Detroit Fluids Specification 93K222, 93K218
 Mack EOS-4.5, EO-D Premium Plus
 MB-Approval 228.31
 Volvo VDS-4.5, VDS-4

Don't pollute. Conserve resources. Return used oil to collection centers.

Caution: Continuous contact with used motor oil has caused skin cancer in laboratory animals. In case of contact wash thoroughly with soap and water, and remove oil soaked clothing.



INGREDIENT DESCRIPTION CAS NUMBER
 Motor Oil

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Made in the USA from domestic and/or imported components.

EMPTY CONTAINER WARNING

Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SPILL CONTROL

Eliminate all ignition sources. Ventilate confined spaces. Recover free product. Add sand, earth, or other suitable absorbent material to spill-area, and keep spilled product out of sewers and water courses. Advise authorities if product cannot be contained. Conform with applicable governmental regulations.

ExxonMobil Oil Corporation
 2777 Springwood Village Parkway
 Spring, TX 77389

Visit us at mobil.com
 Refer to product Safety Data Sheet (SDS) for further safety and health information.
 For product information call 1-800-682-4525
 For emergencies call 1-609-737-4411

D.O.T. Hazard Classification
 Name NOT APPLICABLE
 Class NOT APPLICABLE
 I.D. No.



PACKAGED BY 1024551 1064 Goffs Falls Rd Manchester 6032222900	PRODUCT CODE 122481	BATCH NUMBER 031517MA 03/15/2017	NET WEIGHT / VOLUME 55 GAL/208.2 L
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Mobil 10W-30 Motor Oil



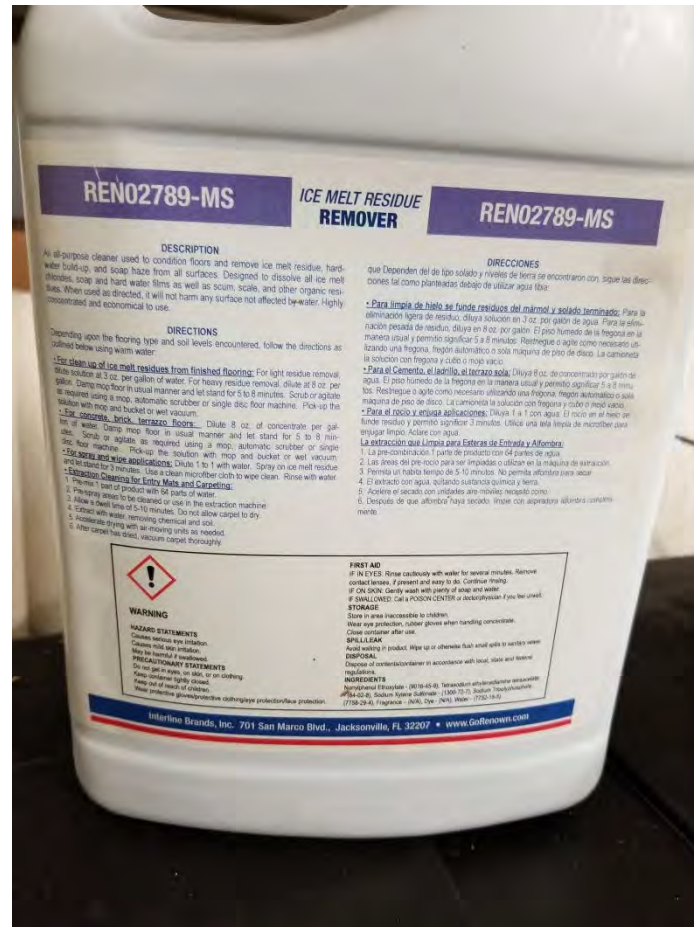
Motor Oil_Antifreeze_1



Motor Oil_Antifreeze_2



Renown_Ice Melt Residue Remover_1



Renown_Ice Melt Residue Remover_2



Renown_Ice Melt Residue Remover_3



Rotella ELC Antifreeze_1

ROTELLA ELC™

50/50 PRE-DILUTED
READY TO POUR
DO NOT ADD WATER

EXTENDED LIFE
ANTIFREEZE/ENGINE COOLANT

SHELL ROTELLA ELC™

Benefits of Shell ROTELLA ELC™ Pre-diluted 50/50 include:

- Eliminates the need for Supplemental Coolant Additives (SCAs)
- 600,000 miles or 12,000 hrs. of service with ROTELLA ELC™ Extender at 300,000 miles or 6,000 hrs.

- Helps lower maintenance costs
- Improved water pump seal life
- Excellent heat transfer
- Excellent high temperature protection

DIRECTIONS FOR USE: PRECAUTION: Let engine cool completely before performing any maintenance work. Only open a completely cooled radiator cap. **NOTE:** Shell ROTELLA ELC™ Pre-diluted 50/50 Antifreeze/Engine Coolant is recommended for initial fill and top up if current freeze point is -34° F. **DO NOT DILUTE. TOP UP:** Fill coolant reservoir tank to the full level with Shell ROTELLA ELC™ Pre-diluted 50/50 Antifreeze/Engine Coolant. Fill radiator as needed. **FLUSH AND FILL:** DRAIN cooling system completely including overflow tank and lower portions of the cooling system. **REMOVE** old coolant filter if equipped. **FLUSH** cooling system completely with tap water. **DRAIN** all flush water out completely. **INSTALL** a new, blank (water) filter if required. **FILL** cooling system Shell ROTELLA ELC™ Pre-diluted 50/50 Antifreeze/Engine Coolant. With radiator cap removed, **CIRCULATE** cooling system until thermostat opens and all air is purged. **CHECK** freeze point and adjust if needed with Shell ROTELLA ELC™ Antifreeze/Engine Coolant Concentrate or water. Follow any specific manufacturer's requirements for coolant exchange.

INSTRUCCIONES DE USO: PRECAUCIÓN: Espere a que el motor se enfríe completamente antes de realizar cualquier trabajo de mantenimiento. Abra el tapón del radiador solo cuando esté completamente frío. **NOTA:** Se recomienda usar el anticongelante/refrigerante prediluido a 50/50 Shell ROTELLA ELC™ para el llenado inicial y para llenar hasta el tope si el punto de congelación actual es -34° F (-34° C). **NO DILUIR. LLENAR HASTA EL TOPE:** Llene el depósito del refrigerante hasta el nivel máximo con el anticongelante/refrigerante prediluido a 50/50 Shell ROTELLA ELC™. Llene el radiador hasta donde sea necesario. **LIMPIAR Y RELLENAR:** VACÍE completamente el sistema de refrigeración, incluyendo el depósito de desagüe y las partes más bajas del sistema de refrigeración. **QUITAR** el filtro usando el líquido refrigerante si tiene. **LIMPIE** completamente el sistema de refrigeración con agua corriente. **SAQUE** completamente toda el agua usada. **INSTALAR** un filtro (de agua) nuevo si es necesario. **LLENE** el sistema de refrigeración con el anticongelante/refrigerante prediluido a 50/50 Shell ROTELLA ELC™. Con el tapón del radiador quitado, **PONGA EN CIRCULACIÓN** el sistema de refrigeración hasta que el termostato se abra y se haya purgado todo el aire. **COMPRUEBE** el punto de congelación y ajústelo si es necesario con el anticongelante/refrigerante concentrado Shell ROTELLA ELC™ o con agua. Siga los requisitos específicos del fabricante para el cambio de refrigerante.

