POST-TEMPORARY SOLUTION STATUS REPORT NO. 5
FORMER GENERAL ELECTRIC FACILITY
50 FORDHAM ROAD, WILMINGTON, MA
RTN 3-0518

Prepared for:
Lockheed Martin Corporation

Prepared by:
AECOM

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Approved by:
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ACRONYMS AND ABBREVIATIONS

AUL	activity and use limitation
AECOM	AECOM Technical Services, Inc.
BWSC	Bureau of Waste Site Cleanup
CMR	Code of Massachusetts Regulations
C/I	commercial/industrial
CSA	comprehensive site assessment
1,2-DCA	1,2-dichloroethane
EPL	Eastern Parking Lot
°F	Fahrenheit
GE	General Electric Company
IDW	investigation derived waste
IH	imminent hazard
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
$\mu g/m^3$	micrograms per cubic meter
MNA	monitored natural attenuation
No.	number
OMM	operation, maintenance, and/or monitoring
OU	operable unit
ppmv	part-per-million by volume
PID	photoionization detector
PIP	public involvement plan
RAO	response action outcome

RAP	remedial action plan
ROS	remedy operation status
RTN	release tracking number
TRC	TRC Companies, Inc.
UPS	United Parcel Service
VOC	volatile organic compound
VPH	volatile petroleum hydrocarbons
WRT	Wilmington Realty Trust

SECTION 1
INTRODUCTION

AECOM Technical Services, Inc. has prepared this Post-Temporary Solution Status Report Number 5 on behalf of Lockheed Martin Corporation in fulfillment of the requirements of post-temporary solution operation, maintenance, and/or monitoring under the Massachusetts Contingency Plan, 310 Code of Massachusetts Regulations 40.0897. This report also was prepared in accordance with the Temporary Solution Statement (AECOM, 2017a) submitted in May 2017 for release tracking number 3-0518, which is located at the former General Electric Company 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, along with the Comprehensive Response Action Transmittal Form and Phase 1 Completion Statement (Bureau of Waste Site Cleanup-108) and the Remedial Monitoring Report Form, which provide additional responsible party and licensed site professional 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 General Electric Company facility property, began in the early 1980s. On October 9, 1987, the Massachusetts Department of Environmental Protection classified the former General Electric Companyfacility as a priority disposal site, prior to the adoption of the Massachusetts Contingency Plan in 1988. Under the Massachusetts Contingency Plan (MassDEP, 2014), the site is a Tier 1 Classified site, under release tracking number 3-0518, with four original operable units, as listed below and further defined in previous reports submitted to the Massachusetts Department of Environmental Protection.

- operable unit-1—Former Tank Farm source area (includes Pump House/Vault and Oil House) and adjacent Eastern Parking Lot

- operable unit-2—Former Tank Farm source area and downgradient groundwater plume both on- and off-property
- operable unit-3—Storm water/Wastewater Outfalls 001 and 002
- operable unit-4—Former Tank K Source Area and immediately downgradient groundwater plume

Areas relating to sediment at storm water/wastewater Outfalls 001 and 002 within operable unit-3 have been resolved and closed via a partial response action outcome (Class A-2) submitted in December 2004 by TRC Companies, Inc. (TRC, 2004). The former Tank K area that comprised operable unit-4 has been resolved and closed via a partial response action outcome (Class A-2) dated November 9, 2010 (TRC, 2010). The remaining two areas, operable unit-1 (petroleum contamination in former Tank Farm and Eastern Parking Lot areas) and operable unit-2 (chlorinated volatile organic compounds in former Tank Farm and downgradient groundwater plume), make up release tracking number 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 opinion was filed on April 20, 2006 (TRC, 2006). Lockheed Martin Corporation and AECOM Technical Services, Inc. determined on February 28, 2013, that the requirements to maintain remedy operation status were no longer being met, and therefore submitted the required remedy operation status termination notice and a Tier 1 Permit extension application on March 27, 2013, returning the site to Phase II/Phase III status of the Massachusetts Contingency Plan (AECOM, 2013). On October 10, 2014, Lockheed Martin Corporation submitted a tier classification extension (AECOM, 2014) that was approved by the Massachusetts Department of Environmental Protection, extending the tier classification deadline to May 3, 2017. On May 2, 2017, Lockheed Martin Corporation electronically submitted to the Massachusetts Department of Environmental Protection the required reports including a Phase II Comprehensive Site Assessment with a Method 3 Risk Characterization (AECOM, 2017b), a Phase III Remedial Action Plan (AECOM, 2017c), and a Temporary Solution Statement (AECOM, 2017a). The Massachusetts Department of Environmental Protection acknowledged receipt of the reports on May 2, 2017, via electronic stamp on the Bureau of Waste Site Cleanup 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 Massachusetts Department of Environmental Protectionevery 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 release tracking number 3-0518 (comprehensive release history, site assessment, and completed remedial activities) can be found in reports previously submitted to the Massachusetts Department of Environmental Protection, specifically the Phase II Comprehensive Site Assessment (AECOM, 2017b), Phase III Remedial Action Plan (AECOM, 2017c), and Temporary Solution Statement (AECOM, 2017a).

1.2 OBJECTIVE

The objective of this Post-Temporary Solution Status Report No. 5 is to document the monitoring activities conducted at the site during the six-month reporting period of May 2 through November 1, 2019, in accordance with the operation, maintenance, and/or monitoring 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 licensed site professional-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 Technical Services, Inc.
250 Apollo Drive
Chelmsford, MA 01824
Contact: Mr. Daniel Folan (licensed site professional license number 1736)
Phone: (978) 905-2205

Current Property Owner:

Wilmington Realty Trust
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:

- **Section 2**—provides a description of the type and frequency of monitoring and field activities conducted during this reporting period.
- **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 monitoring and subsequent product recovery, a discussion of the performance of the monitored natural attenuation relating to the light non-aqueous phase liquid, and a discussion of the remedial objectives related to the light non-aqueous phase liquid 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 licensed site professional's 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 Operation, Maintenance, and/or Monitoring (OMM) Program continued during this reporting period in accordance with the preliminary monitoring plan presented in the Temporary Solution Statement submitted to the Massachusetts Department of Environmental Protection (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, 2019) are discussed below.

2.1 INDOOR AIR SAMPLING

In accordance with the OMM Program, AECOM Technical Services, Inc. (AECOM) performed annual indoor air monitoring during the heating season in February 2019. The United Parcel Service (UPS) began occupation of Building 1, under a lease with Wilmington Realty Trust, in October 2017, and has conducted seasonal operations from October to December in 2017 and 2018. UPS was not present, and their operations were dormant during the indoor air sampling on February 13, 2019.

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 13, 2019, the ambient temperature ranged from a low of 33 Fahrenheit (°F) to a daytime high of 40°F. Building 1 indoor air temperatures ranged from 50 to 55°F on the first floor, with 59°F noted on the second floor. The heating, ventilation, and air conditioning units were operational in Building 1 during the sampling event. The units were preset by UPS to maintain cool conditions and prevent freezing pipes 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 13, 2019 sampling event.

Barometric pressure readings were taken onsite within Buildings 1 and 1A and ranged from 29.29 - 29.38 inches mercury (Hg), with outdoor pressure readings noted of 29.29 – 29.41 inches Hg.

Barometric pressure readings from the Weather Underground station were relatively constant during sampling on February 13, 2019 ranging from 29.48 – 29.86 inches.

Prior to and during the sample collection, on February 6 and 13, 2019, 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) (miniRAE^{TM} 3000 with 10.6 eV lamp) on February 13, 2019, 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 PID readings at the indoor and ambient air sample locations were all 0 parts-per-million by volume (ppmv). Additionally, PID readings of less than 1 ppmv were noted at holes, drains, and cracks in the floor, and near the materials that could potentially be sources of VOCs within Buildings 1 and 1A. These PID readings are all similar to past PID screenings in Buildings 1 and 1A.

The February 13, 2019 indoor air sampling event consisted of the collection of air samples from ten indoor air sampling locations. Five locations (IA-2, IA-3, IA-4, IA-7, and IA-8) were on the first floor of Building 1 and one location (IA-9) was on the second floor of Building 1. Four samples were collected in Building 1A, one (IA-11) in the CranBarry warehouse and three (IA-12, IA-13, and IA-14) in K1 Speed. All indoor air samples were co-located as best as possible (within approximately 10 to 20 feet) with the prior indoor sample locations collected from 2009-2018. Sample locations IA-10 on the second floor of Building 1 and IA-6 inside the guard shack physically no longer exist. 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 (19A-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 13, 2019. 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 Massachusetts Contingency Plan volatile organics in air via Method TO-15 with selective ion monitoring. 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 light non-aqueous phase liquid (LNAPL) monitoring and product recovery from select monitoring wells in June and September 2019. 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 2019 Gauging Event

On June 5, 2019, 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. AECOM deployed a bailer in 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.

2.2.2 September 2019 Gauging Event

On September 13, 2019, 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. AECOM deployed a bailer in 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.

2.3 GROUNDWATER MONITORING

In September-October 2019, AECOM conducted the annual groundwater monitoring in accordance with the OMM Program and with the updated post-Temporary Solution OMM groundwater monitoring plan submitted to MassDEP on September 6, 2018. The groundwater analytical results from the annual 2019 sampling have been received and are currently being evaluated. Details of the 2019 annual groundwater monitoring event along with a summary of the analytical results will be included in Post-Temporary Solution Status Report Number (No.) 6, scheduled to be submitted to the MassDEP in May 2020.

2.4 INVESTIGATION-DERIVED WASTE MANAGEMENT

During the groundwater monitoring event completed in October 2019, 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 2019, AECOM characterized the IDW in accordance with Lockheed Martin Corporation (Lockheed Martin) procedures and has subcontracted Clean Harbors Environmental Services to transport and dispose the purge water IDW at a Lockheed Martin approved facility in early November. Copies of the waste manifest will be included in Post-Temporary Solution Status Report No. 6 in May 2020.

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 2019 sampling event is included as Appendix C. Results from the February 2019 air sampling event are summarized below.

3.1 QUALITY ASSURANCE AND QUALITY CONTROL

The quality of the analytical data from the February 13, 2019 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 volatile organic compound (VOC) data were validated and are discussed in detail in the data validation summary memorandum included in Appendix C. Data were evaluated and all were accepted with select qualifications as noted in the data validation memorandum. All results complied with the applicable Massachusetts Department of Environmental Protection (MassDEP) Compendium of Analytical Methods 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 several 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 several solvent and petroleum-related VOCs of concern were detected at low concentrations, above laboratory method detection limits. The detected compounds in Building 1 are consistent with compounds detected in previous indoor air sampling events from 2009 to 2018. The detected concentrations of these compounds in February 2019 are consistent for each sampling location and are also consistent with concentrations detected in past indoor air sampling events.

The concentrations detected in indoor air at locations within Building 1 and 1A were compared to the MassDEP C/I Threshold Values, as shown in Table 3-1. All concentrations in Building 1 and 1A were below the available C/I Threshold Values except for 1,2-dichloroethane (1,2-DCA), which exceeds the C/I Threshold Value (0.44 micrograms per cubic meter [$\mu g/m^3$]) in one sample at location IA-14 (1.07 $\mu g/m^3$) in the K1 Speed game room.

This compound, 1,2-DCA, was never 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 for the first time in indoor air in Building 1 in 2018, above the C/I Threshold, following the first occupation of Building 1 by United Parcel Service (UPS) in Fall 2017. In February 2019, this compound was detected in all samples within Building 1 and 1A. Detections in samples IA-11 through IA-14 from Building 1A in April and June 2017 indicate that the compound was already present in tenant spaces within Building 1A. Concentrations of 1,2-DCA measured in 2019 within Building 1 are below the C/I Threshold. Concentrations of 1,2-DCA measured in CranBarry within Building 1A remain below the C/I Threshold, similar to the concentrations observed in 2017. Concentrations of 1,2-DCA measured in K1 Speed within Building 1A are one order of magnitude lower in 2019 than observed in 2017, the only other time samples have been analyzed from Building 1A.

It is AECOM Technical Services Inc.'s (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 1,2-DCA. This compound 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 tenants' trucks that periodically drive in and out of and park within Building 1, and/or from molded plastic, pipes, furniture, automobile parts and upholstery, and/or 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 exists as defined in the Massachusetts Contingency Plan (MCP) (40.0006) because the site is not currently used as a school, daycare or childcare 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, in June 2017

AECOM conducted a risk evaluation using the MassDEP imminent hazard (IH) short form per the MCP [40.0953(5)], using 2017 detected 1,2-DCA concentrations. While not a formal IH evaluation as per 40.0953, the 1,2-DCA indoor air concentrations from 2017-2019 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 of receptors (office and school workers, pregnant women, small children, etc.). Given that the concentrations of 1,2-DCA detected in February 2019 are an order of magnitude lower than detected in 2017, the results of the 2017 risk evaluation are still valid.

Based on the above, and over 20 years of site data and investigation, 1,2-DCA is not considered a chemical of concern 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 Technical Services Inc. (AECOM) performs light non-aqueous phase liquid (LNAPL) free product recovery intermittently as detailed in the Temporary Solution Statement (AECOM, 2017a). AECOM did not deploy any absorbent socks during 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 2019.

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 monitored natural attenuation (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 an 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 Eastern Parking Lot (EPL). The current conceptual site model indicates that the presence of LNAPL in these wells is typically observed during periods of low water levels which apparently allows small amounts of residual LNAPL to weep from petroleum-impacted 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 onsite 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 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.

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 lower water levels. 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 Code of Massachusetts Regulations (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 lower water levels. 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, with the thickest measurements of 0.12 feet in CW-1 observed in September 2016 and 0.08 feet 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 Massachusetts Department of Environmental Protection (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 Remedial Action Plan (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 volatile organic compounds in groundwater and soils, but contain VPH, particularly the C9-C10 aromatic fraction, above standards in groundwater, 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 light non-aqueous phase liquid.

On July 13, 2015, Wilmington Realty Trust (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 General Electric Company property that would be inconsistent with maintaining a condition of No Substantial Hazard under the Massachusetts Contingency Plan (MCP). These prohibited uses include the following:

- Residential, school, playground, park or daycare use; and
- 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 Code of Massachusetts Regulations (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 licensed site professional:

- the performance standards for release abatement measures 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 Operation, Maintenance, and/or Monitoring 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 due in May 2022.

- Annual indoor air monitoring of 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 6 to 7 locations in Building 1, and possibly at 4 locations in Building 1A. Indoor air sampling is not conducted within Building 2 as the groundwater plume has not been documented beneath this area of the site. Samples will be collected following procedures contained in the Massachusetts Department of Environmental Protection (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 volatile organic compounds via TO-15 selective ion monitoring 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 2020.

- Quarterly light non-aqueous phase liquid (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 Eastern Parking Lot to monitor the presence/absence of LNAPL in this area. If LNAPL thickness of greater than 0.1 feet 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 2019. The remedial alternative selected for LNAPL is monitored natural attenuation (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., chlorinated volatile organic compounds, 1,4-dioxane, petroleum hydrocarbons, and arsenic) and relevant MNA parameters in the 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 2020.

- Submittal of semiannual post-temporary solution status and rmedial monitoring reports. The next semiannual report is due to the MassDEP in May 2020.

- 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

One modification to the monitoring program was made during this monitoring period. The modification involved the collection of indoor air samples within Building 1A in February 2019. The monitoring of indoor air in Building 1A was not part of the original monitoring program. This monitoring was added because of the first-ever detection of 1,2-dichloroethane (1,2-DCA) in indoor air within Building 1 in 2018. The goal was to collect one round of data to assess the presence or absence of 1,2-DCA in both Buildings 1 and 1A.

SECTION 9
LICENSED SITE PROFESSIONAL OPINION AND CONCLUSIONS

Comprehensive response actions at the site are limited to active remedial monitoring that includes monitored natural attenuation under post-temporary solution status. It is AECOM Technical Services Inc.'s opinion that the performance standards outlined in 310 Code of Massachusetts Regulations 40.0897, and as presented in the Temporary Solution Statement submitted to the Massachusetts Department of Environmental Protection by AECOM Technical Services, Inc. in May 2017, are being accomplished. Based upon indoor air data collected to date, a critical exposure pathway or imminent hazard does not exist within Buildings 1 and 1A. Based upon light non-aqueous phase liquid gauging data collected during this reporting period, the existing light non-aqueous phase liquid has micro-scale mobility (can flow into a well); however, the light non-aqueous phase liquid is stable and not expanding.

The seal and signature of the licensed site professional who prepared this Post-Temporary Solution Status Report Number 5 are set forth on the applicable Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup transmittal forms (BWSC-108) submitted via eDEP.

SECTION 10
PUBLIC NOTIFICATION

The former General Electric Company facility is part of a joint Public Involvement Plan (PIP) with other potentially responsible parties that was prepared in 2000 by the Massachusetts Department of Environmental Protection (MassDEP). Because the site is a PIP site, additional regulatory requirements above the minimum requirements of the Massachusetts Contingency Plan (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 and Board of Health 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 (AECOM, 2017a) 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 Technical Services, Inc. sent notification using MassDEP Form Bureau of Waste Site Cleanup (BWSC)-123 to the property owner listed below:

- Wilmington Realty Trust – 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.

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.

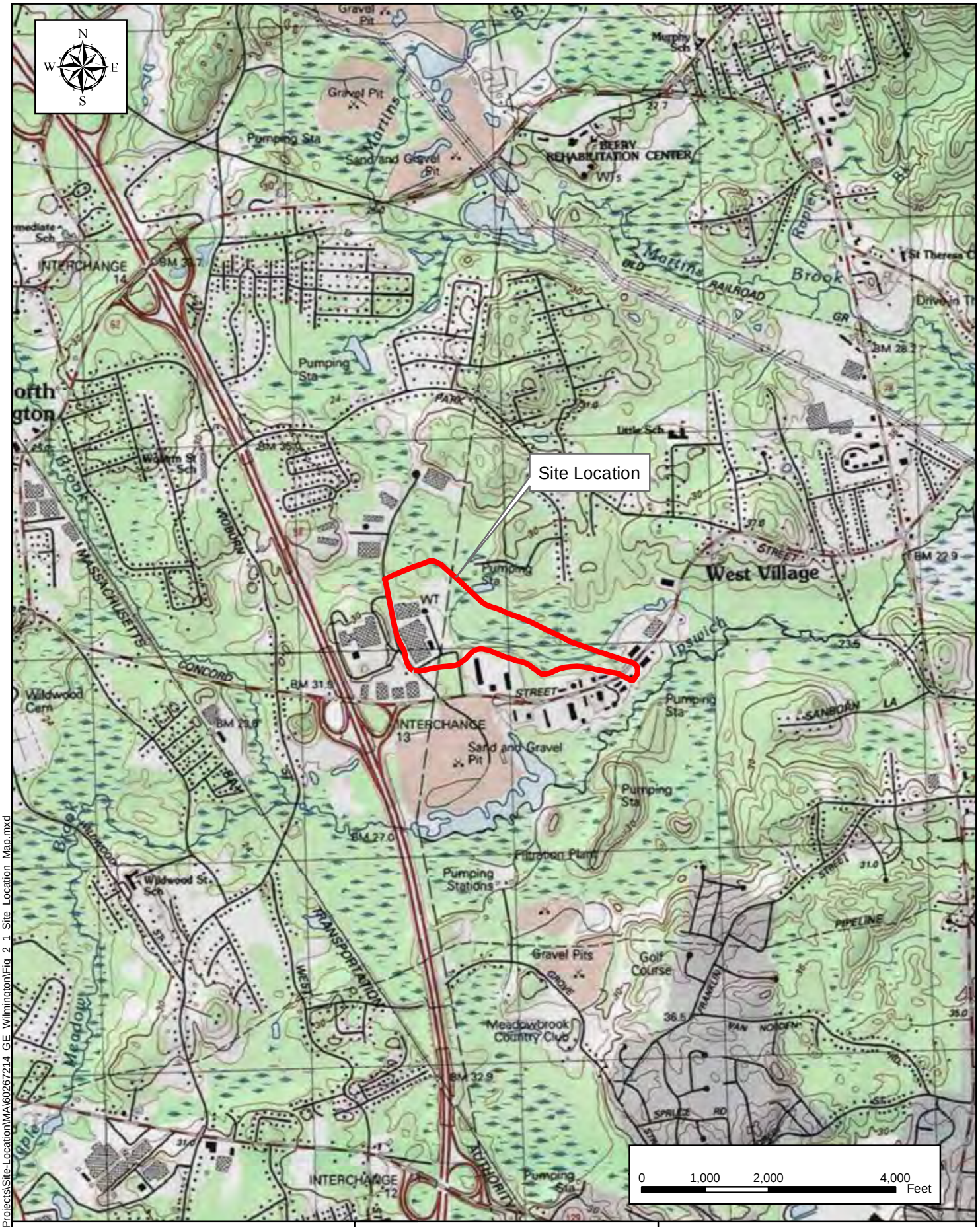
_____, 2016b. Light Non-Aqueous Phase Liquids (LNAPL) and the MCP: Guidance for Site Assessment and Closure, Policy #WSC-16-450. February 19, 2016.

TRC Companies, Inc. (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

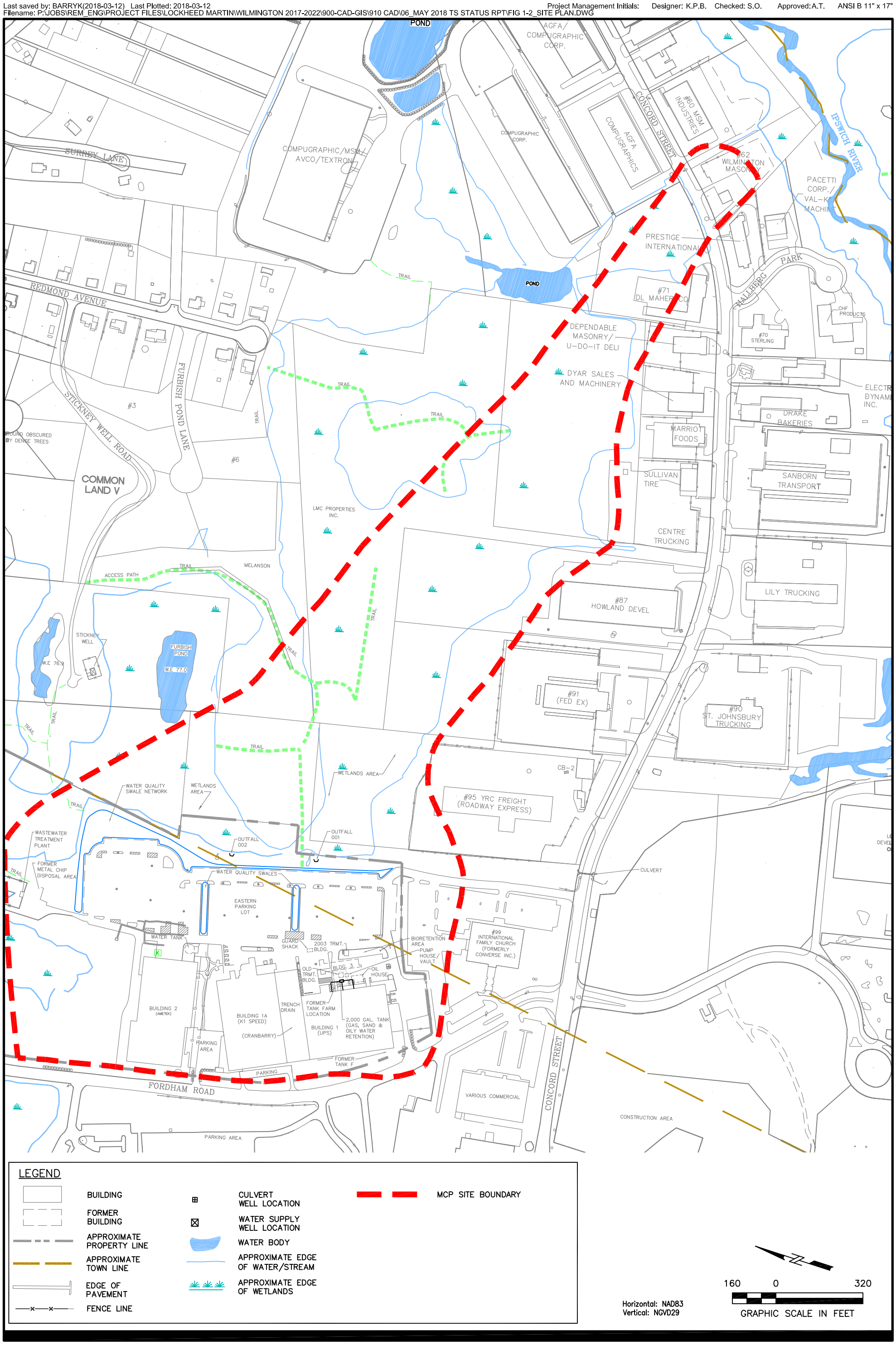
Former GE Facility
50 Fordham Road, Wilmington, MA

SITE LOCATION MAP

DATE: 10/10/2017			PROJECT: 60552044	FIGURE: 1-1

Path: L:\Gisprojects\Projects\Site-Location\MA\60267214_GE_Wilmington\Fig_2_1_Site_Location_Map.mxd

Last saved by: BARRYK(2018-03-12) Last Plotted: 2018-03-12 Project Management Initials: Designer: K.P.B. Checked: S.O. Approved: A.T. ANSI B 11" x 17"
Filename: P:\JOBS\REM_ENG\PROJECT FILES\LOCKHEED MARTIN\WILMINGTON 2017-2022\900-CAD-GIS\910 CAD\06_MAY 2018 TS STATUS RPT\FIG 1-2_SITE PLAN.DWG



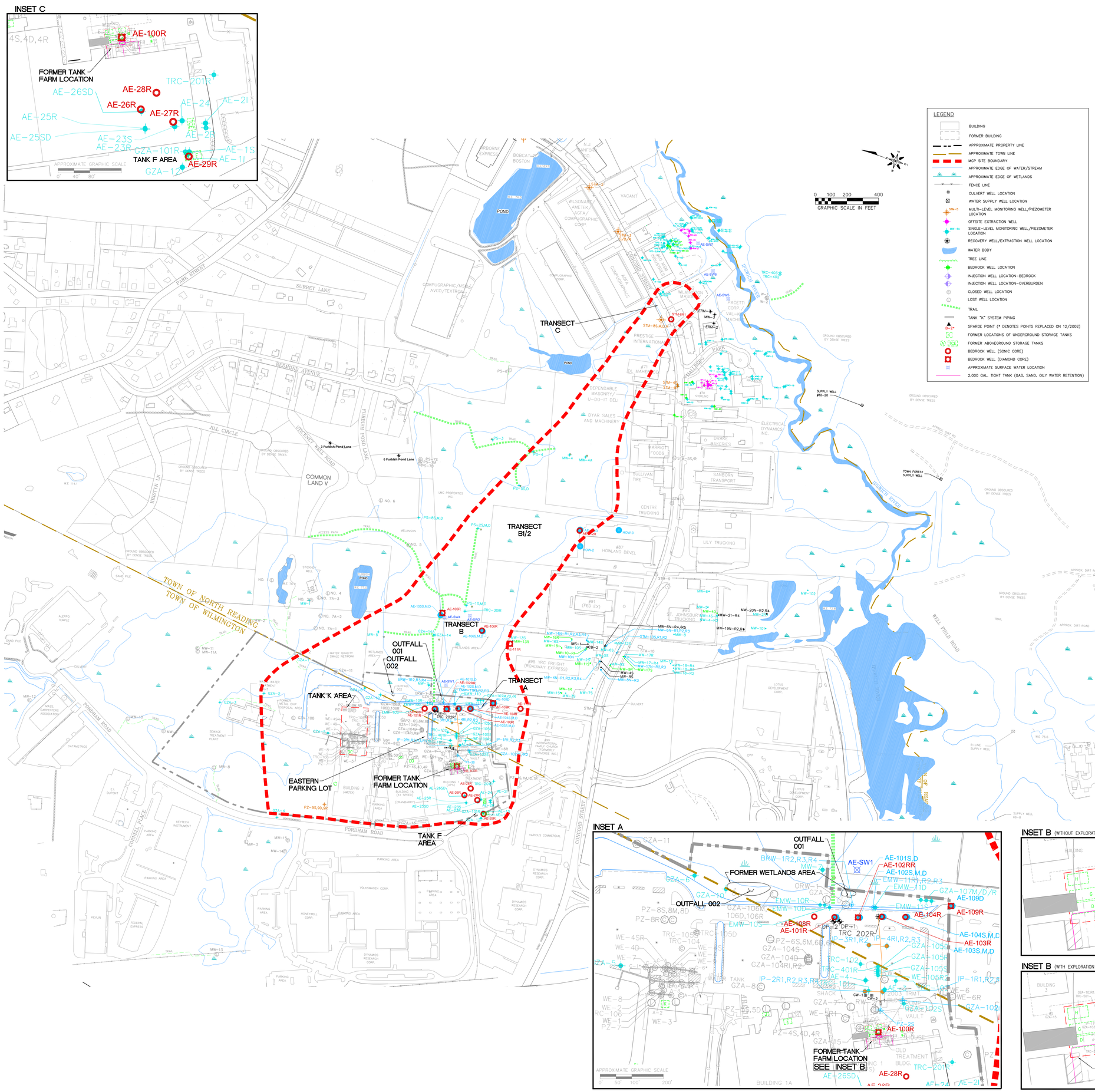
Former GE Facility - 50 Fordham Rd, Wilmington, MA
Lockheed Martin Corporation

SITE PLAN

AECOM

60552044 2018-03-12

FIGURE: 1-2



NOTES:

1. SOURCE: "BASE MAP" (TRC ENVIRONMENTAL CORP., 2003). THE ACCURACY OF THE SURVEY INFORMATION PRESENTED HEREIN, INCLUDING THE HORIZONTAL COORDINATE SYSTEM AND THE HORIZONTAL AND VERTICAL DATUMS HAVE BEEN PARTIALLY VERIFIED BY AECOM.
2. AE SERIES WELLS WERE INSTALLED BY AECOM 2012–2016.
3. TOPOGRAPHIC AND PLANIMETRIC FEATURES SHOWN WERE COMPILED PHOTOGRAMMETRICALLY FROM AERIAL PHOTOGRAPHY DATED APRIL 16, 1992 BY EAST COAST MAPPING INC., CONCORD, NEW HAMPSHIRE. MAPPING GROUND CONTROL ESTABLISHED BY FIELD SURVEYS CONDUCTED IN APRIL 1992.
4. THE GRID SYSTEM DEPICTED ON THIS PLAN IS BASED ON THE MASSACHUSETTS STATE PLAN COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1927.
5. ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.
6. ALL AE SERIES WELLS AND MOST EXISTING HISTORICAL MONITORING WELLS HAVE BEEN SURVEYED; HOWEVER SOME MONITORING WELL LOCATIONS ARE APPROXIMATE.
7. PROPERTY AND TOWN LINE BOUNDARIES WERE ADAPTED FROM:
   A) "REGIONAL EXPLORATION PLAN", GENERAL ELECTRIC COMPANY, 50 FORDHAM ROAD PROPERTY, WILMINGTON/NORTH READING, MASSACHUSETTS, BY GOLDBERG – ZOINO & ASSOCIATES, INC., DATED APRIL 1990;
   B) MODIFIED PER NORTH READING GIS DATA, JUNE 2002; AND
   C) DIGITIZED BY MASSGIS FROM A SET OF STABLE BASED FILM PRINTS OF THE 125:000 7.5' QUADRANGLES PURCHASED FROM THE USGS BY THE MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS.
8. WELL LOCATIONS OF MSM AND STERLING SUPPLY ARE APPROXIMATE AND ARE FOR ILLUSTRATIVE PURPOSES ONLY.
9. ROADWAY EXPRESS WELL LOCATIONS ARE FROM FINAL PHASE 2 COMPREHENSIVE SITE ASSESSMENT SUMMARY REPORT MAY 28, 2002.
10. THE LOCATIONS OF WELLS TRC-401R THRU TRC-403, TRC-505 AND IP-5 THRU IP-15 ARE APPROXIMATE.

