GE
159 Plastics Avenue
Pittsfield, MA 01201
USA

Transmitted Via Overnight Courier

August 22, 2008

Mr. Richard Fisher
U.S. Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: **GE-Pittsfield/Housatonic River Site**
Groundwater Management Area 5 (GECD350)
Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008

Dear Mr. Fisher:

Enclosed is the *Groundwater Management Area 5 Long-Term Monitoring Program Monitoring Event Evaluation Report for Spring 2008* (GMA 5 Spring 2008 Monitoring Event Evaluation Report). This report was prepared in accordance with 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 Section 7.0 of Attachment H to the SOW (Groundwater/NAPL Monitoring, Assessment, and Response Programs).

The GMA 5 Spring 2008 Monitoring Event Evaluation Report is the second report to be submitted as part of the long-term monitoring program for this GMA. It summarizes activities performed at GMA 5 (also known as the Former Oxbow Areas A and C GMA) during Spring 2008, presents the results of the latest round of sampling and analysis of groundwater performed as part of the groundwater quality monitoring program, and proposes certain modifications to the long-term monitoring program at this GMA.

Please call Andrew Silfer or me if you have any questions regarding this report.

Sincerely,

Richard W. Gates /DG for

Richard W. Gates
Remediation Project Manager

Enclosure
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cc: Dean Tagliaferro, EPA
Rose Howell, EPA (CD-ROM)
Tim Conway, EPA*
Holly Inglis, EPA (CD-ROM)
K.C. Mitkevicius, USACE (CD-ROM)
Linda Palmieri, Weston (two hard copies and CD-ROM)
Anna Symington, MDEP*
Jane Rothchild, MDEP*
Michael Gorski, MDEP (two copies)
Thomas Angus, MDEP*
Mayor James Ruberto, City of Pittsfield
Thomas Hickey, Director, PEDA
Jeffery Bernstein, BCK Law
Teresa Bowers, Gradient
Nancy E. Harper, MA AG
Dale Young, MA EOEA
Michael Carroll, GE*
Andrew Silfer, GE (CD-ROM)
Rod McLaren, GE*
James Nuss, ARCADIS
James Bieke, Goodwin Procter
John Ciampa, SPECTRA
Property Owner - Parcel I8-23-6/I9-5-1
Property Owner - Parcel I8-23-9
Property Owner - Parcel I8-23-10
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ARCADIS
Infrastructure, environment, facilities

General Electric Company
Pittsfield, Massachusetts

Groundwater Management Area 5 Long-Term Monitoring Program Monitoring Event Evaluation Report for Spring 2008

August 2008

ARCADIS

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008

(GMA 5 Spring 2008 Monitoring Event Evaluation Report)

Prepared for:
General Electric Company
Pittsfield, Massachusetts

Prepared by:
ARCADIS
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315.446.9120
Fax 315.449.0017

Our Ref.:
B0030131

Date:
August 2008

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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 soil, 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 RAAs at and near the GE Pittsfield facility have been divided into five separate 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 Former Oxbows A and C Groundwater Management Area, also known as and referred to herein as GMA 5.

The Consent Decree and Attachment H to the SOW specify a series of steps to be taken at each of the GMAs to investigate and, as appropriate, respond to groundwater conditions. These documents provide initially for the design and implementation of a baseline monitoring program at each of the GMAs. Pursuant to Section 1.1.1 of Attachment H, the objective of the baseline monitoring program was to establish existing conditions in order to assess whether the existing response actions are protecting surface water, groundwater and sediment quality, and human health in occupied buildings. Additionally, the baseline monitoring program provides the basis for evaluating the effectiveness of future response actions, including the identification of any additional response actions that may be necessary to attain the Performance Standards. The baseline data are also to be used for comparison with data collected under the long-term monitoring program.

The baseline monitoring program consists of semi-annual groundwater quality sampling and quarterly elevation monitoring and generally lasts for a minimum two-year period. Section 6.1.3 of Attachment H to the SOW allows for the modification and/or continuation of the baseline monitoring program if the two-year baseline period ends prior to the completion of soil-related response actions at all the RAAs in a GMA. As the removal action for Former Oxbow Areas A and C comprising GMA 5 had not been completed at the end of the two-year period, GE proposed, and EPA approved, an extension of the baseline monitoring

program referred to as the interim groundwater monitoring program. At GMA 5, baseline monitoring (including the subsequent interim monitoring) was conducted from spring 2002 until fall 2006, just prior to the completion of the removal action for Former Oxbow Areas A and C comprising GMA 5. In April 2007, GE submitted a *Baseline Assessment Final Report and Long-Term Monitoring Program Proposal for GMA 5* (GMA 5 Long-Term Monitoring Proposal). That report proposed a long-term groundwater monitoring program for GMA 5. Following conditional approval of that report by EPA in a letter dated August 21, 2007, GE prepared an *Addendum to the Baseline Assessment Final Report and Long-Term Monitoring Program Proposal for Groundwater Management Area 5* (GMA 5 Long-Term Monitoring Proposal Addendum) to address the requirements contained in EPA's conditional approval letter. The GMA 5 Long-Term Monitoring Proposal Addendum was submitted to EPA on September 19, 2007 and conditionally approved by EPA in a letter dated October 24, 2007. This report constitutes the second monitoring event evaluation report submitted pursuant to the long-term groundwater quality monitoring program at GMA 5.

1.2 Background Information

1.2.1 Description of GMA 5

GMA 5 encompasses the Former Oxbow Areas A and C RAA, comprising approximately 7 acres adjacent to the Housatonic River and located approximately 250 feet downstream of the Lyman Street Bridge (Figures 1 and 2). The GMA contains a combination of non-GE-owned commercial and recreational areas. As shown on Figures 1 and 2, the Housatonic River flows along the north boundary of this GMA. Certain portions of this GMA originally consisted of land associated with oxbows or low-lying areas of the Housatonic River. Re-channelization and straightening of the Housatonic River in the early 1940s by the City of Pittsfield and the United States Army Corps of Engineers (USACOE) separated several of these oxbows and low-lying areas from the active course of the river. These oxbows and low-lying areas were subsequently filled with various materials from a variety of sources, resulting in the current surface elevations and topography. At their closest proximity, Former Oxbow Area A is located approximately 225 feet southwest of Former Oxbow Area C (Figure 2).

Former Oxbow Area A encompasses approximately 5 acres. This area consists of a large open field on the south side of the river, north of Elm Street and Newell Street. The majority of this generally flat area is undeveloped and covered with grass and low brush. Commercial businesses occupy a portion of an area along Elm Street to the south of the former oxbow. Specifically, a former gas station, laundromat and car wash are located at the southwestern portion of this former oxbow area.

Former Oxbow Area C encompasses an undeveloped area of approximately 2 acres on the south side of the Housatonic River, near the northwest end of Day Street. This generally flat area is undeveloped and covered with grass and low brush. The southeastern side of the area is bordered by residential properties along Day Street and Ashley Street.

Removal Actions performed by GE at the Former Oxbow Areas A and C RAA were implemented between July and November 2006, and generally included site preparation, soil removal/replacement, and property restoration. Most excavations were to a depth of one foot, with limited spot removals to approximately 2 feet. The final limits of soil removal were completed to the general limits shown on the EPA-approved technical drawings included in the *Final Removal Design/Removal Action Work Plan for Former Oxbow Areas A and C* (July 2005), as modified in the *Second Addendum to Final Removal Design/Removal Action Work Plan for Former Oxbow Areas A and C* (April 2006) and *Revision to Second Addendum to Final Removal Design/Removal Action Work Plan* (letter to EPA dated June 13, 2006). In addition to these soil removals, three soil piles located on the recreational portion of Parcel I8-23-6 were removed during the course of the remediation. Overall, approximately 6,290 cubic yards of soil were removed from Former Oxbow Areas A and C and placed within the appropriate On-Plant Consolidation Area or off-site disposal facility.

A separate disposal site, as designated under the Massachusetts Contingency Plan (MCP), is located on adjacent property near the southwestern corner of GMA 5. This disposal site is the Former Elm Street Mobil Station site (MDEP Site No. 1-0539, Tier 1B Permit No. 78741), and this site is currently being addressed by Exxon Mobil Corporation (ExxonMobil) pursuant to the MCP under an Administrative Consent Order (ACO) with the MDEP. As discussed below in Section 3.5, available documentation indicates that light NAPL (LNAPL) and soluble-phase contaminants related to releases from the Mobil Station may have migrated to the southwestern portion of GMA 5.

1.2.2 Overview of Hydrogeologic Conditions at the Site

In general, two unconsolidated hydrogeologic units are present within GMA 5. These units are briefly described below:

Surficial Deposits - This unit generally consists of heterogeneous fill materials and alluvial sands and gravels. These sands and sandy gravels are well-sorted and were deposited as glacial outwash and/or in association with recent depositional processes within the Housatonic River. Isolated peat deposits are also present, typically at depths corresponding to the bottom elevations of the river and the former oxbows. At certain locations within GMA 5, non-native fill materials are present above the alluvial deposits. These fill materials typically consist of sand, gravel, cinders, brick, and wood.

The alluvial unit extends from ground surface to depths of at least 25 feet. Fill materials, where present, have been observed to depths of 7 to 17 feet. From a hydrogeologic perspective, the fill and the sand/gravel deposits act as a single unit. All of the existing monitoring wells within GMA 5 are screened within this unit, as it is the upper and primary water-bearing unit within the GMA. Groundwater is encountered under unconfined conditions within this unit at depths between 8 and 19 feet below ground surface.

Glacial Till - Based on boring results at nearby locations within the Lyman Street Area and Newell Street Area II (within GMA 1), glacial till underlies the alluvial deposits and typically consists of dense silt containing varying amounts of clay, sand, and gravel. Discontinuous sandy lenses also have been identified in the till within the central portion of the Lyman Street Area RAA to the north of GMA 5. Till is generally encountered at depths beginning at approximately 20 to 25 feet beneath the Lyman Street Area to the north and at approximately 40 feet at Newell Street Area II to the east. No wells or borings have been installed to till beneath GMA 5.

The unconsolidated units at GMA 5 overlie bedrock. Based on information obtained from nearby areas, bedrock occurs at depths up to approximately 50 to 60 feet near the Housatonic River. The bedrock consists of white coarse-grained marble associated with the Stockbridge Formation.

Groundwater at GMA 5 generally flows toward the Housatonic River and is primarily influenced by the area's location (adjacent to the river). Figure 3 illustrates typical water table conditions, using groundwater data obtained during the spring 2008 groundwater monitoring event. The average depth to groundwater ranges from approximately 8 feet (downgradient) to just under 19 feet (upgradient in the western portion of the GMA). This variation in depth to groundwater is attributed to an increase in ground surface elevations across the western portion of the GMA, as little change in groundwater elevations are observed at monitoring wells located at similar distances from the river. As such, it appears that the localized changes in surface topography have little influence on groundwater flow characteristics.

Hydraulic conductivity data (as previously presented on Table 3 and Appendix C of the Groundwater Quality Monitoring Report for Spring 2002) indicate a wide range in conductivities, varying from 1.99 feet/day (at GMA5-7, located along the Housatonic River in the northwestern portion of the GMA) to 260.13 feet day (at GMA5-6, located along the Housatonic River in the northeastern portion of the GMA). The geometric mean of the calculated hydraulic conductivity values for GMA 5 is 17.76 feet/day. Calculated groundwater velocities using the above-referenced hydraulic conductivities, as well as representative horizontal gradients and porosities, range from a minimum of 0.05 feet per day to a maximum of 35.12 feet day, with a geometric mean of 1.18 feet per day.

A drainage ditch extends northeast from Former Oxbow Area A into Former Oxbow Area C. The ditch then turns toward the northwest and discharges into the Housatonic River, bisecting Former Oxbow Area C. The presence of this drainage ditch, which serves as a City of Pittsfield stormwater discharge point, may locally influence groundwater flow in its immediate vicinity, but the overall flow direction is still toward the Housatonic River.

Monitoring for the presence of NAPL is performed as part of the routine groundwater elevation monitoring activities at GMA 5. Although the presence of NAPL has been documented at the adjacent Elm Street Mobil Station Site, no NAPL has been observed within any of the GE monitoring wells monitored to date at GMA 5.

1.2.3 Overview of the Nature and Extent of Substances in Groundwater at the Site

Based on current information, the principal constituent sources that could potentially affect groundwater quality within GMA 5 appear to include the former oxbows and existing or historical commercial businesses located within or upgradient of this GMA. These potential sources are described below.

Former Oxbows - As a result of the straightening of the Housatonic River channel in the late 1930s and early 1940s, Former Oxbows A and C were isolated from the newly formed channel of the river. These oxbows were subsequently filled with materials originating from the GE facility as well as other sources. There are no available records that provide information regarding the specific type or origin of the fill materials, or parties involved in the filling activities. The former oxbow areas are labeled as “disposal areas” on re-channelization drawings developed by the City of Pittsfield in 1940. These areas were publicly accessible and it is likely that a variety of industries and/or individuals contributed fill material. A review of historical photographs indicates that the former river channel in Oxbow Area A and other portions of this area were filled prior to 1969. Filling of this area allegedly continued until into the 1980s. Review of these photographs also indicates that large portions of Former Oxbow Area C were filled prior to 1956, while other portions were not filled until the 1970s.

Other Sources - In addition to fill materials that have been placed within the former oxbows, it is possible that there are other potential contributing sources of groundwater constituents to GMA 5. Commercial businesses present within or upgradient of GMA 5 include an existing laundromat and car wash, as well as a former gasoline station. These operations are located adjacent to Former Oxbow Area A, in the southwest corner of the GMA.

Very few constituents were consistently detected during the baseline period at GMA 5. The observed detections were sporadic and spread throughout most of the GMA 5 wells, resulting in an apparent scattered distribution of occasionally-detected constituents. Low

levels of VOCs, PCBs and inorganics were detected in several wells across the GMA. In general, however, higher constituent concentrations and more frequent detections were observed in or near Oxbow Area A in the western portion of the GMA. In particular, chlorinated VOCs and PAHs are primarily, but not exclusively, found at the monitoring wells installed in or around the western oxbow.

1.2.4 Overview of Groundwater Investigation Activities at GMA 5

In December 2000, GE submitted a *Baseline Monitoring Program Proposal for Former Oxbows A and C Groundwater Management Area* (GMA 5 Baseline Monitoring Proposal). The GMA 5 Baseline Monitoring Proposal summarized the hydrogeologic information available at that time for GMA 5 and proposed groundwater monitoring activities for the baseline monitoring period at this GMA. EPA provided conditional approval of the GMA 5 Baseline Monitoring Proposal by letter of September 25, 2001. Thereafter, certain modifications were made to the GMA 5 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.

The baseline monitoring program, which was initiated in spring 2002, consisted of four semi-annual groundwater quality sampling events (with intervening quarterly groundwater elevation monitoring) followed by preparation and submittal of semi-annual reports summarizing the groundwater monitoring results, comparing the groundwater results with applicable Performance Standards, and, as appropriate, proposing modifications to the monitoring program. The fourth baseline monitoring report for GMA 5 entitled *Groundwater Management Area 5 Baseline Groundwater Quality Interim Report for Fall 2003* (Fall 2003 GMA 5 Groundwater Quality Report), was submitted to EPA on January 30, 2004.

As noted above, Section 6.1.3 of Attachment H to the SOW provides that if the two-year baseline monitoring period ends prior to the completion of soil-related response actions at all the RAAs in 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 5 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 RAA within GMA 5 were not yet complete, the Fall 2003 GMA 5 Groundwater Quality Report included a proposal to modify and extend baseline groundwater quality monitoring activities at GMA 5 (under a program referred to as the interim monitoring program) until such time as the soil-related Removal Actions at the GMA 5 RAA were completed and the needs for a long-term groundwater quality monitoring program were fully delineated.

EPA conditionally approved the Fall 2003 GMA 5 Groundwater Quality Report in a letter dated May 5, 2004. Under the approved interim monitoring program, annual water quality sampling (alternating between the spring and fall seasons) and semi-annual water level monitoring at selected GMA 5 wells was initiated in spring 2004.

The results of the initial interim sampling event were provided in GE's July 2004 *Groundwater Management Area 5 Groundwater Quality Interim Report for Spring 2004* (Spring 2004 GMA 5 Groundwater Quality Report), which was conditionally approved by EPA in a letter dated November 10, 2004. However, in that letter, EPA stated that the presence of EPA's temporary dam across the Housatonic River adjacent to GMA 5 (which was utilized as part of EPA's remediation along the 1 ½-Mile Reach of the Housatonic River) may influence groundwater flow at the GMA and that future groundwater quality monitoring there should be postponed until it is demonstrated that groundwater flow is not being artificially influenced by the dam. In addition, EPA required that groundwater elevation monitoring should continue to be performed on a semi-annual basis.

The EPA temporary dam was removed during January and February of 2006, and a round of water level monitoring was conducted on March 30, 2006. GE discussed the results with EPA during an April 10, 2006 technical call and received EPA approval to resume interim groundwater sampling in spring 2006. The results of the groundwater elevation monitoring and sampling activities conducted in spring 2006 were provided in GE's July 2006 *Groundwater Management Area 5 Groundwater Quality Monitoring Interim Report for Spring 2006* (Spring 2006 GMA 5 Groundwater Quality Report).