Ideal for use wherever a silicate-free and phosphate-free, heavy-duty coolant is required. **PROVEN PERFORMANCE** in cooling systems used in heavy-duty diesel, gasoline and natural gas engines used in both on-road and off-road applications.



Suitable for use against the following/Compatible con los siguientes estándares: ASTM D3306, D4210, Caterpillar EC-1, Cummins CES 14439, Detroit Diesel 752706 (includes DDC and MBE 4000/700 engines), Freightliner 48-73947, Mack 01-40577009, Navistar NPAPS B-1 Type III (formerly for CIMS B-1), PACCAR COATBS, Volvo 194001, TMC RP229, and TMC RP338.

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For Health Emergencies or Consumer Information Call
1-877-579-7365
Para emergencias médicas e información al consumidor,
llame al 1-877-579-7365.

FREEZE POINT/BOIL OVER PROTECTION		
Product	Freeze Point Protection*	Boilover Protection*
Shell ROTELLA ELC™ Pre-diluted 50/50 Coolant/Antifreeze	-34° F (-34° C)	+252° F (128° C)
		*Based on 15 lb. pressure cap

PROTECCIÓN CONTRA PUNTO DE CONGELACIÓN Y SOBREVOLACIÓN/PROTECCIÓN		
Producto	Protección de punto de congelación*	Protección de sobrevolación*
Shell ROTELLA ELC™ pre-diluido 50/50 Anticongelante/Refrigerante	-34° F (-34° C)	+252° F (128° C)
		*Basado en un tapón de 15 lb. de presión

WARNING: Contains ethylene glycol/diethylene glycol. Harmful or fatal if swallowed. May cause CNS depression. DO NOT take internally. If swallowed, contact a poison control center, emergency treatment center or physician. Wash thoroughly after handling. Do not store in open or unlabeled containers. Always dispose of used product properly. **KEEP OUT OF REACH OF CHILDREN AND ANIMALS.** Contains lubricating agent in pump/sealant application.

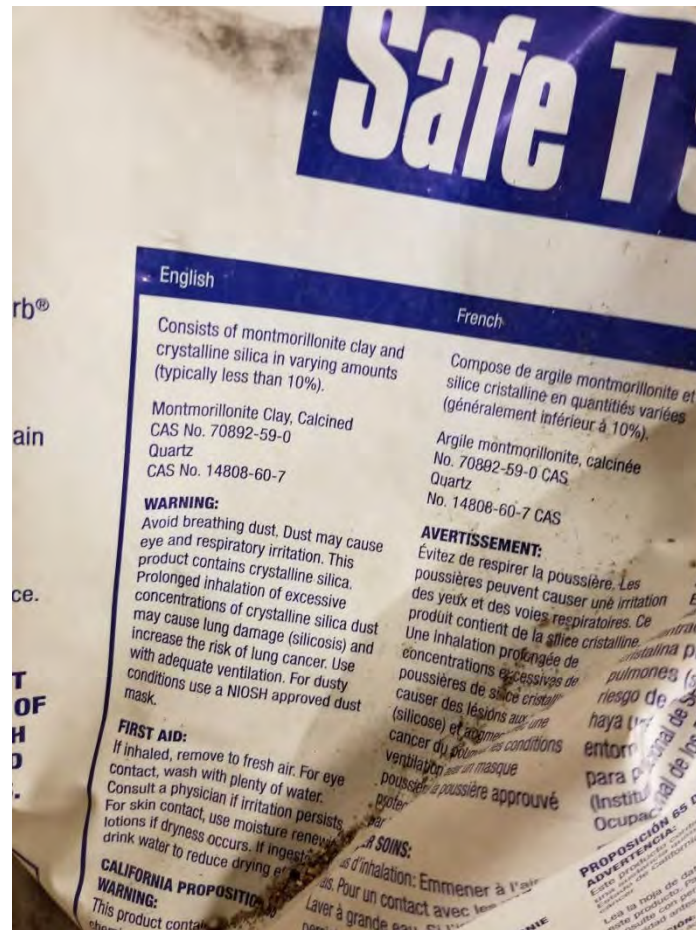
ADVERTENCIA: Contiene etilenglicol/dietilenglicol. Dañino o mortal si se ingiere. Puede provocar depresión del sistema nervioso central. NO SE LO TOMAR. Si se lo ingiere, contacte INMEDIATAMENTE un centro toxicológico, un centro de urgencias o un médico. Después de haberlo manipulado, lávese minuciosamente. No lo almacene en recipientes no etiquetados o sin etiquetar. Elimine siempre correctamente el producto usado. **MANTENGALO FUERA DEL ALCANCE DE LOS NIÑOS Y DE LOS ANIMALES.** Contiene un agente con carga como protección contra la lubricación.



Rotella ELC Antifreeze_2



SafeTSorb_Oil Absorbent_1



SafeTSorb_Oil Absorbent_2



SafeTSorb_Oil Absorbent_3



Vinyl Adhesive Caulk_1



Vinyl Adhesive Caulk_2



Vinyl Adhesive Caulk_3



Vinyl Adhesive Caulk_4

APPENDIX B – LNAPL MONITORING FIELD RECORDS – JUNE AND SEPTEMBER 2018

Building 3 - EPL LNAPL Gauging Record

Weather: 70s, sunny, dry

Recorder: Tom Goff / Audrey Hunt

Date: 6-14-18

Gauging Information

Well	Time	Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	Depth to DNAPL (ft btoc)	Depth to Bottom (ft btoc)	Confirm Product w/ Bailer (Y/N/NA)	Product Removed (Y/N/NA)	Comments
AE-3	0958	ND	6.99	ND	12.62	NA	NA	
AE-4	1004	ND	5.49	ND	12.35	NA	NA	
TRC-101	1011	ND	5.72	ND	9.96	NA	NA	
CW-2	1037	4.31	4.32	ND	6.40	N	NA	8" PVC possible LNAPL SK. m
GZA-102S	1024	ND	6.35	ND	10.90	NA	NA	
PZ-2S	1028	ND	5.89	ND	7.90	NA	NA	4" PVC
CW-1	1043	4.55	4.56	ND	8.00	NA	NA	8" PVC

Gauging device (Mnfr./Model No.): Johnst / 112 , SNC 3316

Note: If LNAPL is detected at thickness > 0.1 feet, insert absorbant sock and wire basket into well and secure tightly.

(Place spent socks, if used, in 5-gallon bucket within treatment building.)