AECOM

FIGURE: 1-3

MONITORING WELL LOCATIONS

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

60552044

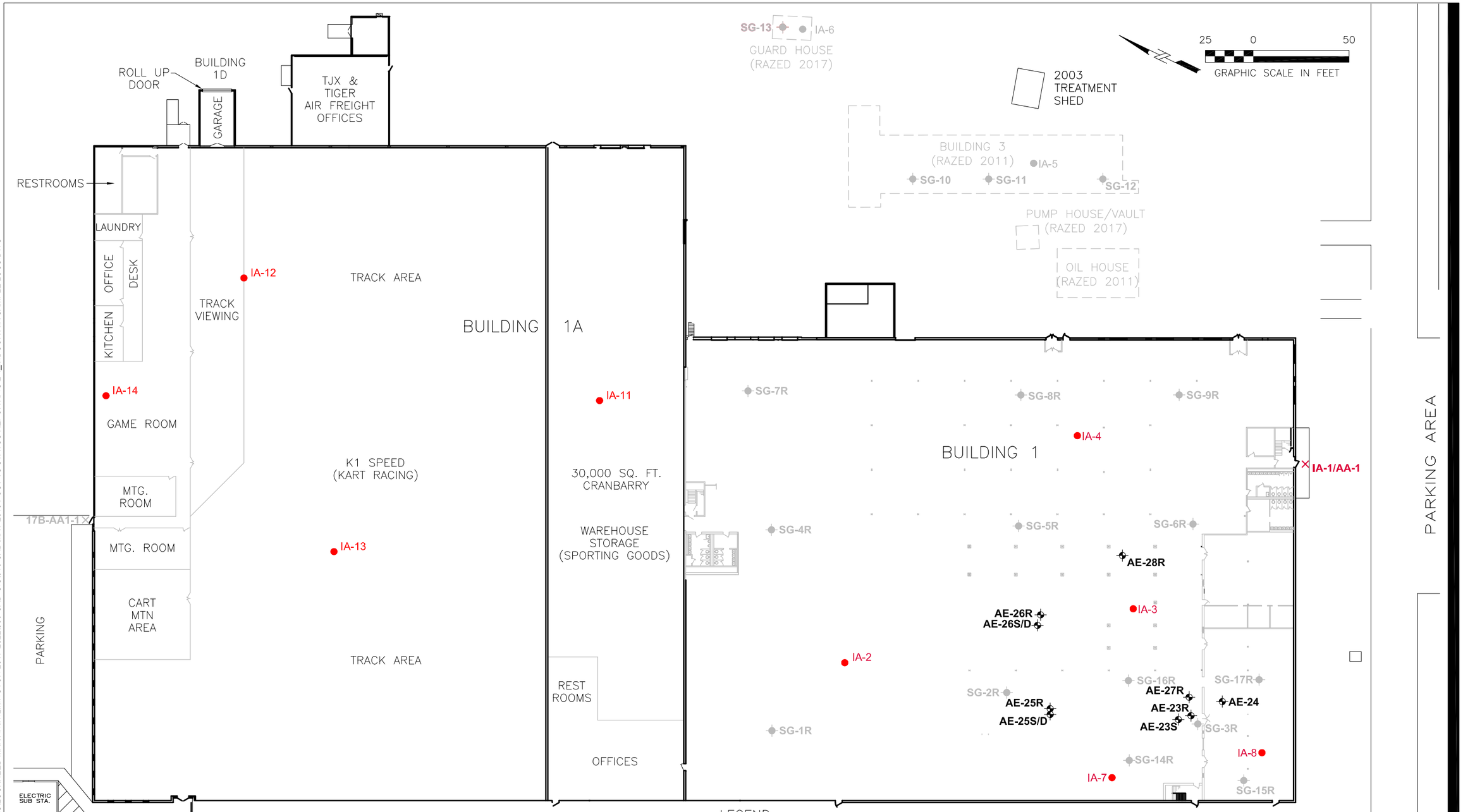
Date: 2018-04-17

Project Management Initials: S.O.
Designer: K.P.B.
Checked: S.O.
Approved: A.T.
ARCH C 18" x 24"

K.P.B. A.T.

Last saved by: BARRYK Last Plotted: 2018-04-18

Filename: P:\JOBS\REM_ENG\PROJECT FILES\LOCKHEED MARTIN\WILMINGTON 2017-2022\900-CAD-GIS\910 CAD\06_MAY 2018 TS STATUS RPT\FIG 1-3_MONITORING WELL LOCATIONS.DWG



LEGEND

- ● INDOOR AIR SAMPLE LOCATION
- × AMBIENT AIR SAMPLE; LOCATION VARIED 2009–2019; IA–1 (TRC 2009–2011) AA–1 (AECOM 2012–2019)
- ✦ MONITORING WELL LOCATION
- ✦ SUB–SLAB VAPOR POINT

NOTES:

1.) INDOOR AIR LOCATIONS CO–LOCATED WITH PRIOR INDOOR AIR LOCATIONS FROM 2009–2018.
2) SUB–SLAB VAPOR POINTS INSTALLED BY TRC IN 2009–2010. POINTS ABANDONED IN DECEMBER 2012 EXCEPT SG–13 REMOVED IN 2017. POINTS SG–10,11,12 REMOVED WHEN BUILDING 3 WAS RAZED IN JULY 2011.
3.) R – DENOTES VAPOR PIN LOCATIONS INSTALLED IN FEBRUARY 2013, AND ABANDONED IN FEBRUARY 2014. "R" LOCATIONS WERE WITHIN ~5 FT OF ORIGINAL POINTS.
4.) IA–6 NOT SAMPLED 2011 OR 2014–2017.
5.) LOCATIONS IA–11 THROUGH IA–14 SAMPLED IN 2017 AND 2019.

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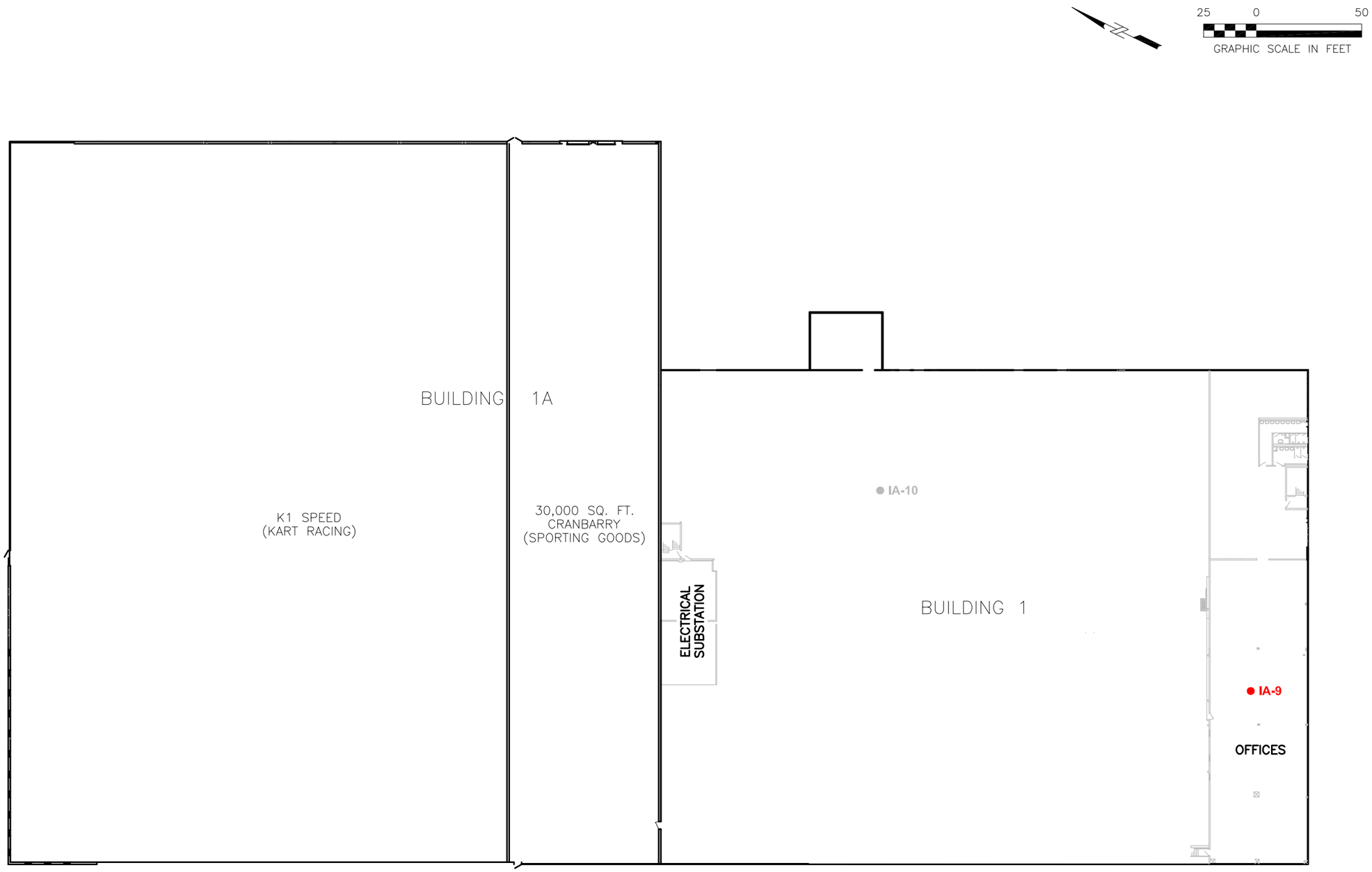
FIGURE: 2-1

INDOOR AND AMBIENT AIR AND SUB-SLAB VAPOR SAMPLE LOCATIONS - BUILDINGS 1/1A, GUARD SHACK

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

60552044 2019-09-09

Project Management Initials: Designer: K.P.B. Checked: S.O. Approved:A.T. ANSI B 11" x 17"
Last saved by: BARRYK(2019-09-09) Last Plotted: 2019-09-09
Filename: P:\JOBS\REM_ENG\PROJECT FILES\LOCKHEED MARTIN\WILMINGTON 2017-2022\900-CAD-GIS\910 CAD\MAY 2019 POST TS STATUS REPORT\FIG 2-1_INDOOR AIR SAMPLE LOCS.DWG



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.

AECOM

FIGURE: 2-2

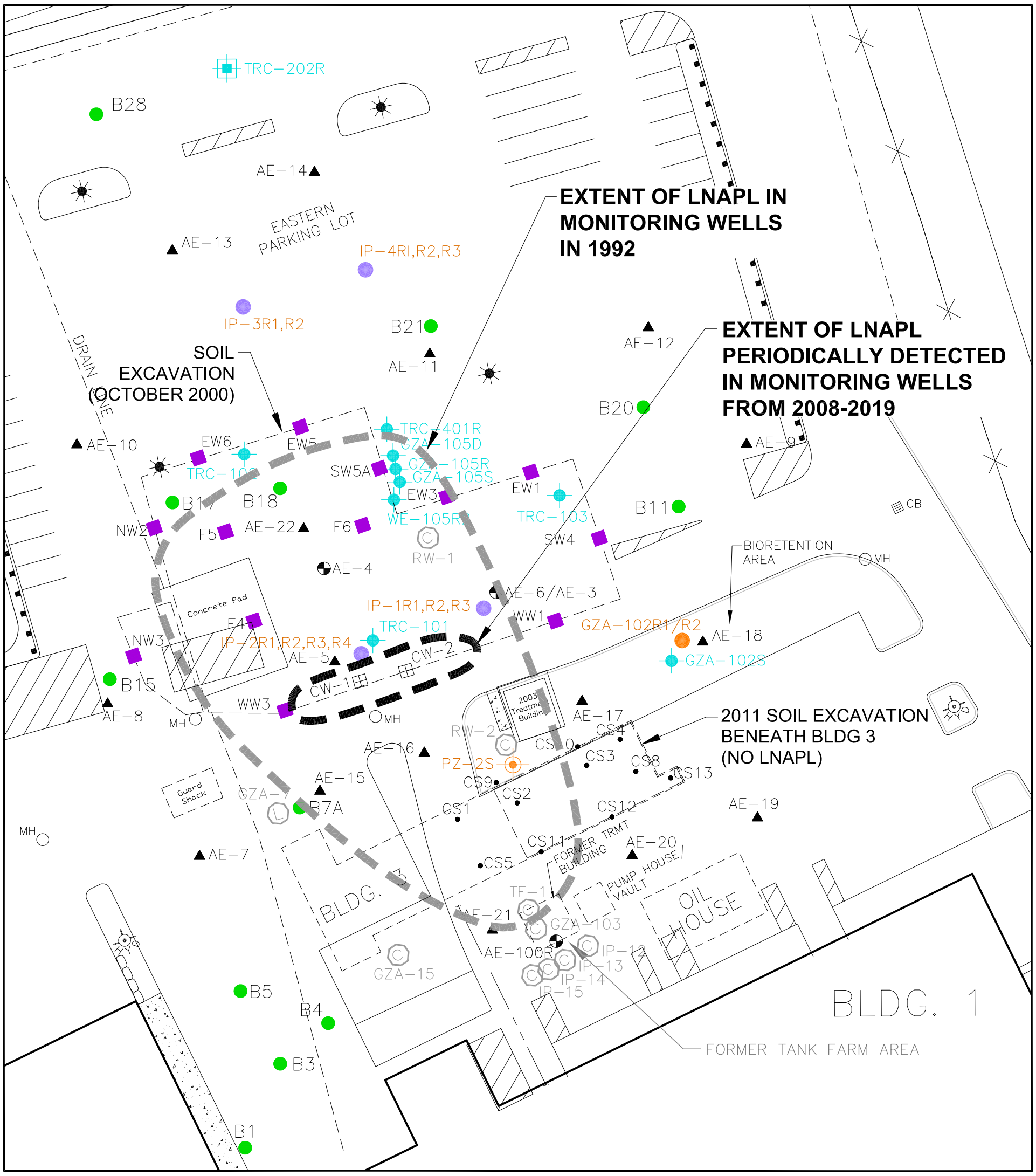
INDOOR AIR SAMPLE LOCATIONS
BUILDING 1 SECOND FLOOR

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

60552044 2019-09-09

Last saved by: BARRYK(2019-09-09) Last Plotted: 2019-09-09
Filename: P:\JOBS\REM_ENG\PROJECT FILES\LOCKHEED MARTIN\WILMINGTON 2017-2022\900-CAD-GIS\910 CAD\MAY 2019 POST TS STATUS REPORT\FIG 2-2_INDOOR AIR SAMPLE LOCS.DWG

Project Management Initials: Designer: K.P.B. Checked: S.O. Approved: A.T. ANSI B 11" x 17"



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 2008-2018 (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:

1. EPL Soil Borings (B1, B4, B11, B15, B17, B18, B21, B28) from Phase III RAP Addendum Report (TRC, March 2000)
2. 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)
3. Building 3 Post Excavation Soil Samples (CS-1 through CS-5, CS-8 through CS-12) from RAM Completion Report (TetraTech, March 2012)
4. Eastern Parking Lot Soil Borings (AE-4 through AE-22, excluding AE-12, -13, -14) from Phase II Comprehensive Site Assesment (AECOM, 2017)

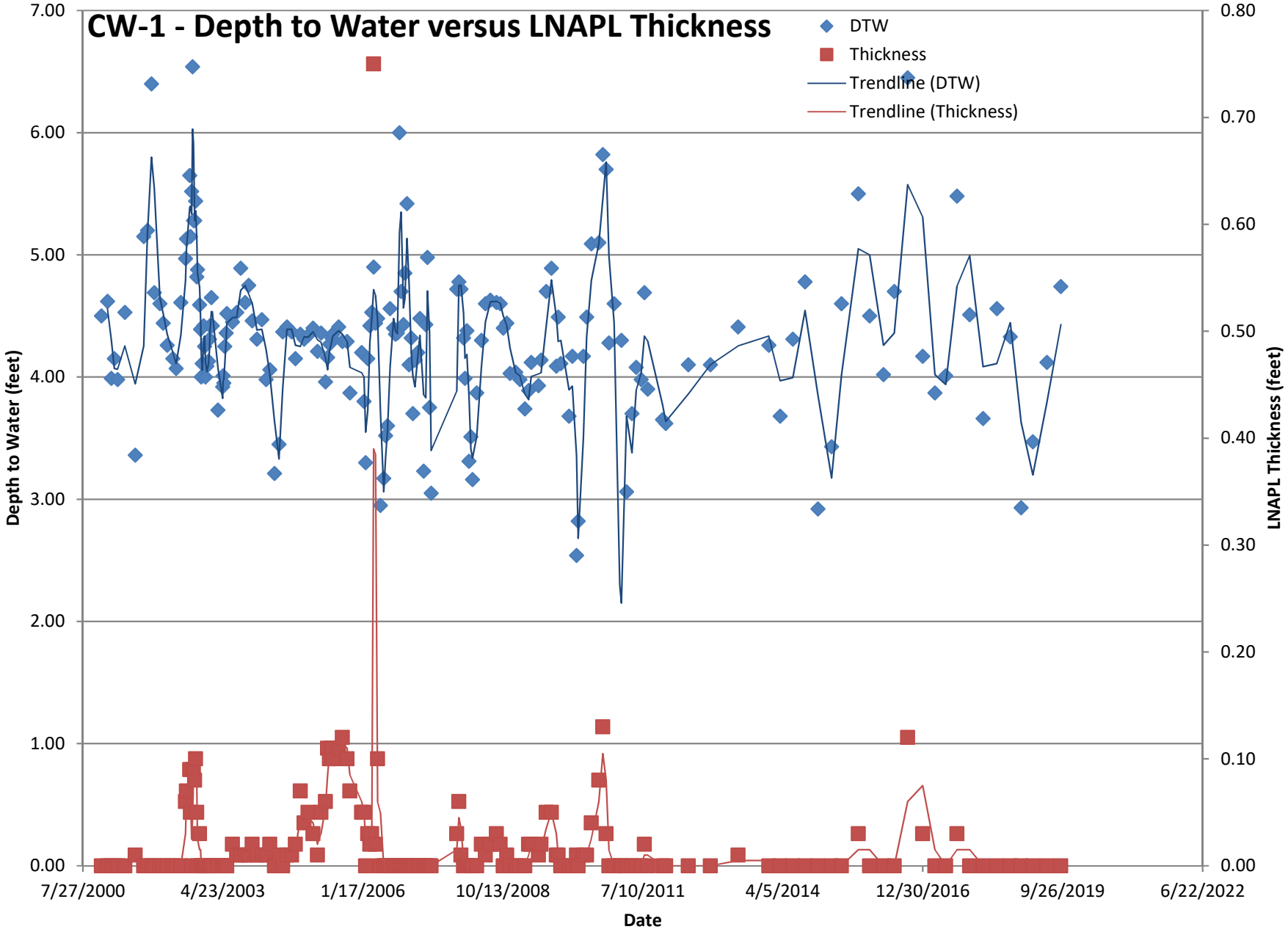
Former GE Facility - 50 Fordham Rd, Wilmington, MA
Lockheed Martin Corporation

TANK FARM - EPL
EXTENT OF LNAPL IMPACTS

AECOM

60552044 2019-09-09

FIGURE: 4-1



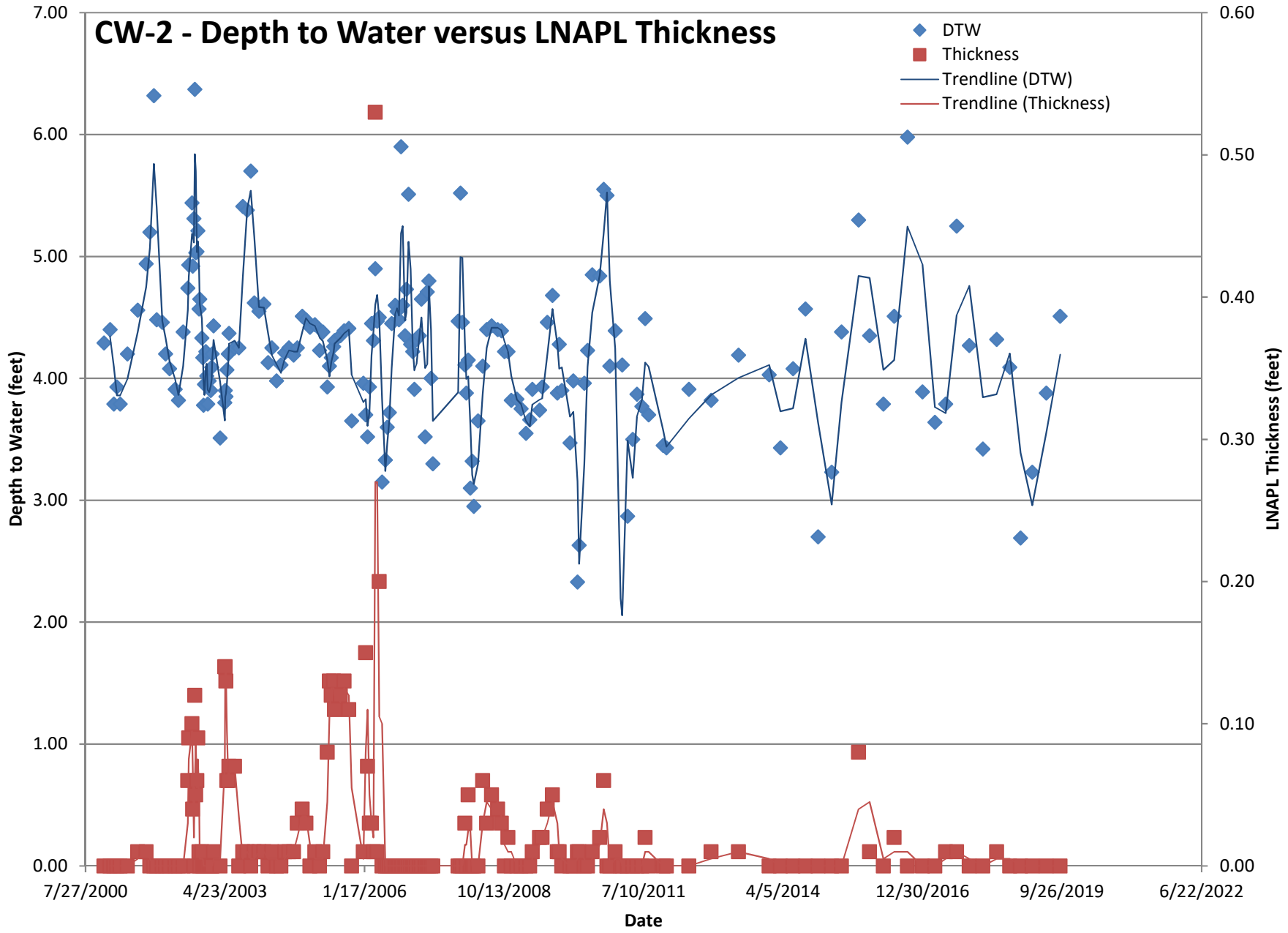
AECOM

Figure: 4-2

CW-1 - DEPTH TO WATER VSLNAPL THICKNESS

Former GE Facility - 50 Fordham Rd, Wilmington, MA
Client Lockheed Martin Corporation
60552044

09/16/2019



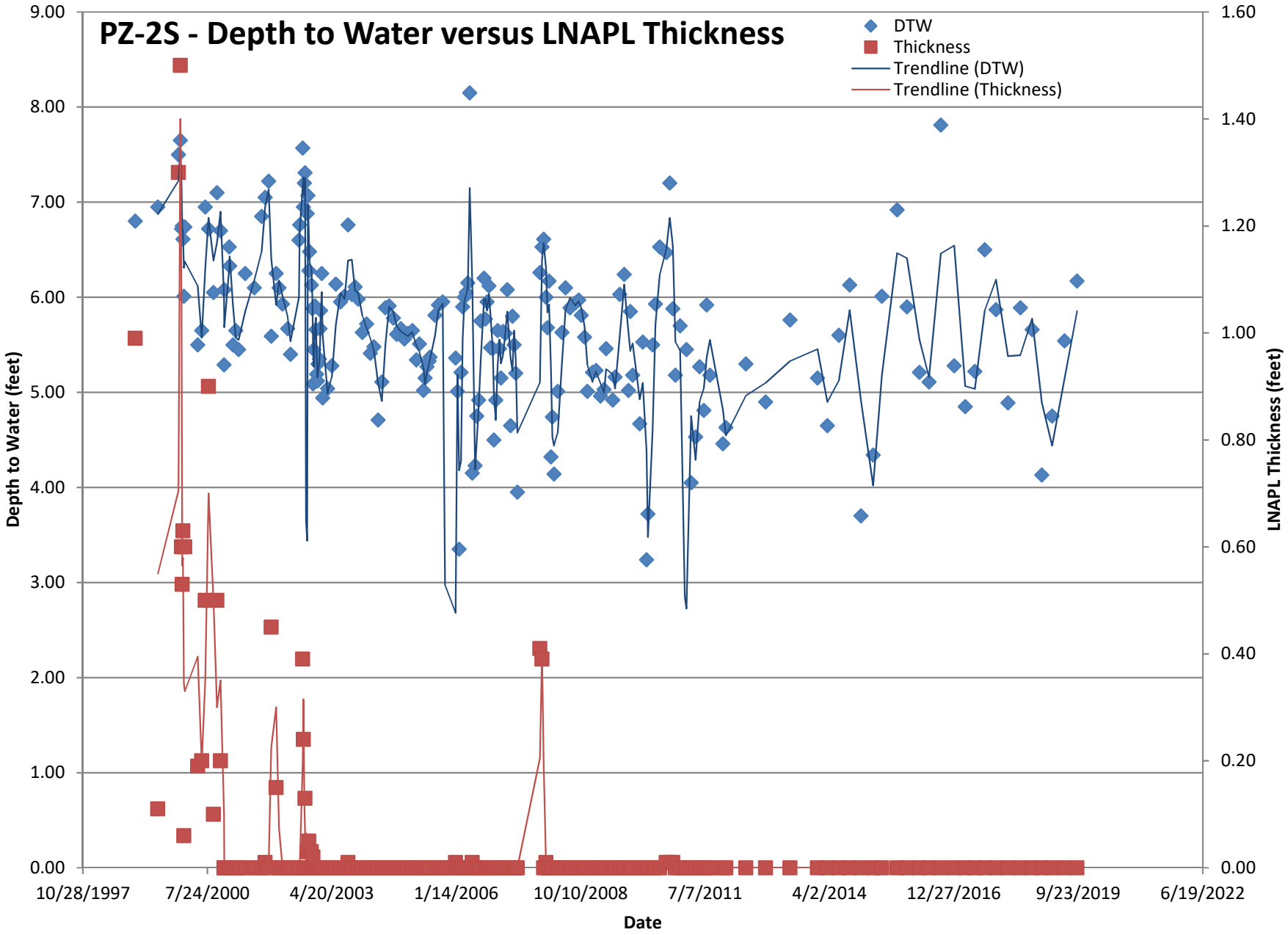
AECOM

Figure: 4-3

CW-2 - DEPTH TO WATER VSLNAPL THICKNESS

Former GE Facility - 50 Fordham Rd, Wilmington, MA
Client Lockheed Martin Corporation
60552044