The Spring 2006 GMA 5 Groundwater Quality Report was conditionally approved by EPA in a letter dated November 16, 2006. In that letter, EPA required GE to conduct an additional full baseline sampling event in fall 2006 and, since soil-related Removal Actions at Former Oxbow Areas A and C were completed in November 2006, to submit a final baseline assessment report and proposal for long-term groundwater quality monitoring at GMA 5.

GE conducted the required fall 2006 groundwater monitoring and sampling activities and submitted the GMA 5 Long-Term Monitoring Proposal to EPA in April 2007. The GMA 5 Long-Term Monitoring Proposal provided a summary of the fall 2006 sampling activities conducted at GMA 5, evaluated the overall groundwater quality at the GMA pursuant to the requirements of Attachment H of the SOW and contained a proposal for long-term groundwater quality monitoring activities. Locations were considered for inclusion in the long-term program if:

- Exceedances of applicable MCP GW-2 or GW-3 standards were reported during the baseline monitoring program.

- The well is located downgradient of a location where exceedances of applicable MCP GW-2 or GW-3 standards were reported during the baseline monitoring program.

- A review of the available data indicates the potential presence of an increasing trend in the concentrations of certain constituents at levels approaching the applicable MCP GW-2 or GW-3 standards

In that report, as a result of the evaluations, GE proposed to conduct long-term groundwater quality monitoring at two wells in GMA 5 (i.e., wells GMA 5-4, and GMA5-7). In EPA's August 21, 2007 approval letter, EPA directed GE to collect an additional round of samples from well GMA5-5 for the full suite of analyses to re-evaluate the possible inclusion of the well in the long-term groundwater quality monitoring program, required GE to submit a proposal to establish the source of VOCs detected in well GMA5-7, and specified that wells GT-7 and GT-101 should be included in the semi-annual groundwater elevation monitoring events. In GE's September 19, 2007 GMA 5 Long-Term Monitoring Proposal Addendum, GE proposed to install and sample wells GMA5-9 and GMA5-10 to assess the source of the VOCs upgradient from well GMA5-7 and modified the long-term monitoring program to incorporate the other EPA requirements.

Following EPA approval of the GMA 5 Long-Term Monitoring Proposal Addendum, GE conducted the initial round of the required groundwater elevation monitoring and sampling activities in fall 2007, including the installation and sampling of the two new wells (GMA5-9 and GMA5-10). The results of those activities, along with proposals to modify the long-term monitoring program, were discussed in GE's *Groundwater Management Area 5 Long-Term Monitoring Event Evaluation Report for Fall 2007* (GMA 5 Fall 2007 Monitoring Event Evaluation Report), submitted to EPA on March 20, 2008.

EPA conditionally approved the GMA 5 Fall 2007 Monitoring Event Evaluation Report in a letter dated April 22, 2008. GE conducted the spring 2008 groundwater elevation monitoring and sampling activities between April 28, 2008 and May 16, 2008. A description of those activities, the results obtained, and GE's assessments of those results, including proposals to modify the long-term monitoring program at GMA 5, are contained in this *Groundwater Management Area 5 Long-Term Monitoring Program Monitoring Event Evaluation Report for Spring 2008* (GMA 5 Spring 2008 Monitoring Event Evaluation Report).

1.3 Format of Document

The remainder of this report is presented in four sections. Section 2 describes the groundwater-related activities performed at GMA 5 in spring 2008. Section 3 presents the analytical results obtained during the spring 2008 sampling event, including a summary of

the applicable groundwater quality Performance Standards identified in the CD and SOW, and a comparison of the spring 2008 results to those Performance Standards. Section 4 provides an overall assessment of groundwater quality at GMA 5 since initiation of baseline monitoring activities in spring 2002, including an evaluation of the analytical dataset for the wells that were sampled as part of the spring 2008 sampling event, and an assessment of the need for follow-up investigations or response actions. In addition, Section 4 presents a discussion of the implications of the new MDEP groundwater quality standards on the long-term groundwater quality monitoring program and proposes certain modifications to that groundwater monitoring program. Finally, Section 5 presents the schedule for future field and reporting activities related to groundwater quality at GMA 5.

2. Spring 2008 Field and Analytical Procedures

2.1 General

The activities conducted as part of the long-term groundwater monitoring program in spring 2008, and summarized herein, involved the measurement of groundwater levels, and the collection and analysis of groundwater samples at select monitoring wells within GMA 5, as summarized in Table 1. A summary of construction details for the GMA 5 wells that were monitored and/or sampled during spring 2008 is provided in Table 2. The field sampling data for the spring 2008 sampling event are presented in Appendix A. This section discusses the field procedures used to perform the activities listed above, as well as the methods used to analyze the groundwater samples. All activities were performed in accordance with GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP).

2.2 Groundwater Elevation Monitoring

Groundwater elevations were collected from the nine wells listed in Table 3 during the spring 2008 groundwater elevation monitoring event performed on April 28, 2008. Two of these wells are associated with the former Elm St. Mobil Station. Groundwater elevations in spring 2008 were, on average, approximately 0.85 feet higher than the elevations measured during spring 2006 (the most recent spring monitoring event) for wells gauged during both monitoring events. The spring 2008 groundwater elevation data presented in Table 3 were used to prepare a groundwater elevation contour map for spring 2008 (Figure 3). As shown on this figure and consistent with prior monitoring data, the groundwater flow direction is generally north to northwest toward the Housatonic River. The hydraulic gradient is relatively flat in the central and eastern part of GMA 5, but increases slightly on the west side of the GMA and in the riverbank areas.

In addition, monitoring for the potential presence of NAPL was performed as part of these well gauging events. No NAPL was observed during these monitoring events or any of the previous monitoring events conducted by GE at GMA 5. However, as discussed in Section 3.5 and Appendix E, NAPL related to the former Elm Street Mobil Site (which is being addressed by ExxonMobil) is present on the southwest portion of the GMA.

2.3 Groundwater Sampling and Analysis

Groundwater samples were collected from existing wells GMA5-4, GMA5-5, GMA5-7, GMA 5-9 and GMA5-10, between May 15 and 16, 2008. Samples were collected for analysis for the constituents shown in Table 1.

Low-flow sampling techniques using a bladder pump or peristaltic pump were utilized for purging the wells and collection of groundwater samples during this sampling event. Each monitoring well was purged utilizing low-flow sampling techniques until field parameters (including temperature, pH, specific conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) stabilized. Field parameters were measured in combination with the sampling activities at the monitoring wells. The field parameter measurements are presented in Table 4 and the field sampling records are provided in Appendix A. A general summary of the field measurement results during the spring 2008 monitoring event is provided below:

Parameter	Units	Range of Stabilized Readings
Turbidity	Nephelometric turbidity units (NTU)	4.0 to 22.0
pH	pH units	6.64 to 7.09
Specific Conductivity	Millisiemens per centimeter	0.841 to 1.439
Oxidation-Reduction Potential	Millivolts	- 91.70 to -10.5
Dissolved Oxygen	Milligrams per liter	0.46 to 2.39
Temperature	Degrees Celsius	10.70 to 13.04

As shown above, for this sampling event, none of the groundwater extracted from the monitoring wells had turbidity levels greater than 22 NTU. These results indicate that the sampling and measurement procedures utilized during this sampling event were effective in obtaining groundwater samples with low turbidity.

The collected groundwater samples were submitted to SGS Environmental Services, Inc. (SGS) in Wilmington, North Carolina for laboratory analysis. Filtered samples from well GMA5-4 were analyzed for cadmium (using EPA Method 6010B), and samples from well GMA5-7, GMA5-9 and GMA5-10 were analyzed for VOCs (using EPA Method 8260B).

Following receipt of the analytical data on the GE samples from the laboratory, the preliminary results were reviewed for completeness and compared to the Massachusetts Contingency Plan (MCP) Method 1 GW-2 (where applicable) and GW-3 standards, and to the MCP 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, along with the identification, when applicable, of sample results above the applicable MCP Method 1 standards and/or UCLs.

Finally, the data were validated in accordance with the FSP/QAPP and the validated results were utilized in the preparation of this report. As discussed in the validation report provided as Appendix C, 99.9% of all of the spring 2008 groundwater quality data are considered to be useable, which is greater than the minimum required usability of 90% as specified in the FSP/QAPP. The cadmium sample results were found to be 100% usable. VOC sample results were found to be 99.7% usable. The only rejected data were the VOC results for 2-chloroethylvinylether from one groundwater sample (GMA5-7), which was rejected due to MS/MSD recovery deviations.

3. Spring 2008 Groundwater Analytical Results

3.1 General

A description of the spring 2008 groundwater analytical results is presented in this section. Tables 5 and 6 provide a comparison of the concentrations of all detected constituents with the currently applicable groundwater quality Performance Standards established in the CD and SOW, while Table 7 presents a comparison of the concentrations of detected constituents with the UCLs for groundwater. These Performance Standards are described in Section 3.2 below and an assessment of the spring 2008 results relative to those groundwater quality Performance Standards and the UCLs is provided in Section 3.4.

3.2 Groundwater Quality Performance Standards

The Performance Standards applicable to response actions for groundwater at GMA 5 are set forth in Section 2.7 and Attachment H (Section 4.1) of the SOW. In general, the Performance Standards for groundwater quality are 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 5 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 (bgs) 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 and nearby 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 ultimately discharge to surface water. In accordance with the CD and SOW, all groundwater at GMA 5 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 5. The current MCP Method 1 GW-2 and GW-3 standards for the constituents detected in the spring 2008 sampling event are listed in Tables 5 and 6, respectively.

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.

On February 14, 2008 MDEP implemented revised Method 1 numerical standards for a number of constituents in groundwater, and this report constitutes the first report at this GMA for which those standards will be applied. In addition, in its July 30, 2008 conditional approval letter related to the *Groundwater Management Area 2 Long-Term Monitoring Program Addendum to Monitoring Event Evaluation Report for Fall 2007*, EPA specified that the low-range guidance values developed in that report for cobalt and copper should represent the Method 2 GW-3 standards for these metals at all of the GE Pittsfield GMAs. As such, although no analysis for either metal was performed in any of the samples during this sampling event, GE has utilized those Method 2 standards in its evaluation of whether there is any need for additional monitoring for those constituents.

Based on consideration of the above points, the specific groundwater quality Performance Standards for GMA 5 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);

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. Those compliance wells that are sampled under the long-term monitoring program are identified in Table 1. Compliance with the applicable Performance Standards at several other wells has been verified during performance of the baseline monitoring program at GMA 5.

In addition to the Performance Standards described above, analytical results from all groundwater monitoring wells sampled during the spring 2008 sampling event were compared to the MCP UCLs for groundwater.

3.3 Spring 2008 Groundwater Quality Results

The following subsections provide an overview of the spring 2008 analytical results from the GMA 5 monitoring wells for each constituent group that was analyzed.

3.3.1 VOC Results

Groundwater samples collected from three groundwater quality monitoring wells were analyzed for VOCs during the spring 2008 sampling event. The VOC analytical results are summarized in Table 7 (for detected constituents compared to MCP UCLs for groundwater) and Table B-1 of Appendix B (for all constituents analyzed). No VOCs were detected at well GMA5-10 during the spring 2008 sampling event, while a total of six VOCs were detected at the other two monitoring wells. Total detected VOC concentrations ranged from an estimated concentration of 0.020 parts per million (ppm) at well GMA5-9 (with a duplicate concentration of 0.021 ppm) to an estimated concentration of 0.041 ppm at well GMA5-7. The only VOC detected at more than one sampling location was tetrachloroethene (PCE). Specifically, wells GMA5-7 and GMA5-9 contained PCE at concentrations of 0.037 ppm and 0.020 ppm (with a duplicate concentration of 0.021 ppm), respectively. As shown in Tables 5 and 6 and discussed below, no VOCs were detected at levels exceeding the applicable Method 1 GW-2 or Method 1 GW-3 standards during the spring 2008 sampling round.

3.3.2 Inorganic Constituent Results

Filtered groundwater samples were obtained from monitoring well GMA5-4 was analyzed for cadmium. The analytical results for this sample are summarized in Tables 7 and B-1 within Appendix B. Cadmium was not detected in the filtered sample analyzed from well GMA5-4.

3.4 Evaluation of Groundwater Quality – Spring 2008

For the purpose of assessing current groundwater conditions, the analytical results from the spring 2008 groundwater sampling event were compared to the applicable groundwater Performance Standards for GMA 5. These Performance Standards are described in Section 3.2 above and are currently based on the MCP Method 1 GW-2 and/or GW-3 standards. The following subsections discuss the spring 2008 groundwater analytical results in relation to these Performance Standards, as well as in relation to the MCP UCLs for groundwater. In support of those discussions, Tables 5 and 6 provide a comparison of the concentrations of detected constituents with the currently applicable GW-2 and GW-3 standards, respectively, while Table 7 presents a comparison of the concentrations of detected constituents with the groundwater UCLs.

Additionally, as discussed in Section 3.5 below, concentrations of certain petroleum hydrocarbon compounds in wells installed and sampled by ExxonMobil at their Elm Street Mobil Site have exceeded Method 1 GW-2 and/or GW-3 standards during ExxonMobil's most recent groundwater sampling event, conducted in fall 2007. These wells were installed at the southwest corner of GMA 5, as part of ongoing remedial investigations and monitoring activities being conducted at that site. Groundwater quality data at specified locations obtained during those investigations is provided in Appendix E. Matters concerning water quality in relation to that site are being addressed by ExxonMobil.

3.4.1 Spring 2008 Groundwater Results Relative to GW-2 Performance Standards

During the spring 2008 groundwater quality monitoring event at GMA 5, groundwater samples were collected from three wells designated as GW-2 monitoring locations (i.e., wells GMA5-7, GMA5-9, and GMA5-10). The spring 2008 groundwater analytical results for all detected constituents subject to MCP Method 1 GW-2 standards are presented in Table 5, along with a comparison of those results to the applicable GW-2 standards. All four constituents detected in well GMA5-7 (ethylbenzene, PCE, trichloroethene (TCE), and vinyl chloride) were found at levels below the respective Method 1 GW-2 standards. The two constituents detected at well GMA5-9 (chlorobenzene and PCE) were also at concentrations below the respective MCP GW-2 standards. No VOCs were detected in well GMA5-10 during the spring 2008 groundwater quality monitoring event.

None of the three GW-2 wells exhibited total VOC concentrations above 5 ppm (the level specified in the SOW as a notification level for GW-2 wells located within 30 feet of a school or occupied residential structure and as a trigger level for the proposal of interim response actions).

3.4.2 Spring 2008 Groundwater Results Relative GW-3 Performance Standards

Groundwater samples were collected from two wells designated as GW-3 monitoring points during the spring 2008 sampling event (i.e., wells GMA5-4 and GMA5-7) and two supplemental monitoring locations (i.e., wells GMA5-9, and GMA5-10). The spring 2008 groundwater analytical results for all constituents detected in these wells and a comparison of those results with MCP Method 1 GW-3 standards are presented in Table 6 (although Method 2 GW-3 standards have been developed and implemented for cobalt and copper, no samples were analyzed for these metals in spring 2008). There were no exceedances of the GW-3 standards for any substances in any wells within GMA 5 in spring 2008.

At well GMA5-4 no cadmium was detected in spring 2008, consistent with the fall 2007 sampling event. Although cadmium was detected in this well during the fall 2006 sampling round at an estimated concentration of 0.00411 ppm, representing a slight exceedance of the GW-3 standard for cadmium (0.004 ppm), this result represents the only detection of cadmium in this well.

3.4.3 Comparison of Spring 2008 Groundwater Results to Upper Concentration Limits

In addition to comparing the spring 2008 groundwater analytical results with applicable MCP Method 1 GW-2 and GW-3 standards, the analytical results from all wells that were sampled were compared with the UCLs for groundwater specified in the MCP (310 CMR 40.09996(7)). These comparisons, presented in Table 7, show that none of the detected constituents exceeded its respective UCL.

3.5 Adjacent MCP Site Monitoring Results

As discussed above in Section 1.2, the Former Elm Street Mobil Site (MDEP Site No. 1-0539, Tier 1B Permit No. 78741) is located on adjacent, upgradient property near the southwestern corner of GMA 5. This separate disposal site (as designated under the MCP) is currently being addressed by ExxonMobil pursuant to the MCP under an Administrative Consent Order with MDEP.

The Long-Term Monitoring Proposal requires that GE include available monitoring results from response actions performed by ExxonMobil in the monitoring event evaluation reports for GMA 5. The most recent review of the MDEP file for the Elm Street Mobil Site was conducted on July 9, 2008. Two documents pertaining to groundwater investigations and response actions have been issued for that site since the previous file review performed during preparation of the GMA 5 Fall 2007 Monitoring Event Evaluation Report. The documents are:

- Phase V Inspection & Monitoring Report, Remedial Monitoring Report, and Release Abatement Measures Completion Report Former Mobil Service Station No. 01-ECQ83-89 Elm Street Pittsfield, Massachusetts Release Tracking Number 1-0539 (CDM, December 2007).