Notes:

CW-2 : slight solid beep @ surface of water	NA = Not Applicable
CW-1 : very slight solid beep @ surface of water table	ND = Not Detected
CW-2: checked for LNAPL using bailer; no visible NAPL	NR = Not Recorded
	ft btoc = feet below top of casing



Former GE Site - Wilmington, MA

Building 3 - EPL LNAPL Gauging Record

Weather: Sunny, 80, breezyRecorder: Dylan PotterDate: 9/17/18

Gauging Information

Well	Time	Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	Depth to DNAPL (ft btoc)	Depth to Bottom (ft btoc)	Confirm Product w/ Bailer (Y/N/NA)	Product Removed (Y/N/NA)	Comments
AE-3	1511	ND	5.74	ND	12.62	NA	NA	
AE-4	1506	ND	5.31	ND	12.24	NA	NA	
CW-1	1450	ND	4.33	ND	8.16	NA	NA	
CW-2	1444	ND	4.09	ND	6.53	NA	NA	Slight smear
GZA-102S	1526	ND	6.15	ND	10.92	NA	NA	
PZ-2S	1519	ND	5.66	ND	8.00	NA	NA	
TRC-101	1515	ND	5.56	ND	9.99	NA	NA	

Gauging device (Mnfr./Model No.):

Solinst Interface Model 122 S/N 268537**Note:** If LNAPL is detected at thickness > 0.1 feet, insert absorbant sock and wire basket into well and secure tightly.

(Place spent socks, if used, in 5-gallon bucket within treatment building.)

Notes:

NA = Not Applicable

ND = Not Detected

NR = Not Recorded

ft btoc = feet below top of casing

**APPENDIX C – LABORATORY ANALYTICAL AND
DATA VALIDATION REPORTS
INDOOR AIR – FEBRUARY 2018**

Memorandum

To	Scott Olson	Page	1
Subject	Data Validation Summary Lockheed Martin-Wilmington, MA Site Alpha Analytical SDG L1804400		
From	Lori Herberich		
Reviewed by	Paula DiMattei		60552044.06
Date	March 16, 2018		

Data validation was performed on the data for seven indoor air samples and one ambient air sample collected at the Lockheed Martin site in Wilmington, MA on February 7, 2018. Alpha Analytical in Mansfield, MA analyzed the samples and reported the data in sample delivery group (SDG) L1804400.

The data review was performed with reference to Massachusetts Department of Environmental Protection (MADEP) document WSC-CAM-VIIA, *Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data in Support of Response Actions Conducted Under the Massachusetts Contingency Plan (MCP)*, Revision 2, January 19, 2017, MADEP Bureau of Waste Site Cleanup; MADEP *MCP Representativeness Evaluations and Data Usability Assessments*; Policy #WSC-07-350; September 19, 2007; the applicable MADEP Compendium of Analytical Methods performance standards; and the *Work Plan 2017-2022 Post-Temporary Solution Monitoring Program Former General Electric Site, 50 Fordham Road, Wilmington, MA, September 2017*.

Data for the following samples were assessed:

Sample ID	Parameter
18A-AA1-1	VOCs by EPA Method TO-15 SIM
18A-IA2-1	
18A-IA3-1	
18A-IA4-1	
18A-IA7-1	
18A-IA8-1	
18A-IA8-2	
18A-IA9-1	

DATA REVIEW ELEMENTS

The assessment was based on the following review elements:

- * Chain-of-custody (COC)/sample integrity
- * Holding times and sample preservation

- * Laboratory method blanks
- * Canister certification
- * GC/MS tuning[#]
- * Initial calibration/initial calibration and continuing calibration verifications[#]
- * Surrogate recoveries (%Rs)
- * Matrix duplicate (MD) results
- * Laboratory control sample (LCS) results
- * Field duplicate results
- * Internal standard performance
- General reporting issues

The laboratory is required to completely and accurately narrate all quality control exceptions. The symbol ([#]) indicates that nonconformances concerning this review element are only described in the SDG case narrative since complete results for these review elements are not a required report deliverable. The symbol (*) indicates that all criteria were met, no issues were narrated, and/or no qualifications were required for these review elements.

General Reporting Issues

The MassDEP Analytical Protocol Certification Form was reviewed and indicates that the data have met the requirements for "Presumptive Certainty" status.

The total ion chromatographs were scanned for the ions associated with methyl acetate. This compound was not detected in the samples.

An elevated relative percent difference (RPD) was noted by the laboratory for the pre- and post-flow controller calibration check for sample 18A-IA2-1 (26%). The high RPD for the flow controller check may indicate that the sample was not collected at a consistent rate over the specified time period, but sufficient sample aliquot was collected in the canister and the reporting limits were not affected.

For all samples except 18A-AA1-1, results for acetone were qualified as estimated (J) due to co-elution with a non-target peak.

The Reporting Limits for the following compounds exceed the Project Action Limits, as indicated in the Work Plan:

Dibromochloromethane
 1,2-Dibromoethane (Ethylene Dibromide)
 Hexachlorobutadiene
 1,1,2,2-Tetrachloroethane



ANALYTICAL REPORT

Lab Number:	L1804400
Client:	AECOM 250 Apollo Dr. Chelmsford, MA 01824
ATTN:	Lori Herberich
Phone:	(978) 589-3383
Project Name:	LOCKHEED MARTIN
Project Number:	60552044.06
Report Date:	03/02/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), NJ NELAP (MA015), CT (PH-0141), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-13-00067), USFWS (Permit #LE2069641).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: LOCKHEED MARTIN
Project Number: 60552044.06

Lab Number: L1804400
Report Date: 03/02/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1804400-01	18A-AA1-1	AIR	WILMINGTON, MA	02/07/18 16:31	02/08/18
L1804400-02	18A-IA2-1	AIR	WILMINGTON, MA	02/07/18 15:49	02/08/18
L1804400-03	18A-IA3-1	AIR	WILMINGTON, MA	02/07/18 16:12	02/08/18
L1804400-04	18A-IA4-1	AIR	WILMINGTON, MA	02/07/18 16:14	02/08/18
L1804400-05	18A-IA7-1	AIR	WILMINGTON, MA	02/07/18 16:06	02/08/18
L1804400-06	18A-IA8-1	AIR	WILMINGTON, MA	02/07/18 15:56	02/08/18
L1804400-07	18A-IA8-2	AIR	WILMINGTON, MA	02/07/18 15:56	02/08/18
L1804400-08	18A-IA9-1	AIR	WILMINGTON, MA	02/07/18 16:24	02/08/18
L1804400-09	UNUSED CAN #2065	AIR	WILMINGTON, MA		02/08/18
L1804400-10	UNUSED CAN #1970	AIR	WILMINGTON, MA		02/08/18

Project Name: LOCKHEED MARTIN

Lab Number: L1804400

Project Number: 60552044.06

Report Date: 03/02/18

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: LOCKHEED MARTIN
Project Number: 60552044.06

Lab Number: L1804400
Report Date: 03/02/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: LOCKHEED MARTIN
Project Number: 60552044.06

Lab Number: L1804400
Report Date: 03/02/18

Case Narrative (continued)

Report Submission

This report replaces the one previously issued earlier on March 2, 2018. The report has been revised to report additional site specific compounds.