09/16/2019

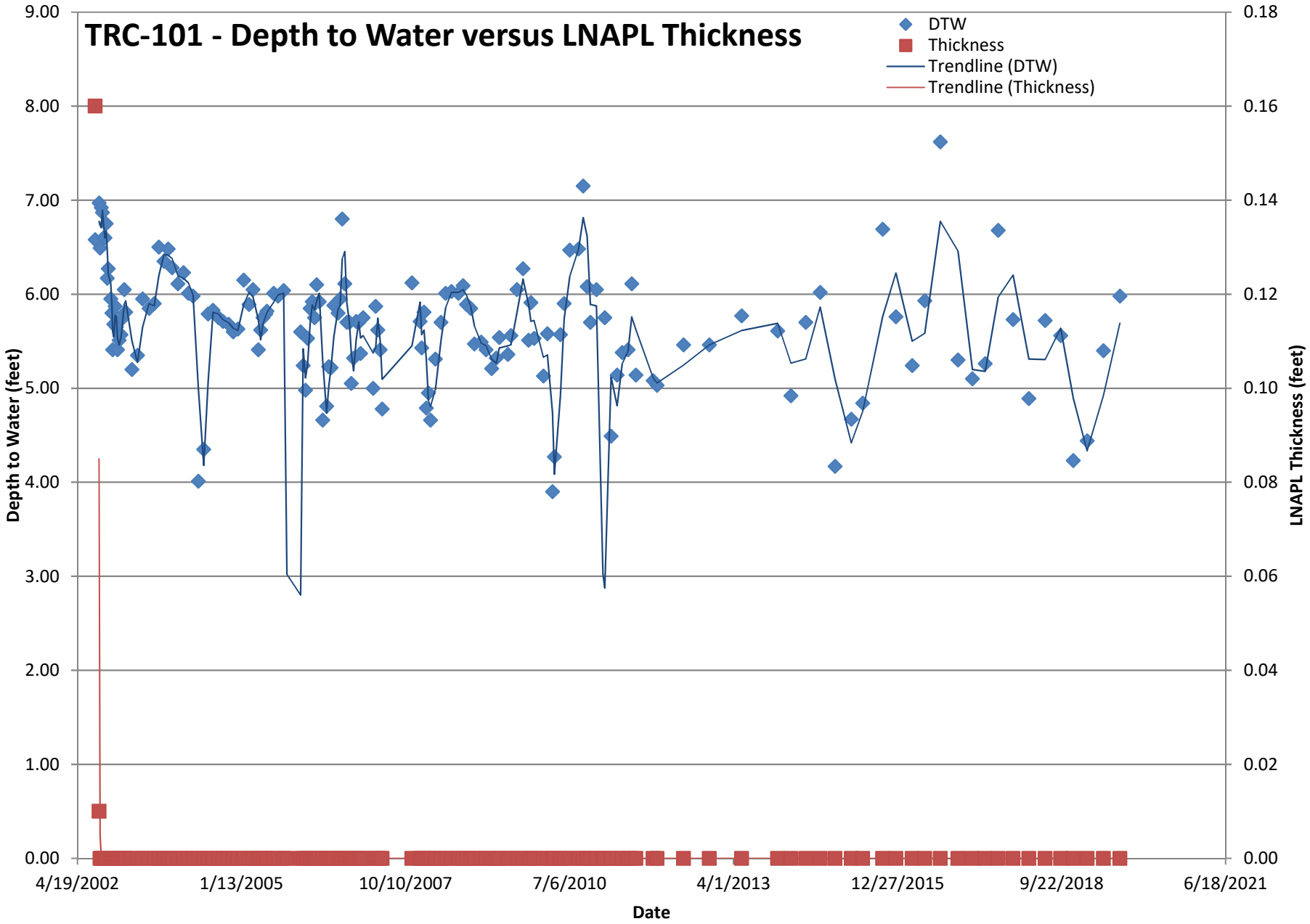


AECOM

Figure: 4-4

PZ-2S - DEPTH TO WATER VSLNAPL THICKNESS

Former GE Facility - 50 Fordham Rd, Wilmington, MA
Client Lockheed Martin Corporation
60552044
09/16/2019



AECOM

Figure: 4-5

TRC-101 - DEPTH TO WATER VSLNAPL THICKNESS

Former GE Facility - 50 Fordham Rd, Wilmington, MA
Client Lockheed Martin Corporation
60552044
09/16/2019

TABLES

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

	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
Date	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 LNAPL Observations and Removal
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:

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Summary of LNAPL Observations and Removal
Former GE Facility, 50 Fordham Road, Wilmington, MA

	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
Date	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)			

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(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 LNAPL Observations and Removal
Former GE Facility, 50 Fordham Road, Wilmington, MA

	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
Date	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.

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

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	PZ-2S				CW-1				CW-2				TRC-101				AE-3				AE-4			
Date	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
12/3/2018	4.13	NA	NA	0	2.93	NA	NA	0.00	2.69	NA	NA	0.00	4.23	NA	NA	0	4.36	NA	NA	0	4.02	NA	NA	0
2/25/2019	4.75	NA	NA	0	3.47	NA	NA	0.00	3.23	NA	NA	0.00	4.44	NA	NA	0	4.86	NA	NA	0	4.46	NA	NA	0
6/5/2019	5.54	NA	NA	0	4.12	NA	NA	0.00	3.88	NA	NA	0.00	5.40	NA	NA	0	5.58	NA	NA	0	5.02	NA	NA	0
9/13/2019	6.17	NA	NA	0	4.74	NA	NA	0.00	4.51	NA	NA	0.00	5.98	NA	NA	0	6.19	NA	NA	0	5.71	NA	NA	0
			gals removed (approx.):	2.1				58.23				44.24				0				0				0

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(9) Well not measured, or data has not been located in historical TRC reports.

Table 3-1
Summary of Historical Indoor and Ambient Air Analytical Results
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	2/13/2019
		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	19A-AA1
		HVAC System Status:	Off	Off	On	On	On	Off	On	On	Off	On	On	On	N/A	AC On	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	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	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	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	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	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	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	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	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	**0.097**
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	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	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	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	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	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	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**	**3.33**
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**	**0.486**
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	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	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	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	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**	**0.421**
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	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	0.264 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	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**	**1.04**
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	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	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	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**	**2.17**
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**	**0.096**
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**	**0.567**
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	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	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	**1.83**
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	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	**0.085**
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	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**	**0.814**
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	0.079 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	0.091 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
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	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	0.051 U
M,P-XYLENE	MPXYLENE	88 **	--	**0.915**	**0.655**	0.2 U	**1.36**	0.174 U	0.174 U	**0.182**	**0.465**	**0.539**	**0.230**	0.174 U	0.174 U	**0.174**	**0.400**	**0.208**
O-XYLENE	95-47-6	88 **	--	**0.33**	**0.256**	0.09 U	**0.521**	0.087 U	0.087 U	0.087 U	**0.217**	**0.208**	**0.091**	0.087 U	0.087 U	0.087 U	**0.148**	**0.091**

Notes:
All units are in micrograms per cubic meter (µg/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

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

		Site Location:	Building 1 - First Floor												
		Sample Location ID:	IA-02												
		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	2/13/2019
		Sample ID:	IA-2.08.20.09	IA-2.04.15.10	IA-2.01.26.11	12A-IA2-1	12B-IA2-1	13A-IA2-1	13B-IA2-1	14A-IA2-1	15A-IA2-1	16A-IA2-1	17A-IA2-1	18A-IA2-1	19A-IA2
		HVAC System Status:	Off	On	On	Off	On	On	Off	On	On	On	N/A	On	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	--	--	--	--	--	--	--
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	0.109 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
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	0.109 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	0.081 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
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	0.371 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	0.154 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	0.120 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**	**0.251**
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	0.092 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	0.120 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 UJ	**0.126**	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	0.360 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
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	2.05 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**	2.38 UJ
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**	**0.447**
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	0.134 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	0.207 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	0.078 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
CARBON TETRACHLORIDE	56-23-5	1.9	--	**0.503**	**0.44**	**0.314**	**0.321**	**0.396**	**0.453**	**0.440**	**0.572 J**	**0.396**	**0.403**	**0.484**	**0.516**
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 UJ	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 UJ	0.053 U	0.053 U	0.053 U	0.264 U
CHLOROFORM	67-66-3	3	--	0.1 U	**0.122**	**0.166**	0.098 U	**0.205**	**0.107**	**0.103**	0.098 UJ	0.098 U	0.098 U	**0.122**	0.098 U
CHLOROMETHANE	74-87-3	NE	--	--	--	**1.1**	1.03 U	1.03 U	**1.12**	**1.09**	**0.929 J**	**1.09**	**0.923**	**0.820**	**1.09**
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 UJ	0.079 U	0.079 U	0.079 U	0.079 U
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.9 *	--	0.09 U	0.091 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	0.091 U
DIBROMOCHLOROMETHANE	124-48-1	0.48	--	0.2 U	0.17 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	0.170 U
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	--	--	--	**1.95**	**1.2**	**1.24**	**1.50**	**1.36 J**	**1.61 J**	**1.40**	**1.31**	**2.35**	**2.38**
ETHYLBENZENE	100-41-4	880	--	**0.2**	**0.724**	**0.343**	**0.091**	**0.191**	**0.165**	**0.365**	**2.88 J**	**0.213**	**0.404**	**0.213**	**0.278**
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	--	--	--	**0.59**	**0.514**	**0.690**	**0.567**	**0.881**	**0.690 J**	**1.13**	**0.544**	**0.506**	**0.636**
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	--	0.5 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	0.533 U
METHYL TERT-BUTYL ETHER	1634-04-4	2700	--	0.072 U	0.07 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	0.721 U
METHYLENE CHLORIDE	75-09-2	530	1.74 U	1.74 U	4.86 U	4.86 U	4.86 U	4.86 U	4.86 U	4.86 U	1.74 UJ	1.74 U	1.74 U	1.74 U	1.74 U
NAPHTHALENE	91-20-3	**2.7**	--	0.3 U	0.262 U	0.262 U	0.262 U	**0.341**	**0.294**	0.262 U	0.262 UJ	**2.79**	**0.383**	0.262 U	0.262 U
STYRENE (MONOMER)	100-42-5	20	--	0.09 U	**0.166**	**0.098**	0.085 U	**0.094**	**0.106**	**0.111**	0.085 UJ	**0.255**	0.085 U	0.085 U	0.085 U
TETRACHLOROETHENE	127-18-4	**4.1**	**0.712**	**0.44**	**0.759**	**0.692**	**0.183**	**0.461**	**0.319**	**0.705**	**0.156 J**	**0.461**	**0.346**	**0.400**	**0.834**
TOLUENE	108-88-3	4400	--	**1.24**	**4.65**	**2.06**	**0.818**	**0.886**	**0.859**	**2.82**	**3.52 J**	**1.41**	**1.54**	**1.67**	**1.13**
TRANS-1,2-DICHLOROETHENE	156-60-5	53	**0.107**	**0.448**	**0.139**	**0.099**	0.079 U	0.079 U	0.079 U	**0.254**	0.079 UJ	0.079 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 UJ	0.091 U	0.091 U	0.091 U	0.091 U
TRICHLOROETHYLENE	79-01-6	**1.8**	**0.397**	**0.37**	**0.188**	**1.1**	0.107 U	0.107 U	**0.199**	**0.118**	0.107 UJ	0.107 U	0.107 U	0.107 U	0.107 U
VINYL CHLORIDE	75-01-4	1.3	0.05 U	0.05 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 UJ	0.051 U	0.051 U	0.051 U	0.051 U
M,P-XYLENE	MPXYLENE	88 **	--	**0.746**	**1.95**	**0.999**	**0.248**	**0.717**	**0.500**	**1.03**	**10.2 J**	**0.717**	**1.45**	**0.643**	**0.843**
O-XYLENE	95-47-6	88 **	--	**0.26**	**0.720**	**0.374**	**0.096**	**0.300**	**0.226**	**0.365**	**3.08 J**	**0.282**	**0.478**	**0.265**	**0.365**

Notes:
All units are in micrograms per cubic meter (µg/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

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

		Site Location:	Building 1 - First Floor												
		Sample Location ID:	IA-03												
		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	2/13/2019
		Sample ID:	IA-3.08.20.09	IA-3.04.15.10	IA-3.01.26.11	12A-IA3-1	12B-IA3-1	13A-IA3-1	13B-IA3-1	14A-IA3-1	15A-IA3-1	16A-IA3-1	17A-IA3-1	18A-IA3-1	19A-IA3
		HVAC System Status:	Off	On	On	Off	On	On	Off	On	On	On	N/A	On	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	--	--	--	--	--	--	--
TO15_SIM															
1,1,1-TRICHLOROETHANE	71-55-6	4400	**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	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 UJ	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U
1,1,2-TRICHLOROETHANE	79-00-5	0.72	--	0.1 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	0.109 U
1,1-DICHLOROETHANE	75-34-3	710	0.08 U	0.08 U	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	0.081 U
1,1-DICHLOROETHYLENE	75-35-4	180	0.079 U	0.079 U	0.08 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
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 UJ	0.371 U	0.371 U	0.371 U	0.371 U	0.371 U
1,2-DIBROMOETHANE	106-93-4	**0.038**	--	0.2 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	0.154 U	0.154 U
1,2-DICHLOROBENZENE	95-50-1	710	--	0.12 U	0.1 U	0.12 U	0.12 U	0.120 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 UJ	0.081 U	0.081 U	0.081 U	**0.243**	**0.263**
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 UJ	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	0.12 U	0.12 U	0.12 U	0.120 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	--	0.12 U	0.12 U	0.12 U	0.12 U	0.120 U	0.120 U	0.120 UJ	0.120 U	**0.138**	0.120 U	0.120 U	0.120 U
1,4-DIOXANE	123-91-1	2.3	--	0.36 U	0.4 U	0.36 U	0.36 U	0.360 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	**1.41**	**1.1**	**0.625**	**0.852**	**1.50**	**0.820 J**	**3.48**	1.47 U	1.47 U	1.47 U	1.47 U
4-METHYL-2-PENTANONE	108-10-1	2700	--	2 U	0.819 U	0.82 U	0.82 U	0.820 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	--	**13.3**	**9.88**	**13.5**	**7.84**	**8.05**	**10.1**	**9.95 J**	**15.7**	**14.2**	**8.72**	**4.32 J**	2.38 UJ
BENZENE	71-43-2	11	--	**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**	**0.428**
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 UJ	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U
BROMOFORM	75-25-2	10	--	0.2 U	0.206 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	0.207 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	0.078 U	0.078 UJ	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 UJ	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U
CARBON TETRACHLORIDE	56-23-5	1.9	--	**0.528**	**0.50**	**0.321**	**0.302**	**0.403**	**0.459**	**0.434 J**	**0.598**	**0.403**	**0.409**	**0.453**	**0.497**
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 UJ	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 UJ	0.053 U	0.053 U	0.053 U	0.053 U	0.264 U
CHLOROFORM	67-66-3	3	--	0.1 U	**0.13**	**0.181**	0.098 U	**0.239**	**0.151**	**0.107 J**	0.098 U	0.098 U	0.098 U	**0.107**	0.098 U
CHLOROMETHANE	74-87-3	NE	--	--	--	**1.2**	1.03 U	1.03 U	**1.20**	**1.14 J**	**1.02**	**1.12**	**0.989**	**0.840**	**1.06**
CIS-1,2-DICHLOROETHENE	156-59-2	5.3	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 UJ	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.9 *	--	0.091 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	0.091 U	0.091 U
DIBROMOCHLOROMETHANE	124-48-1	0.48	--	0.2 U	0.2 U	0.17 U	0.17 U	0.170 U	0.170 U	0.170 UJ	0.170 U	0.170 U	0.170 U	0.170 U	0.170 U
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	--	--	--	**2.11**	**1.39**	**1.32**	**1.83**	**1.55 J**	**2.49**	**2.08**	**1.49**	**2.34**	**2.34**
ETHYLBENZENE	100-41-4	880	--	**0.217**	**0.889**	**0.339**	**0.087**	**0.222**	**0.278**	**0.391 J**	**2.60**	**0.230**	**0.365**	**0.213**	**0.265**
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	--	--	--	**0.782**	**0.529**	**1.07**	**1.18**	**0.828 J**	**1.29**	**1.36**	**0.567**	**0.521**	**0.613**
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	--	0.5 U	0.5 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	0.533 U	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 UJ	0.072 U	0.721 U	0.721 U	0.721 U	0.721 U
METHYLENE CHLORIDE	75-09-2	530	1.74 U	2 U	4.86 U	4.86 U	4.86 U	**10.2**	4.86 U	4.86 UJ	**46.6**	1.74 U	1.74 U	1.74 U	1.74 U
NAPHTHALENE	91-20-3	**2.7**	--	0.262 U	0.3 U	0.262 U	0.262 U	**0.367**	**0.330**	0.262 UJ	0.262 U	0.262 U	**0.299**	0.262 U	0.262 U
STYRENE (MONOMER)	100-42-5	20	--	0.085 U	**0.20**	**0.089**	0.085 U	**0.115**	**0.170**	**0.115 J**	0.085 U	**0.307**	0.085 U	0.085 U	0.085 U
TETRACHLOROETHENE	127-18-4	**4.1**	**0.752**	**0.501**	**0.894**	**0.814**	**0.23**	**0.922**	**1.03**	**0.719 J**	**0.278**	**0.570**	**0.373**	**0.488**	**0.780**
TOLUENE	108-88-3	4400	--	**1.31**	**5.3**	**2.08**	**0.746**	**1.19**	**1.67**	**3.11 J**	**2.47**	**2.20**	**1.52**	**1.75**	**1.03**
TRANS-1,2-DICHLOROETHENE	156-60-5	53	**0.087**	**0.404**	**0.15**	**0.123**	0.079 U	0.079 U	**0.095**	**0.274 J**	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	0.091 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	0.091 U	0.091 U
TRICHLOROETHYLENE	79-01-6	**1.8**	**0.44**	**0.37**	**0.226**	**1.07**	0.107 U	0.107 U	**0.446**	**0.134 J**	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U
VINYL CHLORIDE	75-01-4	1.3	0.051 U	0.05 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 UJ	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U
M,P-XYLENE	MPXYLENE	88 **	--	**0.764**	**2.43**	**0.995**	**0.243**	**0.938**	**0.938**	**1.14 J**	**11.2**	**0.791**	**1.28**	**0.686**	**0.760**
O-XYLENE	95-47-6	88 **	--	**0.27**	**0.907**	**0.374**	**0.1**	**0.395**	**0.378**	**0.404 J**	**3.70**	**0.304**	**0.421**	**0.274**	**0.334**

Notes:
All units are in micrograms per cubic meter (µg/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

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

		Site Location:	Building 1 - First Floor												
		Sample Location ID:	IA-04												
		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	2/13/2019
		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	19A-IA4
		HVAC System Status:	Off	On	On	Off	On	On	Off	On	On	On	N/A	On	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	--	--	--	--	--	--	--
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
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	0.137 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	0.109 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 U	0.081 U	0.081 U	0.081 U	0.081 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
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
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	0.154 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	0.120 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**	**0.308**
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
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	0.120 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	0.120 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 U	0.360 U	0.360 U	0.360 U	0.360 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	1.47 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
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**	2.38 UJ
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**	**0.409**
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	0.134 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	0.207 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 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	--	**0.52**	**0.415**	**0.314**	**0.321**	**0.396**	**0.453**	**0.440**	**0.585**	**0.396**	**0.403**	**0.434**	**0.478**
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	0.461 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	0.264 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**	0.098 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**	**1.04**
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
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	0.091 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	0.170 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**	**2.31**
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**	**0.256**
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**	**0.628**
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	0.533 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 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	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
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	**0.283**	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**	0.085 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**	**0.719**
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**	**1.03**
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
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
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	0.107 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
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**	**0.747**
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**	**0.330**

Notes:
All units are in micrograms per cubic meter (µg/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

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

		Site Location:	Building 3 (Razed 2011)					Building 1 - First Floor											
		Sample Location ID:	IA-05					IA-07											
		Sample Date:	8/20/2009	8/20/2009	4/5/2010	4/8/2010	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	2/7/2018	2/13/2019
		Sample ID:	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	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	19A-IA7
		HVAC System Status:	Off	Off	Off	On	On	On	On	Off	On	On	Off	On	On	On	N/A	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	0.109 U	0.109 U	0.109 U	0.1 U	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 UJ	0.109 U	0.109 U	0.109 U	0.109 U
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.2	--	--	0.1 U	0.1 U	0.137 U	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	0.137 U
1,1,2-TRICHLOROETHANE	79-00-5	0.72	--	--	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	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	0.08 U	0.08 U	0.08 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 UJ	0.081 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	0.08 U	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 UJ	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	0.4 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	0.371 U
1,2-DIBROMOETHANE	106-93-4	**0.038**	--	--	0.2 U	0.2 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 UJ	0.154 U	0.154 U	0.154 U	0.154 U
1,2-DICHLOROBENZENE	95-50-1	710	--	--	0.12 U	0.1 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 UJ	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 UJ	0.081 U	0.081 U	**0.194**	**0.227**
1,2-DICHLOROPROPANE	78-87-5	0.6	--	--	0.092 U	0.092 U	0.09 U	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
1,3-DICHLOROBENZENE	541-73-1	710	--	--	0.12 U	0.12 U	0.1 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	0.120 U	0.120 U	0.120 U
1,4-DICHLOROBENZENE	106-46-7	1.7	--	--	0.12 U	0.12 U	0.1 U	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	0.120 U
1,4-DIOXANE	123-91-1	2.3	--	--	0.4 U	0.36 U	0.36 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	0.360 U	0.360 U	0.360 U
2-BUTANONE	78-93-3	4400	--	--	**1**	1 U	1.47 U	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	1.47 U
4-METHYL-2-PENTANONE	108-10-1	2700	--	--	2.05 U	2.05 U	2 U	2.05 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	2.05 U
ACETONE	67-64-1	710	--	--	**22.5**	**7.88**	5 U	**13.8**	**10.2**	**11.5**	**8.34**	**8.55**	**12.2**	**9.31**	**17.4 J**	**13.4**	**8.86**	**3.90 J**	2.38 UJ
BENZENE	71-43-2	11	--	--	**2.85**	**0.338**	0.3 U	**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**	**0.454**
BROMODICHLOROMETHANE	75-27-4	0.65	--	--	0.1 U	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 UJ	0.134 U	0.134 U	0.134 U	0.134 U
BROMOFORM	75-25-2	10	--	--	0.2 U	0.206 U	0.206 U	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	0.207 U
BROMOMETHANE	74-83-9	4.4	--	--	0.08 U	0.078 U	0.08 U	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	0.078 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
CARBON TETRACHLORIDE	56-23-5	1.9	--	--	**0.47**	**0.541**	**0.459**	**0.50**	**0.47**	**0.302**	**0.308**	**0.396**	**0.453**	**0.428**	**0.579 J**	**0.403**	**0.403**	**0.510**	**0.484**
CHLOROBENZENE	108-90-7	44	--	--	0.092 U	0.092 U	0.09 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	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 UJ	0.053 U	0.053 U	0.053 U	0.264 U
CHLOROFORM	67-66-3	3	--	--	**0.156**	0.098 U	0.1 U	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**	0.098 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**	**1.08**
CIS-1,2-DICHLOROETHENE	156-59-2	5.3	0.079 U	0.08 U	0.08 U	0.079 U	0.08 U	0.079 U	0.08 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 UJ	0.079 U	0.079 U	0.079 U	0.079 U
CIS-1,3-DICHLOROPROPENE	10061-01-5	2.9 *	--	--	0.09 U	0.091 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 UJ	0.091 U	0.091 U	0.091 U	0.091 U
DIBROMOCHLOROMETHANE	124-48-1	0.48	--	--	0.2 U	0.096 U	0.2 U	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	0.170 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**	**2.39**
ETHYLBENZENE	100-41-4	880	--	--	**2.3**	**0.156**	**0.10**	**0.21**	**0.812**	**0.317**	**0.096**	**0.213**	**0.230**	**0.347**	**3.37 J**	**0.248**	**0.378**	**0.217**	**0.287**
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**	**0.613**
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	--	--	0.192 U	0.192 U	0.5 U	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	0.533 U
METHYL TERT-BUTYL ETHER	1634-04-4	2700	--	--	0.07 U	0.072 U	0.072 U	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	0.721 U
METHYLENE CHLORIDE	75-09-2	530	1.74 U	2 U	2 U	1.74 U	1.74 U	1.74 U	4.9 U	4.86 U	4.86 U	4.86 U	**4.93**	4.86 U	**2.22 J**	1.74 U	**3.19**	1.74 U	1.74 U
NAPHTHALENE	91-20-3	**2.7**	--	--	**0.807**	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	**0.351**	**0.262**	0.262 U	0.262 UJ	0.262 U	**0.378**	0.262 U	0.262 U
STYRENE (MONOMER)	100-42-5	20	--	--	**0.23**	0.085 U	0.085 U	0.09 U	**0.18**	**0.094**	0.085 U	**0.162**	**0.196**	**0.119**	0.085 UJ	**0.311**	0.085 U	0.085 U	0.085 U
TETRACHLOROETHENE	127-18-4	**4.1**	**0.684**	**0.64**	**6.85**	**0.603**	**0.51**	**0.58**	**1.35**	**1.02**	**0.285**	**0.542**	**0.929**	**1.21**	**0.373 J**	**0.536**	**0.448**	**0.481**	**0.821**
TOLUENE	108-88-3	4400	--	--	**11.6**	**0.761**	**0.588**	**1.19**	**5.49**	**1.98**	**0.818**	**1.04**	**1.51**	**2.77**	**3.11 J**	**1.93**	**1.47**	**1.72**	**1.17**
TRANS-1,2-DICHLOROETHENE	156-60-5	53	0.079 U	0.08 U	0.079 U	0.08 U	0.08 U	**0.424**	**0.19**	**0.103**	0.079 U	0.079 U	**0.151**	**0.270**	0.079 UJ	0.079 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	0.09 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 UJ	0.091 U	0.091 U	0.091 U	0.091 U
TRICHLOROETHYLENE	79-01-6	**1.8**	**0.13**	**0.123**	**0.20**	0.107 U	0.107 U	**0.328**	**0.27**	**0.962**	0.107 U	0.107 U	**0.500**	**0.124**	0.107 UJ	0.107 U	0.107 U	0.107 U	0.107 U
VINYL CHLORIDE	75-01-4	1.3	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 UJ	0.051 U	0.051 U	0.051 U	0.051 U
M,P-XYLENE	MPXYLENE	88 **	--	--	**8.63**	**0.538 J**	**0.34 J**	**0.738**	**2.2**	**0.938**	**0.269**	**0.830**	**0.691**	**0.986**	**14.5 J**	**0.882**	**1.34**	**0.691**	**0.851**
O-XYLENE	95-47-6	88 **	--	--	**3.07**	**0.204 J**	**0.13 J**	**0.269**	**0.816**	**0.352**	**0.108**	**0.352**	**0.287**	**0.347**	**4.82 J**	**0.326**	**0.434**	**0.274**	**0.361**

Notes:
All units are in micrograms per cubic meter (µg/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