- Six Month Recertification, Remediation General Permit Authorization No. MAG910107, Former Mobil Service Station No. 01-ECQ, 83-89 Elm Street, Pittsfield, Massachusetts, RTN 1-0539 (CDM, February 2008).

A site map and pertinent monitoring results from the most recent monitoring report reviewed for the Former Elm Street Mobil Site (i.e., the December 2007 Phase V Inspection and Monitoring Report and Remedial Monitoring Report) are provided in Appendix E. That report describes the total volume of hydrocarbons removed and the effectiveness of the soil vapor extraction system (SVE), and the vacuum enhanced groundwater extraction system (VEGE). As shown in the CDM-prepared tables provided in Appendix E, the total amount of hydrocarbons removed by the SVE system during the period of January 3, 2007 to August 27, 2007 was 150.5 pounds. The total amount of hydrocarbons removed by the VEGE system during the same period was 8.79 pounds.

A review of the analytical results for the most recent groundwater sampling event, conducted in October 16 to 17, 2007, indicate that no VPH or aliphatic hydrocarbons compounds were detected in approximately half of the analyzed groundwater samples (i.e., wells ECS-14, GES-203, GES-204, GES-205, GES-219, GES-224, GES-303, and GES-318S); two wells were dry during the sampling period (wells GES-208 and EXP-7); and VPHs were detected in wells ECS-4, GT-2, GES-201, GES-220, GES-223, GES-225, GES-301S, GES-310, EXP-11R, EXP-12, EXP-17 and EXP-18.

MCP Method 1 GW-2 standard exceedances were recorded in samples collected from two ExxonMobil monitoring wells (EXP-11R and EXP-12), which were conservatively designated as GW-2 wells due to their close proximity to the former Mobil station, which is currently unoccupied, and fluctuating depths to water near 15 feet below grade. Samples collected from these two wells contained concentrations of C5-C8 aliphatic hydrocarbons in excess of the GW-2 standard.

MCP Method 1 GW-3 standard exceedances were reported in samples collected from four ExxonMobil monitoring wells. These wells include GT-2, GES- 225, EXP-11R, and EXP-12. Samples from these four wells contained concentrations of C5-C8 aliphatic hydrocarbons above the GW-3 standard. The MCP Method 1 GW-3 Standard for total xylenes was exceeded at three of these wells (GES-225, GT-2, and EXP-11R) and the GW-3 standard for C9-C10 aromatic hydrocarbons was exceeded at monitoring well GES-225.

As noted above, all matters concerning groundwater and NAPL related to the ExxonMobil site are being addressed by ExxonMobil under the MCP.

3.6 NAPL Evaluation

Consistent with prior monitoring results, no NAPL was observed in any of the GMA 5 monitoring wells during the groundwater elevation and sampling activities conducted in spring 2008.

If NAPL is encountered at portions of GMA 5 outside of the Former Elm Street Mobil Site and adjacent areas being addressed by ExxonMobil pursuant to the MCP under a separate Administrative Consent Order with MDEP, the long-term trend evaluations will also include a review of the current NAPL recovery efforts to the extent that data are available from ExxonMobil.

During the Long-Term Monitoring Program, if NAPL is observed to be discharging to any surface water or creating a sheen on the water in a location in which such NAPL discharge was not previously observed or measures are not in place to effectively contain the sheen, GE will notify EPA and MDEP within two hours of obtaining knowledge of such observation. This will be followed by written notice to EPA within seven (7) days. The written notification will include a proposal to EPA for interim response actions to contain such discharge. Upon EPA approval, GE will conduct the approved interim response actions to contain the NAPL discharge.

Also under the approved GMA 5 Long-Term Monitoring Proposal, if NAPL is observed to be discharging to any surface water or creating a sheen on the water in a location in which such NAPL discharge was previously observed and measures are in place to contain the sheen, GE will notify EPA of the continued presence of such NAPL in the next monthly progress report for overall work at the Site.

For groundwater, if a NAPL thickness of greater than or equal to 1/2-inch is observed in any monitoring well, GE will notify EPA and MDEP within seventy-two hours of obtaining knowledge of such a condition, unless such conditions are consistent with the types, nature, and quantities of NAPL which were previously observed and reported to the Agencies. This notification will be followed by written notice to the EPA within 60 days. The written notification will include a proposal to EPA for interim response actions to be conducted which may include NAPL sampling, additional assessment/monitoring, or NAPL removal activities. Upon EPA approval, GE will conduct the approved interim response actions. If a NAPL thickness of greater than or equal to 1/8-inch, but less than 1/2-inch is observed in a monitoring well, GE will notify EPA and MDEP in the next monthly progress report, unless the results are consistent with the types, nature, and quantities of NAPL which have previously been observed and reported to the Agencies.

4. Assessment of Groundwater Quality

4.1 General

This report constitutes the second monitoring event evaluation report submitted since commencement of the GMA 5 long-term groundwater quality program. The information presented herein is based on the laboratory results obtained during the course of the GMA 5 baseline and long-term groundwater monitoring programs.

For the purpose of assessing overall groundwater conditions at GMA 5, the analytical results from the spring 2008 groundwater sampling event were compared to the applicable groundwater Performance Standards for GMA 5, as described in Section 3.4 above. In addition, GE has compared the spring 2008 results to prior data to evaluate variations and/or potential trends in constituent concentrations in GMA 5 groundwater.

The following sections present the results of those overall assessments of groundwater quality, including an evaluation of the need for follow-up investigations, assessments, interim response actions, or other modifications to the long-term monitoring program.

4.2 Evaluation of Variations in Groundwater Quality

For the purpose of assessing current groundwater conditions, the analytical results from the spring 2008 groundwater sampling event were compared to data obtained during prior baseline sampling events, and in particular, the most recent round of sampling data. In addition, the variability of the data was evaluated. The results of these comparisons are described below.

4.2.1 Comparison of Spring 2008 Analytical Results to Baseline Data

Graphs illustrating historical VOC and filtered cadmium concentrations for all wells sampled and analyzed for those constituent during spring 2008 at GMA 5 are presented in Appendix D. In addition, Appendix D contains graphs of historical concentrations of individual constituents that exceeded the applicable MCP Method 1 GW-2 or GW-3 standards during any of the prior sampling events (i.e., PCE and vinyl chloride at well GMA5-7).

At well GMA5-7, the spring 2008 total VOC concentrations (0.0041 ppm) is slightly greater than the average concentration observed at this well (0.0346 ppm), but is at approximately the middle of the range of the most-recently detected concentrations. Wells GMA5-9 and GMA5-10 were sampled for the second time in spring 2008, therefore the prior data available for comparison is limited to the fall 2007 results. Total VOC concentrations at well

GMA5-9 were approximately equal to the fall 2007 data. No VOCs were detected at well GMA5-10, compared to trace amounts observed in fall 2007.

Since PCE is the primary constituent found at wells GMA5-7 and GMA5-9, the graphs of historical PCE concentrations contained in Appendix D are very similar to the total VOC results discussed above --- e.g., the spring 2008 PCE concentration at GMA5-7 (0.037 ppm) was slightly above the historical average, at the approximate mid-range of recently-detected PCE concentrations, and has shown a decrease since the historical high concentration observed in spring 2006 (0.062 ppm). All PCE concentrations, with the exception of that spring 2006 result, have been below the GW-2 standard of 0.05 ppm.

The historical graph for vinyl chloride concentrations shows an estimated concentration of 0.00059 ppm for vinyl chloride in spring 2008 at well GMA5-7, which is well below the GW-2 standard of 0.002 ppm. That result is approximately equal to the fall 2007 result and is an order of magnitude less than the maximum vinyl chloride detection at this well, a GW-2 exceedance observed in fall 2003 (0.0029 ppm).

As shown in the graph in Appendix D, cadmium was not detected in well GMA5-4 during spring 2008. This is consistent with all other prior sampling rounds at this well, with the exception of a single detection during the fall 2006 monitoring event.

4.2.2 Comparison of Spring 2008 Analytical Results to Previous Sampling Rounds

Table D-1 in Appendix D presents a comparison of the spring 2008 analytical results to the most recent spring sampling data collected from each well for each constituent analyzed (i.e., spring 2006 for VOCs at well GMA5-7 and spring 2003 for cadmium at well GMA5-4). The spring 2008 results represented the first spring sampling round at wells GMA5-9 and GMA5-10, so data from those wells could not be compared to any prior spring data.

At well GMA 5-7, the total VOC concentration detected in spring 2008 (estimated at 0.041 ppm) was approximately one-third less than the concentration observed in spring 2006 (0.064 ppm). PCE was the primary constituent detected during each sampling round (concentrations of 0.037 ppm in spring 2008 compared to 0.062 ppm in spring 2006). TCE was the only other VOC detected during each spring sampling event and was found at similar low concentrations during each round (0.0028 ppm in spring 2008 and 0.0023 ppm in spring 2006). Three other VOCs were detected in spring 2008, but were not detected in this well in spring 2006. Each of those constituents (trans-1,2-dichloroethene, ethylbenzene, and vinyl chloride) was previously detected at this well during other monitoring events.

No cadmium was detected in the filtered sample from well GMA5-4 in spring 2008, which was consistent with the results from spring 2003. The fall 2006 result of 0.00411 ppm appears to be anomalous, given that cadmium was not detected during any of the six other sampling rounds performed at this well. Nonetheless, pursuant to EPA's April 22, 2008 conditional approval letter, GE will continue analyzing this well for cadmium until four consecutive sampling rounds show cadmium levels at or below the Performance Standards.

4.2.3 Evaluation of Seasonal Variability in Data

To evaluate the potential presence of seasonal trends in the groundwater quality data at GMA 5, GE has reviewed the analytical data from the wells included in the long-term monitoring program at GMA 5. Inspection of the historical concentration graphs contained in Appendix D indicates that ranges of data collected in the spring vs. fall seasons are within the same order of magnitude at wells GMA5-7, GMA5-9, and GMA5-10 for PCE and total VOCs, although the data have more variation and there are significantly more historical data at well GMA5-7 than at wells GMA5-9 and GMA5-10. Cadmium was only detected at well GMA5-4 during the fall 2006 monitoring event, but not during three other fall monitoring rounds (or three spring sampling events). Based on these preliminary evaluations, it does not appear that seasonal variability is significantly affecting the sampling results at GMA 5.

4.3 Statistical Assessment of Data

To assess potential trends in groundwater constituent concentrations over time (i.e., long-term increasing or decreasing concentrations) as well as seasonal cycles, various statistical methods can be utilized depending on the extent of the overall sampling period and the frequency of sampling events within the sampling period. Graphical representations such as a simple plot of concentration data versus time may reveal long-term cyclical patterns as well as pulses, both of which may explain temporal trends. As described in the GMA 5 Long-Term Monitoring Proposal, three statistical techniques may be utilized to evaluate temporal trends in GMA 5 groundwater and to determine the statistical significance of any potential trends that are identified: (1) Mann-Kendall Test; (2) Sen's slope estimator; and (3) Seasonal Kendall Tau estimator. The need for such statistical evaluations will be assessed as the long-term monitoring program progresses and will be summarized in the Long-Term Trend Evaluation Reports for GMA 5 as appropriate.

In addition to the concentration versus time graphs discussed above, GE has prepared a general summary of the analytical results for all wells/constituents included in the long-term monitoring program. The summary statistics of the analytical data for the GMA 5 wells where long-term monitoring is being conducted (i.e., wells GMA5-4, GMA5-7, GMA5-9 and GMA5-10) are contained in Appendix F and are discussed below.

As shown in Table F-1 in Appendix F, cadmium was only detected at well GMA5-4 during one of 7 sampling events (fall 2006). Although the estimated concentration during that event was slightly above the GW-3 standard of 0.004 ppm, the average concentration at this well is below the applicable standard and that single detection appears to be anomalous. Similar to the four sampling rounds conducted prior to fall 2006, no cadmium was detected in the filtered sample from well GMA5-4 analyzed in spring 2008.

A statistical breakdown of the historical VOC data for well GMA5-7 is contained in Table F-2 in Appendix F. As seen on that table, seven individual VOCs have been detected in this well during at least one of the eight sampling events that have been conducted. Five of these constituents were detected at trace levels during spring 2008. Trans-1,2-dichloroethene and vinyl chloride were each detected during at least two sampling events, including spring 2008. The primary VOCs observed at well GMA5-7 are PCE (detected during all nine sampling events) and TCE (detected during six of nine sampling events). The spring 2008 concentrations of TCE are below the average concentrations for the GMA5-7 dataset, while PCE (0.037 ppm) was just above the calculated average (0.0299 ppm) shown in Table F-2.

A statistical breakdown of the historical VOC data for well GMA5-9 is provided in Table F-3 in Appendix F. As seen on that table, PCE was detected during both sampling events that have been conducted at this well, including spring 2008. The primary VOCs observed at well GMA5-9 are PCE (detected during both the fall 2007 and spring 2008 sampling events) and chlorobenzene (detected only during the spring 2008 sampling event). The spring 2008 concentration of PCE (0.021ppm) was approximately equal to the calculated average (0.0215 ppm).

A statistical breakdown of the historical VOC data for well GMA5-10 is contained in Table F-4 in Appendix F. As seen on that table, only one individual VOC has been detected in this well during the two sampling events that have been conducted. No constituents were detected during spring 2008. Toluene was detected during only one sampling event, in fall 2007.

4.4 Overall Assessment of Groundwater Quality Data

Very few constituents have been consistently detected in groundwater at GMA 5. Most of the observed detections have been sporadic and spread across the GMA, resulting in an apparent scattered distribution of occasionally-detected constituents. Low levels of VOCs, PCBs and inorganics have been detected in certain wells across the GMA. In general, however, higher constituent concentrations and more frequent detections, including all recorded exceedances of the applicable GW-2 or GW-3 standards, were observed in or

near Oxbow Area A in the western portion of the GMA. As such, the long-term groundwater quality monitoring program is focused on this area.

The following subsections provide an overview of the groundwater quality data at GMA 5, focused on the constituents and locations that are included in the long-term monitoring program and/or were sampled in spring 2008.

4.4.1 VOCs

Three wells were included in the spring 2008 long-term sampling event for VOC analysis. However, only one well (GMA5-7) is currently part of the long-term monitoring program. Wells GMA5-9 and GMA5-10 were installed and sampled to assess the VOCs found to be present in well GMA5-7, particularly to help determine if the presence of PCE in well GMA5-7 could be related to a dry cleaning facility located upgradient of that well.

Total VOC concentrations at well GMA5-7 are closely related to the concentrations of PCE, which constitutes the primary constituent detected in this well. PCE has been detected in well GMA5-7 during each sampling round, as shown in the graph in Appendix D. During the spring 2006 sampling event, the concentration of PCE detected in this well (0.062 ppm) exceeded the GW-2 standard of 0.05 ppm. However, in the spring 2008 sampling round, the PCE concentration detected in this well (0.037 ppm) was below the GW-2 standard. The spring 2006 event was the only occasion on which the GW-2 standard for PCE was exceeded at this well. Since that time, three sampling rounds have been conducted, with the PCE results below the applicable standard. Since four consecutive sampling events showing results below the applicable standards are required to demonstrate that the groundwater Performance Standards have been achieved, GE will continue to collect additional data from this well during the long-term monitoring program.

As noted above, given the location of this well downgradient from operating dry cleaning and laundry facilities and the general absence of PCE elsewhere in the GMA, it appears that the PCE in this well is not related to former GE operations at the site. Wells GMA5-9 and GMA5-10 were installed upgradient of well GMA5-7 to further evaluate the possible source of PCE. At well GMA5-9, which is closest to the dry cleaning facility, the PCE concentration in spring 2008 was 0.021 ppm (see Table 5), which is comparable to the concentration in well GMA5-7. No PCE has ever been detected in well GMA5-10.

The GW-2 standard for vinyl chloride (0.002 ppm) was exceeded in well GMA5-7 during the fall 2003 sampling round, when the detected concentration was 0.0029 ppm. As shown in the historical vinyl chloride concentration graph for this well in Appendix D, vinyl chloride was not detected in this well during the three subsequent sampling events and was detected at trace levels below the PQL in fall 2007 and spring 2008. Thus, the spring 2008

represents the fifth consecutive sampling event in which the vinyl chloride concentration was below the applicable GW-2 standard, indicating that the Performance Standard for vinyl chloride has been achieved at well GMA5-7. However, given that well GMA5-7 is subject to additional sampling and VOC analyses due to the presence of PCE in the well, GE will continue to assess the presence of vinyl chloride in this well during future monitoring event evaluation reports.

4.4.2 Cadmium

Well GMA5-4 was added to the long-term monitoring program based on an estimated cadmium concentration of 0.00411 ppm detected in fall 2006, which is slightly above the GW-3 standard of 0.004 ppm. Cadmium was not detected in the filtered sample from well GMA5-4 in spring 2008. Overall, samples from well GMA5-4 have been analyzed for cadmium during seven sampling events conducted since initiation of the baseline monitoring program and the fall 2006 event was the only time that the constituent was detected. Although spring 2008 was only the third sampling event conducted since the GW-3 exceedance observed in fall 2006, the historical data from this well indicates that the fall 2006 data point is anomalous. Nevertheless, as required by EPA in its April 22, 2008 conditional approval letter, GE will continue long-term monitoring for cadmium at well GMA5-4 until four consecutive sample results below the GW-3 standard are obtained.

