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Transmitted via Overnight Courier

February 27, 2013

Mr. Richard Fisher (OSRR07-1)
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5 Post Office Square – Suite 100
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**Re: GE-Pittsfield/Housatonic River Site
Groundwater Management Area 3 (GEC330)
Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012**

Dear Mr. Fisher:

Enclosed is a report entitled *Groundwater Management Area 3 Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012* (Fall 2012 GMA 3 Report). This report summarizes activities performed at Groundwater Management Area (GMA) 3 (also known as the Plant Site 2 GMA) between July and December 2012, including the results of the fall 2012 round of sampling and analysis of groundwater for GMA 3 and the results of GE's non-aqueous phase liquid (NAPL) monitoring and recovery program in this area. In addition, this report summarizes the results of building inspections and subsurface soil gas and indoor air monitoring conducted beneath and within Buildings 51 and 59 in October 2012 and January 2013.

Please contact me if you have any questions or comments.

Sincerely,

Richard W. Gates
Remediation Project Manager

Enclosure

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**General Electric Company
Pittsfield, Massachusetts**

**Groundwater Management Area 3
Groundwater Quality and NAPL
Monitoring Interim Report
for Fall 2012**

February 2013



**Groundwater Management
Area 3 – Groundwater Quality
and NAPL Monitoring Interim
Report for Fall 2012**

General Electric Company
Pittsfield, Massachusetts

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1. Introduction

1.1 General

On October 27, 2000, a Consent Decree (CD) executed in 1999 by the General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and several other government agencies was entered by the United States District Court for the District of Massachusetts. The CD governs (among other things) the performance of response actions to address polychlorinated biphenyls (PCBs) and other hazardous constituents in soils, sediment, and groundwater in several Removal Action Areas (RAAs) located in or near Pittsfield, Massachusetts that collectively comprise the GE-Pittsfield/Housatonic River Site (the Site). For groundwater and non-aqueous-phase liquid (NAPL), the areas at and near the GE Pittsfield facility have been divided into five Groundwater Management Areas (GMAs), which are illustrated on Figure 1. These GMAs are described, together with the Performance Standards established for the response actions at and related to them in Section 2.7 of the *Statement of Work for Removal Actions Outside the River* (SOW) (Appendix E to the CD), with further details presented in Attachment H to the SOW (Groundwater/NAPL Monitoring, Assessment, and Response Programs). This report relates to the Plant Site 2 GMA, also known and referred to herein as GMA 3.

On April 24, 2001, GE submitted a *Baseline Monitoring Program Proposal for Plant Site 2 Groundwater Management Area* (GMA 3 Baseline Monitoring Proposal). The GMA 3 Baseline Monitoring Proposal summarized the hydrogeologic information available at that time for GMA 3 and proposed groundwater and NAPL monitoring activities (incorporating as appropriate those activities that were in place at that time) for the baseline monitoring period at this GMA. EPA provided conditional approval of the GMA 3 Baseline Monitoring Proposal by letter of November 21, 2001. Thereafter, certain modifications were made to the GMA 3 baseline monitoring program as a result of EPA approval conditions and/or findings during field reconnaissance of the selected monitoring locations and, subsequently, during implementation of the baseline monitoring program.

Following performance of a limited baseline sampling event in spring 2002, the remainder of the 2002 and 2003 sampling rounds were deferred (with EPA approval) because certain property access issues could not be resolved prior to the scheduled performance of those sampling events. However, GE continued to perform NAPL and groundwater elevation monitoring on an interim basis at all locations for which access was available and collected groundwater samples from one well (78B-R) on a semi-annual basis for analysis of volatile organic compounds (VOCs) and, until fall 2003, PCBs.



The property access issues were resolved in February 2004, and, beginning with the spring 2004 sampling event, GE commenced the full baseline groundwater quality sampling program at GMA 3. The baseline monitoring program consisted of four semi-annual groundwater quality sampling events (with annual sampling conducted at select wells), quarterly groundwater elevation monitoring, and NAPL monitoring and recovery activities, followed by preparation and submittal of semi-annual reports summarizing the groundwater/NAPL monitoring results and, as appropriate, proposing modifications to the monitoring program. The full monitoring program included sampling and analysis of PCBs, certain non-PCB constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents -- benzidine, 2-chloroethylvinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3) -- and/or certain constituents (i.e., natural attenuation parameters) to assess intrinsic and natural processes that may be influencing VOC concentrations in groundwater.

The fourth baseline monitoring report for GMA 3, titled *Groundwater Management Area 3 Baseline Groundwater Quality and NAPL Monitoring Interim Report for Fall 2005* (Fall 2005 GMA 3 Monitoring Report), was submitted to EPA on February 26, 2006. Section 6.1.3 of Attachment H to the SOW provides that if the two-year baseline period ends prior to the completion of soil-related response actions at all the RAAs within a GMA, GE may make a proposal to EPA to modify and/or extend the Baseline Monitoring Program based on the results of the initial assessment and the estimated timing of future response actions at the RAAs in the GMA. The approved GMA 3 Baseline Monitoring Proposal also allows GE to propose a modification and/or extension of the baseline monitoring program based on the results of the initial assessment and the estimated timing of future response actions.

Therefore, as the soil-related Removal Actions at the Unkamet Brook Area RAA within GMA 3 were not yet complete, the Fall 2005 GMA 3 Monitoring Report contained such a proposal to modify and extend baseline groundwater quality monitoring activities at GMA 3 (under a program referred to as the interim monitoring program) until such time as the soil-related Removal Actions at the Unkamet Brook Area RAA are completed and the specific components of a long-term groundwater quality monitoring program are determined. EPA conditionally approved the Fall 2005 GMA 3 Monitoring Report by letter dated May 2, 2006 and GE began the approved interim monitoring program during the spring 2006 sampling event, which also involved the collection of groundwater samples from certain wells that did not yet have four complete rounds of sampling as part of the baseline monitoring program.

Since initiation of the interim monitoring program, certain modifications to the wells included in the program and the sampling/monitoring requirements have been made with EPA approval. The well sampled for groundwater quality in fall 2012 as part of the GMA 3 groundwater sampling program is listed in Table 1, along with the analyses conducted. The wells included in the groundwater elevation/NAPL monitoring program are listed in Table 2, along with their monitoring frequency and manual NAPL removal criteria. These



listed wells were monitored in fall 2012 for groundwater elevation and NAPL, with the exception of certain wells to which GE does not currently have access permission.¹ The locations of the monitoring wells utilized in fall 2012 are provided on Figure 2.

As part of the interim monitoring program for GMA 3, GE is required to submit reports on a semi-annual basis to summarize the groundwater/NAPL monitoring results and related activities and, as appropriate, to propose modifications to the monitoring program. As the next annual interim groundwater sampling event is scheduled to take place in spring 2013 (along with the annual spring natural attenuation sampling), however, the only groundwater sampling activity performed in fall 2012 was supplemental sampling and analysis for VOCs at natural attenuation monitoring well 39B-R to further assess an anomalous chlorobenzene concentration (170 parts per million (ppm)) detected at this well in spring 2010. The results of these groundwater sampling activities performed at GMA 3 during October/November 2012, as well as other routine groundwater elevation and NAPL monitoring/recovery activities performed at this GMA between July and December 2012 (henceforth referred to as fall 2012) are provided in this *Groundwater Management Area 3 Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012* (Fall 2012 GMA 3 Monitoring Report). This report also summarizes the results of building inspections and subsurface soil gas and indoor air monitoring conducted beneath and within Buildings 51 and 59 on October 25, 2012 and January 8, 2013.

1.2 Background Information

1.2.1 GMA Description

GMA 3 encompasses the portion of the Unkamet Brook Area (as defined in the CD and SOW) located to the east of Plastics Avenue, and occupies an area of approximately 103 acres (as shown on Figures 1 and 2). This area includes the eastern portion of GE's Pittsfield facility, which is generally bounded by Dalton Avenue to the north, Merrill Road to the south, Plastics Avenue to the west, and railroad tracks to the east. GMA 3 also contains commercial/recreational properties located between Merrill Road and the Housatonic River to the southeast of the facility. Unkamet Brook extends from northwest to southeast through the interior of this GMA, although a portion of the brook in the center of

¹ For wells located on Tax Parcel L12-2-2, which is owned by the U.S. Navy, GE's existing license from the Navy allowing access to that property has expired. GE has requested reissuance of that access license and is working with the Navy on a reissued license, but to date the license has not been reissued. Thus, as indicated on Table 2, GE was not able to perform the groundwater elevation/NAPL monitoring activities at three wells located on that property. In addition, two wells located at Tax Parcel K11-4-2, which is owned by CSX Transportation, Inc., could not be accessed in fall 2012. The previous access agreement had lapsed prior to the fall 2012 field activities, and GE was unable to perform groundwater elevation/NAPL monitoring at these locations. GE and CSX are negotiating a revised agreement which will include access for Tax Parcel K11-4-2.



the area flows through underground culverts. The GE-owned portion of this GMA located west of Unkamet Brook is mostly paved and covered with large buildings. The GE-owned portion to the east of Unkamet Brook, as well as much of the land between Merrill Road and the Housatonic River, is undeveloped except for the area associated with Building OP-3 and the commercial area along Merrill Road.

Several well pairs or closely-spaced shallow and deep well clusters have been installed within GMA 3. The approximate depth of a well in a cluster can be identified by the letter contained in the well name (e.g., cluster 39 contains wells 39A, 39B-R, 39D-R, and 39E) which represents the well series, specifically:

- A-series wells are generally screened approximately 45 to 50 feet below ground surface (bgs);
- B-series wells are generally screened at or near the water table, approximately 15 to 25 feet bgs;
- C-series wells are generally screened approximately 95 to 100 feet bgs;
- D-series wells are generally screened approximately 70 to 75 feet bgs; and
- E-series wells are generally screened at depths greater than 150 feet bgs.

Most of the GMA 3 well clusters consist of an A-series well paired with a B-series well, and sometimes one or more of the deeper series wells. In addition, there are individual wells installed at the RAA which were completed based on proposals by GE or in response to EPA requirements. The specifications of the wells monitored at GMA 3 in fall 2012 are listed in Table 3. Prior monitoring data from the well clusters has indicated that the vertical component of the hydraulic gradient is variable at GMA 3. In general, groundwater flows downward in the northern part of the GMA, moves laterally across the central areas, and rises to the south, near the Housatonic River.

Groundwater at GMA 3 generally flows in a southeasterly direction toward the Housatonic River, usually with a pattern that mimics the existing topography. However, localized variations in the flow direction exist due to fill materials used beneath building foundations in the GE Plastics area and the presence of Unkamet Brook. The subsurface conditions across GMA 3 are illustrated on cross-sections A-A', B-B', and C-C', presented as Figures 3 through 5, respectively. The locations of these cross-sections are provided on Figure 2. Figures 6 and 7 illustrate groundwater elevations and flow direction using data collected during the fall 2012.



The horizontal hydraulic gradients are somewhat variable within GMA 3, but generally decrease toward the Housatonic River, corresponding to a flattening in the ground surface topography.

The presence of NAPL in this area has been documented in prior GE reports. NAPL has been observed near Building 59 in coarse gravel that was assumed to be fill material for the foundation of that building. NAPL also has been observed in the vicinity of Building 51. That NAPL may have originated from underground storage tanks located on the northeast side of that building. Previous investigations have identified the NAPL as a light non-aqueous phase liquid (LNAPL) in the soil at and above the groundwater interface. The LNAPL observed east of Building 51 has been analyzed and determined to be composed of multiple constituents, including PCBs, polynuclear aromatic hydrocarbons (PAHs), ethylbenzene, xylenes, 1,2,4-trichlorobenzene, and 1,4-dichlorobenzene, among other constituents. GE operates two automated LNAPL skimmer systems in this area, located in wells 51-21 and GMA3-17 (see Figure 2).

Distribution of the LNAPL has been confined to the vicinity of Buildings 51 and 59, along the western boundary of the GMA, due primarily to: (a) the generally low hydraulic gradients in this area; (b) the difference in grain size between the coarse fill materials near and beneath the buildings and the grain size of the surrounding native soils; (c) an apparent groundwater mound present between Buildings 59 and 119, to the south of the NAPL area; and (d) the ongoing LNAPL recovery efforts (both automated and manual) conducted by GE.

Prior to spring 2007, dense non-aqueous phase liquid (DNAPL) had not been encountered within any of the monitoring wells within GMA 3. However, following the observation of DNAPL in Unkamet Brook Area pre-design investigation soil boring RAA10-N-Y-18 and in accordance with EPA's conditional approval letter dated December 7, 2006, GE installed monitoring well GMA3-16 near the location of that soil boring. DNAPL was observed at monitoring well GMA3-16 during the spring 2007 monitoring event, which was conducted shortly after installation of this well. Approximately 0.01 gallon of DNAPL was manually removed at that time. Since then, DNAPL has only been observed on two occasions during monitoring activities conducted at this well. Specifically, DNAPL was observed in trace amounts in April 2009 and October 2009. In all instances, DNAPL was observed at the minimum measurable thickness with an interface probe and appeared to be combined with sediment accumulations within the sump at the base of the well.

Cross-Section C-C' (Figure 5) and a contour map illustrating the elevation of the top of the peat layer in this area (Figure 8) are included in this report to provide a summary of subsurface conditions in this area. Cross-Section C-C' shows a localized depression in the peat section in the vicinity of wells GMA3-16 and 78B-R. It appears that the layer of peat extends eastward from boring RAA10-N-CC12 through the point where the peat layer intersects the ground-level surface near RAA10-N-W24. The well and borings between



these two points contain material that is typically seen in areas where fill has been placed (e.g., concrete, sand and gravel, among other materials). As such, this depression may be due to downcutting of Unkamet Brook into the peat layer or a natural/man-made depression that was subsequently filled. On Figure 8, certain of the soil borings (e.g., boring RAA10-N-CC18) did not reach the peat layer because the objective of the boring (collection of pre-design soil samples at specific depths) was achieved before the peat layer was reached. At other borings (e.g., borings RAA10-N-X19D and RAA10-N-X19.1D), it appears that the peat layer is missing. This is not unexpected, since the peat in this area was likely formed in a swamp environment that has been disturbed by man-made activities and a through-cutting brook. Areas where the peat layer was not observed in borings that extended beyond the anticipated interface are shaded on Figure 8.

As seen on Cross-Section C-C' (Figure 5) and on the top of peat contour map (Figure 8), well GMA3-16 has been installed within a localized depression in the peat layer along the area to the south of the former Interior Landfill and north of the former Waste Stabilization Basin. The monitoring wells nearest to well GMA3-16 are wells 78B-R (located approximately 50 feet east of well GMA3-16 and within the same depression in the peat surface), 6B-R (located approximately 450 feet south-southeast of well GMA3-16), GMA3-6 (located approximately 600 feet southwest of well GMA3-16), and GMA3-9 (located approximately 300 feet west of well GMA3-16). No DNAPL was encountered during the installation of those wells and none has been observed in the wells during subsequent monitoring events conducted at those locations. GE has installed several soil borings in the area between the former Interior Landfill and the former Waste Stabilization Basin as part of its pre-design investigation of the Unkamet Brook Area or during subsequent investigations, including several borings within or slightly greater than 100 feet from well GMA3-16. No DNAPL was encountered in any of those soil borings, except for borings RAA10-N-Y-18 and RAA10-N-Y20D, which are located near well GMA3-16 and at higher points along the peat interface. Therefore, based upon the limited quantity of DNAPL observed in well GMA3-16 and the lack of DNAPL in surrounding wells, the DNAPL occurrence appears to be highly localized.

Locations where NAPL has been previously documented are shown on Figure 9. The extent of NAPL observed in fall 2012 is illustrated on Figures 7 and 10. A discussion of the current extent of NAPL and the results of NAPL monitoring and recovery activities is provided in Section 4.6.

1.2.2 Interim Monitoring Program

As discussed in Section 1.1, the CD and the SOW provide for the performance of groundwater-related activities at a number of GMAs, including the implementation of groundwater monitoring, assessment, and recovery programs. In general, these programs consist of a baseline monitoring program conducted over a period of at least two years to



establish existing groundwater conditions and a long-term monitoring program performed to assess groundwater conditions over time and to verify the attainment of the Performance Standards for groundwater. The baseline monitoring program was to be initiated at GMA 3 in the spring of 2002, but, as discussed above, access issues prevented performance of the full baseline monitoring program until spring 2004. The fall 2005 sampling event constituted the fourth baseline sampling event at the majority of the wells in GMA 3 and baseline sampling was completed at the remaining wells with the spring 2006 sampling event.

Beginning in spring 2006, as approved by EPA, an interim groundwater quality monitoring program was initiated, consisting of annual sampling (in the spring season) for the analysis of VOCs and natural attenuation parameters at 22 monitoring wells, plus annual sampling (alternating between the spring and fall seasons) for the analysis of VOCs at one additional well. Since the spring 2006 groundwater sampling event, GE has presented the results of each sampling event in interim groundwater quality and NAPL monitoring reports and, based on those results, has proposed and, following EPA approval, implemented modifications to the interim program.

As noted above, the next annual interim groundwater sampling event at GMA 3 is scheduled to take place in spring 2013, along with the annual spring natural attenuation sampling. However, based on an anomalous chlorobenzene concentration (170 parts per million (ppm)) detected at natural attenuation monitoring well 39B-R in spring 2010, GE collected an additional sample from this well in fall 2012 for analysis for VOCs.

1.2.3 NAPL Monitoring Program

Including the wells that were sampled during the baseline monitoring period (each of which continues to be monitored for groundwater elevations on a semi-annual basis during the interim monitoring period), 59 monitoring wells were monitored in fall 2012 for groundwater elevation and the presence of NAPL, based on their established weekly, monthly, quarterly, or semi-annual schedule, as summarized in Table 2.² The well locations are shown on Figure 2. It should be noted that although Table 2 lists manual NAPL removal criteria for all wells, NAPL was only actually detected in a subset of the wells in fall 2012, which are highlighted on Figure 10.

² As indicated in Table 2, five wells included in the GMA 3 groundwater elevation/NAPL monitoring program (wells 16A, 16C-R, 82B-R, GMA3-5, and OBG-2) were not monitored in fall 2012 due to lack of access permission from the property owners.



1.3 Format of Document

The remainder of this report is presented in four sections. Section 2 describes the groundwater- and NAPL-related activities performed at GMA 3 in fall 2012, as well as the annual building inspections and subsurface soil gas and indoor air sampling conducted beneath and within Buildings 51 and 59. Section 3 presents the analytical results obtained during the fall 2012 groundwater sampling event performed in October 2012, provides a summary of the groundwater quality -related Performance Standards under the CD and SOW applicable to GMA 3 generally, and presents an assessment of the results of the fall 2012 groundwater sampling activities, including comparisons to the Upper Concentration Limits (UCLs) for groundwater. Section 4 provides a summary of the applicable NAPL-related Performance Standards under the CD and SOW, and presents an evaluation of the fall 2012 NAPL monitoring/recovery results. Finally, Section 5 evaluates the need for additional program modifications and presents the schedule for future field and reporting activities related to groundwater quality and NAPL presence at GMA 3.



2. Field and Analytical Procedures

2.1 General

The activities conducted as part of the interim monitoring program at GMA 3 during fall 2012, and summarized herein, primarily included measurement of groundwater elevations/NAPL levels, manual and automated removal of LNAPL, and the collection and analysis of groundwater samples at a select monitoring well within GMA 3. In addition, GE performed inspection of the monitoring wells and, where necessary, performed other well maintenance activities. GE also conducted additional inspection and sampling activities related to the soil gas and indoor air quality investigation performed within and in the vicinity of Buildings 51 and 59. This section discusses the procedures used to conduct those field activities and the methods used to analyze the groundwater samples. All activities were performed in general accordance with GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP).

2.2 Monitoring Well Inspections and Repairs

In fall 2012, monitoring well maintenance evaluations were performed at the well sampled during the interim groundwater sampling event and at all other wells where groundwater elevation/NAPL monitoring was scheduled. Any minor maintenance needs (e.g., replacement of bolts, locks, or well caps) were listed in the comments section of the groundwater sampling field logs. Wells where major maintenance needs (e.g., adjustments made to surface completion, modifications made to inner casing) were identified were flagged for performance of a formal well inventory. The majority of the wells utilized in fall 2012 had no maintenance requirements noted and the issues that were noted did not impact the collection of groundwater/NAPL elevations and/or groundwater samples during this period. The identified well maintenance needs and the status of repairs already completed by GE are summarized in Table A-3 of Appendix A. Most of the noted maintenance needs from the fall 2012 well inspections have been addressed and the remaining issues will be addressed by GE prior to the start of the spring 2013 semi-annual field activities.

2.3 Groundwater Elevation Monitoring

GE conducted the fall 2012 semi-annual groundwater elevation monitoring round at GMA 3 on October 23 and 25, 2012 (recovery wells GMA3-17 and 51-21 were monitored by Veolia on October 25, 2012; all other GMA 3 locations were monitored on October 23, 2012). This activity involved the collection of groundwater level data at the locations indicated in Table 4. Groundwater levels and NAPL thicknesses (where NAPL was present) were measured in accordance with the procedures specified in GE's approved FSP/QAPP. The groundwater elevation data presented in Table 4 from wells screened across or near the



water table were used to prepare groundwater elevation contour maps for fall 2012. Figure 6 presents groundwater elevation contours for all of GMA 3 while Figure 7 provides a detailed view of groundwater flow conditions in the vicinity of LNAPL detected near Buildings 51 and 59. A summary of all groundwater elevation data collected in fall 2012 is provided in Table A-1 of Appendix A.

The fall 2012 groundwater elevations were, on average, approximately 1.08 foot higher than the elevations measured during the prior fall monitoring round in 2011 at water table monitoring locations measured during both monitoring events. Consistent with prior data, groundwater was found to generally flow toward the Housatonic River, with some localized variations. As seen on Figure 7, a localized groundwater depression is present in the vicinity of Buildings 51 and 59, surrounded by higher groundwater elevations along Plastics Avenue to the west and toward Merrill Road to the south. This low groundwater area is where LNAPL accumulations have been noted at this GMA.

2.4 LNAPL Monitoring and Recovery

This section describes the LNAPL monitoring and recovery activities performed by GE within GMA 3 from July through December 2012, including the October 2012 semi-annual monitoring event and other routine and non-routine monitoring/recovery activities conducted during that period. These activities primarily included the operation of the automated LNAPL recovery systems at wells 51-21 and GMA3-17, the routine measurement of groundwater elevations and NAPL thickness (if present), and the manual removal of NAPL if sufficient thickness was present. All activities were performed in accordance with GE's approved FSP/QAPP.

Approximately two weeks prior to the semi-annual monitoring event, GE performed a bailing round involving the monitoring of all wells where the presence of NAPL was noted during the prior year and manual removal of any NAPL that was present. The purpose of these bailing rounds is to ensure that any NAPL present in a well is also present in the surrounding formation and is not remnant oil which may have been trapped in the well since the prior removal event. These bailing round activities provide a consistent basis to compare the current presence and thickness of NAPL between wells that may otherwise be subject to varying NAPL removal schedules.

Routine NAPL monitoring was conducted at the monitoring wells specified in Table 2 on a semi-annual, quarterly, monthly, and/or weekly basis. Table 5 summarizes the overall fall 2012 NAPL monitoring and manual removal data on a well-by-well basis and Table A-1 in Appendix A presents all of the fall 2012 NAPL measurements and removal quantities (when performed) for each well at GMA 3. A month-by-month summary of the LNAPL volume removed by the automated recovery systems in fall 2012 is provided in Table 6. Approximately 201.64 gallons of LNAPL were recovered between July and December 2012.



from the automated recovery systems and manual bailing at GMA 3. Approximately 96% of this total was removed by the automated skimmer systems at wells 51-21 (172.8 gallons) and GMA 3-17 (20.6 gallons), and the remainder was manually recovered during routine monitoring rounds. Since 1997, approximately 2,199 gallons of LNAPL have been removed from GMA 3 as part of GE's NAPL monitoring and recovery program.

Figure 9 depicts the historical maximum extent of NAPL observed in monitoring wells at GMA 3. This figure represents a compilation of past investigations and shows the maximum lateral extent of NAPL that has been observed and documented in prior GE reports, and is not indicative of current conditions. Figure 10 indicates the extent of NAPL observed during the semi-annual monitoring event conducted at GMA 3 in fall 2012. As shown on Figures 9 and 10, the northern extent of LNAPL has decreased since the onset of the LNAPL monitoring and recovery activities conducted in this area. This northern portion of the LNAPL area includes recovery well 51-21, which has removed the majority of LNAPL recovered.

2.5 Groundwater Sampling and Analysis

The fall 2012 interim sampling event was performed on October 30, 2012 at monitoring well 39B-R. Low-flow sampling techniques using a bladder pump were utilized for the purging and collection of groundwater samples during this sampling event. The sampling method utilized, as well as a summary of any observations made during sampling are listed on the field sampling records contained in Appendix C. Field parameters (including temperature, pH, specific conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) were measured during purging and immediately prior to sampling at monitoring well 39B-R. This location was purged until field parameters stabilized prior to sample collection. The stabilized field parameters are summarized in Table 7.

As shown in that table, the low-flow sampling and measurement procedures utilized during this sampling event were effective in obtaining representative groundwater samples with low turbidity. Prior to sampling the stabilized turbidity was below the target level of 50 NTU. The stabilized pH at 39B-R was within the accepted "typical" range of 4.5 to 9.0 noted in Condition 1 of EPA's April 8, 2008 letter to GE providing conditional approval of the *Plant Site 1 Groundwater Management Area Groundwater Quality Monitoring Interim Report for Fall 2007*. Aside from an anomalously low oxidation-reduction potential reading that appears to be related to an equipment malfunction, all other field parameters also stabilized within typical ranges, indicating no additional evaluation or data qualification is necessary.



The groundwater samples collected from well 39B-R were submitted to SGS Environmental Services of Wilmington, North Carolina for VOC analysis using EPA Method 8260B. Following receipt of the analytical data from the laboratory, the preliminary results were reviewed for completeness and compared to the Upper Concentration Limits (UCLs) for groundwater. The preliminary analytical results were presented in the next monthly report on overall activities at the GE-Pittsfield/Housatonic River Site.

The fall 2012 analytical results were validated in accordance with the FSP/QAPP and the validated results were utilized in the preparation of this report. As discussed in the data validation report provided as Appendix D, 100% of the fall 2012 groundwater quality data were considered to be useable. The validated analytical results are summarized in Appendix E and discussed in Section 3 below.

2.6 Soil Gas/Indoor Air Investigations

On October 25, 2012, GE conducted sub-slab soil gas and indoor air sampling within Buildings 51 and 59. GE collected three sub-slab soil gas samples and three indoor air samples from beneath and within each of those buildings using the same sample collection procedures (i.e., the SUMMA[®] canister method) that were used during prior sampling rounds. An additional indoor air sample was collected on January 8, 2013 in Building 59 to evaluate an anomalous result from one of the locations sampled in October 2012. All samples collected were to provide additional information regarding the potential migration of VOCs and certain semi-volatile organic compounds (SVOCs) from the subsurface LNAPL toward and into Buildings 51 and 59.

Prior to the sampling activities, GE performed a visual assessment within each building to identify readily apparent materials and/or products that could contain chemicals that represent a potential source of volatile constituents in indoor air and that are common to the target constituents identified in the groundwater or LNAPL.

Results and an evaluation of the sub-slab soil gas and indoor sampling activities, including the inventories of the building products and materials, are provided as Appendix F to this report.



3. Fall 2012 Groundwater Quality Monitoring Results

3.1 General

This section summarizes the applicable groundwater quality-related Performance Standards and discusses the results of the interim groundwater sampling event conducted at GMA 3 in fall 2012, supplemented with historical analytical data when applicable. The complete analytical data set is summarized in Appendix E. Table 8 provides comparisons of the concentrations of detected constituents with the currently applicable UCLs for groundwater.

3.2 Groundwater Quality Performance Standards

As provided in Section 2.7 and Attachment H (Section 4.1) of the SOW, the applicable Performance Standards for groundwater quality at GMA 3 are generally based on the groundwater classification categories designated in the MCP. The MCP identifies three potential groundwater categories that may be applicable to a given site. One of these, GW-1 groundwater, applies to groundwater that is a current or potential source of potable drinking water. None of the groundwater at any of the GMAs at the Site is classified as GW-1; however, the remaining MCP groundwater categories are applicable to GMA 3 and are described below:

- GW-2 groundwater is defined as groundwater that is a potential source of vapors to the indoor air of buildings. Groundwater is classified as GW-2 if it is located within 30 feet of an existing occupied building and has an average annual depth below ground surface of 15 feet or less. Under the MCP, volatile constituents present within GW-2 groundwater represent a potential source of organic vapors to the indoor air of the overlying occupied structures.
- GW-3 groundwater is defined as groundwater that discharges to surface water. By MCP definition, all groundwater at a site is classified as GW-3 since it is considered to be ultimately discharged to surface water. In accordance with the CD and SOW, all groundwater at GMA 3 is considered as GW-3.

The CD and the SOW allow for the establishment of standards for GW-2 and GW-3 groundwater at the GMAs through use of one of three methods, as generally described in the MCP. The first, known as Method 1, consists of the application of pre-established numerical "Method 1" standards set forth in the MCP for both GW-2 and GW-3 groundwater (310 CMR 40.0974). These "default" standards have been developed to be conservative and will serve as the initial basis for evaluating groundwater at GMA 3. For constituents for which Method 1 standards do not exist, the MCP provides procedures, known as Method 2, for developing such standards (Method 2 standards) for both GW-2 (310 CMR 40.0983(2))



and GW-3 (310 CMR 40.0983(4)) groundwater. For such constituents that are detected in groundwater during the baseline monitoring program, Attachment H to the SOW states that in the Baseline Monitoring Program Final Report, GE must propose to develop Method 2 standards using the MCP procedures or alternate procedures approved by EPA, or provide a rationale for why such standards need not be developed. For constituents whose concentrations exceed the applicable Method 1 (or Method 2) standards, GE may develop and propose to EPA alternative GW-2 and/or GW-3 standards based on a site-specific risk assessment. This procedure is known as Method 3 in the MCP. Upon EPA approval, these alternative risk-based GW-2 and/or GW-3 standards may be used in lieu of the Method 1 (or Method 2) standards. Of course, whichever method is used to establish such groundwater standards, GW-2 standards will be applied to GW-2 groundwater and GW-3 standards will be applied to GW-3 groundwater.

Based on consideration of the above points, the specific groundwater quality Performance Standards for GMA 3 consist of the following:

1. At monitoring wells designated as compliance points to assess GW-2 groundwater (i.e., groundwater located at an average depth of 15 feet or less from the ground surface and within 30 feet of an existing occupied building), groundwater quality shall achieve any of the following:
 - (a) the Method 1 GW-2 groundwater standards set forth in the MCP (or, for constituents for which no such standards exist, Method 2 GW-2 standards once developed, unless GE provides and EPA approves a rationale for not developing such Method 2 standards); or
 - (b) alternative risk-based GW-2 standards developed by GE and approved by EPA as protective against unacceptable risks due to volatilization and transport of volatile chemicals from groundwater to the indoor air of nearby occupied buildings; or
 - (c) a condition, based on a demonstration approved by EPA, in which constituents in the groundwater do not pose an unacceptable risk to occupants of nearby occupied buildings via volatilization and transport to the indoor air of such buildings.
2. Groundwater quality shall ultimately achieve the following standards at the perimeter monitoring wells designated as compliance points for GW-3 standards:
 - (a) the Method 1 GW-3 groundwater standards set forth in the MCP (or, for constituents for which no such standards exist, Method 2 GW-3 standards once developed, unless GE provides and EPA approves a rationale for not developing such Method 2 standards); or



- (b) alternative risk-based GW-3 standards proposed by GE and approved by EPA as protective against unacceptable risks in surface water due to potential migration of constituents in groundwater.

These Performance Standards are to be applied to the results of the individual monitoring wells included in the monitoring program. Several monitoring wells have been designated as the compliance points for attainment of the Performance Standards identified above. These wells were initially identified in the GMA 3 Baseline Monitoring Proposal (although certain modifications were made subsequent to submittal of that proposal as a result of EPA approval conditions, findings during field reconnaissance of the selected wells, or replacement of certain wells during the course of the baseline monitoring program). Natural attenuation monitoring well 39B-R, sampled in fall 2012, is not such a compliance point.

Accordingly, and also because well 39B-R was selected for additional sampling because of a prior anomalous exceedance of the UCL for chlorobenzene, analytical results from that well were compared to the MCP UCLs for groundwater. The current MCP UCLs for analytes detected in the fall 2012 sampling event are listed in Table 8.

3.3 Fall 2012 Groundwater Quality Results

Groundwater samples from 39B-R were analyzed for VOCs during the fall 2012 sampling event. The VOC analytical results are summarized in Table 8 (for constituents detected in one or more groundwater sample and Table F-1 within Appendix F (for all constituents analyzed)).

Five individual VOCs (benzene, chlorobenzene, ethylbenzene, toluene and xylenes) were detected in fall 2012. The total VOC concentration was reported to be 20 ppm (with an estimated concentration of 19 ppm in a duplicate sample). Chlorobenzene was the primary constituent in the samples from this well, at concentrations of 18 ppm and 17 ppm in the duplicate samples that were analyzed. As discussed in Section 3.4 below, these chlorobenzene results exceeded the MCL UCL for groundwater.

3.4 Assessment of Fall 2012 Analytical Results

As noted above, well 39B-R, the only well sampled in this limited interim sampling event, is a natural attenuation monitoring well and is not a compliance point for either GW-2 or GW-3 standards. This well was selected for additional sampling during fall 2012 because of a prior anomalous exceedance of the UCL for chlorobenzene. Therefore, the fall 2012 analytical results from well 39B-R were compared with the groundwater UCLs specified in the MCP (310 CMR 40.0996(7)). Table 8 presents a comparison of the concentrations of detected constituents with the groundwater UCLs. As shown in Table 8, one constituent (chlorobenzene) was detected at a level above the applicable UCL. The UCL for



chlorobenzene (10 ppm) was exceeded at natural attenuation well 39B-R, where chlorobenzene was detected at concentrations of 18 ppm and 17 ppm in duplicate samples. Chlorobenzene concentrations in excess of this UCL have consistently been detected in this well and the fall 2012 concentration was significantly lower than the maximum recorded concentration of 170 ppm in spring 2010. GE plans to continue the ongoing annual natural attenuation sampling of this well to further assess the VOC concentrations in groundwater at this area.

3.5 Overall Assessment of Analytical Results

Graphs illustrating historical concentrations of total VOCs and chlorobenzene for well 39B-R, including the fall 2012 concentrations, are provided in Appendix G. A review of those graphs, as well as historical data, indicates that the total VOC concentration in fall 2012 at well 39B-R was significantly below historical high levels in fall 2012. At well 39B-R, after an elevated total VOC concentration (180 ppm) was recorded in spring 2010, the concentration decreased to an estimated level of 17 ppm (15 ppm in a duplicate sample) in fall 2010, then rose to 64 ppm in spring 2011 and an estimated value of 140 ppm (150 ppm in a duplicate sample) in fall 2011, then decreased to an estimated concentration of 100 ppm in spring 2012. The decrease continued in fall 2012, as the total VOC concentration was 20 ppm (estimated value of 19 ppm in a duplicate sample), which is similar to the total VOC concentrations recorded prior to the spring 2010 increase. The VOC concentrations are almost entirely attributed to chlorobenzene in this well, seen when comparing the total VOC and chlorobenzene concentration graphs in Appendix G.

The graphs of chlorobenzene concentrations versus time contained in Appendix G show that chlorobenzene concentrations above the MCP UCL have consistently been noted at well 39B-R. The chlorobenzene concentration trends are similar to those of the total VOCs at this location. Specifically, the fall 2012 concentrations of these constituents were lower than the result from the most recent sampling event performed at this well in spring 2012, and were similar or below the concentrations recorded prior to the increase in spring 2010.

Well 39B-R is scheduled to be sampled as part of the spring 2013 natural attenuation sampling event. GE will evaluate the data collected during that sampling round to evaluate whether the apparent decreasing trend in chlorobenzene concentrations observed over the last two sampling events will continue.



4. Fall 2012 NAPL Monitoring and Recovery Results

4.1 General

This section summarizes the applicable NAPL-related Performance Standards and guidelines and discusses the results of the NAPL monitoring and recovery activities conducted at GMA 3 in fall 2012, supplemented with historical monitoring and recovery data when applicable.

4.2 NAPL-Related Performance Standards

Under the CD and SOW, GE is required to perform monitoring, recovery, assessment, and other response activities related to NAPL until the applicable NAPL-related Performance Standards are ultimately achieved. The NAPL-related Performance Standards are set forth in Section 2.7 and Attachment H (Section 4.0) of the SOW. They consist of the following:

1. Containment, defined as no discharge of NAPL to surface waters and/or sediments, which shall include no sheens on surface water and no bank seeps of NAPL.
2. For areas near surface waters in which there is no physical containment barrier between the wells and the surface water, elimination of measurable NAPL (i.e., detectable with an oil/water interface probe) in wells near the surface water bank that could potentially discharge NAPL into the surface water, in order to prevent such discharge and assist in achieving groundwater quality Performance Standards.
3. For areas adjacent to physical containment barriers, prevention of any measurable LNAPL migration around the ends of the physical containment barriers.
4. For NAPL areas not located adjacent to surface waters, reduction in the amount of measurable NAPL to levels which eliminate the potential for NAPL migration toward surface water discharge areas or beyond GMA boundaries, and which assist in achieving groundwater quality Performance Standards.
5. For NAPL detected in wells designed to assess GW-2 groundwater (i.e., located at average depths of 15 feet or less from the ground surface and within a horizontal distance of 30 feet from an existing occupied building), a demonstration that constituents in the NAPL do not pose an unacceptable risk to occupants of such building via volatilization and transport to the indoor air of such building. Such demonstration may include assessment activities such as: NAPL sampling, soil gas sampling, desk-top modeling of potential volatilization of chemicals from the NAPL (or associated groundwater) to the indoor air of the nearby occupied buildings, or sampling of the indoor air of such buildings. If necessary, GE shall propose corrective actions,



including, but not limited to, containment, recovery, or treatment of NAPL and impacted groundwater.

In addition to these Performance Standards, GE has developed and implemented site-wide criteria for NAPL monitoring and manual recovery requirements, standard procedures for assessment of new NAPL occurrences, and the feasibility of the installation of new recovery systems. Those guidelines, which have been incorporated into GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP), are described below.

4.3 Manual NAPL Removal Criteria

During routine NAPL monitoring/removal activities at select GE monitoring wells, LNAPL accumulations observed in excess of 0.25 foot are manually removed at the time of monitoring. For DNAPL, accumulations in excess of 0.5 foot are manually removed. Exceptions to these criteria are in place for certain wells that are located either upgradient of sensitive receptors (i.e., any measurable quantities of NAPL are manually removed) or within the capture zone of automated recovery systems (i.e., no NAPL is manually removed). Any exception to the standard NAPL removal criteria applicable to a given well is shown in Table 2.

These manual removal criteria apply only during routine NAPL monitoring program events (i.e., weekly, monthly, and quarterly). No NAPL removal is required at wells monitored for other reasons between routine monitoring events (e.g., during well inventory inspections, or other non-routine data gathering activities) or in connection with GE's semi-annual NAPL monitoring round during the spring and fall quarterly monitoring events (due to the performance of a bailing round, as discussed below).

Approximately two weeks prior to the spring and fall semi-annual monitoring events, all wells where the presence of NAPL was observed during the prior year are monitored and any recoverable thicknesses of NAPL are manually removed (i.e., the bailing round). For those wells where NAPL was present, after allowing time for NAPL to return, the wells are monitored again as part of the semi-annual monitoring event and the data obtained are utilized to estimate the current thickness of LNAPL in the area. Due to the large number of wells included in the semi-annual monitoring program, and the desire to collect the groundwater elevation data from all wells in the same relative time period so as to provide a more accurate account of flow conditions, no manual removal of NAPL from monitoring wells is required during the actual semi-annual data collection event (i.e., the monitoring round) for those wells from which NAPL had been removed in the bailing round. The purpose for performing the bailing and monitoring rounds is to confirm that the NAPL present in a well is representative of the surrounding formation and does not reflect remnant oil that may have accumulated in the well since the last manual removal. This uniform



removal procedure also provides a consistent basis for comparison of data with future NAPL monitoring data.

4.4 Assessment of New NAPL Observations

This section describes the process utilized to investigate new or anomalous NAPL observations. Such observations may include either instrument detection of NAPL at a new location or detection of a type of NAPL not typically associated with a particular well (e.g., if DNAPL was observed in a monitoring well where LNAPL is typically observed). This process generally includes the following steps:

1. Confirmation that NAPL is actually present at the well by bailing or pumping the well to verify that an instrument error did not occur. Additionally, the NAPL will be physically observed in a jar to visually assess its relative density compared to water.
2. The GE Project Manager is notified of the new NAPL occurrence. The GE Project Manager will then arrange to make any required federal or state Agency notifications, as appropriate.
3. Initially, the monitoring frequency at the well will be modified to at least once per week for a period of at least one month, and any observed NAPL will be removed. If additional wells are located in the vicinity and screened at the appropriate interval, they will also be monitored for NAPL presence.
4. Based on the results of Steps 1 and 3 above, GE may recommend that: a) the well be further evaluated for the potential installation of an automated recovery system; b) additional soil borings/monitoring wells be installed in the vicinity; or c) enhanced NAPL monitoring/ recovery activities be implemented.

After completion of these initial assessment activities, monitoring and manual NAPL recovery (if NAPL thicknesses exceed the standard manual removal criteria) activities will revert to their normal intervals (unless more frequent monitoring is recommended), pending Agency approval of any recommendation made by GE.

4.5 Criteria for Installation of Automated Recovery Systems

To aid in the assessment of whether additional automated recovery systems are necessary and feasible at a given location where NAPL is present, several key factors should be considered, specifically:



- The presence of other nearby active NAPL recovery systems;
- Quantity of NAPL available (on a continuing basis) to be recovered;
- Migration potential of the NAPL (considering historical monitoring data and capture areas of existing recovery systems); and
- Technical feasibility and practicality of installing an automated recovery system.

Each of these factors is discussed in more detail below.

If there are already active NAPL recovery systems operating nearby, an assessment must be made as to whether the NAPL area in question will be addressed by the existing system. Additional automated recovery systems are generally not required for NAPL areas that are within the capture zone of an operating active recovery system or positioned upgradient of it, such that the NAPL will ultimately be addressed by the existing recovery system.

If the NAPL area is not already addressed by an existing system, it must be confirmed whether sufficient quantities of NAPL are moving into a well to justify the potential installation of a recovery system. This determination is made through the performance of a NAPL recovery test conducted over a 2- to 3-day period. NAPL is manually removed from the well, initially on an hourly basis, and the amount of NAPL returning to the well between each removal interval is measured and recorded. Depending on the recovery rate, the time intervals of manual removal during the recovery test may be increased or decreased from the initial hourly interval. If the average NAPL quantity that returns to the well over the duration of the test is significant (e.g., greater than 0.5 liter per hour, or greater than 6 to 12 inches per hour in a 2-inch well), the location may be deemed a potential candidate for an automated recovery system based on NAPL quantity. NAPL samples may also be collected during this test and analyzed for chemical and/or physical parameters if such data do not already exist for the NAPL area in question. Physical testing will include specific gravity and viscosity. If warranted, interfacial tension may also be measured.

If it is determined that sufficient NAPL is potentially present, a more detailed analysis of NAPL migration potential is necessary to confirm whether operation of an automated recovery system is appropriate to address the NAPL occurrence and to obtain sufficient information to design such a system. This phase of the evaluation process will vary based on area-specific considerations, but will generally include:

- Assessment of the NAPL physical and chemical properties to assess the migration potential of the NAPL and to aid in selection of pumping equipment and disposal options.



- Assessment of factors that might limit NAPL migration, such as viscosity of the NAPL, soil types, hydraulic factors, and/or presence of existing physical containment barriers. NAPLs with limited potential to migrate offsite or toward surface water bodies may be more appropriately addressed through other measures, such as an enhanced manual removal program.
- Evaluation of potential migration pathways of the NAPL. This evaluation may include the installation and monitoring of sentinel wells (if none already exist) downgradient of the NAPL area. In some cases, installation of an automated recovery system may be deferred until downgradient migration of NAPL can be further assessed by routine monitoring of sentinel wells.

Finally, if after completion of the above evaluations it is determined that additional responses to the presence of NAPL are necessary, the physical characteristics of the area where the system would be located must be taken into consideration, as installation of a recovery system may not be practical in some areas. A generalized automated recovery system will involve a recovery well equipped with NAPL and/or groundwater removal pumps, a holding tank or vessel for the NAPL that is removed, and either piping to route purged groundwater to GE's treatment facility or a large holding tank to store groundwater for disposal (which would need to be accessible to a tanker truck). Some locations may not allow for the placement of these items due to physical or property ownership constraints. In those cases, it may be necessary to implement alternative response actions, such as increased manual monitoring/removal.

4.6 Evaluation of NAPL Monitoring and Recovery Activities

4.6.1 Extent of NAPL

The historical maximum extent of measurable LNAPL at GMA 3 is illustrated on Figure 9 and the extent of LNAPL observed during the fall 2012 semi-annual monitoring event is shown on Figure 10. The LNAPL thicknesses detected during the fall 2012 semi-annual monitoring event are listed in Table 4. In addition to the GMA 3 wells, Table 4 and Figures 9 and 10 include certain wells outside of GMA 3. In particular, GE has monitored well GMA4-3, located in GMA 4 across Plastics Avenue from GMA 3. NAPL has never been detected in that well. Also, in EPA's December 7, 2006 conditional approval letter, EPA required GE to include GMA 4 wells 60B-R and RF-14 on groundwater elevation contour maps for GMA 3. Accordingly, GE has included those wells in this report. These figures show a decrease in the extent of measurable LNAPL observed in fall 2012 compared to the known maximum extent, particularly along the northern edge of the LNAPL area. This reduction in LNAPL extent on the northern portion of the LNAPL plume is likely attributable to GE's active NAPL recovery program, which includes automatic skimmer systems in wells 51-21 and GMA3-17, plus routine manual recovery of LNAPL at surrounding locations.



The extent of LNAPL has remained relatively consistent in recent years. During the fall 2012 semi-annual monitoring event, LNAPL was not observed in three wells (GMA3-10 and GMA3-13 to the west of Building 51 and 51-16R on the northern edge of the NAPL plume) where it was detected during the previous fall monitoring event conducted in 2011. However, LNAPL was recorded at each of these wells during other routine monitoring rounds conducted during fall 2012. LNAPL was also detected at well 59-01 (located to the north of Building 59) during the fall 2012 monitoring event, but was not observed at this well during the fall 2011 monitoring event. LNAPL has frequently been detected at this well in the past, most recently in spring 2011.

In April 2007, DNAPL was observed in well GMA3-16 during the first monitoring round performed after its installation and again at trace amounts mixed with well sediment in April 2009 and October 2009. The DNAPL in this area was observed above shallow peat deposits at approximately 11 feet below grade and monitoring well GMA3-16 was installed with a screen section across that area and contains a one-foot collection sump at the base of the screen. As seen on Cross-Section C-C' (provided as Figure 5) and the top of peat layer contour map (Figure 8), a localized depression in the peat surface is present in the vicinity of well GMA3-16. This well has been checked on a weekly or monthly basis since spring 2007 and, with the exception of these three instances mentioned above, no DNAPL has entered the well. DNAPL has not been observed at any of the other GMA 3 wells.

In December 2011, field staff recorded an apparent observation of DNAPL at well UB-MW-10 during routine monthly monitoring activities. To evaluate this observation, samples of the substance were collected from the well December 7, 2011 and submitted for laboratory analysis. However, the sample was found to contain only water and sediment when analyzed by the laboratory. GE and EPA discussed the potential that the well integrity may have been compromised, allowing impacted soil (the well is located a former fuel oil storage tank) to enter the well and settle at the base and GE proposed to replace small-diameter well UB-MW-10 with a 2-inch diameter well. Following EPA approval, replacement well UB-MW-10R was installed on December 19, 2011. Since then, GE has monitored replacement well UB-MW-10R under the same monthly schedule utilized at former well UB-MW-10. No NAPL has been detected in replacement well UB-MW-10R during any of the monthly monitoring events performed since its installation.

4.6.2 NAPL Recovery

As discussed in Section 2.4, approximately 201.6 gallons of LNAPL were recovered at GMA 3 in fall 2012. Of this total, approximately 172.8 gallons were removed by the automated skimmer system at well 51-21, approximately 20.6 gallons were removed by the automated skimmer system at well GMA3-17, and the remaining 8.2 gallons were manually recovered from other monitoring wells (see Tables 5 and 6). For comparison, over the same time period in fall 2011, approximately 48 gallons of LNAPL were recovered at GMA 3



(approximately 38.5 gallons by the automated skimmer system at well 51-21, approximately 6.7 gallons by the automated skimmer system at well GMA3-17, and approximately 3.5 gallons via manual recovery at other monitoring wells).

As shown above, the LNAPL volumes recovered by the automated skimmer systems were significantly greater than the volumes recovered in fall 2011, particularly by the well 51-21 system. There was also an increase in manual LNAPL removal, primarily attributed to an increase recovery volumes at wells 51-08 (approximately 5.2 gallons recovered in fall 2012 compared to approximately 0.66 gallons in fall 2011) and GMA3-12 (approximately 1.8 gallons removed in fall 2012 compared to approximately 0.20 gallon in fall 2011). At some locations, LNAPL was removed at lower volumes in fall 2012 compared to fall 2011, with the greatest decrease in removal taking place at well GMA3-10, where approximately 0.147 gallons was removed during weekly monitoring in fall 2012 compared to 1.14 gallon removed in fall 2011. Since 1997, approximately 2,199 gallons of LNAPL have been removed from GMA 3 as part of GE's NAPL monitoring and recovery program.

Per Condition 4 of EPA's conditional approval letter of the fall 2007 GMA 3 NAPL Monitoring Report dated April 23, 2008, GE has continued to evaluate whether a connection exists between groundwater elevations and LNAPL recovery volumes at GMA 3. The graphs presented in Appendix B compare the volumes of LNAPL recovered on a quarterly basis since summer 2000 to the average quarterly groundwater elevations of the wells within or adjacent to the known LNAPL area. A graph illustrating the data comparisons for the overall time period for which data were available (i.e., all results from summer 2000 through 2012) is presented to assess variations in groundwater elevations and LNAPL recovery between quarters. In addition, graphs of the data from each individual quarter are provided to assess if LNAPL recovery varied based on isolated wet or dry seasons over the same time period.

As shown in the overall data graph in Appendix B, Quarters 3 (July through September) and 4 (October through December), which are typically the seasons with decreased overall groundwater elevations, typically produced the greatest LNAPL removal during any given year. Quarter 2 (April through June) typically showed the least LNAPL recovery and the most elevated groundwater elevations compared to the other quarters. In terms of total LNAPL volume removed between 2001 and 2012 (removal volumes from summer and fall 2000 were excluded from this analysis to allow an equal number of seasons to be included for each quarter), approximately 19.4% of the LNAPL volume was recovered in Quarter 1, 10.3% in Quarter 2, 40.7% in Quarter 3, and 29.8% in Quarter 4. In 2012, approximately 17.4% of the LNAPL volume was recovered in Quarter 1, 12.4% in Quarter 2, 37.4% in Quarter 3, and 32.6% in Quarter 4.



Although a review of the graphs for the individual quarters suggests that there may be a slight seasonal correlation, with increased LNAPL recovery in Quarter 3 and Quarter 4, a seasonal correlation has not been consistently observed. Groundwater elevations are relatively consistent in this area (generally slightly above or below 987 feet AMSL), and even more so when comparing data over the same time period from year to year, while the volume of LNAPL recovered showed a much greater degree of variation, even between quarters with similar average groundwater elevations. In 2012, Quarter 1 had the highest average groundwater elevation, but NAPL removal volume was more than that of the second quarter, which had about a two foot lower groundwater table.

Pursuant to EPA's December 16, 2009 conditional approval letter, GE has continued to evaluate the feasibility of enhanced NAPL recovery in this area. Although the historical results may indicate a possible correlation between lower groundwater elevations and higher LNAPL recovery, the relationship does not appear to be sufficiently consistent (as exemplified in 2012) or significant to warrant modifications to the ongoing NAPL recovery program to optimize recovery. Most importantly, as shown on Figure 7, the LNAPL in this area is present in a groundwater depression and its extent has been stable for many years. Generally higher groundwater elevations to the south (particularly near wells 51-12 and GMA3-11) are preventing LNAPL from moving along the regional flowpath. In the very northeast corner of the LNAPL plume (near wells 51-17 and 51-19) the groundwater elevations to the south and east are not clearly higher; however, the existing monitoring well network shows that LNAPL is not migrating eastward or southward. The ongoing LNAPL recovery efforts being conducted by GE are also reducing the volume of LNAPL present, as indicated by the decrease in the northern extent of the LNAPL (see Figures 9 and 10).

As shown in Table 5, no LNAPL thickness of greater than one foot was recorded in any of the GMA 3 wells in fall 2012. The three wells with the greatest LNAPL thicknesses and corresponding manual recovery volumes were well 51-8 (maximum LNAPL thickness measured at 0.83 foot with 5.241 gallons removed in fall 2012), well 51-17 (maximum LNAPL thickness of 0.77 foot with 1.005 gallons removed), and GMA3-12 (maximum LNAPL thickness of 0.87 foot with a removal volume of 1.851 gallons). LNAPL recovery testing has previously been conducted at wells 51-8 and GMA3-12, and at two other wells not located near the existing skimmer systems (GMA3-10 and GMA3-13) where LNAPL has consistently been detected and the testing results did not indicate that installation of automated recovery systems was warranted at those locations.

GE will continue to evaluate the NAPL monitoring and recovery results in this area and will present proposals to optimize its recovery efforts when applicable.



5. Schedule of Future Activities

5.1 General

The interim monitoring groundwater program will be conducted until the necessary soil-related remediation actions in the portion of the Unkamet Brook Area that comprises GMA 3 have been completed. GE has reviewed the results of its groundwater and NAPL monitoring-related activities conducted at GMA 3 in fall 2012, including the groundwater analytical data from the fall 2012 interim sampling event, for results that could indicate the need to modify the interim monitoring program. The results of that evaluation are discussed in Section 5.2 below. This section also summarizes the schedule for upcoming interim monitoring events and associated reporting activities.

A summary of the interim groundwater sampling program activities to be conducted in spring 2013 is provided in Table 9. The monitoring wells subject to sampling in spring 2013 are illustrated on Figure 11. GE will also continue to monitor groundwater elevations at the GMA 3 wells where such monitoring is required in accordance with the approved monitoring schedule and where access permission has been obtained.

5.2 Evaluation of Potential Modifications to Interim Monitoring Program

GE has previously presented evaluations of the sampling results from GMA 3 and proposed to retain certain wells for selected analyses in the interim monitoring program to provide additional data to assist in the determination of whether long-term monitoring would be necessary. Generally speaking, any wells that contained constituent concentrations near the values of the Performance Standards (i.e., average concentrations ranging from greater than 50% of an applicable MCP Method 1 Standard to slightly above the standard), or where constituent concentrations exhibited an increasing trend during the course of baseline monitoring were retained for interim monitoring. In addition, selected wells/analyses were added to the interim monitoring program, regardless of constituent concentrations relative to standards, based on their inclusion in GE's assessment of natural attenuation of the chlorobenzene present in this area. Groundwater quality monitoring was proposed to be discontinued at locations where constituent concentrations were well below the applicable MCP Method 1 Standards and at locations where concentrations consistently exceeded the standards, as it was apparent that such locations either would not or would be included in a long-term monitoring program.



Following revisions to the MCP that became effective on February 14, 2008, GE re-evaluated the existing groundwater quality data at GMA 3 and identified certain locations that should be added to or removed from the interim monitoring program and, in the Spring 2008 GMA 3 Monitoring Report, GE proposed modifications to the interim monitoring program in response to the promulgation of a new Method 1 GW-2 and revised Method 1 GW-3 standard for PCBs. The modifications to the interim sampling program proposed in that report, as conditionally approved by EPA, were implemented in fall 2008.

To further assess an elevated chlorobenzene concentration (170 ppm) detected at natural attenuation monitoring well 39B-R in spring 2010, GE has conducted supplemental fall sampling of this well for VOC analysis in 2010 through 2012 (typically, GE samples this well for VOCs and natural attenuation parameters on an annual basis in the spring only). The initial supplemental sampling event was conducted in fall 2010 as proposed by GE and approved by EPA, while the subsequent rounds were performed in accordance with EPA requirements to continue such sampling (most recently contained in Condition 1 of EPA's April 10, 2012 conditional approval letter).

As noted in Section 3.5, the fall 2012 chlorobenzene results at well 39B-R (10 ppm and a duplicate of 17 ppm) were not only below the most recent sampling event but were consistent with results that have been historically recorded at this location, prior to spring 2010. However, since the data has fluctuated significantly over the past two years and this well will soon be sampled again as part of the spring 2013 natural attenuation sampling event, GE will evaluate the chlorobenzene results to be obtained during the spring 2013 sampling event and will make a proposal concerning the need for additional fall sampling at this location.

Apart from the chlorobenzene results discussed above, GE has reviewed the remaining groundwater analytical data from this sampling event for results that could indicate the need to modify the interim monitoring program. The fall 2012 data from well 39B-R are generally consistent with prior monitoring results and no other modifications to the groundwater sampling program are proposed.

5.3 Field Activities Schedule

GE will continue its routine groundwater elevation and NAPL monitoring according to the current schedule approved by EPA. In accordance with the approved semi-annual monitoring schedule, the spring 2013 groundwater elevation monitoring and NAPL monitoring event is scheduled to be completed in April 2013. GE will conduct a NAPL



bailing round approximately two weeks prior to the spring 2013 semi-annual NAPL monitoring event.³

GE will conduct the spring 2013 interim groundwater sampling event at GMA 3 in April to May 2013, in conjunction with groundwater sampling activities that will be performed at the other GMAs. As shown in Table 9 and on Figure 11, the sampling activities proposed for spring 2013 are the collection of annual spring samples for PCB analysis at well 16B-R and a natural attenuation sampling event (conducted each spring) at 22 wells, with analysis for VOCs and the natural attenuation parameters list, including 2-chlorophenol and 4-chlorophenol at select locations, as listed in Table 9.

As discussed in Appendix F, during October 2013 GE will conduct its annual inventory of materials and/or products within Buildings 51 and 59 that could contain volatile constituents similar to those that have been previously detected in the indoor air samples and are common to the target constituents in the LNAPL or groundwater. Shortly following completion of the building inventories, GE will perform additional sampling and analysis of soil gas beneath, and indoor air within, Buildings 51 and 59 at or near the same locations that were sampled in fall 2012.

Prior to performance of field activities, GE will provide EPA with 7 days advance notice to allow the assignment of field oversight personnel.

5.4 Reporting Schedule

GE will submit the *Groundwater Management Area 3 Groundwater Quality and NAPL Monitoring Interim Report for Spring 2013* by August 31, 2013, in accordance with the reporting schedule approved by EPA. That report will present the final, validated spring 2013 interim sampling results and a brief discussion of the results, including any proposals to further modify the interim monitoring program, if necessary. GE will also include the groundwater elevation monitoring results and NAPL monitoring and recovery data for the period of January 2013 through June 2013, along with a summary of other activities related to groundwater quality and NAPL monitoring/recovery conducted at GMA 3 during that time period and any proposals to modify those activities, if applicable.

³ GE is continuing its efforts to obtain a reissued license from the U.S. Navy allowing access to Navy-owned Parcel L12-2-2 and a revised agreement with CSX allowing access to CSX-owned Parcel K11-4-2 for conducting groundwater elevation/NAPL monitoring at wells on those properties. However, if that license and/or agreement is not received by the time of the spring 2013 monitoring activities, such activities will not be performed at the wells on those properties – namely, wells GMA3-5, OBG-2, and 82B-R at Parcel L12-2-2 and/or wells 16A and 16C-R at Parcel K11-4-2.



GE will also continue to provide the results of its ongoing groundwater, NAPL, soil gas and indoor monitoring activities and NAPL recovery efforts in its monthly reports on overall activities at the GE-Pittsfield/Housatonic River Site.

The results of the next round of building inventories and sub-slab soil gas/indoor air sampling will be presented as part of the *Groundwater Management Area 3 Groundwater Quality and NAPL Monitoring Interim Report for Fall 2013*, which will be submitted by February 28, 2014.

In addition, GE is in the process of preparing a *Final Removal Design/Removal Action Work Plan for Unkamet Brook Area-Remainder* (Remainder Final Work Plan), which will be submitted to EPA by March 29, 2013. The Remainder Final Work Plan will present a summary of the pertinent pre-design investigations performed within the Unkamet Brook Area; a summary of the PCB and non-PCB evaluation procedures and results; design information; an evaluation of the impact of the proposed soil and sediment remediation on flood storage capacity; a discussion of Contractor selection; a detailed implementation plan; a summary of post-construction activities; and information regarding the anticipated time frame for construction activities. As at other areas where GE has performed soil remediation, GE plans to protect, decommission, or remove and replace select monitoring wells that may be impacted by the remediation activities or are otherwise not utilized or anticipated to be needed in the future. GE is currently evaluating the monitoring well network at the Unkamet Brook Area-Remainder (which includes parts of GMA 3 and GMA 4) and will submit a well decommissioning proposal to EPA prior to its submittal of the Remainder Final Work Plan. Although the actual well decommissioning activities will likely be performed as part of the Unkamet Brook Area-Remainder remediation, they will also be summarized in future GMA 3 or GMA 4 monitoring reports, as appropriate.

Tables

Table 1
Groundwater Quality Sampling Program Summary - Fall 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Number	Monitoring Well Usage	Fall 2012 Analyses	Comments
39B-R	Natural Attenuation/Supplemental	VOC	Samples analyzed on an annual basis for natural attenuation in the spring and on a semi-annual basis for VOCs in the spring and fall

Notes

1. Well 39B-R was the only monitoring well sampled in fall 2012. All other wells are sampled on an annual basis:
 - Wells analyzed for natural attenuation monitoring parameters are sampled on an annual basis in the spring.
 - Other wells included in the interim groundwater quality monitoring program are sampled for select parameters once per year, alternating between the spring and fall seasons. The next annual interim sampling round is scheduled for fall 2013.

Table 2
Groundwater Elevation/NAPL Monitoring Program Summary

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Number	Monitoring Frequency ⁽¹⁾	Manual NAPL Removal Criteria ⁽²⁾	Comments
GMA 3 Monitoring Wells			
002A	Semi-Annual	Notification/Removal	
06B-R	Semi-Annual	Notification/Removal	
016A	Semi-Annual	Notification/Removal	
016B-R	Semi-Annual	Notification/Removal	
016C-R	Semi-Annual	Notification/Removal	
039B-R	Semi-Annual	Notification/Removal	
039D-R	Semi-Annual	Notification/Removal	
039E	Semi-Annual	Notification/Removal	
043A	Semi-Annual	Notification/Removal	
043B	Semi-Annual	Notification/Removal	
050B	Semi-Annual	Any Recoverable	
51-5	Monthly	Standard Criteria	
51-6	Monthly	Standard Criteria	
51-7	Monthly	Standard Criteria	
51-8	Weekly	Standard Criteria	
51-9	Monthly	Standard Criteria	
51-11	Monthly	Standard Criteria	
51-12	Monthly	Standard Criteria	
51-13	Monthly	Standard Criteria	
51-14	Monthly	Standard Criteria	
51-15	Monthly	Standard Criteria	
51-16R	Monthly	Standard Criteria	
51-17	Monthly	Standard Criteria	
51-18	Monthly	Standard Criteria	
51-19	Monthly	Standard Criteria	
51-21	None	LNAPL skimmer in operation	Periodic monitoring conducted as part of routine maintenance activities
54B-R	Semi-Annual	Notification/Removal	
59-1	Monthly	Standard Criteria	
59-3R	Monthly	Standard Criteria	
59-7	Monthly	Standard Criteria	
078B-R	Monthly	Notification/Removal	
082B-R	Semi-Annual	Notification/Removal	
089A	Semi-Annual	Notification/Removal	
089B	Semi-Annual	Notification/Removal	
089D-R	Semi-Annual	Notification/Removal	
090A	Semi-Annual	Notification/Removal	
090B	Semi-Annual	Notification/Removal	
095A	Semi-Annual	Notification/Removal	
095B-R	Semi-Annual	Notification/Removal	
111A-R	Semi-Annual	Notification/Removal	
111B-R	Semi-Annual	Notification/Removal	
114A	Semi-Annual	Notification/Removal	

Table 2
Groundwater Elevation/NAPL Monitoring Program Summary

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Number	Monitoring Frequency ⁽¹⁾	Manual NAPL Removal Criteria ⁽²⁾	Comments
114B-R	Semi-Annual	Notification/Removal	
115A	Semi-Annual	Notification/Removal	
115B	Semi-Annual	Notification/Removal	
GMA3-1	None	None	Installation of wells deferred until re-routing of Unkamet Brook is completed
GMA3-2	Semi-Annual	Notification/Removal	
GMA3-3	Semi-Annual	Notification/Removal	
GMA3-4	Semi-Annual	Notification/Removal	
GMA3-5	Semi-Annual	Notification/Removal	Not monitored due to access issues
GMA3-6	Semi-Annual	Notification/Removal	
GMA3-7	Quarterly	Notification/Removal	
GMA3-8	Semi-Annual	Notification/Removal	
GMA3-9	Semi-Annual	Notification/Removal	
GMA3-10	Weekly	Standard Criteria	
GMA3-11	Monthly	Any Recoverable	
GMA3-12	Weekly	Standard Criteria	
GMA3-13	Weekly	Any Recoverable	
GMA3-14	Monthly	Notification/Removal	
GMA3-15	Quarterly	Notification/Removal	
GMA3-16	Monthly	Any Recoverable	
GMA3-17	None	LNAPL skimmer in operation	Periodic monitoring conducted as part of routine maintenance activities
OBG-2	Semi-Annual	Notification/Removal	Not monitored due to access issues
UB-MW-10R	Monthly	Any Recoverable	
UB-PZ-3	Monthly	Any Recoverable	
GMA 4 Monitoring Wells			
060B-R	Semi-Annual	Notification/Removal	
GMA4-3	Semi-Annual	Notification/Removal	
RF-14	Semi-Annual	Notification/Removal	
GMA 3 Staff Gauges			
GMA3-SG-1	Semi-Annual	Not Applicable	
GMA3-SG-2	Semi-Annual	Not Applicable	
GMA3-SG-3A	Semi-Annual	Not Applicable	
GMA3-SG-4	Semi-Annual	Not Applicable	No water present during Fall 2012 monitoring event

Notes:

- Monitoring consists of periodic depth to water and NAPL thickness measurements, if present, and may also consist of manual removal of NAPL if a thickness greater than the well-specific criteria is observed during a monitoring event.
- The Manual NAPL Removal Criteria listed above consist of the following:
 - Standard Criteria* - LNAPL thickness of greater than 0.25 feet or DNAPL thickness of greater than 0.5 feet.
 - Any Recoverable* - All recoverable LNAPL or DNAPL is removed, regardless of observed thickness.
 - Notification/Removal* - NAPL is not known to be present in the well. Per the Plant Site NAPL monitoring program protocol, if NAPL is observed, any recoverable thickness will be removed and EPA shall be notified of the new occurrence. The well will then be monitored on a weekly basis and any recoverable LNAPL observed will be removed. After one month of monitoring, the monitoring results will be reviewed to evaluate potential future response actions.
- Any NAPL observed during the bailing round conducted prior to the spring and fall semi-annual monitoring events is manually removed.
- No NAPL is manually removed from any wells during the spring and fall semi-annual monitoring events, provided that NAPL was removed during the bailing round.
- No NAPL is required to be manually removed from any well during non-routine data collection activities.