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

		Site Location:	Building 1 - First Floor													
		Sample Location ID:	IA-08													
		Sample Date:	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 ID:	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
		HVAC System Status:	On	On	Off	Off	On	On	On	On	Off	Off	On	On	On	On
CHEMICAL NAME	**CAS Number**	**MA - C/I (October 2016)**				duplicate	duplicate			duplicate		duplicate		duplicate		duplicate
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	0.109 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 U	0.109 UJ	0.109 U
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.2	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 U	0.137 UJ	0.137 U
1,1,2-TRICHLOROETHANE	79-00-5	0.72	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 U	0.109 UJ	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	0.081 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	0.079 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 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 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	0.12 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 U	0.120 UJ	0.120 U
1,2-DICHLOROETHANE	107-06-2	**0.44**	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
1,2-DICHLOROPROPANE	78-87-5	0.6	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	0.092 U	0.092 U	0.092 UJ	0.092 U
1,3-DICHLOROBENZENE	541-73-1	710	0.1 U	0.1 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 U	0.120 UJ	0.120 U
1,4-DICHLOROBENZENE	106-46-7	1.7	0.12 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 U	0.120 UJ	0.120 U
1,4-DIOXANE	123-91-1	2.3	0.4 U	0.4 U	0.36 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 UJ	0.360 U
2-BUTANONE	78-93-3	4400	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 U	0.8 U	0.82 U	0.82 U	0.82 U	0.82 U	0.820 U	0.820 U	0.820 U	0.820 U	0.820 U	0.820 U	2.05 UJ	2.05 U
ACETONE	67-64-1	710	**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	**0.460**	**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	75-27-4	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	0.134 U	0.134 UJ	0.134 U
BROMOFORM	75-25-2	10	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 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	0.08 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	0.078 UJ	0.078 U
CARBON DISULFIDE	75-15-0	NE	--	--	--	--	--	--	--	--	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**	**0.45**	**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 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 U	0.053 U	0.053 U	0.053 U	0.053 U	0.053 UJ	0.053 U
CHLOROFORM	67-66-3	3	0.1 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	--	--	1.03 U	1.03 U	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	0.08 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 UJ	0.079 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	0.091 U	0.091 UJ	0.091 U
DIBROMOCHLOROMETHANE	124-48-1	0.48	0.096 U	0.17 U	0.17 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 UJ	0.170 U
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	--	--	**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	**0.208**	**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	--	--	**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 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 UJ	0.533 U
METHYL TERT-BUTYL ETHER	1634-04-4	2700	0.072 U	0.07 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 U	0.072 UJ	0.072 U
METHYLENE CHLORIDE	75-09-2	530	1.74 U	4.9 U	4.86 U	4.86 U	4.86 U	4.86 U	4.86 U	4.86 U	4.86 UJ	**19.1 J**	4.86 U	4.86 U	1.74 UJ	1.74 U
NAPHTHALENE	91-20-3	**2.7**	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	**0.299**	**0.309**	0.262 U	0.262 U	0.262 U	0.262 U	0.262 UJ	0.262 U
STYRENE (MONOMER)	100-42-5	20	0.085 U	**0.15**	0.085 U	0.085 U	0.085 U	0.085 U	**0.102**	**0.098**	**0.166**	**0.166**	**0.089**	**0.115**	0.085 UJ	0.085 U
TETRACHLOROETHENE	127-18-4	**4.1**	**2.58**	**7.12**	**3.11**	**3.34**	**0.502**	**0.508**	**1.65**	**1.60**	**1.80**	**1.99**	**2.03**	**2.14**	**0.943 J**	**0.936**
TOLUENE	108-88-3	4400	**1.21**	**4.1**	**1.87**	**1.92**	**0.931**	**0.799**	**1.41**	**1.38**	**1.64**	**1.65**	**2.67**	**2.97**	**1.97 J**	**2.00**
TRANS-1,2-DICHLOROETHENE	156-60-5	53	**0.412**	**0.19**	**0.099**	**0.107**	0.079 U	0.079 U	0.079 U	0.079 U	**0.139**	**0.131**	**0.254**	**0.289**	0.079 UJ	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	0.091 U	0.091 U	0.091 U	0.091 UJ	0.091 U
TRICHLOROETHYLENE	79-01-6	**1.8**	**0.499**	**0.521**	**1.13**	**1.15**	0.107 U	0.107 U	**0.107**	**0.107**	**0.575**	**0.623**	**0.193**	**0.199**	0.107 UJ	0.107 U
VINYL CHLORIDE	75-01-4	1.3	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	0.051 UJ	0.051 U
M,P-XYLENE	MPXYLENE	88 **	**0.729**	**1.72**	**0.895**	**0.93**	**0.252**	**0.217**	**0.873**	**0.847**	**0.812**	**0.825**	**0.934**	**1.07**	**9.38 J**	**9.43**
O-XYLENE	95-47-6	88 **	**0.28**	**0.638**	**0.347**	**0.36**	**0.1**	**0.091**	**0.356**	**0.347**	**0.334**	**0.339**	**0.343**	**0.382**	**3.14 J**	**3.16**

Notes:
All units are in micrograms per cubic meter (µg/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

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

		Site Location:	Building 1 - First Floor								Building 1 - Second Floor								
		Sample Location ID:	IA-08								IA-09								
		Sample Date:	2/11/2016	2/11/2016	4/13/2017	4/13/2017	2/7/2018	2/7/2018	2/13/2019	2/13/2019	8/23/2012	8/28/2012	2/27/2013	5/21/2013	3/7/2014	2/17/2015	2/11/2016	2/7/2018	2/13/2019
		Sample ID:	16A-IA8-1	16A-IA8-2	17A-IA8-1	17A-IA8-2	18A-IA8-1	18A-IA8-2	19A-IA8	19A-IA8-021319-2	12A-IA9-1	12B-IA9-1	13A-IA9-1	13B-IA9-1	14A-IA9-1	15A-IA9-1	16A-IA9-1	18A-IA9-1	19A-IA9
		HVAC System Status:	On	On	N/A	N/A	On	On			Off	On	On	Off	On	On	On	On	On
CHEMICAL NAME	**CAS Number**	**MA - C/I (October 2016)**		duplicate		duplicate		duplicate		duplicate									
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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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	0.109 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	0.137 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	0.137 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	0.109 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	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	0.081 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	0.081 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	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	0.371 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
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 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	0.120 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	0.120 U	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	0.081 U	0.081 U	**0.134**	**0.138**	**0.239**	**0.231**	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	**0.162**	**0.202**
1,2-DICHLOROPROPANE	78-87-5	0.6	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	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U
1,3-DICHLOROBENZENE	541-73-1	710	0.120 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	0.120 U	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	0.120 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	0.120 U	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	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 U	0.360 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
2-BUTANONE	78-93-3	4400	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U	**1.3**	**0.82**	**1.24**	**4.25**	**0.829**	**1.97**	1.47 U	1.47 U	1.47 U
4-METHYL-2-PENTANONE	108-10-1	2700	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U	0.82 U	0.82 U	0.820 U	**1.10**	0.820 U	2.05 U	2.05 U	2.05 U	2.05 U
ACETONE	67-64-1	710	**12.5**	**12.2**	**9.81**	**10.8**	**3.49 J**	**3.44 J**	2.38 UJ	2.38 UJ	**13.8**	**8.76**	**22.4**	**17.6**	**8.67**	**11.0**	**13.0**	**4.37 J**	2.38 UJ
BENZENE	71-43-2	11	**0.738**	**0.505**	0.319 U	0.319 U	**0.898**	**0.891**	**0.444**	**0.450**	**0.473**	0.319 U	**0.403**	**0.390**	**1.46**	**0.783**	**0.543**	**0.942**	**0.441**
BROMODICHLOROMETHANE	75-27-4	0.65	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	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U	0.134 U
BROMOFORM	75-25-2	10	0.207 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	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	0.078 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	0.078 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	0.623 U				0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	**0.816**
CARBON TETRACHLORIDE	56-23-5	1.9	**0.396**	**0.396**	**0.390**	**0.390**	**0.472**	**0.478**	**0.472**	**0.497**	**0.314**	**0.296**	**0.396**	**0.453**	**0.440**	**0.566**	**0.396**	**0.478**	**0.478**
CHLOROBENZENE	108-90-7	44	0.092 U	0.092 U	0.461 U	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	0.092 U	0.092 U	0.092 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	0.264 U	0.264 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	0.264 U
CHLOROFORM	67-66-3	3	0.098 U	0.098 U	0.098 U	0.098 U	**0.137**	**0.103**	0.098 U	0.098 U	**0.181**	0.098 U	**0.166**	**0.151**	**0.103**	0.098 U	0.098 U	**0.098**	**0.103**
CHLOROMETHANE	74-87-3	NE	**1.09**	**1.09**	**0.981**	**0.977**	**0.836**	**0.845**	**1.07**	**1.09**	**1.18**	1.03 U	1.03 U	**1.29**	**1.11**	**0.952**	**1.10**	**0.845**	**1.09**
CIS-1,2-DICHLOROETHENE	156-59-2	5.3	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 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
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	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	0.170 U	0.170 U	0.170 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
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	**1.65**	**1.75**	**1.40**	**1.48**	**2.37**	**2.39**	**2.37**	**2.42**	**1.94**	**0.93**	**1.38**	**2.02**	**1.23**	**1.43**	**1.38**	**2.37**	**2.35**
ETHYLBENZENE	100-41-4	880	**0.308**	**0.200**	**0.334**	**0.378**	**0.195**	**0.200**	**0.261**	**0.269**	**0.265**	**0.1**	**0.287**	**0.317**	**0.317**	**2.34**	**0.265**	**0.213**	**0.195**
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	**1.97**	**2.03**	**0.797**	**0.851**	**0.720**	**0.682**	**0.736**	**0.743**	**0.82**	**0.483**	**0.636**	**0.874**	**0.705**	**0.720**	**1.11**	**0.690**	**0.651**
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 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	0.533 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	0.721 U	0.721 U	0.721 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
METHYLENE CHLORIDE	75-09-2	530	1.74 U	1.74 U	1.74 U	1.74 U	**2.49**	1.74 U	**2.56**	1.74 U	4.86 U	4.86 U	**5.91**	4.86 U	4.86 U	1.74 U	1.74 U	1.74 U	1.74 U
NAPHTHALENE	91-20-3	**2.7**	**0.839**	0.262 U	**0.315**	**0.561**	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U	**0.362**	**0.336**	0.262 U	0.262 U	0.262 U	0.262 U	0.262 U
STYRENE (MONOMER)	100-42-5	20	**0.247**	**0.251**	**0.085**	**0.085**	0.085 U	**0.094**	0.085 U	0.085 U	**0.085**	0.085 U	**0.762**	**0.366**	**0.179**	0.085 U	**0.307**	**0.102**	**0.136**
TETRACHLOROETHENE	127-18-4	**4.1**	**0.915**	**0.943**	**1.62**	**1.84**	**3.57**	**3.42**	**1.99**	**2.11**	**0.827**	0.136 U	**0.346**	**0.617**	**0.468**	**0.149**	**3.02**	**1.22**	**1.09**
TOLUENE	108-88-3	4400	**1.53**	**1.54**	**2.30**	**1.71**	**1.57**	**1.53**	**1.10**	**1.21**	**1.85**	**0.938**	**26.9**	**4.37**	**2.69**	**2.24**	**1.70**	**1.74**	**0.871**
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	0.079 U	0.079 U	**0.099**	0.079 U	0.079 U	**0.107**	**0.198**	0.079 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	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	0.107 U	0.107 U	**0.145**	**0.140**	**0.107**	**0.113**	**0.731**	0.107 U	0.107 U	**0.274**	**0.113**	0.107 U	**1.37**	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	0.051 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	0.051 U
M,P-XYLENE	MPXYLENE	88 **	**1.09**	**0.678**	**1.18**	**1.35**	**0.612**	**0.591**	**0.795**	**0.799**	**0.773**	**0.282**	**1.10**	**0.686**	**0.847**	**9.08**	**0.925**	**0.652**	**0.543**
O-XYLENE	95-47-6	88 **	**0.378**	**0.252**	**0.400**	**0.443**	**0.243**	**0.239**	**0.343**	**0.352**	**0.3**	**0.117**	**0.443**	**0.300**	**0.313**	**3.00**	**0.321**	**0.261**	**0.243**

Notes:
All units are in micrograms per cubic meter (µg/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

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

		Site Location:	Building 1 - Mezzanine (Removed 2016-2017)							Building 1A (CranBarry)		Building 1A (K1 Speed)		
		Sample Location ID:	IA-10							IA-11		IA-12		
		Sample Date:	8/23/2012	8/28/2012	2/27/2013	5/21/2013	3/7/2014	2/17/2015	2/11/2016	4/13/2017	2/13/2019	4/13/2017	7/13/2017	2/13/2019
		Sample ID:	12A-IA10-1	12B-IA10-1	13A-IA10-1	13B-IA10-1	14A-IA10-1	15A-IA10-1	16A-IA10-1	17A-IA11-1	19A-IA11	17A-IA12-1	17B-IA12-1	19A-IA12
		HVAC System Status:	Off	On	On	Off	On	On	On	On	On	On	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	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--	--	--
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	0.109 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	0.137 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
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 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	0.081 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	0.079 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	0.371 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
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 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	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	0.120 U	**0.144**	0.120 U
1,2-DICHLOROETHANE	107-06-2	**0.44**	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	0.081 U	**0.097**	**0.308**	**1.64**	**2.23**	**0.385**
1,2-DICHLOROPROPANE	78-87-5	0.6	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	**0.148**	0.092 U	**0.139**	0.092 U
1,3-DICHLOROBENZENE	541-73-1	710	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	0.120 U	0.120 U	0.120 U
1,4-DICHLOROBENZENE	106-46-7	1.7	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	0.120 U	0.120 U	0.120 U
1,4-DIOXANE	123-91-1	2.3	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	0.360 U	0.360 U
2-BUTANONE	78-93-3	4400	**1.26**	**0.684**	0.590 U	**1.45**	**0.693**	**2.32**	1.47 U	1.47 U	**3.10**	1.47 U	**2.70**	1.47 U
4-METHYL-2-PENTANONE	108-10-1	2700	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	2.05 U
ACETONE	67-64-1	710	**11.9**	**7.53**	**4.44**	**8.10**	**6.84**	**12.5**	**12.0**	**9.36**	**9.03**	**27.6**	**23.8**	**17.7**
BENZENE	71-43-2	11	**0.623**	0.319 U	**0.339**	**0.406**	**1.36**	**0.639**	**0.527**	0.319 U	**1.36**	**0.607**	0.319 U	**0.997**
BROMODICHLOROMETHANE	75-27-4	0.65	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	0.134 U	0.134 U
BROMOFORM	75-25-2	10	0.207 U	0.207 U	0.207 U	0.207 U	0.207 U	0.207 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	0.078 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	0.078 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	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U
CARBON TETRACHLORIDE	56-23-5	1.9	**0.302**	**0.289**	**0.390**	**0.459**	**0.434**	**0.566**	**0.396**	**0.415**	**0.484**	**0.390**	**0.365**	**0.478**
CHLOROBENZENE	108-90-7	44	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	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	0.264 U	0.053 U	0.053 U	0.264 U
CHLOROFORM	67-66-3	3	**0.166**	0.098 U	**0.127**	**0.122**	0.098 U	0.098 U	0.098 U	**0.176**	0.098 U	**0.137**	**0.142**	0.098 U
CHLOROMETHANE	74-87-3	NE	**1.08**	1.03 U	1.03 U	**1.24**	**1.10**	**0.954**	**1.11**	**1.06**	**1.09**	**1.11**	**1.32**	**1.07**
CIS-1,2-DICHLOROETHENE	156-59-2	5.3	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 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 *	0.091 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
DIBROMOCHLOROMETHANE	124-48-1	0.48	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	0.170 U	0.170 U
DICHLORODIFLUOROMETHANE (CFC-12)	75-71-8	NE	**1.36**	**1.19**	**1.47**	**2.07**	**1.84**	**1.44**	**1.69**	**1.50**	**2.36**	**1.40**	**1.57**	**2.22**
ETHYLBENZENE	100-41-4	880	**0.3**	0.087 U	0.087 U	**0.213**	**0.282**	**2.61**	**0.756**	**0.347**	**6.21**	**0.890**	**3.60**	**1.95**
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	**0.606**	**0.46**	**0.521**	**0.613**	**0.590**	**0.659**	**0.820**	**0.498**	**0.567**	**0.606**	**0.422**	**0.590**
HEXACHLORO-1,3-BUTADIENE	87-68-3	4.6	0.533 U	0.533 U	0.533 U	0.533 U	0.533 U	0.533 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	0.072 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	0.721 U	0.721 U
METHYLENE CHLORIDE	75-09-2	530	4.86 U	4.86 U	**7.71**	4.86 U	4.86 U	**19.8**	1.74 U	**8.44**	1.74 U	1.74 U	1.74 U	1.74 U
NAPHTHALENE	91-20-3	**2.7**	0.262 U	0.262 U	0.262 U	**0.666**	0.262 U	0.262 U	0.262 U	**0.530**	**1.25**	**3.16**	**1.22**	**0.592**
STYRENE (MONOMER)	100-42-5	20	**0.123**	0.085 U	0.085 U	**0.123**	0.085 U	0.085 U	**0.230**	**0.085**	**0.456**	**0.307**	**0.302**	**0.238**
TETRACHLOROETHENE	127-18-4	**4.1**	**0.508**	0.136 U	**0.136**	**0.346**	**0.332**	0.136 U	**0.292**	**0.197**	**0.963**	**0.332**	**0.197**	**0.488**
TOLUENE	108-88-3	4400	**1.84**	**0.735**	**0.509**	**1.26**	**2.41**	**2.51**	**2.46**	**2.60**	**15.7**	**13.5**	**7.24**	**8.18**
TRANS-1,2-DICHLOROETHENE	156-60-5	53	**0.103**	0.079 U	0.079 U	0.079 U	**0.186**	0.079 U	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 *	0.091 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
TRICHLOROETHYLENE	79-01-6	**1.8**	**0.779**	0.107 U	0.107 U	**0.204**	0.107 U	0.107 U	0.107 U	**0.124**	**0.129**	**0.113**	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	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U
M,P-XYLENE	MPXYLENE	88 **	**0.856**	**0.217**	**0.243**	**0.617**	**0.777**	**11.2**	**2.93**	**1.49**	**16.2**	**3.44**	**15.4**	**6.69**
O-XYLENE	95-47-6	88 **	**0.33**	**0.087**	**0.104**	**0.261**	**0.282**	**3.63**	**0.886**	**0.756**	**8.21**	**1.38**	**6.08**	**2.83**

Notes:
All units are in micrograms per cubic meter (µg/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
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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
Summary of Historical Indoor and Ambient Air Analytical Results
Former GE Facility, 50 Fordham Rd, Wilmington, MA

		Site Location:	Building 1A (K1 Speed)				Guard Shack (razed 2017)				
		Sample Location ID:	IA-13		IA-14		IA-06				
		Sample Date:	7/13/2017	2/13/2019	7/13/2017	2/13/2019	8/20/2009	4/5/2010	8/23/2012	3/6/2013	5/21/2013
		Sample ID:	17A-IA13-1	19A-IA13	17A-IA14-1	19A-IA14	IA-6.08.20.09	IA-6.04.05.10	12A-IA6-1	13A-IA6-1	13B-IA6-1
		HVAC System Status:	AC On	On	AC On	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	0.1 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	--	0.1 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	--	0.1 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	0.08 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
1,2,4-TRICHLOROBENZENE	120-82-1	3.4	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	--	0.2 U	0.154 U	0.154 U	0.154 U
1,2-DICHLOROBENZENE	95-50-1	710	**0.138**	0.120 U	0.120 U	0.120 U	--	0.1 U	0.12 U	0.120 U	0.120 U
1,2-DICHLOROETHANE	107-06-2	**0.44**	**2.18**	**0.385**	**2.77**	**0.607**	--	0.08 U	0.081 U	0.081 U	0.081 U
1,2-DICHLOROPROPANE	78-87-5	0.6	**0.139**	0.092 U	**0.111**	0.092 U	--	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	--	0.12 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	--	0.1 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	--	0.36 UJ	0.36 U	0.360 U	0.360 U
2-BUTANONE	78-93-3	4400	**2.75**	1.47 U	**2.00**	1.47 U	--	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 U	0.82 U	0.820 U	0.820 U
ACETONE	67-64-1	710	**24.0**	**17.8**	**125**	**19.4**	--	**7.45**	**11.3**	**2.66**	**6.49**
BENZENE	71-43-2	11	0.319 U	**0.987**	0.319 U	**0.930**	--	**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	--	0.1 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	--	0.2 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	--	0.08 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
CARBON TETRACHLORIDE	56-23-5	1.9	**0.346**	**0.447**	**0.346**	**0.415**	--	**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	--	0.092 U	0.092 U	0.092 U	0.092 U
CHLOROETHANE	75-00-3	NE	0.053 U	0.264 U	0.053 U	0.264 U	--	--	0.053 U	0.053 U	0.053 U
CHLOROFORM	67-66-3	3	**0.137**	**0.103**	**0.127**	**0.107**	--	0.1 U	0.098 U	0.098 U	0.098 U
CHLOROMETHANE	74-87-3	NE	**1.16**	**1.06**	**1.18**	**1.09**	--	--	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	0.08 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
DIBROMOCHLOROMETHANE	124-48-1	0.48	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	**1.01**	**2.24**	**1.33**	**2.33**	--	--	**1.43**	**1.35**	**1.52**
ETHYLBENZENE	100-41-4	880	**3.71**	**1.87**	**2.24**	**1.64**	--	**0.2**	**0.135**	0.087 U	**0.139**
FREON TF (CHLORINATED FLUOROCARBON)	76-13-1	NE	**0.406**	**0.590**	**0.414**	**0.590**	--	--	**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	--	0.5 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	--	0.072 U	0.072 U	0.072 U	0.072 U
METHYLENE CHLORIDE	75-09-2	530	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**	**1.27**	**0.561**	**1.04**	**0.503**	--	0.3 U	0.262 U	0.262 U	0.262 U
STYRENE (MONOMER)	100-42-5	20	**0.298**	**0.221**	**0.392**	**0.332**	--	0.09 U	0.085 U	0.085 U	0.085 U
TETRACHLOROETHENE	127-18-4	**4.1**	**0.190**	**0.448**	**0.142**	**0.373**	**0.31**	**0.31**	**0.142**	0.136 U	0.136 U
TOLUENE	108-88-3	4400	**7.39**	**7.80**	**4.11**	**6.78**	--	**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	0.08 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
TRICHLOROETHYLENE	79-01-6	**1.8**	0.107 U	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	0.05 U	0.05 U	0.051 U	0.051 U	0.051 U
M,P-XYLENE	MPXYLENE	88 **	**15.9**	**6.30**	**9.77**	**5.91**	--	**0.486**	**0.208**	0.174 U	**0.326**
O-XYLENE	95-47-6	88 **	**6.25**	**2.70**	**4.01**	**2.51**	--	**0.2**	**0.1**	0.087 U	**0.139**

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SIM - Selective Ion Monitoring

Table 7-1
Post-Temporary Solution Operations, Maintenance, and Monitoring Schedule
Former GE Facility, 50 Fordham Road, Wilmington, MA

Year	2017												2018												2019												2020												2021												2022											
Month	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Indoor Air Sampling Event				■			■							■												■												■												■												■										
Comprehensive Groundwater Sampling Event									■	■											■	■											■	■											■	■											■	■										
LNAPL Gauging and LNAPL Removal						■			■			■			■			■			■			■			■			■			■			■			■			■			■			■			■			■			■			■			■			■			■	
Post-Temporary Solution Status Reports											■						■						■					■						■						■						■						■						■						■				
Five-Year Review of the Temporary Solution																																																																								

APPENDICES

Appendix A—Indoor Air Sampling Field Records February 2019

Appendix B—LNAPL Monitoring Record Field Records June and September 2019

Appendix C— Indoor Air Laboratory Analytical and Data Validation Reports February 2019

Appendix D—Public Notification Documentation

APPENDIX A
INDOOR AIR SAMPLING FIELD RECORDS
FEBRUARY 2019

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Burton

Weather: 35°F Clouds/4 Rain

Sample Location: AA-1

Sample ID: 19A-AA1-1

SUMMA Canister No.: 933

Summar Canister Vol. (L): 6

Regulator No.: 0718

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	1001	-30.97
Check:	1434	-16.62
Check:		
Check:		
Check:		
Sample Finish :	~~1650~~ 1720	-5.78

PID Reading (ppm) at sample location: 1158 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Buston

Weather: 35°F Clouds / Lt rain

Sample Location: IA-2

Sample ID: 19A - IA2-1

SUMMA Canister No.: 1589

Summar Canister Vol. (L): 6

Regulator No.: 0909

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

	Time (24 hr)	Pressure (units "Hg")
Sample Start:	0913	-29.77
Check:	1428	-14.00
Check:		
Check:		
Check:		
Sample Finish :	1715	-8.12

PID Reading (ppm) at sample location: 1212 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: 35°F Clouds / Lt rain

Weather: Floyd Buston

Sample Location: IA-3

Sample ID: 19A-IA3-1

SUMMA Canister No.: 1607

Summar Canister Vol. (L): 6

Regulator No.: 0385

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	0910	-29.72
Check:	1426	-13.70
Check:		
Check:		
Check:		
Sample Finish :	1708	-5.70

PID Reading (ppm) at sample location: 1209 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Burton

Weather: 35°F Clouds /Lt rain

Sample Location: IA-4

Sample ID: 19A-IA4-1

SUMMA Canister No.: 1515

Summar Canister Vol. (L): 6

Regulator No.: 0018

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	0907	-29.43
Check:	1424	-14.01
Check:		
Check:		
Check:		
Sample Finish :	1712	-5.70

PID Reading (ppm) at sample location: 1207 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Burton

Weather: 35°F Clouds / Lt Rain

Sample Location: IA-7

Sample ID: 19A-IA7-1

SUMMA Canister No.: 2524

Summar Canister Vol. (L): 6

Regulator No.: 01217

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	0917	-29.80
Check:	1429	-14.25
Check:		
Check:		
Check:		
Sample Finish :	1720	-6.90

PID Reading (ppm) at sample location: 1211 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Burton

Weather: 35°F Cloud / Lt rain

Sample Location: IA-8

Sample ID: 19A-IA8-1

SUMMA Canister No.: 1850

Summar Canister Vol. (L): 6

Regulator No.: 01035

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	0913	-29.17
Check:	1431	-12.70
Check:		
Check:		
Check:		
Sample Finish :	1705	-6.51

PID Reading (ppm) at sample location: 1215 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Burton

Weather: 35°F Clouds / Lt Rain

Sample Location: IA-8

Sample ID: 19A-IA8-2 (duplicate)

SUMMA Canister No.: 738

Summar Canister Vol. (L): 6

Regulator No.: 0681

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	0915	-29.63
Check:	1432	-13.93
Check:		
Check:		
Check:		
Sample Finish :	1705	-5.03

PID Reading (ppm) at sample location: 1215 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Burton

Weather: 35°F Clouds/Lt Rain

Sample Location: IA-9

Sample ID: 19A-IA9-1

SUMMA Canister No.: 2703

Summar Canister Vol. (L): 6

Regulator No.: 01213

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

	Time (24 hr)	Pressure (units "Hg")
Sample Start:	0924	-29.86
Check:	1437	-14.80
Check:		
Check:		
Check:		
Sample Finish :	1725	-7.44

PID Reading (ppm) at sample location: 1204 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Buston

Weather: 35°F Clouds / Lt Rain

Sample Location: IA-11

Sample ID: 19A-IA11-1

SUMMA Canister No.: 631

Summar Canister Vol. (L): 6

Regulator No.: 0245

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

	Time (24 hr)	Pressure (units _____)
Sample Start:	0934	-29.84
Check:	1442	-14.37
Check:		
Check:		
Check:		
Sample Finish :	1656	-8.61

PID Reading (ppm) at sample location: 1234 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Burton

Weather: 35°F Clouds / Lt rain

Sample Location: IA-12

Sample ID: 19A-IA12-1

SUMMA Canister No.: 923

Summar Canister Vol. (L): 6

Regulator No.: 0410

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	1039	-30.88
Check:	1452	-17.00
Check:		
Check:		
Check:		
Sample Finish :	1808	- 5.98

PID Reading (ppm) at sample location: 1245 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Button

Weather: 35°F Clouds / Lt rain

Sample Location: IA-13

Sample ID: 19A-IA-13-1

SUMMA Canister No.: 974

Summar Canister Vol. (L): 6

Regulator No.: 0773

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	1036	-29.82
Check:	1456	-13.10
Check:		
Check:		
Check:		
Sample Finish :	1812	-5.93

PID Reading (ppm) at sample location: 1240 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AECOM

Indoor/Ambient Air Sample Log Sheet

Client: Lockheed Martin Corporation

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

Project Number: 60552044 Task 12

Date: 2/13/19

Sampler: Floyd Buston

Weather: 35°F Clouds / Lt Rain

Sample Location: IA-14

Sample ID: 19A- IA14-1

SUMMA Canister No.: 756

Summar Canister Vol. (L): 6

Regulator No.: 0791

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

	Time (24 hr)	Pressure (units Hg")
Sample Start:	1031	-29.71
Check:	1459	-13.87
Check:		
Check:		
Check:		
Sample Finish :	1832	-8.68

PID Reading (ppm) at sample location: 1245 Time (24 hr): 0ppm

Comments:

(see MassDEP Building Inventory and photographs for further details)

AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #:

Client Information

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

☒ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lockheed Martin
Project Location: Wilmington, MA
Project #: 60552044.12
Project Manager: Scott Olson
ALPHA Quote #: 2017-2022

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
10-15PAY
Date Due: Time:

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)
Lori Herberich & Scott Olson

Billing Information

☐ Same as Client info PO #:
AECOM PO# 110394

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
Mass	DEP CAM	

Other Project Specific Requirements/Comments: TO-15 SIM-RLs MUST Meet Thresholds in AECOM PROJECT QAPP (2017)

Project-Specific Target Compound List: ☐
Call Lori Herberich with Questions 978-302-2174

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM + Freon 113	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
	19A-AA1-1	2/13/19	1001	1720	-30.78	-5.78	AA	FWB	6L	933	0718		X						
	19A-IA2-1	2/13/19	0913	1715	-29.77	-8.12		FWB		1589	0909		X						
	19A-IA3-1	2/13/19	0910	1708	-29.72	-5.70		FWB		1607	0385		X						
	19A-IA4-1	2/13/19	0907	1712	-29.43	-5.70		FWB		1515	0018		X						
	19A-IA7-1	2/13/19	0917	1720	-29.80	-6.90		FWB		2524	01217		X						
	19A-IA8-1	2/13/19	0915	1705	-29.17	-6.51		FWB		1850	01035		X						
	19A-IA8-2	2/13/19	0915	1705	-29.63	-5.03		FWB		738	0681		X						
	19A-IA9-1	2/13/19	0924	1725	-29.86	-7.44		FWB		2703	01213		X						
	19A-IA11-1	2/13/19	0934	1650	-29.84	-8.61		FWB		631	0245		X						
	19A-IA12-1	2/13/19	1039	1808	-30.88	-5.98	AA	FWB	6L	923	0410		X						
											Container Type		VC						

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

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	2/13/19	[signature] AAK	2/14 1100

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.