4.5 Evaluation of the Need for Follow-up Investigations, Assessments, or Interim Response Actions

As stated in the GMA 5 Long-Term Monitoring Proposal and Addendum, the analytical data obtained during the baseline monitoring programs did not reveal any significant data gaps concerning groundwater quality that would suggest the need for any further investigations or assessments, other than the additional investigations being conducted to identify the source of PCE found in well GMA5-7. Likewise, a review of the spring 2008 long-term monitoring data does not indicate the need for additional actions beyond the approved long-term monitoring activities.

In spring 2008, the detected VOC concentrations were very low in relation to any applicable GW-2 or GW-3 standards and cadmium was not detected at all. Based on the results during the spring 2008 sampling round, there have been no wells at which any detected concentration suggests the need for an interim response action apart from continued long-term monitoring at certain of these locations. If any exceedances of the groundwater-related Performance Standards are observed at GMA 5, GE will evaluate the need for appropriate response actions and will propose any necessary actions for EPA approval.

The following subsections contain GE's evaluation of the effect on the long-term groundwater quality monitoring program of the recent revisions to the MCP Method 1 standards and UCLs for groundwater that became effective on February 14, 2008 and the implementation of Method 2 GW-3 standards for cobalt and copper, and a description of GE's proposed modifications to the monitoring program. In light of the new standards, GE has re-evaluated the analytical results from all GMA 5 monitoring wells to determine whether, and, if so, how the new Performance Standards should alter the wells and/or parameters included in the long-term monitoring program. The results of that evaluation and resulting proposed program modifications are discussed below.

4.5.1 Evaluation of Groundwater Data Relative to Revised MCP Standards

In the GMA 5 Long-term Monitoring Proposal, GE presented an evaluation of the baseline monitoring results from GMA 5 and proposed to retain certain wells for selected analyses in the long-term monitoring program in order to confirm whether or not the Performance Standards have been attained at this GMA. Specifically, locations were proposed for inclusion in this program if:

- Exceedances of applicable MCP GW-2 or GW-3 standards were reported during the baseline monitoring program.

- The well is located downgradient of a location where exceedances of applicable MCP GW-2 or GW-3 standards were reported during the baseline monitoring program.

- A review of the available data indicates the potential presence of an increasing trend in the concentrations of certain constituents at levels approaching the applicable MCP GW-2 or GW-3 standards

Additional monitoring locations were added to the long-term monitoring program as a result of EPA requirements contained in its conditional approval of the GMA 5 Long-term Monitoring Proposal and Addendum.

Section 7.3 of Attachment H to the SOW states that GE may discontinue long-term monitoring at particular wells within any GMA if the results of four consecutive groundwater monitoring events show no exceedances of the relevant Performance Standards and other reasons do not exist for retaining the wells in the long-term monitoring program (e.g., presence of NAPL in the well or constituent concentrations exceeding the applicable Performance Standards in upgradient groundwater). This provision of Attachment H therefore provides the basis upon which GE initially identified monitoring points and constituents to be analyzed in the long-term monitoring program.

In light of the recent revisions to the MCP that became effective on February 14, 2008, GE has repeated this evaluation, comparing all baseline and long-term groundwater quality data to the new MCP Method 1 Standards and to the Method 2 Standards that have been developed and approved by EPA for cobalt and copper. Through that evaluation, GE has confirmed that the results from all locations that met the former Performance Standards also comply with the revised Performance Standards and, therefore, GE proposes no modifications to the long-term monitoring program based on the changes in the MCP groundwater standards.

In addition, as a new Method 1 GW-2 standard for PCBs has been promulgated in the 2008 MCP revision, GE evaluated the existing data from the GW-2 wells at GMA 5 to determine if additional sampling would be required to verify compliance with this new standard. As agreed with EPA, GE used filtered PCB results for this comparison. GE found that the existing PCB database for all GMA 5 monitoring wells was sufficient to evaluate the wells against the new MCP GW-2 standard for PCBs (i.e., at least four sampling events for filtered PCB analysis were conducted), since all wells monitored for GW-2 compliance at GMA 5 were also analyzed for PCBs as part of the GW-3 monitoring component of the baseline monitoring program. All filtered PCB concentrations are well below this new standard and no additional PCB sampling is proposed based on the promulgation of the GW-2 standard at GMA 5.

With regard to other GW-2 standards, no exceedances of the revised GW-2 standards were observed at any of the GMA 5 GW-2 wells during the baseline or long-term monitoring periods. Therefore, there is no basis for modifying the long-term monitoring program based on GW-2 considerations.

Likewise, with regard to GW-3 standards, GE has reviewed the historical groundwater quality data at GMA 5 and has confirmed that all wells comply with the GW-3 Performance Standards based on the revised Method 1 standards and new Method 2 standards. As such, no additional GW-3-based sampling is proposed during the long-term monitoring program. However, as discussed below, VOC data from GW-2/GW-3 well GMA5-7 and supplemental monitoring well GMA5-9 collected to assess compliance with the GW-2 Performance Standard for PCE will also continue to be compared to the GW-3 Performance Standards in future monitoring event evaluation reports.

4.5.2 Proposed Monitoring Program Modifications

Although no modifications to the long-term groundwater monitoring program are proposed based on the evaluations of the revised groundwater Performance Standards discussed above, GE stated in the GMA 5 Fall 2007 Monitoring Event Evaluation Report that, following the spring 2008 sampling event, it would evaluate whether it would be appropriate to

include wells GMA5-9 and GMA5-10 (discussed below) in the long-term groundwater quality monitoring program. Accordingly, and also pursuant to EPA's April 22, 2008 conditional approval letter, GE has evaluated the need for continued groundwater quality monitoring at supplemental wells GMA5-9 and GMA5-10 and makes the following proposals:

- **An additional round of supplemental sampling and VOC analyses is proposed at well GMA5-9.** The spring 2008 results at well GMA5-9 were consistent with the fall 2007 data (low levels of PCE were detected during each sampling event) and below the applicable GW-2 and GW-3 Performance Standards. As such, long-term monitoring does not appear to be necessary at this location. However, GE proposes to conduct an additional supplemental sampling round at this well in fall 2008 to obtain additional VOC data from the fall season for use in its continued assessment of PCE in this area.

- **No additional sampling is proposed at well GMA5-10.** A review of the spring 2008 analytical data from this well shows that there have been no exceedances of GW-2 standards and no VOCs were detected in spring 2008. Trace concentrations of toluene detected in fall 2007 represent the only constituent observed in this well during the assessment period. Therefore, long-term monitoring does not appear to be warranted at this well. Data proposed to be collected from well GMA5-9 (see above) will provide sufficient coverage in the assessment of PCE in groundwater upgradient of well GMA5-7. As such, no further sampling is proposed at this well. GE will continue to monitor groundwater elevations at well GMA5-10 during its semi-annual monitoring rounds.

A summary of the long-term groundwater sampling program activities proposed to be conducted in fall 2008 is provided in Table 8. The monitoring wells subject to sampling in fall 2008 are illustrated on Figure 4. GE will continue to monitor groundwater elevations at the GMA 5 wells listed in Table 8 on a semi-annual basis, in conjunction with future long-term sampling events.

5. Schedule of Future Activities

5.1 Field Activities Schedule

If approved by EPA, GE will conduct the fall 2008 long-term groundwater quality sampling event in October/November 2008. A round of groundwater elevation monitoring at the GMA 5 wells where such monitoring is required will also be performed at that time.

Prior to performance of these field activities, GE will provide EPA with 7 days advance notice to allow the assignment of oversight personnel. The schedule discussed above was developed under the assumption that GE will be able to obtain permission from the owners of the properties that comprise GMA 5 to conduct the monitoring and sampling activities in advance of their estimated performance dates. If that is not the case, GE will notify EPA of potential schedule impacts due to delays in obtaining such access to the properties.

5.2 Reporting Schedule

GE will continue to provide the results of preliminary groundwater analytical data in its monthly reports on overall activities at the GE-Pittsfield/Housatonic River Site. Those reports will also document the schedules for submittal of the Monitoring Event Evaluation Reports and Long-Term Trend Evaluation Reports, which are contingent upon receipt of the final analytical data packages from the groundwater sampling events, as discussed below.

In accordance with the previously-approved reporting schedule for this GMA, GE proposes to submit the Fall 2008 Monitoring Event Evaluation Report for GMA 5 within 60 days following receipt of the final analytical data packages from the event. That report will present the final, validated fall 2008 sampling results and a brief discussion of the results, including the evaluations of the data and any proposals to further modify the long-term monitoring program, if necessary. GE will also include an updated summary of available groundwater monitoring results and analytical data collected at the adjacent Elm Street Mobil Site, to the extent that such information is available to GE.

Subsequent semi-annual Monitoring Event Evaluation Reports for GMA 5 will be submitted within 60 days following receipt of the final analytical data packages from each event.

In addition, as previously approved by EPA, a Long-Term Trend Evaluation Report will be submitted in place of a Monitoring Event Evaluation Report at the completion of the fall 2009 sampling round. Subsequent Long-Term Trend Evaluation Reports for GMA 5 will be prepared at two-year intervals over the duration of the long-term monitoring program at GMA 5. Each such report will be submitted within 75 days following receipt of the final analytical data packages from the latest monitoring event included in the two-year evaluation cycle.

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Tables

Table 1
Spring 2008 Groundwater Monitoring Program

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company-Pittsfield, Massachusetts

Well Number	Monitoring Well Usage	Sampling Schedule & Analyses		Comments
		Sampling Schedule	Analyses Completed	
GMA5-1	Groundwater Elevation	Semi-Annual	None	
GMA5-3	Groundwater Elevation	Semi-Annual	None	
GMA5-4	GW-3 Perimeter (GW-3 Compliance Well)	Semi-Annual	Cadmium	Long-term monitoring conducted to verify attainment of GW-3 Performance Standards for cadmium.
GMA5-7	GW-2 Sentinel/GW-3 Perimeter (GW-2/GW-3 Compliance Well)	Semi-Annual	VOC	Long-term monitoring conducted to verify attainment of GW-2 Performance Standards for vinyl chloride and PCE.
GMA5-8	Groundwater Elevation	Semi-Annual	None	
GMA5-9	GW-2 Sentinel (Supplemental)	Spring 2008	VOC	Sampled as part of PCE assessment.
GMA5-10	GW-2 Sentinel (Supplemental)	Spring 2008	VOC	Sampled as part of PCE assessment.
GT-7	Groundwater Elevation - Elm Street Mobil	Semi-Annual	None	
GT-101	Groundwater Elevation - Elm Street Mobil	Semi-Annual	None	

NOTE:

1. Wells GMA5-4, GMA5-7, GMA5-9, GMA5-10 were sampled for the listed parameters during the long-term groundwater quality sampling event conducted in Spring 2008.

Table 2
Monitoring Well Construction

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company-Pittsfield, Massachusetts

Well Number	Survey Coordinates		Well Diameter (inches)	Ground Surface Elevation (feet AMSL)	Measuring Point Elevation (feet AMSL)	Depth to Top of Screen (feet BGS)	Screen Length (feet)	Top of Screen Elevation (feet AMSL)	Base of Screen Elevation (feet AMSL)	Average Depth to Groundwater (feet BGS)	Average Groundwater Elevation (feet AMSL)
	Northing	Easting									
GMA5-1	531464.50	130012.30	2	984.40	984.82	5.11	10.00	979.29	969.29	9.01	975.39
GMA5-2	531952.60	130739.20	2	982.86	982.66	5.91	15.00	976.95	961.95	10.11	972.75
GMA5-3	531419.00	139738.70	2	989.57	989.14	10.00	15.00	979.57	964.57	17.77	971.80
GMA5-4	531811.30	129982.60	2	979.29	979.10	8.09	10.00	971.20	961.20	7.91	971.38
GMA5-5	532121.00	130300.10	2	982.85	982.64	6.77	15.00	976.08	961.08	11.11	971.74
GMA5-7	531507.50	129845.00	2	987.21	986.75	8.00	20.00	979.21	959.21	15.66	971.55
GMA5-8	531711.70	130216.90	2	984.95	984.69	8.00	10.00	976.95	966.95	12.52	972.43
GMA5-9	531276.20	129834.80	2	989.88	989.42	12.00	10.00	977.88	967.88	14.32	975.56
GMA5-10	531407.90	129894.40	2	987.57	987.11	9.00	10.00	978.57	968.57	12.99	974.58
GES-7	531186.66	129745.53	2	992.40	992.10	7.00	10.00	985.40	975.40	14.59	977.81
GES-8	531256.86	129779.34	2	990.40	990.15	7.00	10.00	983.40	973.40	12.72	977.68
GES-9	531234.26	129813.45	2	990.97	990.72	7.00	10.00	983.97	973.97	15.61	975.36
GT-7	531331.70	129602.82	4	990.11	989.76	10.00	15.00	980.11	965.11	16.85	973.26
GT-101	--	--	--	989.92	989.68	10.00	15.00	979.92	964.92	18.98	970.95
GT-102	--	--	--	990.27	990.03	--	--	--	--	17.65	972.62

Notes:
1. feet AMSL = feet above mean sea level.
2. feet BGS = feet below ground surface.
3. -- = not available.
4. Complete monitoring well construction information for Former Mobil Service Station wells GT-101, GT-102, and RW-2 is not available. Ground surface elevatins are inferred based on flush mount well construction.
5. Well GMA5-1 was modified during construction activities in the area. The screen elevations listed above are based on an initial ground elevation of 985.11 feet AMSL and depth to top of screen of 5.72 feet. This well was re-surveyed on January 8, 2008 and the corrected ground surface and measuring point elevations, as well as a revised depth to top of screen based on new grade are listed above.

Table 3
Groundwater Elevation Data - Spring 2008

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company-Pittsfield, Massachusetts

Well Number	Remedial Action Area	Spring 2008 Groundwater Elevation (Feet AMSL)
GMA5-1	Oxbow Areas A and C	977.12
GMA5-3	Oxbow Areas A and C	973.64
GMA5-4	Oxbow Areas A and C	969.78
GMA5-7	Oxbow Areas A and C	971.80
GMA5-8	Oxbow Areas A and C	974.05
GMA5-9	Oxbow Areas A and C	978.12
GMA5-10	Oxbow Areas A and C	975.93
GT-7	Elm Street Mobil	973.13
GT-101	Elm Street Mobil	973.76
GT-102	Elm Street Mobil	973.73

Notes:
1. Groundwater elevation measurements were collected on April 28, 2008.
2. The surface water elevation of the Housatonic River, measured at (BM-2A) the Lyman Street Bridge on April 30, 2008, was 971.12 feet AMSL.

Table 4
Field Parameter Measurements - Spring 2008

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company-Pittsfield, Massachusetts

Well Number	Turbidity (NTU)	Temperature (degrees Celsius)	pH (Standard Units)	Specific Conductivity (mS/cm)	Oxidation-Reduction Potential (mV)	Dissolved Oxygen (mg/L)
GMA5-4	11	10.70	7.09	1.153	-10.50	1.91
GMA5-7	10	11.79	7.07	0.841	-31.30	0.46
GMA5-9	22	13.04	6.65	1.439	-89.10	2.39
GMA5-10	4	11.60	6.64	1.372	-91.70	0.58

Notes:
1. Measurements collected during Spring 2008 groundwater sampling event performed on May 15 and 16, 2008.
2. Well parameters were monitored continuously during purging by low-flow techniques. Final stabilized 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 5
Comparison of Groundwater Analytical Results to MCP Method 1 GW-2 Standards

Baseline Groundwater Quality and Interim Report for Spring 2008
Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	Method 1 GW-2 Standards	GMA5-7 05/15/08	GMA5-9 05/16/08	GMA5-10 05/16/08
Volatile Organics				
Chlorobenzene	0.2	ND(0.0010)	0.00011 J [ND(0.0010)]	ND(0.0010)
Ethylbenzene	20	0.00018 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Tetrachloroethene	0.05	0.037	0.021 [0.020]	ND(0.0010)
trans-1,2-Dichloroethene	0.09	0.00080 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Trichloroethene	0.03	0.0028	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Vinyl Chloride	0.002	0.00059 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Total VOCs	5	0.041 J	0.021 [0.020]	ND(0.10)

Notes:

1. Samples were collected by ARCADIS and submitted to SGS Environmental Services, Inc. for analysis of volatiles and cadmium (filtered).
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 parenthesis is the associated detection limit.
4. Only volatiles are presented for the MCP Method 1 GW-2 Standards Comparison.
5. Only detected volatiles are summarized.
6. Field duplicate sample results are presented in brackets.

Data Qualifiers:

Organics (volatiles)
J - Indicates that the associated numerical value is an estimated concentration.
R - Data was rejected due to a deficiency in the data generation process.