MCP Related Narratives

Canisters were released from the laboratory on February 5, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1804400-02 through -08 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Sample Receipt

The sample designated 18A-IA2-1 (L1804400-02) had a RPD for the pre- and post-flow controller calibration check (26% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 10.0 mL/minute; the final flow rate was 7.7 mL/minute. The final pressure recorded by the laboratory of the associated canister was -8.9 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 03/02/18

AIR

Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-01
Client ID: 18A-AA1-1
Sample Location: WILMINGTON, MA
Sample Depth:
Matrix: Air
Analytical Method: 101,TO15-SIM
Analytical Date: 02/10/18 17:18
Analyst: MB

Date Collected: 02/07/18 16:31
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.482	0.200	--	2.38	0.989	--		1
Chloromethane	0.421	0.200	--	0.869	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	1.56	1.00	--	3.71	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.065	0.050	--	0.498	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.268	0.100	--	0.856	0.319	--		1
Carbon tetrachloride	0.077	0.020	--	0.484	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-01

Client ID: 18A-AA1-1

Sample Location: WILMINGTON, MA

Sample Depth:

Date Collected: 02/07/18 16:31

Date Received: 02/08/18

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.281	0.050	--	1.06	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.032	0.020	--	0.139	0.087	--		1
p/m-Xylene	0.092	0.040	--	0.400	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.034	0.020	--	0.148	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-01

Date Collected: 02/07/18 16:31

Client ID: 18A-AA1-1

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Bromofluorobenzene	95		70-130
Toluene-d8	94		70-130

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	106		60-140
bromochloromethane	111		60-140
chlorobenzene-d5	106		60-140



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-02
Client ID: 18A-IA2-1
Sample Location: WILMINGTON, MA
Sample Depth:
Matrix: Air
Analytical Method: 101,TO15-SIM
Analytical Date: 02/10/18 18:04
Analyst: MB

Date Collected: 02/07/18 15:49
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.475	0.200	--	2.35	0.989	--		1
Chloromethane	0.397	0.200	--	0.820	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	1.71	1.00	--	4.06	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.066	0.050	--	0.506	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.025	0.020	--	0.122	0.098	--		1
1,2-Dichloroethane	0.028	0.020	--	0.113	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.287	0.100	--	0.917	0.319	--		1
Carbon tetrachloride	0.077	0.020	--	0.484	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-02

Client ID: 18A-IA2-1

Sample Location: WILMINGTON, MA

Sample Depth:

Date Collected: 02/07/18 15:49

Date Received: 02/08/18

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.442	0.050	--	1.67	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.059	0.020	--	0.400	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.049	0.020	--	0.213	0.087	--		1
p/m-Xylene	0.148	0.040	--	0.643	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.061	0.020	--	0.265	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-02

Date Collected: 02/07/18 15:49

Client ID: 18A-IA2-1

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Bromofluorobenzene	81		70-130
Toluene-d8	89		70-130
Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	107		60-140
bromochloromethane	111		60-140
chlorobenzene-d5	109		60-140



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-03
Client ID: 18A-IA3-1
Sample Location: WILMINGTON, MA
Sample Depth:
Matrix: Air
Analytical Method: 101,TO15-SIM
Analytical Date: 02/10/18 18:49
Analyst: MB

Date Collected: 02/07/18 16:12
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.474	0.200	--	2.34	0.989	--		1
Chloromethane	0.407	0.200	--	0.840	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	1.82	1.00	--	4.32	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.068	0.050	--	0.521	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.022	0.020	--	0.107	0.098	--		1
1,2-Dichloroethane	0.060	0.020	--	0.243	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.300	0.100	--	0.958	0.319	--		1
Carbon tetrachloride	0.072	0.020	--	0.453	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS****Lab ID:** L1804400-03**Client ID:** 18A-IA3-1**Sample Location:** WILMINGTON, MA**Sample Depth:****Date Collected:** 02/07/18 16:12**Date Received:** 02/08/18**Field Prep:** Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.464	0.050	--	1.75	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.072	0.020	--	0.488	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.049	0.020	--	0.213	0.087	--		1
p/m-Xylene	0.158	0.040	--	0.686	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.063	0.020	--	0.274	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-03

Date Collected: 02/07/18 16:12

Client ID: 18A-IA3-1

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Bromofluorobenzene	78		70-130
Toluene-d8	96		70-130
Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	107		60-140
bromochloromethane	111		60-140
chlorobenzene-d5	107		60-140



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-04
Client ID: 18A-IA4-1
Sample Location: WILMINGTON, MA
Sample Depth:
Matrix: Air
Analytical Method: 101,TO15-SIM
Analytical Date: 02/10/18 20:20
Analyst: MB

Date Collected: 02/07/18 16:14
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.486	0.200	--	2.40	0.989	--		1
Chloromethane	0.409	0.200	--	0.845	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	1.72	1.00	--	4.09	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.066	0.050	--	0.506	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.022	0.020	--	0.107	0.098	--		1
1,2-Dichloroethane	0.264	0.020	--	1.07	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.291	0.100	--	0.930	0.319	--		1
Carbon tetrachloride	0.069	0.020	--	0.434	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS****Lab ID:** L1804400-04**Client ID:** 18A-IA4-1**Sample Location:** WILMINGTON, MA**Sample Depth:****Date Collected:** 02/07/18 16:14**Date Received:** 02/08/18**Field Prep:** Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.457	0.050	--	1.72	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.078	0.020	--	0.529	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.052	0.020	--	0.226	0.087	--		1
p/m-Xylene	0.160	0.040	--	0.695	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.022	0.020	--	0.094	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.065	0.020	--	0.282	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-04

Date Collected: 02/07/18 16:14

Client ID: 18A-IA4-1

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Bromofluorobenzene	94		70-130
Toluene-d8	94		70-130
Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	107		60-140
bromochloromethane	110		60-140
chlorobenzene-d5	106		60-140



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-05
Client ID: 18A-IA7-1
Sample Location: WILMINGTON, MA
Sample Depth:
Matrix: Air
Analytical Method: 101,TO15-SIM
Analytical Date: 02/10/18 21:03
Analyst: MB

Date Collected: 02/07/18 16:06
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.487	0.200	--	2.41	0.989	--		1
Chloromethane	0.420	0.200	--	0.867	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	1.64	1.00	--	3.90	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.070	0.050	--	0.537	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.021	0.020	--	0.103	0.098	--		1
1,2-Dichloroethane	0.048	0.020	--	0.194	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.295	0.100	--	0.942	0.319	--		1
Carbon tetrachloride	0.081	0.020	--	0.510	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-05