Form No: 101-02 Rev: (25-Sep-15)

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #:

Client Information

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

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lockheed Martin
Project Location: Wilmington MA
Project #: 60552044.12
Project Manager: Scott Olson
ALPHA Quote #: 2017-2022

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
10-15 DAY
Date Due: Time:

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)
Lori Herberich
& Scott Olson

Billing Information

☐ Same as Client info PO #:
AECOM PO # 110394

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
Mass	DEP CAM	

Other Project Specific Requirements/Comments: TO-15 SIM - RLs MUST Meet Thresholds in AECOM PROJECT QAPP (2017)
call Lori Herberich with Questions 978-302-2174

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM + Freon 113	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
	~~IA 80~~																		
	19A-IA13-1	2/13/19	1036	~~27.82~~ 1812 FnB	-29.82	-5.93	AA	FnB	6L	974	0773		X						
	19A-IA14-1	2/13/19	1031	1832	-29.71	-8.68	AA	FnB	6L	756	0791		X						

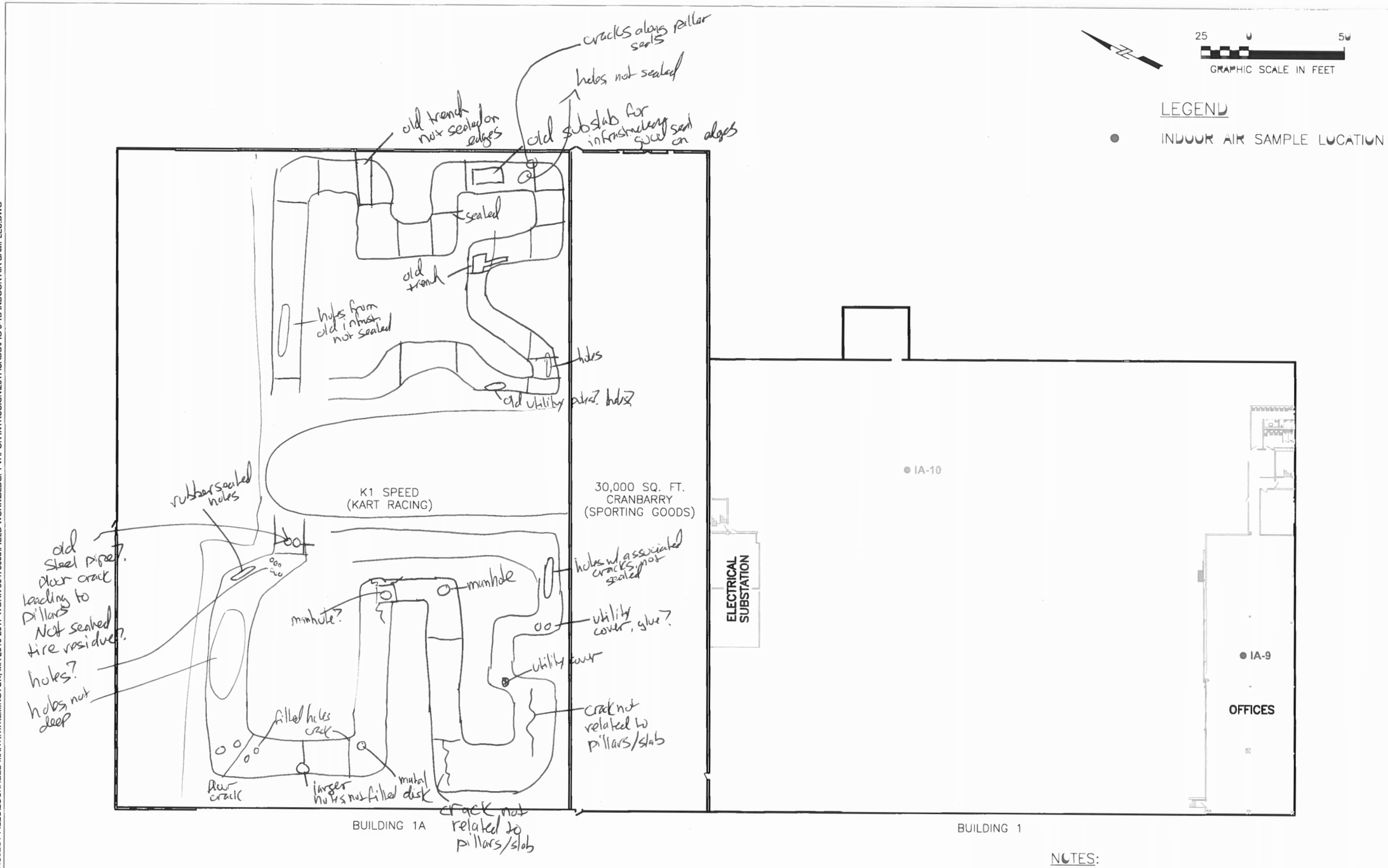
***SAMPLE MATRIX CODES**
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	2/13/19	[illegible] AAL	2/14 1100

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.

Form No: 101-02 Rev: (25-Sep-15)



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.

AECOM

FIGURE: 5-1b

INDOOR AIR SAMPLE LOCATIONS
BUILDING 1 SECOND FLOIOR

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

60478638 2016-10-28

Project Management Initials: Designer: K.P.B. Checked: S.O. Approved: A.T. ANSI B 11" x 17"
BLDG. 1 VAPOR INTRUSION\2017\CADD\FIG 5-1B INDOOR AIR SAMPLES.DWG

Last saved by: BARRYK(2017-04-24) Last Plotted: 2017-04-24
Filename: P:\JOBS\REM_ENG\PROJECT FILES\LOCKHEED MARTIN\WILMINGTON, MA 2016-2017 WORK 60478638\FIELD WORK\BLDG. 1 VA

Location Wilmington, MA Date 2/13/19

Project / Client LMC

0805 Floyd Button on site 30's clouds/Lt rain
- OBJECTIVES: INDOOR AIR SAMPLING.
- CALL SCOTT, ONLY SOUTH DOOR KEY IN LOCKBOX.
- SCOTT CALLS BACK w/ INFO ON HOW TO ACCESS UPS AREA.

0830 - START DEPLOYING CANS IN BLGD 1 + CRANBARRY SPACES.

0847 - OUTDOOR BMP READING = 992 mmb
INDOOR BMP = 993 mmb

1030 DEPLOY CANS IN K1 SPEED
- INVENTORY OF BLDG 1 + 1A.

1230 - CONDUCT PID SCREENING OF BLDG 1+1A, See SAMPLE LOCATION SHEET + MAP FOR READINGS.

1400 - CHECK CANS FOR DRAWDOWN RATE, INDOOR BMP READING = 995 mmb, OUTDOOR BMP = 995 mmb

1700 - START COLLECTING CANS @ 5-6" Hg VAC OR 8 HOURS.
- WHILE COLLECTING IA-9 CAN, STRONG PERFUME ENCOUNTED ON SECOND FLOOR, POSSIBLE INTRUDER TO RESTRICTED SPACE OF BLDG 1, SWITCH TO JUST COLLECT CANS, SHUT OFF LIGHTS + ENSURE DOORS LOCKED IN BUILDING 1.

1800 - COLLECT CANS FROM K-1 AREA.

1820 - INDOOR BMP = 996 mmb; OUTDOOR BMP = 996 mmb

/19

's Clouds/Lt rain
SAMPLING,
DOOR KEY IN LOCKBOX
FO ON HOWTO ACCESS

IN BLDG 1+

= 992 mmb

mmb

EED

A.

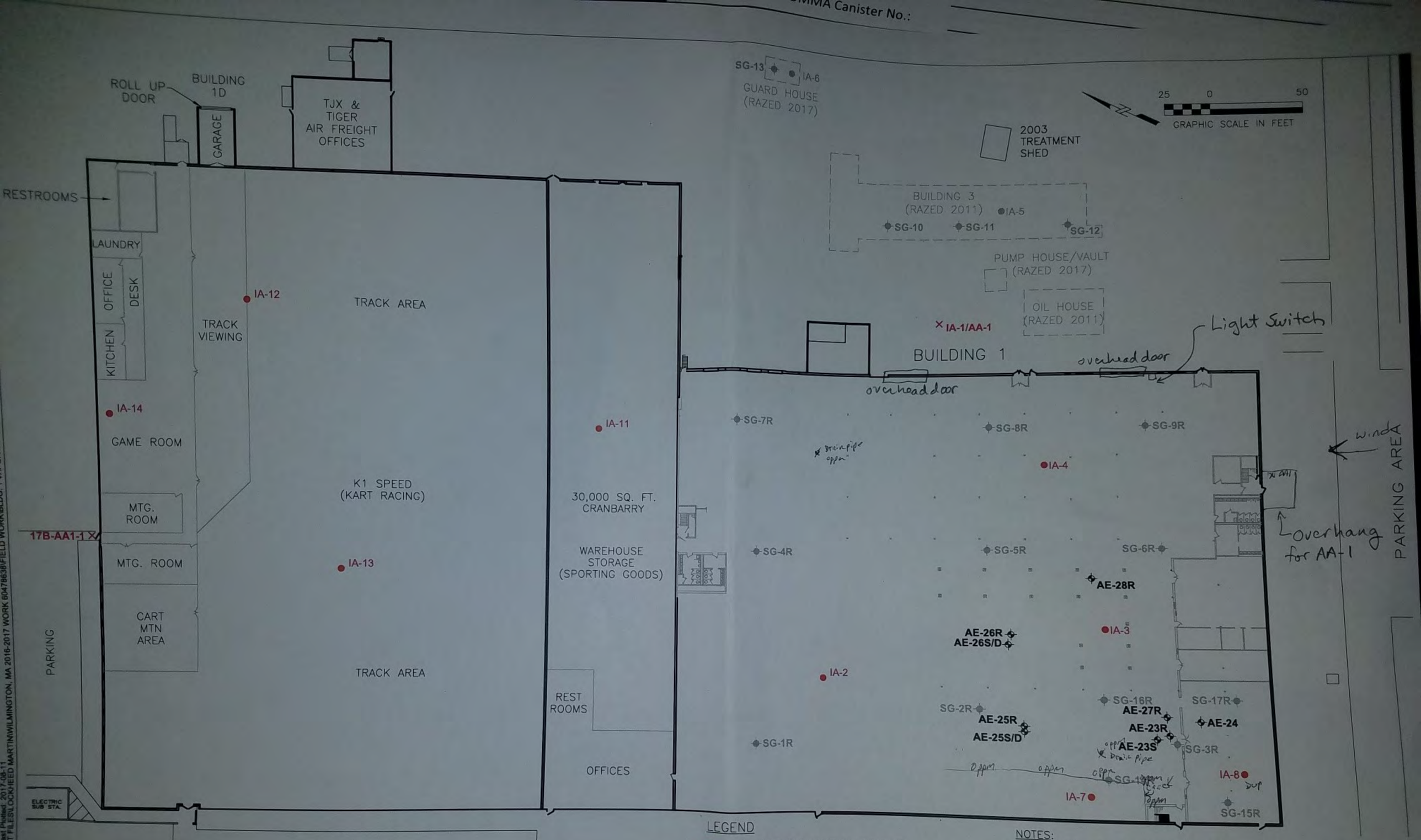
UG OF BLDG 1+1A, Sep
+ MAP FOR READINGS
DOWN RATE, INDOOR BMP
OR BMP = 995 mmb
@ 5-6" Hg VAC OR SHOWS
-9 CAN, STRONG PERFUME
ZOOR, POSSIBLE INTRUDER TO
SWITCH TO JUST
DG 1, LIGHTS + ENSURE DOOR
NTS

Location WILMINGTON, MA Date 2/13/19 129

Project / Client LMC

- TEXT SCOTT UPDATE.
1845 · FB OFF SITE.

SUMMA Canister No.:



LEGEND

- ● INDOOR AIR SAMPLE LOCATION
- × AMBIENT AIR SAMPLE; LOCATION VARIED 2009–2017; IA–1 (TRC 2009–2011) AA–1 (AECOM 2012–2017)
- ✦ MONITORING WELL LOCATION
- ✦ SUB–SLAB VAPOR POINT

NOTES:

1.) INDOOR AIR LOCATIONS CO–LOCATED WITH PRIOR INDOOR AIR LOCATIONS FROM 2009–2016.
2) SUB–SLAB VAPOR POINTS INSTALLED BY TRC IN 2009–2010. POINTS ABANDONED IN DECEMBER 2012 EXCEPT SG–13 REMOVED IN 2017. POINTS SG–10,11,12 REMOVED WHEN BUILDING 3 WAS RAZED IN JULY 2011.
3.) R – DENOTES VAPOR PIN LOCATIONS INSTALLED IN FEBRUARY 20 AND ABANDONED IN FEBRUARY 2014. "R" LOCATIONS WERE WITH ~5 FT OF ORIGINAL POINTS.
4.) IA–6 NOT SAMPLED 2011 OR 2014–2017.
5.) ADDED LOCATIONS IA–11 AND IA–12 APRIL 2017.
6.) ADDED LOCATIONS IA–13 AND IA–14 JUNE 2017.

Indoor Air Quality Building Survey

Date: 2/6 & 2/13/2019 RTN: 3-0518

Address: 40 FORDHAM RD WILMINGTON, MA

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

Current Occupants: BLDG 1

INITIALS	AGE	SEX (M/F)
UPS		
UNITED	PARCEL	SERVICE
Seasonal	Use Only	
~Nov. &	Dec	
Unknown	# Employees	

Building Construction Characteristics: (Circle or underline appropriate responses)

Single Family — Multiple Family — School — Commercial

Ranch — 2-Family — BLDG. AGE ~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 Concrete

How many occupied stories does the building have? 2

Has the building been weatherized with any of the following?

Insulation Storm Windows Energy-Efficient Windows Other _____

Assume Insulation present
Exterior of 2nd floor was wrapped in 2018

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/A

Basement 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 N/A

Heating and Ventilation System(s):

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

Hot Air Circulation Heat Pump Wood Stove

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? 2 Cambridge Units for HIGH BAY + 24 smaller units (fresh air) recirc. IA.

Central Air Conditioning Mechanical Fan Bathroom Ventilation Fan

Kitchen Range Hood Open Window Individual Air Conditioning Unit

Air-to-Air Heat Exchange Other _____

Indoor Temps 2/13/19:
1ST FLOOR 50-55 °F
2ND FLOOR 59 °F

Indoor Air Quality Building Survey, continued

Sources 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	SEE PHOTO LOG		
Gas-powered equipment		INDOOR CONDITIONS &	
Gasoline storage cans		OPERATIONS IDENTICAL TO	
Cleaning solvents		2018 - MATERIALS USED &	
Air fresheners		STORED, AND FLOOR CONDITIONS.	
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			
Other			

☐ YES ☒ NO (unk) Do one or more smokers occupy this building on a regular basis? unknown when UPS in operation

☐ YES ☒ NO Has anybody smoked in the building in the last 48 hours? (currently dormant)

☒ YES ☐ NO Does the building have an attached garage?

☒ YES ☐ NO If so, is the garage used for parking ~~cars~~ trucks

UPS Box trucks park inside overnight to get loaded with parcels (Nov - Dec.)

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?
appears same as in October 2017 & Feb 2018

☐ YES ☒ NO Are there any new pressed wood products in the building (e.g., hardwood plywood, wall paneling, particleboard, fiberboard)? SAME

☐ YES ☒ NO Are there any new upholstery, drapes or other textiles in the building? SAME

☐ YES ☐ NO unk. Has the building interior been treated with any insecticides/pesticides? (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?
Owner (WRT) has exterior ~~pesticide~~ rodent control in summer

Is there any stationary emission source in the vicinity of the building?
2 generators in BLDG 1. 2nd floor electrical substation area.

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:

Outside Temperature (°F): 35°F

Prevailing wind direction and approximate wind speed: 3-5mph variable

Describe the general weather conditions (e.g., sunny, cloudy, rain): Cloudy w/ Lt rain/snow

Was there significant precipitation (≥ 0.1 inches) within 12 hours preceding the sampling? 3" snow

Indoor Air Quality Building Survey

Date: 2/6 & 2/13/2019 RTN: 3-0518

Address: 40 FORDHAM RD Wilmington, MA

Building Contact: GARY STANIEICH (WRD) Phone: Tel: _____
Cell: 603-860-5508
Work: _____

Current Occupants: BLDG. 1A

INITIALS	AGE	SEX (M/F)
CRANBARRY		
Sporting Goods Retailer		

Employees = 3

Building Construction Characteristics: (Circle or underline appropriate responses)

Single Family	Multiple Family	School	Commercial
Ranch	2-Family		BLDG AGE ~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 Concrete

How many occupied stories does the building have? 1

Has the building been weatherized with any of the following?

Insulation Storm Windows unknown Energy-Efficient Windows unknown Other unknown

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/A

Basement 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 N/A

Heating and Ventilation System(s):

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

Hot Air Circulation Heat Pump Wood Stove

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 _____

HVAC Units not verified in Bldg 1A

Indoor Air Quality Building Survey, continued

Sources 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	✓	SAME	
Gasoline storage cans	SEE PHOTO LOG		
Cleaning solvents	INDOOR CONDITIONS OF WAREHOUSE		
Air fresheners	IDENTICAL TO LAST TIME SAMPLED		
Oven cleaners	IN 2017 - FLOORS, MATERIALS STORED		
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			
Other			

☐ YES ☒ NO Do one or more smokers occupy this building on a regular basis?

☐ YES ☒ NO Has anybody smoked in the building in the last 48 hours?

☐ YES ☒ NO Does the building have an attached garage?

☐ YES ☒ NO If so, is the garage used for parking cars

Indoor Air Quality Building Survey, continued

☐ YES ☒ NO 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?

☐ YES ☒ NO Are there any new pressed wood products in the building (e.g., hardwood plywood, wall paneling, particleboard, fiberboard)?

☐ YES ☒ NO Are there any new upholstery, drapes or other textiles in the building?

☐ YES ☒ NO Has the building interior been treated with any insecticides/pesticides?

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

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

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

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

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:

Outside Temperature (°F): 35°F

Prevailing wind direction and approximate wind speed: 3-5 variable

Describe the general weather conditions (e.g., sunny, cloudy, rain): Cloudy w/ Lt rain/snow

Was there significant precipitation (≥ 0.1 inches) within 12 hours preceding the sampling? 3" snow

Indoor Air Quality Building Survey

Date: 2/6 & 2/13/19 RTN: 3-0518

Address: 40 FORDHAM RD WILMINGTON, MA

Building Contact: GARY STANIEICH (WRT) Phone: Tel: Cell: 603-860-5578 Work:

Current Occupants: BLDG 1A K1 Speed GO CART RACING

INITIALS	AGE	SEX (M/F)
VARIOUS EMPLOYEES		
(APPROX.	)	
~12 PER DAY		
APPROX 1-500 CUSTOMERS		
	PER DAY	

Public Hrs

M-Th 12-10pm
Fr 11am-12am
Sat 10am-12am
Sun 10am-10pm

Open 364 days/yr

Building Construction Characteristics: (Circle or underline appropriate responses)

Single Family	Multiple Family	School	Commercial
Ranch	2-Family		
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 Concrete

How many occupied stories does the building have? 1

Has the building been weatherized with any of the following?

Insulation Storm Windows Energy-Efficient Windows Other Unknown

Assume yes unknown unknown

Indoor Temp 2/13/19: TRACK AREA 65°F
GAME ROOM ~~65-70°F~~ 65-70°F

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/A

Basement 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~~ SLAB have any of the following characteristics (i.e., preferential pathways into the building) that might permit soil vapor entry? SEE separate page regarding condition of slab in track area (map)

✓ Cracks ✓ Pipes/Utility Conduits Foundation/slab drainage

Sump ~~pumps~~ Other N/A

Heating and Ventilation System(s):

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

Hot Air Circulation ~~Heat Pump~~ ~~Wood Stove~~

Hot Air Radiation Unvented ~~Kerosene~~ Heater Electric Baseboard

Forced ~~Hot Water~~ Steam ~~Radiation~~ Other Forced AIR

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

Natural Gas Electric ~~Coal~~ Other _____

~~Fuel Oil~~ ~~Wood~~ Solar WRT installed SOLAR ON ROOF

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

Central Air Conditioning Mechanical Fan No Bathroom Ventilation Fan No

Kitchen Range Hood No Open Window None of windows open Individual Air Conditioning Unit → Total ~11 units on Roof MFR = Carrier

Air-to-Air Heat Exchange Other _____

Indoor Air Quality Building Survey, continued

Sources 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	SEE PHOTO	LOG	
Gas-powered equipment	INDOOR CONDITIONS OF TRACK, FLOORS,		
Gasoline storage cans	& MATERIALS STORED IDENTICAL		
Cleaning solvents	TO LAST TIME SAMPLED (2017)		
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			
Other			

☐ YES ☑ NO Do one or more smokers occupy this building on a regular basis?

☐ YES ☑ NO Has anybody smoked in the building in the last 48 hours?

☐ YES ☑ NO Does the building have an attached garage?

☐ YES ☑ NO If so, is the garage used for parking cars

Indoor Air Quality Building Survey, continued

☐ YES ☑ NO 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?

☐ YES ☑ NO Are there any new pressed wood products in the building (e.g., hardwood plywood, wall paneling, particleboard, fiberboard)?

☐ YES ☑ NO Are there any new upholstery, drapes or other textiles in the building?

☐ YES ☑ NO Has the building interior been treated with any insecticides/pesticides?

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? K1 Speed responsible for pest control.

Is there any stationary emission source in the vicinity of the building? NO

Are there any mobile emission sources (e.g., highway, bus stop, high-traffic area) in the vicinity of the building? Parking Lot to east
Fordham Rd to west

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

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:

Outside Temperature (°F): 35°F

Prevailing wind direction and approximate wind speed: 3-5 variable

Describe the general weather conditions (e.g., sunny, cloudy, rain): Cloudy w/ light Rain/Snow

Was there significant precipitation (≥ 0.1 inches) within 12 hours preceding the sampling? 3" Snow

Photograph Log
Vapor Intrusion Monitoring

Former GE Facility
50 Fordham Rd Wilmington, MA
Building 1 (UPS)

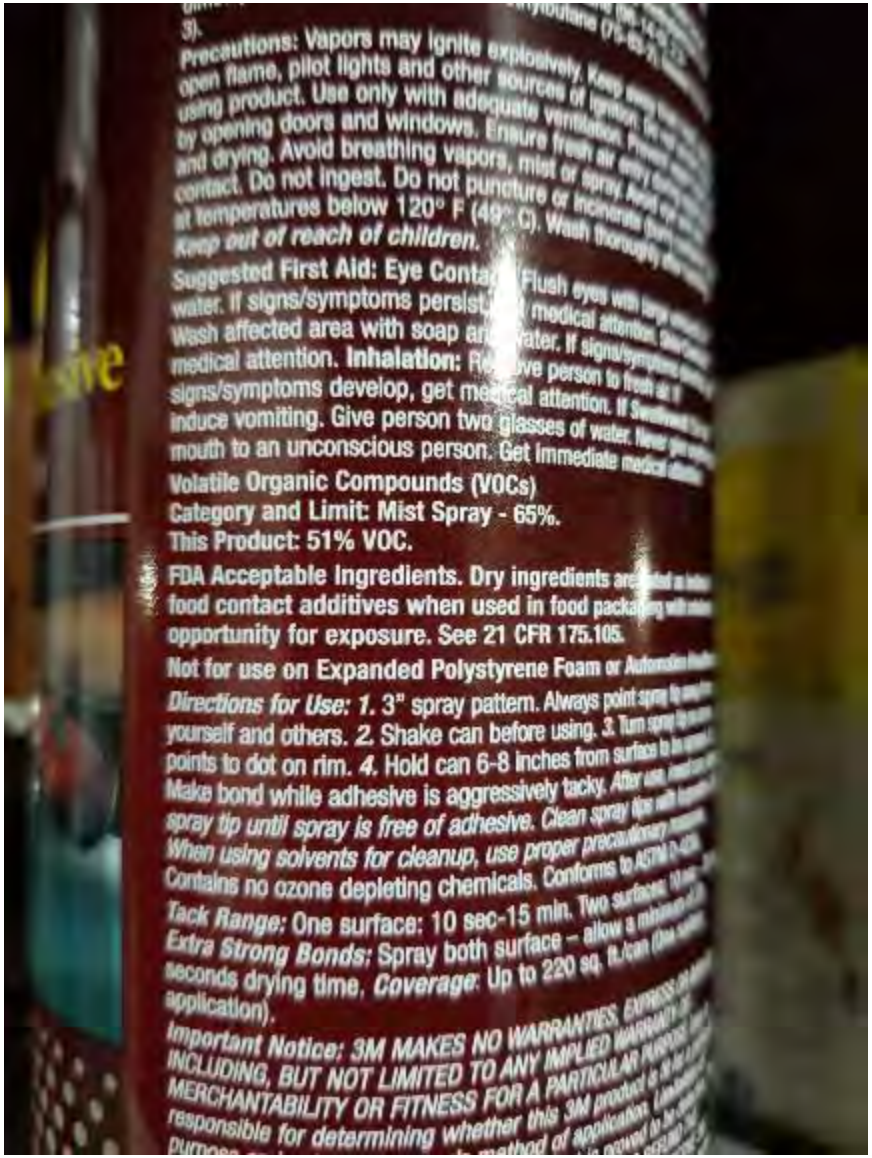
February 13, 2019

by AECOM - Chelmsford

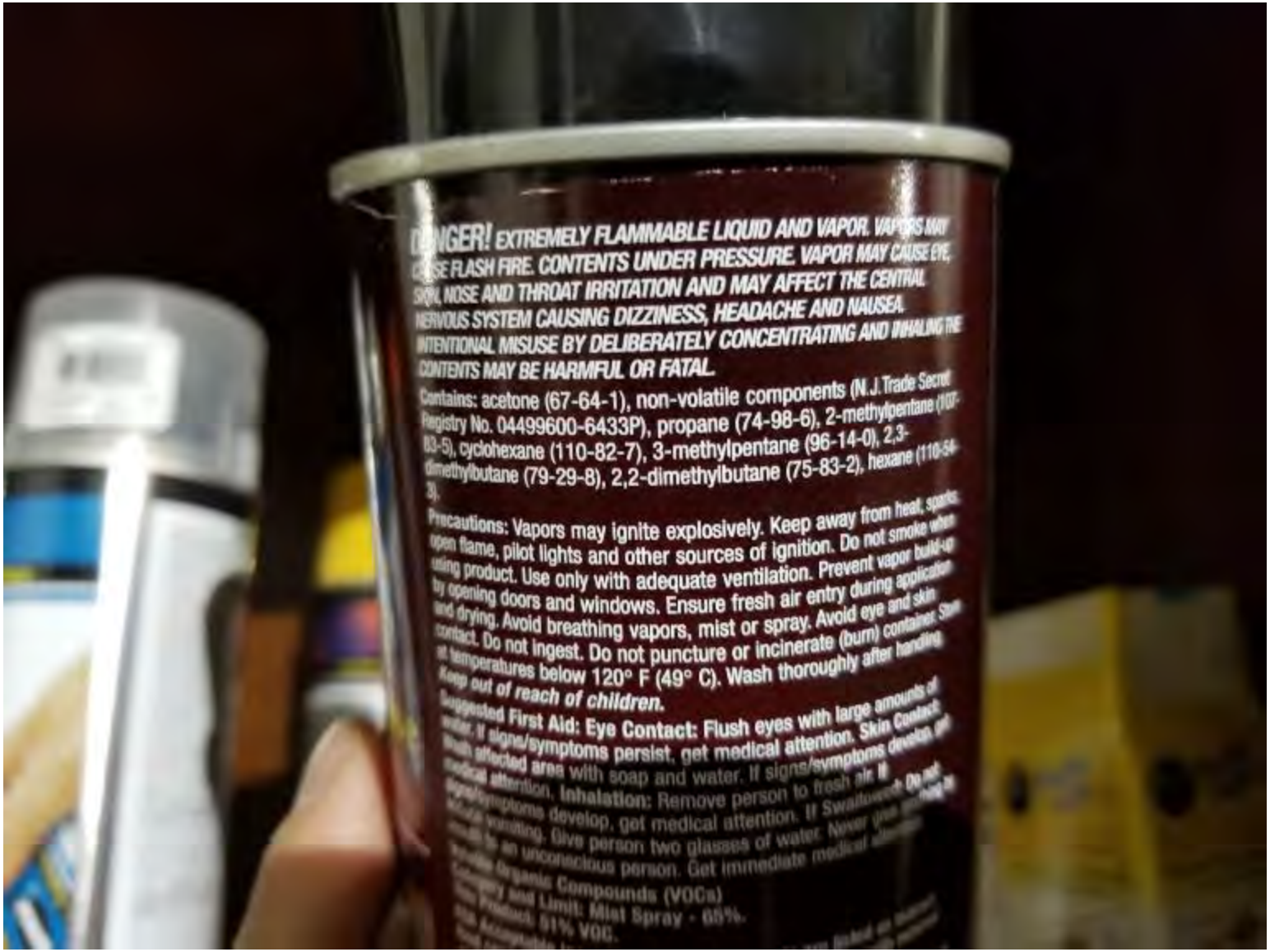

3M
Super
77™
Multipurpose Adhesive
Multiuso Adhesivo
GLUTEN FREE

3M Super 77_1

3M Super 77_2


Precautions: Vapors may ignite explosively.
open flame, pilot lights and other sources of
using product. Use only with adequate
by opening doors and windows.
and drying. Avoid breathing vapors, mist or spray.
contact. Do not ingest. Do not puncture or
at temperatures below 120° F (49° C).
Keep out of reach of children.
Suggested First Aid: Eye Contact:
water. If signs/symptoms persist,
Wash affected area with soap and
medical attention. Inhalation:
signs/symptoms develop, get medical attention.
induce vomiting. Give person two glasses of water.
mouth to an unconscious person. Get immediate
Volatile Organic Compounds (VOCs)
Category and Limit: Mist Spray - 65%.
This Product: 51% VOC.
FDA Acceptable Ingredients. Dry ingredients
food contact additives when used in food
opportunity for exposure. See 21 CFR 175.105.
Not for use on Expanded Polystyrene Foam or
Directions for Use: 1. 3" spray pattern. Always point
yourself and others. 2. Shake can before using. 3.
points to dot on rim. 4. Hold can 6-8 inches from
Make bond while adhesive is aggressively tacky.
spray tip until spray is free of adhesive.
When using solvents for cleanup, use proper
Contains no ozone depleting chemicals.
Tack Range: One surface: 10 sec-15 min.
Extra Strong Bonds: Spray both surface – allow a
seconds drying time. Coverage: Up to 220 sq. ft./can
application).
Important Notice: 3M MAKES NO WARRANTIES,
INCLUDING, BUT NOT LIMITED TO ANY IMPLIED
MERCHANTABILITY OR FITNESS FOR A PARTICULAR
responsible for determining whether this 3M product

3M Super 77_3


NGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPORS MAY
SE FLASH FIRE. CONTENTS UNDER PRESSURE. VAPOR MAY CAUSE EYE,
SKIN, NOSE AND THROAT IRRITATION AND MAY AFFECT THE CENTRAL
NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE AND NAUSEA.
INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE
CONTENTS MAY BE HARMFUL OR FATAL.
Contains: acetone (67-64-1), non-volatile components (N.J. Trade Secret
Registry No. 04499600-6433P), propane (74-98-6), 2-methylpentane (107-
83-5), cyclohexane (110-82-7), 3-methylpentane (96-14-0), 2,3-
dimethylbutane (79-29-8), 2,2-dimethylbutane (75-83-2), hexane (110-54-
3).
Precautions: Vapors may ignite explosively. Keep away from heat, sparks,
open flame, pilot lights and other sources of ignition. Do not smoke when
using product. Use only with adequate ventilation. Prevent vapor build-up
by opening doors and windows. Ensure fresh air entry during application
and drying. Avoid breathing vapors, mist or spray. Avoid eye and skin
contact. Do not ingest. Do not puncture or incinerate (burn) container. Store
at temperatures below 120° F (49° C). Wash thoroughly after handling.
Keep out of reach of children.
Suggested First Aid: Eye Contact: Flush eyes with large amounts of
water. If signs/symptoms persist, get medical attention. Skin Contact:
Wash affected area with soap and water. If signs/symptoms develop, get
medical attention. Inhalation: Remove person to fresh air. If
signs/symptoms develop, get medical attention. If Swallowed: Do not
induce vomiting. Give person two glasses of water. Never give anything to
an unconscious person. Get immediate medical
Volatile Organic Compounds (VOCs)
Category and Limit: Mist Spray - 65%.
Product: 51% VOC.