Table 3
Monitoring Well Construction Summary

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well ID	Survey Coordinates		Well Diameter (inches)	Ground Surface Elevation (ft AMSL)	Measuring Point Elevation (ft AMSL)	Depth to Screen (ft bgs)	Screen Length (Feet)	Top of Screen Elevation (ft AMSL)	Base of Screen Elevation (ft AMSL)	Average Depth to Groundwater (ft bgs)	Average Groundwater Elevation (ft AMSL)	Lowest Groundwater Elevation (ft AMSL)	Highest Groundwater Elevation (ft AMSL)	Fall 2012 Groundwater Depth (ft bgs)	Fall 2012 Groundwater Elevation (ft AMSL)	Type of Monitoring Applicable to Well in Fall 2012		
	Northing	Easting														Water Table	LNAPL	DNAPL
GMA 3 Monitoring Wells																		
002A	537004.90	138853.70	1.5	991.50	994.15	45.0	5.0	946.5	941.5	5.7	985.77	980.97	988.62	5.71	985.79	---	---	---
006B-R	537191.30	138910.00	2.0	991.50	993.85	2.1	10.0	989.4	979.4	4.8	986.66	983.65	988.92	4.80	986.70	X	X	---
016A	536730.90	139115.30	2.0	991.80	991.81	44.3	6.0	947.5	941.5	7.2	984.56	982.72	986.65	NM	NM	---	---	---
016B-R	536856.80	139061.60	2.0	992.00	994.91	3.3	10.0	988.7	978.7	6.4	985.60	984.72	986.45	6.11	985.89	X	X	---
016C-R	536742.10	139114.50	2.0	991.20	993.19	89.9	10.0	901.3	891.3	7.4	983.75	970.58	986.53	NM	NM	---	---	---
039B-R	536938.60	138862.40	2.0	992.42	992.16	4.1	10.0	988.3	978.3	6.9	985.48	980.62	986.92	6.72	985.70	X	X	---
039D-R	536941.70	138854.70	2.0	992.40	994.82	55.1	10.0	937.3	927.3	6.4	985.95	984.79	987.87	6.53	985.87	---	---	---
039E	536932.20	138850.80	3.0	992.53	992.22	225.2	10.0	767.3	757.3	6.0	986.55	985.18	987.86	6.19	986.34	---	---	---
043A	538082.40	137906.10	2.0	991.80	993.66	44.9	5.0	946.9	941.9	5.0	986.84	982.22	989.09	3.62	988.18	---	---	---
043B	538081.30	137904.70	2.0	991.90	993.61	15.0	5.0	976.9	971.9	4.1	987.80	986.58	989.18	3.99	987.91	---	---	---
050B	538650.60	139106.50	2.0	989.80	991.66	10.4	5.0	979.4	974.4	1.2	988.64	987.55	990.01	1.39	988.41	---	---	---
51-05	536750.50	138335.10	2.0	997.00	996.38	5.1	10.0	991.9	981.9	10.5	986.49	985.03	987.86	NM	NM	---	---	---
51-06	536925.60	138202.20	2.0	997.67	997.32	5.1	10.0	992.6	982.6	10.8	986.87	985.20	992.36	11.61	986.06	X	X	---
51-07	536842.90	138244.60	2.0	997.30	996.99	5.0	10.0	992.3	982.3	10.7	986.61	985.53	989.94	11.49	985.81	X	X	---
51-08	536678.00	138316.70	2.0	997.41	997.18	5.0	10.0	992.4	982.4	11.1	986.27	985.95	987.71	11.70	985.71	X	X	---
51-09	536563.50	138369.90	2.0	998.06	997.70	5.3	10.0	992.8	982.8	10.6	987.47	985.33	989.28	10.47	987.59	X	X	---
51-11	536859.50	138774.80	2.0	994.66	994.39	5.0	10.0	989.6	979.6	8.6	986.06	981.77	988.21	9.16	985.50	X	X	---
51-12	536497.00	138517.90	2.0	996.89	996.56	5.1	10.0	991.8	981.8	7.7	989.23	988.56	990.46	7.38	989.51	X	X	---
51-13	536917.00	138579.70	2.0	997.69	997.29	5.1	10.0	992.6	982.6	10.6	987.08	985.34	997.42	11.81	985.88	X	X	---
51-14	536771.10	138502.40	2.0	996.99	996.64	5.1	10.0	991.9	981.9	10.7	986.27	984.83	987.51	11.15	985.84	X	X	---
51-15	536807.70	138463.60	2.0	996.88	996.46	5.2	10.0	991.7	981.7	10.5	986.38	984.77	987.75	11.08	985.80	X	X	---
51-16R	536827.80	138348.80	2.0	996.74	996.44	5.0	10.0	991.7	981.7	10.3	986.46	985.41	987.67	10.95	985.79	X	X	---
51-17	536769.30	138377.20	2.0	996.61	996.27	5.1	10.0	991.5	981.5	10.2	986.44	984.82	987.80	10.91	985.70	X	X	---
51-18	536902.30	138463.00	2.0	997.47	997.26	5.1	10.0	992.4	982.4	11.1	986.37	985.21	987.59	11.51	985.96	X	X	---
51-19	536824.20	138415.10	2.0	996.84	996.46	5.2	10.0	991.7	981.7	10.7	986.16	984.40	987.40	11.14	985.70	X	X	---
51-21	536784.90	138392.20	4.0	996.70	1,001.43	5.0	10.0	991.7	981.7	10.4	986.27	983.75	987.76	11.18	985.52	X	X	---
054B-R	537827.40	139113.90	2.0	989.10	991.55	3.1	10.0	986.0	976.0	2.3	986.77	984.26	988.22	2.10	987.00	X	---	X
59-01	536488.60	138238.30	2.0	998.20	997.80	4.4	20.0	993.8	973.8	11.5	986.70	985.29	988.30	12.61	985.59	X	X	---
59-03R	536501.60	138258.30	2.0	998.44	997.65	7.9	10.0	990.5	980.5	12.1	986.37	984.69	987.95	12.85	985.59	X	X	---
59-07	536517.40	138295.60	2.0	998.65	997.80	4.4	20.0	994.3	974.3	12.2	986.45	984.86	987.81	13.46	985.19	X	X	---
060B-R	534740.20	135328.00	2.0	1,003.04	1,002.79	12.0	10.0	991.0	981.0	15.4	987.68	984.51	992.93	17.00	986.04	X	X	---
078B-R	537551.80	138716.30	2.0	989.01	988.73	1.7	10.0	987.3	977.3	1.6	987.38	985.70	986.96	2.66	986.35	X	X	X
082B-R	536937.40	139621.40	2.0	987.80	989.91	2.0	10.0	985.8	975.8	2.5	985.29	983.51	987.08	NM	NM	---	---	---
089A	536030.70	139413.60	1.0	984.20	985.89	43.6	5.0	940.6	935.6	1.3	982.87	979.03	985.01	1.16	983.04	---	---	---
089B	536031.70	139411.80	2.0	984.20	986.06	5.1	3.0	979.1	976.1	0.7	983.52	981.76	984.89	1.14	983.06	X	---	---
089D-R	536072.20	139434.90	2.0	984.80	986.90	67.9	10.0	916.9	906.9	1.9	982.91	977.16	985.32	1.78	983.02	---	---	---
090A	536255.00	139765.00	1.0	986.80	988.25	45.3	5.0	941.5	936.5	4.0	982.80	981.82	985.25	3.85	982.95	---	---	---
090B	536251.70	139760.80	2.0	986.80	989.36	8.3	3.0	978.5	975.5	4.2	982.57	981.25	984.24	3.97	982.83	X	---	---
095A	535822.20	139769.60	1.0	985.40	987.32	45.1	5.0	940.3	935.3	4.5	980.88	979.98	983.07	4.63	980.77	---	---	---
095B-R	535637.60	139722.40	2.0	984.20	986.24	2.9	10.0	981.3	971.3	3.4	980.83	978.56	982.32	3.71	980.49	X	X	---
111A-R	535824.30	139087.50	2.0	995.20	997.46	40.1	10.0	955.1	945.1	11.7	983.49	979.23	985.63	11.54	983.66	---	---	---
111B-R	535828.20	139091.90	2.0	994.90	997.60	7.3	10.0	987.6	977.6	11.8	983.14	978.59	985.08	11.60	983.30	X	X	---
114A	535499.10	139775.00	1.0	983.50	986.30	45.3	5.0	938.2	933.2	3.8	979.71	975.51	981.99	3.24	980.26	---	---	---
114B-R	535504.10	139786.60	2.0	983.60	985.54	4.1	10.0	979.5	969.5	4.1	979.52	977.25	981.76	3.96	979.64	X	---	---
115A	535102.60	139823.90	1.0	987.00	988.75	36.3	5.0	950.7	945.7	8.1	978.94	974.75	982.22	6.73	980.27	---	---	---
115B	535119.70	139878.00	1.0	988.50	990.97	11.3	5.0	977.3	972.3	8.7	979.79	976.57	981.28	9.15	979.35	X	---	---

Table 3
Monitoring Well Construction Summary

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well ID	Survey Coordinates		Well Diameter (inches)	Ground Surface Elevation (ft AMSL)	Measuring Point Elevation (ft AMSL)	Depth to Screen (ft bgs)	Screen Length (Feet)	Top of Screen Elevation (ft AMSL)	Base of Screen Elevation (ft AMSL)	Average Depth to Groundwater (ft bgs)	Average Groundwater Elevation (ft AMSL)	Lowest Groundwater Elevation (ft AMSL)	Highest Groundwater Elevation (ft AMSL)	Fall 2012 Groundwater Depth (ft bgs)	Fall 2012 Groundwater Elevation (ft AMSL)	Type of Monitoring Applicable to Well in Fall 2012		
	Northing	Easting														Water Table	LNAPL	DNAPL
GMA 3 Monitoring Wells																		
GMA3-2	536596.50	138956.40	2.0	992.36	992.16	5.3	10.0	987.1	977.1	8.0	984.38	980.02	986.15	7.60	984.76	X	X	---
GMA3-3	538094.30	138178.10	2.0	990.97	990.45	2.1	10.0	988.9	978.9	2.2	988.72	985.34	990.45	2.82	988.15	X	X	---
GMA3-4	537044.70	138021.70	2.0	995.07	994.61	3.7	10.0	991.4	981.4	7.7	987.41	982.34	989.10	7.86	987.21	X	X	---
GMA3-5	537323.20	139767.10	2.0	991.60	993.72	4.1	10.0	987.5	977.5	5.7	985.88	984.02	987.43	NM	NM	---	---	---
GMA3-6	537021.70	138342.30	2.0	1,000.60	1,003.31	10.9	10.0	989.7	979.7	14.8	985.79	980.33	987.93	14.47	986.13	X	X	---
GMA3-7	536291.80	138397.20	2.0	1,000.60	1,000.36	10.2	10.0	990.5	980.5	13.6	987.05	981.78	1,000.17	15.04	985.56	X	X	---
GMA3-8	536339.70	138899.10	2.0	994.60	996.29	5.1	10.0	989.5	979.5	8.9	985.66	981.42	987.48	8.87	985.73	X	X	---
GMA3-9	537383.30	138385.30	2.0	992.63	992.38	2.7	10.0	989.9	979.9	5.0	987.67	983.61	989.26	5.45	987.18	X	X	X
GMA3-10	536658.60	138056.40	2.0	997.78	997.49	9.0	10.0	988.8	978.8	11.1	986.68	985.34	988.03	12.19	985.59	X	X	---
GMA3-11	536353.80	138147.90	2.0	997.93	997.25	9.1	10.0	988.8	978.8	10.8	987.17	985.60	992.94	10.76	987.17	X	X	---
GMA3-12	536469.20	138169.60	4.0	998.39	997.85	7.4	15.0	991.0	976.0	11.8	986.61	985.35	987.93	13.04	985.35	X	X	---
GMA3-13	536534.60	138036.10	2.0	998.03	997.71	8.1	10.0	989.9	979.9	11.4	986.63	985.31	987.98	12.72	985.31	X	X	---
GMA3-14	536710.20	137953.10	2.0	997.69	997.42	7.3	10.0	990.4	980.4	10.8	986.93	986.19	988.10	11.32	986.37	X	X	---
GMA3-15	536734.90	138738.30	2.0	994.60	996.74	6.0	10.0	988.6	978.6	9.0	985.56	984.49	986.80	9.65	984.95	X	X	---
GMA3-16	537542.70	138664.90	2.0	989.75	989.17	2.0	10.0	987.8	977.8	2.9	986.85	977.94	989.26	3.59	986.16	X	X	X
GMA3-17	536497.80	138261.50	4.0	998.40	1,003.17	7.0	13.0	991.4	978.4	12.8	985.60	983.95	987.14	13.16	985.24	X	X	---
OBG-2	537209.30	139475.80	2.0	992.24	991.94	3.0	11.4	989.2	977.8	5.1	987.17	986.06	988.51	NM	NM	---	---	---
UB-MW-10R	536910.80	138275.10	2.0	996.31	996.12	7.0	9.0	989.3	980.3	8.6	986.49	984.45	987.83	10.37	985.94	X	X	---
UB-PZ-3	536479.90	138109.80	1.5	998.63	998.22	11.1	5.0	987.6	982.6	12.3	986.30	985.02	987.83	13.31	985.32	X	X	---
GMA 4 Monitoring Wells																		
060B-R	534740.20	135328.00	2.0	1,003.04	1,002.79	12.0	10.0	991.0	981.0	15.4	987.68	984.51	992.93	17.00	986.04	X	X	---
GMA4-3	536289.20	137999.50	2.0	1,004.64	1,004.36	16.6	10.0	988.1	978.1	17.9	986.73	985.30	988.15	18.76	985.88	X	X	---
RF-14	536833.60	137753.70	4.0	1,002.23	1,001.91	7.3	15.0	994.9	979.9	11.2	991.01	979.32	994.98	11.14	991.09	X	X	---

- Notes:
- The listed wells have been utilized for baseline/interim groundwater quality sampling, groundwater elevation/NAPL monitoring, and/or hydraulic conductivity testing.
 - ft AMSL: Feet above mean sea level
 - ft bgs: Feet below ground surface
 - Ground surface elevations are based on the most recent survey data available. Where applicable, the listed depth to top of well screen has been revised from the initial construction specifications to reflect changes in grade since installation.
 - NM : Well not monitored in fall 2012
 - Wells 82B-R, GMA3-5, and OBG-2 were not monitored in fall 2012 due to lack of access permission from property owner (U.S. Navy).
 - Wells 16A and 16C-R were not monitored in fall 2012 due to lack of access permission from property owner(CSX)
 - Wells 51-05 was dry during fall 2012 groundwater monitoring event

Table 4
Groundwater Elevation Data - Fall 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Number	Overall Average Groundwater Elevation (ft AMSL)	Average Fall Groundwater Elevation (ft AMSL)	Fall 2012 Groundwater Elevation (ft AMSL)	Fall 2012 LNAPL Thickness (ft)	Fall 2012 DNAPL Thickness (ft)
GMA 3 Monitoring Wells Screened at Water Table					
006B-R	986.66	986.84	986.70	ND	ND
016B-R	985.60	985.63	985.89	ND	ND
039B-R	985.48	985.90	985.70	ND	ND
043B	987.80	988.18	987.91	ND	ND
050B	988.64	988.71	988.41	ND	ND
51-05	986.49	986.35	NM	NM	NM
51-06	986.87	986.41	986.06	ND	ND
51-07	986.61	986.56	985.81	ND	ND
51-08	986.27	985.87	985.71	1.09	ND
51-09	987.47	987.08	987.59	0.00	ND
51-11	986.06	986.03	985.50	ND	ND
51-12	989.23	989.20	989.51	ND	ND
51-13	987.08	986.82	985.88	ND	ND
51-14	986.27	986.10	985.84	ND	ND
51-15	986.38	986.06	985.80	0.05	ND
51-16R	986.46	986.19	985.79	ND	ND
51-17	986.44	986.10	985.70	0.89	ND
51-18	986.37	986.23	985.96	ND	ND
51-19	986.16	985.89	985.70	0.42	ND
51-21	986.27	985.98	985.52	< 0.01	ND
054B-R	986.77	986.92	987.00	ND	ND
59-01	986.70	986.29	985.59	0.20	ND
59-03R	986.37	985.96	985.59	0.58	ND
59-07	986.45	986.14	985.19	0.13	ND
078B-R	987.38	987.29	986.35	ND	ND
082B-R	985.29	985.10	NM	NM	NM
089B	983.52	983.12	983.06	ND	ND
090B	982.57	982.97	982.83	ND	ND
095B-R	980.83	980.52	980.49	ND	ND
111B-R	983.14	983.63	983.30	ND	ND
114B-R	979.52	979.67	979.64	ND	ND
115B	979.79	979.39	979.35	ND	ND
GMA3-2	984.38	984.93	984.76	ND	ND
GMA3-3	988.72	989.19	988.15	ND	ND
GMA3-4	987.41	987.60	987.21	ND	ND
GMA3-5	985.88	985.80	NM	NM	NM
GMA3-6	985.79	984.96	986.13	ND	ND
GMA3-7	987.05	986.48	985.56	ND	ND
GMA3-8	985.66	985.92	985.73	ND	ND
GMA3-9	987.67	987.19	987.18	ND	ND
GMA3-10	986.68	986.24	985.59	ND	ND
GMA3-11	987.17	987.43	992.94	ND	ND
GMA3-12	986.61	986.19	985.35	0.32	ND
GMA3-13	986.63	986.15	985.31	ND	ND
GMA3-14	986.93	986.61	986.37	ND	ND
GMA3-15	985.56	985.48	984.95	ND	ND
GMA3-16	986.85	987.05	986.16	ND	ND
GMA3-17	985.60	985.31	985.24	ND	ND
OBG-2	987.17	987.04	NM	NM	NM
UB-MW-10R	986.49	986.22	985.94	ND	ND
UB-PZ-3	986.30	985.98	985.32	0.03	ND

Table 4
Groundwater Elevation Data - Fall 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Number	Overall Average Groundwater Elevation (ft AMSL)	Average Fall Groundwater Elevation (ft AMSL)	Fall 2012 Groundwater Elevation (ft AMSL)	Fall 2012 LNAPL Thickness (ft)	Fall 2012 DNAPL Thickness (ft)
GMA 4 Monitoring Wells Screened at Water Table					
060B-R	987.68	987.24	986.04	ND	ND
GMA4-3	986.73	986.34	985.88	ND	ND
RF-14	991.01	991.05	991.09	ND	ND
GMA 3 Monitoring Wells Screened Below Water Table					
002A	985.77	986.39	985.79	ND	ND
039D-R	985.95	986.18	985.87	ND	ND
039E	986.55	986.65	986.34	ND	ND
043A	986.84	988.33	988.18	ND	ND
043B	987.80	988.18	987.91	ND	ND
050B	988.64	988.71	988.41	ND	ND
054B-R	986.77	986.92	987.00	ND	ND
089A	982.87	983.08	983.04	ND	ND
089B	983.52	983.12	983.06	ND	ND
089D-R	982.91	983.83	983.02	ND	ND
090A	982.80	982.97	982.95	ND	ND
090B	982.57	982.97	982.83	ND	ND
095A	980.88	981.26	980.77	ND	ND
111A-R	983.49	984.02	983.66	ND	ND
114A	979.71	980.56	980.26	ND	ND
114B-R	979.52	979.67	979.64	ND	ND
115A	978.94	980.97	980.27	ND	ND
115B	979.79	979.39	979.35	ND	ND
GMA3-11	987.17	987.43	992.94	ND	ND
UB-MW-10R	986.49	986.22	985.94	ND	ND
GMA 3 Staff Gauges					
GMA3-SG-1	---	---	984.62	ND	ND
GMA3-SG-2	---	---	979.00	ND	ND
GMA3-SG-3A	---	---	987.24	ND	ND
GMA3-SG-4	---	---	NM	NM	NM

Notes:

1. Groundwater elevation/NAPL thickness data collected on October 23 and 25 2012
2. Average groundwater elevations based on available seasonal groundwater elevation data since 2000.
3. NM: Not Monitored, ND: Not Detected
4. Wells 82B-R, GMA3-5, and OBG-2 were not monitored in fall 2012 due to lack of access permission from property owner (U.S. Navy).
5. Wells 16A and 16C-R were not monitored in fall 2012 due to lack of access permission from property owner(CSX)
6. Well 51-05 and the area around staff gauge GMA3-SG-4 were dry during the fall 2012 groundwater monitoring event.
7. Staff gauge GMA3-SG-3 was found to be destroyed and was replaced by GMA3-SG-3A, a fixed measuring point.

Table 5
LNAPL Monitoring/Manual Recovery Data

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Number of Times Measured	Measuring Point Elevation (ft AMSL)	Depth to Water		LNAPL Observations			LNAPL Recovery (4)	
			Minimum (ft BMP)	Maximum (ft BMP)	Times Observed	Minimum Thickness (ft)	Maximum Thickness (ft)	LNAPL Recovery (liters)	LNAPL Recovery (Gallons)
GMA 3 Monitoring Wells									
002A	1	994.15	8.36	8.36	---	---	---	---	---
006B-R	1	993.85	7.15	7.15	---	---	---	---	---
016A	NM	991.81	NM	NM	---	---	---	---	---
016B-R	1	994.91	9.02	9.02	---	---	---	---	---
016C-R	NM	993.19	NM	NM	---	---	---	---	---
039B-R	2	992.16	6.35	6.46	---	---	---	---	---
039D-R	1	994.82	8.95	0.00	---	---	---	---	---
039E	1	992.22	5.88	0.00	---	---	---	---	---
043A	1	993.66	5.48	5.93	---	---	---	---	---
043B	1	993.61	5.70	0.00	---	---	---	---	---
050B	1	991.66	3.25	0.00	---	---	---	---	---
51-05	2	996.38	10.58	10.58	1	>0.21	>0.21	---	---
51-06	6	997.32	11.26	11.90	---	---	---	---	---
51-07	7	996.99	11.18	11.82	---	---	---	---	---
51-08	29	997.18	12.20	13.48	29	0.46	0.83	19.84	5.241
51-09	6	997.70	10.11	10.80	---	---	---	---	---
51-11	6	994.39	8.89	18.60	---	---	---	---	---
51-12	6	996.56	7.05	11.57	---	---	---	---	---
51-13	7	997.29	11.41	12.14	---	---	---	---	---
51-14	6	996.64	10.80	11.70	---	---	---	---	---
51-15	7	996.46	10.71	11.38	---	---	---	---	---
51-16R	7	996.44	10.65	11.90	---	---	---	---	---
51-17	7	996.27	11.40	12.34	6	0.43	0.77	3.80	1.005
51-18	6	997.26	11.30	12.02	---	---	---	---	---
51-19	7	996.46	2.23	12.12	6	0.21	0.51	2.23	0.588
51-21	26	1001.43	15.46	16.64	---	---	---	---	---
054B-R	1	991.55	4.55	0.00	---	---	---	---	---
59-01	7	997.80	12.23	12.81	---	---	---	---	---
59-03R	7	997.65	12.58	13.30	6	0.30	0.47	2.29	0.604
59-07	7	997.80	12.40	13.20	4	0.22	0.30	1.03	0.272
078B-R	6	988.73	2.32	3.03	---	---	---	---	---
089A	1	985.89	2.85	2.85	---	---	---	---	---
089B	1	986.06	3.00	3.00	---	---	---	---	---
089D-R	1	986.90	3.88	3.88	---	---	---	---	---
090A	1	988.25	5.30	5.30	---	---	---	---	---
090B	1	989.36	6.53	6.53	---	---	---	---	---
095A	1	987.32	6.55	6.55	---	---	---	---	---
095B-R	1	986.24	5.75	5.75	---	---	---	---	---
111A-R	3	997.46	13.80	15.18	---	---	---	---	---
111B-R	1	997.60	14.30	14.30	---	---	---	---	---
114A	1	986.30	6.04	6.04	---	---	---	---	---
114B-R	1	985.54	5.90	5.90	---	---	---	---	---
115A	1	988.75	8.48	8.48	---	---	---	---	---
115B	1	990.97	11.62	11.62	---	---	---	---	---
GMA3-2	1	992.16	7.40	7.40	---	---	---	---	---
GMA3-3	1	990.45	2.30	2.30	---	---	---	---	---
GMA3-4	1	994.61	7.40	7.40	---	---	---	---	---
GMA3-6	1	1003.31	17.18	17.18	---	---	---	---	---
GMA3-7	2	1000.36	14.60	14.80	---	---	---	---	---

Table 5
LNAPL Monitoring/Manual Recovery Data

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Number of Times Measured	Measuring Point Elevation (ft AMSL)	Depth to Water		LNAPL Observations			LNAPL Recovery (4)	
			Minimum (ft BMP)	Maximum (ft BMP)	Times Observed	Minimum Thickness (ft)	Maximum Thickness (ft)	LNAPL Recovery (liters)	LNAPL Recovery (Gallons)
GMA3-8	1	996.29	10.56	10.56	---	---	---	---	---
GMA3-9	1	992.38	5.20	5.20	---	---	---	---	---
GMA3-10	29	997.49	11.65	12.74	4	0.07	0.20	0.46	0.122
GMA3-11	6	997.25	9.31	12.03	---	---	---	---	---
GMA3-12	28	997.85	12.18	13.31	13	0.15	0.87	7.01	1.851
GMA3-13	27	997.71	11.76	12.86	11	0.01	0.02	0.11	0.029
GMA3-14	6	997.42	11.05	11.72	---	---	---	---	---
GMA3-15	2	996.74	11.79	12.25	---	---	---	---	---
GMA3-16	6	989.17	2.92	3.31	---	---	---	---	---
GMA3-17	26	1003.17	17.73	18.60	---	---	---	---	---
UB-MW-10R	7	996.12	10.18	10.81	---	---	---	---	---
UB-PZ-3	7	998.22	12.93	>13.61	6	0.017	0.114	0.059	---
GMA 4 Monitoring Wells (Adjacent to GMA 3)									
RF-14	2	1001.91	10.82	10.91	---	---	---	---	---
GMA4-3	2	1004.36	18.48	18.53	---	---	---	---	---
060B-R	2	1002.79	16.75	16.90	---	---	---	---	---

Total amount of LNAPL Recovered - July 2012 to December 2012: 36.82 liters
9.73 gallons

Notes:

1. ft BMP - feet Below Measuring Point.
2. ft AMSL - feet above mean sea level
3. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
4. The LNAPL recovery volumes presented in this table represent LNAPL that was manually removed during routine monitoring events. LNAPL removed by the Skimmer systems in wells 51-21 and GMA3-17 is not included. That data is summarized in Table 6.
5. Wells 82B-R, GMA3-5, and OBG-2 were not monitored in fall 2012 due to lack of access permission from property owner (U.S. Navy).
6. Wells 16A and 16C-R were not monitored in fall 2012 due to lack of access permission from property owner (CSX).

Table 6

Automated LNAPL Recovery System Summary

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012

Groundwater Management Area 3

General Electric Company - Pittsfield, Massachusetts

Removal Action Area / Recovery System	July 2011 LNAPL Recovery (Gallons)	August 2011 LNAPL Recovery (Gallons)	September 2011 LNAPL Recovery (Gallons)	October 2011 LNAPL Recovery (Gallons)	November 2011 LNAPL Recovery (Gallons)	December 2011 LNAPL Recovery (Gallons)	Fall 2011 Total LNAPL Recovery (Gallons)
51-21	1.1	8.8	3.3	8.1	5.5	11.7	38.5
GMA3-17	0.2	0.3	1.5	1.4	0.7	2.6	6.7
GMA 3 TOTAL	1.3	9.1	4.8	9.5	6.2	14.3	45.2

Removal Action Area / Recovery System	July 2012 LNAPL Recovery (Gallons)	August 2012 LNAPL Recovery (Gallons)	September 2012 LNAPL Recovery (Gallons)	October 2012 LNAPL Recovery (Gallons)	November 2012 LNAPL Recovery (Gallons)	December 2012 LNAPL Recovery (Gallons)	Fall 2012 Total LNAPL Recovery (Gallons)
51-21	27.0	40.2	29.7	22.0	28.9	25.0	172.8
GMA3-17	1.5	5.5	0.0	4.0	3.7	5.9	20.6
GMA 3 TOTAL	28.5	45.7	29.7	26.0	32.6	30.9	193.4

Table 7

Field Parameter Measurements - Fall 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012

Groundwater Management Area 3

General Electric Company - Pittsfield, Massachusetts

Well ID	Temperature (Degrees Celsius)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)
39B-R	14.78	7.60	0.559	2	0.32	-733.4

Notes:

1. Measurements collected during fall 2012 GMA 3 interim monitoring program sampling activities conducted in October 2012.
2. Well parameters were generally monitored continuously during purging by low-flow techniques. Final parameter readings are presented.
3. NTU - Nephelometric Turbidity Units
4. mS/cm - Millisiemens per centimeter
5. mV - Millivolts
6. mg/L - Milligrams per liter (ppm)

Table 8
Comparison of Groundwater Analytical Results to MCP UCLs for Groundwater

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter	Sample ID: Date Collected:	MCP UCL for GroundWater	39B-R 10/30/12
Volatile Organics			
Benzene		100	1.1 [1.1]
Chlorobenzene		10	18 [17]
Ethylbenzene		100	0.26 J [0.21 J]
Toluene		100	ND(0.80) [0.22 J]
Xylenes (total)		100	0.38 J [0.37 J]
Total VOCs		Not Listed	20 [19 J]

Notes:

1. Samples were collected by ARCADIS and submitted to SGS Environmental Services, Inc. for analysis of volatiles.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS (approved March 15, 2007 and re-submitted March 30, 2007).
3. ND - Analyte was not detected. The number in parentheses is the associated Method Reporting Limit.
4. Shading indicates that value exceeds MCP UCL for Groundwater.
5. Field duplicate sample results are presented in brackets.
6. Only those constituents detected in one or more samples are summarized.

Data Qualifiers:

Organics (volatiles)

J - Indicates that the associated numerical value is an estimated concentration.

Table 9
Proposed Future Interim Groundwater Quality Monitoring Activities - Spring 2013

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Number	Monitoring Well Usage	Proposed Sampling Schedule	Spring 2013 Analyses	Comments
2A	Natural Attenuation	Annual - Spring	VOC, 2-Chlorophenol, 4-Chlorophenol, and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
6B-R	GW-3 Perimeter	Annual	None	Samples analyzed for VOCs on an alternating spring/fall annual basis, next scheduled sampling will be fall 2013
16A	Natural Attenuation	Annual - Spring	VOC, 2-Chlorophenol, 4-Chlorophenol, and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
16B-R	GW-2 Sentinel/Natural Attenuation	Annual - Spring	VOC, 2-Chlorophenol, 4-Chlorophenol, Natural Attenuation Parameters, and PCBs	Samples analyzed for VOCs and natural attenuation parameters in the spring. Additional sampling and analysis for filtered PCBs will be conducted during spring sampling events as required by EPA.
16C-R	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
39B-R	Natural Attenuation	Semi Annual - Spring & Fall	VOC, 2-Chlorophenol, 4-Chlorophenol, and Natural Attenuation Parameters	Samples analyzed for VOCs and natural attenuation parameters in the spring. Additional sampling and analysis for VOCs will be conducted during fall sampling events as required by EPA.
39D-R	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
39E	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
43A	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
43B	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
51-14	GW-2 Sentinel	Annual	None	Samples analyzed for VOCs on an alternating spring/fall annual basis, next scheduled sampling will be fall 2013
89A	Natural Attenuation	Annual - Spring	VOC, 2-Chlorophenol, 4-Chlorophenol, and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
89B	GW-3 Perimeter/Natural Attenuation	Annual - Spring	VOC, 2-Chlorophenol, 4-Chlorophenol, and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
89D-R	Natural Attenuation	Annual - Spring	VOC, 2-Chlorophenol, 4-Chlorophenol, and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
90A	Natural Attenuation	Annual - Spring	VOC/ Natural Attenuation	Samples analyzed on an annual basis in the spring
90B	GW-3 Perimeter/Natural Attenuation	Annual - Spring	VOC/ Natural Attenuation	Samples analyzed on an annual basis in the spring
95A	Natural Attenuation	Annual - Spring	VOC, 2-Chlorophenol, 4-Chlorophenol, and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring

Table 9
Proposed Future Interim Groundwater Quality Monitoring Activities - Spring 2013

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

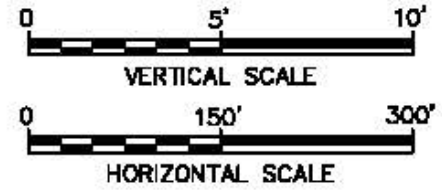
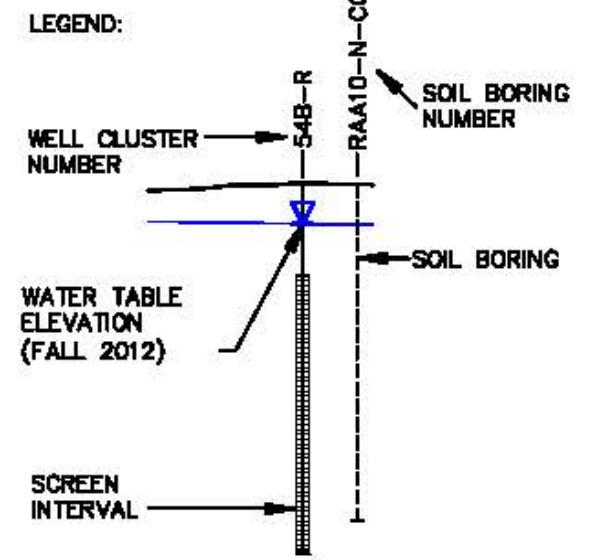
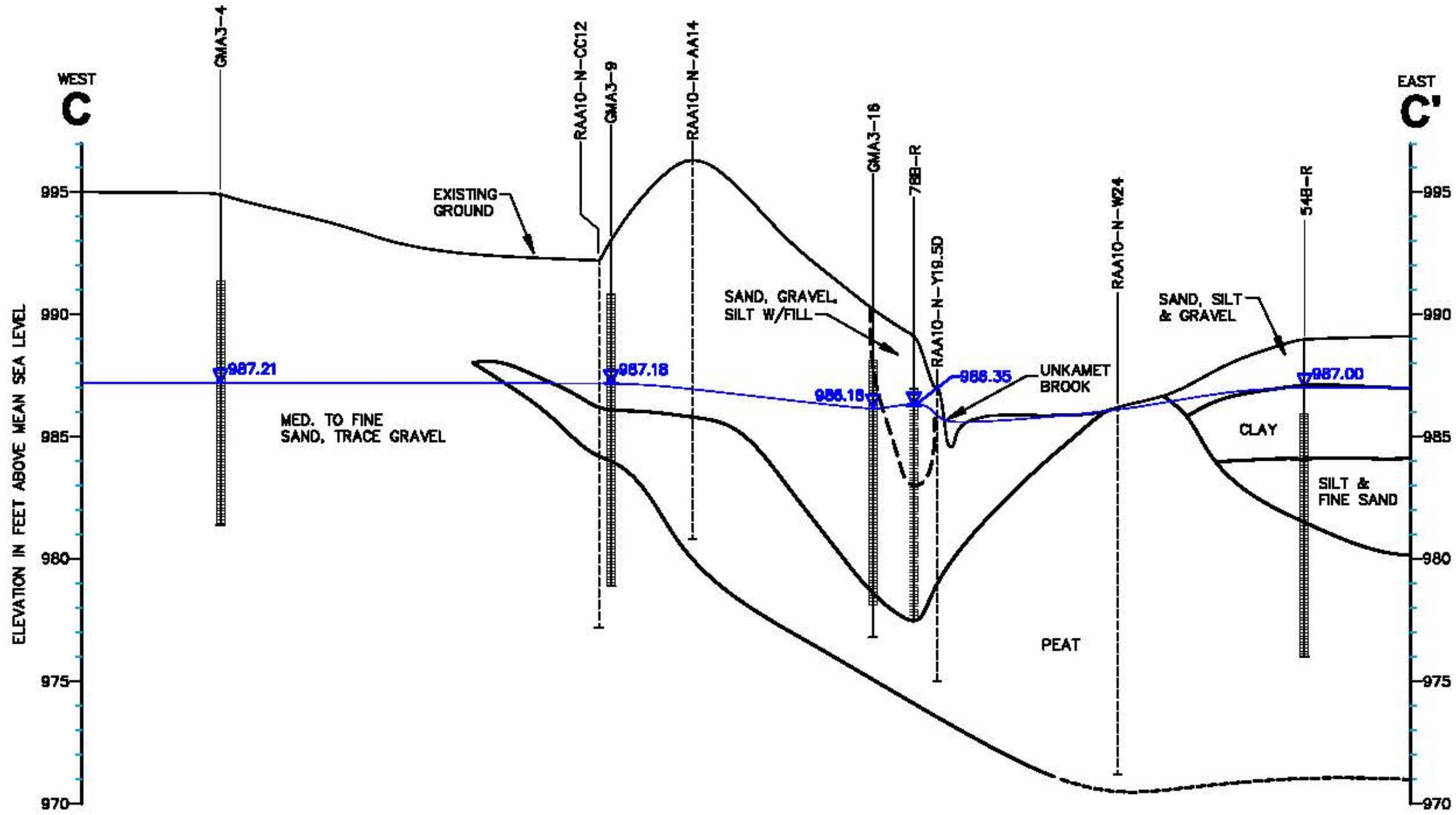
Well Number	Monitoring Well Usage	Proposed Sampling Schedule	Spring 2013 Analyses	Comments
95B-R	GW-3 Perimeter/Natural Attenuation	Annual - Spring	VOC, 2-Chlorophenol, 4-Chlorophenol, and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
111A-R	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
111B-R	GW-3 Perimeter/Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
114A	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
114B-R	GW-3 Perimeter/Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
115A	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
115B	Natural Attenuation	Annual - Spring	VOC and Natural Attenuation Parameters	Samples analyzed on an annual basis in the spring
GMA3-1	GW-3 Perimeter	Deferred	None	Installation of this well has been deferred until re-routing of Unkamet Brook is completed.

Notes

1. Wells sampled under the natural attenuation monitoring program are sampled on an annual basis in the spring.
2. Wells listed for annual interim groundwater quality sampling will be sampled for the listed parameters during the interim period between the completion of the baseline monitoring program and the initiation of a long-term monitoring program. The sampling schedule
3. Natural Attenuation Parameters: methane, ethane, ethene, chloride, nitrate, nitrite, alkalinity, dissolved organic carbon, sulfate, and dissolved iron.
4. All analyses for PCBs will be performed on filtered samples only.

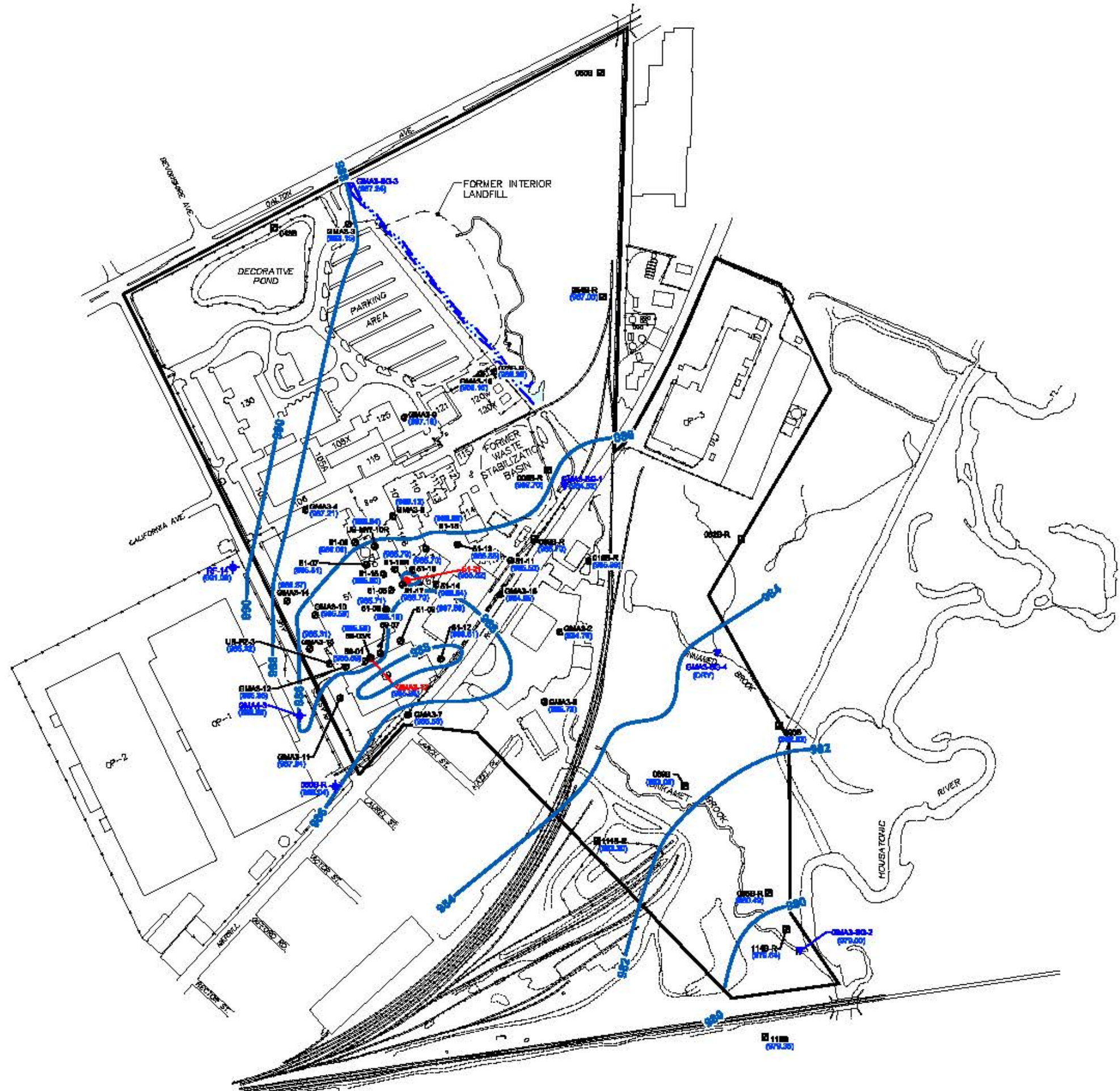
Figures

CITY: SYRACUSE DIVISION DR: ELDORADO A-2010 LK: A-2010 FIG. P. KEANEY P.E. C. WERILL, TR. J. NURS LVR. ON-DIT-REF
EXCERPT FROM: GMA 3 MONITORING PROGRAM LAYOUT: 8.0 MAILED: 2012/05/22 10:44 AM 18.18 (188 TECH) PAGES: 1-10 BY: BOHLEN, ADAM
DATE: 2012/05/22 PROJECT NAME: GMA 3 MONITORING PROGRAM



GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS GMA 3 MONITORING PROGRAM	
GENERALIZED GEOLOGIC CROSS SECTION C-C'	
	FIGURE 5

CITY: Springfield GROUP: EnCAD DR: R. Barrett, A. Williams, R. Barrett, L.D. A. Williams, R. Barrett, P.M. C. Barrett, T.M. N. Barrett, L.V.R. C.M. OFF-REF, (RFD)
 EX: 418.242.1111 FAX: 418.242.1111 PROJECT: GMA 3 MONITORING PROGRAM LAYOUT: 8 SALVED: 2012/10/25 4:30 PM ACQUIRED: 11.19 (LMS TECH) PAGES: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 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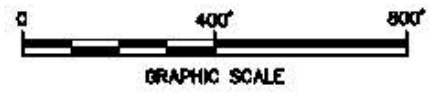


LEGEND:

- FENCING
- ⊙ 01-14 EXISTING MONITORING WELL
- ⊙ 060 EXISTING MONITORING WELL CLUSTER
- 21-21 NAPL RECOVERY WELL (SKIMMER)
- ▽ 90-17 SURFACE WATER STAFF GAUGE
- ◆ GMA4 MONITORING WELL
- 986 GROUNDWATER ELEVATION CONTOUR IN FEET
- (986.13) GROUNDWATER ELEVATION IN FEET
- (986) NOT MEASURED

NOTES:

1. FIGURE IS BASED ON PHOTOGRAPHIC MAPPING BY LOCKWOOD MAPPING, INC.—FLOWN IN APRIL 1990 AND DATA PROVIDED BY GENERAL ELECTRIC COMPANY.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES, SAMPLE AND BUILDING LOCATIONS ARE APPROXIMATE.
4. FOR WELL CLUSTERS, GROUNDWATER ELEVATION DATA FROM THE UPPERMOST WELL (B-SERIES) WAS UTILIZED IN THE PREPARATION OF THIS FIGURE.
5. GROUNDWATER ELEVATION WAS COLLECTED OCTOBER 35 & 25, 2012.
6. STAFF GAUGE ELEVATIONS ARE PRESENTED FOR SURFACE WATER ELEVATION PURPOSES ONLY.



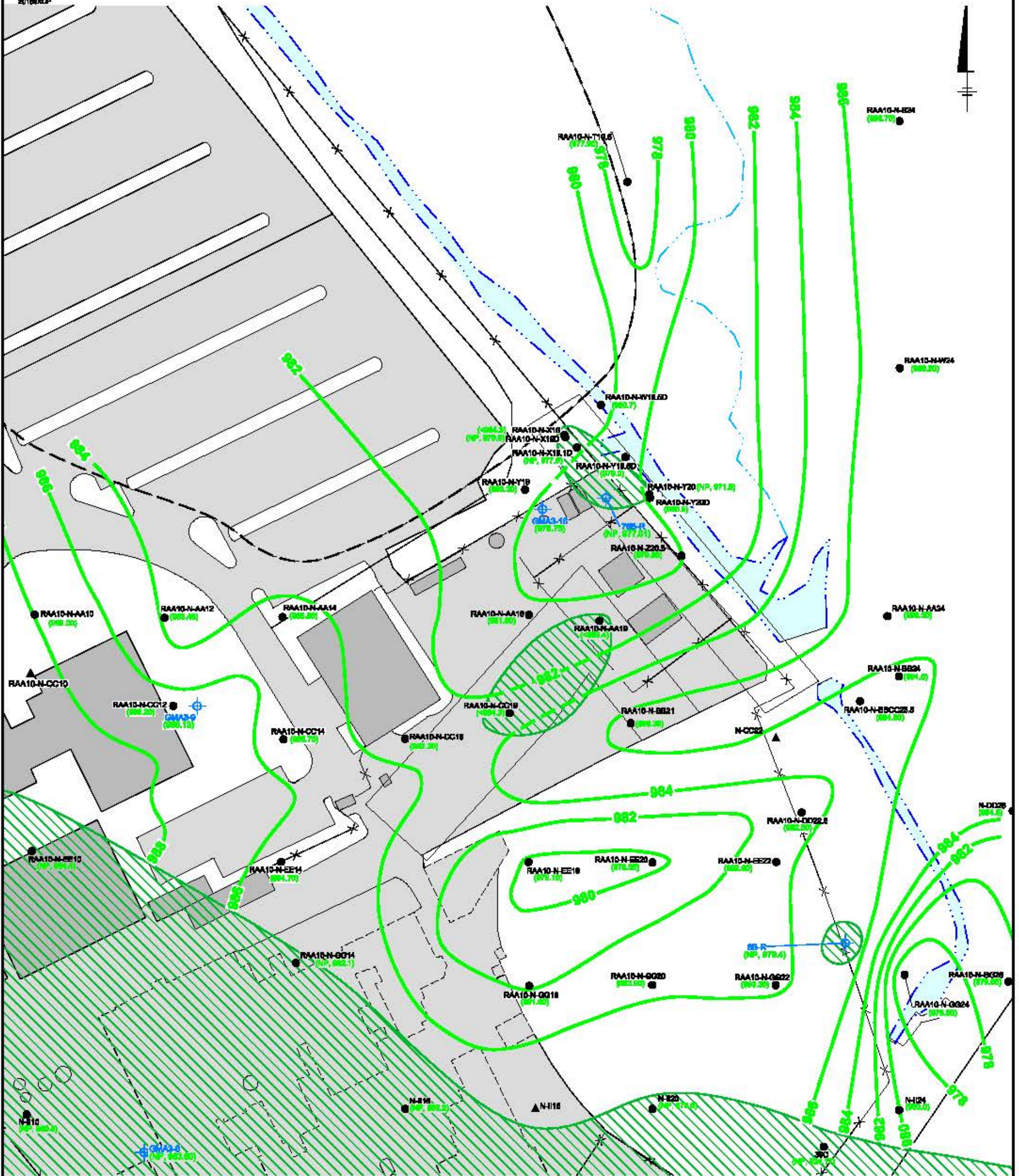
GENERAL ELECTRIC COMPANY
 PITTSFIELD, MASSACHUSETTS
GMA 3 MONITORING PROGRAM

**GROUNDWATER ELEVATION
 CONTOUR MAP - FALL 2012**

ARCADIS

FIGURE
6

XREFS: BAG25: PROJ:03NAME: ---
 20180011
 20180012
 20180022



LEGEND:

- FENCE
- APPROXIMATE EDGE OF WATER
- INTERMITTENT STREAM
- PAVED AREA
- BUILDING
- FORMER BUILDING LOCATION
- WATER

- UB-55-15 ● EXISTING SOIL BORING LOCATION
- N-116 ▲ EXISTING SOIL BORING LOCATION (NO SURVEY ELEVATION DATA AVAILABLE)
- GMA3-9 ⊕ EXISTING MONITORING WELL
- (980.8) ELEVATION OF TOP OF PEAT/ORGANIC DEPOSITS (FEET AMSL)
- (-980) THE PEAT UNIT WAS NOT ENCOUNTERED WITHIN THE TOTAL DEPTH OF THE BORING. THE ELEVATION GIVEN WITH A LESS THAN SIGN (<) IS THE ELEVATION OF THE BASE OF BORING AND THE TOP OF PEAT UNIT IS INTERPRETED TO BE BELOW THAT DEPTH
- (NP, 977.01) THE PRESENCE OF PEAT WAS NOT RECORDED IN THE BORING, WHICH WAS INSTALLED TO THE LISTED ELEVATION (FEET AMSL)
- 985 — TOP OF PEAT ELEVATION CONTOUR LINE IN FEET (DASHED WHERE INFERRER)
- ▨ A PEAT LAYER WAS NOT RECORDED IN BORINGS INSTALLED WITHIN THIS AREA AND IS ASSUMED TO HAVE BEEN DISTURBED BY NATURAL EROSION, MAN-MADE ACTIVITIES, OR NOT DEPOSITED

NOTES:

1. THE BASE MAP FEATURES PRESENTED ON THIS FIGURE WERE PHOTOGRAMMETRICALLY MAPPED FROM APRIL 1890 AERIAL PHOTOGRAPHS. ADDITIONALLY, CONSTRUCTION PLANS PROVIDED BY GENERAL ELECTRIC COMPANY WERE USED.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. EXTENT OF PAVED/UNPAVED AREAS IS APPROXIMATE.
4. ALL LOCATIONS ARE APPROXIMATE.



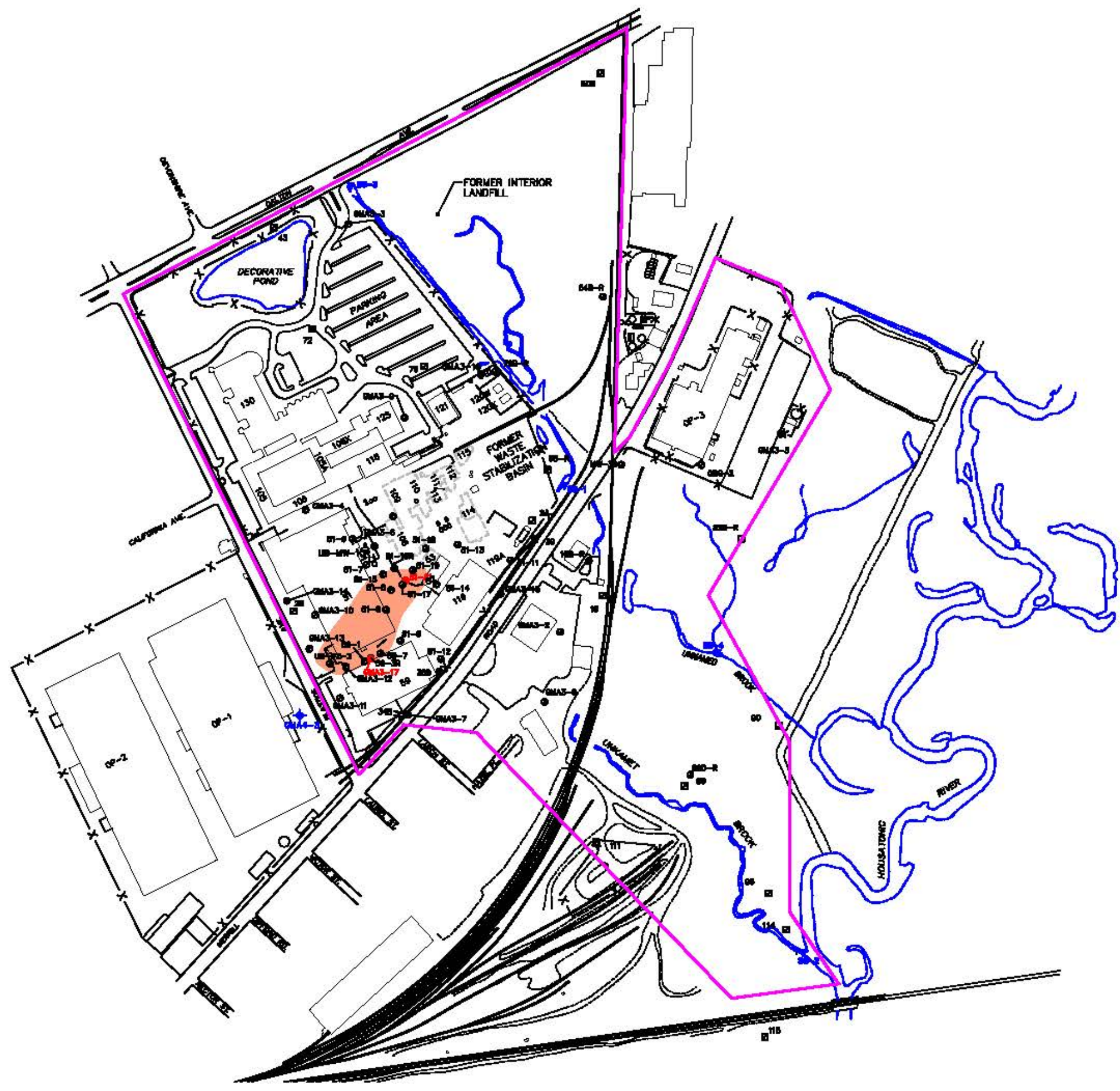
**GENERAL ELECTRIC COMPANY
 PITTSFIELD, MASSACHUSETTS
 GMA3 MONITORING PROGRAM**

TOP OF PEAT LAYER CONTOUR MAP

ARCADIS

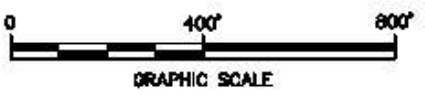
FIGURE
8

CITY: SYRACUSE, DRWGNO: 500040, DRGDATE: 08/14/2012, DRGTIME: 10:45:00 AM, DRGUSER: JACOB, DRGAPP: JACOB, DRGSCALE: 1"=400', DRGSTATUS: PLOTTED, PLOTDATE: 08/14/2012, PLOTTIME: 11:43 AM, PLOTUSER: ADAM, PLOTSCALE: 1"=400', PLOTSTATUS: PLOTTED, PLOTDATE: 08/14/2012, PLOTTIME: 11:43 AM, PLOTUSER: ADAM



- LEGEND:**
- SITE BOUNDARY
 - RAILROAD
 - X FENCING
 - EXISTING MONITORING WELL
 - EXISTING MONITORING WELL CLUSTER
 - NAPL RECOVERY WELL (SKIMMER)
 - ◆ GMA4 MONITORING WELL
 - ▼ SURFACE WATER STAFF GAUGE
 - EXTENT OF MEASURABLE LNAPL DURING FALL 2012 SEMI-ANNUAL MONITORING EVENT

- NOTES:**
1. FIGURE IS BASED ON PHOTOGRAPHIC MAPPING BY LOCKWOOD MAPPING, INC.—FLOWN IN APRIL 1990 AND DATA PROVIDED BY GENERAL ELECTRIC COMPANY.
 2. NOT ALL PHYSICAL FEATURES SHOWN.
 3. SITE BOUNDARIES, SAMPLE LOCATIONS AND BUILDING LOCATIONS ARE APPROXIMATE.



GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
GMA 3 MONITORING PROGRAM

**EXTENT OF NAPL - FALL 2012
MONITORING EVENT**




FIGURE
10



Appendices



Appendix A

Groundwater Elevation and NAPL
Monitoring / Recovery Data

Table A-1
Groundwater Elevation and NAPL Monitoring/Recovery Data
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elevation(feet)	LNAPL Removed (Liters)	DNAPL Removed (Liters)	
GMA 3 Monitoring Wells												
002A	994.15	10/23/2012	8.36	---	0.00	---	55.12	0.00	985.79	---	---	
006B-R	983.85	10/23/2012	7.15	---	0.00	---	14.76	0.00	976.70	---	---	
016B-R	994.91	10/23/2012	9.02	---	0.00	---	16.40	0.00	985.89	---	---	
039B-R	992.16	10/23/2012	6.46	---	0.00	---	13.85	0.00	985.70	---	---	
039B-R	992.16	10/30/2012	6.35	---	0.00	---	13.84	0.00	985.81	---	---	
039D-R	994.82	10/23/2012	8.95	---	0.00	---	68.11	0.00	985.87	---	---	
039E	992.22	10/23/2012	5.88	---	0.00	---	NM	0.00	986.34	---	---	
043A	993.66	7/10/2012	5.93	---	0.00	---	45.98	0.00	987.73	---	---	
043A	993.66	10/23/2012	5.48	---	0.00	---	46.35	0.00	988.18	---	---	
043B	993.61	10/23/2012	5.70	---	0.00	---	21.28	0.00	987.91	---	---	
050B	991.66	10/23/2012	3.25	---	0.00	---	14.85	0.00	988.41	---	---	
054B-R	991.55	10/23/2012	4.55	---	0.00	---	15.51	0.00	987.00	---	---	
078B-R	988.73	7/11/2012	3.03	---	0.00	---	11.68	0.00	985.70	---	---	
078B-R	988.73	8/28/2012	2.61	---	0.00	---	11.71	0.00	986.12	---	---	
078B-R	988.73	9/12/2012	2.79	---	0.00	---	11.70	0.00	985.94	---	---	
078B-R	988.73	10/23/2012	2.38	---	0.00	---	11.66	0.00	986.35	---	---	
078B-R	988.73	11/28/2012	2.95	---	0.00	---	11.68	0.00	985.78	---	---	
078B-R	988.73	12/19/2012	2.32	---	0.00	---	11.68	0.00	986.41	---	---	
089A	985.89	10/23/2012	2.85	---	0.00	---	47.20	0.00	983.04	---	---	
089B	986.06	10/23/2012	3.00	---	0.00	---	8.80	0.00	983.06	---	---	
089D-R	986.90	10/23/2012	3.88	---	0.00	---	80.00	0.00	983.02	---	---	
090A	988.25	10/23/2012	5.30	---	0.00	---	51.53	0.00	982.95	---	---	
090B	989.36	10/23/2012	6.53	---	0.00	---	12.80	0.00	982.83	---	---	
095A	987.32	10/23/2012	6.55	---	0.00	---	50.98	0.00	980.77	---	---	
095B-R	986.24	10/23/2012	5.75	---	0.00	---	14.00	0.00	980.49	---	---	
111A-R	997.46	7/10/2012	14.96	---	0.00	---	52.01	0.00	982.50	---	---	
111A-R	997.46	7/27/2012	15.18	---	0.00	---	52.65	0.00	982.28	---	---	
111A-R	997.46	10/23/2012	13.80	---	0.00	---	52.00	0.00	983.66	---	---	
111B-R	997.60	10/23/2012	14.30	---	0.00	---	19.65	0.00	983.30	---	---	
114A	986.30	10/23/2012	6.04	---	0.00	---	52.15	0.00	980.26	---	---	
114B-R	985.54	10/23/2012	5.90	---	0.00	---	15.25	0.00	979.64	---	---	
115A	988.75	10/23/2012	8.48	---	0.00	---	42.70	0.00	980.27	---	---	
115B	990.97	10/23/2012	11.62	---	0.00	---	15.70	0.00	979.35	---	---	
51-05	996.38	7/11/2012	See Note 6	10.25	>0.21	---	10.46	0.00	NA	---	---	
51-05	996.38	8/28/2012	Well obstructed; dry at 10.46 feet				---	10.46	NM	NA	---	---
51-05	996.38	9/12/2012	Dry at 10.46 feet				---	10.46	NM	NA	---	---
51-05	996.38	10/5/2012	Obstructed at 10.47 feet				---	10.47	NM	NA	---	---
51-05	996.38	10/23/2012	Obstructed at 10.47 feet				---	10.47	NM	NA	---	---
51-05	996.38	11/28/2012	Obstructed at 10.48 feet				---	10.48	NM	NA	---	---
51-05	996.38	12/19/2012	10.58	---	0.00	---	10.65	0.00	985.80	---	---	
51-06	997.32	7/11/2012	11.75	---	0.00	---	14.22	0.00	985.57	---	---	
51-06	997.32	8/28/2012	11.85	---	0.00	---	14.23	0.00	985.47	---	---	

Table A-1
Groundwater Elevation and NAPL Monitoring/Recovery Data
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elevation(feet)	LNAPL Removed (Liters)	DNAPL Removed (Liters)
51-06	997.32	9/12/2012	11.90	---	0.00	---	14.24	0.00	985.42	---	---
51-06	997.32	10/23/2012	11.26	---	0.00	---	14.16	0.00	986.06	---	---
51-06	997.32	11/28/2012	11.42	---	0.00	---	14.24	0.00	985.90	---	---
51-06	997.32	12/19/2012	11.50	---	0.00	---	14.22	0.00	985.82	---	---
51-07	996.99	7/11/2012	11.35	---	0.00	---	14.37	0.00	985.64	---	---
51-07	996.99	8/28/2012	11.78	---	0.00	---	14.40	0.00	985.21	---	---
51-07	996.99	9/12/2012	11.82	---	0.00	---	14.40	0.00	985.17	---	---
51-07	996.99	10/5/2012	11.53	---	0.00	---	14.40	0.00	985.46	---	---
51-07	996.99	10/23/2012	11.18	---	0.00	---	14.46	0.00	985.81	---	---
51-07	996.99	11/28/2012	11.34	---	0.00	---	14.40	0.00	985.65	---	---
51-07	996.99	12/19/2012	11.50	---	0.00	---	14.40	0.00	985.49	---	---
51-08	997.18	7/2/2012	12.46	11.34	1.12	---	14.59	0.00	985.76	0.691	---
51-08	997.18	7/11/2012	12.86	11.51	1.35	---	14.60	0.00	985.58	0.833	---
51-08	997.18	7/16/2012	12.80	11.61	1.19	---	14.60	0.00	985.49	0.734	---
51-08	997.18	7/24/2012	13.02	11.81	1.21	---	14.60	0.00	985.29	0.746	---
51-08	997.18	7/31/2012	13.09	11.89	1.20	---	14.60	0.00	985.21	0.740	---
51-08	997.18	8/6/2012	13.28	11.94	1.34	---	14.60	0.00	985.15	0.826	---
51-08	997.18	8/14/2012	13.04	11.90	1.14	---	14.60	0.00	985.20	0.703	---
51-08	997.18	8/20/2012	12.83	12.09	0.74	---	14.60	0.00	985.04	0.456	---
51-08	997.18	8/28/2012	13.16	11.92	1.24	---	14.60	0.00	985.17	0.765	---
51-08	997.18	9/4/2012	13.16	12.00	1.16	---	14.60	0.00	985.10	0.715	---
51-08	997.18	9/12/2012	12.90	11.96	0.94	---	14.60	0.00	985.15	0.579	---
51-08	997.18	9/18/2012	13.48	12.25	1.23	---	14.60	0.00	984.84	0.758	---
51-08	997.18	9/24/2012	12.92	11.85	1.07	---	14.60	0.00	985.26	0.660	---
51-08	997.18	10/5/2012	12.70	11.65	1.05	---	14.60	0.00	985.46	0.648	---
51-08	997.18	10/5/2012	12.70	11.65	1.05	---	14.60	0.00	985.46	0.640	---
51-08	997.18	10/8/2012	12.80	11.65	1.15	---	14.60	0.00	985.45	0.709	---
51-08	997.18	10/16/2012	12.50	11.60	0.90	---	14.60	0.00	985.52	0.555	---
51-08	997.18	10/23/2012	12.48	11.39	1.09	---	14.60	0.00	985.71	0.673	---
51-08	997.18	10/30/2012	12.43	11.30	1.13	---	14.60	0.00	985.80	0.697	---
51-08	997.18	11/5/2012	12.20	11.20	1.00	---	14.60	0.00	985.91	0.616	---
51-08	997.18	11/12/2012	12.60	11.55	1.05	---	14.60	0.00	985.56	0.647	---
51-08	997.18	11/19/2012	12.75	11.60	1.15	---	14.60	0.00	985.50	0.709	---
51-08	997.18	11/28/2012	12.70	11.58	1.12	---	14.68	0.00	985.52	0.690	---
51-08	997.18	11/29/2012	12.70	11.58	1.12	---	14.68	0.00	985.52	0.690	---
51-08	997.18	12/4/2012	12.24	11.37	0.87	---	14.60	0.00	985.75	0.536	---
51-08	997.18	12/10/2012	12.75	11.70	1.05	---	14.60	0.00	985.41	0.647	---
51-08	997.18	12/19/2012	12.90	11.68	1.22	---	14.60	0.00	985.41	0.752	---
51-08	997.18	12/19/2012	12.90	11.68	1.22	---	14.60	0.00	985.41	0.753	---
51-08	997.18	12/24/2012	12.55	11.46	1.09	---	17.60	0.00	985.64	0.672	---
51-09	997.66	7/11/2012	10.28	---	0.00	---	14.63	0.00	987.38	---	---
51-09	997.70	8/28/2012	10.75	---	0.00	---	14.60	0.00	986.95	---	---
51-09	997.70	9/12/2012	10.80	---	0.00	---	14.62	0.00	986.90	---	---

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Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
 Groundwater Management Area 3
 General Electric Company - Pittsfield, Massachusetts

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elevation(feet)	LNAPL Removed (Liters)	DNAPL Removed (Liters)
51-09	997.70	10/23/2012	10.11	---	0.00	---	14.26	0.00	985.30	---	---
51-09	997.70	11/28/2012	10.64	---	0.00	---	14.61	0.00	987.06	---	---
51-09	997.70	12/19/2012	10.70	---	0.00	---	14.60	0.00	987.00	---	---
51-11	994.39	7/11/2012	9.76	---	0.00	---	14.64	0.00	984.63	---	---
51-11	994.39	8/28/2012	9.82	---	0.00	---	14.62	0.00	984.57	---	---
51-11	994.39	9/12/2012	9.80	---	0.00	---	14.63	0.00	984.59	---	---
51-11	994.39	10/23/2012	8.89	---	0.00	---	14.69	0.00	985.50	---	---
51-11	994.39	11/28/2012	9.45	---	0.00	---	14.64	0.00	984.94	---	---
51-11	994.39	12/19/2012	9.40	---	0.00	---	14.60	0.00	984.99	---	---
51-12	996.56	7/11/2012	7.56	---	0.00	---	13.42	0.00	989.00	---	---
51-12	996.56	8/28/2012	7.40	---	0.00	---	13.40	0.00	989.16	---	---
51-12	996.56	9/12/2012	7.40	---	0.00	---	13.41	0.00	989.16	---	---
51-12	996.56	10/23/2012	7.05	---	0.00	---	13.40	0.00	989.51	---	---
51-12	996.56	11/28/2012	11.57	---	0.00	---	13.40	0.00	984.99	---	---
51-12	996.56	12/19/2012	7.43	---	0.00	---	13.40	0.00	989.13	---	---
51-13	997.29	7/11/2012	11.95	---	0.00	---	13.71	0.00	985.34	---	---
51-13	997.29	8/28/2012	11.50	---	0.00	---	13.71	0.00	985.79	---	---
51-13	997.29	9/12/2012	12.14	---	0.00	---	13.71	0.00	985.15	---	---
51-13	997.29	10/5/2012	11.80	---	0.00	---	13.72	0.00	985.49	---	---
51-13	997.29	10/23/2012	11.41	---	0.00	---	13.70	0.00	985.88	---	---
51-13	997.29	11/28/2012	11.75	---	0.00	---	13.70	0.00	985.54	---	---
51-13	997.29	12/19/2012	11.80	---	0.00	---	13.71	0.00	985.49	---	---
51-14	996.64	7/11/2012	11.40	---	0.00	---	14.78	0.00	985.24	---	---
51-14	996.64	8/28/2012	11.70	---	0.00	---	14.78	0.00	984.94	---	---
51-14	996.64	9/12/2012	11.47	---	0.00	---	14.78	0.00	985.17	---	---
51-14	996.64	10/23/2012	10.80	---	0.00	---	14.83	0.00	985.84	---	---
51-14	996.64	11/28/2012	11.10	---	0.00	---	14.78	0.00	985.54	---	---
51-14	996.64	12/19/2012	11.15	---	0.00	---	14.78	0.00	985.49	---	---
51-15	996.46	7/11/2012	11.12	10.88	0.24	---	14.30	0.00	985.56	---	---
51-15	996.46	8/28/2012	11.38	---	0.00	---	14.32	0.00	985.08	---	---
51-15	996.46	9/12/2012	11.25	---	0.00	---	14.30	0.00	985.21	---	---
51-15	996.46	10/5/2012	11.03	---	0.00	---	14.33	0.00	985.43	---	---
51-15	996.46	10/23/2012	10.71	10.66	0.05	---	14.31	0.00	985.80	---	---
51-15	996.46	11/28/2012	10.88	10.84	0.04	---	14.34	0.00	985.62	---	---
51-15	996.46	12/19/2012	11.11	11.02	0.09	---	14.47	0.00	985.43	---	---
51-16R	996.44	7/11/2012	11.14	10.86	0.28	---	14.50	0.00	985.56	0.173	---
51-16R	996.44	8/28/2012	11.90	11.25	0.65	---	14.50	0.00	985.14	0.401	---
51-16R	996.44	9/12/2012	11.50	11.22	0.28	---	14.46	0.00	985.20	0.172	---
51-16R	996.44	10/5/2012	11.14	---	0.00	---	14.50	0.00	985.30	---	---
51-16R	996.44	10/23/2012	10.65	---	0.00	---	14.15	0.00	985.79	---	---
51-16R	996.44	11/28/2012	11.04	10.82	0.22	---	14.50	0.00	985.60	---	---
51-16R	996.44	12/19/2012	11.00	10.70	0.30	---	14.50	0.00	985.72	0.185	---

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51-17	996.27	7/11/2012	11.98	10.74	1.24	---	14.50	0.00	985.44	0.765	---
51-17	996.27	8/28/2012	11.85	11.15	0.70	---	14.50	0.00	985.07	0.431	---
51-17	996.27	9/12/2012	12.34	11.11	1.23	---	14.50	0.00	985.07	0.758	---
51-17	996.27	10/5/2012	11.78	10.85	0.93	---	14.48	0.00	985.35	0.573	---
51-17	996.27	10/23/2012	11.40	10.51	0.89	---	14.48	0.00	985.70	---	---
51-17	996.27	11/28/2012	11.73	10.68	1.05	---	14.50	0.00	985.52	0.647	---
51-17	996.27	12/19/2012	11.85	10.83	1.02	---	14.50	0.00	985.37	0.630	---
51-18	997.26	7/11/2012	11.65	---	0.00	---	12.54	0.00	985.61	---	---
51-18	997.26	8/28/2012	12.00	---	0.00	---	12.54	0.00	985.26	---	---
51-18	997.26	9/12/2012	12.02	---	0.00	---	12.54	0.00	985.24	---	---
51-18	997.26	10/23/2012	11.30	---	0.00	---	12.55	0.00	985.96	---	---
51-18	997.26	11/28/2012	11.58	---	0.00	---	12.53	0.00	985.68	---	---
51-18	997.26	12/19/2012	11.70	---	0.00	---	12.51	0.00	985.56	---	---
51-19	996.46	7/11/2012	11.68	10.97	0.71	---	14.14	0.00	985.44	0.438	---
51-19	996.46	8/28/2012	12.04	11.50	0.54	---	14.12	0.00	984.92	0.333	---
51-19	996.46	9/12/2012	12.12	11.30	0.82	---	14.14	0.00	985.10	0.505	---
51-19	996.46	10/5/2012	11.58	11.03	0.55	---	14.14	0.00	985.39	0.339	---
51-19	996.46	10/23/2012	11.15	10.73	0.42	---	14.14	0.00	985.70	---	---
51-19	996.46	11/28/2012	11.55	10.90	0.65	---	14.14	0.00	985.51	0.401	---
51-19	996.46	12/19/2012	11.40	11.06	0.34	---	14.14	0.00	985.38	0.210	---
51-21	1,001.43	7/5/2012	16.00	P	< 0.01	---	NM	0.00	985.43	---	---
51-21	1,001.43	7/12/2012	16.24	P	< 0.01	---	NM	0.00	985.19	---	---
51-21	1,001.43	7/19/2012	16.39	P	< 0.01	---	NM	0.00	985.04	---	---
51-21	1,001.43	7/26/2012	16.49	16.48	0.01	---	NM	0.00	984.95	---	---
51-21	1,001.43	8/2/2012	16.56	---	0.00	---	NM	0.00	984.87	---	---
51-21	1,001.43	8/9/2012	16.59	P	< 0.01	---	NM	0.00	984.84	---	---
51-21	1,001.43	8/16/2012	16.42	P	< 0.01	---	NM	0.00	985.01	---	---
51-21	1,001.43	8/23/2012	16.43	P	< 0.01	---	NM	0.00	985.00	---	---
51-21	1,001.43	8/30/2012	16.54	---	0.00	---	NM	0.00	984.89	---	---
51-21	1,001.43	9/6/2012	16.64	P	< 0.01	---	NM	0.00	984.79	---	---
51-21	1,001.43	9/13/2012	15.56	P	< 0.01	---	NM	0.00	985.87	---	---
51-21	1,001.43	9/21/2012	15.46	P	< 0.01	---	NM	0.00	985.97	---	---
51-21	1,001.43	9/27/2012	16.40	16.39	0.01	---	NM	0.00	985.04	---	---
51-21	1,001.43	10/4/2012	16.20	P	< 0.01	---	NM	0.00	985.23	---	---
51-21	1,001.43	10/11/2012	16.22	P	< 0.01	---	NM	0.00	985.21	---	---
51-21	1,001.43	10/18/2012	16.11	P	< 0.01	---	NM	0.00	985.32	---	---
51-21	1,001.43	10/25/2012	15.91	P	< 0.01	---	NM	0.00	985.52	---	---
51-21	1,001.43	11/1/2012	15.80	---	0.00	---	NM	0.00	985.63	---	---
51-21	1,001.43	11/8/2012	15.83	P	< 0.01	---	NM	0.00	985.60	---	---
51-21	1,001.43	11/15/2012	15.91	P	< 0.01	---	NM	0.00	985.52	---	---
51-21	1,001.43	11/21/2012	16.01	P	< 0.01	---	NM	0.00	985.42	---	---
51-21	1,001.43	11/29/2012	16.10	16.09	0.01	---	NM	0.00	985.34	---	---
51-21	1,001.43	12/6/2012	16.20	P	< 0.01	---	NM	0.00	985.23	---	---

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51-21	1,001.43	12/14/2012	16.09	P	< 0.01	---	NM	0.00	985.34	---	---
51-21	1,001.43	12/20/2012	15.97	P	< 0.01	---	NM	0.00	985.46	---	---
51-21	1,001.43	12/27/2012	15.70	P	< 0.01	---	NM	0.00	985.73	---	---
59-01	997.80	7/11/2012	12.23	---	0.00	---	19.32	0.00	985.57	---	---
59-01	997.80	8/28/2012	12.74	12.70	0.04	---	19.30	0.00	985.10	---	---
59-01	997.80	9/12/2012	12.81	12.76	0.05	---	19.28	0.00	985.04	---	---
59-01	997.80	10/5/2012	12.68	12.50	0.18	---	19.29	0.00	985.29	0.111	---
59-01	997.80	10/23/2012	12.40	12.20	0.20	---	14.60	0.00	985.59	---	---
59-01	997.80	11/28/2012	12.52	12.22	0.30	---	19.26	0.00	985.56	0.185	---
59-01	997.80	12/19/2012	12.56	12.46	0.10	---	19.67	0.00	985.33	---	---
59-03R	997.65	7/11/2012	12.64	12.05	0.59	---	17.04	0.00	985.56	0.364	---
59-03R	997.65	8/28/2012	13.28	12.52	0.76	---	17.05	0.00	985.08	0.468	---
59-03R	997.65	9/12/2012	13.30	12.56	0.74	---	17.04	0.00	985.04	0.456	---
59-03R	997.65	10/5/2012	12.90	12.31	0.59	---	17.05	0.00	985.30	0.364	---
59-03R	997.65	10/23/2012	12.60	12.02	0.58	---	17.03	0.00	985.59	---	---
59-03R	997.65	11/28/2012	12.58	12.10	0.48	---	17.03	0.00	985.52	0.296	---
59-03R	997.65	12/19/2012	12.85	12.30	0.55	---	17.03	0.00	985.31	0.340	---
59-07	997.80	7/11/2012	12.40	12.37	0.03	---	23.50	0.00	985.43	---	---
59-07	997.80	8/28/2012	13.15	12.90	0.25	---	23.50	0.00	984.88	0.215	---
59-07	997.80	9/12/2012	13.20	12.83	0.37	---	23.42	0.00	984.94	0.228	---
59-07	997.80	10/5/2012	13.06	12.57	0.49	---	23.50	0.00	985.20	0.302	---
59-07	997.80	10/23/2012	12.73	12.60	0.13	---	23.48	0.00	985.19	---	---
59-07	997.80	11/28/2012	12.80	12.34	0.46	---	23.48	0.00	985.43	0.283	---
59-07	997.80	12/19/2012	12.73	12.58	0.15	---	23.45	0.00	985.21	---	---
GMA3-2	992.16	10/23/2012	7.40	---	0.00	---	14.55	0.00	984.76	---	---
GMA3-3	990.45	10/23/2012	2.30	---	0.00	---	12.42	0.00	988.15	---	---
GMA3-4	994.61	10/23/2012	7.40	---	0.00	---	13.34	0.00	987.21	---	---
GMA3-6	1,003.31	10/23/2012	17.18	---	0.00	---	23.96	0.00	986.13	---	---
GMA3-7	1,000.36	7/11/2012	14.60	---	0.00	---	19.76	0.00	985.76	---	---
GMA3-7	1,000.36	10/23/2012	14.80	---	0.00	---	19.86	0.00	985.56	---	---
GMA3-8	996.29	10/23/2012	10.56	---	0.00	---	16.31	0.00	985.73	---	---
GMA3-9	992.38	10/23/2012	5.20	---	0.00	---	12.77	0.00	987.18	---	---
GMA3-10	997.49	7/2/2012	11.75	11.51	0.24	---	17.66	0.00	985.96	---	---
GMA3-10	997.49	7/11/2012	12.05	11.73	0.32	---	17.66	0.00	985.74	0.197	---
GMA3-10	997.49	7/16/2012	12.05	11.88	0.17	---	17.65	0.00	985.60	---	---
GMA3-10	997.49	7/24/2012	12.38	12.06	0.32	---	17.66	0.00	985.41	0.197	---
GMA3-10	997.49	7/31/2012	12.34	12.20	0.14	---	17.66	0.00	985.28	---	---
GMA3-10	997.49	8/6/2012	12.39	12.28	0.11	---	17.66	0.00	985.20	---	---
GMA3-10	997.49	8/14/2012	12.34	12.28	0.06	---	17.65	0.00	985.21	---	---
GMA3-10	997.49	8/20/2012	12.24	12.22	0.02	---	17.66	0.00	985.27	---	---
GMA3-10	997.49	8/28/2012	12.40	12.30	0.10	---	17.66	0.00	985.18	---	---
GMA3-10	997.49	9/4/2012	12.40	12.36	0.04	---	14.65	0.00	985.13	---	---
GMA3-10	997.49	9/12/2012	12.46	12.36	0.10	---	17.66	0.00	985.12	---	---

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GMA3-10	997.49	9/18/2012	12.74	12.65	0.09	---	17.66	0.00	984.83	---	---
GMA3-10	997.49	9/24/2012	12.31	---	0.00	---	17.66	0.00	985.18	---	---
GMA3-10	997.49	10/5/2012	12.15	---	0.00	---	17.67	0.00	985.34	---	---
GMA3-10	997.49	10/8/2012	12.10	---	0.00	---	17.65	0.00	985.39	---	---
GMA3-10	997.49	10/16/2012	12.04	---	0.00	---	17.65	0.00	985.45	---	---
GMA3-10	997.49	10/23/2012	11.90	---	0.00	---	17.67	0.00	985.59	---	---
GMA3-10	997.49	10/23/2012	11.90	---	0.00	---	17.61	0.00	985.59	---	---
GMA3-10	997.49	10/30/2012	11.71	---	0.00	---	17.65	0.00	985.78	---	---
GMA3-10	997.49	11/5/2012	11.65	---	0.00	---	17.66	0.00	985.84	---	---
GMA3-10	997.49	11/12/2012	11.94	11.90	0.04	---	17.65	0.00	985.59	---	---
GMA3-10	997.49	11/19/2012	11.97	---	0.00	---	17.65	0.00	985.52	---	---
GMA3-10	997.49	11/28/2012	11.82	---	0.00	---	17.65	0.00	985.67	---	---
GMA3-10	997.49	11/29/2012	11.82	---	0.00	---	17.65	0.00	985.67	---	---
GMA3-10	997.49	12/4/2012	11.88	11.85	0.03	---	17.65	0.00	985.64	---	---
GMA3-10	997.49	12/10/2012	12.18	12.11	0.07	---	17.66	0.00	985.38	---	---
GMA3-10	997.49	12/19/2012	12.22	12.11	0.11	---	17.65	0.00	985.37	0.067	---
GMA3-10	997.49	12/24/2012	11.95	---	0.00	---	17.64	0.00	985.54	---	---
GMA3-11	997.25	7/11/2012	11.25	---	0.00	---	17.84	0.00	986.00	---	---
GMA3-11	997.25	8/29/2012	11.95	---	0.00	---	17.84	0.00	985.30	---	---
GMA3-11	997.25	9/12/2012	12.03	---	0.00	---	17.84	0.00	985.22	---	---
GMA3-11	997.25	10/23/2012	4.31	---	0.00	---	17.50	0.00	992.94	---	---
GMA3-11	997.25	11/28/2012	11.44	---	0.00	---	17.87	0.00	985.81	---	---
GMA3-11	997.25	12/19/2012	11.36	---	0.00	---	17.88	0.00	985.89	---	---
GMA3-12	997.85	7/2/2012	12.18	11.95	0.23	---	21.03	0.00	985.88	---	---
GMA3-12	997.85	7/11/2012	12.48	12.18	0.30	---	21.03	0.00	985.65	0.741	---
GMA3-12	997.85	7/16/2012	12.50	12.34	0.16	---	21.03	0.00	985.50	---	---
GMA3-12	997.85	7/24/2012	12.80	12.50	0.30	---	21.04	0.00	985.33	0.741	---
GMA3-12	997.85	7/31/2012	12.73	12.62	0.11	---	21.04	0.00	985.22	---	---
GMA3-12	997.85	8/6/2012	12.88	12.68	0.20	---	21.04	0.00	985.16	---	---
GMA3-12	997.85	8/14/2012	12.80	12.62	0.18	---	21.04	0.00	985.22	---	---
GMA3-12	997.85	8/20/2012	12.82	12.60	0.22	---	21.05	0.00	985.23	---	---
GMA3-12	997.85	8/28/2012	12.91	12.70	0.21	---	21.04	0.00	985.14	---	---
GMA3-12	997.85	9/4/2012	13.10	12.75	0.35	---	21.04	0.00	985.08	0.865	---
GMA3-12	997.85	9/12/2012	12.90	12.75	0.15	---	21.04	0.00	985.09	---	---
GMA3-12	997.85	9/18/2012	13.31	13.05	0.26	---	21.04	0.00	984.78	0.642	---
GMA3-12	997.85	9/24/2012	12.80	12.65	0.15	---	21.04	0.00	985.19	---	---
GMA3-12	997.85	10/5/2012	12.75	12.50	0.25	---	21.04	0.00	985.33	0.154	---
GMA3-12	997.85	10/8/2012	12.70	12.48	0.22	---	21.04	0.00	985.35	---	---
GMA3-12	997.85	10/16/2012	12.64	12.38	0.26	---	21.03	0.00	985.45	0.160	---
GMA3-12	997.85	10/23/2012	12.80	12.48	0.32	---	21.20	0.00	985.35	0.791	---
GMA3-12	997.85	10/30/2012	12.31	12.10	0.21	---	21.04	0.00	985.74	---	---
GMA3-12	997.85	11/5/2012	12.18	12.02	0.16	---	21.03	0.00	985.82	---	---
GMA3-12	997.85	11/12/2012	12.60	12.31	0.29	---	21.04	0.00	985.52	0.716	---

Table A-1
Groundwater Elevation and NAPL Monitoring/Recovery Data
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elevation(feet)	LNAPL Removed (Liters)	DNAPL Removed (Liters)
GMA3-12	997.85	11/19/2012	12.54	12.36	0.18	---	21.04	0.00	985.48	---	---
GMA3-12	997.85	11/28/2012	12.50	12.21	0.29	---	21.05	0.00	985.62	0.716	---
GMA3-12	997.85	11/29/2012	12.50	12.21	0.29	---	21.05	0.00	985.62	0.716	---
GMA3-12	997.85	12/4/2012	12.42	12.30	0.12	---	21.04	0.00	985.54	---	---
GMA3-12	997.85	12/10/2012	12.81	12.50	0.31	---	21.04	0.00	985.33	0.766	---
GMA3-12	997.85	12/19/2012	12.81	12.50	0.31	---	21.03	0.00	985.33	0.191	---
GMA3-12	997.85	12/19/2012	12.81	12.50	0.31	---	21.03	0.00	985.33	0.766	---
GMA3-12	997.85	12/24/2012	12.51	12.34	0.17	---	21.04	0.00	985.50	---	---
GMA3-13	997.71	7/2/2012	11.76	11.73	0.03	---	17.40	0.00	985.98	0.018	---
GMA3-13	997.71	7/11/2012	11.98	11.95	0.03	---	17.38	0.00	985.76	0.018	---
GMA3-13	997.71	7/16/2012	12.11	12.10	0.01	---	17.38	0.00	985.61	0.006	---
GMA3-13	997.71	7/24/2012	12.33	12.31	0.02	---	17.40	0.00	985.40	0.006	---
GMA3-13	997.71	7/31/2012	12.41	12.40	0.01	---	17.38	0.00	985.31	0.006	---
GMA3-13	997.71	8/6/2012	12.50	12.48	0.02	---	17.38	0.00	985.23	0.012	---
GMA3-13	997.71	8/14/2012	12.50	---	0.00	---	17.40	0.00	985.21	---	---
GMA3-13	997.71	8/20/2012	12.44	12.42	0.02	---	17.38	0.00	985.29	0.012	---
GMA3-13	997.71	8/28/2012	12.55	12.53	0.02	---	17.38	0.00	985.18	0.012	---
GMA3-13	997.71	9/4/2012	12.61	12.60	0.01	---	17.30	0.00	985.11	0.006	---
GMA3-13	997.71	9/12/2012	12.61	12.60	0.01	---	17.38	0.00	985.11	0.006	---
GMA3-13	997.71	9/18/2012	12.86	12.85	0.01	---	17.38	0.00	984.86	0.006	---
GMA3-13	997.71	9/24/2012	12.50	---	0.00	---	17.38	0.00	985.21	---	---
GMA3-13	997.71	10/5/2012	12.36	---	0.00	---	17.38	0.00	985.35	---	---
GMA3-13	997.71	10/8/2012	12.34	---	0.00	---	17.38	0.00	985.37	---	---
GMA3-13	997.71	10/16/2012	12.21	---	0.00	---	17.38	0.00	985.50	---	---
GMA3-13	997.71	10/23/2012	12.40	---	0.00	---	17.91	0.00	985.31	---	---
GMA3-13	997.71	10/30/2012	11.93	---	0.00	---	17.38	0.00	985.78	---	---
GMA3-13	997.71	11/5/2012	11.85	---	0.00	---	17.35	0.00	985.86	---	---
GMA3-13	997.71	11/12/2012	12.10	---	0.00	---	17.38	0.00	985.61	---	---
GMA3-13	997.71	11/19/2012	12.20	---	0.00	---	17.38	0.00	985.51	---	---
GMA3-13	997.71	11/28/2012	12.10	---	0.00	---	17.35	0.00	985.61	---	---
GMA3-13	997.71	11/29/2012	12.10	---	0.00	---	17.35	0.00	985.61	---	---
GMA3-13	997.71	12/4/2012	12.13	---	0.00	---	17.37	0.00	985.58	---	---
GMA3-13	997.71	12/10/2012	12.38	---	0.00	---	17.35	0.00	985.33	---	---
GMA3-13	997.71	12/19/2012	12.36	---	0.00	---	17.35	0.00	985.35	---	---
GMA3-13	997.71	12/24/2012	12.20	---	0.00	---	17.36	0.00	985.51	---	---
GMA3-14	997.42	7/11/2012	11.13	---	0.00	---	16.18	0.00	986.29	---	---
GMA3-14	997.42	8/29/2012	11.52	---	0.00	---	16.18	0.00	985.90	---	---
GMA3-14	997.42	9/12/2012	11.72	---	0.00	---	16.18	0.00	985.70	---	---
GMA3-14	997.42	10/23/2012	11.05	---	0.00	---	16.12	0.00	986.37	---	---
GMA3-14	997.42	11/28/2012	11.20	---	0.00	---	16.10	0.00	986.22	---	---
GMA3-14	997.42	12/19/2012	11.20	---	0.00	---	16.10	0.00	986.22	---	---
GMA3-15	996.74	7/11/2012	12.25	---	0.00	---	17.18	0.00	984.49	---	---
GMA3-15	996.74	10/23/2012	11.79	---	0.00	---	17.65	0.00	984.95	---	---

Table A-1
Groundwater Elevation and NAPL Monitoring/Recovery Data
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elevation(feet)	LNAPL Removed (Liters)	DNAPL Removed (Liters)
GMA3-16	989.17	7/11/2012	3.31	---	0.00	---	12.08	0.00	985.86	---	---
GMA3-16	989.17	8/28/2012	3.00	---	0.00	---	12.06	0.00	986.17	---	---
GMA3-16	989.17	9/12/2012	3.03	---	0.00	---	12.05	0.00	986.14	---	---
GMA3-16	989.17	10/23/2012	3.01	---	0.00	---	11.90	0.00	986.16	---	---
GMA3-16	989.17	11/28/2012	3.24	---	0.00	---	12.04	0.00	985.93	---	---
GMA3-16	989.17	12/19/2012	2.92	---	0.00	---	12.09	0.00	986.25	---	---
GMA3-17	1,003.17	7/5/2012	17.83	---	0.00	---	NM	0.00	985.34	---	---
GMA3-17	1,003.17	7/12/2012	18.05	P	< 0.01	---	NM	0.00	985.12	---	---
GMA3-17	1,003.17	7/19/2012	18.16	---	0.00	---	NM	0.00	985.01	---	---
GMA3-17	1,003.17	7/26/2012	18.34	P	< 0.01	---	NM	0.00	984.83	---	---
GMA3-17	1,003.17	8/2/2012	18.32	---	0.00	---	NM	0.00	984.85	---	---
GMA3-17	1,003.17	8/9/2012	18.47	---	0.00	---	NM	0.00	984.70	---	---
GMA3-17	1,003.17	8/16/2012	18.38	---	0.00	---	NM	0.00	984.79	---	---
GMA3-17	1,003.17	8/23/2012	18.36	---	0.00	---	NM	0.00	984.81	---	---
GMA3-17	1,003.17	8/30/2012	18.28	---	0.00	---	NM	0.00	984.89	---	---
GMA3-17	1,003.17	9/6/2012	18.58	---	0.00	---	NM	0.00	984.59	---	---
GMA3-17	1,003.17	9/13/2012	18.60	---	0.00	---	NM	0.00	984.57	---	---
GMA3-17	1,003.17	9/21/2012	18.50	---	0.00	---	NM	0.00	984.67	---	---
GMA3-17	1,003.17	9/27/2012	18.36	---	0.00	---	NM	0.00	984.81	---	---
GMA3-17	1,003.17	10/4/2012	18.30	---	0.00	---	NM	0.00	984.87	---	---
GMA3-17	1,003.17	10/11/2012	18.20	---	0.00	---	NM	0.00	984.97	---	---
GMA3-17	1,003.17	10/18/2012	18.10	---	0.00	---	NM	0.00	985.07	---	---
GMA3-17	1,003.17	10/25/2012	17.93	---	0.00	---	NM	0.00	985.24	---	---
GMA3-17	1,003.17	11/1/2012	17.83	17.82	0.01	---	NM	0.00	985.35	---	---
GMA3-17	1,003.17	11/8/2012	17.78	---	0.00	---	NM	0.00	985.39	---	---
GMA3-17	1,003.17	11/15/2012	17.81	---	0.00	---	NM	0.00	985.36	---	---
GMA3-17	1,003.17	11/21/2012	17.89	---	0.00	---	NM	0.00	985.28	---	---
GMA3-17	1,003.17	11/29/2012	18.05	---	0.00	---	NM	0.00	985.12	---	---
GMA3-17	1,003.17	12/6/2012	18.06	---	0.00	---	NM	0.00	985.11	---	---
GMA3-17	1,003.17	12/14/2012	18.05	---	0.00	---	NM	0.00	985.12	---	---
GMA3-17	1,003.17	12/20/2012	17.98	---	0.00	---	NM	0.00	985.19	---	---
GMA3-17	1,003.17	12/27/2012	17.73	---	0.00	---	NM	0.00	985.44	---	---
UB-MW-10R	996.12	7/11/2012	10.35	---	0.00	---	15.63	0.00	985.77	---	---
UB-MW-10R	996.12	8/28/2012	10.75	---	0.00	---	15.64	0.00	985.37	---	---
UB-MW-10R	996.12	9/12/2012	10.81	---	0.00	---	15.63	0.00	985.31	---	---
UB-MW-10R	996.12	10/5/2012	10.50	---	0.00	---	15.63	0.00	985.62	---	---
UB-MW-10R	996.12	10/23/2012	10.18	---	0.00	---	15.65	0.00	985.94	---	---
UB-MW-10R	996.12	11/28/2012	10.32	---	0.00	---	15.63	0.00	985.80	---	---
UB-MW-10R	996.12	12/19/2012	10.48	---	0.00	---	15.63	0.00	985.64	---	---

Table A-1
Groundwater Elevation and NAPL Monitoring/Recovery Data
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elevation(feet)	LNAPL Removed (Liters)	DNAPL Removed (Liters)	
UB-PZ-3	998.22	7/11/2012	13.05	12.88	0.17	---	13.67	0.00	985.33	0.059	---	
UB-PZ-3	998.22	8/28/2012	13.60	13.35	0.25	---	13.62	0.00	984.85	0.087	---	
UB-PZ-3	998.22	9/12/2012	>13.61	13.40	0.21	---	13.61	0.00	984.81	0.073	---	
UB-PZ-3	998.22	10/5/2012	13.60	13.27	0.33	---	13.61	0.00	984.92	0.114	---	
UB-PZ-3	998.22	10/23/2012	12.93	12.90	0.03	---	13.89	0.00	985.32	---	---	
UB-PZ-3	998.22	11/28/2012	12.95	12.90	0.05	---	13.65	0.00	984.62	0.017	---	
UB-PZ-3	998.22	12/19/2012	12.99	12.90	0.09	---	13.65	0.00	984.65	0.031	---	
GMA4 Monitoring Wells (Adjacent to GMA3)												
060B-R	1,002.79	10/22/2012	16.9	---	0	---	22.26	0	985.89	---	---	
060B-R	1,002.79	10/23/2012	16.75	---	0	---	22.26	0	986.04	---	---	
GMA4-3	1,004.36	10/22/2012	18.53	---	0.00	---	26.30	0.00	985.83	---	---	
GMA4-3	1,004.36	10/23/2012	18.48	---	0.00	---	26.30	0.00	985.88	---	---	
RF-14	1,001.91	10/22/2012	10.91	---	0.00	---	22.60	0.00	991.00	---	---	
RF-14	1,001.91	10/23/2012	10.82	---	0.00	---	22.65	0.00	991.09	---	---	
Unkamet Brook Staff Gauges												
GMA3-SG-1	988.90	10/23/2012	4.28	See Note 5 regarding depth to water						984.62	---	---
GMA3-SG-2	977.90	10/23/2012	1.10	See Note 5 regarding depth to water						979.00	---	---
GMA3-SG-3A	989.14	10/23/2012	1.90	Gauge destroyed, replaced by fixed measuring point						991.04	---	---
GMA3-SG-4	984.90	10/23/2012	NM	No water present						NM	---	---

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available, NM indicates information not measured.
4. P indicates that LNAPL is present at a thickness that is < 0.01 feet, the corresponding thickness is recorded as such.
5. Survey reference points were established on GMA 3 staff gauges GMA3-SG-2, GMA3-SG-3A, and GMA3-SG-4. The "Depth to Water" value(s) provided in the above table refer to the vertical distance upward from the surveyed reference point to the water surface.
6. Well 51-05 07/11/2012 - Well obstructed at 10.46 feet - no depth to water available. LNAPL thickness is approximate due to well obstruction.
7. Wells 82B-R, GMA3-5, and OBG-2 were not monitored in Fall 2012 due to lack of access permission from property owner (U.S. Navy).
8. Wells 16A and 16C-R were not monitored in Fall 2012 due to lack of access permission from property owner(CSX)
7. GMA3-SG-3 was found to be destroyed and was replaced by GMA3-SG-3A, a fixed measuring point.

Table A-2
Housatonic River Discharge At Coltsville, MA USGS Gauging Station
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Date	Maximum Discharge (cfs)	Minimum	Comments
1-Jul	15.0	11.0	--
2-Jul	12.0	9.4	--
3-Jul	11.0	7.0	--
4-Jul	12.0	8.4	--
5-Jul	12.0	8.9	--
6-Jul	10.0	8.4	--
7-Jul	10.0	7.5	--
8-Jul	8.9	7.0	--
9-Jul	9.4	6.6	--
10-Jul	11.0	7.0	--
11-Jul	10.0	6.2	--
12-Jul	9.4	7.0	--
13-Jul	8.9	6.2	--
14-Jul	8.4	5.4	--
15-Jul	7.9	5.4	--
16-Jul	11.0	7.0	--
17-Jul	9.4	6.6	--
18-Jul	8.9	6.6	--
19-Jul	8.4	5.8	--
20-Jul	8.4	5.4	--
21-Jul	7.5	4.8	--
22-Jul	6.6	4.0	--
23-Jul	28.0	4.0	--
24-Jul	29.0	12.0	--
25-Jul	18.0	11.0	--
26-Jul	14.0	8.9	--
27-Jul	12.0	9.4	--
28-Jul	27.0	7.5	--
29-Jul	29.0	22.0	--
30-Jul	23.0	16.0	--
31-Jul	16.0	11.0	--
1-Aug	14.0	8.9	--
2-Aug	11.0	7.9	--
3-Aug	8.9	6.6	--
4-Aug	8.4	4.8	--
5-Aug	28.0	4.5	--
6-Aug	46.0	14.0	--
7-Aug	14.0	8.9	--
8-Aug	11.0	7.0	--
9-Aug	8.9	6.2	--
10-Aug	15.0	6.6	--
11-Aug	107.0	8.9	--
12-Aug	97.0	16.0	--
13-Aug	16.0	12.0	--
14-Aug	14.0	9.4	--
15-Aug	24.0	9.4	--
16-Aug	19.0	12.0	--
17-Aug	37.0	11.0	--
18-Aug	35.0	22.0	--
19-Aug	23.0	14.0	--
20-Aug	15.0	11.0	--
21-Aug	14.0	11.0	--

Table A-2
Housatonic River Discharge At Coltsville, MA USGS Gauging Station
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Date	Maximum Discharge (cfs)	Minimum	Comments
22-Aug	12.0	8.9	--
23-Aug	11.0	7.5	--
24-Aug	8.9	5.8	--
25-Aug	7.9	5.1	--
26-Aug	6.2	4.8	--
27-Aug	7.0	4.3	--
28-Aug	19.0	5.4	--
29-Aug	11.0	6.2	--
30-Aug	9.4	5.8	--
31-Aug	7.0	4.8	--
1-Sep	6.2	4.0	--
2-Sep	4.8	3.7	--
3-Sep	4.3	3.2	--
4-Sep	5.8	3.2	--
5-Sep	27.0	4.8	--
6-Sep	24.0	17.0	--
7-Sep	19.0	12.0	--
8-Sep	42.0	8.9	--
9-Sep	37.0	24.0	--
10-Sep	24.0	14.0	--
11-Sep	15.0	11.0	--
12-Sep	12.0	8.9	--
13-Sep	18.0	0	sensor malfunction
14-Sep	0	0	sensor malfunction
15-Sep	0	0	sensor malfunction
16-Sep	0	0	sensor malfunction
17-Sep	0	0	sensor malfunction
18-Sep	105.0	14.0	--
19-Sep	143.0	113.0	--
20-Sep	122.0	47.0	--
21-Sep	47.0	24.0	--
22-Sep	51.0	16.0	--
23-Sep	38.0	27.0	--
24-Sep	30.0	24.0	--
25-Sep	24.0	16.0	--
26-Sep	16.0	12.0	--
27-Sep	13.0	11.0	--
28-Sep	49.0	12.0	--
29-Sep	56.0	50.0	--
30-Sep	50.0	39.0	--
1-Oct	49.0	38.0	--
2-Oct	38.0	33.0	--
3-Oct	35.0	31.0	--
4-Oct	36.0	30.0	--
5-Oct	36.0	30.0	--
6-Oct	30.0	24.0	--
7-Oct	24.0	20.0	--
8-Oct	25.0	23.0	--
9-Oct	25.0	23.0	--
10-Oct	27.0	21.0	--
11-Oct	27.0	23.0	--
12-Oct	25.0	22.0	--

Table A-2
Housatonic River Discharge At Coltsville, MA USGS Gauging Station
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Date	Maximum Discharge (cfs)	Minimum	Comments
13-Oct	24.0	18.0	--
14-Oct	59.0	18.0	--
15-Oct	86.0	54.0	--
16-Oct	87.0	73.0	--
17-Oct	97.0	78.0	--
18-Oct	87.0	73.0	--
19-Oct	302.0	71.0	--
20-Oct	309.0	210.0	--
21-Oct	210.0	107.0	--
22-Oct	107.0	84.0	--
23-Oct	86.0	73.0	Fall 2012 Groundwater/NAPL Monitoring Event
24-Oct	265.0	66.0	--
25-Oct	84.0	59.0	Fall 2012 Groundwater/NAPL Monitoring Event
26-Oct	258.0	53.0	--
27-Oct	219.0	78.0	--
28-Oct	80.0	69.0	--
29-Oct	151.0	71.0	--
30-Oct	262.0	159.0	Fall 2012 Groundwater Sampling Event
31-Oct	228.0	148.0	--
1-Nov	151.0	105.0	--
2-Nov	109.0	87.0	--
3-Nov	89.0	77.0	--
4-Nov	78.0	58.0	--
5-Nov	58.0	51.0	--
6-Nov	51.0	46.0	--
7-Nov	46.0	40.0	--
8-Nov	43.0	39.0	--
9-Nov	42.0	37.0	--
10-Nov	39.0	35.0	--
11-Nov	36.0	32.0	--
12-Nov	34.0	30.0	--
13-Nov	68.0	33.0	--
14-Nov	66.0	58.0	--
15-Nov	59.0	46.0	--
16-Nov	47.0	39.0	--
17-Nov	40.0	36.0	--
18-Nov	38.0	34.0	--
19-Nov	36.0	33.0	--
20-Nov	35.0	31.0	--
21-Nov	34.0	29.0	--
22-Nov	32.0	30.0	--
23-Nov	34.0	30.0	--
24-Nov	34.0	33.0	--
25-Nov	33.0	31.0	--
26-Nov	33.0	30.0	--
27-Nov	33.0	30.0	--
28-Nov	245.0	29.0	--
29-Nov	225.0	56.0	--
30-Nov	53.0	29.0	--
1-Dec	31.0	27.0	--
2-Dec	38.0	27.0	--
3-Dec	49.0	36.0	--

Table A-2
Housatonic River Discharge At Coltsville, MA USGS Gauging Station
July 2012 - December 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Date	Maximum Discharge (cfs)	Minimum	Comments
4-Dec	44.0	38.0	--
5-Dec	46.0	38.0	--
6-Dec	43.0	35.0	--
7-Dec	36.0	31.0	--
8-Dec	75.0	36.0	--
9-Dec	71.0	59.0	--
10-Dec	82.0	62.0	--
11-Dec	86.0	69.0	--
12-Dec	71.0	53.0	--
13-Dec	53.0	44.0	--
14-Dec	47.0	39.0	--
15-Dec	43.0	39.0	--
16-Dec	42.0	37.0	--
17-Dec	50	36	--
18-Dec	197	50	--
19-Dec	206	164	--
20-Dec	164	111	--
21-Dec	341	107	--
22-Dec	435	309	--
23-Dec	306	225	--
24-Dec	232	172	--
25-Dec	169	113	--
26-Dec	129	93	--
27-Dec	101	77	--
28-Dec	109	97	--
29-Dec	103	99	--
30-Dec	111	91	--
31-Dec	164	77	--

Notes:

1. cfs - cubic feet per second.
2. Data obtained from the USGS Real-Time Water Data for Massachusetts Web Interface.
3. Data collected over 15 minute intervals, daily maximum and minimum discharge values are presented.
4. Location: Latitude 42°28'10", Longitude 73°11'49", Berkshire County, Hydrologic Unit 01100005, on right bank 250 feet downstream from Hubbard Avenue Bridge at Coltsville, 1.2 mi upstream from Unkarnet Brook and 2 miles northeast of Pittsfield.
5. Fall 2012 groundwater monitoring event at GMA 3 was conducted on October 23 and 25, 2012.
6. Fall 2012 groundwater sampling event at GMA 3 was conducted on October 30, 2012.
7. Per USGS, there was a sensor malfunction at the gage, the sensor was replaced on Sept 18, 2012. The bad data was screened from the web. It is recorded as "Eqp" on the USGS Site and shown here as 0.

Table A-3
Monitoring Well Maintenance Summary - Fall 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Fall 2012 Date(s) of Assessment	As-Built Depth (ft BMP)	Fall 2012 Total Depth (ft BMP)	Comments During Fall 2012 Assessment	Areas Identified for Follow-up			Date(s) of Completed Maintenance	Fall 2011 Completed Maintenance
					Outer Casing/Manhole w/ Bolts, Cover, Seal & Road box	Inner Casing Maintenance (Modify Riser, Replace J-Plug, Re-survey Measuring Point)	General Maintenance (Replace bolts/lock, Label well ID, Clean/Repair seal/lid)		
002A	10/23/2012	52.65	55.12	Surveyed on 6/8/2012					
006B-R	10/23/2012	14.45	14.76	No Maintenance Needed					
016A	NM	50.31	NM	Surveyed on 6/8/2012					
016B-R	10/23/2012	16.19	16.40	No Maintenance Needed					
016C-R	NM	101.89	NM	No Maintenance Needed					
039B-R	10/23/2012	13.87	13.85	No Maintenance Needed					
039D-R	10/23/2012	67.52	68.11	No Maintenance Needed					
039E	10/23/2012	234.88	NM	No Maintenance Needed					
043A	10/23/2012	51.76	46.35	Completed well development, final turbidity 46 NTU, DTB on 7/16/12 45.98'.			Propose sediment removal	12/4/2012	Sediment removal completed on 12/04/2012; via air jetting and peristaltic pump. Final DTB 51.20'
043B	10/23/2012	21.71	21.28	No Maintenance Needed					
050B	10/23/2012	17.26	14.85	Sediment removal previously attempted on 5/30/12, via bailer. Final DTB 15.09'.					
054B-R	10/23/2012	15.55	15.51	No Maintenance Needed					
51-05	10/23/2012	14.47	10.47	Sediment removal previously attempted on 5/1/12, via air jetting. Final DTB 10.50'.			Propose sediment/obstruction removal	12/4/2012	Unsuccessful sediment removal; well was nearly completely dry.
51-06	10/23/2012	14.75	14.16	Needs Washers; Lock	Add 2 washers	Add lock		10/25/2012	Added washers and lock
51-07	10/23/2012	14.73	14.46	Needs Washers	Add 3 washers			11/1/2012	Added 3 washers
51-08	10/23/2012	14.79	14.60	Replace Road Box; Needs Lock	Replace Road Box	Add lock		11/2/2012	Replaced roadbox
51-09	10/23/2012	14.94	14.26	No Maintenance Needed					
51-11	10/23/2012	14.77	14.69	No Maintenance Needed					
51-12	10/23/2012	14.73	13.40	Sediment removal previously completed on 5/2/12, via air jetting. Final DTB 13.43'.					
51-13	10/23/2012	14.67	13.70	No Maintenance Needed					
51-14	10/23/2012	14.71	14.83	No Maintenance Needed					
51-15	10/23/2012	14.78	14.31	No Maintenance Needed					
51-16R	10/23/2012	14.74	14.15	No Maintenance Needed					
51-17	10/23/2012	14.79	14.48	Needs Washers	Add washers			10/25/2012	Added washers
51-18	10/23/2012	14.88	12.55	Sediment removal previously attempted on 5/2/12, via air jetting. Final DTB 12.61'.					
51-19	10/23/2012	14.81	14.14	Needs Lock		Add lock		10/30/2012	Added lock
51-21	10/25/2015	19.73	NM	No Maintenance Needed					

Table A-3
Monitoring Well Maintenance Summary - Fall 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Fall 2012 Date(s) of Assessment	As-Built Depth (ft BMP)	Fall 2012 Total Depth (ft BMP)	Comments During Fall 2012 Assessment	Areas Identified for Follow-up			Date(s) of Completed Maintenance	Fall 2011 Completed Maintenance
					Outer Casing/Manhole w/ Bolts, Cover, Seal & Road box	Inner Casing Maintenance (Modify Riser, Replace J-Plug, Re-survey Measuring Point)	General Maintenance (Replace bolts/lock, Label well ID, Clean/Repair seal/lid)		
59-01	10/23/2012	24.02	19.66	<i>Sediment removal previously attempted on 5/1/12, via air jetting. Final DTB 19.35'.</i>			Check total Depth and Propose sediment removal	12/4/2012	Sediment removal completed on 12/04/2012;via air jetting and peristaltic pump.Fiinal DTB 19.87'
59-03R	10/23/2012	17.13	17.03	Needs Bolts	Add 3 bolts			10/30/2012	Added 3 bolts
59-07	10/23/2012	23.53	23.48	No Maintenance Needed					
060B-R	10/23/2012	21.75	22.26	No Maintenance Needed					
078B-R	10/23/2012	11.44	11.66	No Maintenance Needed					
082B-R	NM	14.11	NM	No Maintenance Needed					
089A	10/23/2012	50.29	47.20	<i>Sediment removal previously attempted on 5/3/12, via peristaltic pump. Final DTB 47.23'.</i>					
089B	10/23/2012	9.96	8.80	<i>Sediment removal previously attempted on 5/31/12, via bailer. Final DTB 9.01'.</i>					
089D-R	10/23/2012	80.00	80.00	No Maintenance Needed					
090A	10/23/2012	51.75	51.53	No Maintenance Needed					
090B	10/23/2012	13.86	12.80	No Maintenance Needed			Propose sediment removal	12/3/2012	Sediment removal completed on 12/03/2012;via air jetting and peristaltic pump.Fiinal DTB 13.08'
095A	10/23/2012	52.02	50.98	No Maintenance Needed			Propose sediment removal	12/3/2012	Sediment removal completed on 12/03/2012;via air jetting and peristaltic pump.Fiinal DTB 51.42'
095B-R	10/23/2012	14.94	14.00	No Maintenance Needed					
111A-R	10/23/2012	52.36	52.00	No Maintenance Needed					
111B-R	10/23/2012	19.98	19.65	No Maintenance Needed					
114A	10/23/2012	53.10	52.15	No Maintenance Needed					
114B-R	10/23/2012	16.04	15.25	No Maintenance Needed					
115A	10/23/2012	43.06	42.70	No Maintenance Needed					
115B	10/23/2012	18.72	15.70	<i>Sediment removal previously attempted on 5/31/12, via bailer. Final DTB 15.86'.</i>					
GMA3-2	10/23/2012	15.10	14.55	No Maintenance Needed					
GMA3-3	10/23/2012	11.59	12.42	No Maintenance Needed					
GMA3-4	10/23/2012	13.24	13.34	No Maintenance Needed					
GMA3-5	NM	16.22	NM	No Maintenance Needed					
GMA3-6	1.10/23/2012 2.11/1/2012	23.57	23.96	Needs Lock		Add lock		11/1/2012	Lock added
GMA3-7	10/23/2012	19.91	19.86	No Maintenance Needed					
GMA3-8	10/23/2012	16.79	16.31	No Maintenance Needed					

Table A-3
Monitoring Well Maintenance Summary - Fall 2012

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

Well Name	Fall 2012 Date(s) of Assessment	As-Built Depth (ft BMP)	Fall 2012 Total Depth (ft BMP)	Comments During Fall 2012 Assessment	Areas Identified for Follow-up			Date(s) of Completed Maintenance	Fall 2011 Completed Maintenance
					Outer Casing/Manhole w/ Bolts, Cover, Seal & Road box	Inner Casing Maintenance (Modify Riser, Replace J-Plug, Re-survey Measuring Point)	General Maintenance (Replace bolts/lock, Label well ID, Clean/Repair seal/lid)		
GMA3-9	10/23/2012	12.48	12.77	No Maintenance Needed					
GMA3-10	10/23/2012	18.71	17.61	<i>Sediment removal previously attempted on 5/4/12, via peristaltic pump. Final DTB 17.97'.</i>					
GMA3-11	10/23/2012	18.47	17.50	No Maintenance Needed					
GMA3-12	10/23/2012	21.81	21.20	No Maintenance Needed					
GMA3-13	10/23/2012	17.77	17.91	No Maintenance Needed					
GMA3-14	10/23/2012	17.01	16.12	Needs Lock		Add Lock		10/30/2012	Added lock
GMA3-15	10/23/2012	18.14	17.65	No Maintenance Needed					
GMA3-16	10/23/2012	11.37	11.90	No Maintenance Needed					
GMA3-17	10/25/2012	24.77	NM	No Maintenance Needed					
OBG-2	NM	14.10	NM	No Maintenance Needed					
UB-MW-10R	10/23/2012	NA	15.65	No Maintenance Needed				10/30/2012	Added lock
UB-PZ-3	10/23/2012	15.67	13.89	Needs Bolt; Lock; J-plug <i>Sediment removal previously attempted on 5/4/12, via peristaltic pump. Final DTB 13.66'.</i>	Add Bolt	Add lock and locking cap		10/25/2012	Added lock and J-plug

Notes:

1. ft BMP - Feet Below Measuring Point.
2. Listed total depth is based on approximate well installation depth relative to current measuring point elevation.
3. Fall 2012 total depth is based on actual measurement of well depth from current measuring point.
4. Repairs involving modifications to inner casing will require re-survey of well if change is made to elevation of measuring point.
5. Italics indicates maintenance item(s) from a previous monitoring event.
6. Highlighted depth discrepancies indicate wells that may require sediment removal or well development.
7. Wells 82B-R, GMA3-5, and OBG-2 were not monitored in Fall 2012 due to lack of access permission from property owner (U.S. Navy).
8. Wells 16A and 16C-R were not monitored in Fall 2012 due to lack of access permission from property owner(CSX)



Appendix B

Comparison of Quarterly LNAPL
Recovery Volumes to Average
Groundwater Elevations

Appendix B
Overall Comparison of Quarterly LNAPL Recovery Volumes to Groundwater Elevations

Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

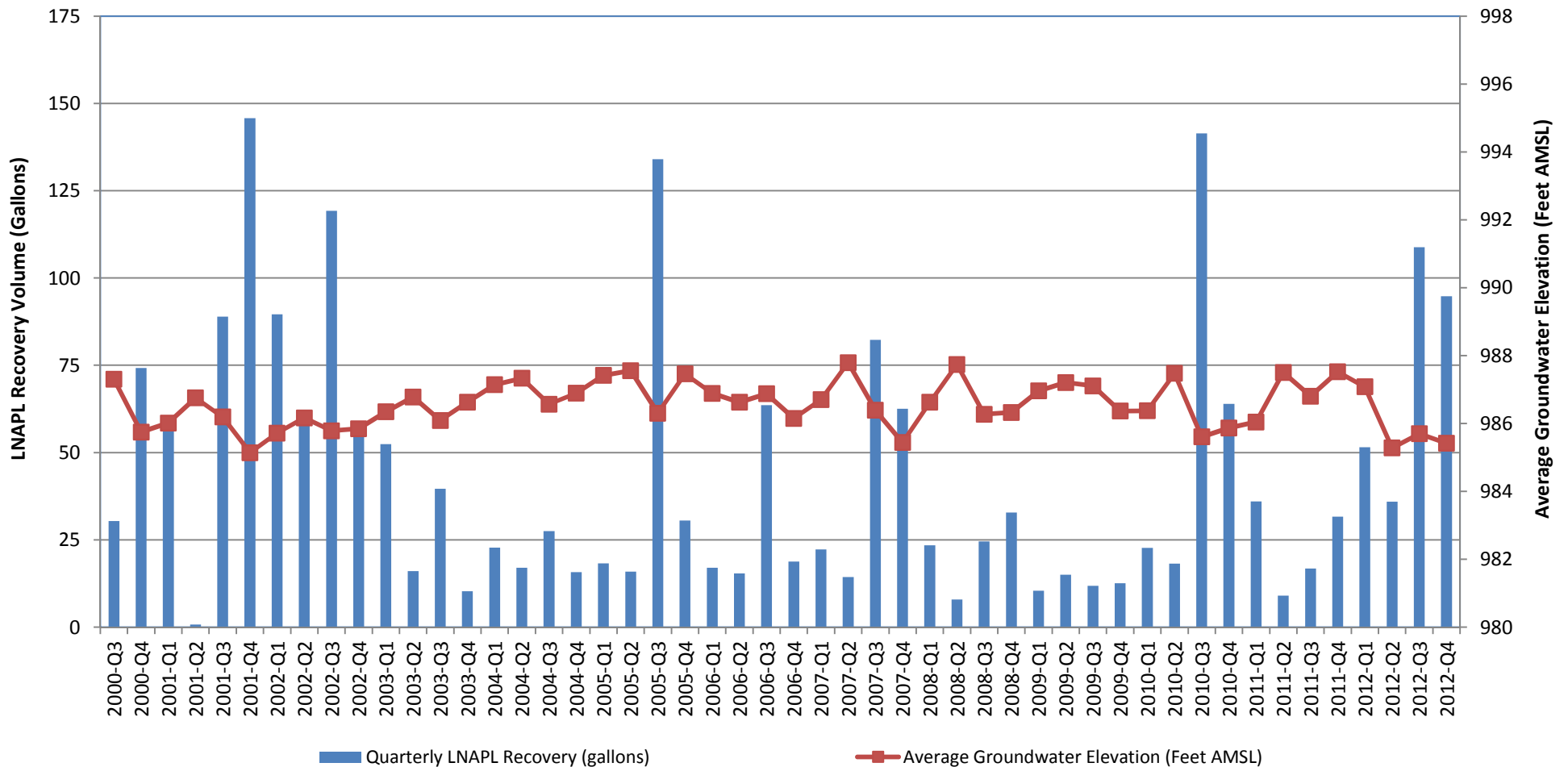
Average groundwater elevation and cumulative LNAPL recovery data is presented on a quarterly basis, defined as:

Quarter 1 - January to March

Quarter 2 - April to June

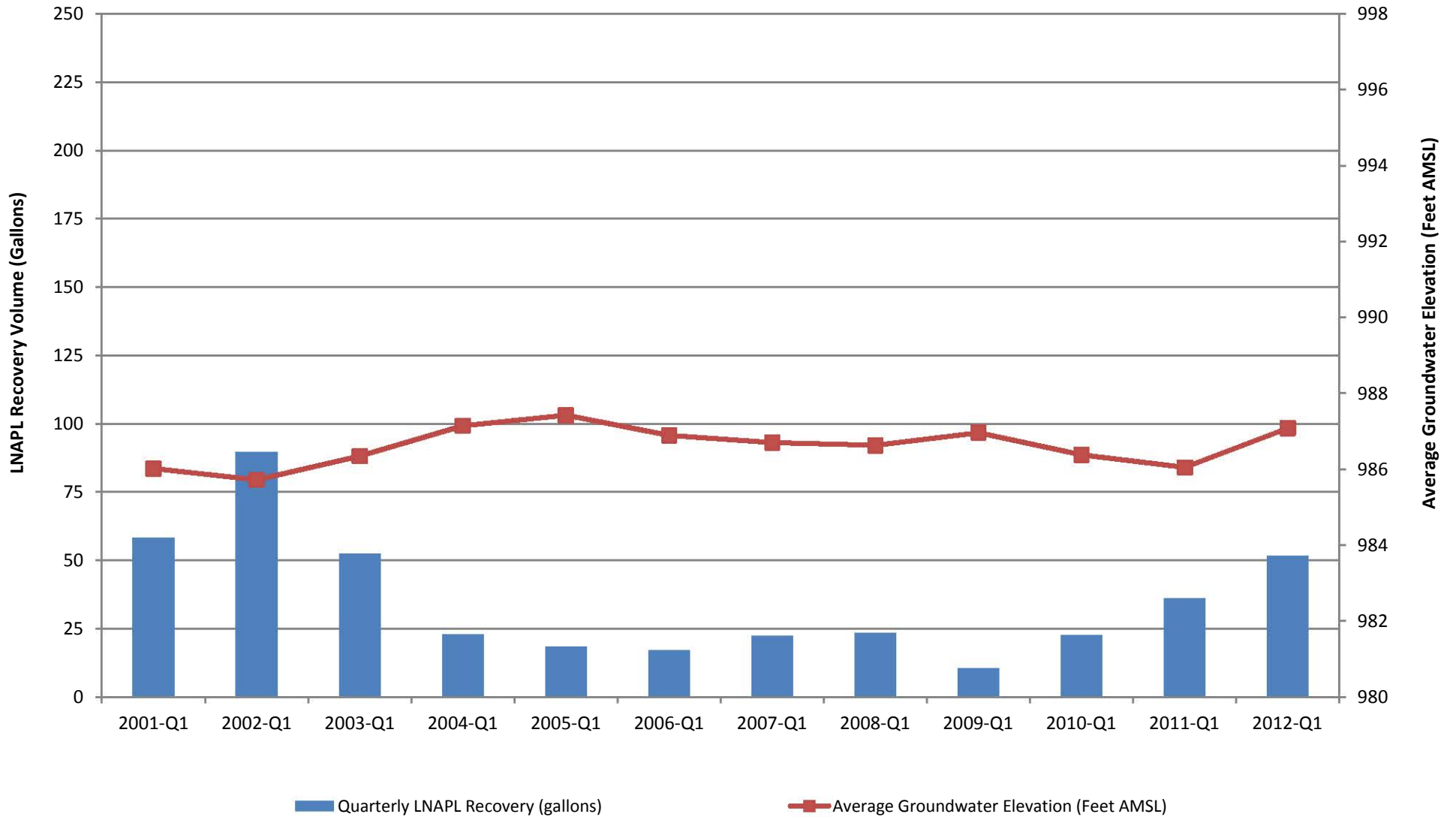
Quarter 3 - July to September

Quarter 4 - October to December



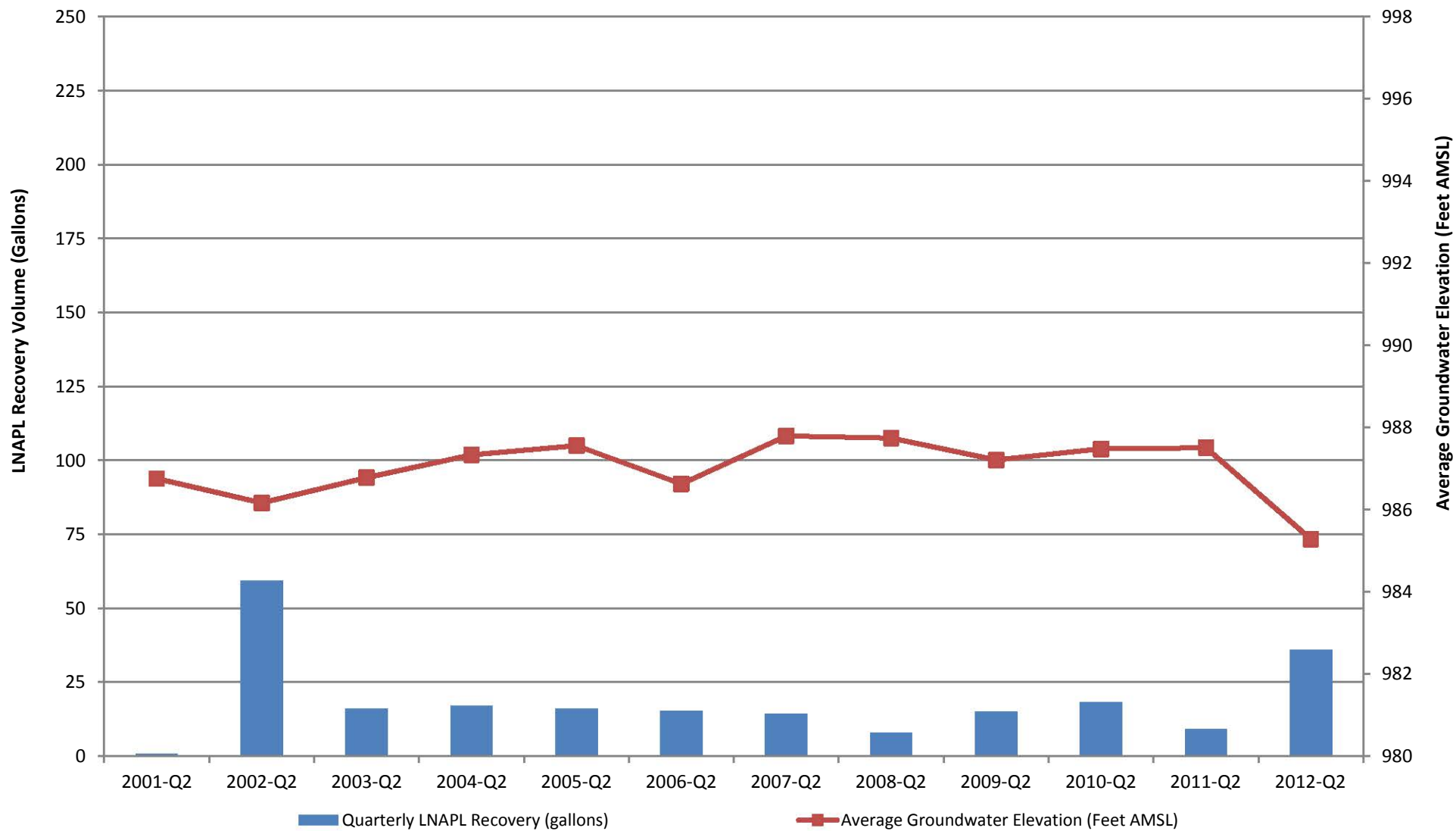
Appendix B
Comparison of Quarterly LNAPL Recovery Volumes to Groundwater Elevations - Quarter 1

Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts



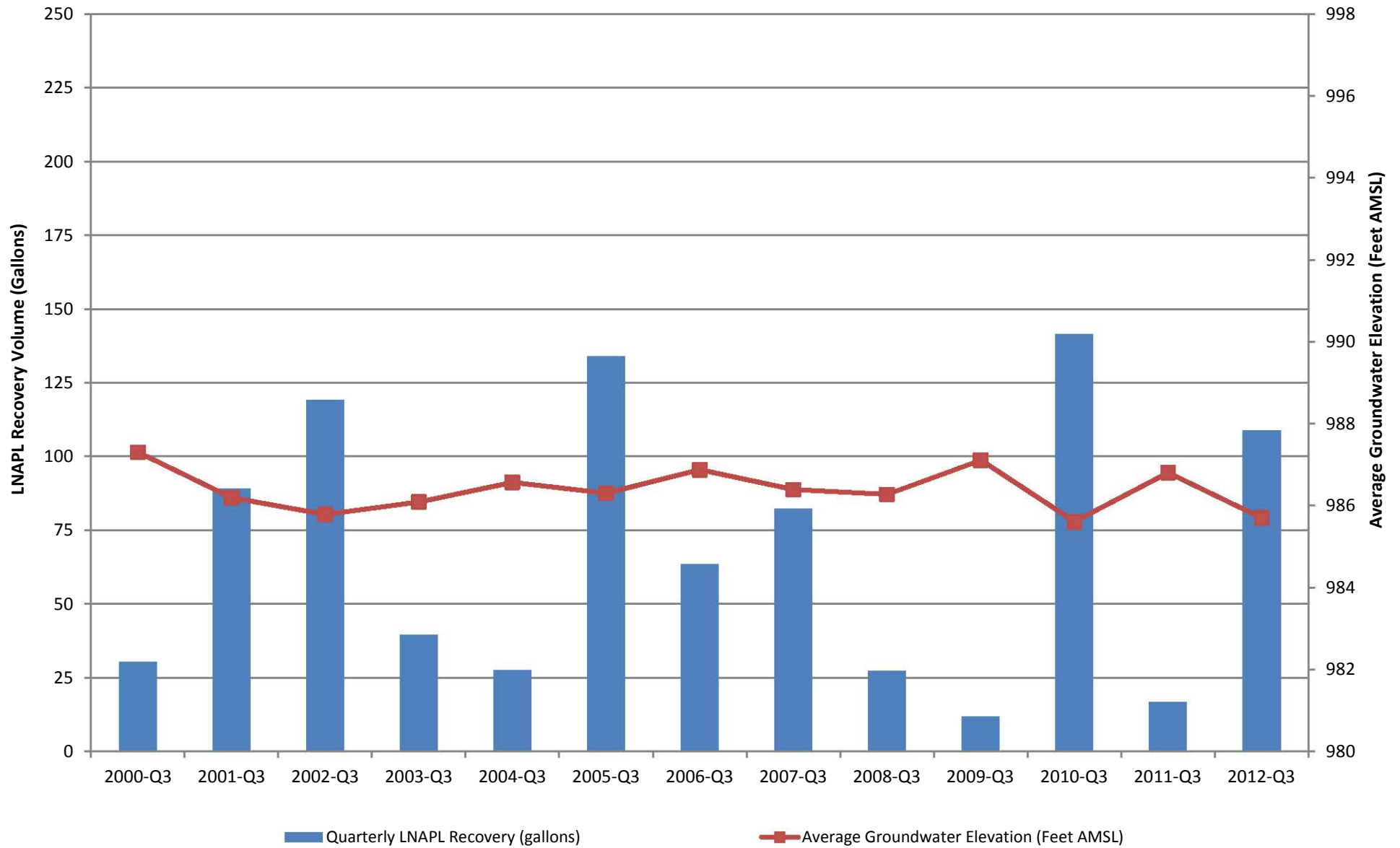
Appendix B
Comparison of Quarterly LNAPL Recovery Volumes to Groundwater Elevations - Quarter 2

Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts



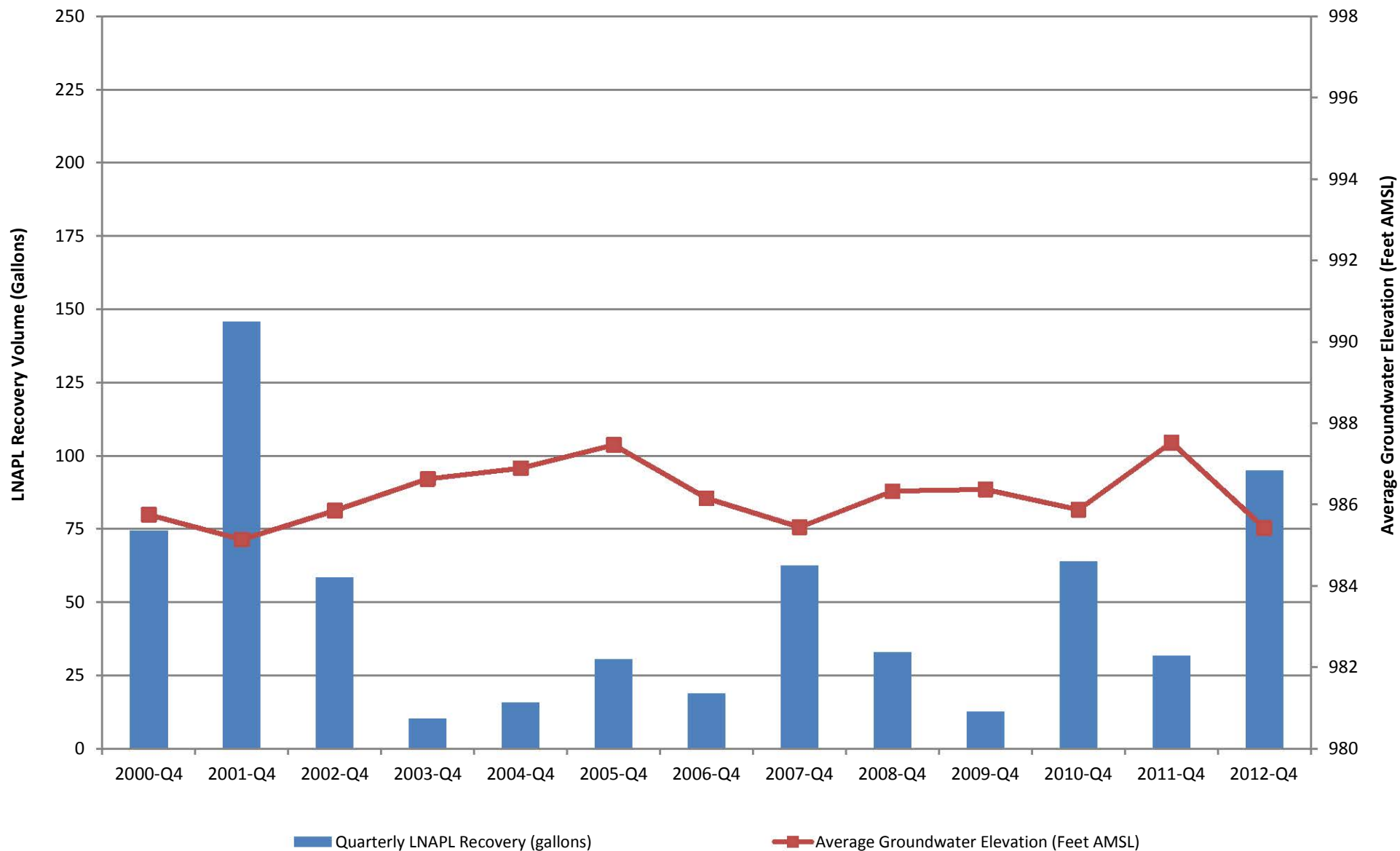
Appendix B
Comparison of Quarterly LNAPL Recovery Volumes to Groundwater Elevations - Quarter 3

Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts



Appendix B
Comparison of Quarterly LNAPL Recovery Volumes to Groundwater Elevations - Quarter 4

Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts





Appendix C

Field Sampling Data

GROUNDWATER SAMPLING LOG

Well No. 39B-R
 Key No. _____
 PID Background (ppm) _____
 Well Headspace (ppm) _____

Site/GMA Name GMA3 - Pittsfield GE
 Sampling Personnel RPH / RLC
 Date 10/30/12
 Weather Windy Mostly Cloudy 50s

WELL INFORMATION

Reference Point Marked? Y N
 Height of Reference Point -3.9 Meas. From Grade
 Well Diameter 3"
 Screen Interval Depth _____ Meas. From Grade
 Water Table Depth 6.35 Meas. From TIC
 Well Depth 13.94 Meas. From TIC
 Length of Water Column 7.49
 Volume of Water in Well 1.222
 Intake Depth of Pump/Tubing 9 Meas. From TIC

Sample Time 1245
 Sample ID 39B-R
 Duplicate ID GMA3 DUP 10/30/12
 MS/MSD 39B-R US/MSD
 Split Sample ID _____

Reference Point Identification:

TIC: Top of Inner (PVC) Casing
 TOC: Top of Outer (Protective) Casing
 Grade/BGS: Ground Surface

Redevelop? Y N

Additional well maintenance needed? Y N (if yes, describe below)

EVACUATION INFORMATION

A Pump Start Time 1103
 Pump Stop Time 1245
 Minutes of Pumping 100 102
 Volume of Water Removed 1020 2.5 gal
 Did Well Go Dry? Y N

Evacuation Method: Bailer () Bladder Pump ()
 Peristaltic Pump () Submersible Pump () Other/Specify ()
 Pump Type: RED Sample P
 Samples collected by same method as evacuation? Y N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI #1 - 03C0392 AF

Time	Pump Rate (L/min.)	Total Gallons Removed	Water Level (ft TIC)	Temp. (Celsius) [3%]*	pH [0.1 units]*	Sp. Cond. (mS/cm) [3%]*	Turbidity (NTU) [10% or 1 NTU]*	DO (mg/l) [10% or 0.1 mg/l]*	ORP (mV) [10 mV]*
1110	75 R4		6.4	17.99	6.67	0.601	34	9.58	-533.1
1120	75		6.4	14.93	6.59	0.557	25	0.97	-661.0
1125	100		6.4	14.69	6.89	0.553	21	0.60	-668.4
1130	100		6.4	14.70	7.04	0.550	17	0.53	671.7
1135	100		6.4	14.68	7.29	0.548	17	0.41	-680
1140	100		6.4	14.66	7.32	0.550	11	0.40	-689.5
1145	100		6.4	14.66	7.40	0.552	9	0.38	-704.2
1150	100	↓	6.4	14.66	7.44	0.552	7	0.37	-706.0

* The stabilization criteria for each field parameter (three consecutive readings collected at 3- to 5-minute intervals) is listed in each column heading.

OBSERVATIONS/SAMPLING METHOD DEVIATIONS

* Initial purge: Clear slight odor
 Final purge: same as initial

SAMPLE DESTINATION

Laboratory: SGS
 Delivered Via: UPS
 Airbill #: _____

Field Sampling Coordinator: Kenneth Connors



Appendix D

Data Validation Report

**Appendix D
Groundwater Sampling Data Validation Report
Groundwater Management Area 3 – Fall 2012**

**General Electric Company
Pittsfield, Massachusetts**

1.0 General

This attachment summarizes the data validation review performed on behalf of the General Electric Company (GE) for groundwater samples collected in October 2012 as part of groundwater sampling activities conducted at Groundwater Management Area 3, located at the General Electric Company/Housatonic River Site in Pittsfield, Massachusetts. The samples were analyzed for volatile organic compound (VOC) constituents listed in Appendix IX of 40 CFR Part 264, plus one additional constituent -- 2-chloroethyl vinyl ether, (hereafter referred to as Appendix IX+1) by SGS Environmental Services, Inc. of Wilmington, North Carolina. Data validation was performed for four VOC samples.

2.0 Data Evaluation Procedures

This attachment outlines the applicable quality control criteria utilized during the data review process and any deviations from those criteria. The data review was conducted in accordance with the following documents:

- *Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (submitted by GE on March 30, 2007 and approved by EPA on June 13, 2007); and*
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, USEPA Region I (Draft, December 1996).*

The data were validated to either a Tier I or Tier II level, as described below. Any deviations from the applicable quality control criteria utilized during the data review process are identified below. A tabulated summary of the Tier I/Tier II data review is presented in Table E-1. Each sample subject to evaluation is listed in Table E-1 to document that data review was performed. Samples that required data qualification are listed separately.

The following data qualifiers were used in this data evaluation:

- J The compound was positively identified, but the associated numerical value is an estimated concentration. This qualifier is used when the data evaluation procedure identifies a deficiency in the data generation process. This qualifier is also used when a compound is detected at an estimated concentration less than the corresponding practical quantitation limit (PQL).
- U The compound was analyzed for, but was not detected. The sample quantitation limit is presented. Non-detect sample results are presented as ND(PQL) within this report for consistency with documents previously prepared for investigations conducted at the GE-Pittsfield/Housatonic River Site.

- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is estimated and may or may not represent the actual level of quantitation. Non-detect sample results that required qualification are presented as ND(PQL) J within this report for consistency with documents previously prepared for investigations conducted at the GE-Pittsfield/Housatonic River Site.
- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data should not be used for any qualitative or quantitative purpose.

3.0 Data Validation Procedures

Section 7.5 of the FSP/QAPP states that analytical data will be validated to a Tier I level following the procedures presented in the *Region I Tiered Organic and Inorganic Data Validation Guidelines* (EPA guidelines). The Tier I review consisted of a completeness evidence audit, as outlined in the *EPA Region I CSF Completeness Evidence Audit Program* (EPA Region I, July 31, 1991), to ensure that laboratory data and documentation were present. In the event data packages were determined to be incomplete, the missing information was requested from the laboratory. Upon completion of the Tier I review, the data packages complied with the EPA Region I Tier I data completeness requirements.

The Tier II data review consisted of a review of data package summary forms for identification of quality assurance/quality control (QA/QC) deviations and qualification of the data according to the Region I Data Validation Functional Guidelines. Additionally, field duplicates were examined for relative percent difference (RPD) compliance with the criteria specified in the FSP/QAPP.

A tabulated summary of the samples subject to Tier I and Tier II data review is presented in the following table.

Summary of Samples Subjected to Tier I and Tier II Data Validation

Parameter	Tier I Only			Tier I & Tier II			Total
	Samples	Duplicates	Blanks	Samples	Duplicates	Blanks	
VOCs	0	0	0	1	1	2	4
Total	0	0	0	1	1	2	4

When qualification of the sample data was required, the sample results associated with a QA/QC parameter deviation were qualified in accordance with the procedures outlined in EPA Region I data validation guidance documents. When the data validation process identified several quality control deficiencies, the cumulative effect of the various deficiencies was employed in assigning the final data qualifier. A summary of the QA/QC parameter deviations that resulted in data qualification is presented in Section 4 below.

4.0 Summary of QA/QC Parameter Deviations Requiring Data Qualification

This section provides a summary of the deviations from the applicable QA/QC criteria that resulted in qualification of results.

The initial calibration criterion for organic analyses requires that the average relative response factor (RRF) has a value greater than 0.05. Sample results were qualified as estimated (J) when this criterion was not achieved. The compounds that did not achieve the initial calibration criterion and the number of samples qualified are presented in the following table.

Compounds Qualified Due to Initial Calibration Deviations (RRF)

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	1,4-Dioxane	4	J
	Isobutanol	4	J

The continuing calibration criterion requires that the percent difference (%D) between the initial calibration RRF and the continuing calibration RRF for VOCs be less than 25%. Sample data for detect and non-detect compounds with %D values that exceeded the continuing calibration criteria were qualified as estimated (J). The compound that exceeded the continuing calibration criterion and the number of samples qualified due to those deviations are presented in the following table.

Compound Qualified Due to Continuing Calibration of %D Values

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	Acetone	4	J

5.0 Overall Data Usability

This section summarizes the analytical data in terms of its completeness and usability. Data completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process. The percent usability calculation included analyses evaluated under both the Tier I/II data validation reviews. The percent usability calculation also includes quality control samples (i.e., field/equipment blanks, trip blanks, and field duplicates) to aid in the evaluation of data usability. Data usability is summarized in the following table.

Data Usability

Parameter	Percent Usability	Rejected Data
VOCs	100	None

The data package completeness, as determined from the Tier I data review, was used in combination with the data quality deviations identified during the Tier II data review to determine overall data quality. As specified in the FSP/QAPP, the overall precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters determined from the Tier I and Tier II data reviews were used as indicators of overall data quality. These parameters were assessed through an evaluation of the results of the field and laboratory QA/QC sample analyses to provide a measure of compliance of the analytical data with the Data Quality Objectives (DQOs) specified in the FSP/QAPP. Therefore, the following sections present summaries of the PARCC parameters assessment with regard to the DQOs specified in the FSP/QAPP.

5.1 Precision

Precision measures the reproducibility of measurements under a given set of conditions. Specifically, it is a quantitative measure of the variability of a group of measurements compared to their average value. For this investigation, precision was defined as the RPD between duplicate sample results. The duplicate samples used to evaluate precision included field duplicates, MS/MSD samples, and LCS/LCSD samples. None of the data required qualification due to field duplicate deviations, MS/MSD RPD deviations, or LCS/LCSD RPD deviations.

5.2 Accuracy

Accuracy measures the bias in an analytical system or the degree of agreement of a measurement with a known reference value. For this investigation, accuracy was defined as the percent recovery of QA/QC samples that were spiked with a known concentration of an analyte or compound of interest. The QA/QC samples used to evaluate analytical accuracy included instrument calibration, internal standards, LCS/LCSDs, MS/MSD samples, and surrogate compound recoveries. For this analytical program, 5.4% of the data required qualification due to instrument calibration deviations. None of the data required qualification due to internal standard recovery deviations, LCS/LCSD recovery deviations, MS/MSD recovery deviations, or surrogate compound recovery deviations.

5.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter, which is most concerned with the proper design of the sampling program. The representativeness criterion is best satisfied by making certain that sampling locations are selected properly and a sufficient number of samples are collected. This parameter has been addressed by collecting samples at locations specified in the EPA-approved work plans, and by following the procedures for sample collection/analyses that were described in the FSP/QAPP. Additionally, the analytical program used procedures consistent with EPA-approved analytical methodology. A QA/QC parameter that is an indicator of the representativeness of a sample is holding time. Holding time criteria are established to maintain the samples in a state that is representative of the in-situ field conditions before analysis. For this analytical data set, none of the data required qualification due to holding time deviations.

5.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. This goal was achieved through the use of the standardized techniques for sample collection and analysis presented in the FSP/QAPP. Specifically, all the groundwater samples collected in October 2012 were analyzed by EPA SW-846 method 8260 for VOCs.

5.5 Completeness

Completeness is defined as the percentage of measurements that are judged to be valid or usable to meet the prescribed DQOs. The completeness criterion is essentially the same for all data uses -- the generation of a sufficient amount of valid data. The actual completeness of this analytical data set had an overall usability of 100%.

Table D-1
Analytical Data Validation Summary
Groundwater Management Area 3 - Fall 2012

General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result	Notes
VOCs											
31203568	GMA3-RB-103112	10/31/2012	Water	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.009	>0.05	ND(0.10) J	
						Acetone	CCAL %D	26.6%	<25%	ND(0.025) J	
						Isobutanol	ICAL RRF	0.041	>0.05	ND(0.050) J	
31203569	39B-R	10/30/2012	Water	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.009	>0.05	ND(80) J	
						Acetone	CCAL %D	26.6%	<25%	ND(20) J	
						Isobutanol	ICAL RRF	0.041	>0.05	ND(40) J	
31203569	GMA3 DUP 103012	10/30/2012	Water	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.009	>0.05	ND(80) J	Duplicate of 39B-R
						Acetone	CCAL %D	26.6%	<25%	ND(20) J	
						Isobutanol	ICAL RRF	0.041	>0.05	ND(40) J	
31203569	Trip Blank	10/30/2012	Water	Tier II	Yes	1,4-Dioxane	ICAL RRF	0.009	>0.05	ND(0.10) J	
						Acetone	CCAL %D	26.6%	<25%	ND(0.025) J	
						Isobutanol	ICAL RRF	0.041	>0.05	ND(0.050) J	



Appendix E

Fall 2012 Groundwater Analytical
Results

Table E-1
Fall 2012 Groundwater Analytical Results

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012:
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter	Sample ID: Date Collected:	39B-R 10/30/12
Volatile Organics		
1,1,1,2-Tetrachloroethane		ND(0.80) [ND(0.80)]
1,1,1-Trichloroethane		ND(0.80) [ND(0.80)]
1,1,2,2-Tetrachloroethane		ND(0.80) [ND(0.80)]
1,1,2-Trichloroethane		ND(0.80) [ND(0.80)]
1,1-Dichloroethane		ND(0.80) [ND(0.80)]
1,1-Dichloroethene		ND(0.80) [ND(0.80)]
1,2,3-Trichloropropane		ND(0.80) [ND(0.80)]
1,2-Dibromo-3-chloropropane		ND(4.0) [ND(4.0)]
1,2-Dibromoethane		ND(0.80) [ND(0.80)]
1,2-Dichloroethane		ND(0.80) [ND(0.80)]
1,2-Dichloropropane		ND(0.80) [ND(0.80)]
1,4-Dioxane		ND(80) J [ND(80) J]
2-Butanone		ND(20) [ND(20)]
2-Chloro-1,3-butadiene		ND(0.80) [ND(0.80)]
2-Chloroethylvinylether		ND(20) [ND(20)]
2-Hexanone		ND(4.0) [ND(4.0)]
3-Chloropropene		ND(0.80) [ND(0.80)]
4-Methyl-2-pentanone		ND(4.0) [ND(4.0)]
Acetone		ND(20) J [ND(20) J]
Acetonitrile		ND(16) [ND(16)]
Acrolein		ND(20) [ND(20)]
Acrylonitrile		ND(20) [ND(20)]
Benzene		1.1 [1.1]
Bromodichloromethane		ND(0.80) [ND(0.80)]
Bromoform		ND(0.80) [ND(0.80)]
Bromomethane		ND(0.80) [ND(0.80)]
Carbon Disulfide		ND(0.80) [ND(0.80)]
Carbon Tetrachloride		ND(0.80) [ND(0.80)]
Chlorobenzene		18 [17]
Chloroethane		ND(0.80) [ND(0.80)]
Chloroform		ND(0.80) [ND(0.80)]
Chloromethane		ND(0.80) [ND(0.80)]
cis-1,3-Dichloropropene		ND(0.80) [ND(0.80)]
Dibromochloromethane		ND(0.80) [ND(0.80)]
Dibromomethane		ND(0.80) [ND(0.80)]
Dichlorodifluoromethane		ND(4.0) [ND(4.0)]
Ethyl Methacrylate		ND(0.80) [ND(0.80)]
Ethylbenzene		0.26 J [0.21 J]
Iodomethane		ND(0.80) [ND(0.80)]
Isobutanol		ND(40) J [ND(40) J]
Methacrylonitrile		ND(8.0) [ND(8.0)]
Methyl Methacrylate		ND(0.80) [ND(0.80)]
Methylene Chloride		ND(4.0) [ND(4.0)]
Propionitrile		ND(16) [ND(16)]
Styrene		ND(0.80) [ND(0.80)]
Tetrachloroethene		ND(0.80) [ND(0.80)]
Toluene		ND(0.80) [0.22 J]
trans-1,2-Dichloroethene		ND(0.80) [ND(0.80)]
trans-1,3-Dichloropropene		ND(0.80) [ND(0.80)]
trans-1,4-Dichloro-2-butene		ND(4.0) [ND(4.0)]
Trichloroethene		ND(0.80) [ND(0.80)]
Trichlorofluoromethane		ND(0.80) [ND(0.80)]
Vinyl Acetate		ND(1.6) [ND(1.6)]
Vinyl Chloride		ND(0.80) [ND(0.80)]
Xylenes (total)		0.38 J [0.37 J]
Total VOCs		20 [19 J]

Table E-1
Fall 2012 Groundwater Analytical Results

Groundwater Quality and NAPL Monitoring Interim Report for Fall 2012
Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Notes:

1. Samples were collected by ARCADIS and submitted to SGS Environmental Services, Inc. for analysis of volatiles.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS (approved March 15, 2007 and re-submitted March 30, 2007).
3. ND - Analyte was not detected. The number in parentheses is the associated Method Reporting Limit.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:

Organics (volatiles)

J - Indicates that the associated numerical value is an estimated concentration.



Appendix F

Fall 2012 Soil Gas and Indoor Air
Sampling Results



Appendix F

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012

Groundwater Management Area 3

February 2013

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Figures

Figure F-1	Existing Sub-Slab Soil Gas and Indoor Air Sampling Locations
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Figure F-3	Building 59 Details

Attachments

Attachment A	Data Validation Report
Attachment B	Sub-Slab Soil Gas & Indoor Air Sampling Logs
Attachment C	Sample Location Photo Log

1. Background

On March 16, 2007, the General Electric Company (GE) submitted to the United States Environmental Protection Agency (EPA) a document titled *Supplemental Soil Gas Migration Assessment Report and Sampling Plan - Groundwater Management Area 3* (Supplemental Assessment Report). That document was submitted in response to a conditional approval letter issued by EPA on February 15, 2007 regarding GE's September 15, 2006 *Soil Gas Investigation Summary Report for Groundwater Management Area 3* (Soil Gas Summary Report) and the October 20, 2006 *Soil Gas Migration Assessment Report for Groundwater Management Area 3* (Migration Assessment Report). Those prior GE reports summarized the results of groundwater, light non-aqueous-phase liquid (LNAPL), soil gas, and indoor air sampling conducted by GE in 2006 near and within GE-owned Buildings 51 and 59 at the GE Pittsfield facility (located in Groundwater Management Area [GMA] 3). The Supplemental Assessment Report summarized the results of an inspection performed by GE in October 2006 at Buildings 51 and 59 to identify potential pathways by which soil gas beneath the building might enter the buildings through the slabs or sidewalls. That report also included, at EPA's direction, GE's proposed plans for future monitoring of soil gas beneath, and indoor air within, Buildings 51 and 59, as well as for conducting an inventory to identify commercial products within those buildings that may contain the chemicals detected in soil gas and indoor air samples.

GE received conditional approval from EPA of the Supplemental Assessment Report in a letter dated June 25, 2007, which required GE (in Conditions 1 and 2) to further address the potential migration pathways identified in the report and (in Condition 3) to perform the soil gas and indoor air sampling described in the Supplemental Assessment Report on an annual basis until otherwise proposed by GE and approved by EPA. Pursuant to Conditions 1 and 2 of EPA's letter, GE submitted an *Addendum to the Supplemental Soil Gas Migration Assessment Report and Sampling Plan* (Addendum to Supplemental Assessment Report) to EPA on July 24, 2007. That report presented an assessment of whether potential pathways/penetrations extend to the underlying soil, and it summarized the actions that had been taken up to that time to seal pathways/penetrations that may have extended to the underlying soil. The Addendum to Supplemental Assessment Report also identified five such potential pathways/penetrations in Building 51 that may extend to the underlying soil, but that could not be sealed during the available timeframe and provided a proposal for addressing those remaining potential pathways/penetrations.

EPA provided conditional approval of the Addendum to Supplemental Assessment Report in a letter dated October 1, 2007. In response to a condition in that letter, GE submitted the *Second Addendum to Supplemental Soil Gas Migration Assessment Report and Sampling Plan* to EPA on November 12, 2007. That report presented GE's confirmation that three of the five remaining potential pathways/penetrations within Building 51 were sealed and stated that the other two potential pathways/penetrations, after further investigation, were found not to penetrate to the underlying soil. Therefore, no additional sampling (beyond the



annual sampling described in the Supplemental Assessment Report) was required. In the meantime, as noted in that addendum, GE had performed the annual material/product inventory and soil gas/indoor air sampling on October 10-11, 2007. The results of those investigations were reported in GE's *Groundwater Management Area 3 Groundwater Quality and NAPL Monitoring Interim Report for Fall 2007*, submitted in February 2008.

Since that time, GE has continued to conduct, on a yearly basis, the building material/products inventory and soil gas and indoor air sampling described in the Supplemental Assessment Report and conditionally approved by EPA. These activities were conducted in October 2008 and 2009, November 2010, and October 2011. Most recently, these inventory and sampling activities were conducted again in October 2012, with a supplemental inventory and indoor air sampling in January 2013 at one location within Building 59 due to anomalous results from that location in the October 2012 data.

Section 2 of this report summarizes the results of the recent material/product inventory and soil gas/indoor air sampling activities conducted at Buildings 51 and 59 in October 2012 (as well as the supplemental inventory and indoor air sampling conducted in Building 59 in January 2013). Section 3 provides a general assessment of these recent soil gas and indoor air sampling data, a comparison of those data with the data from the prior sampling events, and a comparison of the recent indoor air data to applicable occupational standards for workplace exposure. Section 4 presents GE's proposal to continue these annual investigations and identifies the schedule for GE's next round of material/product inventory and soil gas/indoor air investigation activities.



2. Summary of the Fall 2012 Sub-Slab Soil Gas and Indoor Air Assessment Activities

2.1 General

In October 2012, GE conducted a building product and materials inventory, sub-slab soil gas sampling beneath Buildings 51 and 59, and indoor air sampling within those buildings. In addition, in January 2013, GE conducted a supplemental inventory within the office area of Building 59 and supplemental indoor air sampling at one location within Building 59 due to anomalous results from that location in the October 2012 data. Sampling methods used were generally consistent with those used during the prior soil gas and indoor air sampling events (with one change from the 2006 soil gas sampling method, noted below) and proposed in the Supplemental Assessment Report. The building inventories, collection of samples, and analytical results are described below.

2.2 Building Products and Materials Inventory in Fall 2012

On October 24 and 25, 2012, GE performed a reconnaissance within each building to identify materials and/or products that might contain chemicals that could represent a potential source of volatile constituents in indoor air and/or that are common to the target constituents identified in the groundwater or LNAPL. The inventory was performed for immediately accessible areas in and around the designated sampling areas. Although certain building materials could potentially contain VOCs (e.g., carpeting, adhesives, etc.), the inventory focused on the identification of those materials and products that are used or stored inside the buildings, such as lubricants, fuels, chemicals, cleaning supplies, etc. It should be noted that the inventory did not specifically focus on the building structure itself or on furnishings.

Multiple items that could contain volatile constituents were identified during the reconnaissance of Buildings 51 and 59. Tables F-1 and F-2a summarize those items and the chemicals that are associated with each item. Further discussion of these chemicals is provided in Section 3.2.2.

2.3 Sub-Slab Soil Gas and Indoor Air Sampling Activities in Fall 2012

GE collected and analyzed sub-slab soil gas samples and indoor air samples from beneath and within Buildings 51 and 59 on October 25, 2012. As discussed below, the samples were collected using SUMMA[®] canisters in accordance with the procedures contained in GE's approved *Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP)*. This sampling was conducted to provide further information regarding the presence of volatile constituents in the soil gas and indoor air to support further assessments regarding the potential migration of such constituents from beneath Buildings 51 and 59 into the buildings' interior. The locations at which the samples were collected are shown on Figure F-1 and Photos Logs in

Attachment C. As discussed in the Supplemental Assessment Report, the sample locations for soil gas and indoor air were co-located in order to assess potential correlations, if any, between soil gas and indoor air quality.

2.3.1 Sub-Slab Soil Gas and Indoor Air Sampling and Analysis

For use in this sampling event as well as future sampling events, GE installed permanent sub-slab soil gas points at the designated locations in Buildings 51 and 59. This installation involved the drilling of a ½-inch diameter hole through the concrete floor slabs (which ranged in thickness from approximately 6 to 15 inches) followed by the insertion of a ¼-inch stainless steel sampling tube to a depth of approximately 3 inches below the underside of the floor slab, followed by sealing around the tube with hydraulic cement. Each point was completed with a Swagelok[®] fitting and cap finished flush to the slab. Following a 24-hour cure time for the hydraulic cement, sample points were purged of three air volumes (calculated based on sampling train length) into a Tedlar bag. The seals around each point were evaluated with a tracer gas leak test. Following a successful tracer gas test, samples were collected from the sub-slab for an approximate 8-hour period using a 6-liter SUMMA[®] canister with an attached pre-set flow regulator.

Paired indoor air samplers were set between 4 and 5 feet above the finished floor to simulate the approximate breathing zone. They too were set to collect an approximate 8-hour sample (to coincide with normal working hours) using a pre-set flow regulator and 6-liter SUMMA[®] canister.

The laboratory provided certified clean canisters for sample collection, each with an initial vacuum of greater than 26 inches of mercury (in. of Hg). Digital field pressure checks prior to sample collection confirmed all canisters were set with greater than 26 inches of mercury (in. of Hg). Flow regulators were pre-set by the laboratory to provide uniform sample collection over the approximate 8-hour sampling period.

As shown on Figure F-1, a duplicate sub-slab soil gas sample (DUP-SS-102512) was collected simultaneously with sample 59-SS-1 in the Building 59 facility area, and a duplicate indoor air sample (DUP-IA-102512) was collected simultaneously with sample 51-IA-3 in the Building 51 north hallway area. These duplicate samples were collected using a “T-shaped” adapter that was attached to two canisters, each with an individual regulator, to allow for a uniform sample collection over the same sampling period.¹ The sub-slab soil gas and indoor air sampling logs associated with the fall 2012 are included as Attachment B.

¹ This method, which was also used in 2007 through 2011, differs from the method used during the 2006 sampling event in which a duplicate sample was collected over a shorter period of time using an increased vacuum, which appeared to produce anomalous results.

All indoor air and sub-slab soil gas samples were submitted for laboratory analysis in accordance with EPA Compendium Method TO-15, titled *Compendium of Methods for the Determination of Toxic Organics Compounds in Ambient Air – Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*. The samples were submitted to Eurofins-Lancaster Laboratory in Lancaster PA, which has current National Environmental Laboratory Accreditation Program (NELAP) certification and is accredited in the Commonwealth of Massachusetts for conducting analyses in accordance with EPA Compendium Method TO-15. As in prior years, the constituents for which analyses were performed included VOCs and certain SVOCs that can be identified during the same analysis. However, it should be noted that the list of analytes for which results are reported under EPA Compendium Method TO-15 varies to some extent among laboratories. As a result, while the VOCs and SVOCs reported are generally consistent with those reported in 2011 and in prior years, there are some differences (as shown for the detected constituents in the tables referenced in the next section).²

2.3.2 Sub-Slab Soil Gas and Indoor Air Analytical Results

The analytical results for the sub-slab soil gas samples collected on October 25, 2012 are presented in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in Table F-3 (for samples collected beneath Building 51) and Table F-4 (for samples collected beneath Building 59), along with the respective analytical results from the previous sampling events (where such data exist). Analytical results for the indoor air samples collected on October 25, 2012 are presented in $\mu\text{g}/\text{m}^3$ in Table F-5 (for samples collected in Building 51) and Table F-6 (for samples collected in Building 59), along with the available analytical results from prior indoor air sampling events at these buildings. A general assessment of these results is provided in Section 3.

2.4 Supplemental Inventory and Indoor Air Sampling in January 2013

Review of the preliminary data from these sampling activities indicated that the indoor air concentrations from one sample location in the office area of Building 59, location 59-IA-3 (shown on Figures F-1 and F-3), were significantly higher than those observed at this and other locations in past sampling events. It was also noted that maintenance activities were

² The constituents reported (as well as method detection limits) for this sampling event were consistent with those identified in Table 3-D of the draft revised FSP/QAPP submitted to EPA in September 2012. These constituents differ somewhat from those reported by the laboratory used in 2011, Test America Laboratories. They also include a few additional constituents beyond those reported by Lancaster Laboratories, Inc. in 2006-2010, since the laboratory was instructed in 2012 to report the constituents listed in the above-referenced Table 3-D. The constituent list and method detection limits used in 2012 (and listed in Table 3-D of the revised FSP/QAPP) will also be used for future sampling events at Buildings 51 and 59.



being conducted in that area at the time of the sampling on October 25, 2012. As a result, on January 8, 2013, a supplemental building products and materials inventory was conducted in and around the office area of Building 59, and a second indoor air sample and a duplicate sample (DUP-010813) were collected from location 59-IA-3, using the same procedures described above. Those samples were also submitted to Eurofins-Lancaster Laboratory for analysis of VOCs and select SVOCs in accordance with EPA Compendium Method TO-15.

The items identified in the supplemental inventory and potentially associated chemicals are summarized in Table F-2b. The analytical results from the supplemental samples are included in Table F-6. These results show concentrations substantially below those reported in the October 2012 samples and generally within the same order of magnitude as historical detections, thus indicating that the significantly elevated concentrations reported in October 2012 for location 59-IA-3 were anomalous and most likely associated with the maintenance activities in the area on the sampling date.

2.5 Data Validation

The 2012 sub-slab soil gas and indoor air analytical results (and the supplemental results from January 2013) were received from the laboratory in units of both $\mu\text{g}/\text{m}^3$ and parts per million (ppm), and both sets of data have been validated in accordance with the procedures outlined in GE's approved FSP/QAPP. The results of this validation are provided in Attachment A. Those results indicate that 100% of the analytical data are considered usable.



3. Assessment of Results

3.1 General

GE has reviewed the results of the recent sub-slab soil gas and indoor air sampling (described in Section 2), and compared those results to the data from prior events – i.e., the 2006 sampling data (presented in GE's Migration Assessment Report), the 2007 sampling data (discussed in Appendix E of the GMA 3 Groundwater Quality and NAPL Monitoring Interim Report for Fall 2007), and the sampling data for 2008 through 2011 (discussed in Appendix F of the GMA 3 Groundwater Quality and NAPL Monitoring Interim Reports for Fall 2008, Fall 2009, Fall 2010, and Fall 2011). The results of those evaluations are summarized in the following section.

3.2 Evaluation of Analytical Results

3.2.1 Sub-Slab Soil Gas Data

The sub-slab soil gas data collected during the fall 2012 sampling event, like the data collected during prior sampling events, show the presence of a variety of constituents (Tables F-3 and F-4). Specifically, for Building 51, a total of 23 VOCs and 1 SVOC were detected in the three sub-slab soil gas samples collected in 2012 – compared to a total of 32 VOCs and 1 SVOC detected in fall 2011, 30 VOCs and 1 SVOC detected in fall 2010, 35 VOCs and 5 SVOCs in fall 2009, 30 VOCs and 1 SVOC in fall 2008, 34 VOCs in fall 2007, and 28 VOCs and one SVOC in fall 2006. For Building 59, a total of 31 VOCs and 4 SVOC were detected in the three sub-slab and duplicate soil gas samples collected in 2012 – compared to 29 VOCs and 1 SVOC detected in 2011, 32 VOCs and 1 SVOC detected in 2010, 25 VOCs and 1 SVOC in 2009, 30 VOCs and 2 SVOCs in 2008, 40 VOCs and 6 SVOCs in 2007, and 27 VOCs and 1 SVOC in 2006. For most of the detected constituents, the concentrations reported are considered estimates due to detected values below the reporting limit (RL).

Of the constituents detected in soil gas in 2006 through 2012, only three VOCs (methylene chloride, tetrachloroethene [PCE], and trichloroethene [TCE]) and four SVOCs (1,2,4-trichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and naphthalene) were also previously detected in the LNAPL samples from around these buildings, and two of these (PCE and TCE) were detected in only one LNAPL sample (well 51-8). Further, the only constituent that has ever been detected in at least one deep soil gas sample, sub-slab soil gas sample, LNAPL sample, and groundwater sample is TCE.

For these three VOCs and four SVOCs, review of Tables F-3 and F-4 indicates that: (1) the detections of these VOCs in the sub-slab soil gas have remained relatively constant since the initial 2006 sampling, with those VOCs being detected in most sampling rounds; and (2) the detections of the SVOCs in the soil gas have been variable and sporadic over this

period, with three of these constituents (trichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene) detected infrequently and naphthalene detected somewhat more frequently but only about half the time.

3.2.2 Indoor Air Data

The indoor air data from both Building 51 and Building 59, presented in Tables F-5 and F-6, show a variety of detected constituents, most of which were not detected in the LNAPL or groundwater samples collected from this area in 2006. During the fall 2012 sampling event, 30 VOCs and 2 SVOC were detected in the indoor air of Building 51 – compared to 22 VOCs and 1 SVOC in 2010, 22 VOCs and 5 SVOCs in 2009, 25 VOCs and 1 SVOC in 2008, 28 VOCs in 2007, and 19 VOCs in 2005. In Building 59, the recent results (excluding the anomalous results from location 59-IA-3 in October 2012) showed detections of 32 VOCs and 6 SVOCs – compared to 27 VOCs and 1 SVOC in 2011, 16 VOCs and 1 SVOC in 2010, 15 VOCs in 2009, 21 VOCs in 2008, 25 VOCs in 2007, and 26 VOCs and 1 SVOC in 2006. As noted in the Migration Assessment Report, the detection of constituents at these frequencies in the indoor air of buildings is expected and routine.

For the three VOCs (methylene chloride, PCE and TCE) and four SVOCs (1,2,4-trichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and naphthalene) that were previously detected in the LNAPL samples from around these buildings, review of Tables F-5 and F-6 indicates that, in the indoor air samples collected since 2006: (1) methylene chloride and TCE were detected in the majority (but not all) of the sampling rounds; (2) PCE was detected much less frequently (in only about a one-quarter of the sampling rounds); and (3) the SVOCs have been detected in only one or two sampling rounds (except for naphthalene in Building 51, which has been detected on six occasions).

The indoor air concentrations found in both buildings are all far below the limits applicable to occupational settings such as Buildings 51 and 59 – namely, the workplace exposure standards established by the U.S. Occupational Safety and Health Administration (OSHA) and the guidelines established by the National Institute for Occupational Safety and Health (NIOSH). A comparison of the data to the standards is provided as Tables F-7 and F-8 for Buildings 51 and 59, respectively.³ Note that even the higher than normal levels detected in Building 59 in October 2012 were still significantly below NIOSH guidelines and OSHA workplace exposure standards.

³ In these tables, the concentrations have been converted from $\mu\text{g}/\text{m}^3$ to parts per million (ppm), since the OSHA standards and NIOSH guidelines are expressed in units of ppm



**Appendix F
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There are many potential sources of volatile constituents in the indoor air in buildings. As identified during the material/product inventory (Tables F-1, F-2a, and F-2b), there are items within the buildings that could be potential sources of such constituents (e.g., paint, paint thinner, furniture polish, motor and fuel injector cleaners, etc.). Further, other substances in the indoor environment not identified through the inspection may be contributing to indoor air concentrations of VOCs as well. For example, as discussed above, it appears that the anomalously high results from location 59-IA-3 from the October 2012 sampling were likely attributable to maintenance activity in the area during the time of that sampling.



4. Future Activities

Based on a review of the data from Buildings 51 and 59, GE is planning to continue the program of annual material/product inventories and soil gas/indoor air sampling. In the fall of 2013, GE will conduct another annual inventory of materials and/or products within each building that could contain volatile constituents similar to those that have been previously detected in the indoor air samples and are common to the target constituents in the LNAPL or groundwater. Following completion of the building inventories, GE will perform additional monitoring of soil gas beneath and indoor air within Buildings 51 and 59 at the same locations that were sampled in fall 2012. As with the 2007 through 2012 sampling events, these activities will be conducted in the fall of 2013 (probably during the month of October) coinciding with the fall 2013 groundwater sampling and NAPL monitoring activities at GMA 3. The results of this future inventory and sampling event will be presented as part of the GMA 3 Groundwater Quality and NAPL Monitoring Report for fall 2013, which will be submitted by February 28, 2014.

Tables



Building 51 & 59– Material/Product
Inventory

**Table F-1
Summary of Material/Product Inventory For Building 51 - Fall 2012**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts**

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Box Storage Room Baseline:	Trash Can (filled possibly with water)	Unknown	0
	Kilz Primer, Sealer, Stainblocker	Petroleum distillates, acetone	322
	Betz Dearborn Corrrshield MD401 (1 unit open)	Sodium molybdate sodium hydroxide, benzotriazole, methyl sodium salt (53 lbs.)	0
	Spectrus NX 106 (2 units)	5-chloro-2-methyl-4-isothiazoline-3-one, 2-methyl-4-isothiazoline-3-one (42 lbs.)	0
	Foamtrol AF1440 (4 units)	Petroleum distillates (35 lbs.)	0
	GOJO Natural Pumice Hand Cleaner	Limonene (1 gal) ³	0
Chiller Room Baseline = 0 ppb	Betz Dearborn Corrrshield NT 402 (one container open)	Boric acid (CAS# 10043-35-3), disodium salt (CAS# 62-76-0), pentahydrate sodium nitrate (CAS# 7631-99-4), sodium hydroxide (CAS# 1310-73-2) (45 lbs)	0
	GE Dianodic DN 300 (3 units)	Potassium hydroxide (CAS# 1310-58-3), phosphoric acid (CAS# 7664-38-2), 1-H-Benzotriazole (CAS# 125700-67-6) (335 lbs)	0
	GE Ferroquest FQ7101 (3 units)	Sodium pyrophosphate 9CAS# 7722-88-5, 1,8 benzotriazole phosphate, 1 hydroxy-ethylidene (CAS# 2809-21-4) (1 @ 46 lbs & 2 @ 270 lbs)	0
	Hercules Anti-Freeze (1 unit)	Propylene glycol (CAS# 57-55-6) (5 gals)	0
	Snoop Leak Detector (1 unit)	Water, surfactant (1 gal) ³	0
	Spectrus NX 1103 GE (2 units)	Dodecylguanidine hydrochloride (CAS# 13590-97-1), methylene bis (thiocyanate) (CAS# 6317-18-6) (40 lbs)	0
Field Office Area Baseline = 650 ppb	Dynalene PG (10 units)	Inhibited propylene glycol (480 lbs. per unit)	20
	Kelco Lemon Furniture Polish (1 unit)	N-butane, propane, non-hazardous and other components below reportable levels (19 oz) ³	0
	Mark A Lot Dry Erase Markers	Non-hazardous ingredients per OHSA, 29 CFR 1910.1200 ³	0
	Pledge (1 unit)	Isoparaffinic hydrocarbon solvent, silicone, butane, propane (18 oz)	0
	Raid Roach & Ant Killer (1 unit)	Isopropanol, kerosene (11 oz) ³	0
	Scotch Tape (1 unit)	Cellulose acetate film backing, acrylate adhesive ³	0
	Select Furniture Polish (1 unit)	Deionized water, silicone emulsion, liquefied petroleum gas (19 oz)	0
	Spartan SD-20 Degreaser (1 unit)	Butoxyethanol, isobutene, isopropanol (1 lb 2 oz)	0
	Stanhome Disinfectant Deodorant (1 unit)	2-phenylphenol, 4-tert-amylphenol, ethanol (16.6 oz)	0
	Webco Foaming Cleanser (1 unit)	Sodium carbonate, sodium dodecylbenzenesulfonate, sodium dichloro-s-triazinetrione (21 oz) ³	0
	Xerox Work Centre 4150 & Toner (1 unit)	Polyester Resin, Carbon Black, Wax, Magnetite, Metal Complex Dye	0
	Expo Dry Erase Board Cleaner	Isopropyl Alcohol (67-63-0), ethylene glycol monobuyl ether (111-76-2)	0
	TC Air Neutralizer	Ethanol 964-17-5), Propane, Butane, Dipropylene Glycol, Diethylene Glycol Monoethyl Ether, Hexylene Glycol, Isopropyl Alcohol, Fragrance, odor neutralizer	0

Table F-1
Summary of Material/Product Inventory For Building 51 - Fall 2012

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Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Field Office Area Baseline = 650 ppb	Lysol Tub & Tile Cleaner	Citric acid 2.5%	0
	Comet Deodorizing Cleanser	Calcium carbonate, sodium carbonate, calcium hydroxide, sodium dichloro-s-triazinetrione dihydrate	0
	Gojo Hand Cleaner	See Gojo hand cleaner in Building 59 Men's Room #1	10
Janitor Closet #1	Benjamin Moore Semi-Gloss Finish (1 unit)	Titanium dioxide, kaolin, silica (amorphous), limestone, acetic acid ethenyl ester, sodium nitrite, distillates (petroleum) solvent-dewaxed heavy paraffinic (1 gal) ³	0
	Butchers Spray Cleaning Polish (1 unit)	Polydimethylsiloxane emulsion, n-butane	0
	Desolv Coffee Cleaner (1 unit)	Alkyl polyethylene oxyethanol (CAS # 68131-40-8), trisodium phosphate (CAS# 7601-54-9), tetra potassium pyrophosphate (CAS# 7722-85-5) (1 qt)	0
	Hot Shot Wasp & Hornet Killer (1 unit)	Mineral spirits, propylene glycol monobutyl, tralomethrin, prallethrin, hydrocarbon propellant blend (14 oz) ³	0
	Krylon Interior-Exterior (1 unit)	Ketones, toluene, hydrocarbon propellants (12 oz) ³	0
	Pro Link Furniture Polish (1 unit)	Deionized water, silicone emulsion, liquefied petroleum gas (19 oz)	0
	Pro Link Stainless Steel Cleaner (2 units)	Deionized water, synthetic isoparaffinic hydrocarbon (CAS# 64742-47-8), mineral spirits (16 oz)	0
	Kimcare Lotion Soap	Water, sodium laureth sulfate, sodium chloride, cocamidopropyl, betaine, cocamide dea, fragrance, citric acid, propylene glycol, methylchloroisothiazolinone, methylisothiazolinone, red 33	0
	Kellco Pink Pearl Soap	Water, sodium apha olefin sulfonate, lauramide diethanolamine, sodium chloride, glycol stearate	0
	Master Tradesman Foam Sealant (1 unit)	Could not locate MSDS or ingredient list ⁴	200
Janitor Closet #2 Men's Room	Pine-O-Dis Disinfectant	Didecyl dimethyl, ammonium chloride .94%, n-alkyl (C ₁₄ 50%, C ₁₂ 40%, C ₁₆ 10%) dimethyl benzyl, ammonium chloride 0.62%	0
	Germicidal Bowl Cleaner	Hydrogen chloride 23%, n-alkyl (C ₁₂ 40%, C ₁₄ 50%, C ₁₆ 10%) dimethyl benzyl, ammonium chloride 0.05%	0
	Clorox Bleach	Sodium hypochlorite 6.15%	0
	Webco Foam Cleanser	See Webco in Kitchen #1/Field Office	0
Janitor Closet #2	Countertop Magic (1 unit)	Distillates (petroleum) solvent-dewaxed heavy paraffinic, naphtha (petroleum) hydrotreated heavy (13 oz) ³	0
	Kellco Dust Controls (1 unit)	Synthetic isoparaffinic hydrocarbon, propane, odorless mineral spirits, non-hazardous and other components below reportable levels (14 oz) ³	0
Office Room 1	Quartet Marker Board Conditioner & Cleaner	Glycol ether EB, benzyl alcohol, trisodium phosphate, polytergent B-300 (8 oz) ³	0
	Multigraphics Multilith	Petroleum distillates, Pumice, lanolin, 3,5-Xylenol, 4 Chloro-: (PCMX (germicidal antiseptic))	0
Storage Cage Area	Hysler 30 Forklift	Could not identify specific fluids in machinery ⁴	0
Storage Area #2	Activated Alumina (2 units)	Alumina (400 lbs. and 375 lbs.)	0
	Waste Oil (3 units)	Waste Oil (55 gal.)	0
	Hazardous Waste (1 unit)	Could not identify contents ⁴	0

**Table F-1
Summary of Material/Product Inventory For Building 51 - Fall 2012**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
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Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Storage/ Loading Dock Area Baseline = 350 ppb	3M Foam Fast 74 Spray Adhesive (1 unit)	Dimethyl ether, NJTS Reg. No. 04499600-5490P, pentane, acetone, naphthol spirits, isopentane, epoxy resin (17.2 oz) ³	0
	3M Scotch-Weld neoprene High Performance Rubber & Gasket Adhesive 1300(1 unit)	Light solvent naphtha, methyl ethyl ketone, magnesium resinate, polychloroprene, n-hexane, toluene, cyclohexane, xylene, zinc oxide, styrenated phenol (32 oz) ³	0
	3M Super 77 Multipurpose Spray Adhesive (6 unit)	Acetone, propane, 2-methylpentane cyclohexane (16.75 oz)	0
	ACE Denatured Alcohol (1 unit)	Denatured alcohol, ethanol, methanol, 2-pentanone, 4-methyl-, methanol, (1 gal) ³	500
	Advance Auto Parts Carb & Choke Cleaner (1 unit)	Aromatic petroleum distillate, hydrocarbon fluid, isopropyl alcohol, methyl ethyl ketone, propane (16.25 oz) ³	0
	AFTA Degreaser (1 unit)	Water, isopropanol, sodium metasilicate Pentahydrate, Tripropylene glycol methyl ether, Sodium Lindear Alkylate Sulfonate, NA4 (Ethlene Diamine Tetra Acetic Acid), Octylphenoxy Polyethoxyethanol 3	0
	Armstrong Resilient Tile Adhesive (1 unit)	Toluene (5 gal)	0
	Badger Propel (1 unit)	1-1 difluoroethane, butone (15 oz)	0
	Benjamin Moore Acrylic Paint (7 units)	Acrylic polymer, kaolin, titanium dioxide (29.5 oz)	1500
	Benjamin Moore Semi-Gloss Finish (1 unit)	Titanium dioxide, kaolin, silica (amorphous), limestone, acetic acid ethenyl ester, sodium nitrite, distillates (petroleum) solvent-dewaxed heavy paraffinic (1 gal) ³	0
	Benwood Penetrating Stain (11 units)	Stoddard solvent, soya alkyd resin soybean oil, 1,2,4-trimethylbenzene (10 @ 8oz and 1 @ 32 oz)	0
	Benwood Polyurethane Finish (1 unit)	Stoddard solvent, oil mod. polyurethane resin, silica (1 gal)	0
	Cabot Oil Finish (1 unit)	Petroleum distillates, 1,3,5-trimethylbenzene folpet (1 gal)	0
	Cabot Polyurethane Finish (1 unit)	Kerosene, mineral turpentine, solvent naphtha (petroleum heavy arom., white spirit (stoddard solvent), synthetic polymer(s) (11.5 oz) ³	0
	Clark C35 Forklift (1 unit)	Could not identify specific fluids in machinery ⁴	0
	Comet Disinfectant Cleaner (1 unit)	Sodium dichloro-s-triazinetriene dihydrate, inactive ingredients (1.31 lb) ³	0
	Deft Clear Wood Finish (2 units)	Dowanol DPNB glycol ether, dipropylene glycol monomethyl ether, n-methylpyrrolidone, ammonium hydroxide (1 gal) ³	0
	GREAT STUFF Foam Sealant (7 units) + 1 open	Prepolymer or MDI and polyether polyol, polymethylene polyphenyl isocyanate, 4,4'-methylene diphenyl isocyanate, liquefied petroleum mixture, propane, dimethyl ether(12 oz) ³	0
	Sherwin-Williams Pro Mar 200 (3 units)	Heavy Paraffinic oil (64742-54-7), Quartz (14808-60-7),Cristobalite (14464-46-1), Kaolin (1332-58-7), Titanium Dioxide (13463-67-7), Talc (14807-86-4), Carbon Black (1333-86-4)	2838
	Sherwin-Williams Pro Mar 400 (3 units)	Quarts (14808-60-7), Cristobalite (14464-46-1), Kaolin (1332-58-7), Titanium Dioxide (13463-67-7)	2838
	Sherwin-Williams Interior Acrylic Latex (8 units)	Quarts (14808-60-7), Cristobalite (14464-46-1), Ethylene Glycol (107-21-1), Titanium Dioxide (13463-67-7)	2838
	Value Exterior Latex (1 unit)	(s)Ethylene Glycol (107-21-1), Carbon Black (1333-86-4), Potassium Aluminum Sillicate (12001-26-2), Red Iron Oxide (1309-37-1), Yellow Iron Oxide (51274-00-1) Talc (14807-96-6)	2838
	Woodsman's Polyurethane Finish (1 unit)	Polyethylene, solvents dryers	0
	Zinsser Bull's Eye Shellac (1 unit)	Ethanol (1 qt)	0
	NAPA Rubberized Undercoat (1 unit)	Calcium carbonate, mineral spirits, propane, asphalt, butane, kaolin, methanol	0

Table F-1
Summary of Material/Product Inventory For Building 51 - Fall 2012

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Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Storage/ Loading Dock Area Baseline = 350 ppb	Schwinn Fit-Tech Silicone (1 unit)	Butane, propane, isoparaffinic, hydrocarbon, poly (dimethylsiloxane)	0
	Maxfill Expanding Sealant	MDI monomer, polyurethane resin, propane	0
	Glance Glass Cleaner (1 unit)	Sodium lauryl sulfate, ethyl alcohol	0
	CRC Pulver Lube (1 unit)	Petroleum distillates, paraffinic oil, petrolatum, fatty acid ester, carbon dioxide	0
Boiler Room	Special HD Calclean (1 unit)	Potassium hydroxide, sodium triphosphosphate, sodium metasilicate alcohol ethoxylate, potassium salt	0
	Gojo	See Bldg. 59 Mens Room 1	0
	Control IS 104 (1 unit)	Potassium sulfite (60 lbs.)	0
	Optisperse AP302 (2 units)	Sodium molybdate, methacrylic acid, silicone dioxide sodium sulfite (49 lbs.)	0
	Optisperse ADJ 560 (2 units)	Sodium Hydroxide (1310-73-2), Potassium Hydroxide (1310-58-3)	0
	Armorall Car Wash Conc. (2 units)	Anionic surfactants (2 qts.)	0
	Sulfuric Acid (1 unit)	Sulfuric acid (4L)	0
	Snoop Liquid Leak (1 unit)	Water (7732-18-5), Surfactant	0
	Potassium Iodide (1 unit)	Potassium iodide (4L)	0
	Noxon Metal Polish (1 unit)	Ammonia (12 oz.)	0
	Fluorescein Green Conc. (1 unit)	Sodium tetradecyl sulfate, triphenylmethane (3/4 oz.)	5
	Moybdum Reagent Solution (3 units)	Molybdenum (60 mL)	0
Super Lube Synthetic Lubricant (1 unit)	Heptane (11 oz.)	0	
Storage/ Loading Dock Area	Rector Seal Thread Sealant (1 unit)	Diacetone alcohol (123-42-2)	0
	Guardsman Furniture Polish (1 unit)	Propane/butane, non-hazardous concentrate (16 oz) ³	0
	Kilz Original Primer/Sealer Aerosol (3 units)	Titanium dioxide, aliphatic hydrocarbon, nonanes, rutile, silicate (mica), talc (magnesium silicate hydrate), octanes (all isomers), acetone, propane, isobutane, n-butane (13 oz) ³	0
	Kleenmaster Brilliantize Clean & Glaze (6 units)	Proprietary ingredients, methyl paraben (8 oz) ³	0
	Krylon Acrylic Spray Paint (16 units)	Propane, butane, toluene, medium aromatic hydrocarbons, naphthalene, acetone, ethyl 3-ethoxypropionate (12 oz) ³	0
	LPS Greaseless Lubricant (1 unit)	Aliphatic hydrocarbon, aliphatic petroleum naphtha, calcium sulfanate (11 oz)	0
	Methyl Ethyl Ketone (Sunnyside) (1 unit)	Methyl ethyl ketone (1 gal)	0
	Minwax Helmsman (1 unit)	Propane, butane, solvent naphtha (petroleum, light aliphatic), solvent naphtha (petroleum, medium aliphatic), distilled (petroleum, hydrotreated light), acetone (1 gal) ³	0

**Table F-1
Summary of Material/Product Inventory For Building 51 - Fall 2012**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
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Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Storage/ Loading Dock Area	Minwax Oil Finish (1 unit)	Mineral spirits, cobalt 2-ethylhexanoate (1 qt) ³	0
	Minwax Polyshades (4 units)	Petroleum distillates, naphthenic petroleum solvent, stoddard solvent (8 oz) ³	0
	Minwax Polyurethane (7 units)	Med. Aliphatic hydrocarbon solvent, mineral spirits, amorphous precipitated silica (1 gal) ³	0
	Minwax Wood Finish (21 units)	Mineral spirits, heavy naphthenic petroleum oil, highly refined naphthenic oil, talc, titanium dioxide, carbon black (11 - 8 oz and 18 - 32 oz) ³	0
	Pratt & Lambert Latex Paint (5 units)	Titanium dioxide, vinyl polymer, calcium carbonate (1 gal)	0
	Prestone Antifreeze/Coolant (1 unit)	Ethylene glycol, diethylene glycol, sodium 2-ethyl hexanoate (1 gal)	0
	Prist Acrylic Plastic and Glass Cleaner (2 units)	Water, isopropanol, 2-butoxyethanol, aqua ammonia (13 oz) ³	0
	Raid Wasp & Hornet (2 units)	Prallethrin, cypermethrin (14 oz)	0
	Rotanium Motor Cleaner (1 unit)	Tetrachloroethylene, carbon dioxide (19 oz)	0
	Rust-Oleum Gloss Protective Enamel (10 units)	Acetone, liquefied petroleum gas, xylene, n-butyl acetate, ethylbenzene, titanium dioxide, propylene glycol monobutyl ether (12 oz) ³	0
	Rust-Oleum High Heat Ultra Finish (1 unit)	Acetone, liquefied petroleum gas, toluene, xylene, methyl ethyl ketone, ethylbenzene, copper chromite black, carbon black (15 oz) ³	0
	Rust-Oleum High Performance Protective Enamel (4 units)	Mineral spirits, titanium dioxide, magnesium silicate, calcined aluminum silicate, ethylbenzene (1 - 1 gal and 3 - 132 oz) ³	0
	Rust-Oleum Satin Enamel (1 unit)	Liquefied petroleum gas, acetone, xylene, mineral spirits, magnesium silicate, n-butyl acetate, ethylbenzene, titanium dioxide, carbon black (32 oz) ³	0
	Savogran Kwikkeeze Paint Thinner (1 unit)	Acetone, toluene, methanol, methylene chloride (1 qt)	12.5 ppm
	Sherwin Williams Color Accents Interior Latex Paint (20 units)	Diethylene glycol monobutyl ether, ethylene glycol, cristobalite, calcium carbonate (1 gal) ³	2838
	Sherwin Williams Superpaint Interior Acrylic	Cristobalite, calcium carbonate, titanium dioxide (1 gal) ³	2838
	Sherwin Williams Wood Classics Interior Oil Stain (4 units)	Mineral spirits 140-flash, ethylbenzene, xylene, light aromatic hydrocarbons, 1,2,4-trimethylbenzene, cobalt 2-ethylhexanoate (30.5 fl oz) ³	0
	Simple Green Degreaser (1 unit)	Water, ethoxylated alcohol mixture, didecyl dimethyl ammonium chloride, sodium citrate, soda ash, ethanol, colorant (1 gal 12 oz) ³	0
	Spartan Baseboard & Wax Stripper (1 unit)	2-butoxyethanol, isobutone, monoethanolamine (1 lb 20 oz)	0
	Sunnyside Acetone (1 unit)	Acetone (32 oz)	0
	Tru Value Acetone (1 unit)	Acetone (1 gal)	0
	Tru Value Paint Thinner (4 units)	Petroleum distillates (64742-47-8) (1 gal)	0
	WD-40 (1 unit)	Aliphatic hydrocarbon, petroleum base oil, LVP aliphatic hydrocarbon, carbon dioxide, other non-hazardous ingredients (1 gal) ³	0
Weldwood Contact Cement (3 units)	Petroleum naphtha, methyl ethyl ketone, toluene (32 fl oz)	0	

Table F-1
Summary of Material/Product Inventory For Building 51 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
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Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Storage/ Loading Dock Area	White Lightening Foam Adhesive (4 units)	Propane, butane, hexane, acetone (14 oz) ³	0
	Zar Wood Stain (7 units)	Maleinized linseed oil, solvent naphtha (petroleum), medium aliphatic, kerosene, soybean oil blend mixture (6 - 1/2 pt and 3 - 1 pt) ³	0
	Zinser Primer & Sealer (1 unit)	Ethylene glycol, kaolin, limestone (1 gal)	0
Work Room #1	Boss Spray Adhesive (1 unit)	Acetone, normal hexane, methyl acetate (14 oz)	494
	LA-CO Slic-Tite (1 units)	Ethanol, distillates (petroleum) hydrotreated light naphthenic, distillates (petroleum) hydrotreated heavy naphthenic, PTFE (8 oz) ³	150
	Rector Seal Thread Sealant (3 units)	Diacetone alcohol (8 oz) ³	0
	Zoom Spout Oil (7 units)	Lubricant base oil (petroleum) various, additives (4 oz) ³	10
	Gojo Hand Cleaner (1 unit)	See Bldg. 59 Men's Room 1 (1gal)	0
	Gojo Lemon Pumice (1 unit)	Mineral Oil (8042-47-5), Petroum Distillates (64742-47-8, propylene Glycol (57-55-6) ³	10.2
	Gas Leak Locator (1 unit)	Fluorescent dye (8 oz.)	0
	Heat Be Gone	No hazardous ingredients ³	0
	Klean Strip Paint Thinner (1 unit)	Petroleum distillates	0
	Silicone Sealant (4 units)	Silica, petroleum distillates, methyltriacetoxysilane, ethyltriacetoxysilane	0
	Miracle Duct Sealant (1 unit)	Silica quartz, diethylene glycol, vinyl acetate monomer, dibromonitropropionamide, tetra ethylene glycol	0
	Tank Tex	Triethanolamine	0
	Hercules Pipe Joint Lubricant (1 unit)	Non-toxic (32 oz.) ³	0
	Maxfill Expanding Sealant (1 unit) (12 oz.)	MDI monomer, polyurethane resin, propane/isobutene/DME	1134
	Sparten Neutral Disinfectant (1 unit)	Alkyl dimethyl benzyl ammonium chloride (1 gal.)	0
Poly-Gel Cable Pulling Lubricant (1 unit)	Poly-oxyethylene (1 qt.)	40	
Work Room #2	Benjamin Moore Floor & Patio (3 units)	Barium sulfate, acrylic polymer, titanium dioxide (1 gal)	5000
	Benjamin Moore Pastel Base Paint (1 gal)	Titanium dioxide, acrylic resin, calcium carbonate (1 gal)	5000
	Cabot Wood Care (1 unit)	Acrylic resin, aluminum silicate, nepheline syenite (1 gal)	5000
	Cling Surface Wire & Rope Oil (1 unit)	Hexane, propane, isobutone (12 oz)	5000
	CRC Food Grade Silicone (1 unit)	Hexane isomers, n-hexane, dimethylpolysiloxane, 1,1-difluoroethane (10 oz) ³	5000
	Endust Furniture Polish (1 unit)	A-46 propellant blend (propane & butane), hydrocarbon solvent, methyl chloroform (1,1,1-trichloroethane), paraffinic oil (10 oz) ³	5000

**Table F-1
Summary of Material/Product Inventory For Building 51 - Fall 2012**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
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Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Work Room #2	Flat Latex Wall Paint (1 unit)	Propylene glycol 00057-55-6, texanol ester alcohol 25265-77-4 ^{2,3}	5000
	Hercules PVC Pipe Cement (6 units)	Tetrahydrofuran, methyl ethyl ketone, cyclohexanone, acetone (2 - 8 oz and 1 - 32 oz) ³	5000
	Hercules PVC Primer (4 units)	Tetrahydrofuran, methyl ethyl ketone, cyclohexanone, acetone (1 - 16 oz, 1 - 32 oz, and 2- 8 oz) ³	5000
	Hercules Wham Drain Cleaner(1 unit)	Methyl benzene, NJ-T.S.R. (32 fl oz) ³	5000
	Hot Shot Wasp & Hornet Killer (1 unit)	Mineral spirits, propylene glycol monobutyl, tralomethrin, prallethrin, hydrocarbon propellant blend (14 oz) ³	5000
	Rustoleum Industrial Choice Enamel (1 unit)	Xylene, acetone, toluene (12 oz)	5000
	Mannington V-82 Adhesive (2 units)	Non-hazardous ingredients per OHSA, 29 CFR 1910.1200 (4 gal) ³	5000
	Minwax Polycrylic (1 unit)	Alkyl propanols, ethylene glycol, glycol ethers (1 gal)	5000
	Propane Fuel (3 units)	Propane (16.4 oz) ³	5000
	Pry Oil Starting Fluid (1 unit)	Heptane, diethyl ether, carbon dioxide (11 oz)	5000
	Rust-Oleum High Performance Protective Enamel (6 units)	Mineral spirits, titanium dioxide, magnesium silicate, calcined aluminum silicate, ethylbenzene (15 oz) ³	5000
	Tanaka QCP-121 Engine	Could not identify specific fluids in machinery ⁴	5000
	Timber Seal Wood Saver (1 unit)	Non-hazardous ingredients (1 gal) ³	5000
	Latite 7471 Primer 4.5 oz. can	Acetone, isobutane, isopropyl alcohol, mercaptobenzothiazole	5000
	Krylon Tough Coat Primer (2) 12 oz. cans	Propane (74-98-6), Butane (106-97-8), Toluene (108-88-3), Ethylbenzene (100-41-4), Xylene (1330-20-7), 2-Propanol (67-63-0), Acetone (67-64-1), Isobutyl Acetate (110-19-0), Talc (14807-96-6), Calcium Carbonate (471-34-1)	5000
	Liquid Wrench Penetrating Oil 11 oz. can	Petroleum oil, petroleum distillate, graphite dispersion, carbon dioxide	5000
	LPS Heavy Duty Lubricant 11oz can	Distillates (petroleum), mineral seal (petroleum) oil, carbon dioxide	5000
	CRC White Grease	Mineral oil, isohexane, propane, isobutane, n-hexane 110-54-3	5000
	Super Lube Synthetic Lubricant	Polydimethylsiloxane, silane, polytetrafluoroethylene,polyglycol	5000
	LPS Resolve Citrus Degreaser	Stoddard Solvent or Solvent Nptha, medium Alipahtic, d-limonene, Diisopropylbenzene, Carbon Dioxide (aerosol only)	5000
Zipp Degreaser	Perchloroethylene, methylene chloride	5000	
Loctite 263 Threadlocker	Methacrylate esters	5000	

**Table F-1
Summary of Material/Product Inventory For Building 51 - Fall 2012**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts**

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Work Room #2	Flow-aide Descaler	Hydrogen chloride	5000
	Supco Zoom Spout Oil	Lubricating oil	5000
	N K R-320 Adhesive	Hydrocarbon solvents	5000
	HTH chlorinating tablets	Trichloro-s-triazinetrione 93.5%, copper sulfate pentahydrate 1.5%	5000
	DAP Derosto Rust Prevent Enamel (2)	Mineral spirits	5000

Notes:

1. The material/product inventory was conducted in immediately accessible areas in and around the designated soil gas and indoor air sampling locations in October 2012.
2. Where brands were not specified or ingredients listed on containers/items, general MSDS sheets were consulted.
3. Indicates data obtained from MSDS Sheet.
4. Indicates MSDS sheet could not be found for listed product.