Date Collected: 02/07/18 16:06

Client ID: 18A-IA7-1

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.456	0.050	--	1.72	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.071	0.020	--	0.481	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.050	0.020	--	0.217	0.087	--		1
p/m-Xylene	0.159	0.040	--	0.691	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.063	0.020	--	0.274	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-05

Date Collected: 02/07/18 16:06

Client ID: 18A-IA7-1

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Bromofluorobenzene	99		70-130
Toluene-d8	96		70-130
Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	106		60-140
bromochloromethane	110		60-140
chlorobenzene-d5	106		60-140



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-06
Client ID: 18A-IA8-1
Sample Location: WILMINGTON, MA
Sample Depth:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 02/10/18 21:47
Analyst: MB

Date Collected: 02/07/18 15:56
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.480	0.200	--	2.37	0.989	--		1
Chloromethane	0.405	0.200	--	0.836	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	1.47	1.00	--	3.49	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	0.718	0.500	--	2.49	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.094	0.050	--	0.720	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.028	0.020	--	0.137	0.098	--		1
1,2-Dichloroethane	0.033	0.020	--	0.134	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.281	0.100	--	0.898	0.319	--		1
Carbon tetrachloride	0.075	0.020	--	0.472	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	0.027	0.020	--	0.145	0.107	--		1



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-06

Client ID: 18A-IA8-1

Sample Location: WILMINGTON, MA

Sample Depth:

Date Collected: 02/07/18 15:56

Date Received: 02/08/18

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.416	0.050	--	1.57	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.526	0.020	--	3.57	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.045	0.020	--	0.195	0.087	--		1
p/m-Xylene	0.141	0.040	--	0.612	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.056	0.020	--	0.243	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-06

Date Collected: 02/07/18 15:56

Client ID: 18A-IA8-1

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Bromofluorobenzene	103		70-130
Toluene-d8	93		70-130
Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	107		60-140
bromochloromethane	109		60-140
chlorobenzene-d5	107		60-140



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-07
Client ID: 18A-IA8-2
Sample Location: WILMINGTON, MA
Sample Depth:
Matrix: Air
Analytical Method: 101,TO15-SIM
Analytical Date: 02/10/18 22:29
Analyst: MB

Date Collected: 02/07/18 15:56
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.484	0.200	--	2.39	0.989	--		1
Chloromethane	0.409	0.200	--	0.845	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	1.45	1.00	--	3.44	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.089	0.050	--	0.682	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.021	0.020	--	0.103	0.098	--		1
1,2-Dichloroethane	0.034	0.020	--	0.138	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.279	0.100	--	0.891	0.319	--		1
Carbon tetrachloride	0.076	0.020	--	0.478	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	0.026	0.020	--	0.140	0.107	--		1



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS****Lab ID:** L1804400-07**Client ID:** 18A-IA8-2**Sample Location:** WILMINGTON, MA**Sample Depth:****Date Collected:** 02/07/18 15:56**Date Received:** 02/08/18**Field Prep:** Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.406	0.050	--	1.53	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.505	0.020	--	3.42	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.046	0.020	--	0.200	0.087	--		1
p/m-Xylene	0.136	0.040	--	0.591	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.022	0.020	--	0.094	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.055	0.020	--	0.239	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-07

Date Collected: 02/07/18 15:56

Client ID: 18A-IA8-2

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Bromofluorobenzene	95		70-130
Toluene-d8	93		70-130

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	107		60-140
bromochloromethane	110		60-140
chlorobenzene-d5	108		60-140



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-08
Client ID: 18A-IA9-1
Sample Location: WILMINGTON, MA
Sample Depth:
Matrix: Air
Analytical Method: 101,TO15-SIM
Analytical Date: 02/10/18 23:12
Analyst: MB

Date Collected: 02/07/18 16:24
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.479	0.200	--	2.37	0.989	--		1
Chloromethane	0.409	0.200	--	0.845	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	1.84	1.00	--	4.37	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.090	0.050	--	0.690	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.020	0.020	--	0.098	0.098	--		1
1,2-Dichloroethane	0.040	0.020	--	0.162	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.295	0.100	--	0.942	0.319	--		1
Carbon tetrachloride	0.076	0.020	--	0.478	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1



Project Name: LOCKHEED MARTIN**Project Number:** 60552044.06**Lab Number:** L1804400**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-08

Client ID: 18A-IA9-1

Sample Location: WILMINGTON, MA

Sample Depth:

Date Collected: 02/07/18 16:24

Date Received: 02/08/18

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.463	0.050	--	1.74	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.180	0.020	--	1.22	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.049	0.020	--	0.213	0.087	--		1
p/m-Xylene	0.150	0.040	--	0.652	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.024	0.020	--	0.102	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.060	0.020	--	0.261	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**SAMPLE RESULTS**

Lab ID: L1804400-08

Date Collected: 02/07/18 16:24

Client ID: 18A-IA9-1

Date Received: 02/08/18

Sample Location: WILMINGTON, MA

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Bromofluorobenzene	92		70-130
Toluene-d8	94		70-130

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	107		60-140
bromochloromethane	110		60-140
chlorobenzene-d5	107		60-140



Project Name: LOCKHEED MARTIN

Lab Number: L1804400

Project Number: 60552044.06

Report Date: 03/02/18

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM

Analytical Date: 02/10/18 15:50

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-08 Batch: WG1088266-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM

Analytical Date: 02/10/18 15:50

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-08 Batch: WG1088266-4								
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1



Project Name: LOCKHEED MARTIN

Lab Number: L1804400

Project Number: 60552044.06

Report Date: 03/02/18

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO15-SIM

Analytical Date: 02/10/18 15:50

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-08 Batch: WG1088266-4								

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Bromofluorobenzene	96		70-130
Toluene-d8	91		70-130



Lab Control Sample Analysis Batch Quality Control

Project Name: LOCKHEED MARTIN

Project Number: 60552044.06

Lab Number: L1804400

Report Date: 03/02/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 Batch: WG1088266-3								
Propylene	74		-		70-130	-		
Dichlorodifluoromethane	97		-		70-130	-		
Chloromethane	70		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	91		-		70-130	-		
Vinyl chloride	89		-		70-130	-		
1,3-Butadiene	89		-		70-130	-		
Bromomethane	95		-		70-130	-		
Chloroethane	84		-		70-130	-		
Ethyl Alcohol	77		-		70-130	-		
Vinyl bromide	83		-		70-130	-		
Acetone	76		-		50-150	-		
Trichlorofluoromethane	94		-		70-130	-		
1,1-Dichloroethene	94		-		70-130	-		
Methylene chloride	110		-		70-130	-		
3-Chloropropene	103		-		70-130	-		
Carbon disulfide	107		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	114		-		70-130	-		
trans-1,2-Dichloroethene	84		-		70-130	-		
1,1-Dichloroethane	83		-		70-130	-		
Methyl tert butyl ether	77		-		70-130	-		
Vinyl acetate	83		-		70-130	-		
2-Butanone	74		-		70-130	-		
cis-1,2-Dichloroethene	91		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: LOCKHEED MARTIN