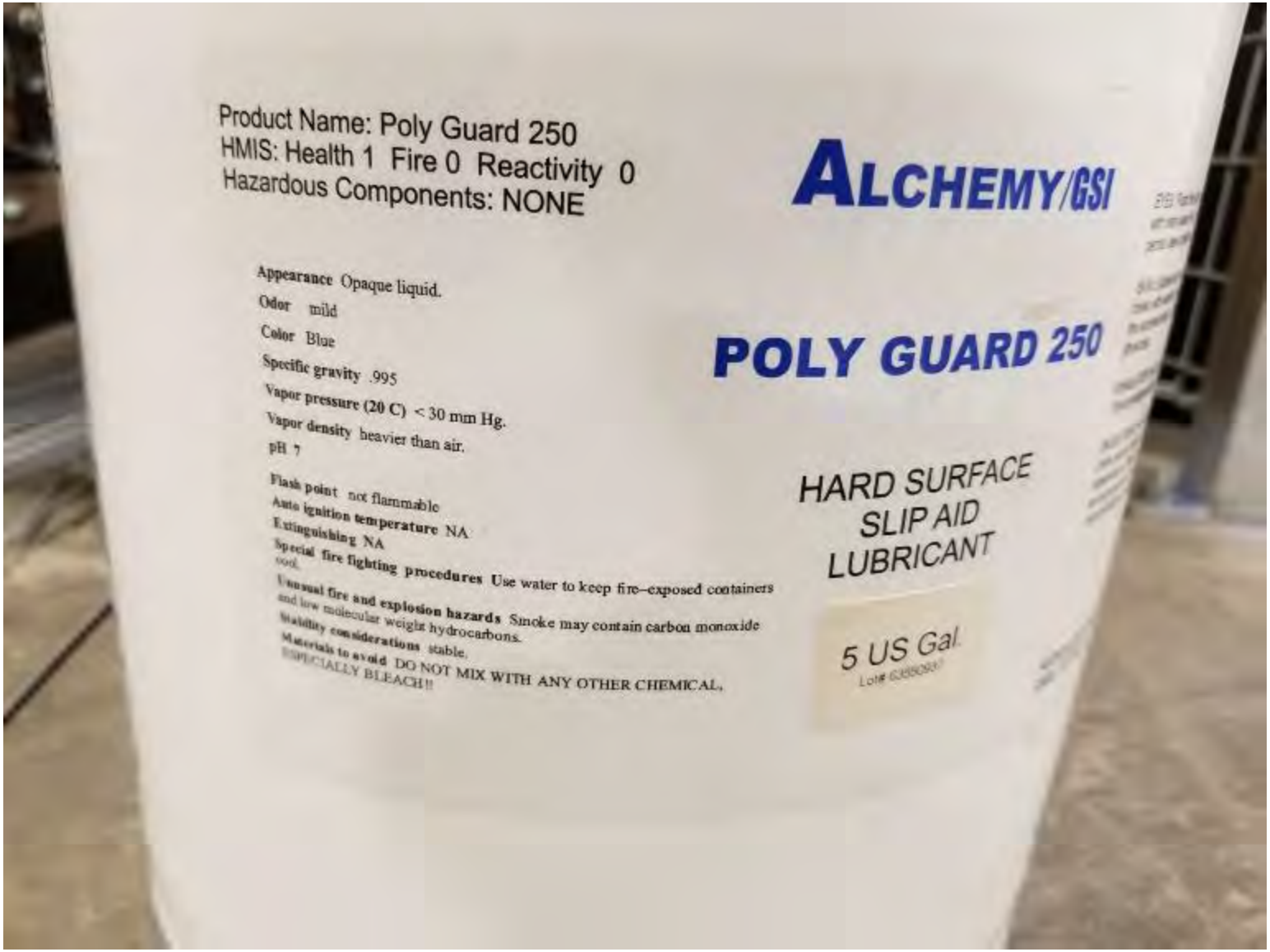
3M Super 77_4


PROFORM
BRAND
Professional Formula
ALL PURPOSE
Joint Compound

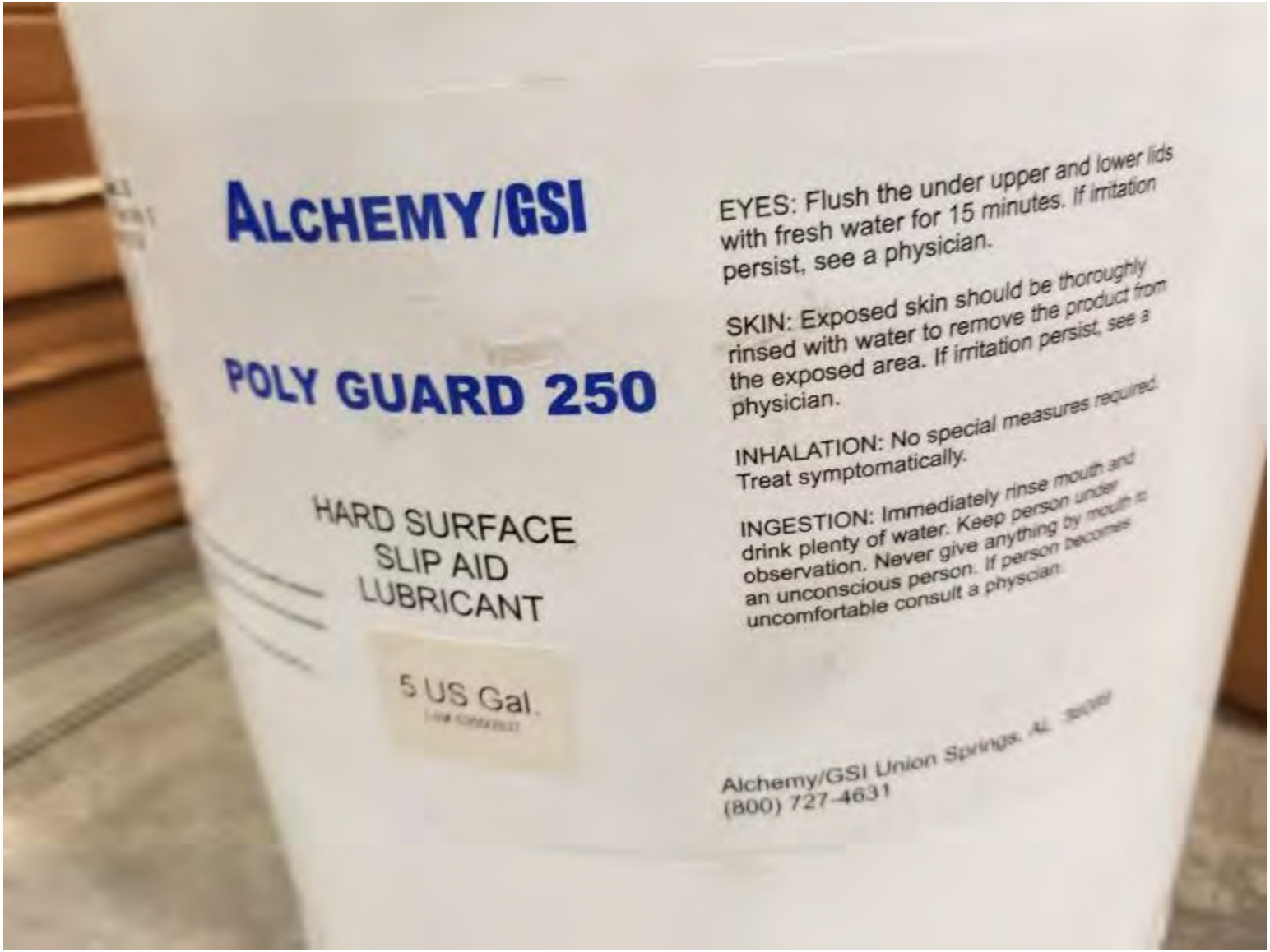
10-27-18 026

10-27-18 027

Alchemy GSI_Polyguard 250_1



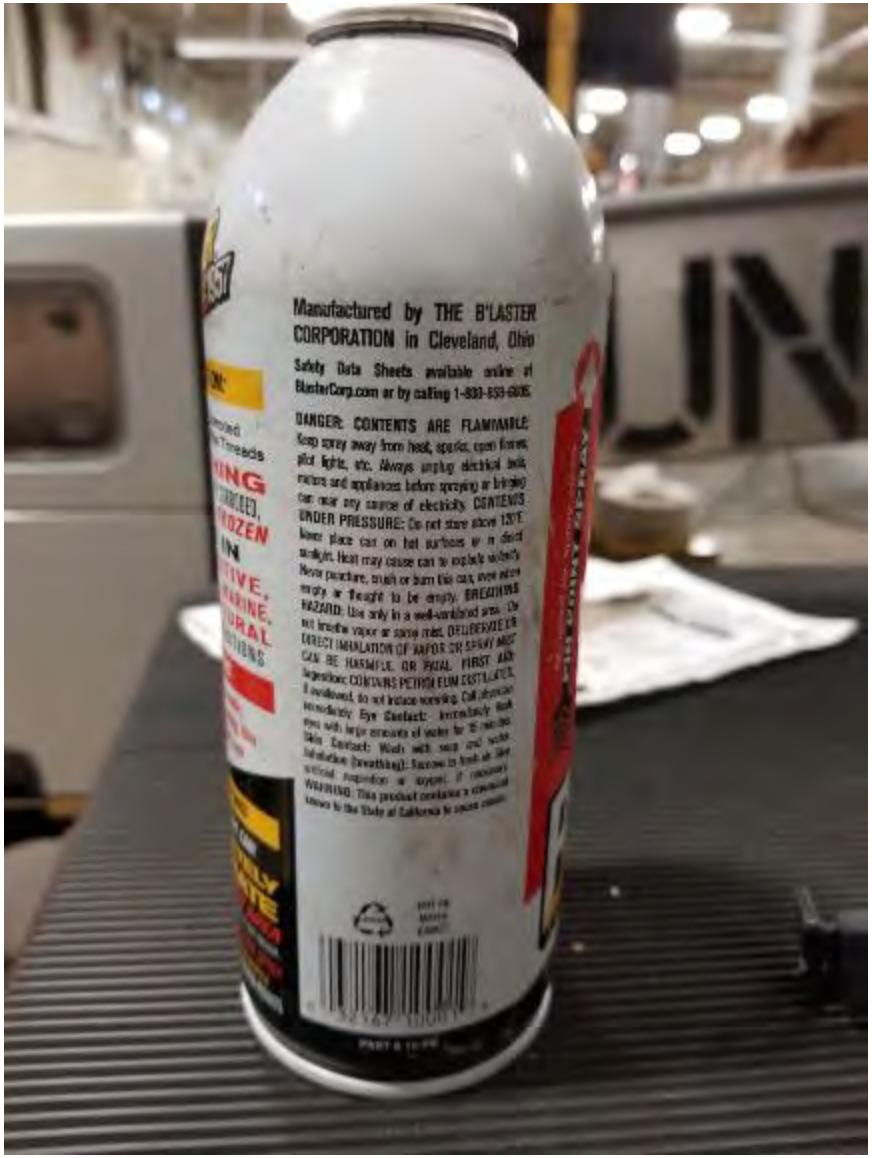
Alchemy GSI_Polyguard 250_2



Alchemy GSI_Polyguard 250_3

Alchemy 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_2

Clear Marking Coat_3

Const Marking Paint_1

Const Marking Paint_2

Const Marking Paint_3

Floor Drain near IA-7_1_2018-2019

Floor Drain near IA-7_2_2018-2019

Gaps in Floor_Fisrt floor Building 1_1_2018-2019

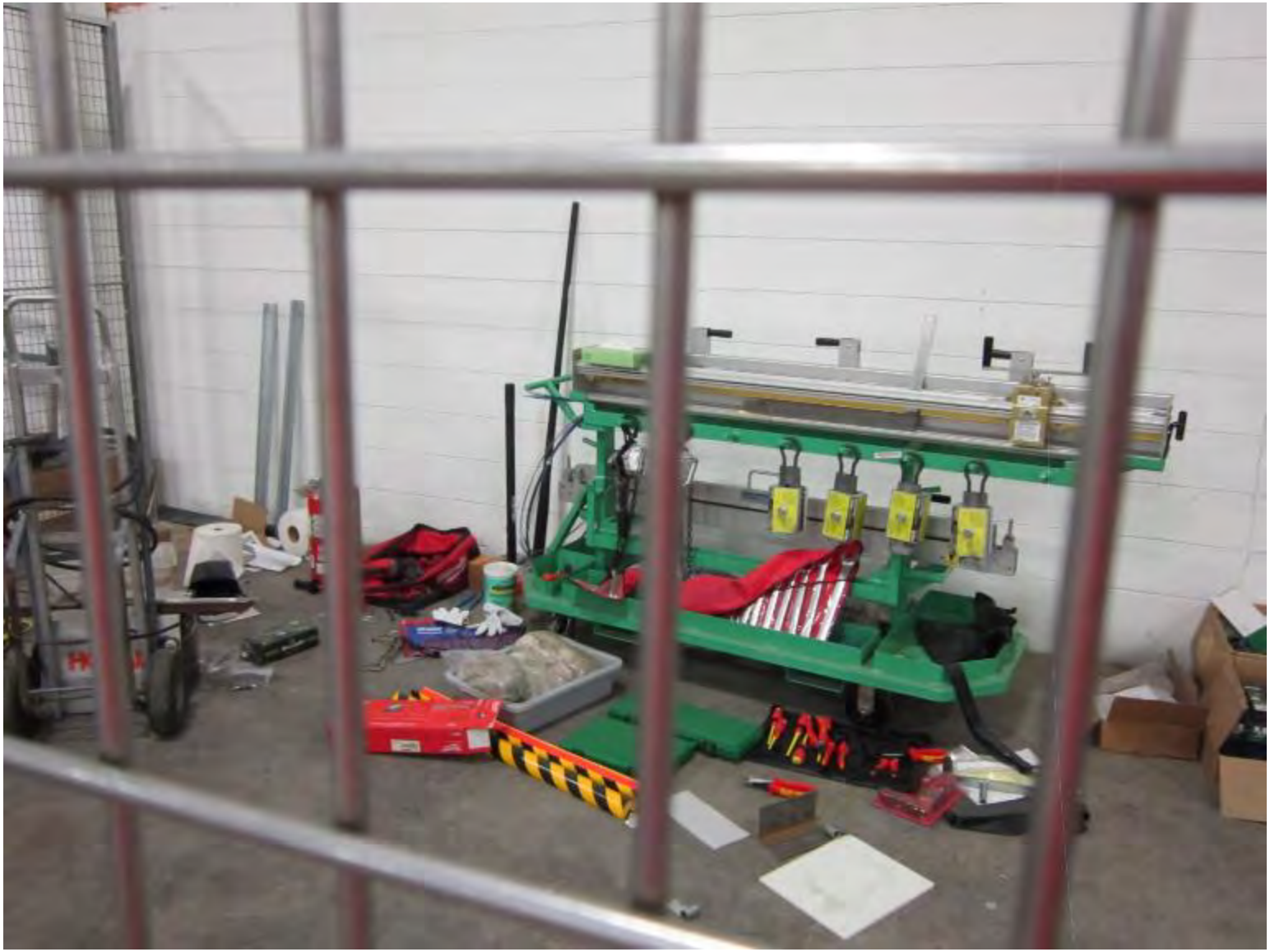
Gaps in Floor_Fisrt floor Building 1_2_2018-2019

Gaps in Floor_Fisrt floor Building 1_3_2018-2019

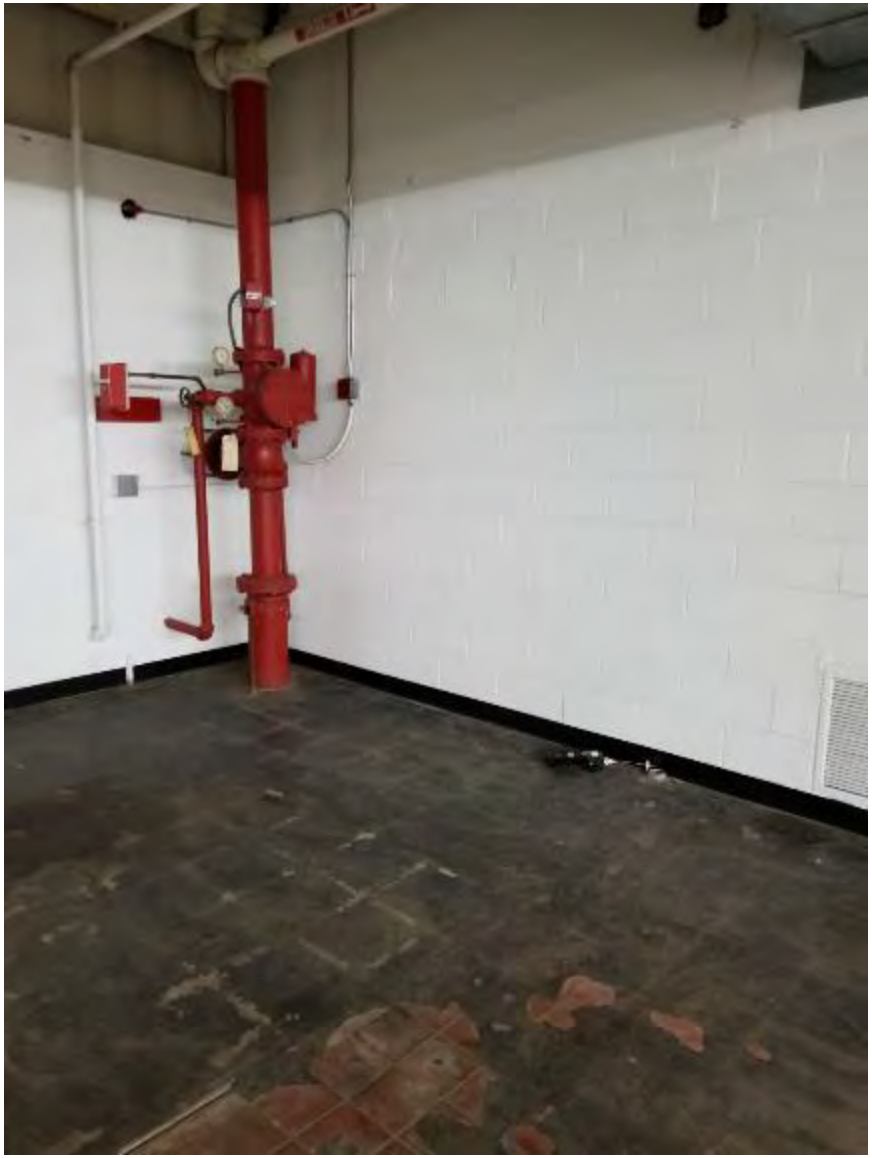
Gaps in Floor_Fisrt floor Building 1_4_2018-2019