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
ARCADIS Cage Area ⁵	Comet Disinfectant Cleanser (1 unit)	Sodium dichloro-s-triazinetrione dihydrate, inactive ingredients (21 oz) ³	0
	Geotech Conductivity Standard 1413-US/cm (4 units)	Potassium chloride, water (500 mL)	0
	Geotech ORP Standard 22 mV (4 units)	Water 7732-18-5, potassium iodide 7681-11-0, iodine 7553-56-2 (250 mL) ^{2,3}	0
	Geotech pH Buffer 10.0 (4 units)	Sodium carbonate, sodium bicarbonate, water (500 mL)	0
	Geotech pH Buffer 7.0 (4 units)	Potassium phosphate monobasic, sodium phosphate dibasic, water (500 mL)	0
	Geotech pH Buffer (4 units)	Potassium acid phthalate (500 mL)	0
	Henkel Masking Tape (1 unit)	Proprietary rubber adhesive ³	0
	Staples Packaging Tape (1 units)	Acrylic adhesive, polypropylene film 9003-07-0 ³	0
	Mallinckrodt Hexanes (95% n-Hexane) (3 units)	Hexane, methylcyclopentane, benzene (4 L)	73.5 ppm
	Liquid Wrench Penetrating Oil (2 units)	Natural methyl ester (11 oz) and 4 oz unit	0
	Mallinckrodt Acetone (5 units)	Acetone (4 L)	73.5 ppm
	PVC Cement (2 units)	Tetrahydrofuran 109-99-9, methyl ethyl ketone 78-93-3, acetone 67-64-1 (8 oz)	2433
	PVC Primer (3 units)	Acetone, methyl ethyl ketone, tetrahydrofuran (4 @ 8 oz and 1 @ 16 oz)	33.8
	Rust-Oleum Inverted Marking Paint (2 units)	Liquefied petroleum gas, aliphatic hydrocarbon, toluene, magnesium silicate, hydrotreated light distillate, naphtha, xylene, ethylbenzene ³	1296
	Sigma-Aldrich Methanol, Anhydrous (1 unit)	Methanol, anhydrous (2 L)	73.5 ppm
	Duck HP200 Packing Tape	Acrylic adhesive, polypropylene film ³	0
	Mach Bilicone (1 unit)	Bilicone (15 mL)	0
	Alconox (4 units)	Sodium carbonate, phosphate, phosphorous (3-4 lb. units)	0
	WTW RH-28 (2units)	(See ORP calibrating solution) (250 mL ea.)	0
	WD-40 (1 unit) (8 oz.)	Aliphatic hydrocarbon, petroleum base oil, LVP aliphatic hydrocarbon, carbon dioxide, other non-hazardous ingredients (8 oz) ³	---
	CRC Jump Start Fluid (1 unit) (11 oz.)	Contains diethyl, ether, heptane, lubricant, and carbon dioxide	290
	Arnold Bar and Chain Lube 1 unit (20oz.)	Contains oil (virgin)	0
Honda Engine Oil (1 unit)	Contains motor oil - 10W-30 (32 oz.)	0	
RadioShack Electronics Cleaner (1 unit)	Isohexane, carbon dioxide, ethanol	0	
Krylon Upside Down Marking Paint (1 unit)	Soya alkylid polymer, xylene, acetone, 2 methyl propane, calcium carbonate, propane, titanium dioxide, methanol, VM&P Naptha. (18 oz.)	0	

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
ARCADIS Cage Area ⁵	Eirtech Precision Gas Mix (1 unit)	Carbon monoxide, methane, hydrogen sulfide, O ₂ , N ₂	0
	Isobutylene Cal. Gas	Isobutylene (2 canisters)	0
	Methane/Air Mix (2 units)	Methane, air	0
	Isobutylene Cal. Gas	Isobutylene (1 unit)	0
	Uni-guard Windshield Washer Fluid (1 gal.)	Methol	0
	Auto-glass Cleaner (1 unit)	Isopropyl alcohol (32 oz.)	0
Back Furnace Room Baseline = 0 ppb	Compressed Nitrogen Large Cylinder (2 units)	Nitrogen	0
	GOJO Natural Pumice Hand Cleaner	Limonene (1 gal) ³	0
	Krylon Spray Paint 1608 Smoke Gray	Propane, butane, toluene, medium aromatic hydrocarbons, naphthalene, acetone, ethyl 3-ethoxypropionate (12 oz) ³	5244
	Lysol Basin Tub & Tile Cleaner	Sodium lauryl sulfate, dipropyl di n-butyl ether, hydroxyacetic acid, citric acid (32 oz) (5 units)	0
	Lysol Foam Cleaner (5 units)	Diethylene glycol monobutyl ether, isobutane (24 oz) ³	0
	Spartan: Xtraction II	2-butoxyethanol (1 gal)	0
	Trane Oil 22: Refrigeration Oil	Mineral oil USP (2.5 gal) (2 units)	0
	Zoom Spout Turbine Oil	Turbine oil	0
	Grease Eraser (1 unit)	Sodium tripolyphosphate, alcohol ethoxylates, phosphate, ester, sodium silicate, sodium xyenesulfonate	0
	Waste Oil	Waste oil	0
	Lysol Toilet Bowl Cleaner	Hydrochloric acid (32 oz.)	0
Aqua-gel II	Lubricant	0	
Changing Room Baseline = 0 ppb	Personal Products	Old Spice deodorant, Gillette shaving gel, Crest toothpaste, Suave shower gel, Lubriderm skin lotion	0
Boiler Room	Whitlam Blue Magin Pipe Thread Compound 8 fl oz can	Isopropyl alcohol 67-63-0, ethylene glycol 111-76-2 ³	0
	Nu-Calgon Gas Leak Detector 6 fl oz bottle	Isopropanol	0
	Loctite Chisel Gasket Remover 18 oz can	Methyl chloride (75-09-2), liquified petroleum propellant (68476-86-8) methyl alcohol (67-56-1) propylene oxide (75-56-9)	0
	CRC Knocker Loose Solvent	Petroleum distillates 64742-46-7, 86 52-41-3, dipropylene glycol methyl etheracetate 88917-22-0, dipropylene glycol n-propyl ether 29911-27-1, pine resin distillate 8006-64-2, diisobutyl ketone 108-83-8, carbon dioxide 124-38-9	0

**Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts**

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Facility Area Baseline = 0 ppb	Airwick Air Freshener (1 unit)	Propane, butane, proprietary fragrance (8oz) ³	0
	BIC Highlighter	Ethylene glycol, 1-Methyl-2-pyrrolidone, polyvinyl pyrrolidone, triethanolamine	0
	BIC White Out	Petroleum naphtha (0.7 fl oz) ³	0
	Canon Fax Phone L80 (1 unit)	Styrene acrylate copolymer, iron oxide 1317-71-9 ³	0
	Comet Disinfectant Cleanser (2 units)	Sodium dichloro-s-triazinetrione dihydrate, inactive ingredients (21 oz) ³	0
	Elmer's Paint Markers	Dipropylene Glycol Methyl Ether 34590-94-8 ³	0
	Fantastik Orange Action All Purpose Cleaner (2 units)	Ethoxylated linear alcohol, 7 EO (32 oz) ³	0
	Febreze (1 unit)	Water, ethyl alcohol (27 oz) ³	0
	Goo Gone Spray Gel (1 unit)	Distillates (petroleum) hydrotreated light, tripropylene glycol methyl ether, citrus extracts blend (12 oz) ³	0
	Great Value Glass Cleaner (1 unit)	Isopropanol, 2-butoxy ethanol, surfactants, colorants (32 oz)	0
	HP DeskJet F4180 with Cartridges (1 unit)	Color Ink: water7732-18-5, 1,5-pentanediol, ethyl alkyldion, 2-pyrrolidone 616-45-5, 2-pyrrolidone, substituted phthalocyanine salt #4, substituted naphthalenesulfonate salt #11, #13, metal nitrate #4, alkyldionl ethoxylate; Black Ink: water 7732-18-5, 2-pyrrolidone 616-45-5, carbon black 1333-86-3, isopropyl alcohol 67-63-0 ³	0
	HP Ink Cartridge (2 boxes)	Color Ink: water7732-18-5, 1,5-pentanediol, ethyl alkyldion, 2-pyrrolidone 616-45-5, 2-pyrrolidone, substituted phthalocyanine salt #4, substituted naphthalenesulfonate salt #11, #13, metal nitrate #4, alkyldionl ethoxylate; Black Ink: water 7732-18-5, 2-pyrrolidone 616-45-5, carbon black 1333-86-3, isopropyl alcohol 67-63-0 ³	0
	Hydrox Hydrogen Peroxide (3 units)	Hydrogen peroxide (16 oz)	0
	Break Free Industrial PCL (1 unit)	Polyalphaolefin synthetic oil 68037-01-4, synthetic rust inhibitors and lubrication additives, 2-ethylhexyl acetate 10-09-3, dibasic ester #1, hydrotreated petroleum distillate 64742-48-9, carbon dioxide propellant 124-38-9 ³	0
	Intertape Packaging Tape	Product is not hazardous as defined under OSHA 1900.1200 ³	0
	Lexmark Optra Image with Cartridges (1 unit)	Styrene/butadiene copolymer 9003-55-8, steel powder 7439-89-6, iron oxide 1309-38-2, carbon black 1333-86-4 ³	0
	Lysol Disinfectant Spray (5 units)	Ethanol, petroleum gases (liquefied, sweetened), quaternary ammonium compounds (benzyl-C12-18-alkyldimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1, 1-dioxide (1:1)) (19 oz) ³	0
	Lysol Foam Cleaner (2 units)	Octyl decyl dimethyl ammonium chloride, dioctyl dimethyl ammonium chloride, didecyl dimethyl ammonium chloride (24 oz)	0
	Nashua Duct Tape (4 units)	Polymers and rubbers, hydrocarbon resin, inorganic compound(s), quartz ³	0
	Percare Degreaser (1 unit)	Dodecylbenzenesu ifonic acid 27176-87-0, triethano lamine 102-71-6, sodium alkyl-aryl sulfonates, sodium carbonate 19-8, sodium metasilicate 5H2O 6834-92-0, potassium hydroxide 1310-58-3diethanolamide 68603-42-09 ²	0
Presto White Out	Methylcyclohexane ³	0	
PT Technologies D'Gel Solvent Wipe (Towelettes) (42 units)	Could not locate meds or ingredient list ⁴	0	
Quartet Dry Erase Markers	No hazardous ingredients ³	15	
Quikrete Concrete Repair (1 unit)	Portland cement, lime, silica sand (crystalline) (5.5 oz) ³	0	

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Summary of Material/Product Inventory For Building 59 - Fall 2012**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts**

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Facility Area Baseline = 0 ppb	Rock River Paint Markers	Propan-1-ol ³	0
	Sanford Permanent Markers Item #15000	Xylene, dyes ³	0
	Sanford White Out	Titanium dioxide, solvent naphtha, mineral spirits, resins, dispersant, colorants, fragrance ³	0
	Scotch Tape	Cellulose acetate film backing, acrylate adhesive ³	0
	Sharpie Markers	Dyes, pigments, solvent mixture (butanol, propanol, diacetone alcohol, ethanol) ³	0
	Simple Green All-Purpose Cleaner (1 unit)	Water, 2-butoxyethanol, ethoxylated alcohol mixture, tetra potassium pyrophosphate, sodium citrate, fragrance, colorant (32 oz) ³	0
	Spartan Glass Cleaner (2 units)	Water, isopropyl alcohol (1 gal) ³	10
	Sperian Saline Concentrate (2 units)	No information (70 oz) ⁴	
	Stabcal Standard, 800 NTU (8 units)	Hexamethylenetetramine, demineralized water (100 mL)	15
	Uni Paint Markers	Xylene, titanium dioxide, resin, dyes, acetone	0
	Various Hazard Labels Shipping	Acrylic or rubber adhesive, silicone release agent, paper, aluminum foil or polyester film ^{2,3}	0
	WD-40 (3 units)	Aliphatic hydrocarbon, petroleum base oil, LVP aliphatic hydrocarbon, carbon dioxide, other non-hazardous ingredients (1 @ 8 oz and 1 @ 12 oz ³ and 1 @ 16 oz)	0
	Avery Hi-liter	No hazardous ingredients listed ³	0
	Stabilo Boss Highlighter	No hazardous ingredients known, pigment, glycerin and additives ^{2,3}	0
	Tartan Packaging Tape	Acrylic adhesive, polypropylene film 9003-07-02, ³	0
	3M Velcro Adhesives	No hazardous ingredients listed ^{2,3}	0
	Mactal COC Adhesives (Custody seal)	Acrylic or rubber adhesive, silicone release agent, paper, aluminum foil or polyester film ^{2,3}	0
	Dell Laser MFP 1815dn	Polyester Resein, waxes, Carbon black, Silica ³	0
	Dell 1110 Printer w/Cartridge	Polyester Resein, waxes, Carbon black, Organic Pigment, Silica ³	0
	Roberts Uni Carpet Seam Sealer (8 oz.)	No hazardous ingredients listed ³	0
	Expo Markers	Alcohol Blend, Pigments, polymers, additives, scent ³	0
Isobutylene	10 ppm isobutylene	0	
Canon Monochrome Laser Cartridge	Styrene acrylate copolymer, iron oxide, Amorphous Silica ³	0	
Aero Tac II	Heptane, Acetone, Propane, Dimethyl ether, C12-C16 ethoxylated Alcohols ³	0	
Wallmate Dry-Erase	Non hazardous elastomer compound ^{2,3}	0	

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Facility Area Baseline = 0 ppb	Handy-line S Highlighter	Styrene-Acrylonitrile Copolymer, Glycerin, Ethylene glycol ³	0
	Expo Dry Erase Markers	Alcohol Blend, Pigments, polymers, additives, scent ³	0
	Expo Whiteboard Cleaner	Water, isopropyl alcohol, ethylene glycol monobutyl ether ³	0
	Quartet Whiteboard Cleaner	Ethanol	0
	Green Thumb Bee Killer	D-trans allethrin, lambda-cyhalothrin, other ingredients	0
	Aero Kroil Kano (10 oz.)	Severely Hydrotreated Petroleum Distillates, light petroleum distillates, aliphatic alcohols, glycol ether, proprietary ingredients, Carbon Dioxide Propellant ³	0
	Clean Home Glass & Surface Cleaner	Isopropyl alcohol, glycol, ether solvent, surfactants, fragrance, dye	0
	No Korode Soldering Paste (1 unit)	Zinc chloride	0
	Purity Lens Cleaner	Water 733-18-5, isopropyl alcohol 67-63-D, sodium bicarbonate 144-55-8, anti-fog 56-81-5, anti-stat 68391-01-5, proprietary ingredients ^{2,3}	0
	Permatex Silicone Lubricant	Petroleum distillates (1 unit)	0
	Rustoleum Black Enamel	Acetone, xylene (1 unit)	0
	Brother P-Touch Labels (3-units)	Polyester film, ink (proprietary) acrylic adhesive, liner ^{2,3}	0
	Plymouth Electrical Tape(1 unit)	PVC film backing, rubber adhesive (proprietary), antimony trioxide 1309-64-4, carbon black 133-86-4, DI-C8-10-branched alkyl phthalate, C9 rich 68515-48-0 ^{2,3}	0
	Liquid Wrench Chain Lube (4 units)	1,2,4-Trimethylbenzene, Aliphatic Hydrocarbon Solvent, Butene homopolymer, Ethylbenzene, Ethylene/Propylene Co-Polymer, Isopropylbenzene, Molybdenum, Naphthalene, naphthenic Petroleum distillate, Petroleum Oil, Trimethyl benzene, Zinc Compound ³	0
	Germ-X Hand Sanitizer(1 unit)	Ethyl alcohol, emollients, carbomer, fragrance, denatonium benzoate	0
	Glade Country Garden Air Freshener	Propane, Isobutane ³	0
	Prestone Windshield De-Icer (2 units) (32 oz. & 11 oz.)	Methyl alcohol, methylene glycol	0
	Quality Care Glass Cleaner (1 unit) (33 oz.)	Ammonia	0
	Motsebocker's Graffiti remover (1 unit) (22 oz.)	Acetone, trade secret ingredients (NJTSRN #411-01,412-01) ³	0
	Isobutylene Gas (2 units)	Isobutylene	0
Kodak Developed Photos (3 packs)	Could not locate MSDS or ingredient list (16 oz) ⁴	100	
Green Thumb Ant Trap (1 unit)	2-(methylethoxy) phenyl/methylcarbamate	0	
Anchor Advanced Adhesive Tape (1 unit)	Adhesive coated paper tape ³	0	

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
GE Cage Area ⁵	Bel-Ray Waterproof Chain Lubricant (27 units)	Hexane, isobutane, propane (12.25 oz)	0
	Bowman Anti-Seize Hi-Temp Thread Compound (1 unit)	Petroleum Carrier, Copper, Graphite ³	0
	DAP Glazing (1 unit)	methyl ethyl ketoxime (16 oz)	0
	Deep Woods Off (1 unit)	N,n,diethyl-meta-toluamide, related isomers (11 oz)	0
	Epoxy Spray with Grit (1 unit)	Acetone, epoxy resin, toluene (12 oz)	0
	Green Thumb Wasp/Hornet Killer (1 unit)	Tetramethrin, isobutane, petroleum distillate (17.5 oz) ³	0
	Hercules Clear Cutting Oil (1 unit)	Petroleum-based lubricating oils, olefin sulfide metal working fluid additive, 1-decene (sulfurized) (1 gal) ³	0
	Ideal Tape Co. Heat Tape	No information ⁴	---
	Imperial Rust No More (1 unit)	Phenolic resin, titanium dioxide, talc (946 mL)	0
	Kano Aero Kroil (1 unit)	Petroleum base oil, hydrocarbon solvent, petroleum solvent, aliphatic hydrocarbon solvent, non-hazardous proprietary mixture, petroleum naphtha, dymel A (propellant) (10 oz) ³	766
	Kano Kroil Penetrating Oil	Severely hydrotreated petroleum distillates, light petroleum distillates, aliphatic alcohols, glycol ether, proprietary ingredients (1 gal) ³	0
	Kylon Interior-Exterior Spray Paint (3 units)	Ketones, toluene, hydrocarbon propellants (12 oz) ³	0
	NAPA Air Compressor Oil (19 units)	Hydrotreated heavy paraffinic distillate (1 qt) ³	0
	NAPA Brake Fluid (2 units)	Alkylene glycols, alkylene glycol ethers (32 oz)	412
	NAPA Hydraulic Jack Oil (1 unit)	Severely hydrotreated heavy naphthenic distillate, additives containing zinc salt of dialkyl dithiophosphate, 2,6-di-t-butylphenol and polymers (128 fl oz) ³	0
	NAPA Power Steering Fluid (2 units)	Petroleum oil (12 oz)	0
	NAPA Premium Gear Oil (3 units)	Distillates (petroleum) hydrotreated heavy paraffinic, distillates (petroleum) hydrotreated heavy paraffinic (32 oz) ³	0
	NAPA SAE 30 Motor Oil (3 units)	Distillates (petroleum) hydrotreated heavy paraffinic, distillates (petroleum) hydrotreated heavy paraffinic (946 mL) ³	0
	Pen-Rust Marine Enamel (1 unit)	Medium oil alkyd, titanium dioxide, silica (32 oz)	0
	Permatex Industrial Penetrating Oil (1 unit)	Methacrylate monomer, dimethylbenzyl hydroperoxide, saccharin (16 oz) ³	715
PVC Solvent Cement (2 units)	See PVC cement	23.1 ppm	
Peak Windshield Wash (3 units)	Methyl alcohol	0	
Fuel Injector Cleaner (3 units)	Petroleum distillates	0	
Rustoleum Primer (2 units)	See prior rustoleum spray paint	0	
Rustoleum Enamel (1 unit)	Petroleum distillates	0	

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
GE Cage Area ⁵	Rustoleum Galvanizer (1 unit)	Toluol, xylol	0
	Rustoleum Spray Enamel (4 units)	See prior Rustoleum spray	0
	Valvoline Synthetic Grease (3 units)	Aliphatic hydrocarbons	0
	Mobil Synthetic Grease (2 units)	Nothing listed	0
	Premium Latex Paint (8 units)	2-butoxy ethanol	0
	Rustoleum Primer (1 unit)	Petroleum distillates	0
	Benjamin Moore Paint(1 unit)	Limestone, Nepheline syenite, Titanium dioxide, Stoddard solvent, Distillates, petroleum, hydrotreated light, Diatomaceous earth, Silica, Ethylbenzene ³	0
	Pro-hide Latex Paint (1 unit)	Crystalline silica zinc	0
	Rustoleum Epoxy Base (1 unit)	Glycol ether	0
	Pratt & Lambert Enamel (1 unit)	Crystalline silica	0
	Gasket Maker Bowman (1 unit)	Acrylic acid, methacrylate ester	0
	Napa Synthetic 5W-30 (1 unit)	See motor oils	0
	Master Mechanic 5W-30 (2 units)	See motor oils	0
	Acetylene Gas (3 units)	Acetylene	0
	Oxygen Gas (1 unit)	Oxygen	0
Rapid Tap Cutting Fluid	1, 1, 1-trichloroethane	0	
Janitor Closet	Dial Antibacterial Liquid Soap	Ammonium lauryl sulfate, cocamidopropyl betaine, decyl polyglucose, glycerin, lauramide dea, sodium laureth sulfate (1 gal and 7.5 fl. oz) ³	0
	Johnson Wax Professional Glance™ Glass Cleaner	2-butoxyethanol, ammonium hydroxide, sodium lauryl sulfate (1 gal) ³	0
	Lysol Basin Tub & Tile Cleaner	Dipropylene glycol n-butyl ether, citric acid, hydroxyacetic acid (1 qt) ³	0
	Lysol Disinfectant Spray (2 units)	Ethanol, petroleum gases (liquefied, sweetened), quaternary ammonium compounds (benzyl-C12-18-alkyldimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1, 1-dioxide (1:1)) (19 oz) ³	0
	Spartan Glass Cleaner	Water, isopropyl alcohol (1 qt) ³	0
	Terra Glaze Acrylic Polymer Terrazzo	Acrylic polymer, diethylene glycol, monoethyl ether, ethylene copolymer, bi-butyl-phthalate, tributyl oxyethyl phosphate, ammonium hydroxide, propylene glycol (1 gal)	0
	Lysol Toilet Bowl Cleaner (1qt. bottle)	Hydrogen Chloride, Alcohols, ethoxylated aliphatic amines ³	0
	Comet Disinfect Clean (1.3 lb tube)	Sodium-dichloro-s-triazinetrione dihydrate	0

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Kitchen #1 Baseline = 0 ppb	WEBCO Foaming Cleanser 21 oz. bottle	Sodium carbonate 6%, sodium dodecyl benzene sulfonate 3%, sodium dichloro-s-triazinetriene .8%, calcium carbonate 90.2%	0
	3M Super 77 Adhesive 16.75 oz can	Acetone , non-volatile components, propane, 2-methylpentane, cyclohexane, 3-mthylpentane, 2,3-dimethylbutane, 2,2-dimethylbutane, hexane	0
Kitchen #2 Baseline = 0 ppb	AJAX with Bleach Dish Soap (Orange)	Ammonium lauryl sulfate, dipropylene glycol, glycerin, sodium xylenesulfonate, triclosan (34 oz)	0
	AJAX: Oxygen Bleach Cleanser	Calcium carbonate, crystalline silica (21 oz) ³	0
	Comet Cleaner: Chlorinol Plus	Bleach, calcium carbonate, sodium carbonite, detergents (21 oz)	0
	Dial Antibacterial Liquid Soap	Ammonium lauryl sulfate, cocamidopropyl betaine, decyl polyglucose, glycerin, lauramide dea, sodium laureth sulfate (1 gal) ³	0
	Blue Spray Liquid	Unlabeled spray bottle ⁴	0
Kitchen #3	AJAX: Chlorine Cleanser	Calcium carbonate, sodium carbonate, dodecylbenzenesulfonate (21 oz)	0
	Bates System 3000 Anti Start	Could not locate MSDS or ingredient list (16 oz) ⁴	0
	Bissell: Fabric & Upholstery Cleaner	1-methoxy 2-propanol, alkoxyated linear alcohol (12 oz)	0
	Dawn: Ultra Concentrated Dish Soap	Ethanol (25 oz) ³	0
	Lysol Basin Tub & Tile Cleaner	Dipropylene glycol n-butyl ether, citric acid, hydroxyacetic acid (32 oz) ³	0
	Soft Scrub Cleanser	Calcium carbonate, detergent (26 oz)	0
	Soft Soap Brand: Hand Soap (54522)	Deionized Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamidopropyl Betaine, Cocamide DEA, Sodium Laureth Sulfate, Glycol Distearate, Cocamide MEA, Laureth- 10 mixture (56 oz)	0
	Windex Multi-Surface Cleaner - Vinegar	Water, isopropanol, ethyleneglycol monoheylether (26 oz) ³	0
	Spic and Span Everyday	22 fl oz, open, no ingredients listed	0
	Clorox Wipes (10.7 oz Tube)	N-alykyl (C ₁₄ 60%, C ₁₆ 30%, C ₁₂ 5%, C ₁₈ 5%) dimethyl benzyl ammonium chloride 0.145%, D-alykyl (C ₁₂ 68%, C ₁₄ 32%) dimethyl ethylbenzyl ammonium chloride 0.145%, ethyl benzyl ammonium chloride 0.145%	0
Kitchen #4	AJAX: Oxygen Bleach Cleanser	Calcium carbonate, crystalline silica (21 oz) ³	---
	Lysol Basin Tub & Tile Cleaner	Dipropylene glycol n-butyl ether, citric acid, hydroxyacetic acid (32 oz) ³	0
	Lysol Foam Cleaner	Diethylene glycol monobutyl ether, isobutane (24 oz) ³	0
	Price Chopper: Automatic Sun Shine Dishwasher Detergent	Sodium carbonate, sodium silicate, enzymes (45 oz)	0
	Sunlight: Sensitive Skin Dish Soap	Water, anionic surfactants, urea, sodium hydroxide, citric acid, sodium chloride, fragrance, 1,2-benzisothiazolin-3-one, colors (19 oz) ³	0

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Library Administrative Area	April Fresh Instant Hand Sanitizer	Alcohol (4 fl oz)	0
	Lysol Foam Cleaner (2 units)	Diethylene glycol monobutyl ether, isobutane (24 oz) ³	0
	UHU: Stic Glue Stick (3 units)	Polyvinylpyrrolidone (PVP) sodium stearate, glycerin and water (0.74 oz)	0
	White Out Brand	Petroleum naphtha (0.7 fl oz) ³	0
	BIC White Out (4 units)	Petroleum naphtha (0.7 fl oz) ³	0
	Glue Stick (3 units)	PVP (polyvinyl pyrrolidone) 9003-39-8, water, sodium stearate 822-16-2, bioban CS-1135 (0.74 oz) ^{2,3}	0
	HP Laser Jet 6P & Toner Cartridge (1 unit)	Color Ink: water 7732-18-5, 1,5-pentanediol, ethyl alkyldion, 2-pyrroldone 616-45-5, 2-pyrroldone, substituted phthalocyanine salt #4, substituted naphthalenesulfonate salt #11, #13, metal nitrate #4, alkldionl ethoxylate; Black Ink: water 7732-18-5, 2-pyrroldone 616-45-5, carbon black 1333-86-3, isopropyl alcohol 67-63-0 ³	0
	Kleen Guard Furniture Polish (1 unit)	Propane, mineral spirits (12.5 oz) ³	0
	Lysol Foam Cleaner (2 units)	Diethylene glycol monobutyl ether, isobutane (24 oz) ³	0
	Lysol Foam Cleaner (2 units)	No information ⁴	---
	Scotch Tape (1 unit)	Cellulose acetate film backing, acrylate adhesive ³	0
	Scotch Tape (1 unit)	Cellulose acetate film backing, acrylate adhesive ³	0
	Sharpie Markers	Dyes, pigments, solvent mixture (butanol, propanol, diacetone alcohol, ethanol) ³	0
	Xerox Anti-Static Fluid (1 unit)	Dimethyl methyl, siloxane, propylene glycol (100 mL)	0
	Bic White Out	Petroleum naphtha	0
	April Fresh Hand Sanitizer	Alcohol	0
	HP C6657 Cartridges (3 units)	Styrene acrylate copolymer, Iron oxide ³	0
	HP Laser Jet 6P	Styrene acrylate copolymer, Iron oxide ³	0
	HP Laser Jet 5P	Styrene acrylate copolymer, Iron oxide ³	0
	HP PSC 1350	Styrene acrylate copolymer, Iron oxide ³	0
Dry-erase Wipes(1 unit)	No ingredients listed	0	
Whiteboard Markers	No ingredients listed	0	

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Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Library Cubicle Area Baseline = 0 ppb	Benjamin Moore Latex Enamel (1 unit)	Water, acrylic resin, barium sulfate (1 qt)	0
	Benjamin Moore Acrylic Paint (19 units)	Water, titanium dioxide, acrylic resin (1 gal)	0
	Big Y Bleach (1 unit)	Sodium hypochlorite, sodium hydroxide (1 gal) ³	0
	Comet Disinfectant Cleanser (17 units)	Sodium dichloro-s-triazinetriene dihydrate, inactive ingredients (21 oz) ³	0
	Dial Antimicrobial Liquid Soap (1 open unit, 4 unopened)	Ammonium lauryl sulfate, glycerin, lauramide dea, sodium laureth sulfate (1gal) ³	0
	Elky Pro Baseboard Cleaner (1 unit)	2-butoxyethanol, deionized water, tetra sodium EDTA (19 oz)	0
	Elky Pro General Purpose Cleaner (2 units)	Water, nonionic surfactant, sodium xylene sulfonate, tetrasodium EDTA, sodium citrate, isopropyl alcohol, citrus terpenes (19 oz)	0
	GoJo Natural Pumice Hand Cleaner (1 unit)	Limonene (1 gal) ³	0
	HP 92295A Toner Cartridge (1 unit)	Color Ink: water7732-18-5, 1,5-pentanediol, ethyl alkyldion, 2-pyrrolidone 616-45-5, 2-pyrrolidone, substituted phthalocyanine salt #4, substituted naphthalenesulfonate salt #11, #13, metal nitrate #4, alklidionl ethoxylate; Black Ink: water 7732-18-5, 2-pyrrolidone 616-45-5, carbon black 1333-86-3, isopropyl alcohol 67-63-0 ³	0
	Johnson Diversity Carpet Shampoo (4 units)	Water, sodium lauryl sulfate, amine salt of modified acrylic copolymer TS (1 gal)	0
	Krylon Glass Frosting (1 unit)	Propane, butane, heptane, toluene, acetone, ethyl 3-ethoxypropionate, titanium dioxide (12 oz) ³	0
	Lysol Basin Tub & Tile Cleaner (12 units)	Dipropylene glycol n-butyl ether, citric acid, hydroxyacetic acid (32 oz) ³	0
	Lysol Disinfectant Spray (10 units)	Ethanol, petroleum gases (liquefied, sweetened), quaternary ammonium compounds (benzyl-C12-18-alkyldimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1, 1-dioxide (1:1)) (19 oz) ³	0
	Lysol Foam Cleaner (1 unit)	Diethylene glycol monobutyl ether, isobutane (24 oz) ³	0
	Lysol Toilet Cleaner (10 units)	Hydrochloric acid (32 fl oz) ³	0
	Lysol Toilet Cleaner (2 units)	Hydrochloric acid (32 fl oz) ³	0
	Ricoh FW 780 Plotter (2 units)	Carbon black 1333-8-4, styrene acrylic copolymer, resin, dye ³	0
	Rovic Cleaner & Disinfectant (2 units)	N-alkyl dimethyl benzyl ammonium chloride; n-alkyl, dimethyl ethylbenzyl ammonium chloride (1 gal)	0
	Rovic Cleaner & Disinfectant (2 units)	Mineral spirits, magnesium silicate, ethylbenzene, carbon black (1 qt) ³	---
	Spartan Glass Cleaner (24 units)	Water, isopropyl alcohol (1 gal) ³	0
	Spartan Glass Cleaner (6 units)	Water, isopropyl alcohol (1 gal) ³	0
	Spartan Shinline Emulsifier Plus (1 unit)	Water, 2-butoxyethanol, monoethanolamine (1 gal)	0
	Pro-link Stainless Steel Cleaner (1 unit)	White mineral oil, synthetic isoparaffinic hydrocarbon, mineral spirits (15 oz)	0
HP TEI Series 4/4M/5/5M/EX Toner Cartridge (4 units)	Iron oxide 1317-61-9, styrene acrylate copolymer (proprietary) ^{2,3}	0	

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Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Library Cubicle Area Baseline = 0 ppb	Xerox Toner 6R244 (2 units)	Styrene/butadiene copolymer 9003-55-88, steel powder 7439-89-6, iron oxide 1309-38-2, carbon black 1333-86-4 ^{2,3}	0
	Kiwi Shoe Polish (1 unit)	Ethylene Glycol 107-21-1, carbon black 1333-86-4 ³	0
	Nu Finish Scratch Dr.	Petroleum distillates (stoddard solvent) 8052-41-3, ceramic microspheres 66402-68-4 ³	0
	Kano Aerokroil	Petroleum distillates	0
	Hand Sanitizer	Ethyl alcohol	0
	Lexmark Toner (2 units)	Styrene/butadiene copolymer 9003-55-8, steel powder 7439-89-6, iron oxide 1309-38-2, carbon black 1333-86-4 ^{2,3}	0
	Unisource (1 unit) Disinfectant	Didecyl dimethyl, ammonium chloride, n-alkyl dimethyl benzyl ammonium chloride	---
	Glidden Latex Paint(1 unit)	Crylic resin, vinyl acetate, limestone, nepheline syenite, titanium oxide, partially unknown contents	0
	Great Stuff Insulating Foam Sealant	Isocyanic acid, Polymethylenepolyphenylene ester 9016879, 1,1-methylenebis - isocyanoto benzene 101688, 2-methyl propane - 75285, propane 74986, prepolymer of mdi and polyether 59075671	0
	Elky Pro(5gal)	Styrene acrylic copolymer, ethylene glycol, diethylene glycol ethyl ether	0
	Glance Glass Cleaner (5 gal.)	Sodium Lauryl sulfate 151-21-3, ethyl alcohol 64-17-5 ³	0
	Spitfire Power Cleaner (5 gal.)	Sodium xylene sulfonate, monoethanolamine, 2-butoxyethanol, alkoxyated linear alcohol, tetrasodium salt of EDTA	0
	Webco Foaming Cleaner (21 oz.)	Sodium carbonate, sodium dodecyl benzene sulfonate, sodium dichloro-s-triazinetriinoe	0
	Impressions Floor Finish Gloss	Acrylic emulsion, polymer, proprietary diethylene glycol mohomethylethen, tributoxy ethyl phosphate, phthalic acid dibutyl ester	0
	Unknown Chemical (Yellow)		0
Library Offices	Armor All: Original	Silicone emulsion (16 oz) ³	0
	Blue Liquid	Unlabeled spray bottle ⁴	0
	Break Free: Industrial PLC (4 units)	Petroleum distillates (12 oz)	0
	Break Free: Industrial PLC (4 units)	Aquell (12 oz), Top Care (8 oz), For Your Health (1 oz)	
	Krylon: Upside Down Marking Paint	Propane, butane, hexane, 2-methylpentane, 3-methylpentane, toluene, ethylbenzene, xylene, talc, calcium carbonate, VM&P naphtha (17 oz) ³	0
	Krylon: Upside Down Marking Paint	toluene, hexane (1 oz)	
	Lysol Basin Tub & Tile Cleaner	Dipropylene glycol n-butyl ether, citric acid, hydroxyacetic acid (32 oz) ³	0
	Lysol Basin Tub & Tile Cleaner	dipropylene glycol n-butyl ether, citric acid, hydroxyacetic acid (32 oz) ³	
	Lysol Disinfectant Spray - Country Scent (1 unit)	Ethanol, petroleum gases (liquefied, sweetened), quaternary ammonium compounds (benzyl-C12-18-alkyldimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1, 1-dioxide (1:1)) (19 oz) ³	0
	White Out Brand (2 units)	Petroleum naphtha (0.7 fl oz) ³	0

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Library Offices	Sharpies (various)	Dyes, pigments, solvent mixture (butanol, propanol, diacetone alcohol, ethanol)	0
	Office stamp refill ink	Could not locate MSDS or ingredient list ⁴	0
	Magic Fog-Be-Gone Lens Cleaner Fluid	Isopropyl alcohol, surfactant, propylene glycol, n-butyl ether	0
	Industrial Contact Cleaner	Hexane isomers, petroleum distillates, n-hexane (3 units)	0
	Electronic Cleaner	See electronic cleaner	0
	Lysol Foam Cleaner	Octyl decyl dimethyl ammonium chloride, dioctyl dimethyl ammonium chloride, didecyl dimethyl ammonium chloride (24 oz)	0
	Scotch Tape (2 units)	Cellulose acetate film backing, acrylate adhesive ³	0
	White Out (2 units)	Petroleum naphtha	0
	BIC Highlighters (6 units)	See other highlighter info.	0
Machine Shop Storage Area ⁵ Baseline = 200 - 250 ppb (center of room)	Ariens Snow Blower (1 unit)	Could not identify specific fluids in machinery ⁴	1000
	Generac SVP-5000 Portable Generator (1 unit)	Could not identify specific fluids in machinery ⁴	115 ppm
	Kleen Sweep 27 Hand-Power Sweeper (1 unit)	Could not identify specific fluids in machinery ⁴	590
	Kohler Power PTO 6000 (1 unit)	Could not identify specific fluids in machinery ⁴	590
	Hercules PVC Plastic Pipe Cement (1 unit)	Cetone, tetrahydrofuran, cyclohexanone (16 fl. oz)	10 ppm
	Rector Seal PVC Solvent Cement (1 unit)	Tetrahydrofuran, methyl ethyl ketone and cyclohexanone (473 mL)	11.6 ppm
	Teel Industrial Series Engine (1 unit)	Could not identify specific fluids in machinery ⁴	3270
	WD-40 (2 units)	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, carbon dioxide 124-38-9 ³	0
	Yale 363A Forklift (1 unit)	Could not identify specific fluids ⁴	0
	Electrical Tape	PVC film backing, antimony trioxide, carbon black	0
Men's Bathroom #1 Baseline = 0 ppb	AJAX: Oxygen Bleach Cleanser Heavy Duty Formula	Calcium carbonate, sodium carbonate, dodecylbenzenesulfonate (21 oz)	0
	Lysol Disinfectant Basin Tub & Tile Cleaner	Dipropylene glycol n-butyl ether, citric acid, hydroxyacetic acid (32 oz) ³	0
	Lysol Disinfectant Spray	Ethanol, petroleum gases (liquefied, sweetened), quaternary ammonium compounds (benzyl-C12-18-alkyldimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1, 1-dioxide (1:1)) (19 oz) ³	0
	Barbasol	Water, Stearic Acid, Triethandlamine, Isobutane, Laureth-23, Fragrance, Propane, Sodium lauryl sulfate.	0

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Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Office Area	3M Desk and Office Cleaner #573	Isobutone, isopropyl alcohol, surfactant, sodium carbonate monohydrate, monoethanolamine (15 oz)	0
	Lino-Kleener Desk & Work Station Cleaner	Ethoxylated alcohol 68439-46-3, propylene glycol ether 5131-66-8 ^{2,3}	0
	Pledge: Lemon	Propane, isobutane, butane, isoparaffinic hydrocarbon solvent silicones, water (12.5 oz)	0
Office Area	Quartet Board Wipes Dry-Erase (50 wipes)	Water 7723-18-5, glycol ether ES 11-76-2, benzyl alcohol 100-51-5, trisodium phosphate 7601-54-9, polytergent B-300 76027-38-2 ^{2,3}	0
	UHU: Stic Glue Stick	Polyvinylpyrrolidone (PVP) sodium stearate, glycerine and water (0.29 oz)	0
	White Out Brand: Correction Fluid	Petroleum naphtha (0.7 fl oz) ³	0
	Sanford Sharpie Markers	(Non-toxic labeled) box of 12/12 Black #32001	0
	Staples Permanent Marker	Ethandiol 107-21-1, diethylene glycol 11-46-6 ^{2,3}	0
	Jergens Ultra Healing	No hazardous ingredients listed ^{2,3}	---
	Nu finish Scratch Doctor	Petroleum distillates (stoddard solvent) 8052-41-3, ceramic microspheres 66402-68-4 ³	---
	Safetec Hand Sanitizer	Ethyl alcohol 64-17-5 ^{2,3}	---
	Tresemme Hair Spray	Alcohol denat., hydrofluorocarbon 152A, octylacrylamide/arylates/butylaminoethyl methacrylate copolymer, amino-methyl propanol, cyclomethicone, fragrance (perfume), hexyl cinnamal, butylphenyl methylpropional, benzyl benzoate, citronellol, hydroxy-citronellal, gerantol, hydroxyisohexyl 3-cyclohexene carboaldehyde	0
	Sharpie: Twin tip markers	Butanol 71-36-3, propanol 71-23-8, diacetone alcohol 123-42-2, ethanol 64-17-5 ³	0
	Sharpie: Accent Highlighter	All colors - water, diethylene glycol 11-46-6, dyes, additives ^{2,3}	0
Security Tech Room	WD-40 (1 unit)	Aliphatic hydrocarbon, petroleum base oil, LVP aliphatic hydrocarbon, carbon dioxide, other non-hazardous ingredients (12 oz) ³	0
	Windex Multi-Surface Antibacterial Spray (1 unit)	Isopropanol, ethyleneglycol monoethylether, lactic acid ³	0
	Expo Dry Erase Fluid	2-Butoxy Ethanol, Isopropyl Alcohol	0
	Dust off (2 units) (10 oz)	1,1-difluoroethane 75-37-6 ³	0
	Sharpies	Dyes, pigments, solvent mixture (butanol, propanol, diacetone alcohol, ethanol)3	0
William Stanley Meeting Room	Sanford: Expo2 Whiteboard Cleaner	Water, isopropyl alcohol, ethylene glycol monobutyl ether (8 oz) ³	0
	Expo 2 Dry Erase Markers and Cleaner	Ethanol, resins, water, isopropyl alcohol, ethylene glycol monobutyl ether	0

Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Storage Area 2	Ariens (2) 11528 DLE PRO	Could not identify specific fluids in machinery ⁴	500
	Ariens 936 PB	Could not identify specific fluids in machinery ⁴	500
	Ariens Deluxe 30	Could not identify specific fluids in machinery ⁴	500
	Nedmag Ice Melt Pellets 21 pellets	Magnesium chloride, calcium chloride, sodium chloride, potassium chloride, water ^{2,3}	0
	Gas Tanks (2 units)	Gasoline (10 gal)	200
Women's Bathroom #1 Baseline = 0 ppb	Dial Antibacterial Liquid Soap (1 unit)	Ammonium lauryl sulfate, cocamidopropyl betaine, decyl polyglucose, glycerin, lauramide dea, sodium laureth sulfate (1 gal) ³	0
	Kellco Stainless Steel Polish & Cleaner (2 units)	Mineral spirits, isoparaffinic solvent, 1-methyl-2-pyrrolidinone (15 oz)	0
	Lysol Disinfectant Spray (1 unit)	Ethanol, petroleum gases (liquefied, sweetened), quaternary ammonium compounds (benzyl-C12-18-alkyldimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1, 1-dioxide (1:1)) (19 oz) ³	0
	Lysol Foam Cleaner (1 unit)	Ectyl decyl dimethyl ammonium chloride, dioctyl dimethyl ammonium chloride, didecyl dimethyl ammonium chloride (24 oz)	0
	SC Johnson Heavy Duty Prespray SC (1 unit)	Ethyl alcohol, ether, dioctyl sodium sulfosuccinate (84.5 oz)	0
	AJAX Chlorine Cleanser	Calcium carbonate (00471-34-1), sodium carbonate (00497-19-8), DOD Ecy-benzene sulfate (151SS-30-0)	0
Women's Room #2	Bath and Body Brand Hand Lotion	Glycerin, petrolatum cetyl alcohol, cetearyl alcohol (8 fl oz)	0
	Dove Brand Hairspray	SD alcohol 40-B (2 fl oz)	0
	Softsoap Elements Brand Soap (3 units) only 2 present 11.25 fl oz and 80 fl oz	Sodium C-14,16 olefin sulfanate (11.25 fl oz and 56 fl oz and 80 fl oz)	0
	Dial Antibacterial Liquid Soap	Triclosan, water, ammonium lauryl sulfate, sodium laureth sulfate, lauramide dea, glycerin, isostearamidopropyl morpholine lactate, disodium ricinoleamido mea-sul fosuccinate, fragrance, citric acid, DMDM hydantoin, tetra-sodium edta, yellow 5, red 4	0
Files 1	Lino- Kleen	Could not locate MSDS or ingredient list ⁴	0
	OIC Gluesticks(9)	Polyvinyl pyrrolidone, water, sodium stearate	0
	409 Degreaser 1 QT	Alkyl (C14 50%, C12 40%, C16 10%) dimethyl benzyl ammonium chloride 0.3%	---
	Garden Safe Insecticidal Soap (24 fl oz)	Potassium Salts of Fatty acids 1% by wt.	---
	Spectracide Bud Stop(32 fl oz)	Lambda-Cyhalothrin .03%	---
Server Room	Electrical Tape (6 Rolls)	PVC film backing, antimony trioxide, carbon black	0
Machine Room #1 0 = Baseline	IDEAL-AQUA Gel Wire Pulling Lube (2) 5 gal. buckets	Oxirane, monobutyl ether, polyoxypropylene-polyoxyethylene	0
	GE Silicone Caulking	Hexamethyl disilazane, ethyl trimethoxysilane, distillates, petroleum, hydrotreated	760
	Chico A2 Sealant	Fused calcium aluminate, plaster of paris, crystalline silica	0
	Electrical Tape 25 rolls	PVC film backing, rubber adhesive (properitary), antimony trioxide 1309-64-4, carbon black 133-86-4, DI-C8-10-branched alkyl phthalate, C9 rich 68515-48-0 ^{2,3}	0
	Foille Plus First Aid Spray (2) 3.5 oz. cans	Benzocaine (20%), benzethonium chloride (0.15%), in a base containing benzyl alcohol, dimethyl isosorbide, SD alcohol 40 (12%)	20 ppm

**Table F-2a
Summary of Material/Product Inventory For Building 59 - Fall 2012**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts**

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Machine Room #2 500 ppb = Baseline	GE Red Grease 1 pint (10)	Could not locate MSDS or ingredient list ⁴	0
	CRC-36 Multi-Purpose Lubricant 11 oz. can (2)	Petroleum distillate 64742-47-8, petroleum distillate 64742-54-7, butyl stearate 123-95-5, fatty acid ester 1B38-43-8, carbon dioxide 124-38-9	0
	Terro Ant Killer Spray	Pyrethrins 0.10%, piperonyl butoxide 0.50%, permethrin 0.20%	0
	Ace Brand Rust Stop	Ketones, aliphatic hydro carbons, aromatic hydrocarbons	0
	CRC Brand QD Electronic Cleaner 4.5 oz. can	Hexane isomers, n-hexanello-54-3, petroleum distillate 64741-66-8, methanol 67-56-1, 1,1-difluoroethane 75-37-6	2400
	Aerkroil Lubricant 10 oz. can	Freon 12, propellant 75718	0
	Lysol Disinfectant Spray 19 oz. can	Alkyl (C ₁₄ 50%, C ₁₂ 40%, C ₁₆ 10%) dimethyl benzyl ammonium saccharinate 0.1%, ethanol 79%	0
	Rust-oleum Frosted Glass Spray 11 oz. can	Liquified Petroleum gas, acetone, n-butyl acetate, toluene, solvent naphtha, 1,2,4 trimethylbenzene, xylene	2800
	CRC Battery Cleaner 11 oz. can (2)	Sodium bicarbonate 144-55-8, 2-butoxy ethanol 111-762, propane 74-98-6, water 7732-18-5, isobutane 75-28-5	0
Machine Room #2 500 ppb = Baseline	Carquest Battery Terminal Protector 7.5 oz. can	Isohexane 107-83-5, n-hexane 110-54-3, xylene 1330-20-7, petrolatum 8009-03-08, propane distillate 8052-41-3, heptane 142-82-5, isobutane 75-28-5, propane 74-98-6	0
	CRC QD Contact Cleaner	Hexane isomers (various), n-hexane 110-54-3, methanol 67-56-1, petroleum distillate 6471-66-8, 1,1-difluoroethane 75-37-6	450
	Permatex Silicone Spray Lube 10.25 oz. can	Petroleum distillates	0
	CRC 2-26 Electrical Grade Lubricant 1 1 oz. can	Petroleum distillates 64742-48-9, white mineral oil 8042-47-5, butyl stearate 123-95-5, fatty acid ester 1338-43-8, carbon dioxide 124-38-9	0
	De-Solv-It Contractor's Solvent 12.6 fl. oz. bottle	Organic hydro carbons	200
	Scotty Analysed Gases 221L (4) canisters	Nitrogen	0

Notes:

1. The material/product inventory was conducted in immediately accessible areas in and around the designated soil gas and indoor air sampling locations in October 2012.
2. Where brands were not specified or ingredients listed on containers/items, general MSDS sheets were consulted.
3. Indicates data was obtained from MSDS Sheet.
4. Indicates MSDS sheet could not be found for listed product.
5. PID reading high in Machine Shop Storage Area, Arcadis Cage Area, GE Cage Area due to emissions from a forklift operating in the area.
6. '----' indicates that a PID reading was not recorded for that material and/or location.

Table F-2b
Summary of Material/Product Inventory For Building 59 – January 2013

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Kitchen #3	AJAX: Chlorine Cleanser	Calcium carbonate, sodium carbonate, dodecylbenzenesulfonate (21 oz)	0
	Bates System 3000 Anti Start	Could not locate MSDS or ingredient list (16 oz) ⁴	0
	Bissell: Fabric & Upholstery Cleaner	1-methoxy 2-propanol, alkoxylated linear alcohol (12 oz)	0
	Dawn: Ultra Concentrated Dish Soap	Ethanol (25 oz) ³	0
	Lysol Basin Tub & Tile Cleaner	Dipropylene glycol n-butyl ether, citric acid, hydroxyacetic acid (32 oz) ³	0
	Soft Scrub Cleanser	Calcium carbonate, detergent (26 oz)	0
	Soft Soap Brand: Hand Soap (54522)	Deionized Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamidopropyl Betaine, Cocamide DEA, Sodium Laureth Sulfate, Glycol Distearate, Cocamide MEA, Laureth- 10 mixture (56 oz)	0
	Windex Multi-Surface Cleaner - Vinegar	Water, isopropanol, ethyleneglycol monohexylether (26 oz) ³	0
	Spic and Span Anti-Bac (22 fl. oz)	Octyl-decyl-dimethyl ammonia chloride .005%, dioctyl-dimethyl ammonia chloride .010%, didecyl dimethy ammonia chloride .015% alkyl (C ₁₄ .50%, C ₁₂ .40%, C ₁₈ 10%) dimethyl benzyl ammonia chloride 0.034%	0
	Clorox Wipes (10.7 oz Tube)	N-alkyl (C ₁₄ 60%, C ₁₆ 30%, C ₁₂ 5%, C ₁₈ 5%) dimethyl benzyl ammonium chloride 0.145%, D-alkyl (C ₁₂ 68%, C ₁₄ 32%) dimethyl ethylbenzyl ammonium chloride 0.145%, ethyl benzyl ammonium chloride 0.145%	0
	Soft Soap Anti-Bac	Triclosan, water, sodium C14-16, olefin sulfonate, lauramide DEA, sodium chloride, cocamidophyl betaine, fragrance, citric acid, Dm Dm hydantion, glycerin, tetrasodium EDTA, polyquaternium-7, silk peptide, hydrolyzed silk protein, aloe barbadensis gel, FD&C Red No. 40, FD&C yellow No. 5, D&C red No. 33	0
Office Area	3M Desk and Office Cleaner #573	Isobutone, isopropyl alcohol, surfactant, sodium carbonate monohydrate, monoethanolomine (15 oz)	0
	Dial: Hand Sanitizer	Ethyl alcohol (7.5 oz)	0
	Lino-Kleener Desk & Work Station Cleaner	Ethoxylated alcohol 68439-46-3, propylene glycol ether 5131-66-8 ^{2,3}	0
	Lysol Disinfectant Spray	Ethanol, petroleum gases (liquefied, sweetened), quaternary ammonium compounds (benzyl-C12-18-alkyldimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1, 1-dioxide (1:1)) (7.5 oz) ³	0
	Marks-A-Lot Marker	N-Propanol	0
	Pledge: Lemon	Propane, isobutane, butane, isoparaffinic hydrocarbon solvent silicones, water (12.5 oz)	0
	Quartet Board Wipes Dry-Erase (50 wipes)	No information ⁴	0
	UHU: Stic Glue Stick	Polyvinylpyrrolidone (PVP) sodium stearate, glycerine and water (0.29 oz)	0
	White Out Brand: Correction Fluid	Petroleum naphtha (0.7 fl oz) ³	0
	Sanford Expo Dry-Erase Marker	Alcohol Blend, Pigments, polymers, additives, sent ³	0
	Sanford Vis-a-Vis Markers	Propylene glycol, dyes, resins, additives ³	0

Table F-2b
Summary of Material/Product Inventory For Building 59 – January 2013

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts

Area	Identified Material/Product	Information Regarding Chemicals in Material/Product ²	PID Readings (ppb)
Office Area	Expo 2 Dry Erase Markers	Ethanol, resins, isopropyl alcohol	0
	Sanford Sharpie Markers	Dyes, pigments, solvent mixture (butanol, propanol, diacetone alcohol, ethanol) ³	0
	Paper Mate Permanent Marker	N-Propanol, dyes, resin ³	0
	Staples Permanent Marker	Ethandiol 107-21-1, diethylene glycol 11-46-6 ^{2,3}	0
	Kensington Screen Guardian	Butyl Cellusolve ³	0
	Safetec Hand Sanitizer	Aloe vera, carbomer, D&C green #5, D&C yellow #10, fragrance, purified water, triethanolamine	0
	Scope (8.4 fl oz)	Water, alcohol (8.4% by weight), glycerin, poloxamer 40%, polysorbate 80, flavor, sodium saccharin, sodium benzoate, cerylpyridinium chloride, domphen bromide, benzoic acid, blue 1, yellow 5	0
	Club Classic Deodorant Spray (10 oz can)	SD alcohol 40, isobutane, water, propane, propylene glycol, butane, fragrance, triclosan	0
	Tresemme Hair Spray	Alcohol denat, hydrofluorocarbon 152A, octylacrylamide/arylates/butylaminoethyl methacrylate copolymer, amino-methyl propanol, cyclomethicone, fragrance (perfume), hexyl cinnamal, butylphenyl methylpropional, benzyl benzoate, citronellol, hydroxy-citronellal, gerantol, hydroxyisohexyl 3-cyclohexene carboaldehyde	0
	Purell Hand Sanitizer	Ethyl alcohol 62%, water, glycerin, isopropyl myristate, propylene glycol, tocopheryl acetate, aminomethyl propanol, carbomer, fragrance	0
	CVS Skin Lotion	Water, glycerin, stearic acid, glycol stearate, petrolatum, isopropyl palmitate, glycine soja sterol, herianthus annuus, seed oil or glycine soja oil, avena sativa kernel protein, sodium stearyl-2-lactylate, tocopheryl acetate, retinyl palmitate, carbomer, lecithin, keratin, dimethicone, glyceryl stearate, cetyl alcohol, sodium PCA, potassium lactate, lactic acid, collagen amino acids, mineral water, fragrance, triethanolamine, magnesium aluminum silicate, urea, methyl paraben, DMDM hydantoin, iodopropynyl, butyl cardamate, disodium, titanium dioxide, EDTA	0
	CVS Arthricream Rub	Aloe vera gel, dimethicone, glyceryl stearate, methylparaben, PEG-100 stearate propylene glycol, propylparaben, purified water, sorbitol solution	0
	Sharpie Markers	Dyes, pigments, solvent mixture (butanol, propanol, diacetone alcohol, ethanol) ³	0
	Sharpie Highlighters	Water, Glycols, dyes, additives ³	0
	BIC Highlighters	Ethylene glycol, 1-Methyl-2-pyrrolidone, polyvinyl pyrrolidone, triethanolamine	0
	Avery Glue Stic (1.27 oz)	No hazardous ingredients ³	0
	OFF! Bug Spray	DEET 25%	0
Pledge Lemon Furniture Polish (12.5 oz)	Propane, isobutane, butane, isoparaffinic hydrocarbon solvent silicones, water	0	
Berkshire Eye Center Eye Drops	Boric acid 10034-35-3, sodium borate 1303-96-4, sodium chloride 7647-14-5, sorbic acid 110-44-1, edetate disodium 6381-92-6 ^{2,3}	0	

Notes:

1. The material/product inventory was conducted in immediately accessible areas in and around the designated soil gas and indoor air sampling locations in January 2013.
2. Where brands were not specified or ingredients listed on containers/items, general MSDS sheets were consulted.
3. Indicates data was obtained from MSDS Sheet.
4. Indicates MSDS sheet could not be found for listed product.