Project Number: 60552044.06

Lab Number: L1804400

Report Date: 03/02/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 Batch: WG1088266-3								
Ethyl Acetate	90		-		70-130	-		
Chloroform	104		-		70-130	-		
Tetrahydrofuran	72		-		70-130	-		
1,2-Dichloroethane	92		-		70-130	-		
n-Hexane	85		-		70-130	-		
1,1,1-Trichloroethane	87		-		70-130	-		
Benzene	86		-		70-130	-		
Carbon tetrachloride	107		-		70-130	-		
Cyclohexane	86		-		70-130	-		
Dibromomethane ¹	71		-		70-130	-		
1,2-Dichloropropane	76		-		70-130	-		
Bromodichloromethane	102		-		70-130	-		
1,4-Dioxane	89		-		50-150	-		
Trichloroethene	90		-		70-130	-		
2,2,4-Trimethylpentane	89		-		70-130	-		
cis-1,3-Dichloropropene	90		-		70-130	-		
4-Methyl-2-pentanone	70		-		70-130	-		
trans-1,3-Dichloropropene	78		-		70-130	-		
1,1,2-Trichloroethane	89		-		70-130	-		
Toluene	88		-		70-130	-		
2-Hexanone	70		-		70-130	-		
Dibromochloromethane	112		-		70-130	-		
1,2-Dibromoethane	99		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: LOCKHEED MARTIN

Project Number: 60552044.06

Lab Number: L1804400

Report Date: 03/02/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 Batch: WG1088266-3								
Tetrachloroethene	95		-		70-130	-		
Chlorobenzene	97		-		70-130	-		
Ethylbenzene	94		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	124		-		70-130	-		
Styrene	97		-		70-130	-		
1,1,2,2-Tetrachloroethane	99		-		70-130	-		
o-Xylene	97		-		70-130	-		
1,2,3-Trichloropropane ¹	89		-		70-130	-		
Bromobenzene ¹	88		-		70-130	-		
1,3,5-Trimethylbenzene	103		-		70-130	-		
1,2,4-Trimethylbenzene	104		-		70-130	-		
Benzyl chloride	102		-		70-130	-		
1,3-Dichlorobenzene	101		-		70-130	-		
1,4-Dichlorobenzene	100		-		70-130	-		
1,2-Dichlorobenzene	101		-		70-130	-		
1,2,4-Trichlorobenzene	100		-		50-150	-		
Naphthalene	91		-		50-150	-		
1,2,3-Trichlorobenzene	94		-		70-130	-		
Hexachlorobutadiene	111		-		50-150	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: LOCKHEED MARTIN

Project Number: 60552044.06

Lab Number: L1804400

Report Date: 03/02/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 Batch: WG1088266-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	88				70-130
Toluene-d8	97				70-130
Bromofluorobenzene	102				70-130

Project Name: LOCKHEED MARTIN
Project Number: 60552044.06

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1804400
Report Date: 03/02/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1088266-5 QC Sample: L1804400-03 Client ID: 18A-IA3-1						
Dichlorodifluoromethane	0.474	0.480	ppbV	1		25
Chloromethane	0.407	0.407	ppbV	0		25
Vinyl chloride	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Acetone	1.82	1.69	ppbV	7		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
Freon-113	0.068	0.071	ppbV	4		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	0.022	0.024	ppbV	9		25
1,2-Dichloroethane	0.060	0.061	ppbV	2		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	0.300	0.302	ppbV	1		25
Carbon tetrachloride	0.072	0.074	ppbV	3		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25

Lab Duplicate Analysis Batch Quality Control

Project Name: LOCKHEED MARTIN

Project Number: 60552044.06

Lab Number: L1804400

Report Date: 03/02/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1088266-5 QC Sample: L1804400-03 Client ID: 18A-IA3-1						
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.464	0.459	ppbV	1		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	0.072	0.074	ppbV	3		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	0.049	0.050	ppbV	2		25
p/m-Xylene	0.158	0.156	ppbV	1		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	0.063	0.064	ppbV	2		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: LOCKHEED MARTIN

Project Number: 60552044.06

Lab Number: L1804400

Report Date: 03/02/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1088266-5 QC Sample: L1804400-03 Client ID: 18A-IA3-1						
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Naphthalene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		91		70-130
Toluene-d8	96		94		70-130
Bromofluorobenzene	78		96		70-130

Project Name: LOCKHEED MARTIN

Serial_No:03021815:16
Lab Number: L1804400

Project Number: 60552044.06

Report Date: 03/02/18

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1804400-01	18A-AA1-1	0908	Flow 4	02/05/18	258237		-	-	-	Pass	9.9	10.5	6
L1804400-01	18A-AA1-1	608	6.0L Can	02/05/18	258237	L1803067-01	Pass	-29.0	-3.32	-	-	-	-
L1804400-02	18A-IA2-1	01047	Flow 4	02/05/18	258237		-	-	-	Pass	10.0	7.7	26
L1804400-02	18A-IA2-1	2125	6.0L Can	02/05/18	258237	L1803067-01	Pass	-29.5	-8.9	-	-	-	-
L1804400-03	18A-IA3-1	0909	Flow 4	02/05/18	258237		-	-	-	Pass	9.9	9.0	10
L1804400-03	18A-IA3-1	1848	6.0L Can	02/05/18	258237	L1803067-01	Pass	-29.5	-7.6	-	-	-	-
L1804400-04	18A-IA4-1	0803	Flow 4	02/05/18	258237		-	-	-	Pass	9.8	9.6	2
L1804400-04	18A-IA4-1	690	6.0L Can	02/05/18	258237	L1803067-01	Pass	-29.5	-6.4	-	-	-	-
L1804400-05	18A-IA7-1	0280	Flow 4	02/05/18	258237		-	-	-	Pass	10.0	10.8	8
L1804400-05	18A-IA7-1	1533	6.0L Can	02/05/18	258237	L1803067-01	Pass	-29.6	-4.5	-	-	-	-
L1804400-06	18A-IA8-1	0636	Flow 4	02/05/18	258237		-	-	-	Pass	10.0	9.7	3
L1804400-06	18A-IA8-1	939	6.0L Can	02/05/18	258237	L1803067-01	Pass	-29.2	-6.6	-	-	-	-
L1804400-07	18A-IA8-2	0121	Flow 4	02/05/18	258237		-	-	-	Pass	10.0	11.0	10
L1804400-07	18A-IA8-2	1644	6.0L Can	02/05/18	258237	L1803067-01	Pass	-29.5	-5.9	-	-	-	-
L1804400-08	18A-IA9-1	0764	Flow 5	02/05/18	258237		-	-	-	Pass	10.0	10.4	4