Gaps in Floor_Fisrt floor Building 1_5_2018-2019

Gaps in Floor_Fisrt floor Building 1_6_2018-2019



Grease Grabber



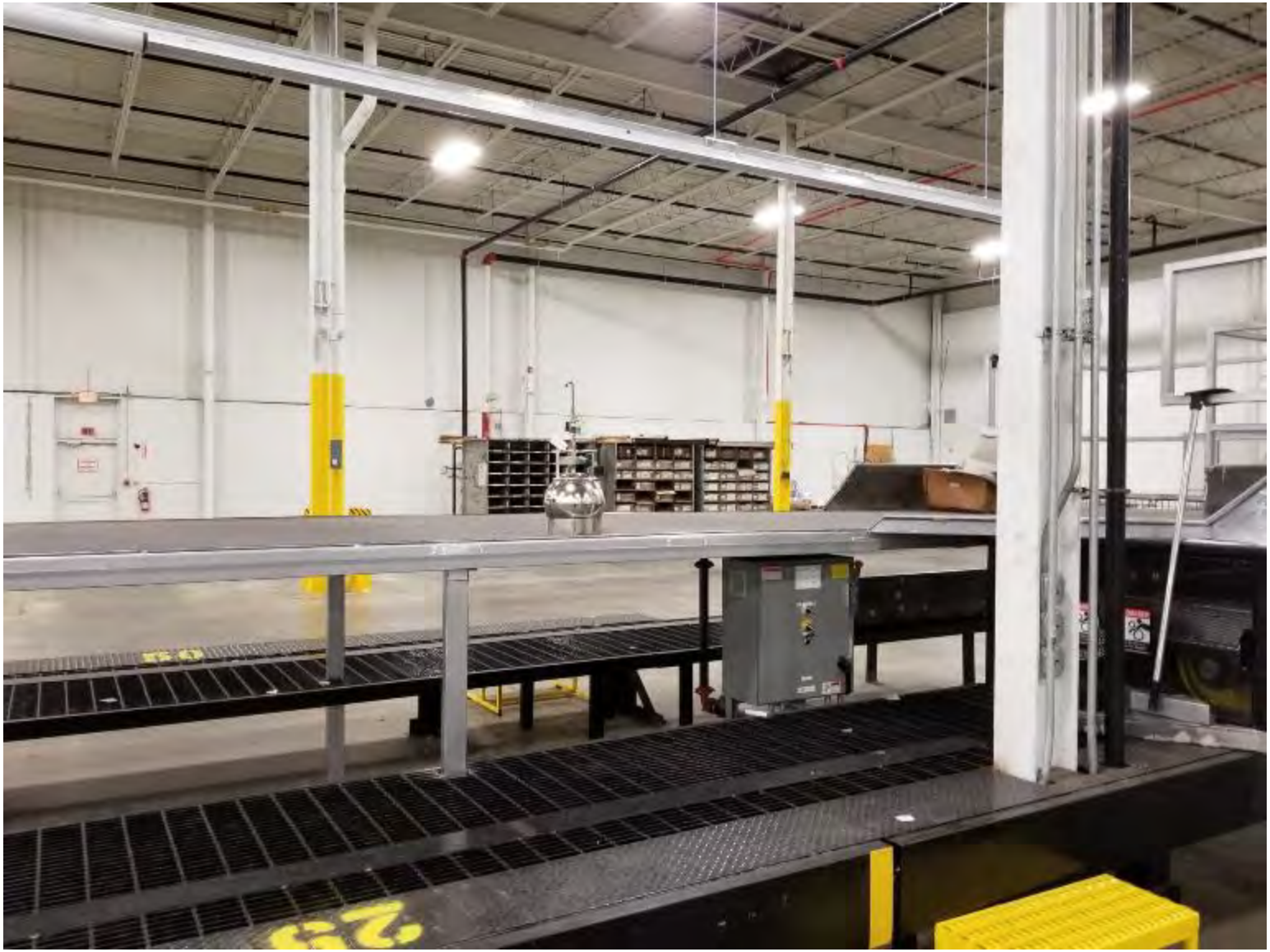
Hole in Floor by IA-8_1_2018-2019

Hole in Floor by IA-8_2_2018-2019

Hole in Floor_SE Corner_1_2018-2019

Hole in Floor_SE Corner_2_2018-2019

Hole in Floor_SE Corner_3_2018-2019



IA-2_2018

IA-3_2018

IA-4_2018

IA-7_2018

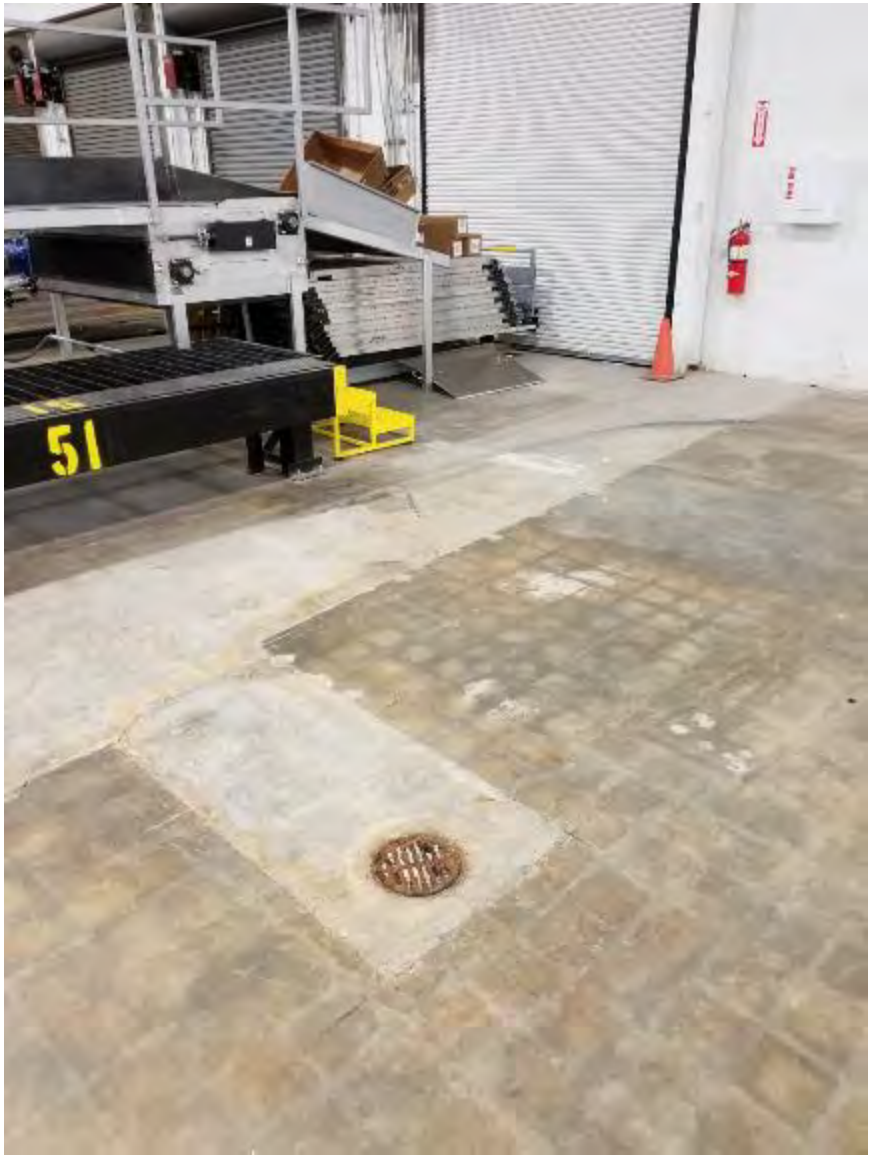
IA-8 with Dup_2018

IA-9_Bldg1_2nd Floor_2019

Mobil 10W-30 Motor Oil

Motor Oil_Antifreeze_1

Motor Oil_Antifreeze_2



old clogged floor drain by loading docks_1_2018-2019

old clogged floor drain by loading docks_2_2018-2019

one of two trench drains at overhead doors_2018-2019

Pallet of Ice Melter

Propane Cylinder_1

Propane Cylinder_3

Renown_Ice Melt Residue Remover_1

Renown_Ice Melt Residue Remover_2

Renown_Ice Melt Residue Remover_3

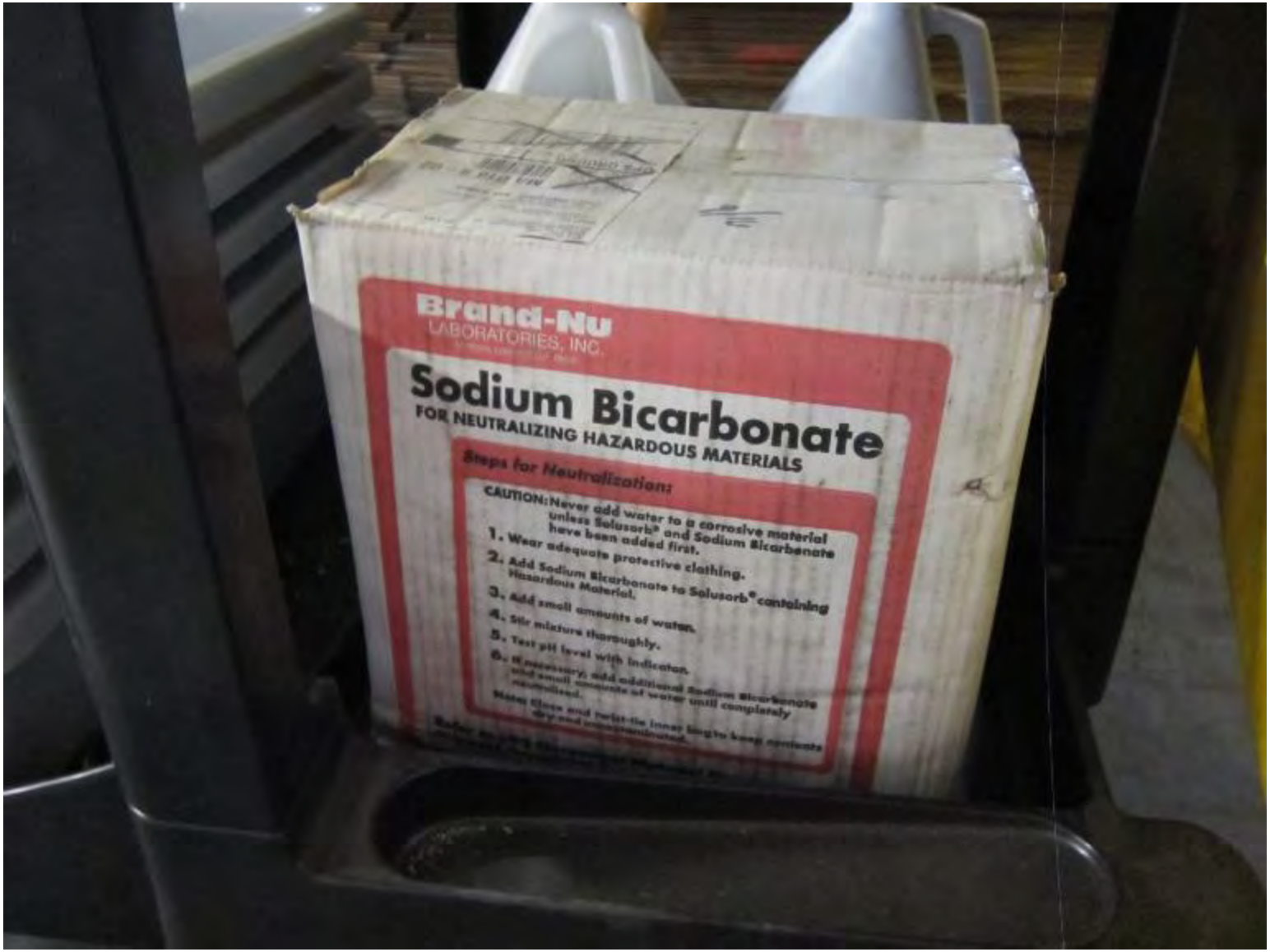
Rotella ELC Antifreeze_1

Rotella ELC Antifreeze_2

SafeTSorb_Oil Absorbent_1

SafeTSorb_Oil Absorbent_2

SafeTSorb_Oil Absorbent_3



Sodium Bicarbonate

SWilliams_SuperPaint_Paint-Primer_1

SWilliams_SuperPaint_Paint-Primer_2

SWilliams_SuperPaint_Paint-Primer_3

UniSource_Glass Cleaner_Back

UniSource_Glass Cleaner_Front

Vinyl Adhesive Caulk_1

Vinyl Adhesive Caulk_2

Vinyl Adhesive Caulk_3

Vinyl Adhesive Caulk_4

Photograph Log
Vapor Intrusion Monitoring

Former GE Facility
50 Fordham Rd Wilmington, MA
Building 1A (CranBarry)

February 13, 2019

by AECOM - Chelmsford

AJAX_Oxygen Bleach Cleaner

Alkaline Degreaser_1

Alkaline Degreaser_2


Great Value
Cleaning
Bleach
KILLS 99.9%
Household Germs*
Mold & Mildew**
NET 1 GAL (128 FL OZ) 3.78 L

Bleach

Boraxo_Hand Soap

Champion_Hydraulic Oil

Charcoal Lighter Fluid

Cleaners_Lysol_409

Clorox Toilet Cleaner_Triazicide Insect Killer

Coastal_Hydraulic Jack Oil

DAP Dynaflex Ultra_Exterior Sealant

Fabuloso_Floor Cleaner

Fire extinguisher

Glass Cleaner_Soap_Floor Cleaner

Ice Salt

Klean Strip_Mineral Spirits

Lysol_All Purpose Cleaner

Palmolive_Dish Soap

Propane torch

Rug Cleaner_PipeShield_Drano

Rustoleum Enamel

Scrubbing Bubbles_Bathroom Cleaner

Sprays_Paint_Sealant_Adhesive

STP_power steering fluid

Ultra Slick_Lubricant

Valvoline_80W-90 Gear oil

WD40 and Graphite Dry Lube

Windex_Glass Cleaner

Windex_MultiSurface Cleaner

Zep_Citrus Degreaser

Photograph Log
Vapor Intrusion Monitoring

Former GE Facility
50 Fordham Rd Wilmington, MA
Building 1A (K1 Speed)

February 13, 2019

by AECOM - Chelmsford

20170713_111807

20170713_111814

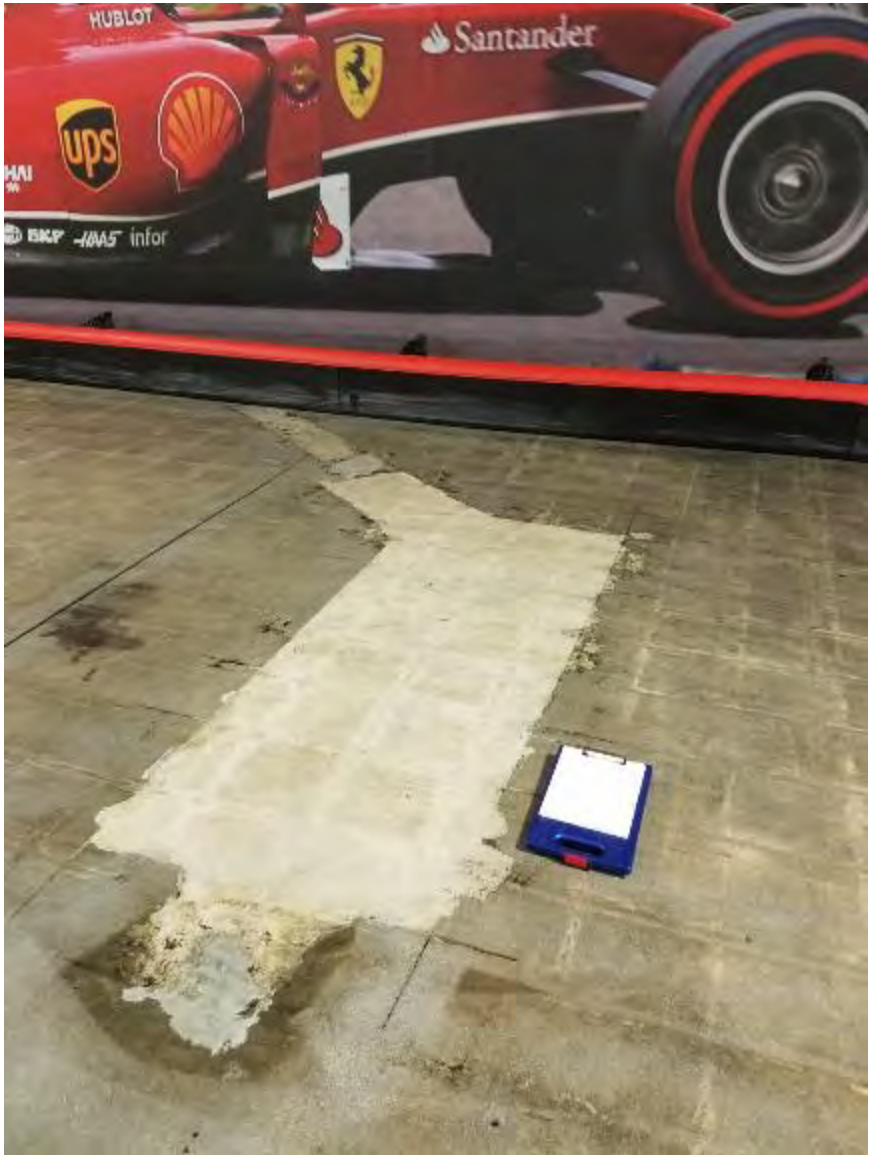
20170713_111916

20170713_112215

20170713_112221

20170713_112757

20170713_112848

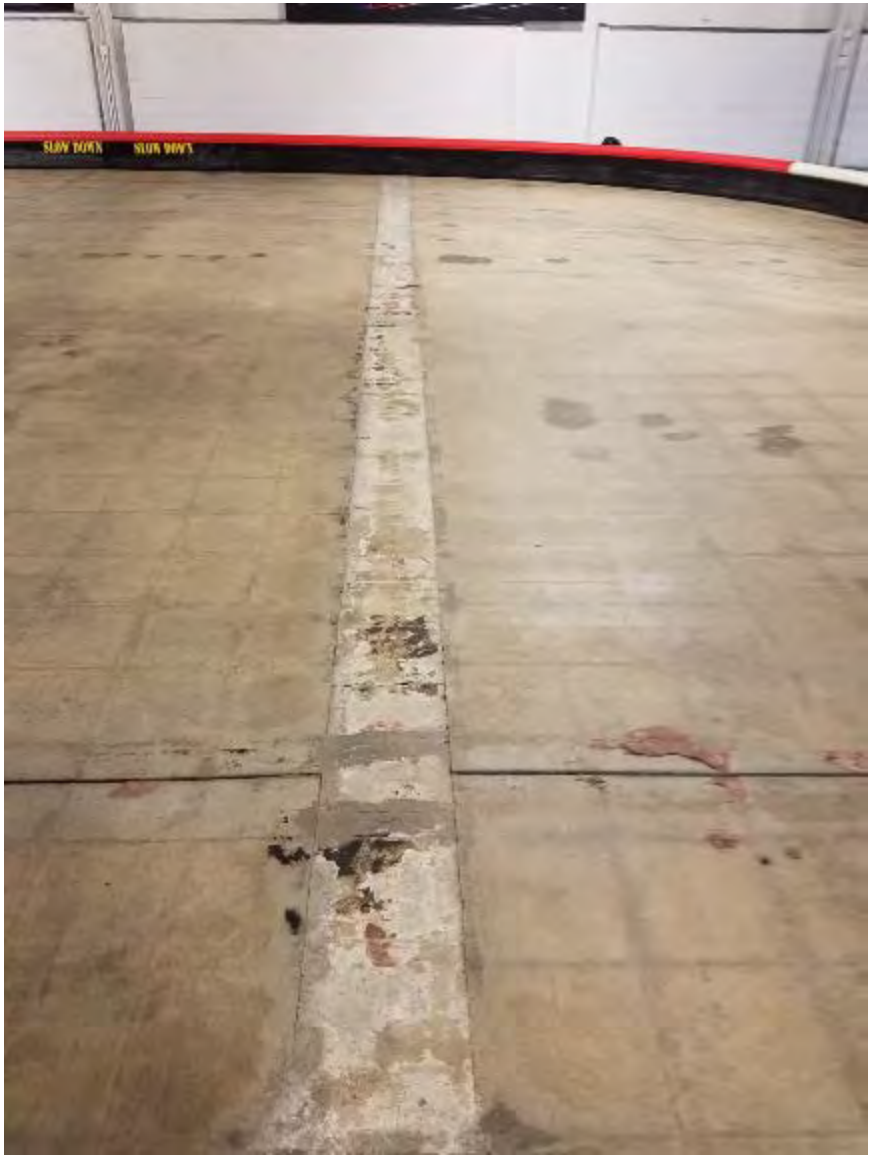


20170713_113718

20170713_113726

20170713_114005

20170713_114011



20170713_114033

20170713_114041

Behr Products_1

Behr Products_2

Behr_Paint-Primer

BJs_CaCl_Ice Melt

Cleaners_Disinfectants

Clorox bleach

Clorox_ultimate care bleach

Denatured Alcohol

Downy_Wrinkle Releaser

enMotion_Foam Soap Moisturizer

enMotion_Foam Soap Moisturizer_2

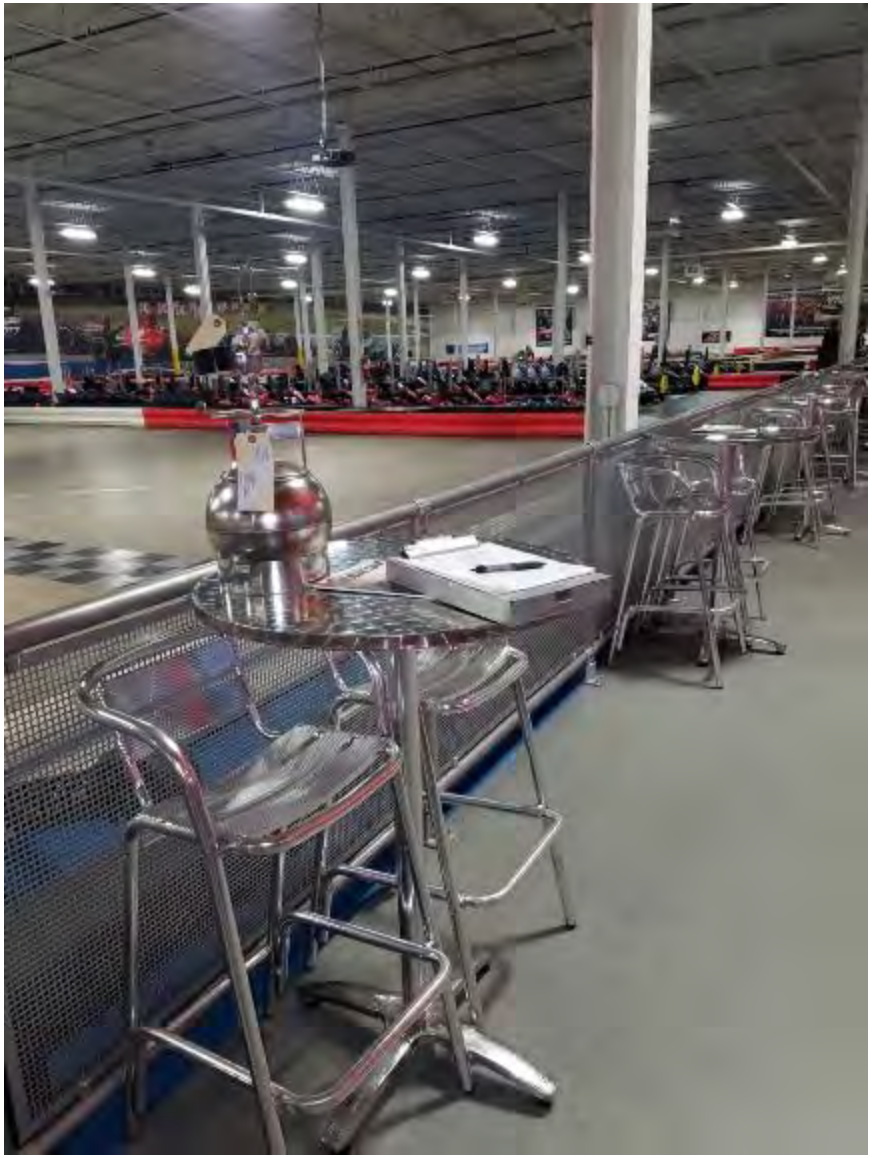
Gloves_Mops_Trash Bags_Etc

Go Cart Batteries

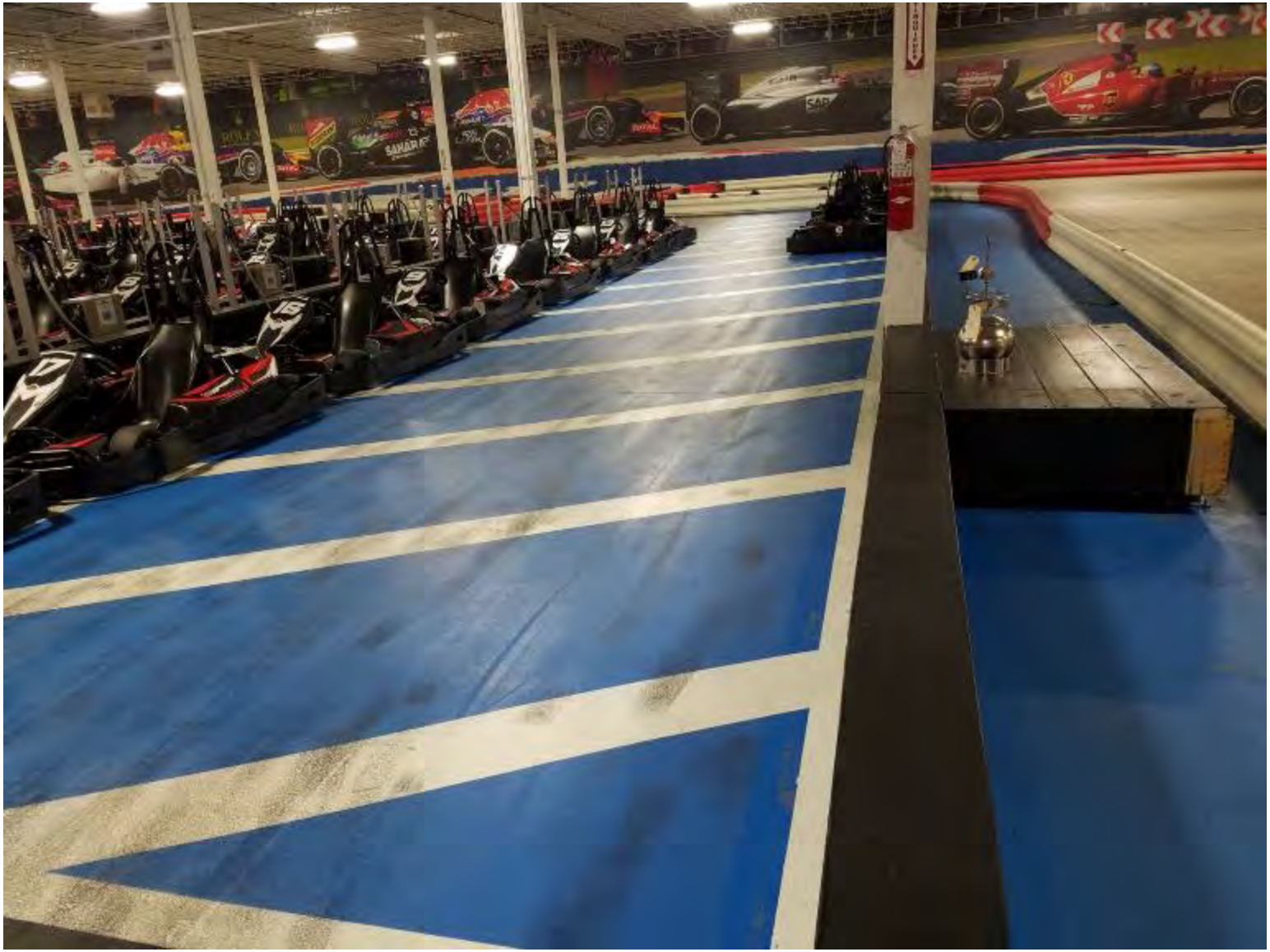
Goo Gone_Adhesive Remover

Goof Off_Stripper

GUNK_Brake Parts Cleaner



IA-12_K1 Track Viewing Area



IA-13_K1 Track

IA-14_K1_Game Room

K1 Speed trophy

K1 Speed trophy_broken Wheel

Krud Kutter_Degreaser

Krud Kutter_Waste Paint Hardener

Lean Strip_Stripper

Liquid Ant Baits

Maxima_Chain Wax_Lube

Misc lubricants

Misc materials left from 2017-2018_1

Misc materials left from 2017-2018_2

Misc Paper Products

Misc Rustoleum_Spray Paints


CONCRETE & GARAGE
FLOOR PAINT
PREMIUM
PAINT & EPOXY
REMOVER
15
30
STRONG
FAST
FRP
PROTECTIVE & MARINE
COATINGS
ARMORSEAL
TREAD-PLEX
DEHR
PREMIUM
PART EPOXY
CONCRETE & GARAGE
FLOOR PAINT
DEGREASER

Misc_1


7578 FLAT BLACK
RUST-OLEUM
PROFESSIONAL
HIGH PERFORMANCE
PROTECTIVE ENAMEL
OIL-BASED
BEHR
PREMIUM
1-PART EPOXY
CONCRETE & GARAGE
FLOOR PAINT
HANDLE W
SEE LABEL
FOR
N ONE

Misc_2

Mongram_Cleaners_Degreasers

Monogram Spray Cleaners_Degreasers

Monogram Stainless Steel Cleaner-Polish-back

Monogram Stainless Steel Cleaner-Polish-front

Monogram_All Purpose Degreaser

Monogram_Cleaner_Sanitizer

Monogram_Glass Cleaner_back

Monogram_Glass Cleaner_front

Monogram_Heavy Duty Degreaser

Monogram_SS Scrubber

Mothers_Detailer

NAPA_Bearing grease

Oil-Dri_Sweeping Compound

Rubber Go Cart Tires

Rustoleum_Glidden

Sika_ProSelect Sealant

Splash_Ice melt

Sterile wipes

Swiffer floor cleaner_back

Swiffer Floor Cleaner_front

Swiffer floor cleaner_QuickDry_wood_back

Swiffer floor cleaner_QuickDry_wood_front


glass
cleaner
CAUTION: MAY IRRITATE EYES. Do not get in eyes. Do not reuse this package for dispensing beverages or other liquids. KEEP OUT OF REACH OF CHILDREN.
FIRST AID TREATMENT:
ATTENTION : PEUT IRRITER LES YEUX. Éviter tout contact avec les yeux.
Ne pas réutiliser ce contenant pour conserver des boissons ou autres liquides.
TENIR HORS DE LA PORTÉE DES ENFANTS. PREMIERS SOINS :

Tide_back


Tide
SIMPLY
CLEAN
&FRESH™
89
LOADS
BRASSÉES
DIRT OUT.
SALETÉ
ÉLIMINÉE.
ODOR OUT.
ODEUR
ÉLIMINÉE.
LOW PRICE.
BAS PRIX.
REFRESHING BREEZE™
4.08 L (1.07 US GAL/GAL. É.-U.) 138 FL OZ LIQ.
glass
cleaner

Tide_front

Titebond_Fast Grab Adhesive

Up&Up glass cleaner

Urinal cakes

Valvoline_DOT3&4 Brake Fluid

Zep_Hardwood-Laminate Floor Refinisher

APPENDIX B
LNAPL MONITORING FIELD RECORDS
JUNE AND SEPTEMBER 2019

AECOM

Former GE Site - Wilmington, MA

Building 3 - EPL LNAPL Gauging Record

Weather: 80s, cloudy Recorder: Dylan Potter Date: 6/5/2019

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	1605	ND	5.58	ND	12.65	NA	NA	
AE-4	1611	ND	5.02	ND	12.23	NA	NA	
CW-1	1635	ND	4.12	ND	8.07	Y	NA	NO LNAPL OR SHEEN
CW-2	1644	ND	3.88	ND	6.46	Y	NA	NO LNAPL OR SHEEN
GZA-102S	1623	ND	5.89	ND	10.95	NA	NA	
PZ-2S	1627	ND	5.54	ND	8.02	NA	NA	
TRC-101	1616	ND	5.40	ND	9.98	NA	NA	

Gauging device (Mnfr./Model No.): Solinst Interface SN 287754

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: NO SMEARING FOUND ON PROBE

NA = Not Applicable

ND = Not Detected

NR = Not Recorded

ft btoc = feet below top of casing

AECOM

Former GE Facility - Wilmington, MA

Building 3 - EPL LNAPL Gauging Record

Date: September 13, 2019

Weather: sunny, 60s

Recorder: Dylan Potter

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	1023	NP	6.19	NP	12.65	NA	NA	No sheen in well; no smear on probe
AE-4	1029	NP	5.71	NP	12.25	NA	NA	No sheen in well; no smear on probe
CW-1	1033	NP	4.74	NP	8.15	NA	NA	No sheen in well; no smear on probe
CW-2	1036	NP	4.51	NP	6.50	Y	NA	No sheen in well; no smear on probe
GZA-102S	1012	NP	6.57	NP	10.92	NA	NA	No sheen in well; no smear on probe
PZ-2S	1041	NP	6.17	NP	8.03	NA	NA	No sheen in well; no smear on probe
TRC-101	1018	NP	5.98	NP	9.99	NA	NA	No sheen in well; no smear on probe

Gauging device (Mnfr./Model No.):

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
INDOOR AIR LABORATORY ANALYTICAL AND DATA VALIDATION REPORTS
FEBRUARY 2019

AECOM
250 Apollo Drive
Chelmsford, Massachusetts 01824

978.905.2100 tel
978.905.2101 fax

Memorandum

To	Scott Olson	Page	1
Subject	Data Validation Summary Lockheed Martin-Wilmington, MA Site Alpha Analytical SDG L1905994		
From	Lori Herberich		
Reviewed by	Paula DiMattei		60552044.12
Date	March 25, 2019		

Data validation was performed on the data for eleven indoor air samples and one ambient air sample collected at the Lockheed Martin site in Wilmington, MA on February 13, 2019. Alpha Analytical in Mansfield, MA analyzed the samples and reported the data in sample delivery group (SDG) L1905994.

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
19A-AA1-1-021319	VOCs by EPA Method TO-15 SIM
19A-IA11-1-021319	
19A-IA12-1-021319	
19A-IA13-1-021319	
19A-IA14-1-021319	
19A-IA2-1-021319	
19A-IA3-1-021319	
19A-IA4-1-021319	
19A-IA7-1-021319	
19A-IA8-1-021319	
19A-IA8-2-021319*	
19A-IA9-1-021319	

*Field duplicate of 19A-IA8-1-021319

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.

Elevated relative percent differences (RPDs) were noted by the laboratory for the pre- and post-flow controller calibration check for samples 19A-IA2-1-021319 (37%) and 19A-IA13-1-021319 (35%). The high RPDs for the flow controller check may indicate that the samples were 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.

The presence of acetone could not be determined in samples 19A-IA2-1, 19A-IA3-1, 19A-IA4-1, 19A-IA7-1, 19A-IA8-1, 19A-IA8-2, and 19A-IA9-1 due to a non-target compound interfering with the identification and quantification of this compound. The nondetect results for acetone were qualified as estimated (UJ).