Table 6
Comparison of Groundwater Analytical Results to MCP Method 1 GW-3 Standards

Baseline Groundwater Quality and Interim Report for Spring 2008
Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	Method 1 GW-3 Standards	GMA5-4 05/15/08	GMA5-7 05/15/08	GMA5-9 05/16/08	GMA5-10 05/16/08
Volatile Organics					
Chlorobenzene	1	NA	ND(0.0010)	0.00011 J [ND(0.0010)]	ND(0.0010)
Ethylbenzene	5	NA	0.00018 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Tetrachloroethene	30	NA	0.037	0.021 [0.020]	ND(0.0010)
trans-1,2-Dichloroethene	50	NA	0.00080 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Trichloroethene	5	NA	0.0028	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Vinyl Chloride	50	NA	0.00059 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Inorganics-Filtered					
Cadmium	0.004	ND(0.0100) [ND(0.0100)]	NA	NA	NA

Notes:

1. Samples were collected by ARCADIS and submitted to SGS Environmental Services, Inc. for analysis of volatiles and cadmium (filtered).
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. NA - Not Analyzed.
4. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
5. Field duplicate sample results are presented in brackets.
6. With the exception of cadmium 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.
R - Data was rejected due to a deficiency in the data generation process.

Table 7
Comparison of Groundwater Analytical Results to MCP UCLs for Groundwater

Baseline Groundwater Quality and Interim Report for Spring 2008
Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	MCP UCL for GroundWater	GMA5-4 05/15/08	GMA5-7 05/15/08	GMA5-9 05/16/08	GMA5-10 05/16/08
Volatile Organics					
Chlorobenzene	10	NA	ND(0.0010)	0.00011 J [ND(0.0010)]	ND(0.0010)
Ethylbenzene	100	NA	0.00018 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Tetrachloroethene	100	NA	0.037	0.021 [0.020]	ND(0.0010)
trans-1,2-Dichloroethene	100	NA	0.00080 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Trichloroethene	50	NA	0.0028	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Vinyl Chloride	100	NA	0.00059 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Inorganics-Filtered					
Cadmium	0.05	ND(0.0100) [ND(0.0100)]	NA	NA	NA

Notes:

1. Samples were collected by ARCADIS and submitted to SGS Environmental Services, Inc. for analysis of volatiles and cadmium (filtered).
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. NA - Not Analyzed.
4. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
5. Field duplicate sample results are presented in brackets.
6. With the exception of cadmium 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.
R - Data was rejected due to a deficiency in the data generation process.

Table 8
Proposed Long Term Groundwater Monitoring Program Activities - Fall 2008

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company-Pittsfield, Massachusetts

Well Number	Current Monitoring Well Usage	Proposed Sampling Schedule and Analyses		Comments
		Sampling Schedule	Proposed Analyses	
GMA5-1	Groundwater Elevation	Semi-Annual	None	All historical results are well below new/revised GW-2/GW-3 Performance Standards for PCBs (and other constituents).
GMA5-3	Groundwater Elevation	Semi-Annual	None	All historical results are well below new/revised GW-2/GW-3 Performance Standards for PCBs (and other constituents).
GMA5-4	Groundwater Elevation/ GW-3 Perimeter Monitoring	Semi-Annual	Cadmium	Long-term sampling to be continued to verify attainment of GW-3 Performance Standards for cadmium.
GMA5-7	Groundwater Elevation/ GW-2 Sentinel/GW-3 Perimeter Monitoring	Semi-Annual	VOC	Long-term sampling to be continued to verify attainment of GW-2 Performance Standards for vinyl chloride and PCE .
GMA5-8	Groundwater Elevation	Semi-Annual	None	All historical results are well below revised GW-3 Performance Standards for PCBs (and other constituents). No further sampling proposed.
GMA5-9	Groundwater Elevation/ GW-2 Sentinel (Supplemental)	Fall 2008	VOC	Additional sampling proposed as part of PCE assessment. Additional sampling needs to be assessed following review of fall 2008 results.
GMA5-10	Groundwater Elevation/ GW-2 Sentinel (Supplemental)	Semi-Annual	None	Groundwater elevation monitoring location only. All historical results are well below revised GW-2 Performance Standards for VOCs.
GT-7	Groundwater Elevation - Elm Street Mobil	Semi-Annual	None	Groundwater elevation monitoring location only
GT-101	Groundwater Elevation - Elm Street Mobil	Semi-Annual	None	Groundwater elevation monitoring location only

NOTE:

1. The wells proposed for long-term groundwater quality sampling under a semi-annual schedule will be sampled for the listed parameters during the spring and fall seasons, generally during the months of April and October. The next scheduled sampling round is proposed to be conducted in Fall 2008.
2. All wells currently listed for groundwater elevation monitoring above will continue to be utilized for groundwater elevation monitoring on a semi-annual basis.

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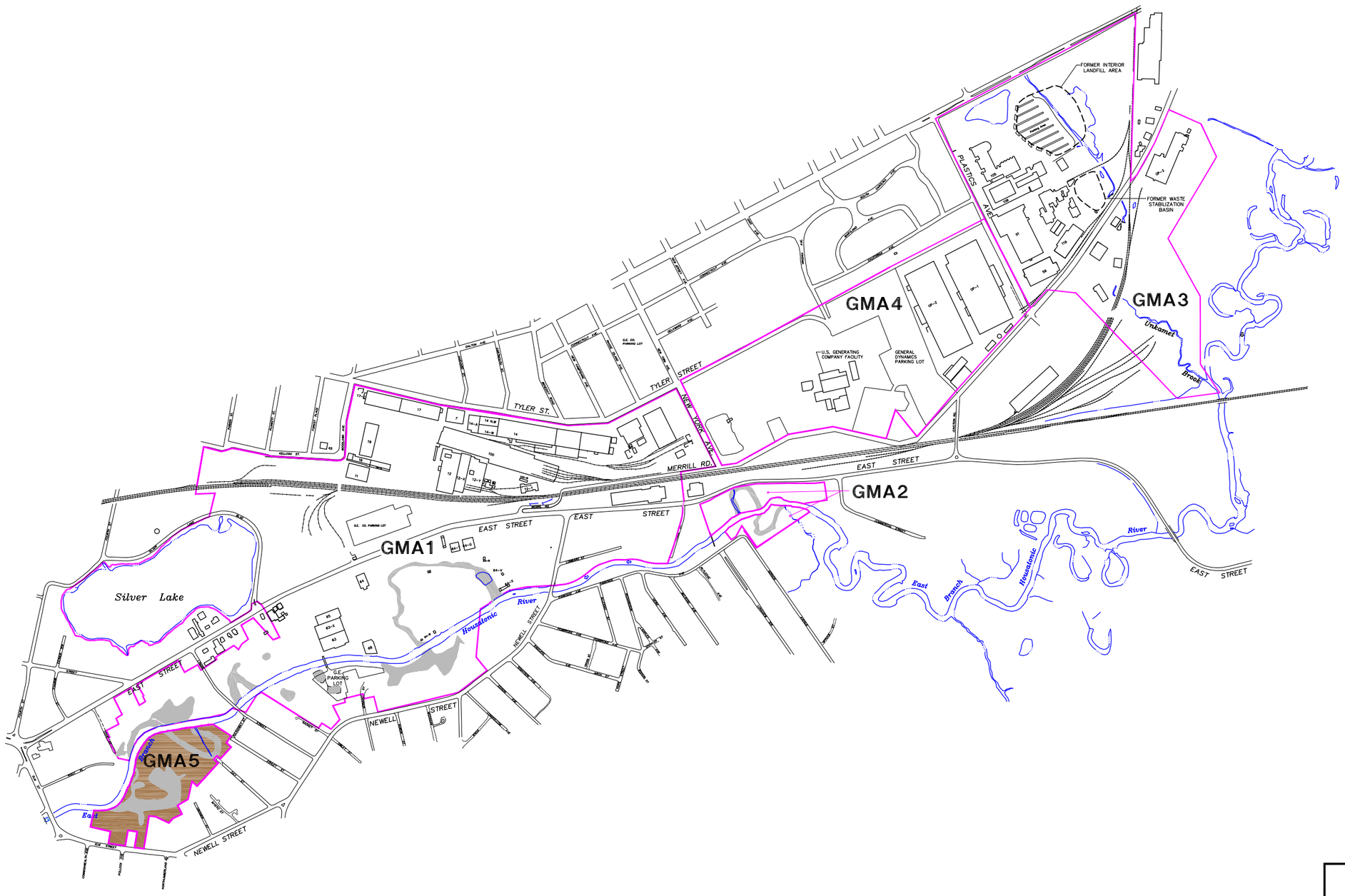
Figures



LEGEND:

GMA1	GMA 1–PLANT SITE 1
GMA2	GMA 2–FORMER OXBOWS J&K
GMA3	GMA 3–PLANT SITE 2
GMA4	GMA 4–PLANT SITE 3
GMA5	GMA 5–FORMER OXBOWS A&C

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. – FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY; AND BLASLAND & BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES/LIMITS ARE APPROXIMATE.

0 500' 1000'
APPROXIMATE SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
GMA 5 GROUNDWATER QUALITY MONITORING PROGRAM

GROUNDWATER MANAGEMENT AREAS

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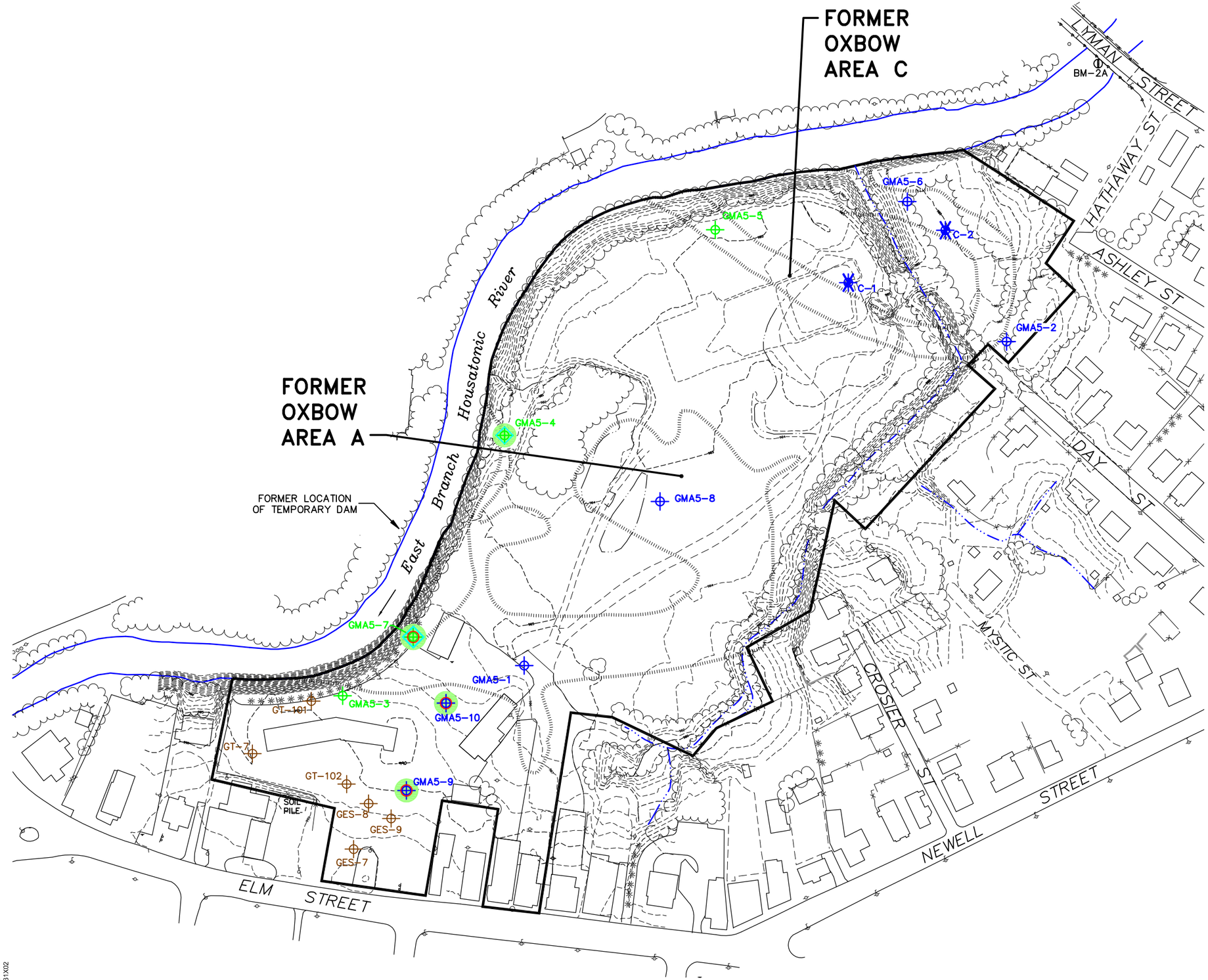
FIGURE
1



LEGEND:

- GMA 5 SITE BOUNDARY
- FORMER OXBOW/LOW-LYING AREA
- FENCE
- DITCHES/STREAMS WITH INTERMITTENT FLOW
- MONITORING WELL (OR)
- STAFF GAUGE
- ADJACENT MCP DISPOSAL SITE MONITORING WELL
- GW-2 SENTINEL/ COMPLIANCE WELL
- GENERAL SOURCE AREA/SENTINEL WELL (GW-3)
- GW-3 PERIMETER WELL
- GW-3 COMPLIANCE POINT
- WELL SAMPLED IN SPRING 2008
- DECOMMISSIONED MONITORING WELL

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY AND BLASLAND AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. FORMER RIVER CHANNEL AND LOWLAND AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. NOT ALL PHYSICAL FEATURES SHOWN.
4. SITE PROPERTY BOUNDARIES ARE APPROXIMATE.
5. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.

0 150' 300'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

GMA 5 GROUNDWATER QUALITY MONITORING PROGRAM

SPRING 2008 MONITORING WELL LOCATIONS

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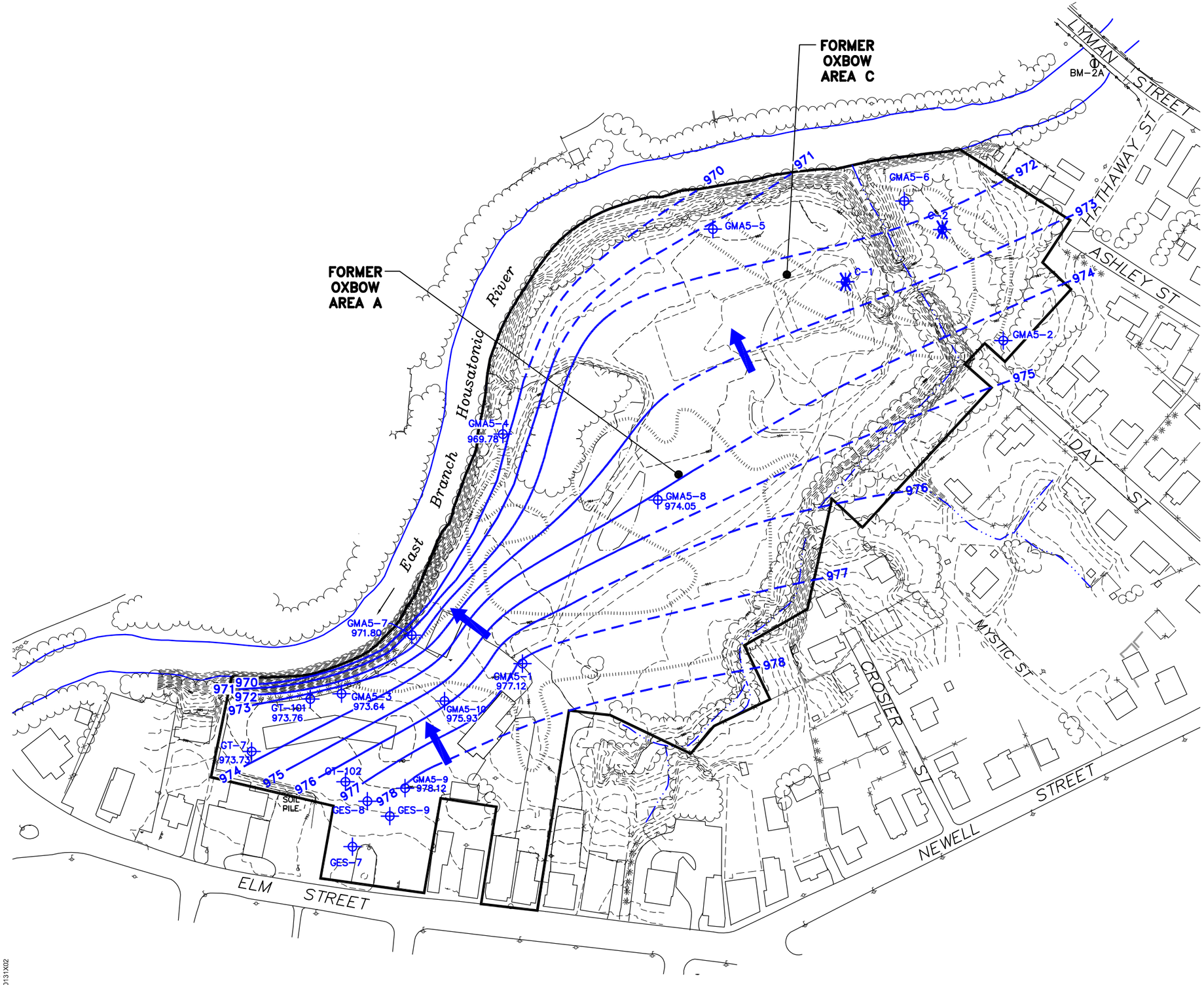
FIGURE 2



LEGEND:

- GMA 5 BOUNDARY
- FORMER OXBOW/LOW-LYING AREA
- FENCE
- STREAMS WITH INTERMITTENT FLOW
- MONITORING WELL
- STAFF GAUGE
- 974.05 GROUNDWATER ELEVATION (FT AMSL)
- 974 GROUNDWATER ELEVATION CONTOUR (FT AMSL), DASHED WHERE INFERRED
- DECOMMISSIONED MONITORING PROGRAM WELL
- GROUNDWATER FLOW

NOTE:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY AND BLASLAND AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. FORMER RIVER CHANNEL AND LOWLAND AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940
3. NOT ALL PHYSICAL FEATURES SHOWN.
4. SITE PROPERTY BOUNDARIES ARE APPROXIMATE.
5. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.
6. GROUNDWATER LEVEL MEASUREMENTS OBTAINED APRIL 28, 2008.
7. RIVER ELEVATION AT LYMAN STREET BRIDGE ON APRIL 30, 2008: 971.12 FT. AMSL.