Project Name: LOCKHEED MARTIN
Project Number: 60552044.06

Serial_No:03021815:16
Lab Number: L1804400
Report Date: 03/02/18

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1804400-08	18A-IA9-1	707	6.0L Can	02/05/18	258237	L1803067-02	Pass	-29.6	-5.5	-	-	-	-



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-01
Client ID: CAN 1859 SHELF 42
Sample Location:
Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 01/29/18 14:40
Analyst: MB

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-01
Client ID: CAN 1859 SHELF 42
Sample Location:
Sample Depth:

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-01
Client ID: CAN 1859 SHELF 42
Sample Location:
Sample Depth:

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-01
Client ID: CAN 1859 SHELF 42
Sample Location:
Sample Depth:

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-01
Client ID: CAN 1859 SHELF 42
Sample Location:
Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/29/18 14:40
Analyst: MB

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-01
Client ID: CAN 1859 SHELF 42
Sample Location:
Sample Depth:

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1803067**Project Number:** CANISTER QC BAT**Report Date:** 03/02/18**Air Canister Certification Results**

Lab ID: L1803067-01

Date Collected: 01/26/18 16:00

Client ID: CAN 1859 SHELF 42

Date Received: 01/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	91		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-02
Client ID: CAN 2274 SHELF 43
Sample Location:
Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 01/29/18 15:20
Analyst: MB

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-02
Client ID: CAN 2274 SHELF 43
Sample Location:
Sample Depth:

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-02
Client ID: CAN 2274 SHELF 43
Sample Location:
Sample Depth:

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-02
Client ID: CAN 2274 SHELF 43
Sample Location:
Sample Depth:

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-02
Client ID: CAN 2274 SHELF 43
Sample Location:
Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/29/18 15:20
Analyst: MB

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-02
Client ID: CAN 2274 SHELF 43
Sample Location:
Sample Depth:

Date Collected: 01/26/18 16:00
Date Received: 01/29/18
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1803067
Report Date: 03/02/18

Air Canister Certification Results

Lab ID: L1803067-02
 Client ID: CAN 2274 SHELF 43
 Sample Location:
 Sample Depth:

Date Collected: 01/26/18 16:00
 Date Received: 01/29/18
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	92		60-140



Project Name: LOCKHEED MARTIN**Lab Number:** L1804400**Project Number:** 60552044.06**Report Date:** 03/02/18**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1804400-01A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L1804400-02A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L1804400-03A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L1804400-04A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L1804400-05A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L1804400-06A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L1804400-07A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L1804400-08A	Canister - 6 Liter	NA	NA			Y	Absent		MCP-TO15-SIM(30)
L1804400-09A	Canister - 6 Liter	NA	NA			Y	Absent		CLEAN-FEE()
L1804400-10A	Canister - 6 Liter	NA	NA			Y	Absent		CLEAN-FEE()

Project Name: LOCKHEED MARTIN
Project Number: 60552044.06

Lab Number: L1804400
Report Date: 03/02/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: Data Usability Report



Project Name: LOCKHEED MARTIN
Project Number: 60552044.06

Lab Number: L1804400
Report Date: 03/02/18

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: LOCKHEED MARTIN
Project Number: 60552044.06

Lab Number: L1804400
Report Date: 03/02/18

REFERENCES

- 101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**Revision **11**

Published Date: 1/8/2018 4:15:49 PM

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 300:** DW: Bromide**EPA 6860:** SCM: Perchlorate**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E,****SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.****EPA 624:** Volatile Halocarbons & Aromatics,**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1



CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: **AECOM**
Address: **250 Apollo Drive**
Chelmsford MA 01824
Phone: **978-905-2100**
Fax: **978-905-2101**
Email: **lori.herberich@aecom.com**

Project Information

Project Name: **Lockheed Martin**
Project Location: **Wilmington MA**
Project #: **60552044.06**
Project Manager: **SCOTT OLSON**
ALPHA Quote #: **2018-2022 PROPOSAL**

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: **15 DAY** Time:

Date Rec'd in Lab: **2/8/18**

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats: **EQUIS EDD**
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

ALPHA Job #: **L1804400**

Billing Information

☐ Same as Client info PO #:
AECOM PO # 98546
LINE 1 (2018)

Regulatory Requirements/Report Limits

State/Fed Program Res / Comm
MASS DEP CAM

ANALYSIS

TO-15 SIM + Free 113
☐ APH Subject Non-petroleum HCs
☐ Fixed Gases
☐ Sulfides & Mercaptans by TO-15

Other Project Specific Requirements/Comments: **TO15 SIM - RLS MUST MEET THRESHOLDS IN AECOM PROJECT QAPP (2017)**
Project-Specific Target Compound List: ☐ **Call LORE HERBERICH with #'s. 978-302-2174**

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 APH	Fixed	Sulfides		Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	(in Hg)											
04400-01	18A-AA1-1	2-7-18	0825	1621	-30.92	-4.90	AA	TC	GL	608	0900	X						
02	18A-IA2-1		0746	1549	-31.25	-9.06				2125	01047	X						
03	18A-IA3-1		0806	1612	-31.00	-7.82				1848	0909	X						
04	18A-IA4-1		0808	1614	-31.15	-6.52				690	0803	X						
05	18A-IA7-1		0804	1606	-31.00	-4.71				1533	0280	X						
06	18A-IA8-1		0755	1550	-30.85	-6.42				939	0636	X						
07	18A-IA8-2		0755	1550	-30.35	-5.97				1644	0121	X						
08	18A-IA9-1		0817	1624	-31.65	-5.60				707	0764	X						
	②																	

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Summary

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time:

APPENDIX D – PUBLIC NOTIFICATION DOCUMENTATION

Olson, Scott (Chelmsford)

From: Olson, Scott (Chelmsford)
Sent: Wednesday, January 17, 2018 3:49 PM
To: gstanieich@aol.com
Cc: Calligan, Paul E <paul.e.calligan@lmco.com> (paul.e.calligan@lmco.com); Callahan, Nicole A.
Subject: Notification of Indoor Air Sampling Event - 40 Fordham Rd in Wilmington, MA
Attachments: BWSC-123_WRT Indoor Air Sampling_Feb-2018.pdf

Gary,

Attached please find a BWSC-123 form providing notification to WRT of the upcoming indoor air sampling to be conducted at 40 Fordham Road in Wilmington in early February 2018.

Today, I spoke briefly with Casey Wolf of UPS and understand that their operations are dormant. Casey asked that I send him an email with the dates and details of this sampling event so that we can coordinate logistics with him. I will copy you on that email this afternoon.

Please let me know if you have any questions.

Regards.