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:	L1905994
Client:	AECOM 250 Apollo Dr. Chelmsford, MA 01824
ATTN:	Lori Herberich
Phone:	(978) 589-3383
Project Name:	LOCKHEAD MARTIN
Project Number:	60552044.12
Report Date:	03/22/19

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), 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 #P330-17-00150), USFWS (Permit #206964).

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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1905994-01	19A-AA1-1	AIR	WILMINGTON,MA	02/13/19 17:20	02/14/19
L1905994-02	19A-IA2-1	AIR	WILMINGTON,MA	02/13/19 17:15	02/14/19
L1905994-03	19A-IA3-1	AIR	WILMINGTON,MA	02/13/19 17:08	02/14/19
L1905994-04	19A-IA4-1	AIR	WILMINGTON,MA	02/13/19 17:12	02/14/19
L1905994-05	19A-IA7-1	AIR	WILMINGTON,MA	02/13/19 17:20	02/14/19
L1905994-06	19A-IA8-1	AIR	WILMINGTON,MA	02/13/19 17:05	02/14/19
L1905994-07	19A-IA8-2	AIR	WILMINGTON,MA	02/13/19 17:05	02/14/19
L1905994-08	19A-IA9-1	AIR	WILMINGTON,MA	02/13/19 17:25	02/14/19
L1905994-09	19A-IA11-1	AIR	WILMINGTON,MA	02/13/19 16:50	02/14/19
L1905994-10	19A-IA12-1	AIR	WILMINGTON,MA	02/13/19 18:08	02/14/19
L1905994-11	19A-IA13-1	AIR	WILMINGTON,MA	02/13/19 18:12	02/14/19
L1905994-12	19A-IA14-1	AIR	WILMINGTON,MA	02/13/19 18:32	02/14/19
L1905994-13	UNUSED CAN #781	AIR	WILMINGTON,MA		02/14/19

Project Name: LOCKHEAD MARTIN **Lab Number:** L1905994

Project Number: 60552044.12 **Report Date:** 03/22/19

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?	NO
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:	LOCKHEAD MARTIN	**Lab Number:**	L1905994
Project Number:	60552044.12	**Report Date:**	03/22/19

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	LOCKHEAD MARTIN	**Lab Number:**	L1905994
Project Number:	60552044.12	**Report Date:**	03/22/19

Case Narrative (continued)

Report Submission

This report replaces the one previously issued on March 21, 2019. The report has been revised to include the note regarding the CCV.

MCP Related Narratives

Canisters were released from the laboratory on February 11, 2019. 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.

L1905994-02 through -08: The presence of Acetone could not be determined in these samples due to a non-target compound interfering with the identification and quantification of this compound.

In reference to question H:

The WG1210490-2 CCAL recovery for bromoform (138%) is above the upper 130% acceptance limit. All samples associated with this CCAL do not have reportable amounts of this analyte.

The WG1210490-3 LCS recovery for bromoform (138%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

WG1210490-5: The presence of Acetone could not be determined in this sample due to a non-target compound interfering with the identification and quantification of this compound.

L1905994-01 through -12: The full scan Total Ion Chromatograph was scanned for the ions associated with methyl acetate. This compound was not detected in the samples.

Project Name: LOCKHEAD MARTIN **Lab Number:** L1905994
Project Number: 60552044.12 **Report Date:** 03/22/19

Case Narrative (continued)

Surrogate compounds were not spiked into these samples only the method required internal standards.

Sample Receipt

The sample designated 19A-IA2-1 (L1905994-02) had a RPD for the pre- and post-flow controller calibration check (37% 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 6.9 mL/minute. The final pressure recorded by the laboratory of the associated canister was -7.5 inches of mercury. No further action was required.

The sample designated 19A-IA13-1 (L1905994-11) had a RPD for the pre- and post-flow controller calibration check (35% 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 7.0 mL/minute. The final pressure recorded by the laboratory of the associated canister was -2.8 inches of mercury. No further action was required.

L1905994-12: The sample identified as "flow cont #0791" on the chain of custody was identified as "flow cont #0971" on the container label. At the client's request, the sample is reported as "19A-IA14-1".

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: 03/22/19

QC OUTLIER SUMMARY REPORT

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
MCP Volatile Organics in Air by SIM - Mansfield Lab								
TO-15-SIM	Batch QC	WG1210490-3	Bromoform	LCS	138	70-130	01-12	potential high bias

AIR

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-01
Client ID: 19A-AA1-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:20
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 18:10
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.438	0.200	--	2.17	0.989	--		1
Chloromethane	0.505	0.200	--	1.04	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	1.40	1.00	--	3.33	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	0.526	0.500	--	1.83	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.074	0.050	--	0.567	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	0.024	0.020	--	0.097	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.152	0.100	--	0.486	0.319	--		1
Carbon tetrachloride	0.067	0.020	--	0.421	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-01
Client ID: 19A-AA1-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:20
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	0.216	0.050	--	0.814	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	0.022	0.020	--	0.096	0.087	--		1
p/m-Xylene	0.048	0.040	--	0.208	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.020	0.020	--	0.085	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.021	0.020	--	0.091	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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-01
Client ID: 19A-AA1-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:20
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	98		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-02
Client ID: 19A-IA2-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:15
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 18:50
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.481	0.200	--	2.38	0.989	--		1
Chloromethane	0.529	0.200	--	1.09	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		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
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	0.083	0.050	--	0.636	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	0.062	0.020	--	0.251	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.140	0.100	--	0.447	0.319	--		1
Carbon tetrachloride	0.082	0.020	--	0.516	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-02
Client ID: 19A-IA2-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:15
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	0.300	0.050	--	1.13	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.123	0.020	--	0.834	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.064	0.020	--	0.278	0.087	--		1
p/m-Xylene	0.194	0.040	--	0.843	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	0.084	0.020	--	0.365	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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-02
Client ID: 19A-IA2-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:15
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-03
Client ID: 19A-IA3-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:08
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 19:30
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.473	0.200	--	2.34	0.989	--		1
Chloromethane	0.515	0.200	--	1.06	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		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
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	0.080	0.050	--	0.613	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	0.065	0.020	--	0.263	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.134	0.100	--	0.428	0.319	--		1
Carbon tetrachloride	0.079	0.020	--	0.497	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-03
Client ID: 19A-IA3-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:08
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	0.274	0.050	--	1.03	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.115	0.020	--	0.780	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.061	0.020	--	0.265	0.087	--		1
p/m-Xylene	0.175	0.040	--	0.760	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	0.077	0.020	--	0.334	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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-03
Client ID: 19A-IA3-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:08
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-04
Client ID: 19A-IA4-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:12
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 20:50
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.468	0.200	--	2.31	0.989	--		1
Chloromethane	0.506	0.200	--	1.04	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		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
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	0.082	0.050	--	0.628	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	0.076	0.020	--	0.308	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.128	0.100	--	0.409	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-04
Client ID: 19A-IA4-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:12
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	0.272	0.050	--	1.03	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.106	0.020	--	0.719	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.059	0.020	--	0.256	0.087	--		1
p/m-Xylene	0.172	0.040	--	0.747	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	0.076	0.020	--	0.330	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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-04
Client ID: 19A-IA4-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:12
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-05
Client ID: 19A-IA7-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:20
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 21:30
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.483	0.200	--	2.39	0.989	--		1
Chloromethane	0.523	0.200	--	1.08	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		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
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	0.080	0.050	--	0.613	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	0.056	0.020	--	0.227	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.142	0.100	--	0.454	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-05
Client ID: 19A-IA7-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:20
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	0.310	0.050	--	1.17	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.121	0.020	--	0.821	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.066	0.020	--	0.287	0.087	--		1
p/m-Xylene	0.196	0.040	--	0.851	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	0.083	0.020	--	0.361	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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-05
Client ID: 19A-IA7-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:20
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-06
Client ID: 19A-IA8-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:05
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 22:10
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.480	0.200	--	2.37	0.989	--		1
Chloromethane	0.517	0.200	--	1.07	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		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
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	0.738	0.500	--	2.56	1.74	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	0.096	0.050	--	0.736	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	0.059	0.020	--	0.239	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.139	0.100	--	0.444	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-06
Client ID: 19A-IA8-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:05
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	0.020	0.020	--	0.107	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	0.292	0.050	--	1.10	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.294	0.020	--	1.99	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.060	0.020	--	0.261	0.087	--		1
p/m-Xylene	0.183	0.040	--	0.795	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	0.079	0.020	--	0.343	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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-06
Client ID: 19A-IA8-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:05
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	93		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-07
Client ID: 19A-IA8-2
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:05
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 22:50
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.490	0.200	--	2.42	0.989	--		1
Chloromethane	0.527	0.200	--	1.09	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		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
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	0.097	0.050	--	0.743	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	0.057	0.020	--	0.231	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.141	0.100	--	0.450	0.319	--		1
Carbon tetrachloride	0.079	0.020	--	0.497	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-07
Client ID: 19A-IA8-2
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:05
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	0.021	0.020	--	0.113	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	0.321	0.050	--	1.21	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.311	0.020	--	2.11	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.062	0.020	--	0.269	0.087	--		1
p/m-Xylene	0.184	0.040	--	0.799	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	0.081	0.020	--	0.352	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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-07
Client ID: 19A-IA8-2
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:05
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-08
Client ID: 19A-IA9-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:25
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 23:30
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.475	0.200	--	2.35	0.989	--		1
Chloromethane	0.529	0.200	--	1.09	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		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
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Carbon disulfide	0.262	0.200	--	0.816	0.623	--		1
Freon-113	0.085	0.050	--	0.651	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	0.050	0.020	--	0.202	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.138	0.100	--	0.441	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-08
Client ID: 19A-IA9-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:25
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	0.231	0.050	--	0.871	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.161	0.020	--	1.09	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.045	0.020	--	0.195	0.087	--		1
p/m-Xylene	0.125	0.040	--	0.543	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.032	0.020	--	0.136	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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-08
Client ID: 19A-IA9-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 17:25
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-09
Client ID: 19A-IA11-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 16:50
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/27/19 00:10
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.478	0.200	--	2.36	0.989	--		1
Chloromethane	0.527	0.200	--	1.09	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	3.80	1.00	--	9.03	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	0.074	0.050	--	0.567	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	1.05	0.500	--	3.10	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	0.076	0.020	--	0.308	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.426	0.100	--	1.36	0.319	--		1
Carbon tetrachloride	0.077	0.020	--	0.484	0.126	--		1
1,2-Dichloropropane	0.032	0.020	--	0.148	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-09
Client ID: 19A-IA11-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 16:50
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	0.024	0.020	--	0.129	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	4.16	0.050	--	15.7	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.142	0.020	--	0.963	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	1.43	0.020	--	6.21	0.087	--		1
p/m-Xylene	3.72	0.040	--	16.2	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.107	0.020	--	0.456	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	1.89	0.020	--	8.21	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	0.238	0.050	--	1.25	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-09
Client ID: 19A-IA11-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 16:50
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-10
Client ID: 19A-IA12-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:08
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/27/19 00:50
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.449	0.200	--	2.22	0.989	--		1
Chloromethane	0.517	0.200	--	1.07	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	7.44	1.00	--	17.7	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	0.077	0.050	--	0.590	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	0.095	0.020	--	0.385	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.312	0.100	--	0.997	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-10
Client ID: 19A-IA12-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:08
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	2.17	0.050	--	8.18	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	0.449	0.020	--	1.95	0.087	--		1
p/m-Xylene	1.54	0.040	--	6.69	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.056	0.020	--	0.238	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.651	0.020	--	2.83	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	0.113	0.050	--	0.592	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-10
Client ID: 19A-IA12-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:08
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	91		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-11
Client ID: 19A-IA13-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:12
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/27/19 01:30
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.453	0.200	--	2.24	0.989	--		1
Chloromethane	0.513	0.200	--	1.06	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	7.50	1.00	--	17.8	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	0.077	0.050	--	0.590	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	0.095	0.020	--	0.385	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.309	0.100	--	0.987	0.319	--		1
Carbon tetrachloride	0.071	0.020	--	0.447	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-11
Client ID: 19A-IA13-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:12
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	2.07	0.050	--	7.80	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.066	0.020	--	0.448	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.431	0.020	--	1.87	0.087	--		1
p/m-Xylene	1.45	0.040	--	6.30	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.052	0.020	--	0.221	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.622	0.020	--	2.70	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	0.107	0.050	--	0.561	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-11
Client ID: 19A-IA13-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:12
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-12
Client ID: 19A-IA14-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:32
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 101,TO-15-SIM
Analytical Date: 02/27/19 02:10
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.471	0.200	--	2.33	0.989	--		1
Chloromethane	0.529	0.200	--	1.09	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	8.17	1.00	--	19.4	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	0.077	0.050	--	0.590	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	0.150	0.020	--	0.607	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	0.066	0.020	--	0.415	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

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-12
Client ID: 19A-IA14-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:32
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
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	1.80	0.050	--	6.78	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.055	0.020	--	0.373	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.378	0.020	--	1.64	0.087	--		1
p/m-Xylene	1.36	0.040	--	5.91	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.078	0.020	--	0.332	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.579	0.020	--	2.51	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	0.096	0.050	--	0.503	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

SAMPLE RESULTS

Lab ID: L1905994-12
Client ID: 19A-IA14-1
Sample Location: WILMINGTON,MA

Date Collected: 02/13/19 18:32
Date Received: 02/14/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	91		60-140

Project Name: LOCKHEAD MARTIN **Lab Number:** L1905994

Project Number: 60552044.12 **Report Date:** 03/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 16:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-12 Batch: WG1210490-4								
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	0.100	--	ND	0.264	--		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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15-SIM
Analytical Date: 02/26/19 16:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-12 Batch: WG1210490-4								
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

Lab Control Sample Analysis
Batch Quality Control

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

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): 01-12 Batch: WG1210490-3								
Dichlorodifluoromethane	88		-		70-130	-		
Chloromethane	93		-		70-130	-		
Vinyl chloride	108		-		70-130	-		
Bromomethane	107		-		70-130	-		
Chloroethane	120		-		70-130	-		
Acetone	83		-		50-150	-		
1,1-Dichloroethene	108		-		70-130	-		
Methylene chloride	95		-		70-130	-		
Carbon disulfide	100		-		70-130	-		
Freon-113	108		-		70-130	-		
trans-1,2-Dichloroethene	118		-		70-130	-		
1,1-Dichloroethane	119		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		
2-Butanone	116		-		70-130	-		
cis-1,2-Dichloroethene	125		-		70-130	-		
Chloroform	101		-		70-130	-		
1,2-Dichloroethane	93		-		70-130	-		
1,1,1-Trichloroethane	88		-		70-130	-		
Benzene	87		-		70-130	-		
Carbon tetrachloride	93		-		70-130	-		
1,2-Dichloropropane	113		-		70-130	-		
Bromodichloromethane	97		-		70-130	-		
1,4-Dioxane	117		-		50-150	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

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): 01-12 Batch: WG1210490-3								
Trichloroethene	102		-		70-130	-		
cis-1,3-Dichloropropene	79		-		70-130	-		
4-Methyl-2-pentanone	100		-		70-130	-		
trans-1,3-Dichloropropene	94		-		70-130	-		
1,1,2-Trichloroethane	107		-		70-130	-		
Toluene	110		-		70-130	-		
Dibromochloromethane	126		-		70-130	-		
1,2-Dibromoethane	100		-		70-130	-		
Tetrachloroethene	103		-		70-130	-		
Chlorobenzene	101		-		70-130	-		
Ethylbenzene	111		-		70-130	-		
p/m-Xylene	109		-		70-130	-		
Bromoform	**138**	Q	-		70-130	-		
Styrene	98		-		70-130	-		
1,1,2,2-Tetrachloroethane	125		-		70-130	-		
o-Xylene	110		-		70-130	-		
1,3-Dichlorobenzene	110		-		70-130	-		
1,4-Dichlorobenzene	106		-		70-130	-		
1,2-Dichlorobenzene	112		-		70-130	-		
1,2,4-Trichlorobenzene	118		-		50-150	-		
Naphthalene	110		-		50-150	-		
Hexachlorobutadiene	122		-		50-150	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1210490-5 QC Sample: L1905994-03 Client ID: 19A-IA3-1						
Dichlorodifluoromethane	0.473	0.473	ppbV	0		25
Chloromethane	0.515	0.512	ppbV	1		25
Vinyl chloride	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Acetone	ND	ND	ppbV	NC		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	0.080	0.081	ppbV	1		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	ND	ND	ppbV	NC		25
1,2-Dichloroethane	0.065	0.062	ppbV	5		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	0.134	0.135	ppbV	1		25
Carbon tetrachloride	0.079	0.078	ppbV	1		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1210490-5 QC Sample: L1905994-03 Client ID: 19A-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	0.274	0.277	ppbV	1		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	0.115	0.116	ppbV	1		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	0.061	0.059	ppbV	3		25
p/m-Xylene	0.175	0.181	ppbV	3		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	0.077	0.079	ppbV	3		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: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1210490-5 QC Sample: L1905994-03 Client ID: 19A-IA3-1						
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Naphthalene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: LOCKHEAD MARTIN

Lab Number: L1905994

Project Number: 60552044.12

Report Date: 03/22/19

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
L1905994-01	19A-AA1-1	0718	Flow 4	02/11/19	284460		-	-	-	Pass	10.0	10.5	5
L1905994-01	19A-AA1-1	933	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.5	-5.7	-	-	-	-
L1905994-02	19A-IA2-1	0909	Flow 4	02/11/19	284460		-	-	-	Pass	10.0	6.9	37
L1905994-02	19A-IA2-1	1589	6.0L Can	02/11/19	284460	L1904744-03	Pass	-29.5	-7.5	-	-	-	-
L1905994-03	19A-IA3-1	0385	Flow 5	02/11/19	284460		-	-	-	Pass	10.0	10.1	1
L1905994-03	19A-IA3-1	1607	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.6	-5.0	-	-	-	-
L1905994-04	19A-IA4-1	0018	Flow 4	02/11/19	284460		-	-	-	Pass	10.0	10.0	0
L1905994-04	19A-IA4-1	1515	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.6	-5.0	-	-	-	-
L1905994-05	19A-IA7-1	01217	Flow 5	02/11/19	284460		-	-	-	Pass	10.0	9.0	11
L1905994-05	19A-IA7-1	2524	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.6	-6.3	-	-	-	-
L1905994-06	19A-IA8-1	01035	Flow 4	02/11/19	284460		-	-	-	Pass	10.0	10.3	3
L1905994-06	19A-IA8-1	1850	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.6	-4.3	-	-	-	-
L1905994-07	19A-IA8-2	0681	Flow 3	02/11/19	284460		-	-	-	Pass	10.0	9.9	1
L1905994-07	19A-IA8-2	738	6.0L Can	02/11/19	284460	L1904744-03	Pass	-29.5	-6.3	-	-	-	-
L1905994-08	19A-IA9-1	01213	Flow 5	02/11/19	284460		-	-	-	Pass	10.0	9.2	8

Project Name: LOCKHEAD MARTIN

Lab Number: L1905994

Project Number: 60552044.12

Report Date: 03/22/19

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
L1905994-08	19A-IA9-1	2703	6.0L Can	02/11/19	284460	L1904744-03	Pass	-29.4	-7.1	-	-	-	-
L1905994-09	19A-IA11-1	0245	Flow 5	02/11/19	284460		-	-	-	Pass	10.0	9.3	7
L1905994-09	19A-IA11-1	631	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.6	-8.4	-	-	-	-
L1905994-10	19A-IA12-1	0410	Flow 4	02/11/19	284460		-	-	-	Pass	10.0	10.6	6
L1905994-10	19A-IA12-1	923	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.5	-7.0	-	-	-	-
L1905994-11	19A-IA13-1	0773	Flow 4	02/11/19	284460		-	-	-	Pass	10.0	7.0	35
L1905994-11	19A-IA13-1	974	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.6	-2.8	-	-	-	-
L1905994-12	19A-IA14-1	0971	Flow 3	02/11/19	284460		-	-	-	Pass	10.0	10.9	9
L1905994-12	19A-IA14-1	756	6.0L Can	02/11/19	284460	L1904744-02	Pass	-29.5	-9.1	-	-	-	-
L1905994-13	UNUSED CAN #781	0715	Flow 5	02/11/19	284460		-	-	-	Pass	10.0	10.0	0
L1905994-13	UNUSED CAN #781	781	6.0L Can	02/11/19	284460	L1904744-03	Pass	-29.0	-29.0	-	-	-	-

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-02
Client ID: CAN 1798 SHELF 45
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/06/19 20:40
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-02
Client ID: CAN 1798 SHELF 45
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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
Xylenes, total	ND	0.600	--	ND	0.869	--		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
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-02
Client ID: CAN 1798 SHELF 45
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-02
Client ID: CAN 1798 SHELF 45
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-02
Client ID: CAN 1798 SHELF 45
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		60-140
Bromochloromethane	81		60-140
chlorobenzene-d5	79		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1904744

Project Number: CANISTER QC BAT **Report Date:** 03/22/19

Air Canister Certification Results

Lab ID: L1904744-02
Client ID: CAN 1798 SHELF 45
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/06/19 20:40
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-02
Client ID: CAN 1798 SHELF 45
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
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
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
1,1,2,2-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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-02
Client ID: CAN 1798 SHELF 45
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
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	78		60-140
bromochloromethane	80		60-140
chlorobenzene-d5	79		60-140

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-03
Client ID: CAN 971 SHELF 50
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/06/19 21:19
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-03
Client ID: CAN 971 SHELF 50
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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
Xylenes, total	ND	0.600	--	ND	0.869	--		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
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-03
Client ID: CAN 971 SHELF 50
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-03
Client ID: CAN 971 SHELF 50
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-03
Client ID: CAN 971 SHELF 50
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	84		60-140

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-03
Client ID: CAN 971 SHELF 50
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/06/19 21:19
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-03
Client ID: CAN 971 SHELF 50
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
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
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
1,1,2,2-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

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

Lab Number: L1904744
Report Date: 03/22/19

Air Canister Certification Results

Lab ID: L1904744-03
Client ID: CAN 971 SHELF 50
Sample Location:

Date Collected: 02/06/19 09:30
Date Received: 02/06/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
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	83		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	84		60-140

Project Name: LOCKHEAD MARTIN
Project Number: 60552044.12

Lab Number: L1905994
Report Date: 03/22/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1905994-01A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-02A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-03A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-04A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-05A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-06A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-07A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-08A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-09A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-10A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-11A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-12A	Canister - 6 Liter	N/A	NA			Y	Absent		MCP-TO15-SIM(30)
L1905994-13A	Canister - 6 Liter	N/A	NA			Y	Absent		CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	LOCKHEAD MARTIN	**Lab Number:**	L1905994
Project Number:	60552044.12	**Report Date:**	03/22/19

GLOSSARY

Acronyms

DL	- 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
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.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
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.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
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

Project Name:	LOCKHEAD MARTIN	**Lab Number:**	L1905994
Project Number:	60552044.12	**Report Date:**	03/22/19

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.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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 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.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

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.

Project Name: LOCKHEAD MARTIN **Lab Number:** L1905994
Project Number: 60552044.12 **Report Date:** 03/22/19

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.

Certification Information

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

Westborough Facility
EPA 624/624.1: 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 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; 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, SM4500Cl-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**, 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 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, 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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, 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 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 2/14/19

ALPHA Job #: L1905994

Client Information

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

☒ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lockheed Martin
Project Location: Wilmington, MA
Project #: 60552044.12
Project Manager: Scott Olson
ALPHA Quote #: 2017-2022

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
10-15PAY
Date Due: Time:

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) Lori Herberich & Scott Olson

Billing Information

☐ Same as Client info PO #: AECOM PO# 110394

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
Mass	DEP CAM	

Other Project Specific Requirements/Comments: TO-15 SIM-RLs MUST Meet Thresholds in AECOM PROJECT QAPP (2017)

Project-Specific Target Compound List: ☐ Call Lori Herberich with Questions 978-302-2174

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM+Freon113	APH Subject to non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
05994.01	19A-AA1-1	2/13/19	1001	1720	-30.98	-5.78	AA	FWB	6L	933	0718		X						
.02	19A-IA2-1	2/13/19	0913	1715	-29.77	-8.12		FWB		1589	0909		X						
.03	19A-IA3-1	2/13/19	0910	1708	-29.72	-5.70		FWB		1607	0385		X						
.04	19A-IA4-1	2/13/19	0907	1712	-29.43	-5.70		FWB		1515	0018		X						
.05	19A-IA7-1	2/13/19	0917	1720	-29.80	-6.90		FWB		2524	0217		X						
.06	19A-IA8-1	2/13/19	0915	1705	-29.17	-6.51		FWB		1850	01035		X						
.07	19A-IA8-2	2/13/19	0915	1705	-29.63	-5.05		FWB		738	0681		X						
.08	19A-IA9-1	2/13/19	0924	1725	-29.86	-7.44		FWB		2703	01213		X						
.09	19A-IA11-1	2/13/19	0934	1650	-29.84	-8.61		FWB		631	0245		X						
.10	19A-IA12-1	2/13/19	1039	1808	-30.88	-5.98	AA	FWB	6L	923	0410		X						
											Container Type		6L						

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

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	2/13/19	[signature] AAC	2/14 1100
[signature] AAC	2/14 1510	[signature]	2/14/19 1510

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.

Form No: 101-02 Rev: (25-Sep-15)

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 2/14/19

ALPHA Job #: L1905994

Client Information

Client: AECOM
Address: 250 APOLLO DRIVE
Chelmsford MA 01824
Phone: 978-905-2100
Fax: 978-905-2101
Email: lori.herberich@aecom.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Lockheed Martin
Project Location: Wilmington MA
Project #: 60552044.12
Project Manager: Scott Olson
ALPHA Quote #: 2017-2022

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
10-15 DAY
Date Due: Time:

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)
Lori Herberich & Scott Olson

Billing Information

☐ Same as Client info PO #:
AECOM PO # 110394

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
Mass	DEP CAM	

Other Project Specific Requirements/Comments: TO-15 SIM - RLs MUST Meet Thresholds in AECOM PROJECT QAPP (2017)

Project-Specific Target Compound List: ☐ Call Lori Herberich with Questions 978-302-2174

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM + Freons	APH Subject Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
05994.11	~~IA~~ 90																
.11	19A-IA13-1	2/13/19	1036	~~27.82~~ 1812 FnB	-29.82	-5.93	AA	FnB	6L	974	0773		X				
.12	19A-IA14-1	2/13/19	1031	1832	-29.71	-8.68	AA	FnB	6L	756	0791		X				

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	2/13/19	[signature] AAL	2/14 1100
[signature] AAL	2/14 1510	[signature]	2/14/19 1570

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.

Form No: 101-02 Rev: (25-Sep-15)

APPENDIX D
PUBLIC NOTIFICATION DOCUMENTATION

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

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

☐ residential ☑ commerical ☑ 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 and 1A in early February 2019. 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 – 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., indoor air, ambient air, soil, groundwater) to the extent known at the time of this notice.

The following activities will be conducted onsite:

- AECOM will conduct a pre-sampling site visit on **Wednesday February 6, 2019**, one week in advance of the intended sampling date of **Wednesday February 13, 2019**. This will involve a brief inspection of the areas to be sampled and, ideally, brief conversations with tenant representatives familiar with the operations.

- Indoor air sampling will be conducted at:

    - Six (6) locations within Building 1, with 5 locations on the main level and 1 sample upstairs. Same locations as sampled since 2009.

    - One (1) location within CranBarry, likely in the warehouse area. Same location as sampled in 2017.

    - Three (3) locations within K1 Speed, two in the race track area and one within the game room. Same locations as sampled in 2017.

    - One (1) ambient air sample will be collected outside of Building 1 / 1A.

    - These samples will be collected over an 8-hour duration during normal business day-time hours, between approximately 8:00 am and 4:00 or 5:00 pm (can be adjusted as needed around tenant hours of operation). This work is scheduled for **Wednesday February 13, 2019**, but could be rescheduled pending results of the pre-sampling site visit to verify that current conditions are suitable for sampling per the MassDEP guidance.

- 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 for occupied spaces, or ~40-50F for unoccupied spaces.

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.

AECOM
250 Apollo Drive
Chelmsford, MA 01824

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

April 19, 2019

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

Subject: Building 1-1A Facility – 2019 Indoor Air Sampling
50 Fordham Road, Wilmington, MA

Dear Mr. Stanieich,

On February 13, 2019, AECOM, under contract to Lockheed Martin Corporation (LMC), collected annual indoor air samples from locations within Building 1 (UPS) and 1A (CranBarry and K1 Speed) at the above-referenced Fordham Road property. All of the indoor air sampling results within Building 1 and 1A were similar to those previously observed. One compound, 1,2-dichloroethane in one sample within Building 1A, was detected 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, 1,2-dichloroethane was detected in outdoor ambient air. This compound was detected in all indoor air samples collected but was only above the MA C/I Threshold Criteria in one sample from the K1 Speed game room. 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 obtained at the site have contained this compound. The presence of this compound in indoor air is more likely attributable to indoor sources 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 (**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 978-905-2351 or scott.olson@aecom.com.

Yours sincerely,

Scott Olson
Project Manager

cc: Paul Calligan, Lockheed Martin Corp.