0 150' 300'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
GMA 5 GROUNDWATER QUALITY MONITORING PROGRAM

WATER TABLE CONTOUR MAP - SPRING 2008

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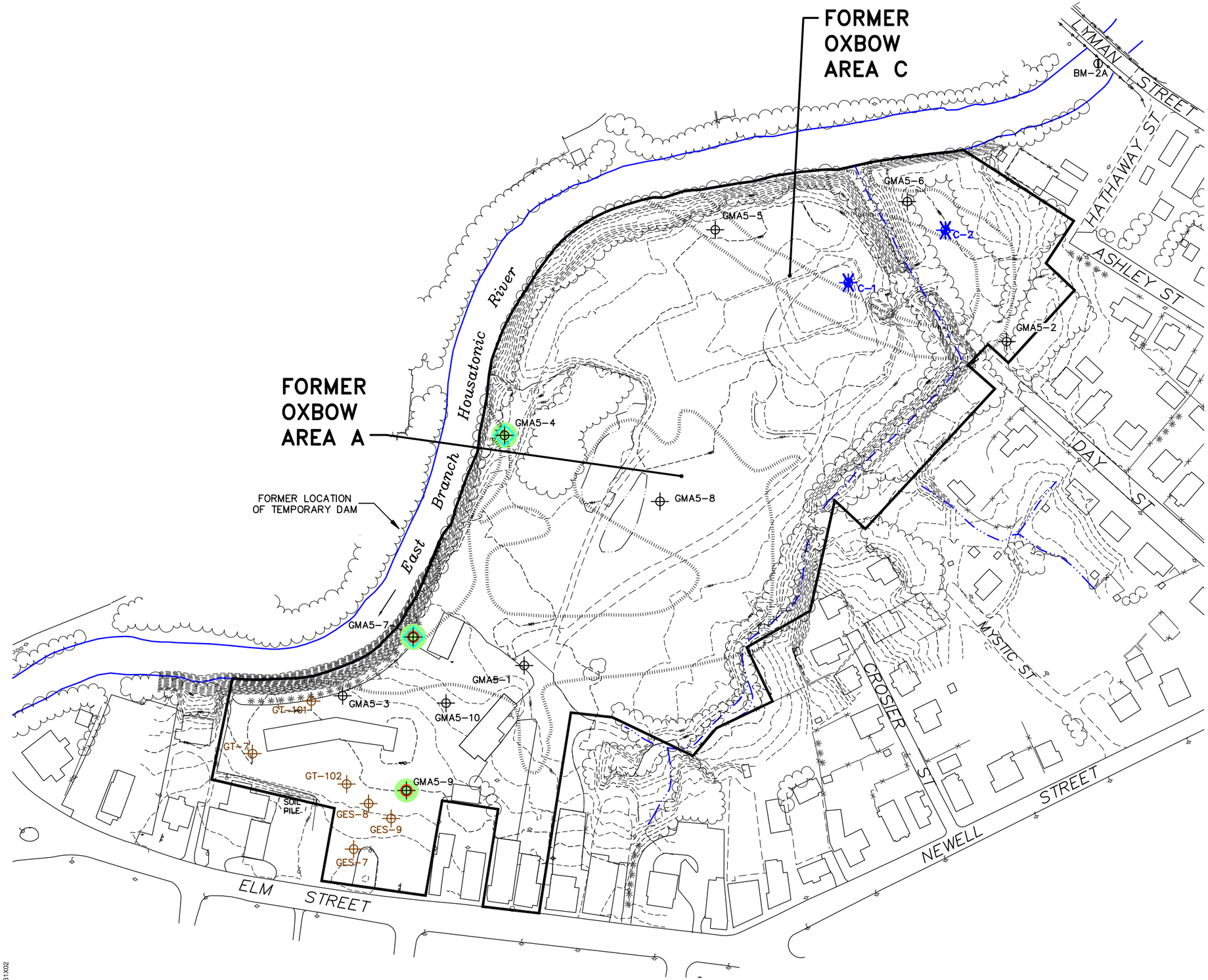
FIGURE 3

CITY: SYRACUSE DIV 141/GROUP: ENV DB: NES DMW RCB LD: DMW PM:NS LYR:(On)ON=*;OFF=*REF, (FRZ)
G:\CAD\GE-CAD\N-ACT\B0030131\10000\00004\DWG\30131W02.DWG LAYOUT: 3 SAVED: 8/21/2008 3:47 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: #### PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/21/2008 3:47 PM BY: BASSETT, RICHARD
XREFS: IMAGES: PROJECTNAME: —
30131X01
30131X02



LEGEND:

- GMA 5 SITE BOUNDARY
- FORMER OXBOW/LOW-LYING AREA
- FENCE
- DITCHES/STREAMS WITH INTERMITTENT FLOW
- MONITORING WELL
- STAFF GAUGE
- ADJACENT MCP DISPOSAL SITE MONITORING WELL
- GW-2 SENTINEL/ COMPLIANCE WELL
- GW-3 PERIMETER WELL
- WELL TO BE SAMPLED IN FALL 2008
- DECOMMISSIONED MONITORING WELL

NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY AND BLASLAND AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. FORMER RIVER CHANNEL AND LOWLAND AREAS DELINEATED USING THE CITY OF PITTSFIELD'S RECHANNELIZATION MAPPING, 1940.
3. NOT ALL PHYSICAL FEATURES SHOWN.
4. SITE PROPERTY BOUNDARIES ARE APPROXIMATE.
5. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.

0 150' 300'

GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
GMA 5 GROUNDWATER QUALITY MONITORING PROGRAM

PROPOSED FALL 2008 GROUNDWATER MONITORING PROGRAM

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FIGURE 4

CITY: SYRACUSE DIV:85/GROUP:ENV DB: NES AMS RCB PM:NS LYR:(On)ON=*;OFF=REF*:(FRZ)
G:\CAD\GE-CADIN-ACTIB\00301311000000004\DWG\30131B13.DWG LAYOUT: 4 SAVED: 8/14/2008 2:50 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: ######################## PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 8/21/2008 3:32 PM BY: BASSETT, RICHARD
XREFS: 30131X01 30131X02
IMAGES:
PROJECTNAME: ---

Appendices

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Appendix A

Field Sampling Data

Table A-1
Summary Of Groundwater Sampling Methods

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company-Pittsfield, Massachusetts

Well ID	Sampling Method									
	Spring 2002	Fall 2002	Spring 2003	Fall 2003	Spring 2004	Fall 2005	Spring 2006	Fall 2006	Fall 2007	Spring 2008
GMA5-4	PP/BA	PP	PP	PP	NS	NS	NS	PP	PP	PP
	Spring 2003: Water in outer cover of flush-mount protective casing. Fall 2002: Flush-mount protective casing filled with water, pumped water out to open well. Spring 2002: VOCs collected with a disposable teflon bailer.									
GMA5-7	BP	PP	BP	BP	BP	NS	BP	BP	BP	BP
	Fall 2005: Sampling postponed due to operation of temporary dam across Housatonic River.									
GMA5-9	NS	NS	NS	NS	NS	NS	NS	NS	BP	BP
	Fall 2007: Well installed and added to monitoring program.									
GMA5-10	NS	NS	NS	NS	NS	NS	NS	NS	BP	BP
	Fall 2007: Well installed and added to monitoring program.									

Notes:

1. Sampling method abbreviations:
   BP - Bladder Pump.
   PP - Peristaltic Pump.
   PP/BA - Peristaltic Pump with Bailer used for VOC sample collection.
   NS - Not Sampled.
2. Baseline monitoring program conducted from spring 2002 to fall 2003, and fall 2006.
3. Interim/baseline sampling conducted at select wells from spring 2004 to spring 2006.
4. Long-term monitoring program initiated in fall 2007.

GROUNDWATER SAMPLING LOG

Well No. GMA5-4
Key No. —
PID Background (ppm) —
Well Headspace (ppm) —

Site/GMA Name GMA 5
Sampling Personnel RAB
Date 5/15/08
Weather Cloudy Mid's 50's

WELL INFORMATION

Reference Point Marked? Y N
Height of Reference Point -4" Meas. From ground
Well Diameter 2"
Screen Interval Depth 8.09-18.09 Meas. From ground
Water Table Depth 8.88' Meas. From TIC
Well Depth 18.95' Meas. From TIC
Length of Water Column 10.07'
Volume of Water in Well 1.64
Intake Depth of Pump/Tubing ~13' Meas. From ground

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

Redevelop? Y N

Sample Time 1527
Sample ID GMA-5-4
Duplicate ID GMA5-DUP-1
MS/MSD ~~GMA5-MS/GMA5-MSD~~
Split Sample ID —
→ GMA5-4 MS, GMA5-4 MSD

Required	Analytical Parameters:	Collected
( )	VOCs (Std. list)	( )
( )	VOCs (Exp. list)	( )
( )	SVOCs	( )
( )	PCBs (Total)	( )
( )	PCBs (Dissolved)	( )
( )	Metals/Inorganics (Total)	( )
( )	Metals/Inorganics (Dissolved)	( )
( )	EPA Cyanide (Dissolved)	( )
( )	PAC Cyanide (Dissolved)	( )
( )	PCDDs/PCDFs	( )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
(X)	Other (Specify) Cadmium - Alt.	(X)

EVACUATION INFORMATION

Pump Start Time 1335
Pump Stop Time 1550
Minutes of Pumping 135
Volume of Water Removed 3-5gallons
Did Well Go Dry? Y (N)

Evacuation Method: Bailer ( ) Bladder Pump ( )
Peristaltic Pump (X) Submersible Pump ( ) Other/Specify ( )
Pump Type: Geopump 2
Samples collected by same method as evacuation? (Y) N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI #03G1461 AI Hach 2100P Turbimeter #5536-MPS

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]*
1345	125	0.33	9.96	—	—	—	265	—	—
1350	125	0.50	9.96	—	—	—	284	—	—
1355	125	0.66	9.94	—	—	—	210	—	—
1400	100	0.79	9.94	—	—	—	173	—	—
1405	|	0.92	9.95	—	—	—	157	—	—
1410	|	1.06	9.95	—	—	—	147	—	—
1415	|	1.19	9.95	—	—	—	105	—	—
1420	↓	1.32	9.95	—	—	—	90	—	—

* 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 Bottom of well soft
1405 - Raised tubing up ≈ 0.5 foot to see if turbidity lowered
Purge water is dark gray in color - no noticeable odor

SAMPLE DESTINATION

Laboratory: SGS
Delivered Via: UPS
Airbill #: —

Field Sampling Coordinator: [signature]

C:\WORKSITE\Groundwater\054198\Attachment\D-6

GROUNDWATER SAMPLING LOG

Well No. GMA5-4

Site/GMA Name GMA5
Sampling Personnel LAB
Date 5/15/08
Weather Cloudy mid 50s

WELL INFORMATION - See Page 1

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]*
1425	100	1.45	9.95	—	—	—	92	—	—
1430	100	1.58	9.94	—	—	—	55	—	—
1435	100	1.72	9.94	—	—	—	40	—	—
1440	100	1.85	9.95	10.81	7.06	1.153	34	5.95	-0.2
1445	100	1.98	9.95	10.67	7.07	1.154	35	3.88	-5.7
1450	100	2.11	9.95	10.71	7.07	1.153	32	2.40	-8.7
1455	100	2.25	9.95	10.81	7.09	1.154	26	2.05	-10.3
1500	100	2.38	9.95	10.84	7.09	1.152	21	2.01	-11.1
1505	100	2.51	9.95	10.70	7.08	1.154	18	2.02	-9.9
1508	↓	2.59	9.95	10.63	7.09	1.153	15	2.01	-9.6
1518		2.85	9.95	11.16	7.09	1.148	15	1.95	-8.6
1521		2.93	↓	10.86	7.09	1.154	11	1.96	-9.3
1524		3.01	9.95	10.77	7.09	1.153	12	1.91	-10.3
1527	↓	3.09	9.95	10.70	7.09	1.153	11	1.91	-10.5
		Sampled @ 1527							

* 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 Connected to YSI @1435
1508 Stopped taking readings - turbidimeter died

GROUNDWATER SAMPLING LOG

Well No. GMA5-7
Key No. —
PID Background (ppm) —
Well Headspace (ppm) —

Site/GMA Name GMA3/GE Ashfield
Sampling Personnel KJC
Date 5/15/08
Weather Overcast 50s

WELL INFORMATION

Reference Point Marked? Y N
Height of Reference Point _____ Meas. From _____
Well Diameter 2"
Screen Interval Depth 8-28 Meas. From Ground
Water Table Depth 15.42 Meas. From TIC
Well Depth 22.50 Meas. From TIC
Length of Water Column 12.08'
Volume of Water in Well 1.97 gallons
Intake Depth of Pump/Tubing ~20' Meas. From Ground

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

Redevelop? Y N

Sample Time 1610
Sample ID GMA5-7 S
Duplicate ID —
MS/MSD GMA5-7 MS/MSD
Split Sample ID _____

Required	Analytical Parameters:	Collected
(X)	VOCs (Std. list)	(X)
( )	VOCs (Exp. list)	( )
( )	SVOCs	( )
( )	PCBs (Total)	( )
( )	PCBs (Dissolved)	( )
( )	Metals/Inorganics (Total)	( )
( )	Metals/Inorganics (Dissolved)	( )
( )	EPA Cyanide (Dissolved)	( )
( )	PAC Cyanide (Dissolved)	( )
( )	PCDDs/PCDFs	( )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
( )	Other (Specify)	( )

EVACUATION INFORMATION

Pump Start Time 1350
Pump Stop Time 1625
Minutes of Pumping 155
Volume of Water Removed 5.4 gallons
Did Well Go Dry? Y (N)

Evacuation Method: Bailer ( ) Bladder Pump (X)
Peristaltic Pump ( ) Submersible Pump ( ) Other/Specify ( )
Pump Type: Marschalk - System One
Samples collected by same method as evacuation? (Y) N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI #2 03C039AE HACH 2100P Turbidimeter 556-MPS

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]*
1400	150	0.40	15.45	—	—	—	171	—	—
1405		0.59	16.10	—	—	—	140	—	—
1415		0.99	16.09	—	—	—	99	—	—
1425		1.89	16.07	—	—	—	66	—	—
1435		1.78	16.00	—	—	—	54	—	—
* 1445		2.18	15.92	—	—	—	44	—	—
1455		2.58	15.98	12.18	7.23	0.781	31	3.30	70.5
1500	↓	2.77	16.10	11.83	7.21	0.782	29	2.08	68.7

* 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

SAMPLE DESTINATION

Laboratory: SGS
Delivered Via: UPS
Airbill #: —

Field Sampling Coordinator: [signature]

GROUNDWATER SAMPLING LOG

Well No. GMA5-7

Site/GMA Name GMA2 GE Pits Field
Sampling Personnel KIC
Date 5/15/08
Weather Overcast 57°

WELL INFORMATION - See Page 1

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]*
1505	150	2.97	16.15	11.60	7.19	0.782	34	0.96	-79.8
1510	↓	3.17	16.17	11.75	7.18	0.782	35	0.93	-80.1
1515	↓	3.36	16.18	11.84	7.18	0784	31	0.83	-71.4
1520	↓	3.56	16.25	11.77	7.18	0.782	28	0.83	-70.16
1525	↓	3.76	16.18	11.75	7.17	0.785	26	0.69	-62.4
1530	100	3.89	16.15	11.50	7.16	0.790	25	0.63	-57.4
1535	↓	4.02	16.22	11.60	7.15	0.792	21	0.60	-52.3
1540	↓	4.16	16.15	11.53	7.14	0.796	17	0.54	-48.8
1545	↓	4.29	16.19	11.49	7.12	0.805	16	0.52	-44.1
1550	↓	4.42	16.18	11.62	7.11	0.813	13	0.50	-39.5
1555	↓	4.55	16.14	11.79	7.09	0.820	11	0.50	-36.0
1600	↓	4.68	16.22	11.62	7.08	0.835	10	0.48	-34.4
1605	↓	4.81	16.18	11.79	7.07	0.841	10	0.46	-31.3
1610	→		Sampled @ 1610				←		