Building 51 & 59 – Cumulative
Summary of Sub-Slab and Indoor
Air Results

Table F-3
Summary of Sub-Slab Soil Gas Data for Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Chiller Room 09/28/06 Summa Canister #0324	Chiller Room 10/11/07 51-SS-1	Chiller Room 10/29/08 51-SS-1	Chiller Room 10/20/09 51-SS-1	Chiller Room 11/18/10 51-SS-01	Chiller Room 10/20/11 51-SS-1	Chiller Room 10/25/12 51-SS-1
Volatile Organics							
1,1,1-Trichloroethane	2.9 J	37	71	23	32	34	29 J
1,1,2-trichloro-1,2,2-trifluoroethane	51	ND(7.7)	180	37	15 J	91	77 J
1,1,2-Trichloroethane	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5 J)	1.4 J	ND(11)	ND(55)
1,1-Dichloroethane	ND(4)	1.4 J	3.1 J	1.5 J	1.8 J	ND(8.1)	ND(40)
1,2,3-Trichloropropane	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	NA	ND(60)
1,2,4-Trimethylbenzene	15	1.3 J	ND(4.9)	ND(4.9)	1.7 J	ND(9.8)	ND(49)
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	ND(7.9)	NA
1,3,5-Trimethylbenzene	9	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(9.8)	ND(49)
1,3-Butadiene	ND(4.4)	2.3 J	ND(4.4)	ND(4.4)	ND(4.4)	0.87 J	ND(44)
2-Butanone	55	11	44	6.5	4.9 J	2.5 J	ND(59)
2-Hexanone	ND(8.2)	ND(8.2)	5.8 J	ND(8.2)	ND(8.2)	ND(20)	ND(82)
4-Ethyltoluene	15	1.3 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(9.8)	ND(49)
4-Methyl-2-pentanone	ND(8.2)	ND(8.2)	3.3 J	ND(8.2)	2.3 J	ND(20)	ND(82)
Acetone	140	48	320 J	35	63	23	54
Acetonitrile	ND(3.4)	ND(3.4 J)	ND(3.4)	ND(3.4)	110	NA	ND(34)
Acrolein	ND(4.6)	1.7 J	4.3 J	ND(4.6)	ND(4.6)	NA	ND(46)
Alpha Methyl Styrene	ND(4.8)	ND(4.8)	ND(4.8)	ND(4.8)	ND(4.8)	NA	ND(48)
alpha-Pinene	NA	NA	NA	NA	NA	NA	ND(0)
Benzene	0.86 J	2.9 J	1.4 J	1.5 J	1.9 J	1.7 J	ND(32)
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	NA	ND(64)
Bromoform	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(21)	ND(100)
Bromomethane	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.8)	ND(39)
Carbon Disulfide	ND(3.1)	2 J	2.1 J	2 J	ND(3.1)	ND(16)	ND(31)
Carbon Tetrachloride	ND(6.3)	ND(6.3)	1.8 J	1.3 J	ND(6.3)	ND(13)	ND(63)
Chlorodifluoromethane	63	ND(3.5)	ND(3.5)	ND(3.5)	ND(3.5)	ND(18)	ND(35)
Chloroform	1.1 J	3.2 J	5.4	3.1 J	4.5 J	3.3 J	ND(49)
Chloromethane	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(10)	ND(21)
Cyclohexane	NA	NA	NA	NA	NA	ND(6.9)	ND(34)
Dichlorodifluoromethane	3.4 J	4 J	5.5	ND(4.9)	ND(4.9)	ND(25)	ND(49)
Dichlorofluoromethane	ND(4.2)	ND(4.2)	ND(4.2)	ND(4.2)	ND(4.2)	NA	ND(42)
Ethanol	NA	NA	NA	NA	NA	NA	ND(19)
Ethyl acetate	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	3.3 J	NA	ND(36)
Ethylbenzene	6.7	2.8 J	ND(4.3)	ND(4.3)	2.6 J	ND(8.7)	ND(43)
Heptane	ND(4.1)	2.3 J	ND(4.1)	ND(4.1)	5.8	1.2 J	ND(41)
Isooctane	2.2 J	1.1 J	ND(4.7)	ND(4.7)	ND(4.7)	ND(9.3)	ND(47)
Isopropyl alcohol	NA	NA	NA	NA	NA	1.9 J	ND(25)
Isopropylbenzene	1.2 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(9.8)	ND(49)
m&p-Xylene	12	4.5	1.3 J	ND(4.3)	11	NA	18 J
Methyl tert-butyl ether	160	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.2)	ND(36)
Methylene Chloride	2.5 J	1 J	1.1 J	1.8 J	6.9	ND(17)	ND(35)
n-Butane	NA	NA	NA	NA	NA	1.9 J	NA
n-Hexane	14	23	1.8 J	1.1 J	2.4 J	1.1 J	ND(35)
n-Octane	1.4 J	1.9 J	1.4 J	ND(4.7)	ND(4.7)	NA	ND(47)
n-Propylbenzene	NA	NA	NA	NA	NA	ND(9.8)	ND(49)
o-Xylene	5.5	1.7 J	ND(4.3)	ND(4.3)	2.8 J	NA	ND(43)
Pentane	5.5	3.9	3.1	2.2 J	4.7	NA	ND(30)
p-Isopropyltoluene	NA	NA	NA	NA	NA	ND(11)	NA
Propene	11	4.3	14	0.76 J	ND(1.7)	NA	ND(17)
Styrene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(8.5)	ND(43)
Tertiary butyl alcohol	ND(3)	0.91 J	4.7	ND(3)	ND(3)	ND(150)	ND(30)
Tetrachloroethene	ND(6.8)	9.8	41	21	27	26	27 J
Toluene	19	6.2	9	2.1 J	30	3.2 J	ND(38)
trans-1,2-Dichloroethene	ND(4)	ND(4)	ND(4)	ND(4)	ND(4)	ND(7.9)	ND(40)
Trichloroethene	58	650	930	1,300	1,500	1,200	1,400
Trichlorofluoromethane	5.5 J	8.3	15	4.2 J	ND(5.6)	5.3 J	ND(56)
Vinyl Chloride	0.74 J	ND(2.6)	ND(2.6)	ND(2.6)	ND(2.6)	ND(5.1)	ND(26)
Xylenes (total)	NA	NA	NA	NA	NA	3.5 J	NA
Semivolatile Organics							
1,2,4-Trichlorobenzene	9.9 J	ND(15)	ND(15)	ND(15)	ND(15)	ND(37 J)	ND(150)
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(12)	ND(60)
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(12)	ND(60)
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(12)	ND(60)
Naphthalene	ND(5.2)	ND(5.2)	ND(5.2)	ND(5.2)	ND(5.2)	ND(26 J)	ND(100)

Table F-3
Summary of Sub-Slab Soil Gas Data for Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Records Room 10/11/07	Records Room 10/29/08	Records Room 10/20/09	Records Room 11/18/10	Records Room 10/20/11	Records Room 10/25/12
Volatile Organics						
1,1,1-Trichloroethane	43	16	12	7.6	12	17 J
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(15)	ND(15)	ND(15)	3.3 J	ND(77)
1,1,2-Trichloroethane	12	ND(5.5)	ND(5.5 J)	ND(5.5)	ND(3.9)	ND(27)
1,1-Dichloroethane	ND(4)	ND(4)	ND(4)	ND(4)	ND(2.9)	ND(20)
1,2,3-Trichloropropane	ND(6)	ND(6)	ND(6)	ND(6)	NA	ND(30)
1,2,4-Trimethylbenzene	1.3 J	4.7 J	8.4	2.8 J	9.6	25
1,2-Dichloroethane (total)	NA	NA	NA	NA	ND(2.8)	NA
1,3,5-Trimethylbenzene	ND(4.9)	1.3 J	14	1.4 J	3.8	14 J
1,3-Butadiene	5.6	4.6	ND(4.4)	ND(4.4)	8.9	ND(22)
2-Butanone	29	18	11	6.8	28	ND(29)
2-Hexanone	2.5 J	4.5 J	2.4 J	ND(8.2)	4.1 J	ND(41)
4-Ethyltoluene	1.2 J	ND(4.9)	ND(4.9)	ND(4.9)	1.4 J	ND(25)
4-Methyl-2-pentanone	6.3 J	ND(8.2)	11	3.4 J	4 J	ND(41)
Acetone	100	130	130	59	190	36
Acetonitrile	ND(3.4 J)	5.8	ND(3.4)	ND(3.4)	NA	ND(17)
Acrolein	3.3 J	ND(4.6)	ND(4.6)	ND(4.6)	NA	ND(23)
Alpha Methyl Styrene	ND(4.8)	ND(4.8)	1.1 J	ND(4.8)	NA	ND(24)
alpha-Pinene	NA	NA	NA	NA	NA	78 J
Benzene	5.1	3.4	4.4	1 J	6.6	ND(16)
Bromobenzene	ND(6.4)	ND(6.4)	1.6 J	ND(6.4)	NA	ND(32)
Bromoform	ND(10)	ND(10)	ND(10)	ND(10)	ND(7.4)	ND(52)
Bromomethane	1.6 J	ND(3.9)	ND(3.9)	ND(3.9)	ND(2.8)	ND(19)
Carbon Disulfide	1.6 J	0.95 J	1.3 J	1.5 J	2.7 J	ND(16)
Carbon Tetrachloride	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	ND(4.5)	ND(31)
Chlorodifluoromethane	ND(3.5)	ND(3.5)	ND(3.5)	2.5 J	ND(6.3)	ND(18)
Chloroform	4.4 J	4.7 J	2.3 J	2.8 J	3.8	ND(24)
Chloromethane	ND(2.1)	ND(2.1)	ND(2.1)	1.3 J	ND(3.7)	ND(10)
Cyclohexane	NA	NA	NA	NA	0.91 J	ND(17)
Dichlorodifluoromethane	3.4 J	2.3 J	ND(4.9)	2.1 J	ND(8.8)	ND(25)
Dichlorofluoromethane	0.93 J	ND(4.2)	ND(4.2)	ND(4.2)	NA	ND(21)
Ethanol	NA	NA	NA	NA	NA	ND(9.4)
Ethyl acetate	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	NA	ND(18)
Ethylbenzene	3.9 J	1.2 J	26	2.4 J	3.5	30
Heptane	27	ND(4.1)	1.2 J	ND(4.1)	2.5 J	ND(20)
Isooctane	1.1 J	ND(4.7)	ND(4.7)	ND(4.7)	ND(3.3)	ND(23)
Isopropyl alcohol	NA	NA	NA	NA	24 J	ND(12)
Isopropylbenzene	1.1 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(3.5)	ND(25)
m&p-Xylene	6	3.4 J	72	8.8	NA	93
Methyl tert-butyl ether	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(2.6)	ND(18)
Methylene Chloride	1.6 J	51	0.86 J	ND(3.5)	ND(6.2)	ND(17)
n-Butane	NA	NA	NA	NA	9.5	NA
n-Hexane	25	5.1	1.7 J	ND(3.5)	2.9	ND(18)
n-Octane	9.1	2.8 J	20	3.4 J	NA	11 J
n-Propylbenzene	NA	NA	NA	NA	ND(3.5)	ND(25)
o-Xylene	2.3 J	1.5 J	33	3.8 J	NA	47
Pentane	9.1	5.1	1.8 J	2.3 J	NA	4.5 J
p-Isopropyltoluene	NA	NA	NA	NA	1.5 J	NA
Propene	130	32	1.3 J	9.3	NA	ND(8.6)
Styrene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	1.7 J	ND(21)
Tertiary butyl alcohol	1 J	ND(3)	ND(3)	ND(3)	1.3 J	8.1 J
Tetrachloroethene	3.9 J	10	4.1 J	6.1 J	7.9	13 J
Toluene	12	8.6	15	3.5 J	9	9.4 J
trans-1,2-Dichloroethene	ND(4)	ND(4)	ND(4)	ND(4)	ND(2.8)	ND(20)
Trichloroethene	18	21	10	13	22	29
Trichlorofluoromethane	6.1	4.3 J	2.1 J	3.5 J	3.2 J	ND(28)
Vinyl Chloride	ND(2.6)	ND(2.6)	ND(2.6)	ND(2.6)	ND(1.8)	ND(13)
Xylenes (total)	NA	NA	NA	NA	16	NA
Semivolatile Organics						
1,2,4-Trichlorobenzene	ND(15)	ND(15)	ND(15)	ND(15)	ND(13 J)	24 J
1,2-Dichlorobenzene	ND(6)	ND(6)	2.6 J	ND(6)	ND(4.3)	11 J
1,3-Dichlorobenzene	ND(6)	ND(6)	2.6 J	ND(6)	ND(4.3)	9.6 J
1,4-Dichlorobenzene	ND(6)	ND(6)	3 J	ND(6)	ND(4.3)	11 J
Naphthalene	ND(5.2)	34	50	5.5	36 J	110

Table F-3
Summary of Sub-Slab Soil Gas Data for Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Power Systems Hall 09/28/06 Summa Canister #0066	Power Systems Hall 10/11/07	Power Systems Hall 10/29/08	Power Systems Hall 10/20/09	Power Systems Hall 11/18/10	Power Systems Hall 10/20/11	Power Systems Hall 10/25/12
	51-SS-3	51-SS-3	51-SS-3	51-SS-3	51-SS-03	51-SS-3	51-SS-3
Volatile Organics							
1,1,1-Trichloroethane	ND(5.5)	9.8	11	8.4	8	6.1	6.6
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(7.7)	ND(15)	ND(15)	ND(15)	ND(1.5)	ND(15)
1,1,2-Trichloroethane	ND(5.5)	1.4 J	ND(5.5)	ND(5.5)	ND(5.5)	ND(1.1)	ND(5.5)
1,1-Dichloroethane	ND(4)	ND(4)	ND(4)	ND(4)	ND(4)	ND(0.81)	ND(4)
1,2,3-Trichloropropane	ND(6)	ND(6)	ND(6)	1.5 J	ND(6)	NA	ND(6)
1,2,4-Trimethylbenzene	11	1.2 J	5.8	8	2.3 J	2.2	1.1 J
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	0.16 J	NA
1,3,5-Trimethylbenzene	ND(4.9)	ND(4.9)	2.7 J	3.2 J	ND(4.9)	0.65 J	ND(4.9)
1,3-Butadiene	ND(4.4)	2.9 J	ND(4.4)	ND(4.4)	ND(4.4)	6.6	ND(4.4)
2-Butanone	46	17	19	6.8	3.3 J	1.5	5.8 J
2-Hexanone	ND(8.2)	ND(8.2)	2.7 J	ND(8.2)	ND(8.2)	0.39 J	ND(8.2)
4-Ethyltoluene	ND(4.9)	1.3 J	ND(4.9)	ND(4.9)	ND(4.9)	0.56 J	ND(4.9)
4-Methyl-2-pentanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(2)	ND(8.2)
Acetone	54	180	360	290	60	21	110
Acetonitrile	8	ND(3.4 J)	ND(3.4)	ND(3.4)	0.93 J	NA	1.1 J
Acrolein	ND(4.6)	1.9 J	3.8 J	ND(4.6 J)	ND(4.6)	NA	ND(4.6)
Alpha Methyl Styrene	ND(4.8)	ND(4.8)	ND(4.8)	1.3 J	ND(4.8)	NA	ND(4.8)
alpha-Pinene	NA	NA	NA	NA	NA	NA	ND(0)
Benzene	1.3 J	7.7	5.2	4.4	0.73 J	6.9	ND(3.2)
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	1.9 J	ND(6.4)	NA	ND(6.4)
Bromoform	ND(10)	ND(10)	ND(10)	2.4 J	ND(10)	ND(2.1)	ND(10)
Bromomethane	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(0.78)	ND(3.9)
Carbon Disulfide	ND(3.1)	3.4	3 J	2 J	0.66 J	0.9 J	5.2
Carbon Tetrachloride	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	0.42 J	ND(6.3)
Chlorodifluoromethane	46	0.71 J	ND(3.5)	0.94 J	ND(3.5)	ND(1.8)	ND(3.5)
Chloroform	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	0.41 J	ND(4.9)
Chloromethane	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(1.1)	ND(2.1)
Cyclohexane	NA	NA	NA	NA	NA	ND(0.69)	ND(3.4)
Dichlorodifluoromethane	3 J	3.9 J	3.1 J	3.2 J	3.8 J	ND(2.5)	2 J
Dichlorofluoromethane	ND(4.2)	ND(4.2)	ND(4.2)	ND(4.2)	ND(4.2)	NA	ND(4.2)
Ethanol	NA	NA	NA	NA	NA	NA	9.6
Ethyl acetate	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	NA	ND(3.6)
Ethylbenzene	8	3.7 J	13	29	ND(4.3)	1.4	ND(4.3)
Heptane	8.7	3.6 J	ND(4.1)	ND(4.1)	ND(4.1)	1.3	ND(4.1)
Isooctane	2.8 J	1.2 J	ND(4.7)	ND(4.7)	ND(4.7)	0.2 J	ND(4.7)
Isopropyl alcohol	NA	NA	NA	NA	NA	ND(12)	2.1 J
Isopropylbenzene	0.98 J	4.9	ND(4.9)	1.1 J	ND(4.9)	ND(0.98)	ND(4.9)
m&p-Xylene	16	5.8	32	73	1.2 J	NA	2 J
Methyl tert-butyl ether	67	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(0.72)	ND(3.6)
Methylene Chloride	18	0.73 J	ND(3.5)	ND(3.5)	ND(3.5)	ND(1.7)	0.79 J
n-Butane	NA	NA	NA	NA	NA	4.6	NA
n-Hexane	13	25	1.9 J	0.98 J	ND(3.5)	1.6	ND(3.5)
n-Octane	2.2 J	5.6	7.9	9.3	ND(4.7)	NA	ND(4.7)
n-Propylbenzene	NA	NA	NA	NA	NA	0.37 J	ND(4.9)
o-Xylene	7.9	2.4 J	14	37	ND(4.3)	NA	1.8 J
Pentane	7.3	3.5	1.9 J	ND(3)	ND(3)	NA	ND(3)
p-Isopropyltoluene	NA	NA	NA	NA	NA	0.65 J	NA
Propene	ND(1.7)	23	5.8	1.6 J	0.82 J	NA	ND(1.7)
Styrene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	0.87	ND(4.3)
Tertiary butyl alcohol	ND(3)	0.94 J	ND(3)	0.63 J	ND(3)	0.51 J	2.1 J
Tetrachloroethene	ND(6.8)	160	250	290	110	47	54
Toluene	59	13	20	14	2.1 J	6.3	1.8 J
trans-1,2-Dichloroethene	ND(4)	ND(4)	ND(4)	ND(4)	ND(4)	0.16 J	ND(4)
Trichloroethene	ND(5.4)	25	29	22	21	15	16
Trichlorofluoromethane	4 J	5 J	3.3 J	3.1 J	4.3 J	3.1	3.2 J
Vinyl Chloride	1.2 J	ND(2.6)	ND(2.6)	ND(2.6)	ND(2.6)	ND(0.51)	ND(2.6)
Xylenes (total)	NA	NA	NA	NA	NA	5.5	NA
Semivolatile Organics							
1,2,4-Trichlorobenzene	ND(15)	ND(15)	ND(15)	4.7 J	ND(15)	ND(3.7 J)	ND(15)
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	3.2 J	ND(6)	ND(1.2)	ND(6)
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	3 J	ND(6)	ND(1.2)	ND(6)
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	3.5 J	ND(6)	ND(1.2)	ND(6)
Naphthalene	ND(5.2)	ND(5.2)	520	340	450	110 J	42

Table F-3
Summary of Sub-Slab Soil Gas Data for Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Notes:

1. Samples were collected by ARCADIS and submitted for analysis of VOCs and select SVOCs to Lancaster Laboratories in 2006-2010, Test America Laboratories in 2011, and Eurofins-Lancaster Laboratory in 2012 and 2013.
2. Samples have been validated as per GE's EPA-approved FSP/QAPP, General Electric Company, Pittsfield, Massachusetts.
3. NA - Not Analyzed - Laboratory did not report results for this analyte.
4. ND - Analyte was not detected. The number in parentheses is the associated reporting limit.
5. Only those constituents detected in one or more samples are summarized

Data Qualifiers:

Organics (volatiles, semivolatiles)

J - Indicates that the associated numerical value is an estimated concentration.

Table F-4
Cumulative Summary of Sub-Slab Soil Gas Data for Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
 General Electric Company - Pittsfield, Massachusetts
 (Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Facility Area 09/28/06 Summa Canister #0073	Facility Area 10/11/07	Facility Area 10/29/08	Facility Area 10/20/09	Facility Area 11/18/10	Facility Area 10/20/11	Facility Area 10/25/12
	59-SS-1	59-SS-1	59-SS-1	59-SS-1	59-SS-01	59-SS-1	59-SS-1
Volatile Organics							
1,1,1-Trichloroethane	ND(5.5)	1.9 J	3.9 J	4.6 J	6.3	8.5 J	ND(55) [6]
1,1,2,2-Tetrachloroethane	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9)	ND(14)	ND(69) [1.6 J]
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(7.7)	ND(15)	ND(15)	ND(15)	ND(15)	ND(150) [ND(15)]
1,2,3-Trichloropropane	ND(6)	ND(6)	1.6 J	ND(6)	ND(6)	NA	ND(60) [1.4 J]
1,2,4-Trimethylbenzene	8.8	1.3 J	ND(4.9)	ND(4.9)	6.7	ND(9.8)	ND(49) [5.1]
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	1.3 J	NA
1,3,5-Trimethylbenzene	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	1.5 J	ND(9.8)	ND(49) [3.1 J]
1,3-Butadiene	ND(4.4)	ND(4.4)	ND(4.4)	ND(4.4)	ND(4.4)	ND(4.4)	ND(44) [ND(4.4)]
2-Butanone	47	7.2	19	7.7	12	2 J	ND(59) [ND(5.9)]
2-Hexanone	ND(8.2)	ND(8.2)	3.9 J	ND(8.2)	ND(8.2)	ND(20)	ND(82) [ND(8.2)]
4-Ethyltoluene	ND(4.9)	1.5 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(9.8)	ND(49) [3.1 J]
4-Methyl-2-pentanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(20)	ND(82) [ND(8.2)]
Acetone	53	25	95	200	90 J	36 J	14 J [11]
Acetonitrile	ND(3.4)	ND(3.4 J)	2.4 J	ND(3.4)	0.86 J	NA	ND(34) [0.97 J]
Acrolein	ND(4.6)	1.2 J	3.6 J	ND(4.6)	ND(4.6)	NA	ND(46) [ND(4.6)]
Alpha Methyl Styrene	ND(4.8)	10 J	1.1 J	ND(4.8)	ND(4.8)	NA	ND(48) [5]
Benzene	0.73 J	12	1.3 J	ND(3.2)	0.69 J	1.1 J	ND(32) [1.9 J]
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	NA	ND(64) [1.7 J]
Bromoform	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(21)	ND(100) [2.2 J]
Bromomethane	ND(3.9)	0.97 J	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.8)	ND(39) [ND(3.9)]
Carbon Disulfide	ND(3.1)	5.9	2.8 J	0.9 J	5.6	ND(16)	ND(31) [1.6 J]
Carbon Tetrachloride	ND(6.3)	110	210	59	110	250	210 [250]
Chlorobenzene	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(9.2)	ND(46) [1 J]
Chlorodifluoromethane	0.99 J	0.71 J	ND(3.5)	ND(3.5)	6	ND(18)	ND(35) [ND(3.5)]
Chloroethane	ND(2.6)	1.5 J	ND(2.6)	ND(2.6)	ND(2.6)	ND(13)	ND(26) [ND(2.6)]
Chloroform	ND(4.9)	55	91	32	83	140	110 [110]
Chloromethane	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(10)	ND(21) [ND(2.1)]
cis-1,2-Dichloroethene	ND(4)	ND(4)	ND(4)	ND(4)	ND(4)	1.3 J	ND(40) [0.86 J]
Dichlorodifluoromethane	1.7 J	2.4 J	2.5 J	2.2 J	2.8 J	ND(25)	ND(49) [3.3 J]
Ethanol	NA	NA	NA	NA	NA	NA	230 J [110 J]
Ethylbenzene	3.1 J	3.7 J	ND(4.3)	ND(4.3)	ND(4.3)	1.1 J	ND(43) [14]
Heptane	1.4 J	1.6 J	ND(4.1)	ND(4.1)	ND(4.1)	0.93 J	ND(41) [ND(4.1)]
Isocane	1.8 J	2.1 J	ND(4.7)	ND(4.7)	ND(4.7)	ND(9.3)	ND(47) [ND(4.7)]
Isopropyl alcohol	NA	NA	NA	NA	NA	3 J	ND(25) [ND(2.5)]
Isopropylbenzene	ND(4.9)	3.3 J	1.9 J	1.4 J	1.4 J	ND(9.8)	ND(49) [ND(4.9)]
m&p-Xylene	5.2	5.9	2 J	ND(4.3)	7.4	NA	9.7 J [36]
Methyl tert-butyl ether	260	5.2	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.2)	ND(36) [ND(3.6)]
Methylene Chloride	3.3 J	ND(3.5)	ND(3.5)	ND(3.5)	0.75 J	ND(17)	ND(35) [0.87 J]
n-Butane	NA	NA	NA	NA	NA	NA	NA
n-Hexane	62	15	1.1 J	1 J	ND(3.5)	ND(7)	ND(35) [ND(3.5)]
n-Octane	ND(4.7)	3.7 J	ND(4.7)	ND(4.7)	ND(4.7)	NA	ND(47) [4.9]
n-Propylbenzene	NA	NA	NA	NA	NA	ND(9.8)	ND(49) [1.1 J]
o-Xylene	2.5 J	2.2 J	ND(4.3)	ND(4.3)	1.3 J	NA	ND(43) [19]
Pentane	1.9 J	2.2 J	1.7 J	0.66 J	ND(3)	NA	ND(30) [ND(3)]
Propene	ND(1.7)	1.9	4.2	1.5 J	1 J	NA	ND(17) [ND(1.7)]
Styrene	ND(4.3)	ND(4.3)	1.4 J	ND(4.3)	ND(4.3)	ND(8.5)	ND(43) [2 J]
Tertiary butyl alcohol	ND(3)	3.2	3.5	ND(3)	ND(3)	ND(150)	ND(30) [ND(3)]
Tetrachloroethene	ND(6.8)	4.5 J	14	4.8 J	15	15	16 J [22]
Toluene	8.4	40	6.7	0.97 J	2.8 J	3.6 J	ND(38) [5.2]
trans-1,2-Dichloroethene	ND(4)	ND(4)	ND(4)	ND(4)	ND(4)	ND(7.9)	ND(40) [ND(4)]
Trichloroethene	5.3 J	540	1,100	700	1,300	1,700	1,600 [1,700]
Trichlorofluoromethane	15	5.6	3.5 J	3.5 J	2.6 J	5.3 J	ND(56) [3.6 J]
Xylenes (total)	NA	NA	NA	NA	NA	5.5 J	NA
Semivolatile Organics							
1,2,4-Trichlorobenzene	8.8 J	ND(15)	ND(15)	ND(15)	ND(15)	ND(37 J)	ND(150) [4.2 J]
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(12)	ND(60) [5.6 J]
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(12)	ND(60) [5.2 J]
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(12)	ND(60) [6]
Hexachlorobutadiene	ND(21)	ND(21)	ND(21)	ND(21)	ND(21)	ND(21)	ND(210) [ND(21)]
Hexachloroethane	ND(9.7)	ND(9.7)	3 J	ND(9.7)	ND(9.7)	NA	ND(97) [2 J]
Naphthalene	ND(5.2)	8	ND(5.2)	4.8 J	17	ND(26 J)	ND(100) [7.6 J]

Table F-4
Cumulative Summary of Sub-Slab Soil Gas Data for Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m³)

Location ID: Date Collected:	Library Area 10/11/07	Library Area 10/29/08	Library Area 10/20/09	Library Area 11/18/10	Library Area 10/20/11	Library Area 10/25/12
Sample Name:	59-SS-2	59-SS-2	59-SS-2	59-SS-02	59-SS-2	59-SS-2
Volatile Organics						
1,1,1-Trichloroethane	44	60	26	30	36	37 J
1,1,2,2-Tetrachloroethane	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9)	ND(41)	ND(69)
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(15)	ND(15)	ND(15)	ND(46)	ND(150)
1,2,3-Trichloropropane	ND(6)	ND(6)	ND(6)	ND(6)	NA	ND(60)
1,2,4-Trimethylbenzene	3.8 J	1.9 J	ND(4.9)	1.3 J	ND(29)	ND(49)
1,2-Dichloroethene (total)	NA	NA	NA	NA	2.9 J	NA
1,3,5-Trimethylbenzene	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(29)	ND(49)
1,3-Butadiene	ND(4.4)	ND(4.4)	ND(4.4)	ND(4.4)	ND(13)	ND(44)
2-Butanone	10	ND(5.9)	5.5 J	4.8 J	4.6 J	ND(59)
2-Hexanone	ND(8.2)	3.3 J	ND(8.2)	ND(8.2)	ND(61)	ND(82)
4-Ethyltoluene	1.3 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(29)	ND(49)
4-Methyl-2-pentanone	2.5 J	ND(8.2)	ND(8.2)	ND(8.2)	ND(61)	ND(82)
Acetone	37	100	90	34	35 J	28 J
Acetonitrile	ND(3.4 J)	ND(3.4)	ND(3.4)	0.97 J	NA	ND(34)
Acrolein	1.3 J	ND(4.6)	ND(4.6)	ND(4.6)	NA	ND(46)
Alpha Methyl Styrene	ND(4.8 J)	ND(4.8)	ND(4.8)	ND(4.8)	NA	ND(48)
Benzene	1.5 J	1.9 J	1.1 J	0.84 J	3.2 J	ND(32)
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	NA	ND(64)
Bromoform	ND(10)	ND(10)	ND(10)	ND(10)	ND(62)	ND(100)
Bromomethane	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(23)	ND(39)
Carbon Disulfide	1.9 J	5.2	2.5 J	ND(3.1)	ND(47)	ND(31)
Carbon Tetrachloride	ND(6.3)	2.1 J	ND(6.3)	ND(6.3)	ND(38)	ND(63)
Chlorobenzene	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(28)	ND(46)
Chlorodifluoromethane	5.6	ND(3.5)	1.7 J	8.3	15 J	ND(35)
Chloroethane	ND(2.6)	ND(2.6)	ND(2.6)	ND(2.6)	ND(40)	ND(26)
Chloroform	17	22	12	16	25 J	20 J
Chloromethane	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(31)	ND(21)
cis-1,2-Dichloroethene	1 J	1.2 J	ND(4)	0.93 J	2.9 J	ND(40)
Dichlorodifluoromethane	130	120	10	8.5	28 J	ND(49)
Ethanol	NA	NA	NA	NA	NA	ND(19)
Ethylbenzene	2.9 J	1.9 J	1.4 J	3.2 J	ND(26)	ND(43)
Heptane	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	ND(25)	ND(41)
Isooctane	1 J	ND(4.7)	ND(4.7)	ND(4.7)	ND(28)	ND(47)
Isopropyl alcohol	NA	NA	NA	NA	ND(370)	ND(25)
Isopropylbenzene	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(29)	ND(49)
m&p-Xylene	4.4	4.4	5	9.8	NA	ND(43)
Methyl tert-butyl ether	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(22)	ND(36)
Methylene Chloride	0.76 J	ND(3.5)	ND(3.5)	ND(3.5)	ND(52)	ND(35)
n-Butane	NA	NA	NA	NA	ND(36)	NA
n-Hexane	26	21	16	12	3.7 J	ND(35)
n-Octane	1 J	7	ND(4.7)	ND(4.7)	NA	ND(47)
n-Propylbenzene	NA	NA	NA	NA	ND(29)	ND(49)
o-Xylene	1.7 J	2 J	1.9 J	3.9 J	NA	ND(43)
Pentane	2.6 J	30	1.2 J	0.61 J	NA	ND(30)
Propene	3.9	13	1.8	0.59 J	NA	ND(17)
Styrene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(26)	ND(43)
Tertiary butyl alcohol	1.1 J	ND(3)	ND(3)	ND(3)	ND(450)	ND(30)
Tetrachloroethene	13	41	25	40	33 J	54 J
Toluene	6.2	7.1	1.8 J	2 J	6.5 J	ND(38)
trans-1,2-Dichloroethene	0.99 J	ND(4)	ND(4)	0.8 J	ND(24)	ND(40)
Trichloroethene	1,700	2,300	2,100	2,700	3,300	3,900
Trichlorofluoromethane	250	260	130	140	230	270
Xylenes (total)	NA	NA	NA	NA	ND(26)	NA
Semivolatile Organics						
1,2,4-Trichlorobenzene	ND(15)	ND(15)	ND(15)	ND(15)	ND(110 J)	ND(150)
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(36)	ND(60)
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(36)	ND(60)
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(36)	ND(60)
Hexachlorobutadiene	ND(21)	ND(21)	ND(21)	ND(21)	ND(64)	ND(210)
Hexachloroethane	ND(9.7)	ND(9.7)	ND(9.7)	ND(9.7)	NA	ND(97)
Naphthalene	ND(5.2)	ND(5.2)	ND(5.2 J)	ND(5.2)	ND(79 J)	ND(100)

Table F-4
Cumulative Summary of Sub-Slab Soil Gas Data for Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Lobby Area 09/28/06 Summa Canister #0061 (dup)*	Lobby Area 09/28/06 Summa Canister #0511	Lobby Area 10/11/07 59-SS-3	Lobby Area 10/29/08 59-SS-3	Lobby Area 10/20/09 59-SS-3	Lobby Area 11/18/10 59-SS-03	Lobby Area 10/20/11 59-SS-3	Lobby Area 10/25/12 59-SS-3
Volatile Organics								
1,1,1-Trichloroethane	1.4 J	ND(55)	1.1 J [1.1 J]	1.6 J [1.5 J]	ND(5.5) [ND(5.5)]	ND(5.5) [ND(5.5)]	1 J [1.3 J]	ND(27)
1,1,2,2-Tetrachloroethane	ND(6.9)	ND(69)	ND(6.9) [ND(6.9)]	ND(6.9) [ND(6.9)]	ND(6.9 J) [ND(6.9 J)]	ND(6.9) [ND(6.9)]	ND(3.6) [ND(4.1)]	ND(34)
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(77)	ND(7.7) [ND(7.7)]	ND(15) [ND(15)]	ND(15) [ND(15)]	ND(15) [ND(15)]	4.1 [4.4 J]	ND(77)
1,2,3-Trichloropropane	ND(6)	ND(60)	ND(6) [ND(6)]	ND(6) [ND(6)]	ND(6) [ND(6)]	ND(6) [ND(6)]	NA	ND(30)
1,2,4-Trimethylbenzene	4.1 J	ND(49)	15 [1.3 J]	ND(4.9) [ND(4.9)]	3.3 J [6.3]	6.9 [7.1]	2.9 [4.6]	11 J
1,2-Dichloroethene (total)	NA	NA	NA	NA	NA	NA	ND(2.1) [ND(2.4)]	NA
1,3,5-Trimethylbenzene	8.7	ND(49)	6.6 [ND(4.9)]	ND(4.9) [ND(4.9)]	4.4 J [7.2]	7 [7.1]	0.71 J [1.1 J]	ND(25)
1,3-Butadiene	ND(4.4)	ND(44)	ND(4.4) [ND(4.4)]	3.1 J [ND(4.4)]	ND(4.4) [ND(4.4)]	ND(4.4) [ND(4.4)]	0.55 J [0.5 J]	ND(22)
2-Butanone	ND(5.9)	ND(59)	6.9 [8.7]	18 [15]	7.7 [13]	16 [15]	3.2 J [3 J]	8.1 J
2-Hexanone	ND(8.2)	ND(82)	ND(8.2) [ND(8.2)]	3.5 J [2.7 J]	ND(8.2) [3.2 J]	2.9 J [3.1 J]	ND(5.3) [ND(6.1)]	ND(41)
4-Ethyltoluene	3.7 J	ND(49)	6.5 [1.2 J]	ND(4.9) [ND(4.9)]	ND(4.9) [ND(4.9)]	1.4 J [1.3 J]	0.61 J [0.91 J]	ND(25)
4-Methyl-2-pentanone	ND(8.2)	ND(82)	ND(8.2) [ND(8.2)]	ND(8.2) [ND(8.2)]	ND(8.2) [ND(8.2)]	ND(8.2) [ND(8.2)]	ND(5.3) [ND(5.1)]	ND(41)
Acetone	210	200	24 [30]	150 [200]	230 [340]	91 [97]	39 [44]	46
Acetonitrile	ND(3.4)	58	ND(3.4 J) [ND(3.4 J)]	1.9 J [ND(3.4)]	ND(3.4) [ND(3.4)]	1.8 J [2.1 J]	NA	ND(17)
Acrolein	ND(4.6)	ND(46)	ND(4.6) [ND(4.6)]	3.9 J [3.5 J]	ND(4.6 J) [ND(4.6 J)]	ND(4.6) [ND(4.6)]	NA	ND(23)
Alpha Methyl Styrene	ND(4.8)	ND(48)	3.6 J [ND(4.8)]	ND(4.8) [ND(4.8)]	ND(4.8) [ND(4.8)]	ND(4.8) [ND(4.8)]	NA	ND(24)
Benzene	0.77 J	ND(32)	1.8 J [2 J]	2.5 J [2.5 J]	1.7 J [2.2 J]	7.3 [5.5]	4.9 [6.3]	ND(16)
Bromobenzene	ND(6.4)	ND(64)	1.5 J [ND(6.4)]	ND(6.4) [ND(6.4)]	ND(6.4) [ND(6.4)]	ND(6.4) [ND(6.4)]	NA	ND(32)
Bromoform	ND(10)	ND(100)	ND(10) [ND(10)]	ND(10) [ND(10)]	ND(10) [ND(10)]	ND(10) [ND(10)]	ND(5.4) [ND(6.2)]	ND(52)
Bromomethane	ND(3.9)	ND(39)	4.5 [1.1 J]	ND(3.9) [ND(3.9)]	ND(3.9) [ND(3.9)]	ND(3.9) [ND(3.9)]	ND(2) [ND(2.3)]	ND(19)
Carbon Disulfide	ND(3.1)	93	1.5 J [1.1 J]	1.5 J [1.4 J]	ND(3.1) [1.4 J]	ND(3.1) [0.92 J]	3.6 J [1.2 J]	ND(16)
Carbon Tetrachloride	4.7 J	ND(63)	4.7 J [4.5 J]	7.6 [7.7]	1.3 J [1.8 J]	3.8 J [5.5 J]	6.7 [9.2]	9.1 J
Chlorobenzene	ND(4.6)	ND(46)	3 J [ND(4.6)]	ND(4.6) [ND(4.6)]	ND(4.6) [ND(4.6)]	ND(4.6) [ND(4.6)]	ND(2.4) [ND(2.7)]	ND(23)
Chlorodifluoromethane	ND(3.5)	20 J	1.8 J [1.9 J]	ND(3.5) [ND(3.5)]	ND(3.5) [ND(3.5)]	ND(3.5) [2.6 J]	ND(4.6) [ND(5.3)]	ND(18)
Chloroethane	ND(2.6)	65	0.84 J [ND(2.6)]	ND(2.6) [ND(2.6)]	ND(2.6) [ND(2.6)]	ND(2.6) [ND(2.6)]	ND(3.4) [ND(3.9)]	ND(13)
Chloroform	2.1 J	ND(49)	1.7 J [1.7 J]	2 J [2.1 J]	ND(4.9) [ND(4.9)]	3.1 J [2.3 J]	2.3 J [2.8 J]	ND(24)
Chloromethane	ND(2.1)	ND(21)	0.89 J [1 J]	ND(2.1) [ND(2.1)]	0.52 J [ND(2.1)]	ND(2.1) [0.81 J]	ND(2.7) [ND(3.1)]	ND(10)
cis-1,2-Dichloroethene	ND(4)	ND(40)	ND(4) [ND(4)]	ND(4) [ND(4)]	ND(4) [ND(4)]	ND(4) [ND(4)]	ND(2.1) [ND(2.4)]	ND(20)
Dichlorodifluoromethane	6.1	11 J	23 [23]	18 [18]	1.3 J [1.2 J]	ND(4.9) [3.2 J]	2.7 J [ND(7.4)]	ND(25)
Ethanol	NA	NA	NA	NA	NA	NA	NA	ND(9.4)
Ethylbenzene	1.3 J	ND(43)	4.3 J [2.6 J]	ND(4.3) [ND(4.3)]	ND(4.3) [0.91 J]	1.9 J [2.5 J]	1.4 J [2 J]	15 J
Heptane	1 J	23 J	1 J [0.94 J]	ND(4.1) [ND(4.1)]	ND(4.1) [0.98 J]	1.6 J [1.5 J]	2.3 [3]	ND(20)
Isocane	ND(4.7)	ND(47)	ND(4.7) [ND(4.7)]	ND(4.7) [ND(4.7)]	ND(4.7) [ND(4.7)]	ND(4.7) [ND(4.7)]	ND(2.4) [ND(2.8)]	ND(23)
Isopropyl alcohol	NA	NA	NA	NA	NA	NA	1 J [1.1 J]	ND(12)
Isopropylbenzene	ND(4.9)	ND(49)	2.9 J [1.3 J]	ND(4.9) [ND(4.9)]	ND(4.9) [ND(4.9)]	ND(4.9) [ND(4.9)]	ND(2.6) [ND(2.9)]	ND(25)
m&p-Xylene	2.7 J	ND(43)	19 [5.3]	ND(4.3) [0.98 J]	2.6 J [3.3 J]	5.2 [6.8]	NA	45
Methyl tert-butyl ether	12	62	0.79 J [0.72 J]	ND(3.6) [ND(3.6)]	ND(3.6) [ND(3.6)]	ND(3.6) [ND(3.6)]	ND(1.9) [ND(2.2)]	ND(18)
Methylene Chloride	ND(3.5)	58	ND(3.5) [0.87 J]	ND(3.5) [3.1 J]	2.2 J [0.95 J]	ND(3.5) [0.75 J]	ND(4.5) [ND(5.2)]	ND(17)
n-Butane	NA	NA	NA	NA	NA	NA	2.3 J [1.5 J]	NA
n-Hexane	9.6	85	20 [21]	2 J [2.2 J]	14 [10]	ND(3.5) [7.3]	3 [3]	ND(18)
n-Octane	ND(4.7)	ND(47)	3 J [2 J]	ND(4.7) [ND(4.7)]	ND(4.7) [1.6 J]	2 J [2.1 J]	NA	ND(23)
n-Propylbenzene	NA	NA	NA	NA	NA	NA	ND(2.6) [0.78 J]	ND(25)
o-Xylene	1.3 J	ND(43)	6.2 [1.9 J]	ND(4.3) [ND(4.3)]	0.88 J [1.2 J]	2.2 J [3.1 J]	NA	20 J
Pentane	ND(3)	27 J	2.4 J [2.5 J]	4.1 [4.2]	1.9 J [1.8 J]	ND(3) [2.7 J]	NA	ND(15)
Propene	ND(1.7)	ND(17)	5.4 [5.9]	22 [22]	1.7 J [1.3 J]	ND(1.7) [11]	NA	ND(8.6)
Styrene	ND(4.3)	ND(43)	2.1 J [ND(4.3)]	ND(4.3) [ND(4.3)]	ND(4.3) [0.91 J]	2.1 J [2.3 J]	0.8 J [1.2 J]	ND(21)
Tertiary butyl alcohol	0.67 J	ND(30)	4.4 [1.4 J]	3.5 [3 J]	0.95 J [1.6 J]	ND(3) [ND(3)]	0.83 J [0.88 J]	ND(15)
Tetrachloroethene	ND(6.8)	ND(68)	20 [7]	11 [11]	2 J [3.7 J]	12 [13]	13 [17]	21 J
Toluene	8.5	64	11 [12]	4.7 [4.9]	3.8 [4.3]	9.2 [10]	5.6 [7.6]	5.9 J
trans-1,2-Dichloroethene	ND(4)	ND(40)	ND(4) [ND(4)]	ND(4) [ND(4)]	ND(4) [ND(4)]	ND(4) [ND(4)]	ND(2.1) [ND(2.4)]	ND(20)
Trichloroethene	470	ND(54)	180 [170]	270 [370]	43 [81]	240 [260]	300 [400]	430
Trichlorofluoromethane	37	44 J	60 [60]	33 [34]	34 [32]	ND(5.6) [13]	21 [25]	ND(28)
Xylenes (total)	NA	NA	NA	NA	NA	NA	6.1 [9.5]	NA
Semivolatile Organics								
1,2,4-Trichlorobenzene	6.4 J	ND(150)	7.5 J [ND(15)]	ND(15) [ND(15)]	ND(15) [ND(15)]	ND(15) [ND(15)]	ND(9.6 J) [ND(11 J)]	ND(74)
1,2-Dichlorobenzene	ND(6)	ND(60)	13 [ND(6)]	ND(6) [ND(6)]	ND(6) [ND(6)]	ND(6) [ND(6)]	ND(3.1) [ND(3.6)]	8.2 J
1,3-Dichlorobenzene	ND(6)	ND(60)	11 [ND(6)]	ND(6) [ND(6)]	ND(6) [ND(6)]	ND(6) [ND(6)]	ND(3.1) [ND(3.6)]	7.6 J
1,4-Dichlorobenzene	ND(6)	ND(60)	12 [ND(6)]	ND(6) [ND(6)]	ND(6) [ND(6)]	ND(6) [ND(6)]	ND(3.1) [ND(3.6)]	9.7 J
Hexachlorobutadiene	ND(21)	ND(210)	57 [ND(21)]	ND(21) [ND(21)]	ND(21) [ND(21)]	ND(21) [ND(21)]	ND(5.5) [ND(6.4)]	ND(110)
Hexachloroethane	ND(9.7)	ND(97)	ND(9.7) [ND(9.7)]	ND(9.7) [ND(9.7)]	ND(9.7) [ND(9.7)]	ND(9.7) [ND(9.7)]	NA	ND(48)
Naphthalene	ND(5.2)	ND(5.2)	ND(5.2) [ND(5.2)]	49 [53]	120 [250]	430 [470]	34 J [52 J]	38 J

Table F-4
Cumulative Summary of Sub-Slab Soil Gas Data for Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Notes:

1. Samples were collected by ARCADIS and submitted for analysis of VOCs and select SVOCs to Lancaster Laboratories in 2006-2010, Test America Laboratories in 2011, and Eurofins-Lancaster Laboratory in 2012 and 2013.
2. Samples have been validated as per GE's EPA-approved FSP/QAPP, General Electric Company, Pittsfield, Massachusetts.
3. Field duplicate sample results are presented in brackets.
4. NA - Not Analyzed.
5. ND - Analyte was not detected. The number in parentheses is the associated reporting limit.
6. * - Although this sample is labeled as a duplicate sample, as previously discussed in the Migration Assessment Report, it was incorrectly collected at an increased rate and over a shorter period of time than the other
7. Only those constituents detected in one or more samples are summarized

Data Qualifiers:

Organics (volatiles, semivolatiles)

J - Indicates that the associated numerical value is an estimated concentration.

Table F-5
Cumulative Summary of Indoor Air Data for Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Chiller Room 09/28/06 Summa Canister #0337	Chiller Room 10/11/07	Chiller Room 10/29/08	Chiller Room 10/20/09	Chiller Room 11/18/10	Chiller Room 10/20/11	Chiller Room 10/25/12
	51-IA-1	51-IA-1	51-IA-1	51-IA-1	51-IA-01	51-IA-1	51-IA-1
Volatile Organics							
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(7.7)	ND(15)	ND(15)	ND(19)	0.87 J	ND(15)
1,2,4-Trimethylbenzene	ND(4.9)	ND(4.9)	ND(4.9)	1.5 J	ND(6.1)	ND(0.98)	ND(4.9)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND(7)	ND(7)	ND(7)	ND(7)	ND(8.7)	ND(1.4)	ND(7)
1,3,5-Trimethylbenzene	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(6.1)	ND(0.98)	ND(4.9)
1,3-Butadiene	ND(4.4)	ND(4.4)	ND(4.4)	ND(4.4)	ND(5.5)	0.1 J	ND(4.4)
1,4-Dioxane	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6 J)	ND(4.5)	0.34 J	ND(3.6)
2-Butanone	4.1 J	3.3 J	4.2 J	1.8 J	4.3 J	4.9	16
2-Hexanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(10)	0.22 J	ND(8.2)
4-Ethyltoluene	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(6.1)	ND(0.98)	ND(4.9)
4-Methyl-2-pentanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	2.9 J	ND(2)	ND(8.2)
Acetone	21	23	27	7.4	16	21	16
Acetonitrile	ND(3.4)	ND(3.4 J)	ND(3.4)	ND(3.4)	1.3 J	NA	0.88 J
Acrolein	ND(4.6)	2.7 J	2.1 J	ND(4.6)	ND(5.7)	NA	ND(4.6)
Alpha Methyl Styrene	ND(4.8)	ND(4.8)	ND(4.8)	ND(4.8)	ND(6)	NA	ND(4.8)
Benzene	ND(3.2)	1.1 J	ND(3.2)	3.1 J	ND(4)	1.4	ND(3.2)
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	ND(8)	NA	ND(6.4)
Bromoform	ND(10)	ND(10)	ND(10)	ND(10)	ND(13)	ND(2.1)	ND(10)
Bromomethane	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(4.9)	ND(0.78)	ND(3.9)
Carbon Disulfide	ND(3.1)	ND(3.1)	ND(3.1)	ND(3.1)	1 J	0.32 J	ND(3.1)
Carbon Tetrachloride	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	ND(7.9)	0.55 J	ND(6.3)
Chlorobenzene	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(5.8)	4.5	ND(4.6)
Chlorodifluoromethane	650	0.74 J	2.2 J	ND(3.5)	2.8 J	1.9	1.2 J
Chloroethane	ND(2.6)	ND(2.6)	ND(2.6)	ND(2.6)	ND(3.3)	ND(1.3)	ND(2.6)
Chloroform	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	1.3 J	0.72 J	ND(4.9)
Chloromethane	ND(2.1)	1.1 J	0.85 J	0.82 J	1.9 J	1.4	1 J
Cyclohexane	NA	NA	NA	NA	NA	0.74	ND(3.4)
Dichlorodifluoromethane	8.7	3.6 J	2.2 J	2.2 J	3.5 J	3.1	6.9
Ethanol	NA	NA	NA	NA	NA	NA	11
Ethyl acetate	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(4.5)	NA	ND(3.6)
Ethylbenzene	ND(4.3)	1.4 J	1.7 J	18	4.4 J	0.68 J	ND(4.3)
Heptane	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	2.5 J	2.6	8.6
Isooctane	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	ND(5.8)	0.45 J	ND(4.7)
Isopropyl alcohol	NA	NA	NA	NA	NA	2.2 J	ND(2.5)
m&p-Xylene	ND(4.3)	3.4 J	4.5	45	9.5	NA	1.4 J
Methyl tert-butyl ether	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(4.5)	ND(0.72)	ND(3.6)
Methylene Chloride	2.8 J	0.83 J	2.3 J	ND(3.5)	1.1 J	ND(1.7)	1.2 J
n-Butane	NA	NA	NA	NA	NA	4.5	NA
n-Hexane	ND(3.5)	1.6 J	0.85 J	1.1 J	1.5 J	1.9	1.3 J
n-Octane	ND(4.7)	0.93 J	ND(4.7)	6.5	1.4 J	NA	ND(4.7)
o-Xylene	ND(4.3)	1.1 J	1.4 J	22	2.1 J	NA	ND(4.3)
Pentane	0.86 J	1.1 J	1.7 J	1.1 J	4.1	NA	1.6 J
Propene	1.4 J	1.3 J	4.5	1.4 J	1.4 J	NA	ND(1.7)
Styrene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(5.3)	ND(0.85)	ND(4.3)
Tertiary butyl alcohol	ND(3)	1.8 J	ND(3)	ND(3)	ND(3.8)	0.56 J	ND(3)
Tetrachloroethene	ND(6.8)	ND(6.8)	ND(6.8)	ND(6.8)	ND(8.5)	0.39 J	ND(6.8)
Toluene	9.6	6.3	7	9.6	39	17	83
Trichloroethene	ND(5.4)	1.3 J	2.7 J	ND(5.4)	2.9 J	2.4	ND(5.4)
Trichlorofluoromethane	1.5 J	2.3 J	2 J	1.4 J	3.1 J	3	1.9 J
Xylenes (total)	NA	NA	NA	NA	NA	2.9	NA
Semivolatiles Organics							
1,2,4-Trichlorobenzene	ND(15)	ND(15)	ND(15)	ND(15)	ND(19)	ND(3.7 J)	ND(15)
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	1.4 J	ND(7.5)	ND(1.2)	ND(6)
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	1.3 J	ND(7.5)	ND(1.2)	ND(6)
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	1.7 J	ND(7.5)	ND(1.2)	ND(6)
Naphthalene	ND(5.2)	ND(5.2)	ND(5.2)	2.3 J	4.9 J	ND(2.6 J)	ND(10)
Tetrahydrofuran	NA	NA	NA	NA	NA	3.8 J	ND(2.9)

Table F-5
Cumulative Summary of Indoor Air Data for Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Records Room 09/28/06 Summa Canister #0197	Records Room 10/11/07	Records Room 10/29/08	Records Room 10/20/09	Records Room 11/18/10	Records Room 10/20/11	Records Room 10/25/12
	51-IA-2	51-IA-2	51-IA-2	51-IA-2	51-IA-02	51-IA-2	51-IA-2
Volatile Organics							
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(7.7)	ND(15)	ND(15)	ND(15)	0.65 J	ND(31)
1,2,4-Trimethylbenzene	ND(4.9)	4.1 J	ND(4.9)	2.8 J	1.2 J	0.51 J	ND(9.8)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND(7)	ND(7)	ND(7)	ND(7)	ND(7)	ND(1.4)	ND(14)
1,3,5-Trimethylbenzene	ND(4.9)	ND(4.9)	ND(4.9)	1.8 J	ND(4.9)	ND(0.98)	ND(9.8)
1,3-Butadiene	ND(4.4)	ND(4.4)	ND(4.4)	ND(4.4)	ND(4.4)	0.11 J	ND(8.8)
1,4-Dioxane	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6 J)	ND(3.6)	ND(18)	ND(7.2)
2-Butanone	30	1.5 J	5.4 J	3.6 J	2 J	4.7	84
2-Hexanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	0.38 J	ND(16)
4-Ethyltoluene	ND(4.9)	ND(4.9)	ND(4.9)	1 J	ND(4.9)	ND(0.98)	ND(9.8)
4-Methyl-2-pentanone	ND(8.2)	ND(8.2)	4.2 J	ND(8.2)	ND(8.2)	0.15 J	ND(16)
Acetone	23	15	23	17	13	19	24
Acetonitrile	ND(3.4)	ND(3.4 J)	ND(3.4)	ND(3.4)	3.9	NA	ND(6.7)
Acrolein	ND(4.6)	1.5 J	3.2 J	ND(4.6 J)	ND(4.6)	NA	ND(9.2)
Alpha Methyl Styrene	ND(4.8)	2.3 J	ND(4.8)	ND(4.8)	ND(4.8)	NA	ND(9.7)
Benzene	ND(3.2)	1.2 J	ND(3.2)	4.6	ND(3.2)	0.95	ND(6.4)
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	1.6 J	ND(6.4)	NA	ND(13)
Bromoform	ND(10)	ND(10)	ND(10)	2.3 J	ND(10)	ND(2.1)	ND(21)
Bromomethane	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(0.78)	ND(7.8)
Carbon Disulfide	ND(3.1)	0.75 J	0.86 J	ND(3.1)	ND(3.1)	0.34 J	ND(6.2)
Carbon Tetrachloride	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	0.45 J	ND(13)
Chlorobenzene	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	1.6	ND(9.2)
Chlorodifluoromethane	590	0.85 J	ND(3.5)	0.83 J	2.3 J	1.2 J	ND(7.1)
Chloroethane	ND(2.6)	ND(2.6)	ND(2.6)	ND(2.6)	ND(2.6)	ND(1.3)	ND(5.3)
Chloroform	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	0.18 J	ND(9.8)
Chloromethane	ND(2.1)	1.4 J	0.96 J	0.98 J	1.4 J	1.2	1.3 J
Cyclohexane	NA	NA	NA	NA	NA	0.69	ND(6.9)
Dichlorodifluoromethane	7.8	3.1 J	2.2 J	2.5 J	3.2 J	2.4 J	5.9 J
Ethanol	NA	NA	NA	NA	NA	NA	18
Ethyl acetate	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	NA	5.8 J
Ethylbenzene	ND(4.3)	1.2 J	ND(4.3)	30	ND(4.3)	0.56 J	ND(8.7)
Heptane	14	1.9 J	4 J	ND(4.1)	ND(4.1)	1.7	43
Isooctane	ND(4.7)	1.7 J	ND(4.7)	ND(4.7)	ND(4.7)	0.44 J	ND(9.3)
Isopropyl alcohol	NA	NA	NA	NA	NA	2.5 J	ND(4.9)
m&p-Xylene	0.96 J	3.1 J	1.6 J	75	2.4 J	NA	2.5 J
Methyl tert-butyl ether	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(0.72)	ND(7.2)
Methylene Chloride	3 J	0.73 J	0.83 J	0.72 J	11	ND(1.7)	ND(6.9)
n-Butane	NA	NA	NA	NA	NA	8.7	NA
n-Hexane	1.1 J	2.2 J	ND(3.5)	1.5 J	1.2 J	1.5	1.5 J
n-Octane	ND(4.7)	ND(4.7)	ND(4.7)	11	ND(4.7)	NA	2.3 J
o-Xylene	ND(4.3)	1.3 J	ND(4.3)	37	ND(4.3)	NA	ND(8.7)
Pentane	1.4 J	0.83 J	0.71 J	1.2 J	8.7	NA	1.7 J
Propene	ND(1.7)	0.72 J	1.5 J	2.2	1 J	NA	2.2 J
Styrene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	0.21 J	ND(8.5)
Tertiary butyl alcohol	ND(3)	1 J	ND(3)	ND(3)	ND(3)	0.43 J	ND(6.1)
Tetrachloroethene	ND(6.8)	ND(6.8)	ND(6.8)	ND(6.8)	ND(6.8)	0.44 J	ND(14)
Toluene	150	4.8	7.6	15	4.3	8.3	370
Trichloroethene	1.2 J	2.7 J	2.4 J	1.7 J	2.6 J	1.7	ND(11)
Trichlorofluoromethane	2.5 J	3.8 J	2.5 J	2.2 J	2.7 J	3	2.7 J
Xylenes (total)	NA	NA	NA	NA	NA	2.3	NA
Semivolatiles Organics							
1,2,4-Trichlorobenzene	ND(15)	ND(15)	ND(15)	3.9 J	ND(15)	ND(3.7 J)	ND(30)
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	2.6 J	ND(6)	ND(1.2)	ND(12)
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	2.4 J	ND(6)	ND(1.2)	ND(12)
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	2.9 J	ND(6)	ND(1.2)	ND(12)
Naphthalene	ND(5.2)	ND(5.2)	ND(5.2)	4.3 J	ND(5.2)	0.84 J	ND(21)
Tetrahydrofuran	NA	NA	NA	NA	NA	5 J	ND(5.9)

Table F-5
Cumulative Summary of Indoor Air Data for Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Power Systems Hall 09/28/06 Summa Canister #0075	Power Systems Hall 10/11/07	Power Systems Hall 10/29/08	Power Systems Hall 10/20/09	Power Systems Hall 11/18/10	Power Systems Hall 10/20/11	Power Systems Hall 10/25/12
	51-IA-3	51-IA-3	51-IA-3	51-IA-3	51-IA-03	51-IA-3	51-IA-3
Volatile Organics							
1,1,2-trichloro-1,2,2-trifluoroethane	ND(77)	ND(7.7)	ND(15)	ND(15)	ND(15)	0.67 J [0.6 J]	ND(15) [ND(150)]
1,2,4-Trimethylbenzene	ND(49)	ND(4.9)	1.6 J	ND(4.9)	2.9 J	ND(0.98) [ND(0.98)]	1.5 J [ND(49)]
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND(70)	3.8 J	ND(7)	ND(7)	ND(7)	ND(1.4) [ND(1.4)]	ND(7) [ND(70)]
1,3,5-Trimethylbenzene	ND(49)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98) [ND(0.98)]	ND(4.9) [ND(49)]
1,3-Butadiene	ND(44)	ND(4.4)	ND(4.4)	ND(4.4)	ND(4.4)	ND(0.44) [ND(0.44)]	ND(4.4) [ND(44)]
1,4-Dioxane	ND(36)	ND(3.6)	ND(3.6)	ND(3.6 J)	ND(3.6)	ND(18) [ND(18)]	ND(3.6) [ND(36)]
2-Butanone	550	ND(5.9)	13	2.6 J	7	3.2 [2.3]	340 [300]
2-Hexanone	ND(82)	ND(8.2)	2.6 J	ND(8.2)	ND(8.2)	ND(2) [ND(2)]	ND(8.2) [ND(82)]
4-Ethyltoluene	ND(49)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98) [ND(0.98)]	ND(4.9) [ND(49)]
4-Methyl-2-pentanone	ND(82)	ND(8.2)	8 J	ND(8.2)	ND(8.2)	ND(2) [ND(2)]	ND(8.2) [ND(82)]
Acetone	340	16	58	12	23	16 [11 J]	32 [34 J]
Acetonitrile	73	12 J	ND(3.4)	ND(3.4)	ND(3.4)	NA	1.1 J [ND(34)]
Acrolein	ND(46)	ND(4.6)	3.7 J	ND(4.6)	ND(4.6)	NA	ND(4.6) [ND(46)]
Alpha Methyl Styrene	ND(48)	ND(4.8)	ND(4.8)	ND(4.8)	ND(4.8)	NA	ND(4.8) [ND(48)]
Benzene	ND(32)	1.2 J	2.1 J	1 J	ND(3.2)	0.34 J [0.29 J]	0.8 J [ND(32)]
Bromobenzene	ND(64)	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	NA	ND(6.4) [ND(64)]
Bromoform	ND(100)	ND(10)	ND(10)	ND(10)	ND(10)	ND(2.1) [ND(2.1)]	ND(10) [ND(100)]
Bromomethane	ND(39)	3.8 J	ND(3.9)	ND(3.9)	ND(3.9)	ND(0.78) [ND(0.78)]	ND(3.9) [ND(39)]
Carbon Disulfide	160	ND(3.1)	ND(3.1)	0.83 J	ND(3.1)	ND(1.6) [0.29 J]	4.1 [ND(31)]
Carbon Tetrachloride	ND(63)	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	0.46 J [0.44 J]	ND(6.3) [ND(63)]
Chlorobenzene	ND(46)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(0.92) [ND(0.92)]	ND(4.6) [ND(46)]
Chlorodifluoromethane	500	ND(3.5)	ND(3.5)	0.97 J	1.5 J	1.2 J [1 J]	2.2 J [ND(35)]
Chloroethane	74	ND(2.6)	ND(2.6)	ND(2.6)	ND(2.6)	ND(1.3) [ND(1.3)]	ND(2.6) [ND(26)]
Chloroform	ND(49)	6.9	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98) [ND(0.98)]	ND(4.9) [ND(49)]
Chloromethane	ND(21)	4.6	0.79 J	0.94 J	1.4 J	1.3 [1.2]	1 J [ND(21)]
Cyclohexane	NA	NA	NA	NA	NA	0.16 J [0.15 J]	ND(3.4) [ND(34)]
Dichlorodifluoromethane	13 J	5	2.2 J	2.4 J	3.1 J	2.7 [2.5]	4.7 J [ND(49)]
Ethanol	NA	NA	NA	NA	NA	NA	12 [19 J]
Ethyl acetate	ND(36)	ND(3.6)	10	ND(3.6)	ND(3.6)	NA	33 [24 J]
Ethylbenzene	11 J	ND(4.3)	12	ND(4.3)	ND(4.3)	0.23 J [0.2 J]	1.6 J [ND(43)]
Heptane	280	ND(4.1)	17	ND(4.1)	ND(4.1)	0.67 J [0.6 J]	180 [150]
Isooctane	ND(47)	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	ND(0.93) [ND(0.93)]	ND(4.7) [ND(47)]
Isopropyl alcohol	NA	NA	NA	NA	NA	4.1 J [3.5 J]	3.6 [ND(25)]
m&p-Xylene	18 J	1 J	27	ND(4.3)	2 J	NA	5 [ND(43)]
Methyl tert-butyl ether	44	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(0.72) [ND(0.72)]	ND(3.6) [ND(36)]
Methylene Chloride	59	15	1.4 J	0.88 J	ND(3.5)	ND(1.7) [ND(1.7)]	ND(3.5) [ND(35)]
n-Butane	NA	NA	NA	NA	NA	6 [5.6]	NA
n-Hexane	31 J	3.5 J	1.1 J	1.3 J	ND(3.5)	0.5 J [0.48 J]	3.6 [ND(35)]
n-Octane	ND(47)	ND(4.7)	5.6	ND(4.7)	1.3 J	NA	11 [ND(47)]
o-Xylene	ND(43)	ND(4.3)	12	ND(4.3)	0.94 J	NA	2.2 J [ND(43)]
Pentane	54	3.4	0.62 J	1.3 J	1.1 J	NA	1.5 J [ND(30)]
Propene	ND(17)	1.4 J	1.6 J	6.2	1.9	NA	ND(1.7) [ND(17)]
Styrene	9.4 J	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(0.85) [ND(0.85)]	ND(4.3) [ND(43)]
Tertiary butyl alcohol	ND(30)	ND(3)	ND(3)	ND(3)	ND(3)	0.96 J [ND(15)]	ND(3) [ND(30)]
Tetrachloroethene	ND(68)	ND(6.8)	19	ND(6.8)	ND(6.8)	0.27 J [0.26 J]	ND(6.8) [ND(68)]
Toluene	1,900	2.1 J	36	5.9	2.8 J	2.4 [2.3]	1,700 [1,500]
Trichloroethene	23 J	ND(5.4)	ND(5.4)	1.2 J	1.4 J	ND(1.1) [ND(1.1)]	1.1 J [ND(54)]
Trichlorofluoromethane	19 J	5.2 J	3.4 J	5.1 J	4 J	2.2 [2]	6.8 [ND(56)]
Xylenes (total)	NA	NA	NA	NA	NA	0.83 J [0.65 J]	NA
Semivolatiles Organics							
1,2,4-Trichlorobenzene	ND(150)	ND(15)	ND(15)	ND(15)	ND(15)	ND(3.7 J) [ND(3.7 J)]	ND(15) [ND(150)]
1,2-Dichlorobenzene	ND(60)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2) [ND(1.2)]	ND(6) [ND(60)]
1,3-Dichlorobenzene	ND(60)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2) [ND(1.2)]	ND(6) [ND(60)]
1,4-Dichlorobenzene	ND(60)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2) [ND(1.2)]	ND(6) [ND(60)]
Naphthalene	ND(5.2)	ND(5.2)	2.1 J	ND(5.2 J)	7.7	ND(2.6 J) [ND(2.6 J)]	ND(10) [ND(100)]
Tetrahydrofuran	NA	NA	NA	NA	NA	0.34 J [0.38 J]	ND(2.9) [ND(29)]

**Table F-5
Cumulative Summary of Indoor Air Data for Building 51**

**Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)**

Notes:

1. Samples were collected by ARCADIS and submitted for analysis of VOCs and select SVOCs to Lancaster Laboratories in 2006-2010, Test America Laboratories in 2011, and Eurofins-Lancaster Laboratory in 2012 and 2013.
2. Samples have been validated as per GE's EPA-approved FSP/QAPP, General Electric Company, Pittsfield, Massachusetts.
3. Field duplicate sample results are presented in brackets.
4. NA - Not Analyzed - Laboratory did not report results for this analyte.
5. ND - Analyte was not detected. The number in parentheses is the associated reporting limit.
6. Only those constituents detected in one or more samples are summarized

Data Qualifiers:

Organics (volatiles, semivolatiles)

J - Indicates that the associated numerical value is an estimated concentration.