Scott

Scott Olson, PG
Project Manager, 5803, Environment NE
D +1-978-905-2351
M +1-978-846-5238
scott.olson@aeom.com

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250 Apollo Drive
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NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

BWSC 123

This Notice is Related to
Release Tracking Number

03

0518

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 50 Fordham Road
City/Town: Wilmington, MA Zip Code: 01887

B. This notice is being provided to the following party:

1. Name: Gary Stanieich
2. Street Address: 424 Broadway
City/Town: Somerville, MA Zip Code: 02145

C. This notice is being given to inform its recipient (the party listed in Section B):

- ☒ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.
☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 40 Fordham Rd (site formerly #50, but is now #40 Fordham Rd)
City/Town: Wilmington, MA Zip Code: 01887

2. MCP phase of work during which the sampling will be/has been conducted:

- | | |
|---|--|
| ☐ Immediate Response Action | ☐ Phase III Feasibility Evaluation |
| ☐ Release Abatement Measure | ☐ Phase IV Remedy Implementation Plan |
| ☐ Utility-related Abatement Measure | ☐ Phase V/Remedy Operation Status |
| ☐ Phase I Initial Site Investigation | ☐ Post-Class C Operation, Maintenance and Monitoring |
| ☐ Phase II Comprehensive Site Assessment | ☒ Other <u>post Temporary Solution O&M</u> |
- (specify)

3. Description of property where sampling will be/has been conducted:

☐ residential ☒ commercial ☒ industrial ☐ school/playground ☐ Other _____
(specify)

4. Description of the sampling locations and types (e.g., soil, groundwater) to the extent known at the time of this notice.

Environmental samples to be collected from within Building 1 in early February 2018. See attached supplemental form.

E. Contact information related to the party providing this notice:

Contact Name: Scott Olson

Street Address: AECOM - 250 Apollo Drive

City/Town: Chelmsford, MA Zip Code: 01824

Telephone: (978) 846-5238 Email: scott.olson@aecom.com

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation under the Massachusetts Contingency Plan at a property on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/dep/cleanup/oview.htm>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://mass.gov/dep/about/region/schedule.htm> if you would like to make an appointment to see these files. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Notice of Environmental Sampling – BWSC 123

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

This Notice is Related to Release Tracking Number 03-0518

(Supplemental Page to BWSC-123 Form)

D.4. Description of the sampling locations and types (e.g., soil, groundwater) to the extent known at the time of this notice.

The following activities will be conducted onsite:

- Indoor air sampling will be conducted at 7 locations within Building 1, with 5 or 6 locations on the main level and 1 or 2 samples upstairs. One ambient air sample will be collected outside of Building 1. These samples will be collected over an 8-hour duration during normal business day-time hours, between approximately 7:00 or 8:00 am to 4:00 or 5:00 pm. This work is scheduled for **Wednesday February 7, 2018**.
- For the indoor air sampling, regulations require the building heating system to be in operation for the 72 hrs prior sample collection. Tenants should operate their heating systems as they normally would during their occupancy at this time of year, assuming that the system is set to turn on/off automatically to maintain tenant occupancy temperatures.



AECOM
250 Apollo Drive
Chelmsford, MA 01824

978-905-2100 tel
978-905-2101 fax

April 18, 2018

Mr. Gary Stanieich
Manager, Wilmington Realty Trust
424 Broadway
Somerville, MA 02145

**Subject: Building 1 Facility – 2018 Indoor Air Sampling
50 Fordham Road, Wilmington, MA**

Dear Mr. Stanieich,

On February 7, 2018, AECOM, under contract to Lockheed Martin Corporation (LMC), collected annual indoor air samples from locations within Building 1 at the above-referenced Fordham Road property. All of the indoor air sampling results within Building 1 were similar to those previously observed with the exception of the detection of 1,2-dichloroethane in one sample within Building 1 above the Massachusetts Department of Environmental Protection (MassDEP) Commercial/Industrial (MA C/I) Threshold Criteria.

The results of the sampling event indicate that the compounds detected were generally similar to those detected in previous indoor sampling events. For the first time ever, 1,2-dichloroethane was detected in indoor air within Building 1. This compound was detected in all samples collected but was only above the MA C/I Threshold Criteria in one sample. It is AECOM's opinion that the presence of this compound is not attributable to a subsurface source beneath the building, as no groundwater or sub-slab soil gas samples ever obtained at the site contained this compound. The presence of this compound in indoor air is more likely attributable to an indoor source associated with the various tenant operations. AECOM's evaluation also indicates that the levels do not constitute an imminent hazard to tenant employees or visitors to the facility.

In accordance with the Massachusetts Contingency Plan, 310 CMR 1403 (10), enclosed is a copy of the Notification Form previously provided (**Attachment 1**), a copy of the analytical results package (**Attachment 2**), as well as a map of the Fordham Road property sampling locations (**Figures 1 and 2**). We have included a summary table of the analytical results with a comparison to the applicable MA C/I Threshold Criteria (**Table 1**). AECOM's report to Lockheed Martin Corporation is also presented in **Attachment 3**.

If you have any questions or comments regarding the results, please contact me at 978-905-2423 or arthur.taddeo@aecom.com. Additional public involvement opportunities are available under 310 CMR 40.1403(9).

Yours sincerely,

Scott Olson
Project Manager

cc: Paul Calligan, Lockheed Martin Corp.



AECOM
250 Apollo Drive
Chelmsford, MA 01824

978.905.2100 tel
978.905.9201 fax

September 4, 2018

Subject: **NOTIFICATION OF DOCUMENT AVAILABILITY**
Post-Temporary Solution Updated Groundwater Monitoring Plan
Former General Electric Facility, 50 Fordham Road, Wilmington, MA, RTN 3-0518

Dear Community Members:

Pursuant to the Massachusetts Contingency Plan (MCP) 310 CMR 40.1405 and the Public Involvement Plan (PIP) for the site dated November 17, 2000, AECOM has prepared this letter on behalf of Lockheed Martin Corporation ("Lockheed Martin") to inform you that the *Post-Temporary Solution Updated Groundwater Monitoring Plan* was submitted to the Massachusetts Department of Environmental Protection (MassDEP) on September 4, 2018. This updated monitoring plan was submitted to the MassDEP for Release Tracking Number (RTN) 3-0518, located at the former General Electric Facility, 50 Fordham Road, Wilmington, Massachusetts (the site).

Should you wish to view a copy of this updated Post-Temporary Solution Groundwater Monitoring Plan, an electronic copy will be available at the designated public repository established in the Flint Memorial (N. Reading) Library, 147 Park Street, North Reading, MA (telephone 978-664-4942). Library hours are as follows: Monday, Tuesday and Thursday 10 AM to 8 PM; Wednesday and Friday 10 AM to 5 PM; Saturday (Labor Day to Memorial Day) 10 AM to 5 PM then closed for the summer; closed on Sundays.

Historical disposal site files can also be accessed several ways:

- Lockheed Martin web-site: www.lockheedmartin.com/wilmington,
- MassDEP website using RTN 3-0518 at <http://public.dep.state.ma.us/SearchableSites2/Search.aspx>
- MassDEP, Northeast Regional Office, 205B Lowell Street, Wilmington, MA 01887 (Main Phone: 978-694-3200)

If you have questions or require additional information related to these submittals, please contact the undersigned at (978) 905-2100.

Sincerely,

Scott Olson, PG
Project Manager