* 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

GROUNDWATER SAMPLING LOG

Well No. GMA5-9
Key No. —
PID Background (ppm) —
Well Headspace (ppm) —

Site/GMA Name GMA5
Sampling Personnel KC/RAB
Date 5/16/08
Weather Cloudy Breezy 70

WELL INFORMATION

Reference Point Marked? Y (N)
Height of Reference Point -0.5 Meas. From ground
Well Diameter 2"
Screen Interval Depth 12-22 Meas. From Ground
Water Table Depth 12.40 Meas. From TIC
Well Depth 21.35 Meas. From TIC
Length of Water Column 8.95'
Volume of Water in Well 1.46 gallons
Intake Depth of Pump/Tubing 17 Meas. From ground

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

Redevelop? Y (N)

Sample Time 1001
Sample ID GMA5-9
Duplicate ID ~~GMA5-DUP-2~~ GMA5-DUP-2
MS/MSD —
Split Sample ID —

Required	Analytical Parameters:	Collected
(X)	VOCs (Std. list)	(X)
( )	VOCs (Exp. list)	( )
( )	SVOCs	( )
( )	PCBs (Total)	( )
( )	PCBs (Dissolved)	( )
( )	Metals/Inorganics (Total)	( )
( )	Metals/Inorganics (Dissolved)	( )
( )	EPA Cyanide (Dissolved)	( )
( )	PAC Cyanide (Dissolved)	( )
( )	PCDDs/PCDFs	( )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
( )	Other (Specify)	( )

EVACUATION INFORMATION

Pump Start Time 845
Pump Stop Time 1010
Minutes of Pumping 85
Volume of Water Removed 2-2 gallons
Did Well Go Dry? Y (N)

Evacuation Method: Bailer ( ) Bladder Pump (X)
Peristaltic Pump ( ) Submersible Pump ( ) Other/Specify ( )
Pump Type: Marschalk - System One
Samples collected by same method as evacuation? (Y) N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI-556 MPS Hach 2100P Turbidimeter

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]*
8:45	—	—	12.50	—	—	—	43	—	—
850	100	0.13	12.95	12.18	6.51	1.368	73	6.08	177.2
855		0.26	13.15	—	—	—	80	—	—
900		0.40	13.45	—	—	—	72	—	—
905		0.53	13.65	—	—	—	102	—	—
915		0.78	13.98	—	—	—	78	—	—
925		1.06	14.26	—	—	—	22	—	—
930	↓	1.19	14.40	12.40	6.73	1.413	22	5.47	-77.8

* 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 855 removed YSI flow through cell due to high turbidity 925 - Reconnected YSI flow through cell

SAMPLE DESTINATION

Laboratory: SGS
Delivered Via: Fed-Ex
Airbill #: —

Field Sampling Coordinator: [signature]

C:\WORKSITE\[illegible]

GROUNDWATER SAMPLING LOG

Well No. GMA5-9

Site/GMA Name GMA5
Sampling Personnel RLC/RAB
Date 5/16/08
Weather Cloudy Breezy Mid 50s

WELL INFORMATION - See Page 1

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]*
935	100	1.32	14.55	12.30	6.66	1.415	21	3.52	-90.9
940	↓	1.46	14.61	12.33	6.64	1.422	22	3.08	-92.2
945		1.59	14.69	12.47	6.61	1.425	22	2.77	-94.1
950		1.72	14.75	12.65	6.64	1.432	20	2.63	-99.3
955	↓	1.85	14.78	13.21	6.66	1.436	23	2.54	-97.1
958	90	1.92	14.83	13.24	6.65	1.438	22	2.43	-92.2
1001	90	1.99	14.89	13.04	6.65	1.439	22	2.39	-89.1
		Sampled @ 1001							

* 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

GROUNDWATER SAMPLING LOG

Well No. GMA5-10
Key No. —
PID Background (ppm) —
Well Headspace (ppm) —

Site/GMA Name GMA5
Sampling Personnel KG / KAB
Date 3/16/08
Weather Cloudy mid 50s

WELL INFORMATION

Reference Point Marked? Y N
Height of Reference Point -0.5' Meas. From ground
Well Diameter 2"
Screen Interval Depth 9-19 Meas. From ground
Water Table Depth 11.42 Meas. From TIC
Well Depth 14.58 Meas. From TIC
Length of Water Column 3.16
Volume of Water in Well 0.52 gallons
Intake Depth of Pump/Tubing 17 Meas. From ground

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

Redevelop? (Y) N

Sample Time 1233
Sample ID GMA5-10
Duplicate ID —
MS/MSD —
Split Sample ID —

Required	Analytical Parameters:	Collected
(X)	VOCs (Std. list)	(X)
( )	VOCs (Exp. list)	( )
( )	SVOCs	( )
( )	PCBs (Total)	( )
( )	PCBs (Dissolved)	( )
( )	Metals/Inorganics (Total)	( )
( )	Metals/Inorganics (Dissolved)	( )
( )	EPA Cyanide (Dissolved)	( )
( )	PAC Cyanide (Dissolved)	( )
( )	PCDDs/PCDFs	( )
( )	Pesticides/Herbicides	( )
( )	Natural Attenuation	( )
( )	Other (Specify)	( )

EVACUATION INFORMATION

Pump Start Time 1050
Pump Stop Time 1240
Minutes of Pumping 110
Volume of Water Removed 2.9 gallons
Did Well Go Dry? Y (N)

Evacuation Method: Bailer ( ) Bladder Pump (X)
Peristaltic Pump ( ) Submersible Pump ( ) Other/Specify ( )
Pump Type: Marschalls - System One
Samples collected by same method as evacuation? (Y) N (specify)

Water Quality Meter Type(s) / Serial Numbers: YSI 03C0392 AE Hach Turbidimeter 2100P 556-MPS

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]*
1055	50	0.07	11.62	—	—	—	15	—	—
1100	50	0.13	11.64	—	—	—	134	—	—
1110	50	0.26	11.63	—	—	—	459	—	—
1120	100	0.52	11.65	—	—	—	220	—	—
1130	100	0.78	11.663	—	—	—	149	—	—
1140	100	1.04	11.65	—	—	—	39	—	—
1143	100	1.12		—	—	—	30	—	—
1150	100	1.30	11.66	11.67	6.67	1.383	28	2.18	-114.6

* 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
Hooked up to flow through cell @ 1143 Initial purge slightly cloudy

SAMPLE DESTINATION

Laboratory: SGS
Delivered Via: Fed Ex
Airbill #: —

Field Sampling Coordinator:

GROUNDWATER SAMPLING LOG

Well No. GMA5-10

Site/GMA Name GMA5
Sampling Personnel KLC/RAB
Date 5/16/08
Weather Lt Rain mid 50s Cloudy

WELL INFORMATION - See Page 1

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]*
1155	100	1.43	11.66	11.33	6.66	1.385	18	1.51	-108.7
1200	100	1.56	11.66	11.33	6.66	1.377	21	1.34	-107.0
1205	100	1.70	11.69	11.51	6.63	1.374	12	1.23	-96.6
1208	100	1.78	11.69	11.55	6.63	1.375	10	1.21	-98.3
1211	↓	1.86		11.58	6.64	1.374	8	1.13	-97.8
1214		1.94	11.66	11.57	6.64	1.375	8	1.05	-93.7
1217		2.02	11.67	11.62	6.65	1.375	6	0.89	-93.6
1220		2.10	11.67	11.52	6.63	1.375	6	0.82	-92.4
1223		2.18	11.70	11.69	6.63	1.371	5	0.73	-92.6
1226		2.25		11.61	6.65	1.373	4	0.65	-91.4
1230		2.36	11.70	11.68	6.66	1.371	4	0.60	-91.3
1233	↓	2.43	11.70	11.60	6.64	1.372	4	0.58	-91.7

Sampled @ 1233

* 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

ARCADIS

Appendix B

Validated Groundwater
Analytical Results – Spring 2008

Table B-1
Spring 2008 Groundwater Analytical Results

Baseline Groundwater Quality and Interim Report for Spring 2008
Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Sample ID: / Parameter Date Collected:	GMA5-4 05/15/08	GMA5-7 05/15/08	GMA5-9 05/16/08	GMA5-10 05/16/08
Volatile Organics				
1,1,1,2-Tetrachloroethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,1,1-Trichloroethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,1,2,2-Tetrachloroethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,1,2-Trichloroethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,1-Dichloroethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,1-Dichloroethene	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,2,3-Trichloropropane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,2-Dibromo-3-chloropropane	NA	ND(0.0050) J	ND(0.0050) J [ND(0.0050) J]	ND(0.0050) J
1,2-Dibromoethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,2-Dichloroethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,2-Dichloropropane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
1,4-Dioxane	NA	ND(0.10) J	ND(0.10) J [ND(0.10) J]	ND(0.10) J
2-Butanone	NA	ND(0.0050) J	ND(0.0050) J [ND(0.0050) J]	ND(0.0050) J
2-Chloro-1,3-butadiene	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
2-Chloroethylvinylether	NA	R	ND(0.013) J [ND(0.013) J]	ND(0.013) J
2-Hexanone	NA	ND(0.0050)	ND(0.0050) [ND(0.0050)]	ND(0.0050)
3-Chloropropene	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
4-Methyl-2-pentanone	NA	ND(0.0050)	ND(0.0050) [ND(0.0050)]	ND(0.0050)
Acetone	NA	ND(0.0050) J	ND(0.0050) J [ND(0.0050) J]	ND(0.0050) J
Acetonitrile	NA	ND(0.020) J	ND(0.020) J [ND(0.020) J]	ND(0.020) J
Acrolein	NA	ND(0.025) J	ND(0.025) J [ND(0.025) J]	ND(0.025) J
Acrylonitrile	NA	ND(0.025) J	ND(0.025) J [ND(0.025) J]	ND(0.025) J
Benzene	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Bromodichloromethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Bromoform	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Bromomethane	NA	ND(0.0010) J	ND(0.0010) J [ND(0.0010) J]	ND(0.0010) J
Carbon Disulfide	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Carbon Tetrachloride	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Chlorobenzene	NA	ND(0.0010)	0.00011 J [ND(0.0010)]	ND(0.0010)
Chloroethane	NA	ND(0.0010) J	ND(0.0010) J [ND(0.0010) J]	ND(0.0010) J
Chloroform	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Chloromethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
cis-1,3-Dichloropropene	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Dibromochloromethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Dibromomethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Dichlorodifluoromethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Ethyl Methacrylate	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Ethylbenzene	NA	0.00018 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Iodomethane	NA	ND(0.0010) J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Isobutanol	NA	ND(0.050) J	ND(0.050) J [ND(0.050) J]	ND(0.050) J
Methacrylonitrile	NA	ND(0.010)	ND(0.010) [ND(0.010)]	ND(0.010)
Methyl Methacrylate	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Methylene Chloride	NA	ND(0.0050)	ND(0.0050) [ND(0.0050)]	ND(0.0050)
Propionitrile	NA	ND(0.020) J	ND(0.020) J [ND(0.020) J]	ND(0.020) J
Styrene	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Tetrachloroethene	NA	0.037	0.021 [0.020]	ND(0.0010)
Toluene	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
trans-1,2-Dichloroethene	NA	0.00080 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
trans-1,3-Dichloropropene	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
trans-1,4-Dichloro-2-butene	NA	ND(0.0050) J	ND(0.0050) J [ND(0.0050) J]	ND(0.0050) J
Trichloroethene	NA	0.0028	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Trichlorofluoromethane	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Vinyl Acetate	NA	ND(0.0025)	ND(0.0025) [ND(0.0025)]	ND(0.0025)
Vinyl Chloride	NA	0.00059 J	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Xylenes (total)	NA	ND(0.0010)	ND(0.0010) [ND(0.0010)]	ND(0.0010)
Total VOCs	NA	0.041 J	0.021 [0.020]	ND(0.10)
Inorganics-Filtered				
Cadmium	ND(0.0100) [ND(0.0100)]	NA	NA	NA

Table B-1
Spring 2008 Groundwater Analytical Results

Baseline Groundwater Quality and Interim Report for Spring 2008
Groundwater Management Area 5
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 and cadmium (filtered).
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. NA - Not Analyzed.
4. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
5. Field duplicate sample results are presented in brackets.

Data Qualifiers:

Organics (volatiles)

J - Indicates that the associated numerical value is an estimated concentration.
R - Data was rejected due to a deficiency in the data generation process.

ARCADIS

Appendix C

Data Validation Report – Spring 2008

Appendix C
Groundwater Sampling Data Validation Report

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
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 May 2008 as part of groundwater quality monitoring activities conducted at Groundwater Management Area 5, located within the General Electric Company/Housatonic River Site in Pittsfield, Massachusetts. The samples were analyzed for volatile organic compounds (VOCs) and metals 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. (formerly Paradigm Analytical Labs, Inc.) of Wilmington, North Carolina. Data validation was performed for two metals samples and five 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 (as submitted by GE on March 30, 2007 following approval by EPA on March 15, 2007)*;*

- *Region I Tiered Organic and Inorganic Data Validation Guidelines*, USEPA Region I (July 1, 1993);

- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses,* USEPA Region I (June 13, 1988) (Modified February 1989); 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 B-1. Each sample subject to evaluation is listed in Table B-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	
Metals	0	0	0	1	1	0	2
VOCs	0	0	0	3	1	2	6
Total	**0**	**0**	**0**	**4**	**2**	**2**	**8**

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	1,2-Dibromo-3-chloropropane	6	J
	1,4-Dioxane	6	J
	2-Butanone	6	J
	2-Chloroethylvinylether	5	J
	Acetone	6	J
	Acetonitrile	6	J
	Acrolein	6	J
	Acrylonitrile	6	J
	Isobutanol	6	J
	Propionitrile	6	J
	trans-1,4-Dichloro-2-butene	6	J

Several of the organic compounds (including the compounds presented in the above tables detailing RRF deviations) exhibit instrument response factors (RFs) below the USEPA Region I minimum value of 0.05, but meet the analytical method criterion, which does not specify minimum RFs for these compounds. These compounds were analyzed by the laboratory at a higher concentration than the compounds that normally exhibit RFs greater than the USEPA Region I minimum value of 0.05 in an effort to demonstrate acceptable response. USEPA Region I guidelines state that non-detect compound results associated with a RF less than the minimum value of 0.05 are to be rejected (R). However, in the case of these select organic compounds, the RF is an inherent problem with the current analytical methodology; therefore, the non-detect sample results were qualified as estimated (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). A summary of the compounds that exceeded the continuing calibration criterion and the number of samples qualified due to those deviations are presented in the following table.

Compounds Qualified Due to Continuing Calibration of %D Values

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	1,4-Dioxane	6	J
	Acetonitrile	6	J
	Bromomethane	6	J
	Chloroethane	6	J

Matrix spike/matrix spike duplicate (MS/MSD) sample analysis recovery criteria for organics require that the MS/MSD recovery be within the laboratory-generated QC control limits specified on the MS/MSD reporting form. Organic sample results associated with MS/MSD recoveries less than the specified control limit, but greater than 10% were qualified as estimated (J). Associated non-detect organic sample results that exhibited MS/MSD recoveries below 10% were qualified as rejected (R). The compounds that did not meet MS/MSD recovery criteria and the number of samples qualified due to those deviations are presented in the following table.

Compounds Qualified Due to MS/MSD Recovery Deviations

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	Iodomethane	1	J
	2-Chloroethylvinylether	1	R

MS/MSD sample analysis recovery criteria for organics require that the RPD between the MS and MSD recoveries be less than the laboratory-generated QC acceptance limits specified on the MS/MSD reporting form. The compound that exceeded the RPD limit and the number of samples qualified due to deviations are presented in the following table.

Compound Qualified Due to MS/MSD RPD Deviations

Analysis	Compound	Number of Affected Samples	Qualification
VOCs	Iodomethane	1	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
Metals	100	None
VOCs	99.7	A total of one sample result was rejected due to MS/MSD recovery deviations.

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. For this analytical program, 0.30% of the data required qualification due to MS/MSD RPD deviations. None of the data required qualification due to field duplicate 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, LCS/LCSDs, MS/MSD samples, internal standards, and surrogate compound recoveries. For this analytical program, 26.3% of the data required qualification due to instrument calibration deviations and 0.59% of the data required qualification due to MS/MSD recovery deviations. None of the data required qualification for LCS/LCSD recovery deviations, internal standard 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 May 2008 were analyzed by EPA SW-846 method 6010B for metals and 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 ranged from 99.7% to 100% for individual analytical parameters and had an overall usability of 99.9%, which is greater than the minimum required usability of 90% as specified in the FSP/QAPP.