Table F-6
Cumulative Summary of Indoor Air Data for Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Facility Area 09/28/06 Summa Canister #0110	Facility Area 10/11/07 59-IA-1	Facility Area 10/29/08 59-IA-1	Facility Area 10/20/09 59-IA-1	Facility Area 11/18/10 59-IA-01	Facility Area 10/20/11 59-IA-1	Facility Area 10/25/12 59-IA-1
Volatile Organics							
1,1,1-Trichloroethane	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5)	ND(1.1)	ND(5.5)
1,1,2,2-Tetrachloroethane	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9 J)	ND(6.9)	ND(1.4)	ND(6.9)
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(7.7)	ND(15)	ND(15)	ND(15)	0.56 J	ND(15)
1,2,3-Trichloropropane	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	NA	ND(6)
1,2,4-Trimethylbenzene	ND(4.9)	1.4 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	ND(4.9)
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	ND(97)
1,2-Dichloropropane	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(0.92)	ND(4.6)
1,3,5-Trimethylbenzene	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	ND(4.9)
2-Butanone	1.8 J	2.1 J	14	ND(5.9)	ND(5.9)	1.3 J	2.7 J
2-Hexanone	ND(8.2)	ND(8.2)	3.5 J	ND(8.2)	ND(8.2)	ND(2)	ND(8.2)
4-Ethyltoluene	1.1 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	ND(4.9)
4-Methyl-2-pentanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	0.18 J	ND(8.2)
Acetone	26	15	48	9.4	6.9	67	18
Acetonitrile	ND(3.4)	ND(3.4 J)	ND(3.4)	ND(3.4)	ND(3.4)	NA	0.99 J
Acrolein	ND(4.6)	ND(4.6)	3.3 J	ND(4.6 J)	ND(4.6)	NA	ND(4.6)
Benzene	ND(3.2)	ND(3.2)	ND(3.2)	0.65 J	ND(3.2)	0.33 J	0.67 J
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	NA	ND(6.4)
Carbon Disulfide	ND(3.1)	ND(3.1)	ND(3.1)	ND(3.1)	ND(3.1)	0.82 J	ND(3.1)
Carbon Tetrachloride	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	0.52 J	ND(6.3)
Chlorobenzene	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(0.92)	ND(4.6)
Chlorodifluoromethane	2 J	ND(3.5)	ND(3.5)	ND(3.5)	0.82 J	0.9 J	1 J
Chloroform	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	0.15 J	ND(4.9)
Chloromethane	0.78 J	1.1 J	0.8 J	1.3 J	1.2 J	1.1	1.2 J
Cyclohexane	NA	NA	NA	NA	NA	0.45 J	ND(3.4)
Dichlorodifluoromethane	1.9 J	2.3 J	2.2 J	1.9 J	2.6 J	2.2 J	2.2 J
d-Limonene	NA	NA	NA	NA	NA	NA	ND(0)
Ethanol	NA	NA	NA	NA	NA	NA	6.7
Ethylbenzene	ND(4.3)	ND(4.3)	1.1 J	ND(4.3)	ND(4.3)	0.22 J	ND(4.3)
Heptane	1.2 J	1.8 J	ND(4.1)	ND(4.1)	ND(4.1)	0.52 J	ND(4.1)
Isooctane	0.98 J	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	0.28 J	ND(4.7)
Isopropyl alcohol	NA	NA	NA	NA	NA	1.3 J	ND(2.5)
m&p-Xylene	3.9 J	1.3 J	2.1 J	ND(4.3)	1 J	NA	1.5 J
Methyl Methacrylate	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	ND(2)	ND(4.1)
Methyl tert-butyl ether	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(0.72)	ND(3.6)
Methylene Chloride	3.1 J	8.6	ND(3.5)	0.8 J	ND(3.5)	0.95 J	1 J
n-Butane	NA	NA	NA	NA	NA	2.1	NA
n-Hexane	91	3.5 J	0.92 J	1.5 J	2 J	12	2.1 J
n-Octane	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	NA	ND(4.7)
n-Propylbenzene	NA	NA	NA	NA	NA	ND(0.98)	ND(4.9)
o-Xylene	1.5 J	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	NA	ND(4.3)
Pentane	1.7 J	0.86 J	0.86 J	0.75 J	0.83 J	NA	30
Propene	ND(1.7)	1.2 J	1.5 J	1.1 J	0.7 J	NA	ND(1.7)
Styrene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(0.85)	ND(4.3)
Tertiary butyl alcohol	ND(3)	1.1 J	ND(3)	ND(3)	ND(3)	ND(15)	ND(3)
Tetrachloroethene	ND(6.8)	ND(6.8)	1.5 J	ND(6.8)	ND(6.8)	0.11 J	1.9 J
Toluene	3.1 J	15	2.2 J	1.3 J	1.2 J	0.89	1.8 J
Trichloroethene	5.7	ND(5.4)	3.8 J	1.6 J	ND(5.4)	0.99 J	3.4 J
Trichlorofluoromethane	31	2.9 J	4.5 J	3.3 J	2.4 J	3.9	7.2
Xylenes (total)	NA	NA	NA	NA	NA	0.74 J	NA
Semivolatile Organics							
1,2,4-Trichlorobenzene	ND(15)	ND(15)	ND(15)	ND(15)	ND(15)	ND(3.7 J)	ND(15)
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	ND(6)
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	ND(6)
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	ND(6)
Hexachlorobutadiene	ND(21)	ND(21)	ND(21)	ND(21)	ND(21)	ND(2.1)	ND(21)
Naphthalene	ND(5.2)	ND(5.2)	ND(5.2)	ND(5.2)	ND(5.2)	ND(2.6 J)	ND(10)
Tetrahydrofuran	NA	NA	NA	NA	NA	ND(15)	ND(2.9)

Table F-6
Cumulative Summary of Indoor Air Data for Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Library Area 09/28/06 Summa Canister #0174	Library Area 10/11/07 59-IA-2	Library Area 10/29/08 59-IA-2	Library Area 10/20/09 59-IA-2	Library Area 11/18/10 59-IA-02	Library Area 10/20/11 59-IA-2	Library Area 10/25/12 59-IA-2
Volatile Organics							
1,1,1-Trichloroethane	1.5 J	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5)	ND(1.1)	ND(5.5)
1,1,2,2-Tetrachloroethane	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9)	ND(1.4)	1.5 J
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(7.7)	ND(15)	ND(15)	ND(15)	0.56 J	ND(15)
1,2,3-Trichloropropane	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	NA	1.3 J
1,2,4-Trimethylbenzene	1.9 J	1.8 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	4.4 J
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	97
1,2-Dichloropropane	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(0.92)	ND(4.6)
1,3,5-Trimethylbenzene	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	2.6 J
2-Butanone	4.8 J	3.1 J	1.5 J	ND(5.9)	3.1 J	0.7 J	3.5 J
2-Hexanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(2)	ND(8.2)
4-Ethyltoluene	2 J	1.9 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	2.6 J
4-Methyl-2-pentanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(2)	ND(8.2)
Acetone	100	30	14	41	20	7.5 J	22
Acetonitrile	ND(3.4)	ND(3.4 J)	ND(3.4)	ND(3.4)	ND(3.4)	NA	0.85 J
Acrolein	ND(4.6)	2.5 J	ND(4.6)	ND(4.6)	ND(4.6)	NA	1.6 J
Benzene	4.6	1.8 J	1.3 J	0.98 J	1.1 J	0.28 J	1.8 J
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	NA	1.9 J
Carbon Disulfide	ND(3.1)	ND(3.1)	ND(3.1)	ND(3.1)	ND(3.1)	ND(1.6)	ND(3.1)
Carbon Tetrachloride	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	0.44 J	ND(6.3)
Chlorobenzene	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(0.92)	1.1 J
Chlorodifluoromethane	6	4.5	1.8 J	1.6 J	2.7 J	1.2 J	3.6
Chloroform	1.2 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	ND(4.9)
Chloromethane	1.2 J	1.1 J	0.86 J	0.97 J	1.5 J	1.1	1.3 J
Cyclohexane	NA	NA	NA	NA	NA	0.14 J	ND(3.4)
Dichlorodifluoromethane	3.2 J	2.6 J	2.1 J	2.3 J	2.6 J	2.3 J	2.4 J
d-Limonene	NA	NA	NA	NA	NA	NA	ND(0)
Ethanol	NA	NA	NA	NA	NA	NA	7.9
Ethylbenzene	8.3	1.9 J	1.3 J	ND(4.3)	0.88 J	0.16 J	14
Heptane	3 J	1.1 J	ND(4.1)	ND(4.1)	1 J	0.27 J	ND(4.1)
Isocane	2.3 J	1.3 J	ND(4.7)	ND(4.7)	ND(4.7)	ND(0.93)	ND(4.7)
Isopropyl alcohol	NA	NA	NA	NA	NA	0.85 J	1.9 J
m&p-Xylene	20	5	3.2 J	1.3 J	2.8 J	NA	34
Methyl Methacrylate	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	ND(2)	ND(4.1)
Methyl tert-butyl ether	1.8 J	2.6 J	ND(3.6)	ND(3.6)	ND(3.6)	ND(0.72)	ND(3.6)
Methylene Chloride	4.5	ND(3.5)	ND(3.5)	0.96 J	ND(3.5)	1.4 J	1 J
n-Butane	NA	NA	NA	NA	NA	1.3	NA
n-Hexane	470	81	13	37	71	28	20
n-Octane	2.3 J	1.2 J	ND(4.7)	ND(4.7)	ND(4.7)	NA	4 J
n-Propylbenzene	NA	NA	NA	NA	NA	ND(0.98)	1 J
o-Xylene	11	1.9 J	1.1 J	ND(4.3)	1 J	NA	18
Pentane	5.7	7.7	5.2	2.3 J	3.3	NA	26
Propene	ND(1.7)	6.9	3.8	6.8	0.59 J	NA	ND(1.7)
Styrene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(0.85)	ND(4.3)
Tertiary butyl alcohol	ND(3)	0.61 J	ND(3)	ND(3)	ND(3)	0.26 J	ND(3)
Tetrachloroethene	ND(6.8)	ND(6.8)	ND(6.8)	ND(6.8)	ND(6.8)	ND(1.4)	13
Toluene	16	12	8.6	3 J	6.5	0.74	6
Trichloroethene	41	15	15	7.9	5.7	1.1	9.2
Trichlorofluoromethane	210	110	44	30	27	2.8	16
Xylenes (total)	NA	NA	NA	NA	NA	0.61 J	NA
Semivolatile Organics							
1,2,4-Trichlorobenzene	ND(15)	ND(15)	ND(15)	ND(15)	ND(15)	ND(3.7 J)	5.1 J
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	7.5
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	7.1
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	8.3
Hexachlorobutadiene	ND(21)	ND(21)	ND(21)	ND(21)	ND(21)	ND(2.1)	4.3 J
Naphthalene	ND(5.2)	ND(5.2)	ND(5.2)	ND(5.2 J)	5.5	ND(2.6 J)	3.6 J
Tetrahydrofuran	NA	NA	NA	NA	NA	ND(15)	ND(2.9)

Table F-6
Cumulative Summary of Indoor Air Data for Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Location ID: Date Collected: Sample Name:	Lobby Area 09/28/06 Summa Canister #0189 (dup)*	Lobby Area 09/28/06 Summa Canister #0200	Lobby Area 10/11/07 59-IA-3	Lobby Area 10/29/08 59-IA-3	Lobby Area 10/20/09 59-IA-3	Lobby Area 11/18/10 59-IA-03	Lobby Area 10/20/11 59-IA-3	Lobby Area 10/25/12 59-IA-3	Lobby Area 01/08/13 59-IA-3
Volatile Organics									
1,1,1-Trichloroethane	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5)	ND(5.5)	ND(1.1)	ND(550)	ND(5.5) [ND(5.5)]
1,1,2,2-Tetrachloroethane	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9)	ND(6.9)	ND(1.4)	ND(690)	ND(6.9) [ND(6.9)]
1,1,2-trichloro-1,2,2-trifluoroethane	ND(7.7)	ND(7.7)	ND(7.7)	ND(15)	ND(15)	ND(15)	0.75 J	ND(1,500)	ND(15) [ND(15)]
1,2,3-Trichloropropane	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	NA	ND(600)	ND(6) [ND(6)]
1,2,4-Trimethylbenzene	ND(4.9)	1.4 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	0.27 J	ND(490)	ND(4.9) [ND(4.9)]
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	NA	NA	NA	ND(9,700)	ND(48.34) [ND(48.34)]
1,2-Dichloropropane	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	0.077 J	ND(460)	ND(4.6) [ND(4.6)]
1,3,5-Trimethylbenzene	2 J	ND(4.9)	0.98 J	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	ND(490)	ND(4.9) [ND(4.9)]
2-Butanone	ND(5.9)	2.1 J	3.3 J	10	1.7 J	1.6 J	1.4 J	ND(590)	2.7 J [2.6 J]
2-Hexanone	ND(8.2)	ND(8.2)	ND(8.2)	3.3 J	ND(8.2)	ND(8.2)	ND(2)	ND(820)	ND(8.2) [ND(8.2)]
4-Ethyltoluene	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	ND(490)	ND(4.9) [ND(4.9)]
4-Methyl-2-pentanone	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(8.2)	ND(2)	ND(820)	ND(8.2) [ND(8.2)]
Acetone	29	29	25	36	19	12	14	1,100	20 J [23 J]
Acetonitrile	ND(3.4)	ND(3.4)	ND(3.4 J)	1.7 J	ND(3.4)	ND(3.4)	NA	160 J	ND(3.4) [ND(3.4)]
Acrolein	ND(4.6)	ND(4.6)	2 J	ND(4.6)	ND(4.6)	ND(4.6)	NA	ND(460)	6.4 [1.3 J]
Benzene	0.67 J	1.5 J	1.1 J	ND(3.2)	0.95 J	ND(3.2)	0.39 J	ND(320)	1.6 J [1.8 J]
Bromobenzene	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	ND(6.4)	NA	ND(640)	ND(6.4) [ND(6.4)]
Carbon Disulfide	ND(3.1)	ND(3.1)	ND(3.1)	ND(3.1)	ND(3.1)	ND(3.1)	ND(1.6)	ND(310)	ND(3.1) [ND(3.1)]
Carbon Tetrachloride	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	ND(6.3)	0.53 J	ND(630)	ND(6.3) [ND(6.3)]
Chlorobenzene	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(4.6)	ND(0.92)	ND(460)	ND(4.6) [ND(4.6)]
Chlorodifluoromethane	2.5 J	4.9	3 J	ND(3.5)	1.7 J	1.9 J	2.8	ND(350)	ND(3.5) [2.1 J]
Chloroform	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(4.9)	ND(0.98)	ND(490)	ND(4.9) [ND(4.9)]
Chloromethane	0.89 J	0.78 J	1.2 J	0.87 J	0.9 J	1.4 J	1.5	ND(210)	1.8 J [1.4 J]
Cyclohexane	NA	NA	NA	NA	NA	NA	0.2 J	86 J	0.94 J [1.1 J]
Dichlorodifluoromethane	2.4 J	2.7 J	3.1 J	2.7 J	2.5 J	2.9 J	3.1	ND(490)	3 J [3 J]
d-Limonene	NA	NA	NA	NA	NA	NA	NA	724 J	ND(27.86) [ND(27.86)]
Ethanol	NA	NA	NA	NA	NA	NA	NA	1,200	14 [11]
Ethylbenzene	ND(4.3)	0.87 J	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	0.19 J	110 J	ND(4.3) [1.2 J]
Heptane	ND(4.1)	1.7 J	ND(4.1)	ND(4.1)	1 J	ND(4.1)	0.66 J	360 J	2 J [3.1 J]
Isooctane	1.1 J	1.4 J	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	0.17 J	ND(470)	ND(4.7) [ND(4.7)]
Isopropyl alcohol	NA	NA	NA	NA	NA	NA	1.8 J	2,000	1.4 J [ND(2.5)]
m&p-Xylene	0.96 J	2.2 J	1.8 J	1.1 J	1 J	ND(4.3)	NA	170 J	1.9 J [2.9 J]
Methyl Methacrylate	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	ND(4.1)	ND(2)	1,700	ND(4.1) [ND(4.1)]
Methyl tert-butyl ether	ND(3.6)	ND(3.6)	0.72 J	ND(3.6)	ND(3.6)	ND(3.6)	ND(0.72)	ND(360)	ND(3.6) [ND(3.6)]
Methylene Chloride	6.6	2.7 J	19	1.1 J	0.9 J	0.75 J	1.3 J	970	4 [3.6]
n-Butane	NA	NA	NA	NA	NA	NA	2.4	NA	NA
n-Hexane	60	230	33	2.5 J	12	18	16	280 J	4.8 [4.5]
n-Octane	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	ND(4.7)	NA	210 J	ND(4.7) [ND(4.7)]
n-Propylbenzene	NA	NA	NA	NA	NA	NA	ND(0.98)	ND(490)	ND(4.9) [ND(4.9)]
o-Xylene	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	NA	ND(430)	1.2 J [1.7 J]
Pentane	1.8 J	3.5	3.2	1.4 J	1.7 J	1.1 J	NA	720	85 [79]
Propene	5.5	11	3.2	2.3	3.2	0.44 J	NA	250	5 [4.7]
Styrene	ND(4.3)	15	ND(4.3)	ND(4.3)	ND(4.3)	ND(4.3)	ND(0.85)	300 J	ND(4.3) [ND(4.3)]
Tertiary butyl alcohol	ND(3)	ND(3)	0.61 J	3	ND(3)	ND(3)	0.48 J	ND(300)	ND(3) [ND(3)]
Tetrachloroethene	ND(6.8)	ND(6.8)	ND(6.8)	ND(6.8)	ND(6.8)	ND(6.8)	0.18 J	ND(680)	47 [53]
Toluene	8.2	7.1	6.1	2.5 J	2.3 J	2 J	0.98	210 J	2 J [2.3 J]
Trichloroethene	5.5	9.1	4.7 J	4.2 J	3.6 J	1.5 J	1.4	ND(540)	5.9 [6.8]
Trichlorofluoromethane	51	73	44	16	25	14	12	120 J	12 [12]
Xylenes (total)	NA	NA	NA	NA	NA	NA	0.66 J	NA	NA
Semivolatile Organics									
1,2,4-Trichlorobenzene	ND(15)	ND(15)	ND(15)	ND(15)	ND(15)	ND(15)	ND(3.7 J)	ND(1,500)	ND(15) [ND(15)]
1,2-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	ND(600)	ND(6) [ND(6)]
1,3-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	ND(600)	ND(6) [ND(6)]
1,4-Dichlorobenzene	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(6)	ND(1.2)	ND(600)	ND(6) [ND(6)]
Hexachlorobutadiene	ND(21)	12 J	ND(21)	ND(21)	ND(21)	ND(21)	ND(2.1)	ND(2,100)	ND(21 J) [ND(21 J)]
Naphthalene	ND(5.2)	ND(5.2)	ND(5.2)	ND(5.2)	ND(5.2 J)	ND(5.2)	ND(2.6 J)	ND(1,000)	ND(10) [ND(10)]
Tetrahydrofuran	NA	NA	NA	NA	NA	NA	1.1 J	ND(290)	ND(2.9) [ND(2.9)]

Table F-6
Cumulative Summary of Indoor Air Data for Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in ug/m3)

Notes:

1. Samples were collected by ARCADIS and submitted for analysis of VOCs and select SVOCs to Lancaster Laboratories in 2006-2010, Test America Laboratories in 2011, and Eurofins-Lancaster Laboratory in 2012 and 2013.
2. Samples have been validated as per GE's EPA-approved FSP/QAPP, General Electric Company, Pittsfield, Massachusetts.
3. NA - Not Analyzed - Laboratory did not report results for this analyte.
4. ND - Analyte was not detected. The number in parentheses is the associated reporting limit.
5. Only those constituents detected in one or more samples are summarized.
6. * - Although this sample is labeled as a duplicate sample, as previously discussed in the Migration Assessment Report, it was incorrectly collected at an increased rate and over a shorter period of time than the other 2006 samples.

Data Qualifiers:

Organics (volatiles, semivolatiles)

J - Indicates that the associated numerical value is an estimated concentration.



Building 51 & 59 – Comparison of
Indoor Air Results with
Occupational Exposure Limits

Table F-7

Comparison of Indoor Air Results to Occupational Exposure Limits - Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012

General Electric Company - Pittsfield, Massachusetts

(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Chiller Room 09/28/06 Summa Canister #0337	Chiller Room 10/11/07 51-IA-1	Chiller Room 10/29/08 51-IA-1
VOCs in ppm					
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.001)	ND(0.001)	ND(0.002)
1,2,4-Trimethylbenzene	25	--	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Butadiene	--	--	ND(0.002)	ND(0.002)	ND(0.002)
1,4-Dioxane	--	--	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone	200	200	0.0014 J	0.0011 J	0.0014 J
2-Hexanone	--	--	ND(0.002)	ND(0.002)	ND(0.002)
4-Ethyltoluene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.002)	ND(0.002)	ND(0.002)
Acetone	250	1,000	0.0087	0.0097	0.011
Acetonitrile	--	--	ND(0.002)	ND(0.002 J)	ND(0.002)
Acrolein	0.1	0.1	ND(0.002)	0.0012 J	0.00092 J
Alpha Methyl Styrene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Benzene	0.1	1	ND(0.001)	0.00034 J	ND(0.001)
Bromobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Disulfide	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Tetrachloride	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.19	0.00021 J	0.00063 J
Chloroethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform	2	50	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane	--	100	ND(0.001)	0.00051 J	0.00041 J
Cyclohexane	--	--	NA	NA	NA
Dichlorodifluoromethane	1,000	1,000	0.0018	0.00072 J	0.00044 J
Ethanol	--	--	NA	NA	NA
Ethyl acetate	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	100	100	ND(0.001)	0.00033 J	0.0004 J
Heptane	85	500	ND(0.001)	ND(0.001)	ND(0.001)
Isooctane	75	500	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl alcohol	--	--	NA	NA	NA
m&p-Xylene	100	100	ND(0.001)	0.00078 J	0.001
Methyl tert-butyl ether	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Methylene Chloride	--	25	0.0008 J	0.00024 J	0.00066 J
n-Butane	--	--	NA	NA	NA
n-Hexane	50	500	ND(0.001)	0.00045 J	0.00024 J
n-Octane	75	500	ND(0.001)	0.0002 J	ND(0.001)
o-Xylene	100	100	ND(0.001)	0.00025 J	0.00032 J
Pentane	120	1,000	0.00029 J	0.00038 J	0.00058 J
Propene	--	--	0.00082 J	0.00078 J	0.0026
Styrene	50	100	ND(0.001)	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	ND(0.001)	0.0006 J	ND(0.001)
Tetrachloroethene	--	100	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	100	200	0.0026	0.0017	0.0019
Trichloroethene	25	100	ND(0.001)	0.00025 J	0.00051 J
Trichlorofluoromethane	1,000	1,000	0.00027 J	0.00041 J	0.00035 J
Xylenes (total)	--	--	NA	NA	NA
SVOCs in ppm					
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Tetrahydrofuran	--	--	NA	NA	NA

Table F-7
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Chiller Room 10/20/09 51-IA-1	Chiller Room 11/18/10 51-IA-01	Chiller Room 10/20/11 51-IA-1	Chiller Room 10/25/12 51-IA-1
VOCs in ppm						
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.002)	ND(0.0025)	0.00011 J	ND(0.002)
1,2,4-Trimethylbenzene	25	--	0.0003 J	ND(0.0013)	ND(0.0002)	ND(0.001)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	--	--	ND(0.001)	ND(0.0013)	ND(0.0002)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.001)	ND(0.0013)	ND(0.0002)	ND(0.001)
1,3-Butadiene	--	--	ND(0.002)	ND(0.0025)	0.000047 J	ND(0.002)
1,4-Dioxane	--	--	ND(0.001 J)	ND(0.0013)	0.000093 J	ND(0.001)
2-Butanone	200	200	0.00062 J	0.0015 J	0.0017	0.0055
2-Hexanone	--	--	ND(0.002)	ND(0.0025)	0.000054 J	ND(0.002)
4-Ethyltoluene	--	--	ND(0.001)	ND(0.0013)	ND(0.0002)	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.002)	0.00072 J	ND(0.0005)	ND(0.002)
Acetone	250	1,000	0.0031	0.0067	0.0088	0.0068
Acetonitrile	--	--	ND(0.002)	0.00079 J	NA	0.00053 J
Acrolein	0.1	0.1	ND(0.002)	ND(0.0025)	NA	ND(0.002)
Alpha Methyl Styrene	--	--	ND(0.001)	ND(0.0013)	NA	ND(0.001)
Benzene	0.1	1	0.00098 J	ND(0.0013)	0.00044	ND(0.001)
Bromobenzene	--	--	ND(0.001)	ND(0.0013)	NA	ND(0.001)
Bromoform	--	--	ND(0.001)	ND(0.0013)	ND(0.0002)	ND(0.001)
Bromomethane	--	--	ND(0.001)	ND(0.0013)	ND(0.0002)	ND(0.001)
Carbon Disulfide	--	--	ND(0.001)	0.00034 J	0.0001 J	ND(0.001)
Carbon Tetrachloride	--	--	ND(0.001)	ND(0.0013)	0.000088 J	ND(0.001)
Chlorobenzene	--	--	ND(0.001)	ND(0.0013)	0.00098	ND(0.001)
Chlorodifluoromethane	1,000	1,000	ND(0.001)	0.00079 J	0.00053	0.00035 J
Chloroethane	--	--	ND(0.001)	ND(0.0013)	ND(0.0005)	ND(0.001)
Chloroform	2	50	ND(0.001)	0.00026 J	0.00015 J	ND(0.001)
Chloromethane	--	100	0.0004 J	0.0009 J	0.00066	0.00048 J
Cyclohexane	--	--	NA	NA	0.00021	ND(0.001)
Dichlorodifluoromethane	1,000	1,000	0.00045 J	0.0007 J	0.00062	0.0014
Ethanol	--	--	NA	NA	NA	0.006
Ethyl acetate	--	--	ND(0.001)	ND(0.0013)	NA	ND(0.001)
Ethylbenzene	100	100	0.0042	0.001 J	0.00016 J	ND(0.001)
Heptane	85	500	ND(0.001)	0.00062 J	0.00063	0.0021
Isooctane	75	500	ND(0.001)	ND(0.0013)	0.000097 J	ND(0.001)
Isopropyl alcohol	--	--	NA	NA	0.00089 J	ND(0.001)
m&p-Xylene	100	100	0.01	0.0022	NA	0.00032 J
Methyl tert-butyl ether	--	--	ND(0.001)	ND(0.0013)	ND(0.0002)	ND(0.001)
Methylene Chloride	--	25	ND(0.001)	0.00031 J	ND(0.0005)	0.00036 J
n-Butane	--	--	NA	NA	0.0019	NA
n-Hexane	50	500	0.00032 J	0.00043 J	0.00055	0.00036 J
n-Octane	75	500	0.0014	0.00031 J	NA	ND(0.001)
o-Xylene	100	100	0.0052	0.00049 J	NA	ND(0.001)
Pentane	120	1,000	0.00039 J	0.0014	NA	0.00054 J
Propene	--	--	0.00079 J	0.00079 J	NA	ND(0.001)
Styrene	50	100	ND(0.001)	ND(0.0013)	ND(0.0002)	ND(0.001)
Tertiary butyl alcohol	100	100	ND(0.001)	ND(0.0013)	0.00018 J	ND(0.001)
Tetrachloroethene	--	100	ND(0.001)	ND(0.0013)	0.000058 J	ND(0.001)
Toluene	100	200	0.0026	0.01	0.0045	0.022
Trichloroethene	25	100	ND(0.001)	0.00055 J	0.00044	ND(0.001)
Trichlorofluoromethane	1,000	1,000	0.00025 J	0.00056 J	0.00053	0.00034 J
Xylenes (total)	--	--	NA	NA	0.00068	NA
SVOCs in ppm						
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.0025)	ND(0.0005 J)	ND(0.002)
1,2-Dichlorobenzene	--	--	0.00023 J	ND(0.0013)	ND(0.0002)	ND(0.001)
1,3-Dichlorobenzene	--	--	0.00022 J	ND(0.0013)	ND(0.0002)	ND(0.001)
1,4-Dichlorobenzene	--	--	0.00028 J	ND(0.0013)	ND(0.0002)	ND(0.001)
Naphthalene	--	--	0.00044 J	0.00093 J	ND(0.0005 J)	ND(0.002)
Tetrahydrofuran	--	--	NA	NA	0.0013 J	ND(0.001)

Table F-7
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Power Systems Hall 09/28/06 Summa Canister #0075	Power Systems Hall 10/11/07 51-IA-3	Power Systems Hall 10/29/08 51-IA-3
VOCs in ppm					
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.01)	ND(0.001)	ND(0.002)
1,2,4-Trimethylbenzene	25	--	ND(0.01)	ND(0.001)	0.00033 J
1,2-Dichloro-1,1,2,2-tetrafluoroethane	--	--	ND(0.01)	0.00055 J	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.01)	ND(0.001)	ND(0.001)
1,3-Butadiene	--	--	ND(0.02)	ND(0.002)	ND(0.002)
1,4-Dioxane	--	--	ND(0.01)	ND(0.001)	ND(0.001)
2-Butanone	200	200	0.19	ND(0.002)	0.0042
2-Hexanone	--	--	ND(0.02)	ND(0.002)	0.00062 J
4-Ethyltoluene	--	--	ND(0.01)	ND(0.001)	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.02)	ND(0.002)	0.0019 J
Acetone	250	1,000	0.14	0.0067	0.024
Acetonitrile	--	--	0.043	0.0072 J	ND(0.002)
Acrolein	0.1	0.1	ND(0.02)	ND(0.002)	0.0016 J
Alpha Methyl Styrene	--	--	ND(0.01)	ND(0.001)	ND(0.001)
Benzene	0.1	1	ND(0.01)	0.00036 J	0.00066 J
Bromobenzene	--	--	ND(0.01)	ND(0.001)	ND(0.001)
Bromoform	--	--	ND(0.01)	ND(0.001)	ND(0.001)
Bromomethane	--	--	ND(0.01)	0.00097 J	ND(0.001)
Carbon Disulfide	--	--	0.052	ND(0.001)	ND(0.001)
Carbon Tetrachloride	--	--	ND(0.01)	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.01)	ND(0.001)	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.14	ND(0.001)	ND(0.001)
Chloroethane	--	--	0.028	ND(0.001)	ND(0.001)
Chloroform	2	50	ND(0.01)	0.0014	ND(0.001)
Chloromethane	--	100	ND(0.01)	0.0022	0.00038 J
Cyclohexane	--	--	NA	NA	NA
Dichlorodifluoromethane	1,000	1,000	0.0026 J	0.001	0.00045 J
Ethanol	--	--	NA	NA	NA
Ethyl acetate	--	--	ND(0.01)	ND(0.001)	0.0028
Ethylbenzene	100	100	0.0026 J	ND(0.001)	0.0028
Heptane	85	500	0.069	ND(0.001)	0.0041
Isooctane	75	500	ND(0.01)	ND(0.001)	ND(0.001)
Isopropyl alcohol	--	--	NA	NA	NA
m&p-Xylene	100	100	0.0042 J	0.00023 J	0.0063
Methyl tert-butyl ether	--	--	0.012	ND(0.001)	ND(0.001)
Methylene Chloride	--	25	0.017	0.0044	0.00039 J
n-Butane	--	--	NA	NA	NA
n-Hexane	50	500	0.0088 J	0.00098 J	0.0003 J
n-Octane	75	500	ND(0.01)	ND(0.001)	0.0012
o-Xylene	100	100	ND(0.01)	ND(0.001)	0.0028
Pentane	120	1,000	0.018	0.0012	0.00021 J
Propene	--	--	ND(0.01)	0.00083 J	0.0009 J
Styrene	50	100	0.0022 J	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	ND(0.01)	ND(0.001)	ND(0.001)
Tetrachloroethene	--	100	ND(0.01)	ND(0.001)	0.0028
Toluene	100	200	0.51	0.00056 J	0.0095
Trichloroethene	25	100	0.0043 J	ND(0.001)	ND(0.001)
Trichlorofluoromethane	1,000	1,000	0.0033 J	0.00092 J	0.00061 J
Xylenes (total)	--	--	NA	NA	NA
SVOCs in ppm					
1,2,4-Trichlorobenzene	--	--	ND(0.02)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.01)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.01)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.01)	ND(0.001)	ND(0.001)
Naphthalene	--	--	ND(0.001)	ND(0.001)	0.00041 J
Tetrahydrofuran	--	--	NA	NA	NA

Table F-7

Comparison of Indoor Air Results to Occupational Exposure Limits - Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012

General Electric Company - Pittsfield, Massachusetts

(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Power Systems Hall 10/20/09 51-IA-3	Power Systems Hall 11/18/10 51-IA-03
VOCs in ppm				
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.002)	ND(0.002)
1,2,4-Trimethylbenzene	25	--	ND(0.001)	0.00058 J
1,2-Dichloro-1,1,2,2-tetrafluoroethane	--	--	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.001)	ND(0.001)
1,3-Butadiene	--	--	ND(0.002)	ND(0.002)
1,4-Dioxane	--	--	ND(0.001 J)	ND(0.001)
2-Butanone	200	200	0.00089 J	0.0024
2-Hexanone	--	--	ND(0.002)	ND(0.002)
4-Ethyltoluene	--	--	ND(0.001)	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.002)	ND(0.002)
Acetone	250	1,000	0.0052	0.0095
Acetonitrile	--	--	ND(0.002)	ND(0.002)
Acrolein	0.1	0.1	ND(0.002)	ND(0.002)
Alpha Methyl Styrene	--	--	ND(0.001)	ND(0.001)
Benzene	0.1	1	0.00032 J	ND(0.001)
Bromobenzene	--	--	ND(0.001)	ND(0.001)
Bromoform	--	--	ND(0.001)	ND(0.001)
Bromomethane	--	--	ND(0.001)	ND(0.001)
Carbon Disulfide	--	--	0.00027 J	ND(0.001)
Carbon Tetrachloride	--	--	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.001)	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.00027 J	0.00042 J
Chloroethane	--	--	ND(0.001)	ND(0.001)
Chloroform	2	50	ND(0.001)	ND(0.001)
Chloromethane	--	100	0.00045 J	0.0007 J
Cyclohexane	--	--	NA	NA
Dichlorodifluoromethane	1,000	1,000	0.00048 J	0.00063 J
Ethanol	--	--	NA	NA
Ethyl acetate	--	--	ND(0.001)	ND(0.001)
Ethylbenzene	100	100	ND(0.001)	ND(0.001)
Heptane	85	500	ND(0.001)	ND(0.001)
Isooctane	75	500	ND(0.001)	ND(0.001)
Isopropyl alcohol	--	--	NA	NA
m&p-Xylene	100	100	ND(0.001)	0.00047 J
Methyl tert-butyl ether	--	--	ND(0.001)	ND(0.001)
Methylene Chloride	--	25	0.00025 J	ND(0.001)
n-Butane	--	--	NA	NA
n-Hexane	50	500	0.00036 J	ND(0.001)
n-Octane	75	500	ND(0.001)	0.00028 J
o-Xylene	100	100	ND(0.001)	0.00022 J
Pentane	120	1,000	0.00043 J	0.00038 J
Propene	--	--	0.0036	0.0011
Styrene	50	100	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	ND(0.001)	ND(0.001)
Tetrachloroethene	--	100	ND(0.001)	ND(0.001)
Toluene	100	200	0.0016	0.00074 J
Trichloroethene	25	100	0.00023 J	0.00026 J
Trichlorofluoromethane	1,000	1,000	0.00091 J	0.0007 J
Xylenes (total)	--	--	NA	NA
SVOCs in ppm				
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)
Naphthalene	--	--	ND(0.001 J)	0.0015
Tetrahydrofuran	--	--	NA	NA

Table F-7
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Power Systems Hall 10/20/11 51-IA-3	Power Systems Hall 10/25/12 51-IA-3
VOCs in ppm				
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	0.000087 J [0.000079 J]	ND(0.002) [ND(0.02)]
1,2,4-Trimethylbenzene	25	--	ND(0.0002) [ND(0.0002)]	0.00031 J [ND(0.01)]
1,2-Dichloro-1,1,2,2-tetrafluoroethane	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
1,3,5-Trimethylbenzene	25	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
1,3-Butadiene	--	--	ND(0.0002) [ND(0.0002)]	ND(0.002) [ND(0.02)]
1,4-Dioxane	--	--	ND(0.0005) [ND(0.0005)]	ND(0.001) [ND(0.01)]
2-Butanone	200	200	0.0011 [0.00078]	0.12 [0.1]
2-Hexanone	--	--	ND(0.0005) [ND(0.0005)]	ND(0.002) [ND(0.02)]
4-Ethyltoluene	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
4-Methyl-2-pentanone	--	--	ND(0.0005) [ND(0.0005)]	ND(0.002) [ND(0.02)]
Acetone	250	1,000	0.0068 [0.0046 J]	0.014 [0.014 J]
Acetonitrile	--	--	NA	0.00065 J [ND(0.02)]
Acrolein	0.1	0.1	NA	ND(0.002) [ND(0.02)]
Alpha Methyl Styrene	--	--	NA	ND(0.001) [ND(0.01)]
Benzene	0.1	1	0.00011 J [0.000091 J]	0.00025 J [ND(0.01)]
Bromobenzene	--	--	NA	ND(0.001) [ND(0.01)]
Bromoform	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
Bromomethane	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
Carbon Disulfide	--	--	ND(0.0005) [0.000092 J]	0.0013 [ND(0.01)]
Carbon Tetrachloride	--	--	0.000073 J [0.00007 J]	ND(0.001) [ND(0.01)]
Chlorobenzene	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
Chlorodifluoromethane	1,000	1,000	0.00033 J [0.00029 J]	0.00061 J [ND(0.01)]
Chloroethane	--	--	ND(0.0005) [ND(0.0005)]	ND(0.001) [ND(0.01)]
Chloroform	2	50	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
Chloromethane	--	100	0.00061 [0.00057]	0.0005 J [ND(0.01)]
Cyclohexane	--	--	0.000045 J [0.000044 J]	ND(0.001) [ND(0.01)]
Dichlorodifluoromethane	1,000	1,000	0.00055 [0.0005]	0.00095 J [ND(0.01)]
Ethanol	--	--	NA	0.0062 [0.0099 J]
Ethyl acetate	--	--	NA	0.0091 [0.0067 J]
Ethylbenzene	100	100	0.000052 J [0.000046 J]	0.00036 J [ND(0.01)]
Heptane	85	500	0.00016 J [0.00015 J]	0.045 [0.037]
Isooctane	75	500	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
Isopropyl alcohol	--	--	0.0017 J [0.0014 J]	0.0015 [ND(0.01)]
m&p-Xylene	100	100	NA	0.0012 [ND(0.01)]
Methyl tert-butyl ether	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
Methylene Chloride	--	25	ND(0.0005) [ND(0.0005)]	ND(0.001) [ND(0.01)]
n-Butane	--	--	0.0025 [0.0023]	NA
n-Hexane	50	500	0.00014 J [0.00014 J]	0.001 [ND(0.01)]
n-Octane	75	500	NA	0.0023 [ND(0.01)]
o-Xylene	100	100	NA	0.0005 J [ND(0.01)]
Pentane	120	1,000	NA	0.00051 J [ND(0.01)]
Propene	--	--	NA	ND(0.001) [ND(0.01)]
Styrene	50	100	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
Tertiary butyl alcohol	100	100	0.00032 J [ND(0.005)]	ND(0.001) [ND(0.01)]
Tetrachloroethene	--	100	0.00004 J [0.000038 J]	ND(0.001) [ND(0.01)]
Toluene	100	200	0.00063 [0.0006]	0.45 [0.4]
Trichloroethene	25	100	ND(0.0002) [ND(0.0002)]	0.00021 J [ND(0.01)]
Trichlorofluoromethane	1,000	1,000	0.00039 [0.00036]	0.0012 [ND(0.01)]
Xylenes (total)	--	--	0.00019 J [0.00015 J]	NA
SVOCs in ppm				
1,2,4-Trichlorobenzene	--	--	ND(0.0005 J) [ND(0.0005 J)]	ND(0.002) [ND(0.02)]
1,2-Dichlorobenzene	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
1,3-Dichlorobenzene	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
1,4-Dichlorobenzene	--	--	ND(0.0002) [ND(0.0002)]	ND(0.001) [ND(0.01)]
Naphthalene	--	--	ND(0.0005 J) [ND(0.0005 J)]	ND(0.002) [ND(0.02)]
Tetrahydrofuran	--	--	0.00012 J [0.00013 J]	ND(0.001) [ND(0.01)]

Table F-7
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Records Room 09/28/06 Summa Canister #0197	Records Room 10/11/07 51-IA-2	Records Room 10/29/08 51-IA-2
VOCs in ppm					
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.001)	ND(0.001)	ND(0.002)
1,2,4-Trimethylbenzene	25	--	ND(0.001)	0.00083 J	ND(0.001)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Butadiene	--	--	ND(0.002)	ND(0.002)	ND(0.002)
1,4-Dioxane	--	--	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone	200	200	0.01	0.0005 J	0.0018 J
2-Hexanone	--	--	ND(0.002)	ND(0.002)	ND(0.002)
4-Ethyltoluene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.002)	ND(0.002)	0.001 J
Acetone	250	1,000	0.0096	0.0063	0.0095
Acetonitrile	--	--	ND(0.002)	ND(0.002 J)	ND(0.002)
Acrolein	0.1	0.1	ND(0.002)	0.00067 J	0.0014 J
Alpha Methyl Styrene	--	--	ND(0.001)	0.00048 J	ND(0.001)
Benzene	0.1	1	ND(0.001)	0.00036 J	ND(0.001)
Bromobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Bromoform	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Bromomethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Disulfide	--	--	ND(0.001)	0.00024 J	0.00028 J
Carbon Tetrachloride	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.17	0.00024 J	ND(0.001)
Chloroethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform	2	50	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane	--	100	ND(0.001)	0.00069 J	0.00046 J
Cyclohexane	--	--	NA	NA	NA
Dichlorodifluoromethane	1,000	1,000	0.0016	0.00063 J	0.00044 J
Ethanol	--	--	NA	NA	NA
Ethyl acetate	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Ethylbenzene	100	100	ND(0.001)	0.00027 J	ND(0.001)
Heptane	85	500	0.0035	0.00047 J	0.00097 J
Isooctane	75	500	ND(0.001)	0.00037 J	ND(0.001)
Isopropyl alcohol	--	--	NA	NA	NA
m&p-Xylene	100	100	0.00022 J	0.00072 J	0.00036 J
Methyl tert-butyl ether	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Methylene Chloride	--	25	0.00086 J	0.00021 J	0.00024 J
n-Butane	--	--	NA	NA	NA
n-Hexane	50	500	0.00031 J	0.00063 J	ND(0.001)
n-Octane	75	500	ND(0.001)	ND(0.001)	ND(0.001)
o-Xylene	100	100	ND(0.001)	0.0003 J	ND(0.001)
Pentane	120	1,000	0.00049 J	0.00028 J	0.00024 J
Propene	--	--	ND(0.001)	0.00042 J	0.00089 J
Styrene	50	100	ND(0.001)	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	ND(0.001)	0.00034 J	ND(0.001)
Tetrachloroethene	--	100	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	100	200	0.039	0.0013	0.002
Trichloroethene	25	100	0.00022 J	0.0005 J	0.00045 J
Trichlorofluoromethane	1,000	1,000	0.00045 J	0.00068 J	0.00044 J
Xylenes (total)	--	--	NA	NA	NA
SVOCs in ppm					
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Naphthalene	--	--	ND(0.001)	ND(0.001)	ND(0.001)
Tetrahydrofuran	--	--	NA	NA	NA

Table F-7

Comparison of Indoor Air Results to Occupational Exposure Limits - Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012

General Electric Company - Pittsfield, Massachusetts

(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Records Room 10/20/09 51-IA-2	Records Room 11/18/10 51-IA-02	Records Room 10/20/11 51-IA-2	Records Room 10/25/12 51-IA-2
VOCs in ppm						
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.002)	ND(0.002)	0.000085 J	ND(0.004)
1,2,4-Trimethylbenzene	25	--	0.00056 J	0.00024 J	0.0001 J	ND(0.002)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	--	--	ND(0.001)	ND(0.001)	ND(0.0002)	ND(0.002)
1,3,5-Trimethylbenzene	25	--	0.00038 J	ND(0.001)	ND(0.0002)	ND(0.002)
1,3-Butadiene	--	--	ND(0.002)	ND(0.002)	0.000051 J	ND(0.004)
1,4-Dioxane	--	--	ND(0.001 J)	ND(0.001)	ND(0.005)	ND(0.002)
2-Butanone	200	200	0.0012 J	0.00068 J	0.0016	0.029
2-Hexanone	--	--	ND(0.002)	ND(0.002)	0.000093 J	ND(0.004)
4-Ethyltoluene	--	--	0.00021 J	ND(0.001)	ND(0.0002)	ND(0.002)
4-Methyl-2-pentanone	--	--	ND(0.002)	ND(0.002)	0.000037 J	ND(0.004)
Acetone	250	1,000	0.007	0.0054	0.0079	0.0099
Acetonitrile	--	--	ND(0.002)	0.0023	NA	ND(0.004)
Acrolein	0.1	0.1	ND(0.002 J)	ND(0.002)	NA	ND(0.004)
Alpha Methyl Styrene	--	--	ND(0.001)	ND(0.001)	NA	ND(0.002)
Benzene	0.1	1	0.0014	ND(0.001)	0.0003	ND(0.002)
Bromobenzene	--	--	0.00024 J	ND(0.001)	NA	ND(0.002)
Bromoform	--	--	0.00022 J	ND(0.001)	ND(0.0002)	ND(0.002)
Bromomethane	--	--	ND(0.001)	ND(0.001)	ND(0.0002)	ND(0.002)
Carbon Disulfide	--	--	ND(0.001)	ND(0.001)	0.00011 J	ND(0.002)
Carbon Tetrachloride	--	--	ND(0.001)	ND(0.001)	0.000072 J	ND(0.002)
Chlorobenzene	--	--	ND(0.001)	ND(0.001)	0.00036	ND(0.002)
Chlorodifluoromethane	1,000	1,000	0.00024 J	0.00066 J	0.00034 J	ND(0.002)
Chloroethane	--	--	ND(0.001)	ND(0.001)	ND(0.0005)	ND(0.002)
Chloroform	2	50	ND(0.001)	ND(0.001)	0.000036 J	ND(0.002)
Chloromethane	--	100	0.00048 J	0.00066 J	0.00057	0.00061 J
Cyclohexane	--	--	NA	NA	0.0002	ND(0.002)
Dichlorodifluoromethane	1,000	1,000	0.0005 J	0.00065 J	0.00049 J	0.0012 J
Ethanol	--	--	NA	NA	NA	0.0095
Ethyl acetate	--	--	ND(0.001)	ND(0.001)	NA	0.0016 J
Ethylbenzene	100	100	0.0068	ND(0.001)	0.00013 J	ND(0.002)
Heptane	85	500	ND(0.001)	ND(0.001)	0.00042	0.01
Isooctane	75	500	ND(0.001)	ND(0.001)	0.000093 J	ND(0.002)
Isopropyl alcohol	--	--	NA	NA	0.001 J	ND(0.002)
m&p-Xylene	100	100	0.017	0.00055 J	NA	0.00058 J
Methyl tert-butyl ether	--	--	ND(0.001)	ND(0.001)	ND(0.0002)	ND(0.002)
Methylene Chloride	--	25	0.00021 J	0.0031	ND(0.0005)	ND(0.002)
n-Butane	--	--	NA	NA	0.0036	NA
n-Hexane	50	500	0.00044 J	0.00035 J	0.00042	0.00044 J
n-Octane	75	500	0.0024	ND(0.001)	NA	0.00048 J
o-Xylene	100	100	0.0086	ND(0.001)	NA	ND(0.002)
Pentane	120	1,000	0.00041 J	0.003	NA	0.00057 J
Propene	--	--	0.0013	0.00059 J	NA	0.0013 J
Styrene	50	100	ND(0.001)	ND(0.001)	0.000048 J	ND(0.002)
Tertiary butyl alcohol	100	100	ND(0.001)	ND(0.001)	0.00014 J	ND(0.002)
Tetrachloroethene	--	100	ND(0.001)	ND(0.001)	0.000065 J	ND(0.002)
Toluene	100	200	0.0041	0.0012	0.0022	0.099
Trichloroethene	25	100	0.00032 J	0.00048 J	0.00032	ND(0.002)
Trichlorofluoromethane	1,000	1,000	0.00039 J	0.00049 J	0.00053	0.00048 J
Xylenes (total)	--	--	NA	NA	0.00052	NA
SVOCs in ppm						
1,2,4-Trichlorobenzene	--	--	0.00052 J	ND(0.002)	ND(0.0005 J)	ND(0.004)
1,2-Dichlorobenzene	--	--	0.00043 J	ND(0.001)	ND(0.0002)	ND(0.002)
1,3-Dichlorobenzene	--	--	0.00041 J	ND(0.001)	ND(0.0002)	ND(0.002)
1,4-Dichlorobenzene	--	--	0.00048 J	ND(0.001)	ND(0.0002)	ND(0.002)
Naphthalene	--	--	0.00081 J	ND(0.001)	0.00016 J	ND(0.004)
Tetrahydrofuran	--	--	NA	NA	0.0017 J	ND(0.002)

Table F-7

Comparison of Indoor Air Results to Occupational Exposure Limits - Building 51

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012

General Electric Company - Pittsfield, Massachusetts

(Results are presented in parts per million, ppm)

Notes:

1. Samples were collected by ARCADIS and submitted for analysis of VOCs and select SVOCs to Lancaster Laboratories in 2006, 2010, Test America Laboratories in 2011, and Eurofins-Lancaster Laboratory in 2012 and 2013.
2. Samples have been validated as per GE's EPA-approved FSP/QAPP, General Electric Company, Pittsfield, Massachusetts.
3. Field duplicate sample results are presented in brackets.
4. NA - Not Analyzed.
5. ND - Analyte was not detected. The number in parentheses is the reporting detection limit.
6. Only those constituents detected in one or more samples are summarized
7. The United States Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs) for indoor air in an occupational setting for an 8-hour workday and a 40-hour workweek.
8. The National Institute for Occupational Safety and Health (NIOSH) recommended exposure levels (RELs) for up to a 10-hour workday over a 40-hour workweek.
9. -- - Occupational exposure limit not available.

Data Qualifiers:

Organics (volatiles, semivolatiles)

J - Indicates that the associated numerical value is an estimated concentration.

Table F-8
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Facility Area 09/28/06 Summa Canister #0110	Facility Area 10/11/07 59-IA-1	Facility Area 10/29/08 59-IA-1	Facility Area 10/20/09 59-IA-1
VOCs in ppm						
1,1,1-Trichloroethane	350	350	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001 J)
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	25	--	ND(0.001)	0.00028 J	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane	--	--	NA	NA	NA	NA
1,2-Dichloropropane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone	200	200	0.0006 J	0.00071 J	0.0048	ND(0.002)
2-Hexanone	--	--	ND(0.002)	ND(0.002)	0.00086 J	ND(0.002)
4-Ethyltoluene	--	--	0.00022 J	ND(0.001)	ND(0.001)	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Acetone	250	1,000	0.011	0.0062	0.02	0.004
Acetonitrile	--	--	ND(0.002)	ND(0.002 J)	ND(0.002)	ND(0.002)
Acrolein	0.1	0.1	ND(0.002)	ND(0.002)	0.0015 J	ND(0.002 J)
Benzene	0.1	1	ND(0.001)	ND(0.001)	ND(0.001)	0.0002 J
Bromobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Disulfide	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Tetrachloride	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.00057 J	ND(0.001)	ND(0.001)	ND(0.001)
Chloroform	2	50	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane	--	100	0.00038 J	0.00051 J	0.00039 J	0.00062 J
Cyclohexane	--	--	NA	NA	NA	NA
Dichlorodifluoromethane	1,000	1,000	0.00039 J	0.00047 J	0.00044 J	0.00038 J
d-Limonene	--	--	NA	NA	NA	NA
Ethanol	--	--	NA	NA	NA	NA
Ethylbenzene	100	100	ND(0.001)	ND(0.001)	0.00025 J	ND(0.001)
Heptane	85	500	0.0003 J	0.00043 J	ND(0.001)	ND(0.001)
Isooctane	75	500	0.00021 J	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl alcohol	--	--	NA	NA	NA	NA
m&p-Xylene	100	100	0.00089 J	0.0003 J	0.00048 J	ND(0.001)
Methyl Methacrylate	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert-butyl ether	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methylene Chloride	--	25	0.0009 J	0.0025	ND(0.001)	0.00023 J
n-Butane	--	--	NA	NA	NA	NA
n-Hexane	50	500	0.026	0.00098 J	0.00026 J	0.00043 J
n-Octane	75	500	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
n-Propylbenzene	--	--	NA	NA	NA	NA
o-Xylene	100	100	0.00034 J	ND(0.001)	ND(0.001)	ND(0.001)
Pentane	120	1,000	0.00059 J	0.00029 J	0.00029 J	0.00025 J
Propene	--	--	ND(0.001)	0.00072 J	0.00087 J	0.00065 J
Styrene	50	100	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	ND(0.001)	0.00037 J	ND(0.001)	ND(0.001)
Tetrachloroethene	--	100	ND(0.001)	ND(0.001)	0.00022 J	ND(0.001)
Toluene	100	200	0.00081 J	0.0041	0.00059 J	0.00034 J
Trichloroethene	25	100	0.0011	ND(0.001)	0.0007 J	0.0003 J
Trichlorofluoromethane	1,000	1,000	0.0055	0.00052 J	0.00081 J	0.00058 J
Xylenes (total)	--	--	NA	NA	NA	NA
SVOCs in ppm						
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	0.02	0.02	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Naphthalene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tetrahydrofuran	--	--	NA	NA	NA	NA

Table F-8
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Facility Area 11/18/10 59-IA-01	Facility Area 10/20/11 59-IA-1	Facility Area 10/25/12 59-IA-1	Library Area 09/28/06 Summa Canister #0174
VOCs in ppm						
1,1,1-Trichloroethane	350	350	ND(0.001)	ND(0.0002)	ND(0.001)	0.00027 J
1,1,2,2-Tetrachloroethane	--	--	ND(0.001)	ND(0.0002)	ND(0.001)	ND(0.001)
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.002)	0.000073 J	ND(0.002)	ND(0.001)
1,2,3-Trichloropropane	--	--	ND(0.001)	NA	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	25	--	ND(0.001)	ND(0.0002)	ND(0.001)	0.00038 J
1,2-Dibromo-3-chloropropane	--	--	NA	NA	ND(0.01)	NA
1,2-Dichloropropane	--	--	ND(0.001)	ND(0.0002)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.001)	ND(0.0002)	ND(0.001)	ND(0.001)
2-Butanone	200	200	ND(0.002)	0.00043 J	0.00091 J	0.0016 J
2-Hexanone	--	--	ND(0.002)	ND(0.0005)	ND(0.002)	ND(0.002)
4-Ethyltoluene	--	--	ND(0.001)	ND(0.0002)	ND(0.001)	0.00041 J
4-Methyl-2-pentanone	--	--	ND(0.002)	0.000043 J	ND(0.002)	ND(0.002)
Acetone	250	1,000	0.0029	0.028	0.0074	0.043
Acetonitrile	--	--	ND(0.002)	NA	0.00059 J	ND(0.002)
Acrolein	0.1	0.1	ND(0.002)	NA	ND(0.002)	ND(0.002)
Benzene	0.1	1	ND(0.001)	0.0001 J	0.00021 J	0.0014
Bromobenzene	--	--	ND(0.001)	NA	ND(0.001)	ND(0.001)
Carbon Disulfide	--	--	ND(0.001)	0.00026 J	ND(0.001)	ND(0.001)
Carbon Tetrachloride	--	--	ND(0.001)	0.000083 J	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.001)	ND(0.0002)	ND(0.001)	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.00023 J	0.00026 J	0.00029 J	0.0017
Chloroform	2	50	ND(0.001)	0.000031 J	ND(0.001)	0.00024 J
Chloromethane	--	100	0.00058 J	0.00052	0.00059 J	0.00057 J
Cyclohexane	--	--	NA	0.00013 J	ND(0.001)	NA
Dichlorodifluoromethane	1,000	1,000	0.00052 J	0.00045 J	0.00045 J	0.00065 J
d-Limonene	--	--	NA	NA	ND(0)	NA
Ethanol	--	--	NA	NA	0.0036	NA
Ethylbenzene	100	100	ND(0.001)	0.00005 J	ND(0.001)	0.0019
Heptane	85	500	ND(0.001)	0.00013 J	ND(0.001)	0.00074 J
Isooctane	75	500	ND(0.001)	0.000061 J	ND(0.001)	0.00049 J
Isopropyl alcohol	--	--	NA	0.00051 J	ND(0.001)	NA
m&p-Xylene	100	100	0.00024 J	NA	0.00035 J	0.0047
Methyl Methacrylate	--	--	ND(0.001)	ND(0.0005)	ND(0.001)	ND(0.001)
Methyl tert-butyl ether	--	--	ND(0.001)	ND(0.0002)	ND(0.001)	0.00051 J
Methylene Chloride	--	25	ND(0.001)	0.00027 J	0.00029 J	0.0013
n-Butane	--	--	NA	0.00089	NA	NA
n-Hexane	50	500	0.00057 J	0.0033	0.0006 J	0.13
n-Octane	75	500	ND(0.001)	NA	ND(0.001)	0.00049 J
n-Propylbenzene	--	--	NA	ND(0.0002)	ND(0.001)	NA
o-Xylene	100	100	ND(0.001)	NA	ND(0.001)	0.0025
Pentane	120	1,000	0.00028 J	NA	0.01	0.0019
Propene	--	--	0.00041 J	NA	ND(0.001)	ND(0.001)
Styrene	50	100	ND(0.001)	ND(0.0002)	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)
Tetrachloroethene	--	100	ND(0.001)	0.000016 J	0.00028 J	ND(0.001)
Toluene	100	200	0.00033 J	0.00024	0.00049 J	0.0043
Trichloroethene	25	100	ND(0.001)	0.00019 J	0.00063 J	0.0077
Trichlorofluoromethane	1,000	1,000	0.00043 J	0.00069	0.0013	0.037
Xylenes (total)	--	--	NA	0.00017 J	NA	NA
SVOCs in ppm						
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.0005 J)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.001)	ND(0.0002)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.001)	ND(0.0002)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.001)	ND(0.0002)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	0.02	0.02	ND(0.002)	ND(0.0002)	ND(0.002)	ND(0.002)
Naphthalene	--	--	ND(0.001)	ND(0.0005 J)	ND(0.002)	ND(0.001)
Tetrahydrofuran	--	--	NA	ND(0.005)	ND(0.001)	NA

Table F-8
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Library Area 10/11/07 59-IA-2	Library Area 10/29/08 59-IA-2	Library Area 10/20/09 59-IA-2	Library Area 11/18/10 59-IA-02
VOCs in ppm						
1,1,1-Trichloroethane	350	350	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.001)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	25	--	0.00036 J	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane	--	--	NA	NA	NA	NA
1,2-Dichloropropane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
2-Butanone	200	200	0.0011 J	0.00051 J	ND(0.002)	0.001 J
2-Hexanone	--	--	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Ethyltoluene	--	--	0.00039 J	ND(0.001)	ND(0.001)	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Acetone	250	1,000	0.013	0.0057	0.017	0.0083
Acetonitrile	--	--	ND(0.002 J)	ND(0.002)	ND(0.002)	ND(0.002)
Acrolein	0.1	0.1	0.0011 J	ND(0.002)	ND(0.002)	ND(0.002)
Benzene	0.1	1	0.00055 J	0.00041 J	0.00031 J	0.00033 J
Bromobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Disulfide	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Tetrachloride	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.0013	0.0005 J	0.00045 J	0.00078 J
Chloroform	2	50	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane	--	100	0.00054 J	0.00042 J	0.00047 J	0.00071 J
Cyclohexane	--	--	NA	NA	NA	NA
Dichlorodifluoromethane	1,000	1,000	0.00052 J	0.00042 J	0.00046 J	0.00053 J
d-Limonene	--	--	NA	NA	NA	NA
Ethanol	--	--	NA	NA	NA	NA
Ethylbenzene	100	100	0.00044 J	0.00031 J	ND(0.001)	0.0002 J
Heptane	85	500	0.00028 J	ND(0.001)	ND(0.001)	0.00025 J
Isooctane	75	500	0.00028 J	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl alcohol	--	--	NA	NA	NA	NA
m&p-Xylene	100	100	0.0012	0.00074 J	0.0003 J	0.00064 J
Methyl Methacrylate	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert-butyl ether	--	--	0.00073 J	ND(0.001)	ND(0.001)	ND(0.001)
Methylene Chloride	--	25	ND(0.001)	ND(0.001)	0.00028 J	ND(0.001)
n-Butane	--	--	NA	NA	NA	NA
n-Hexane	50	500	0.023	0.0036	0.011	0.02
n-Octane	75	500	0.00025 J	ND(0.001)	ND(0.001)	ND(0.001)
n-Propylbenzene	--	--	NA	NA	NA	NA
o-Xylene	100	100	0.00043 J	0.00025 J	ND(0.001)	0.00024 J
Pentane	120	1,000	0.0026	0.0018	0.00078 J	0.0011
Propene	--	--	0.004	0.0022	0.004	0.00034 J
Styrene	50	100	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	0.0002 J	ND(0.001)	ND(0.001)	ND(0.001)
Tetrachloroethene	--	100	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	100	200	0.0031	0.0023	0.00081 J	0.0017
Trichloroethene	25	100	0.0027	0.0028	0.0015	0.0011
Trichlorofluoromethane	1,000	1,000	0.019	0.0078	0.0053	0.0047
Xylenes (total)	--	--	NA	NA	NA	NA
SVOCs in ppm						
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	0.02	0.02	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Naphthalene	--	--	ND(0.001)	ND(0.001)	ND(0.001 J)	0.001
Tetrahydrofuran	--	--	NA	NA	NA	NA

Table F-8
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Library Area 10/20/11 59-IA-2	Library Area 10/25/12 59-IA-2	Lobby Area 09/28/06 Summa Canister #0189 (dup)*
VOCs in ppm					
1,1,1-Trichloroethane	350	350	ND(0.0002)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	--	--	ND(0.0002)	0.00021 J	ND(0.001)
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	0.000073 J	ND(0.002)	ND(0.001)
1,2,3-Trichloropropane	--	--	NA	0.00022 J	ND(0.001)
1,2,4-Trimethylbenzene	25	--	ND(0.0002)	0.00089 J	ND(0.001)
1,2-Dibromo-3-chloropropane	--	--	NA	0.01	NA
1,2-Dichloropropane	--	--	ND(0.0002)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.0002)	0.00053 J	0.0004 J
2-Butanone	200	200	0.00024 J	0.0012 J	ND(0.002)
2-Hexanone	--	--	ND(0.0005)	ND(0.002)	ND(0.002)
4-Ethyltoluene	--	--	ND(0.0002)	0.00052 J	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.0005)	ND(0.002)	ND(0.002)
Acetone	250	1,000	0.0032 J	0.0092	0.012
Acetonitrile	--	--	NA	0.0005 J	ND(0.002)
Acrolein	0.1	0.1	NA	0.0007 J	ND(0.002)
Benzene	0.1	1	0.000086 J	0.00056 J	0.00021 J
Bromobenzene	--	--	NA	0.0003 J	ND(0.001)
Carbon Disulfide	--	--	ND(0.0005)	ND(0.001)	ND(0.001)
Carbon Tetrachloride	--	--	0.00007 J	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.0002)	0.00023 J	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.00034 J	0.001	0.00072 J
Chloroform	2	50	ND(0.0002)	ND(0.001)	ND(0.001)
Chloromethane	--	100	0.00052	0.00062 J	0.00043 J
Cyclohexane	--	--	0.00004 J	ND(0.001)	NA
Dichlorodifluoromethane	1,000	1,000	0.00047 J	0.00048 J	0.00048 J
d-Limonene	--	--	NA	ND(0)	NA
Ethanol	--	--	NA	0.0042	NA
Ethylbenzene	100	100	0.000037 J	0.0031	ND(0.001)
Heptane	85	500	0.000065 J	ND(0.001)	ND(0.001)
Isooctane	75	500	ND(0.0002)	ND(0.001)	0.00023 J
Isopropyl alcohol	--	--	0.00035 J	0.00077 J	NA
m&p-Xylene	100	100	NA	0.0079	0.00022 J
Methyl Methacrylate	--	--	ND(0.0005)	ND(0.001)	ND(0.001)
Methyl tert-butyl ether	--	--	ND(0.0002)	ND(0.001)	ND(0.001)
Methylene Chloride	--	25	0.00039 J	0.0003 J	0.0019
n-Butane	--	--	0.00054	NA	NA
n-Hexane	50	500	0.008	0.0056	0.017
n-Octane	75	500	NA	0.00087 J	ND(0.001)
n-Propylbenzene	--	--	ND(0.0002)	0.0002 J	NA
o-Xylene	100	100	NA	0.0042	ND(0.001)
Pentane	120	1,000	NA	0.0087	0.00062 J
Propene	--	--	NA	ND(0.001)	0.0032
Styrene	50	100	ND(0.0002)	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	0.000087 J	ND(0.001)	ND(0.001)
Tetrachloroethene	--	100	ND(0.0002)	0.0019	ND(0.001)
Toluene	100	200	0.0002	0.0016	0.0022
Trichloroethene	25	100	0.0002	0.0017	0.001
Trichlorofluoromethane	1,000	1,000	0.00049	0.0028	0.009
Xylenes (total)	--	--	0.00014 J	NA	NA
SVOCs in ppm					
1,2,4-Trichlorobenzene	--	--	ND(0.0005 J)	0.00069 J	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.0002)	0.0013	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.0002)	0.0012	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.0002)	0.0014	ND(0.001)
Hexachlorobutadiene	0.02	0.02	ND(0.0002)	0.00041 J	ND(0.002)
Naphthalene	--	--	ND(0.0005 J)	0.00069 J	ND(0.001)
Tetrahydrofuran	--	--	ND(0.005)	ND(0.001)	NA

Table F-8
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Lobby Area 09/28/06 Summa Canister #0200	Lobby Area 10/11/07 59-IA-3	Lobby Area 10/29/08 59-IA-3	Lobby Area 10/20/09 59-IA-3
VOCs in ppm						
1,1,1-Trichloroethane	350	350	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2,2-Tetrachloroethane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,2,4-Trimethylbenzene	25	--	0.00029 J	ND(0.001)	ND(0.001)	ND(0.001)
1,2-Dibromo-3-chloropropane	--	--	NA	NA	NA	NA
1,2-Dichloropropane	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3,5-Trimethylbenzene	25	--	ND(0.001)	0.0002 J	ND(0.001)	ND(0.001)
2-Butanone	200	200	0.00072 J	0.0011 J	0.0034	0.00057 J
2-Hexanone	--	--	ND(0.002)	ND(0.002)	0.00081 J	ND(0.002)
4-Ethyltoluene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
4-Methyl-2-pentanone	--	--	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Acetone	250	1,000	0.012	0.01	0.015	0.0079
Acetonitrile	--	--	ND(0.002)	ND(0.002 J)	0.001 J	ND(0.002)
Acrolein	0.1	0.1	ND(0.002)	0.00087 J	ND(0.002)	ND(0.002)
Benzene	0.1	1	0.00046 J	0.00034 J	ND(0.001)	0.0003 J
Bromobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Disulfide	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Carbon Tetrachloride	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chlorodifluoromethane	1,000	1,000	0.0014	0.00085 J	ND(0.001)	0.00047 J
Chloroform	2	50	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Chloromethane	--	100	0.00038 J	0.00058 J	0.00042 J	0.00044 J
Cyclohexane	--	--	NA	NA	NA	NA
Dichlorodifluoromethane	1,000	1,000	0.00055 J	0.00062 J	0.00054 J	0.00051 J
d-Limonene	--	--	NA	NA	NA	NA
Ethanol	--	--	NA	NA	NA	NA
Ethylbenzene	100	100	0.0002 J	ND(0.001)	ND(0.001)	ND(0.001)
Heptane	85	500	0.00042 J	ND(0.001)	ND(0.001)	0.00024 J
Isooctane	75	500	0.00031 J	ND(0.001)	ND(0.001)	ND(0.001)
Isopropyl alcohol	--	--	NA	NA	NA	NA
m&p-Xylene	100	100	0.0005 J	0.00041 J	0.00026 J	0.00023 J
Methyl Methacrylate	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Methyl tert-butyl ether	--	--	ND(0.001)	0.0002 J	ND(0.001)	ND(0.001)
Methylene Chloride	--	25	0.00079 J	0.0054	0.00032 J	0.00026 J
n-Butane	--	--	NA	NA	NA	NA
n-Hexane	50	500	0.065	0.0095	0.00071 J	0.0033
n-Octane	75	500	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
n-Propylbenzene	--	--	NA	NA	NA	NA
o-Xylene	100	100	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Pentane	120	1,000	0.0012	0.0011	0.00048 J	0.00057 J
Propene	--	--	0.0066	0.0019	0.0013	0.0018
Styrene	50	100	0.0035	ND(0.001)	ND(0.001)	ND(0.001)
Tertiary butyl alcohol	100	100	ND(0.001)	0.0002 J	0.001	ND(0.001)
Tetrachloroethene	--	100	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Toluene	100	200	0.0019	0.0016	0.00066 J	0.0006 J
Trichloroethene	25	100	0.0017	0.00088 J	0.00078 J	0.00068 J
Trichlorofluoromethane	1,000	1,000	0.013	0.0078	0.0029	0.0044
Xylenes (total)	--	--	NA	NA	NA	NA
SVOCs in ppm						
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,3-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
1,4-Dichlorobenzene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Hexachlorobutadiene	0.02	0.02	0.0011 J	ND(0.002)	ND(0.002)	ND(0.002)
Naphthalene	--	--	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001 J)
Tetrahydrofuran	--	--	NA	NA	NA	NA

Table F-8
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Location ID: Date Collected: Sample Name:	NIOSH REL	OSHA PEL	Lobby Area 11/18/10 59-IA-03	Lobby Area 10/20/11 59-IA-3	Lobby Area 10/25/12 59-IA-3	Lobby Area 01/08/13 59-IA-3
VOCs in ppm						
1,1,1-Trichloroethane	350	350	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
1,1,2,2-Tetrachloroethane	--	--	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ND(0.002)	0.000098 J	ND(0.2)	ND(0.002) [ND(0.002)]
1,2,3-Trichloropropane	--	--	ND(0.001)	NA	ND(0.1)	ND(0.001) [ND(0.001)]
1,2,4-Trimethylbenzene	25	--	ND(0.001)	0.000055 J	ND(0.1)	ND(0.001) [ND(0.001)]
1,2-Dibromo-3-chloropropane	--	--	NA	NA	ND(1)	ND(0.005) [ND(0.005)]
1,2-Dichloropropane	--	--	ND(0.001)	0.000017 J	ND(0.1)	ND(0.001) [ND(0.001)]
1,3,5-Trimethylbenzene	25	--	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
2-Butanone	200	200	0.00055 J	0.00047 J	ND(0.2)	0.0009 J [0.00089 J]
2-Hexanone	--	--	ND(0.002)	ND(0.0005)	ND(0.2)	ND(0.002) [ND(0.002)]
4-Ethyltoluene	--	--	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
4-Methyl-2-pentanone	--	--	ND(0.002)	ND(0.0005)	ND(0.2)	ND(0.002) [ND(0.002)]
Acetone	250	1,000	0.0052	0.0059	0.47	0.0086 J [0.0099 J]
Acetonitrile	--	--	ND(0.002)	NA	0.097 J	ND(0.002) [ND(0.002)]
Acrolein	0.1	0.1	ND(0.002)	NA	ND(0.2)	0.0028 [0.0056 J]
Benzene	0.1	1	ND(0.001)	0.00012 J	ND(0.1)	0.00049 J [0.00056 J]
Bromobenzene	--	--	ND(0.001)	NA	ND(0.1)	ND(0.001) [ND(0.001)]
Carbon Disulfide	--	--	ND(0.001)	ND(0.0005)	ND(0.1)	ND(0.001) [ND(0.001)]
Carbon Tetrachloride	--	--	ND(0.001)	0.000084 J	ND(0.1)	ND(0.001) [ND(0.001)]
Chlorobenzene	--	--	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
Chlorodifluoromethane	1,000	1,000	0.00054 J	0.0008	ND(0.1)	ND(0.001) [0.00058 J]
Chloroform	2	50	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
Chloromethane	--	100	0.00067 J	0.00073	ND(0.1)	0.00088 J [0.00068 J]
Cyclohexane	--	--	NA	0.000058 J	0.025 J	0.00027 J [0.00031 J]
Dichlorodifluoromethane	1,000	1,000	0.00059 J	0.00063	ND(0.1)	0.00061 J [0.0006 J]
d-Limonene	--	--	NA	NA	0.13 J	ND(0.005) [ND(0.005)]
Ethanol	--	--	NA	NA	0.62	0.0074 [0.0056]
Ethylbenzene	100	100	ND(0.001)	0.000043 J	0.026 J	ND(0.001) [0.00027 J]
Heptane	85	500	ND(0.001)	0.00016 J	0.087 J	0.00049 J [0.00075 J]
Isooctane	75	500	ND(0.001)	0.000036 J	ND(0.1)	ND(0.001) [ND(0.001)]
Isopropyl alcohol	--	--	NA	0.00073 J	0.82	0.00059 J [ND(0.001)]
m&p-Xylene	100	100	ND(0.001)	NA	0.04 J	0.00043 J [0.00067 J]
Methyl Methacrylate	--	--	ND(0.001)	ND(0.0005)	0.42	ND(0.001) [ND(0.001)]
Methyl tert-butyl ether	--	--	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
Methylene Chloride	--	25	0.00022 J	0.00039 J	0.28	0.0012 [0.001]
n-Butane	--	--	NA	0.001	NA	NA
n-Hexane	50	500	0.0051	0.0047	0.081 J	0.0013 [0.0013]
n-Octane	75	500	ND(0.001)	NA	0.044 J	ND(0.001) [ND(0.001)]
n-Propylbenzene	--	--	NA	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
o-Xylene	100	100	ND(0.001)	NA	ND(0.1)	0.00027 J [0.00039 J]
Pentane	120	1,000	0.00037 J	NA	0.24	0.029 [0.027]
Propene	--	--	0.00026 J	NA	0.14	0.0029 [0.0027]
Styrene	50	100	ND(0.001)	ND(0.0002)	0.071 J	ND(0.001) [ND(0.001)]
Tertiary butyl alcohol	100	100	ND(0.001)	0.00016 J	ND(0.1)	ND(0.001) [ND(0.001)]
Tetrachloroethene	--	100	ND(0.001)	0.000027 J	ND(0.1)	0.007 [0.0078]
Toluene	100	200	0.00054 J	0.00026	0.054 J	0.00054 J [0.00061 J]
Trichloroethene	25	100	0.00028 J	0.00027	ND(0.1)	0.0011 [0.0013]
Trichlorofluoromethane	1,000	1,000	0.0025	0.0021	0.021 J	0.0022 [0.0022]
Xylenes (total)	--	--	NA	0.00015 J	NA	NA
SVOCs in ppm						
1,2,4-Trichlorobenzene	--	--	ND(0.002)	ND(0.0005 J)	ND(0.2)	ND(0.002) [ND(0.002)]
1,2-Dichlorobenzene	--	--	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
1,3-Dichlorobenzene	--	--	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
1,4-Dichlorobenzene	--	--	ND(0.001)	ND(0.0002)	ND(0.1)	ND(0.001) [ND(0.001)]
Hexachlorobutadiene	0.02	0.02	ND(0.002)	ND(0.0002)	ND(0.2)	ND(0.002 J) [ND(0.002 J)]
Naphthalene	--	--	ND(0.001)	ND(0.0005 J)	ND(0.2)	ND(0.002) [ND(0.002)]
Tetrahydrofuran	--	--	NA	0.00038 J	ND(0.1)	ND(0.001) [ND(0.001)]

Table F-8
Comparison of Indoor Air Results to Occupational Exposure Limits - Building 59

Sub-Slab Soil Gas and Indoor Air Investigation Summary Report for Buildings 51 and 59 – Fall 2012
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Notes:

1. Samples were collected by ARCADIS and submitted for analysis of VOCs and select SVOCs to Lancaster Laboratories in 2006-2010, Test America Laboratories in 2011, and Eurofins-Lancaster Laboratory in 2012 and 2013.
2. Samples have been validated as per GE's EPA-approved FSP/QAPP, General Electric Company, Pittsfield, Massachusetts.
3. Field duplicate sample results are presented in brackets.
4. NA - Not Analyzed - Laboratory did not report results for this analyte.
5. ND - Analyte was not detected. The number in parentheses is the associated reporting limit.
6. Only those constituents detected in one or more samples are summarized
7. The United States Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs) for indoor air in an occupational setting for an 8-hour workday and a 40-hour workweek.
8. The National Institute for Occupational Safety and Health (NIOSH) recommended exposure levels (RELs) for up to a -- - Occupational exposure limit not available.
9. * - Although this sample is labeled as a duplicate sample, as previously discussed in the Migration Assessment Report, it was incorrectly collected at an increased rate and over a shorter period of time than the other 2006 samples.

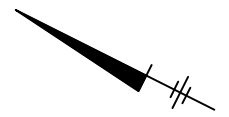
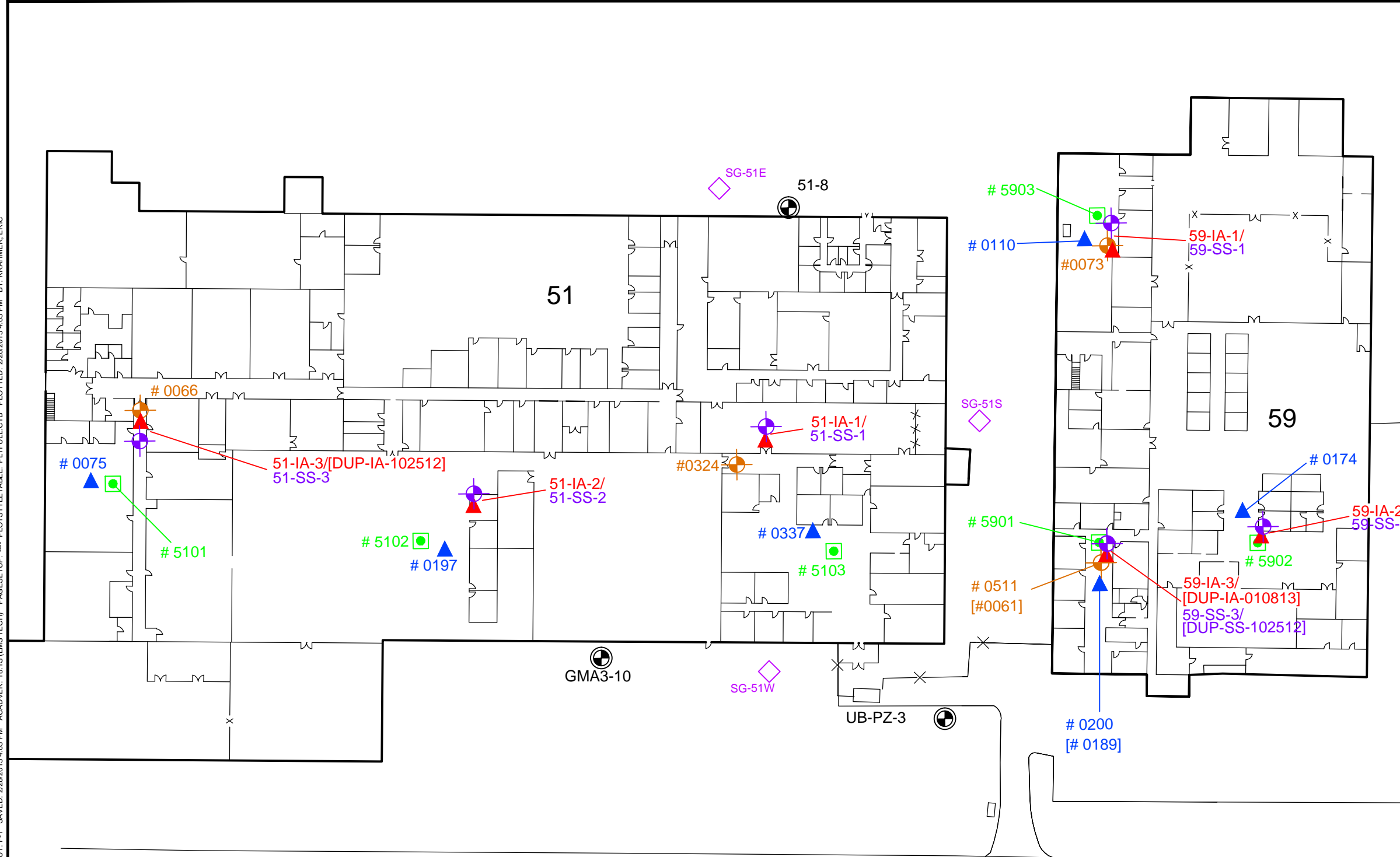
Data Qualifiers:

Organics (volatiles, semivolatiles)

J - Indicates that the associated numerical value is an estimated concentration.

Figures

CITY: SYRACUSE, NY GROUP: ENVCAD DB: P. LUSTER, K. SARTORI, E. KRAHMER P1M7M: C. ENGLER TR: D. ZUCK LVR: ONL-OFF-REF (FRZ)
 G:\ENVCAD\SYRACUSE\ACT190030905\0000\0004\30905G01.DWG LAYOUT: F-1 SAVED: 2/26/2013 4:03 PM ACADVER: 18.15 (LMS TECH) PAGESETUP: ... PLOTSTYLETABLE: PLT\FULL.CTB PLOTTED: 2/26/2013 4:05 PM BY: KRAHMER, ERIC
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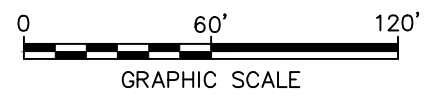
LEGEND:

- SG-51E ◊ AUGUST 2006 DEEP SOIL GAS SAMPLE LOCATION
- 51-8 ⊕ AUGUST 2006 GROUNDWATER/LNAPL SAMPLE LOCATION
- # 0511 ⊕ SEPTEMBER 2006 SUB-SLAB SOIL GAS SAMPLE LOCATION
- # 0200 ▲ SEPTEMBER 2006 INDOOR AIR SAMPLE LOCATION
- # 5902 ◻ SEPTEMBER 2006 INDUSTRIAL HYGIENE INDOOR AIR SAMPLE LOCATION
- 51-SS-3 ⊕ FALL 2007-2012 SUB-SLAB SOIL GAS SAMPLE LOCATION
- 51-IA-3 ▲ FALL 2007-2012 INDOOR AIR SAMPLE LOCATION

NOTES:

1. FIGURE IS BASED ON PHOTOGRAPHIC MAPPING BY LOCKWOOD MAPPING, INC.-FLOWN IN APRIL 1990 AND DATA PROVIDED BY GENERAL ELECTRIC COMPANY.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES, SAMPLE AND BUILDING LOCATIONS ARE APPROXIMATE.
4. PERMANENT SUB-SLAB SAMPLE POINTS WERE INSTALLED AT EACH OF THE "SS" LOCATIONS AT BUILDING 51 AND 59 IN OCTOBER 2012.

PLASTICS AVE.

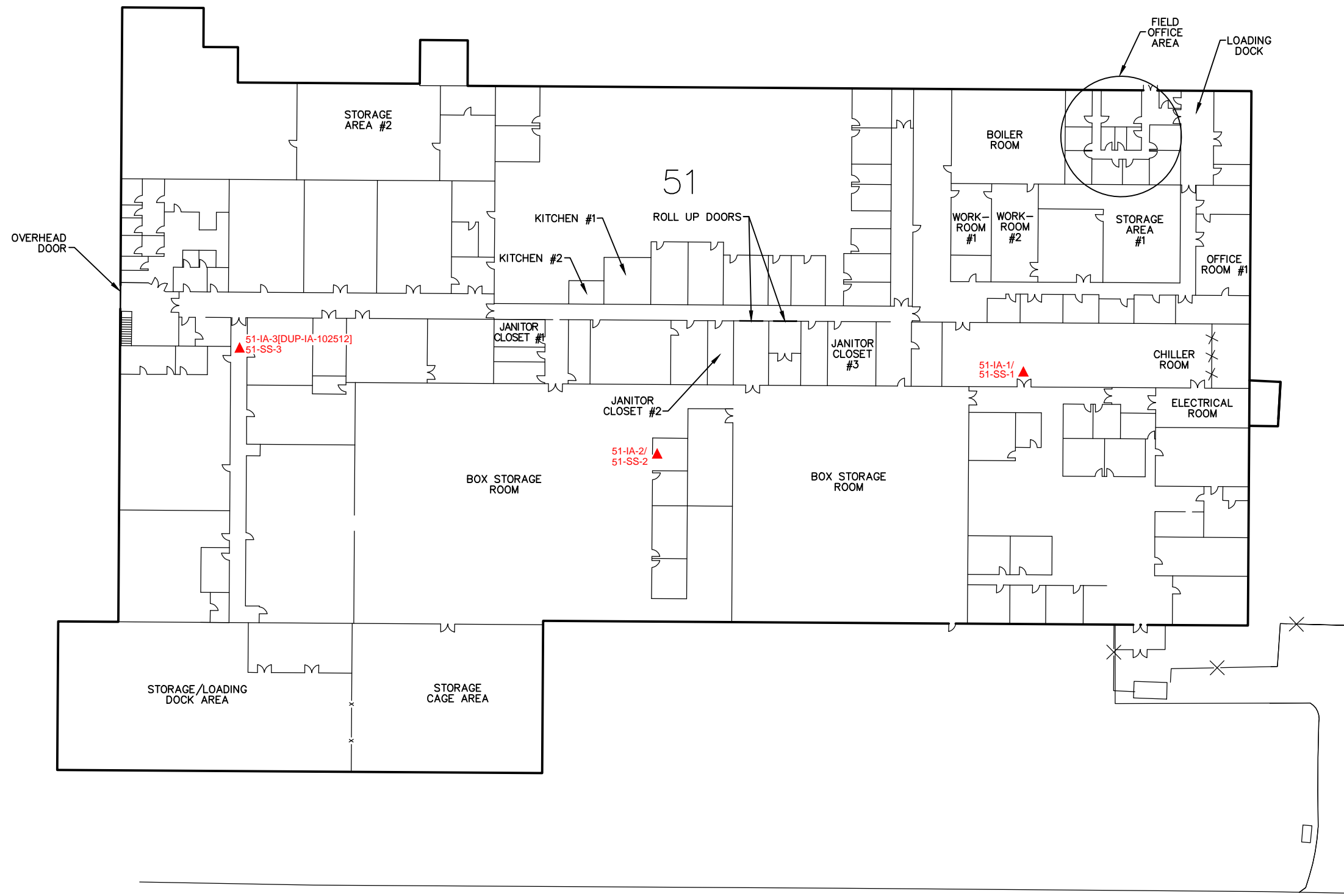


GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
GMA3 INTERIM MONITORING PROGRAM

**EXISTING SUB-SLAB SOIL GAS AND
INDOOR AIR SAMPLE LOCATIONS**

FIGURE
F-1

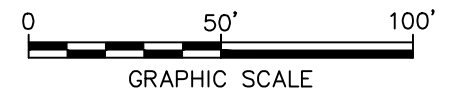
CITY: SYRACUSE, NY GROUP: ENVCAD DB: L. FORAKER, P. LUSTER, K. SARTORI, P. WITM, C. ENGLER, TR: R. HALL LVR: ON="OFF"=REF: (FRZ)
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 XREFS: IMAGES: PROJECTNAME: ...
 3/9/05/01



LEGEND:
 51-IA-3/51-SS-3 ▲ FALL 2007-2012 INDOOR AIR/SUB-SLAB SAMPLE LOCATION
 DUP-IA-102512 ▲ DUPLICATE SAMPLE LOCATION

NOTES:

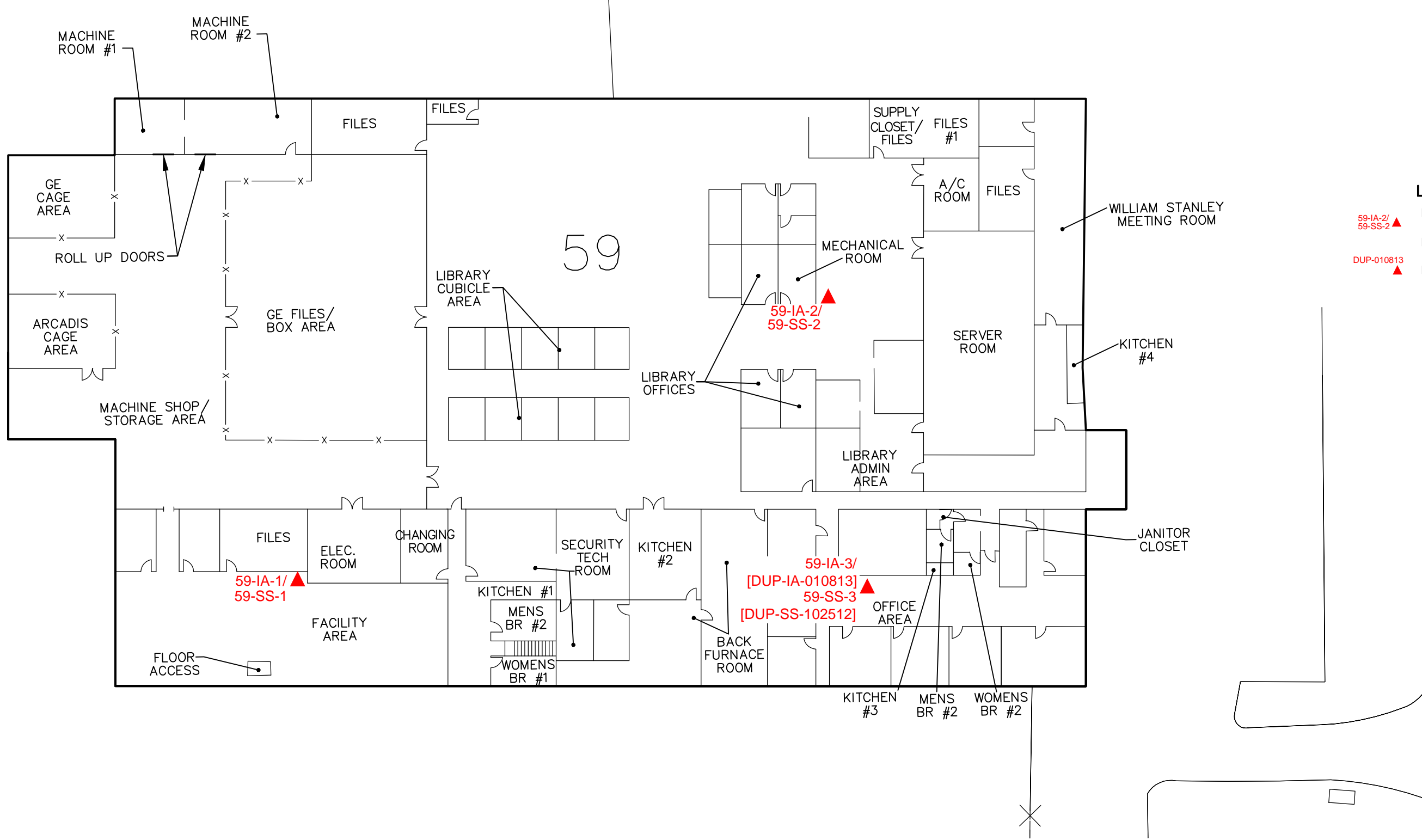
1. FIGURE IS BASED ON PHOTOGRAPHIC MAPPING BY LOCKWOOD MAPPING, INC.—FLOWN IN APRIL 1990 AND DATA PROVIDED BY GENERAL ELECTRIC COMPANY.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES, SAMPLE AND BUILDING LOCATIONS ARE APPROXIMATE.



GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS GMA3 INTERIM MONITORING PROGRAM	
BUILDING 51 DETAILS	
	FIGURE F-2

PLASTICS AVE.

CITY: SYRACUSE, NY GROUP: ENVCAD DB: L. FORAKER, P. LUSTER, K. SARTORI, P. WITM: C. ENGLER, TR: R. HALL LVR: ON="OFF" REF: (FRZ)
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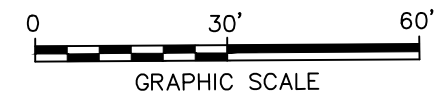


LEGEND:
 59-IA-2/
59-SS-2 ▲ FALL 2007-2012 INDOOR
AIR/SUB-SLAB SAMPLE
LOCATION
 DUP-010813 ▲ DUPLICATE SAMPLE LOCATION

PLASTICS AVE.

NOTES:

1. FIGURE IS BASED ON PHOTOGRAPHIC MAPPING BY LOCKWOOD MAPPING, INC.—FLOWN IN APRIL 1990 AND DATA PROVIDED BY GENERAL ELECTRIC COMPANY.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES, SAMPLE AND BUILDING LOCATIONS ARE APPROXIMATE.



GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS GMA3 INTERIM MONITORING PROGRAM	
BUILDING 59 DETAILS	
	FIGURE F-3



Attachments



Attachment A

Data Validation Report

**Attachment A
Air Sampling Data Validation Report
Buildings 51 and 59 Soil Gas and Indoor Air Quality Investigations - Fall 2012**

**General Electric Company
Pittsfield, Massachusetts**

1.0 General

This attachment summarizes the data validation review performed on behalf of the General Electric Company (GE) for air samples collected in October 2012 and January 2013 as part of soil gas and indoor air quality sampling activities conducted at Buildings 51 and 59, located at the General Electric Company/Housatonic River Site in Pittsfield, Massachusetts. The samples were analyzed in accordance with the United States Environmental Protection Agency (EPA) Compendium Method TO-15 for volatile organic compound (VOC) constituents, as well as certain semi-volatile (SVOC) constituents that can also be identified during the analyses, which were conducted by Eurofins Lancaster Laboratories of Lancaster, Pennsylvania. Data validation was performed for 16 volatile organic compound (VOC) samples.

2.0 Data Evaluation Procedures

This attachment outlines the applicable quality control criteria utilized during the data review process and any deviations from those criteria. The data review was conducted in accordance with the following documents:

- *Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (submitted by GE on March 30, 2007 and approved by EPA on June 13, 2007);*
- *Region I Tiered Organic and Inorganic Data Validation Guidelines, USEPA Region I (July 1, 1993); and*
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses, USEPA Region I (Draft, December 1996).*

The data were validated to either a Tier I or Tier II level, as described below. Any deviations from the applicable quality control criteria utilized during the data review process are identified below. A tabulated summary of the Tier I/Tier II data review is presented in Table A-1. Each sample subject to evaluation is listed in Table A-1 to document that data review was performed. Samples that required data qualification are listed separately.

The following data qualifiers were used in this data evaluation:

- J The compound was positively identified, but the associated numerical value is an estimated concentration. This qualifier is used when the data evaluation procedure identifies a deficiency in the data generation process. This qualifier is also used when a compound is detected at an estimated concentration less than the corresponding practical quantitation limit (PQL).

- U The compound was analyzed for, but was not detected. The sample quantitation limit is presented. Non-detect sample results are presented as ND(PQL) within this report for consistency with documents previously prepared for investigations conducted at the GE-Pittsfield/Housatonic River Site.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is estimated and may or may not represent the actual level of quantitation. Non-detect sample results that required qualification are presented as ND(PQL) J within this report for consistency with documents previously prepared for investigations conducted at the GE-Pittsfield/Housatonic River Site.
- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data should not be used for any qualitative or quantitative purpose.

3.0 Data Validation Procedures

Section 7.5 of the FSP/QAPP states that analytical data will be validated to a Tier I level following the procedures presented in the *Region I Tiered Organic and Inorganic Data Validation Guidelines* (EPA guidelines). The Tier I review consisted of a completeness evidence audit, as outlined in the *EPA Region I CSF Completeness Evidence Audit Program* (EPA Region I, July 31, 1991), to ensure that laboratory data and documentation were present. In the event data packages were determined to be incomplete, the missing information was requested from the laboratory. Upon completion of the Tier I review, the data packages complied with the EPA Region I Tier I data completeness requirements.

The Tier II data review consisted of a review of data package summary forms for identification of quality assurance/quality control (QA/QC) deviations and qualification of the data according to the Region I Data Validation Functional Guidelines. Additionally, field duplicates were examined for relative percent difference (RPD) compliance with the criteria specified in the FSP/QAPP.

A tabulated summary of the samples subject to Tier I and Tier II data review is presented in the following table.

Summary of Samples Subjected to Tier I and Tier II Data Validation

Parameter	Tier I Only			Tier I & Tier II			Total
	Samples	Duplicates	Blanks	Samples	Duplicates	Blanks	
EPA TO-15	0	0	0	13	3	0	16
Total	0	0	0	13	3	0	16

When qualification of the sample data was required, the sample results associated with a QA/QC parameter deviation were qualified in accordance with the procedures outlined in EPA Region I data validation guidance documents. When the data validation process identified several quality control deficiencies, the cumulative effect of the various deficiencies was employed in assigning the final data qualifier. A summary of the QA/QC parameter deviations that resulted in data qualification is presented in Section 4 below.

4.0 Summary of QA/QC Parameter Deviations Requiring Data Qualification

This section provides a summary of the deviations from the applicable QA/QC criteria that resulted in qualification of results.

The initial calibration criterion requires that the relative standard deviation (%RSD) between the initial calibration level Rf's for VOCs be less than 30%. Sample data for detect and non-detect compounds with %RSD values that exceeded the initial calibration criteria were qualified as estimated (J). A summary of the compound that exceeded the initial calibration criterion and the number of samples qualified due to those deviations are presented in the following table.

Compound Qualified Due to Initial Calibration of %RSD Values

Analysis	Compound	Number of Affected Samples	Qualification
EPA TO-15	Acetone	2	J

The continuing calibration criterion requires that the percent difference (%D) between the initial calibration RRF and the continuing calibration RRF be less than 30%. Sample data for detect and non-detect compounds with %D values that exceeded the continuing calibration criteria were qualified as estimated (J). A summary of the compound that exceeded the continuing calibration criterion and the number of samples qualified due to those deviations are presented in the following table.

Compound Qualified Due to Continuing Calibration of %D Values

Analysis	Compound	Number of Affected Samples	Qualification
EPA TO-15	Hexachlorobutadiene	2	J

Field duplicate samples were analyzed to evaluate the overall precision of laboratory and field procedures. The RPD between field duplicate samples is required to be less than 50% for air sample values greater than five times the PQL for organics and inorganics. Sample results that exceeded these limits were qualified as estimated (J). The compound that did not meet field duplicate RPD requirements and the number of samples qualified due to those deviations are presented in the following table.

Compound Qualified Due to Field Duplicate Deviations

Analysis	Analyte	Number of Affected Samples	Qualification
EPA TO-15	Ethanol	2	J

5.0 Overall Data Usability

This section summarizes the analytical data in terms of its completeness and usability. Data completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process. The percent usability calculation included analyses evaluated under both the Tier I/II data validation reviews. The percent usability calculation also includes quality control samples (i.e., field/equipment blanks, trip blanks, and field duplicates) to aid in the evaluation of data usability. Data usability is summarized in the following table.

Data Usability

Parameter	Percent Usability	Rejected Data
VOCs	100	None

The data package completeness, as determined from the Tier I data review, was used in combination with the data quality deviations identified during the Tier II data review to determine overall data quality. As specified in the FSP/QAPP, the overall precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters determined from the Tier I and Tier II data reviews were used as indicators of overall data quality. These parameters were assessed through an evaluation of the results of the field and laboratory QA/QC sample analyses to provide a measure of compliance of the analytical data with the Data Quality Objectives (DQOs) specified in the FSP/QAPP. Therefore, the following sections present summaries of the PARCC parameters assessment with regard to the DQOs specified in the FSP/QAPP.

5.1 Precision

Precision measures the reproducibility of measurements under a given set of conditions. Specifically, it is a quantitative measure of the variability of a group of measurements compared to their average value. For this investigation, precision was defined as the RPD between duplicate sample results. The duplicate samples used to evaluate precision included field duplicates and LCS/LCSD samples. For this analytical program, 0.14% of the data required qualification due to field duplicate RPD deviations. None of the data required qualification due to LCS/LCSD RPD deviations.

5.2 Accuracy

Accuracy measures the bias in an analytical system or the degree of agreement of a measurement with a known reference value. For this investigation, accuracy was defined as the percent recovery of QA/QC samples that were spiked with a known concentration of an analyte or compound of interest. The QA/QC samples used to evaluate analytical accuracy included instrument calibration, internal standards, and LCS/LCSDs. For this analytical program, 0.28% of the data required qualification due to instrument calibration deviations. None of the data required qualification due to internal standard recovery deviations or LCS/LCSD recoveries.

5.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter, which is most concerned with the proper design of the sampling program. The representativeness criterion is best satisfied by making certain that sampling locations are selected properly and a sufficient number of samples are collected. This parameter has been addressed by collecting samples at locations specified in the EPA-approved work plans, and by following the procedures for sample collection/analyses that were described in the FSP/QAPP. Additionally, the analytical program used procedures consistent with EPA-approved analytical methodology. A QA/QC parameter that is an indicator of the representativeness of a sample is holding time. Holding time criteria are established to maintain the samples in a state that is representative of the in-situ field conditions before analysis. For this analytical data set, none of the data required qualification due to holding time deviations.

5.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. This goal was achieved through the use of the standardized techniques for sample collection and analysis presented in the FSP/QAPP. Specifically, all the air samples collected in October 2012 and January 2013 were analyzed by EPA method TO-15.

5.5 Completeness

Completeness is defined as the percentage of measurements that are judged to be valid or usable to meet the prescribed DQOs. The completeness criterion is essentially the same for all data uses -- the generation of a sufficient amount of valid data. This analytical data set had an overall usability of 100%.

Table A-1
Analytical Data Validation Summary
Building 51/59 Soil Gas and Indoor Air Investigation- Fall 2012

General Electric Company - Pittsfield, Massachusetts
 (Results are presented in parts per million by volume, ppmv and micrograms per cubic meter, ug/m3)

Sample Delivery Group No.	Sample ID	Date Collected	Matrix	Validation Level	Qualification	Compound	QA/QC Parameter	Value	Control Limits	Qualified Result ug/m3	Qualified Result ppmv	Notes
EPA TO-15												
PTF08	51-IA-1	10/25/2012	Air	Tier II	No							
PTF08	51-IA-2	10/25/2012	Air	Tier II	No							
PTF08	51-IA-3	10/25/2012	Air	Tier II	No							
PTF08	51-SS-1	10/25/2012	Air	Tier II	No							
PTF08	51-SS-2	10/25/2012	Air	Tier II	No							
PTF08	51-SS-3	10/25/2012	Air	Tier II	No							
PTF08	59-IA-1	10/25/2012	Air	Tier II	No							
PTF08	59-IA-2	10/25/2012	Air	Tier II	No							
PTF08	59-IA-3	10/25/2012	Air	Tier II	No							
PTF08	59-SS-1	10/25/2012	Air	Tier II	Yes	Ethanol	Field Duplicate RPD (Air)	68.0%	<50%	230 J	0.12 J	
PTF08	59-SS-2	10/25/2012	Air	Tier II	No							
PTF08	59-SS-3	10/25/2012	Air	Tier II	No							
PTF08	DUP-IA-102512	10/25/2012	Air	Tier II	No							Duplicate of 51-IA-3
PTF08	DUP-SS-102512	10/25/2012	Air	Tier II	Yes	Ethanol	Field Duplicate RPD (Air)	68.0%	<50%	110 J	0.059 J	Duplicate of 59-SS-1
PTF09	59-IA-3 (0 - 0)	1/8/2013	Air	Tier II	Yes	Acetone	ICAL %RSD	32.0%	<30%	20 J	0.0086 J	
						Hexachlorobutadiene	CCAL %D	45.0%	<30%	ND(21) J	ND(0.0020) J	
PTF09	DUP-010813 (0 - 0)	1/8/2013	Air	Tier II	Yes	Acetone	ICAL %RSD	32.0%	<30%	23 J	0.0099 J	Duplicate of 59-IA-3
						Hexachlorobutadiene	CCAL %D	45.0%	<30%	ND(21) J	ND(0.0020) J	



Attachment B

Sub-Slab Soil Gas & Indoor Air
Sampling Logs



Building 51



Indoor/Ambient Air Sample Collection Log

Sample ID: 51-IA-1

Client:	General Electric	Date/Day:	10/25/2012
Project:	Building 51 & 59 VI	Sample Intake Height:	3' ALS
Location:	Pittsfield, MA	Subcontractor:	NA
Project #:	B0030905.1.1	Miscellaneous Equipment:	PPB RAE
Samplers:	Daniel Zuck		
Coordinates:	(See attached Figure)	Time Start:	10:28/20:00
Outdoor/Indoor:	IA (Note: roll-up door open)		

Instrument Readings:

Time	Canister Pressure (inches Hg)	Temperature (F)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure	PID (ppb) / (ppm)
10:28	-28.5	66.3	47.7	0	29.66	0
14:20	-19.75	70.1	48.1	0	29.61	0
18:36	-11	68.9	49.3	0	29.62	350
20:00	-8.25	72.6	44.1	0	29.63	1060

SUMMA Canister Information

Size (circle one): 1 L **6 L**

Canister ID: 819

Flow Controller ID: 316950

General Observations/Notes:

Photos:
IDP = -29.48



Indoor/Ambient Air Sample Collection Log

Sample ID: 51-IA-2

Client:	General Electric	Date/Day:	10/25/2012
Project:	Building 51 & 59 VI	Sample Intake Height:	3' ALS
Location:	Pittsfield, MA	Subcontractor:	NA
Project #:	B0030905.1.1	Miscellaneous Equipment:	PPB RAE
Samplers:	Daniel Zuck		
Coordinates:	(See attached Figure)	Time Start:	11:02/20:25
Outdoor/Indoor:	IA		

Instrument Readings:

Time	Canister Pressure (inches Hg)	Temperature (F)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure	PID (ppb) / (ppm)
11:02	-28.75	67.2	47.1	0	29.66	0
14:24	-20.00	69.2	46.3	0	29.61	0
18:41	-9.75	68.9	47.8	0	29.62	5100
20:25	-6.00	71.0	46.4	0	29.62	2680

SUMMA Canister Information

Size (circle one): 1 L 6 L

Canister ID: 804

Flow Controller ID: 338063

General Observations/Notes:

Photos: 747
IDP = -29.10



Indoor/Ambient Air Sample Collection Log

Sample ID: 51-IA-3 / DUP-IA

Client:	General Electric	Date/Day:	10/25/2012
Project:	Building 51 & 59 VI	Sample Intake Height:	3' ALS
Location:	Pittsfield, MA	Subcontractor:	NA
Project #:	B0030905.1.1	Miscellaneous Equipment:	PPB RAE
Samplers:	Daniel Zuck		
Coordinates:	(See attached Figure)	Time Start:	11:35/20:45
Outdoor/Indoor:	IA		

Instrument Readings:

Time	Canister Pressure (inches Hg)	Temperature (F)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure	PID (ppb) <u>(ppm)</u>
IA: 11:35	-28.5	68.9	47.6	0	29.66	0
DUP: 11:35	-28.5	68.9				0
IA: 14:27	-22.75	69.0	46.4	0	29.61	0
DUP: 14:27	-21.5	69.0				0
IA: 18:45	-13.25	69.4	49.1	0	29.62	13.0
DUP: 18:45	-11	69.4				13.0
IA: 20:45	-8	69.6	48.3	0	29.62	7.1
DUP: 20:45	-6	69.6				7.1

SUMMA Canister Information

Size (circle one): 1 L 6 L

Canister ID: IA: 262
DUP: 870

Flow Controller ID: IA: 303406
DUP: 336857

General Observations/Notes:

Photos: 399
IDP: IA: -29.44; DUP: -28.21



Soil Gas Sample Collection Log

Sample ID: 51-SS-1

Client:	General Electric	Date/Day:	10/25/12
Project:	Building 51 & 59 VI	Weather:	Overcast
Location:	Pittsfield, MA	Temperature:	66° F
Project #:	B0030905.1.1	Wind Speed/Direction:	0 (ft/min) / (mph)
Samplers:	Daniel Zuck	Subcontractor:	NA
Logged By:	Daniel Zuck	Equipment:	PPB RAE/Helium Detector
Background PID Ambient Air Reading:	0 ppb	Moisture Content of Sampling Zone (circle one):	Dry / <u>Moist</u>
Sampling Depth:	7" - 9"	Approximate Volume of Sampling Train::	30 mL (3 ' of ¼" ID tubing)
Probe (circle one):	<u>Permanent</u> / Temporary	Approximate Purge Volume:	90 mL = [(30) * (3v)]

Nearby Groundwater Monitoring Wells/Water Levels:

Well ID	Depth to Groundwater (feet)

SUMMA Canister Information

Size (circle one): 1 L 6 L
 Canister ID: _____ 537
 Flow Controller ID: _____ 329136

Tracer Gas Information (if applicable)

Tracer Gas: _____ Helium

Canister Pressure (inches Hg):		
Reported By Laboratory	Measured Prior to Sample Collection	Measured Following Sample Collection
- 29.91	Digital: -28.62 / Analog: -24.75	Analog: -7.25

Tracer Gas Concentration (if applicable):				
Measured from Soil Vapor Tubing		Measured in 'Concentrated' Area		
Post Purge	Post Sample	Prior to Purging	Post Purging	Post Sampling
0 ppm	0 ppm	83.3 %	80.10 %	8150 ppm

General Observations/Notes:

Photo ID:	3228 ppb reading on the PID following sample
@ 14:20: -20.75	Collection from soil vapor tubing.
@ 18:36: -11	

Approximating One-Well Volume (for purging temporary points):

Each foot of ¼-inch tubing will have a volume of approximately 10 mL.



Soil Gas Sample Collection Log

Sample ID: 51-SS-2

Client:	General Electric	Date/Day:	10/25/12
Project:	Building 51 & 59 VI	Weather:	Overcast
Location:	Pittsfield, MA	Temperature:	67° F
Project #:	B0030905.1.1	Wind Speed/Direction:	0 (ft/min) / (mph)
Samplers:	Daniel Zuck	Subcontractor:	NA
Logged By:	Daniel Zuck	Equipment:	PPB RAE/Helium Detector
Background PID Ambient Air Reading:	0 ppb	Moisture Content of Sampling Zone (circle one):	Dry / <u>Moist</u>
Sampling Depth:	6" - 8"	Approximate Volume of Sampling Train::	30 mL (3 ' of ¼" ID tubing)
Probe (circle one):	<u>Permanent</u> / Temporary	Approximate Purge Volume:	90 mL = [(30) * (3v)]
Time of Collection:	Start: 11:01 Finish: 20:13		

Nearby Groundwater Monitoring Wells/Water Levels:

Well ID	Depth to Groundwater (feet)

SUMMA Canister Information

Size (circle one): 1 L 6 L
 Canister ID: 877
 Flow Controller ID: 301144

Tracer Gas Information (if applicable)

Tracer Gas: Helium

Canister Pressure (inches Hg):		
Reported By Laboratory	Measured Prior to Sample Collection	Measured Following Sample Collection
- 29.91	Digital: -29.25 / Analog: -31	-7.75

Tracer Gas Concentration (if applicable):				
Measured from Soil Vapor Tubing		Measured in 'Concentrated' Area		
Post Purge	Post Sample	Prior to Purging	Post Purging	Post Sampling
0 ppm	0 ppm	86.3 %	79.1 %	11.9%

General Observations/Notes:

Photo ID: 747	4780 ppb reading on the PID following sample
@ 14:24: -22.25	Collection from soil vapor tubing.
@ 18:42: -11.75	

Approximating One-Well Volume (for purging temporary points):

Each foot of ¼-inch tubing will have a volume of approximately 10 mL.



Soil Gas Sample Collection Log

Sample ID: 51-SS-3

Client:	General Electric	Date/Day:	10/25/12
Project:	Building 51 & 59 VI	Weather:	Overcast
Location:	Pittsfield, MA	Temperature:	69° F
Project #:	B0030905.1.1	Wind Speed/Direction:	0 (ft/min) / (mph)
Samplers:	Daniel Zuck	Subcontractor:	NA
Logged By:	Daniel Zuck	Equipment:	PPB RAE/Helium Detector
Background PID Ambient Air Reading:	0 ppb	Moisture Content of Sampling Zone (circle one):	Dry / <u>Moist</u>
Sampling Depth:	12" – 14"		
Probe (circle one):	<u>Permanent</u> / Temporary	Approximate Volume of Sampling Train::	30 mL (3 ' of ¼" ID tubing)
Time of Collection:	Start: 11:33 Finish: 20:31	Approximate Purge Volume:	90 mL = [(30) * (3v)]

Nearby Groundwater Monitoring Wells/Water Levels:

Well ID	Depth to Groundwater (feet)

SUMMA Canister Information

Size (circle one): 1 L 6 L
 Canister ID: _____ 826
 Flow Controller ID: _____ 336737

Tracer Gas Information (if applicable)

Tracer Gas: _____ Helium

Canister Pressure (inches Hg):		
Reported By Laboratory	Measured Prior to Sample Collection	Measured Following Sample Collection
- 29.91	Digital: -29.38 / Analog: -29.25	-6.5

Tracer Gas Concentration (if applicable):				
Measured from Soil Vapor Tubing		Measured in 'Concentrated' Area		
Post Purge	Post Sample	Prior to Purging	Post Purging	Post Sampling
0 ppm	0 ppm	87.5 %	86.0 %	1000 ppm

General Observations/Notes:

Photo ID: 399	1530 ppb reading on the PID following sample
@ 14:27: -21.75	Collection from soil vapor tubing.
@ 18:45: -11	

Approximating One-Well Volume (for purging temporary points):

Each foot of ¼-inch tubing will have a volume of approximately 10 mL.



Building 59



Indoor/Ambient Air Sample Collection Log

Sample ID: 59-IA-1

Client:	General Electric	Date/Day:	10/25/2012
Project:	Building 51 & 59 VI	Sample Intake Height:	3' ALS
Location:	Pittsfield, MA	Subcontractor:	NA
Project #:	B0030905.1.1	Miscellaneous Equipment:	PPB RAE
Samplers:	Daniel Zuck		
Coordinates:	(See attached Figure)	Time Start:	09:25/18:06
Outdoor/Indoor:	IA		

Instrument Readings:

Time	Canister Pressure (inches Hg)	Temperature (F)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure	PID (ppb) / (ppm)
09:25	-27	71.7	38.1	0	29.63	0
11:53	-21	69.4	44.0	0	29.66	0
14:12	-15.5	73.5	44.1	0	29.61	0
18:06	-6	73.7	44.2	0	29.60	0

SUMMA Canister Information

Size (circle one): 1 L 6 L

Canister ID: 805

Flow Controller ID: 329603

General Observations/Notes:

Photos: 262
IDP (-29.08)



Indoor/Ambient Air Sample Collection Log

Sample ID: 59-IA-2

Client:	General Electric	Date/Day:	10/25/2012
Project:	Building 51 & 59 VI	Sample Intake Height:	3' ALS
Location:	Pittsfield, MA	Subcontractor:	NA
Project #:	B0030905.1.1	Miscellaneous Equipment:	PPB RAE
Samplers:	Daniel Zuck		
Coordinates:	(See attached Figure)	Time Start:	09:49/18:51
Outdoor/Indoor:	IA		

Instrument Readings:

Time	Canister Pressure (inches Hg)	Temperature (F)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure	PID (ppb) / (ppm)
09:49	-30	72.1	38.5	0	29.65	0
11:56	-25	70.5	41.9	0	29.66	0
14:15	-19.5	73.4	41.7	0	29.60	0
18:51	-8.5	71.6	45.2	0	29.62	0

SUMMA Canister Information

Size (circle one): 1 L 6 L

Canister ID: 546

Flow Controller ID: 336794

General Observations/Notes:

Photos: 798
IDP = -29.38



Indoor/Ambient Air Sample Collection Log

Sample ID: 59-IA-3/DUP-010813

Client:	General Electric	Date/Day:	1/8/13
Project:	Building 51 & 59 VI	Sample Intake Height:	3' ALS
Location:	Pittsfield, MA	Subcontractor:	NA
Project #:	B0030905.1.1	Miscellaneous Equipment:	PPB RAE
Samplers:	Daniel Zuck		
Coordinates:	(See attached Figure)	Time Start/Stop:	09:17/16:17
Outdoor/Indoor:	IA		

Instrument Readings:

Time	Canister Pressure (inches Hg)	Temperature (F)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure	PID (ppb) / (ppm)
09:17	-27.5	68.7	21.6	0	29.22	0
DUP	-30	68.7	21.6	0	29.22	0
11:17	-21.5	69.6	19.2	0	29.19	0
DUP	-24.5	69.6	19.2	0	29.19	0
15:17	-9	71.0	21.7	0	29.18	0
DUP	-13.5	71.0	21.7	0	29.18	0
16:17	-6	69.9	21.8	0	29.18	0
DUP	-10.5	69.9	21.8	0	29.18	0

SUMMA Canister Information

Size (circle one): 1 L **6 L**

Canister ID: 59-IA-3: 1447
 DUP: 4613

Flow Controller ID: 59-IA-3: 336825
 DUP: 252293

General Observations/Notes:

Photos:
IDP = -29.48 (IA-3)
-29.64 (DUP)



Indoor/Ambient Air Sample Collection Log

Sample ID: 59-IA-3

Client:	General Electric	Date/Day:	10/25/2012
Project:	Building 51 & 59 VI	Sample Intake Height:	3' ALS
Location:	Pittsfield, MA	Subcontractor:	NA
Project #:	B0030905.1.1	Miscellaneous Equipment:	PPB RAE
Samplers:	Daniel Zuck		
Coordinates:	(See attached Figure)	Time Start:	10:09/19:20
Outdoor/Indoor:	IA		

Instrument Readings:

Time	Canister Pressure (inches Hg)	Temperature (F)	Relative Humidity (%)	Air Speed (ft/min)	Barometric Pressure	PID (ppb) / (ppm)
10:09	-30	73.0	42.2	0	29.65	0
11:58	-25.25	71.6	43.0	0	29.66	0
14:17	-19.25	73.5	41.2	0	29.61	0
19:20	-6	72.5	43.7	0	29.62	20

SUMMA Canister Information

Size (circle one): 1 L 6 L

Canister ID: 831

Flow Controller ID: 252293

General Observations/Notes:

Photos: 797
IDP = -29.35



Soil Gas Sample Collection Log

Sample ID: 59-SS-1/ DUP-SS-102512

Client:	General Electric	Date/Day:	10/25/12
Project:	Building 51 & 59 VI	Weather:	Overcast
Location:	Pittsfield, MA	Temperature:	71° F
Project #:	B0030905.1.1	Wind Speed/Direction:	0 (ft/min) / (mph)
Samplers:	Daniel Zuck	Subcontractor:	NA
Logged By:	Daniel Zuck	Equipment:	PPB RAE/Helium Detector
Background PID Ambient Air Reading:	0 ppb	Moisture Content of Sampling Zone (circle one):	Dry / <u>Moist</u>
Sampling Depth:	~8" – 10"	Approximate Volume of Sampling Train::	30 mL (3 ' of ¼" ID tubing)
Probe (circle one):	<u>Permanent</u> / Temporary	Approximate Purge Volume:	90 mL = [(30) * (3v)]
Time of Collection:	Start: 09:20 Finish: 17:50		

Nearby Groundwater Monitoring Wells/Water Levels:

Well ID	Depth to Groundwater (feet)

SUMMA Canister Information

Size (circle one): 1 L 6L
 / DUP
 Canister ID: 541/ 1083
 Flow Controller ID: 338066/ 336825

Tracer Gas Information (if applicable)

Tracer Gas: Helium

Canister Pressure (inches Hg):

Reported By Laboratory	Measured Prior to Sample Collection	Measured Following Sample Collection
-29.91	(DUP) Digital: -29.15 / Analog: -27	(DUP) Analog: -6.0
-29.91	(SS-1) Digital -29.21 / Analog: -27	(SS-1) Analog: -6.25

Tracer Gas Concentration (if applicable):

Measured from Soil Vapor Tubing		Measured in 'Concentrated' Area		
Post Purge	Post Sample	Prior to Purging	Post Purging	Post Sampling
0 ppm	0 ppm	63.9 %	49.1 %	29.6 %

General Observations/Notes:

Photo ID: 199	3010 ppb reading on the PID following sample
@11:53 : -20.5 (SS)	Collection from soil vapor tubing.
-21.0 (DUP)	
@14:12: -14.5 (SS)	
-14.5 (DUP)	

Approximating One-Well Volume (for purging temporary points):

Each foot of ¼-inch tubing will have a volume of approximately 10 mL.



Soil Gas Sample Collection Log

Sample ID: 59-SS-2

Client:	General Electric	Date/Day:	10/25/12
Project:	Building 51 & 59 VI	Weather:	Overcast
Location:	Pittsfield, MA	Temperature:	72° F
Project #:	B0030905.1.1	Wind Speed/Direction:	0 (ft/min) / (mph)
Samplers:	Daniel Zuck	Subcontractor:	NA
Logged By:	Daniel Zuck	Equipment:	PPB RAE/Helium Detector
Background PID Ambient Air Reading:	0 ppb	Moisture Content of Sampling Zone (circle one):	Dry / <u>Moist</u>
Sampling Depth:	7" - 9"		
Probe (circle one):	<u>Permanent</u> / Temporary	Approximate Volume of Sampling Train::	30 mL (3 ' of ¼" ID tubing)
Time of Collection:	Start: 09:47 Finish: 18:51	Approximate Purge Volume:	90 mL = [(30) * (3v)]

Nearby Groundwater Monitoring Wells/Water Levels:

Well ID	Depth to Groundwater (feet)

SUMMA Canister Information

Size (circle one): 1 L 6 L
 Canister ID: _____ 810
 Flow Controller ID: _____ 304030

Tracer Gas Information (if applicable)

Tracer Gas: _____ Helium

Canister Pressure (inches Hg):		
Reported By Laboratory	Measured Prior to Sample Collection	Measured Following Sample Collection
- 29.91	Digital: -29.19 Analog: -29.5	Analog: -7.25

Tracer Gas Concentration (if applicable):				
Measured from Soil Vapor Tubing		Measured in 'Concentrated' Area		
Post Purge	Post Sample	Prior to Purging	Post Purging	Post Sampling
0 ppm	0 ppm	84.3 %	71.1 %	2800 ppm

General Observations/Notes:

Photo ID: 798	5340 ppb reading on the PID following sample
@1156: -24.5	Collection from soil vapor tubing.
@1415: -18.75	

Approximating One-Well Volume (for purging temporary points):

Each foot of ¼-inch tubing will have a volume of approximately 10 mL.



Soil Gas Sample Collection Log

Sample ID: 59-SS-3

Client:	General Electric	Date/Day:	10/25/12
Project:	Building 51 & 59 VI	Weather:	Overcast
Location:	Pittsfield, MA	Temperature:	73° F
Project #:	B0030905.1.1	Wind Speed/Direction:	0 (ft/min) / (mph)
Samplers:	Daniel Zuck	Subcontractor:	NA
Logged By:	Daniel Zuck	Equipment:	PPB RAE/Helium Detector
Background PID Ambient Air Reading:	0 ppb	Moisture Content of Sampling Zone (circle one):	Dry / <u>Moist</u>
Sampling Depth:	6" – 8"		
Probe (circle one):	<u>Permanent</u> / Temporary	Approximate Volume of Sampling Train::	30 mL (3' of ¼" ID tubing)
Time of Collection:	Start: 10:08 Finish: 19:15	Approximate Purge Volume:	90 mL = [(30) * (3v)]

Nearby Groundwater Monitoring Wells/Water Levels:

Well ID	Depth to Groundwater (feet)

SUMMA Canister Information

Size (circle one): 1 L 6 L
 Canister ID: _____ 534
 Flow Controller ID: _____ 236795

Tracer Gas Information (if applicable)

Tracer Gas: _____ Helium

Canister Pressure (inches Hg):		
Reported By Laboratory	Measured Prior to Sample Collection	Measured Following Sample Collection
- 29.91	Digital: -29.51 / Analog: -31	-7.5

Tracer Gas Concentration (if applicable):				
Measured from Soil Vapor Tubing		Measured in 'Concentrated' Area		
Post Purge	Post Sample	Prior to Purging	Post Purging	Post Sampling
0 ppm	0 ppm	73.9 %	72.8 %	4700 ppm

General Observations/Notes:

Photo ID: 797	350 ppb reading on the PID following sample
@1158: -26.25	Collection from soil vapor tubing.
@1417: -20.0	

Approximating One-Well Volume (for purging temporary points):

Each foot of ¼-inch tubing will have a volume of approximately 10 mL.



Attachment C

Sampling Point Photo Logs



Building 51

**ATTACHMENT C
PHOTOGRAPHS OF SAMPLING ACTIVITIES
October 25, 2012**

General Electric Company – Pittsfield, Massachusetts



Photo for 51-IA-1 and 51-SS-1



Photo for 51-IA-2 and 51-SS-2



Photo for 51-IA-3 / DUP-IA-102512 and 51-SS-3



Building 59

**ATTACHMENT C
PHOTOGRAPHS OF SAMPLING ACTIVITIES
October 25, 2012**

General Electric Company – Pittsfield, Massachusetts



Photo for 59-IA-2 and 59-SS-2



Photo for 59-IA-3 and 59-SS-3



Photo for 59-IA-1 and 59-SS-1 / DUP-SS-102512

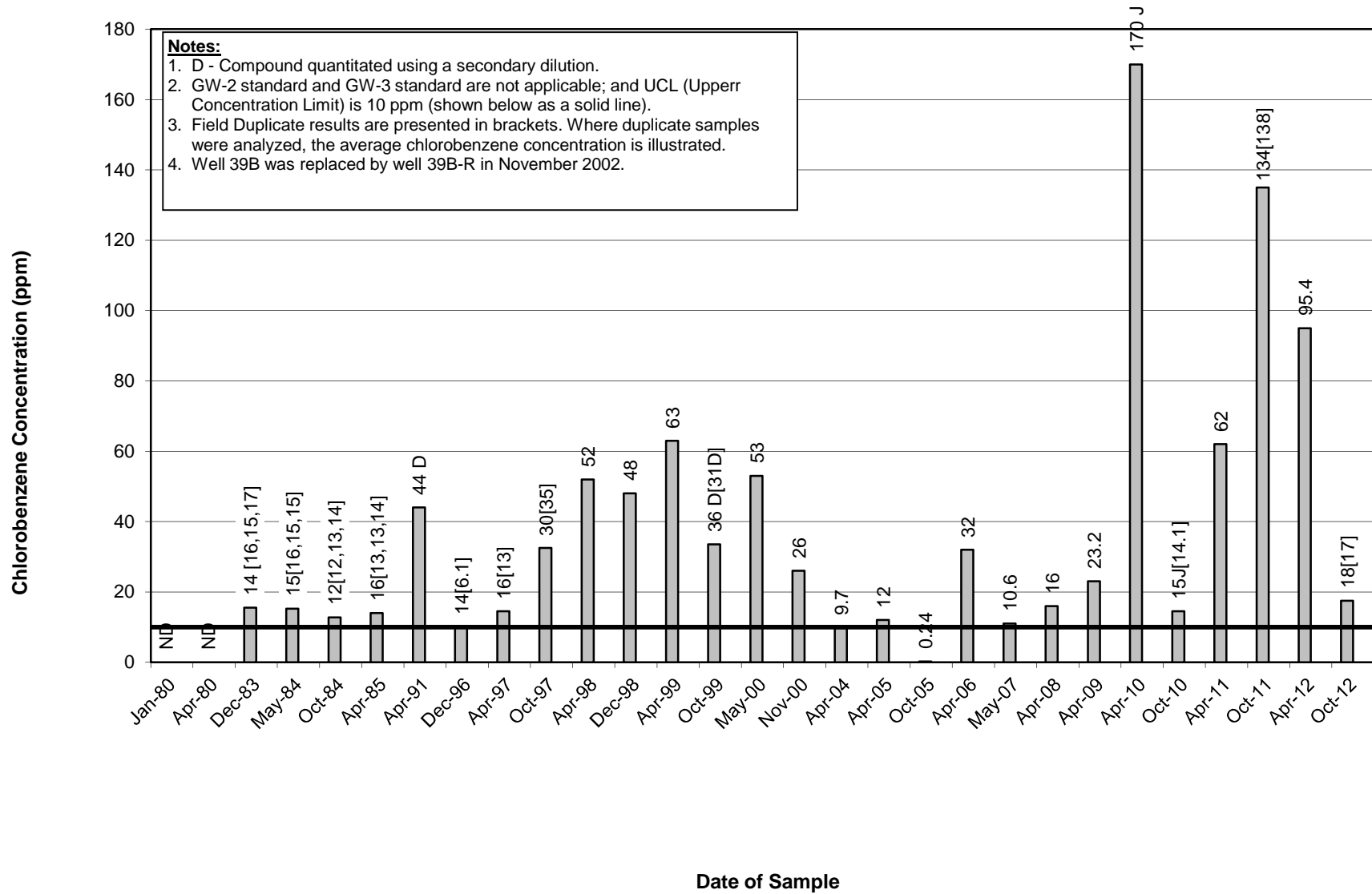


Appendix G

Historical Groundwater Data

Appendix G
Well 39B & 39B-R Historical Chlorobenzene Concentrations

Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts



Appendix G
Well Historical 39B/39B-R Total VOC Concentrations

Groundwater Management Area 3
General Electric Company - Pittsfield, Massachusetts