Table C-1
Analytical Data Validation Summary
Groundwater Management Area 5 - Spring 2008

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
Metals											
G135-674	GMA5-4 (Filtered)	5/15/2008	Water	Tier II	No						
G135-674	Dup#1(GMA5) (Filtered)	5/15/2008	Water	Tier II	No						Duplicate of GMA5-4 (Filtered)
VOCs											
G135-674	GMA5-7	5/15/2008	Water	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.025	>0.05	ND(0.0050) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(0.10) J	
						1,4-Dioxane	CCAL %D	26.2%	<25%	ND(0.10) J	
						2-Butanone	ICAL RRF	0.035	>0.05	ND(0.0050) J	
						2-Chloroethylvinylether	MS/MSD %R	0.0%, 0.0%	16.7% to 200%	R	
						Acetone	ICAL RRF	0.021	>0.05	ND(0.0050) J	
						Acetonitrile	ICAL RRF	0.009	>0.05	ND(0.020) J	
						Acetonitrile	CCAL %D	33.3%	<25%	ND(0.020) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.030	>0.05	ND(0.025) J	
						Bromomethane	CCAL %D	39.0%	<25%	ND(0.0010) J	
						Chloroethane	CCAL %D	46.9%	<25%	ND(0.0010) J	
						Iodomethane	MSD %R	38.2%	40.6% to 126%	ND(0.0010) J	
						Iodomethane	MS/MSD RPD	94.2%	<30%	ND(0.0010) J	
						Isobutanol	ICAL RRF	0.003	>0.05	ND(0.050) J	
						Propionitrile	ICAL RRF	0.011	>0.05	ND(0.020) J	
						trans-1,4-Dichloro-2-butene	ICAL RRF	0.025	>0.05	ND(0.0050) J	
G135-674	GMA5-RB-1	5/15/2008	Water	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.025	>0.05	ND(0.0050) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(0.10) J	
						1,4-Dioxane	CCAL %D	26.2%	<25%	ND(0.10) J	
						2-Butanone	ICAL RRF	0.035	>0.05	ND(0.0050) J	
						2-Chloroethylvinylether	ICAL RRF	0.018	>0.05	ND(0.013) J	
						Acetone	ICAL RRF	0.021	>0.05	ND(0.0050) J	
						Acetonitrile	ICAL RRF	0.009	>0.05	ND(0.020) J	
						Acetonitrile	CCAL %D	33.3%	<25%	ND(0.020) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.030	>0.05	ND(0.025) J	
						Bromomethane	CCAL %D	39.0%	<25%	ND(0.0010) J	
						Chloroethane	CCAL %D	46.9%	<25%	ND(0.0010) J	
						Isobutanol	ICAL RRF	0.003	>0.05	ND(0.050) J	
						Propionitrile	ICAL RRF	0.011	>0.05	ND(0.020) J	
						trans-1,4-Dichloro-2-butene	ICAL RRF	0.025	>0.05	ND(0.0050) J	
G135-676	GMA5-10	5/16/2008	Water	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.032	>0.05	ND(0.0050) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(0.10) J	
						1,4-Dioxane	CCAL %D	26.2%	<25%	ND(0.10) J	
						2-Butanone	ICAL RRF	0.035	>0.05	ND(0.0050) J	
						2-Chloroethylvinylether	ICAL RRF	0.018	>0.05	ND(0.013) J	
						Acetone	ICAL RRF	0.021	>0.05	ND(0.0050) J	
						Acetonitrile	ICAL RRF	0.009	>0.05	ND(0.020) J	
						Acetonitrile	CCAL %D	33.3%	<25%	ND(0.020) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.030	>0.05	ND(0.025) J	
						Bromomethane	CCAL %D	39.0%	<25%	ND(0.0010) J	
						Chloroethane	CCAL %D	46.9%	<25%	ND(0.0010) J	
						Isobutanol	ICAL RRF	0.003	>0.05	ND(0.050) J	
						Propionitrile	ICAL RRF	0.011	>0.05	ND(0.020) J	
						trans-1,4-Dichloro-2-butene	ICAL RRF	0.025	>0.05	ND(0.0050) J	
G135-676	GMA5-9	5/16/2008	Water	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.032	>0.05	ND(0.0050) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(0.10) J	
						1,4-Dioxane	CCAL %D	26.2%	<25%	ND(0.10) J	
						2-Butanone	ICAL RRF	0.035	>0.05	ND(0.0050) J	
						2-Chloroethylvinylether	ICAL RRF	0.018	>0.05	ND(0.013) J	
						Acetone	ICAL RRF	0.021	>0.05	ND(0.0050) J	
						Acetonitrile	ICAL RRF	0.009	>0.05	ND(0.020) J	
						Acetonitrile	CCAL %D	33.3%	<25%	ND(0.020) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.030	>0.05	ND(0.025) J	
						Bromomethane	CCAL %D	39.0%	<25%	ND(0.0010) J	
						Chloroethane	CCAL %D	46.9%	<25%	ND(0.0010) J	
						Isobutanol	ICAL RRF	0.003	>0.05	ND(0.050) J	
						Propionitrile	ICAL RRF	0.011	>0.05	ND(0.020) J	
						trans-1,4-Dichloro-2-butene	ICAL RRF	0.025	>0.05	ND(0.0050) J	

Table C-1
Analytical Data Validation Summary
Groundwater Management Area 5 - Spring 2008

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 (continued)											
G135-676	GMA5-DUP#2	5/16/2008	Water	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.032	>0.05	ND(0.0050) J	Duplicate of GMA5-9
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(0.10) J	
G135-676	GMA5-DUP#2	5/16/2008	Water	Tier II	Yes	1,4-Dioxane	CCAL %D	26.2%	<25%	ND(0.10) J	
						2-Butanone	ICAL RRF	0.035	>0.05	ND(0.0050) J	
						2-Chloroethylvinylether	ICAL RRF	0.018	>0.05	ND(0.013) J	
						Acetone	ICAL RRF	0.021	>0.05	ND(0.0050) J	
						Acetonitrile	ICAL RRF	0.009	>0.05	ND(0.020) J	
						Acetonitrile	CCAL %D	33.3%	<25%	ND(0.020) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.030	>0.05	ND(0.025) J	
						Bromomethane	CCAL %D	39.0%	<25%	ND(0.0010) J	
						Chloroethane	CCAL %D	46.9%	<25%	ND(0.0010) J	
						Isobutanol	ICAL RRF	0.003	>0.05	ND(0.050) J	
						Propionitrile	ICAL RRF	0.011	>0.05	ND(0.020) J	
						trans-1,4-Dichloro-2-butene	ICAL RRF	0.025	>0.05	ND(0.0050) J	
G135-676	TripBlank	5/16/2008	Water	Tier II	Yes	1,2-Dibromo-3-chloropropane	ICAL RRF	0.032	>0.05	ND(0.0050) J	
						1,4-Dioxane	ICAL RRF	0.001	>0.05	ND(0.10) J	
						1,4-Dioxane	CCAL %D	26.2%	<25%	ND(0.10) J	
						2-Butanone	ICAL RRF	0.035	>0.05	ND(0.0050) J	
						2-Chloroethylvinylether	ICAL RRF	0.018	>0.05	ND(0.013) J	
						Acetone	ICAL RRF	0.021	>0.05	ND(0.0050) J	
						Acetonitrile	ICAL RRF	0.009	>0.05	ND(0.020) J	
						Acetonitrile	CCAL %D	33.3%	<25%	ND(0.020) J	
						Acrolein	ICAL RRF	0.017	>0.05	ND(0.025) J	
						Acrylonitrile	ICAL RRF	0.030	>0.05	ND(0.025) J	
						Bromomethane	CCAL %D	39.0%	<25%	ND(0.0010) J	
						Chloroethane	CCAL %D	46.9%	<25%	ND(0.0010) J	
						Isobutanol	ICAL RRF	0.003	>0.05	ND(0.050) J	
						Propionitrile	ICAL RRF	0.011	>0.05	ND(0.020) J	
						trans-1,4-Dichloro-2-butene	ICAL RRF	0.025	>0.05	ND(0.0050) J	

ARCADIS

Appendix D

Historical Groundwater Data

Table D-1
Comparison of Spring 2008 Sampling Result to Prior Spring Results

Monitoring Event Evaluation Report for Spring 2008
Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Well GMA5-7 **Parameter** **Date Collected:**	**04/12/06**	**05/15/08**
Volatile Organics		
Ethylbenzene	ND(0.0050)	0.00018 J
Tetrachloroethene	0.062	0.037
trans-1,2-Dichloroethene	ND(0.0050)	0.00080 J
Trichloroethene	0.0023 J	0.0028
Vinyl Chloride	ND(0.0020)	0.00059 J
Total VOCs	0.064 J	0.041 J

Well GMA5-4 **Parameter** **Date Collected:**	**04/30/03**	**05/15/08**
Inorganics-Filtered		
Cadmium	ND(0.0100)	ND(0.0100) [ND(0.0100)]

Notes:

1. Samples were collected by ARCADIS, and submitted to SGS Environmental Services, Inc. for analysis of PCBs (filtered and unfiltered) and Appendix IX+3 constituents.
2. Samples have been validated as per GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP).
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. Only those constituents detected in one or more samples are summarized.
5. Only constituents which were detected in the Spring 2008 sampling event and comparative data from the most recent prior spring sampling event for each well are shown in this table.

Data Qualifiers:

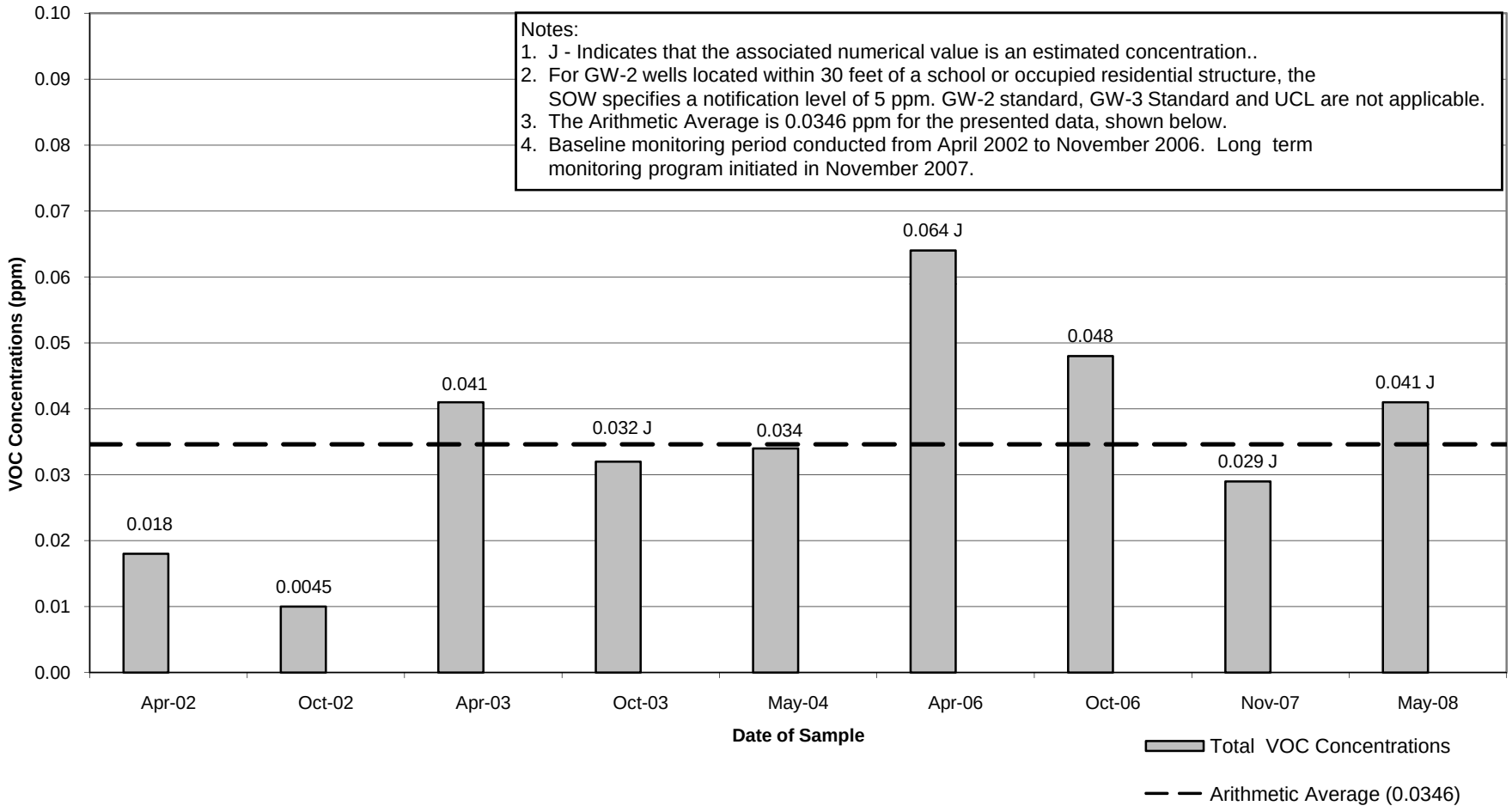
Organics (volatiles, PCBs, semivolatiles,pesticides, herbicides,dioxin/furans)
J - Indicates that the associated numerical value is an estimated concentration.

ARCADIS

Total VOC Concentrations –
Selected Wells

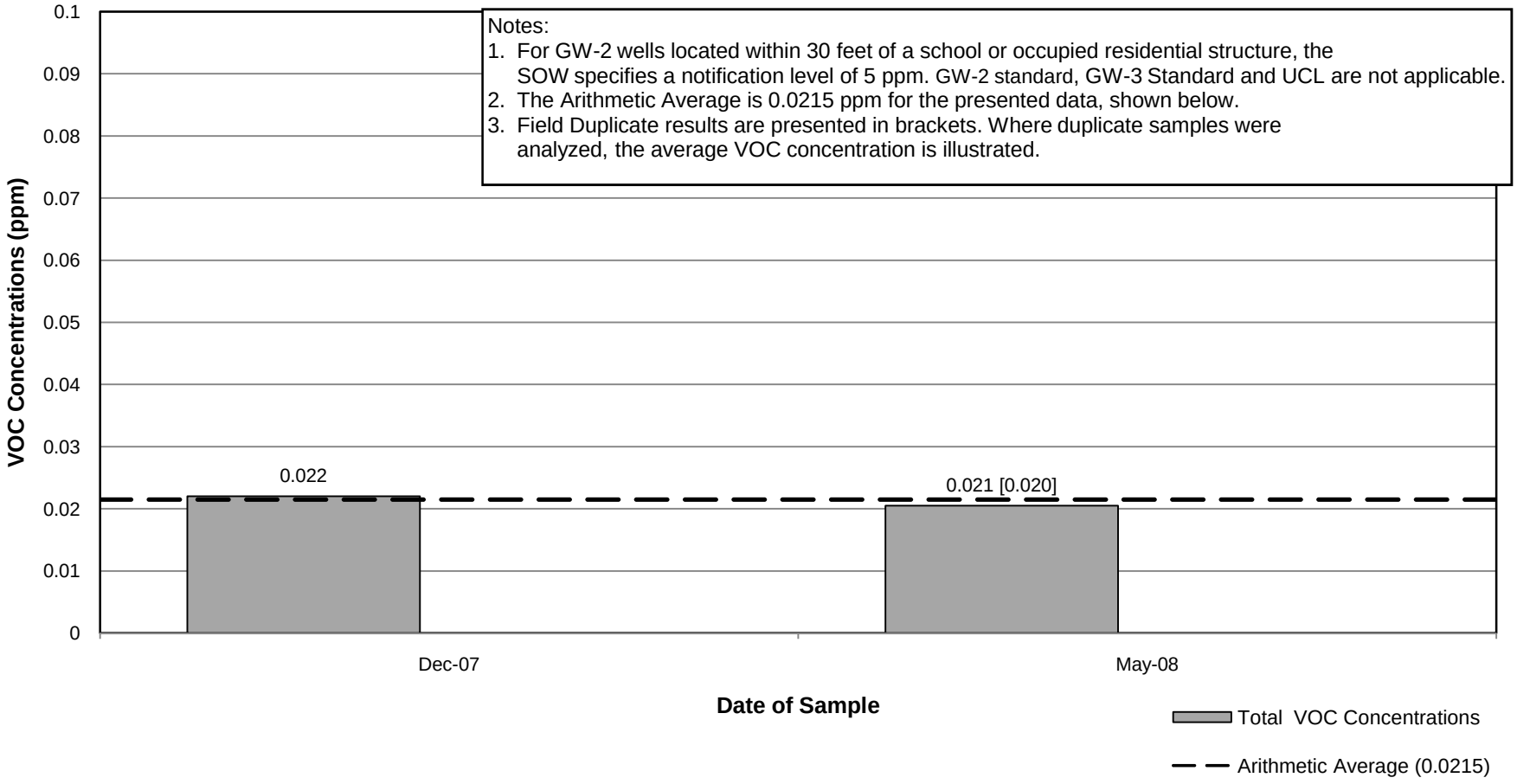
Appendix D
Well GMA5-7 Historical Total VOC Concentrations

Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts



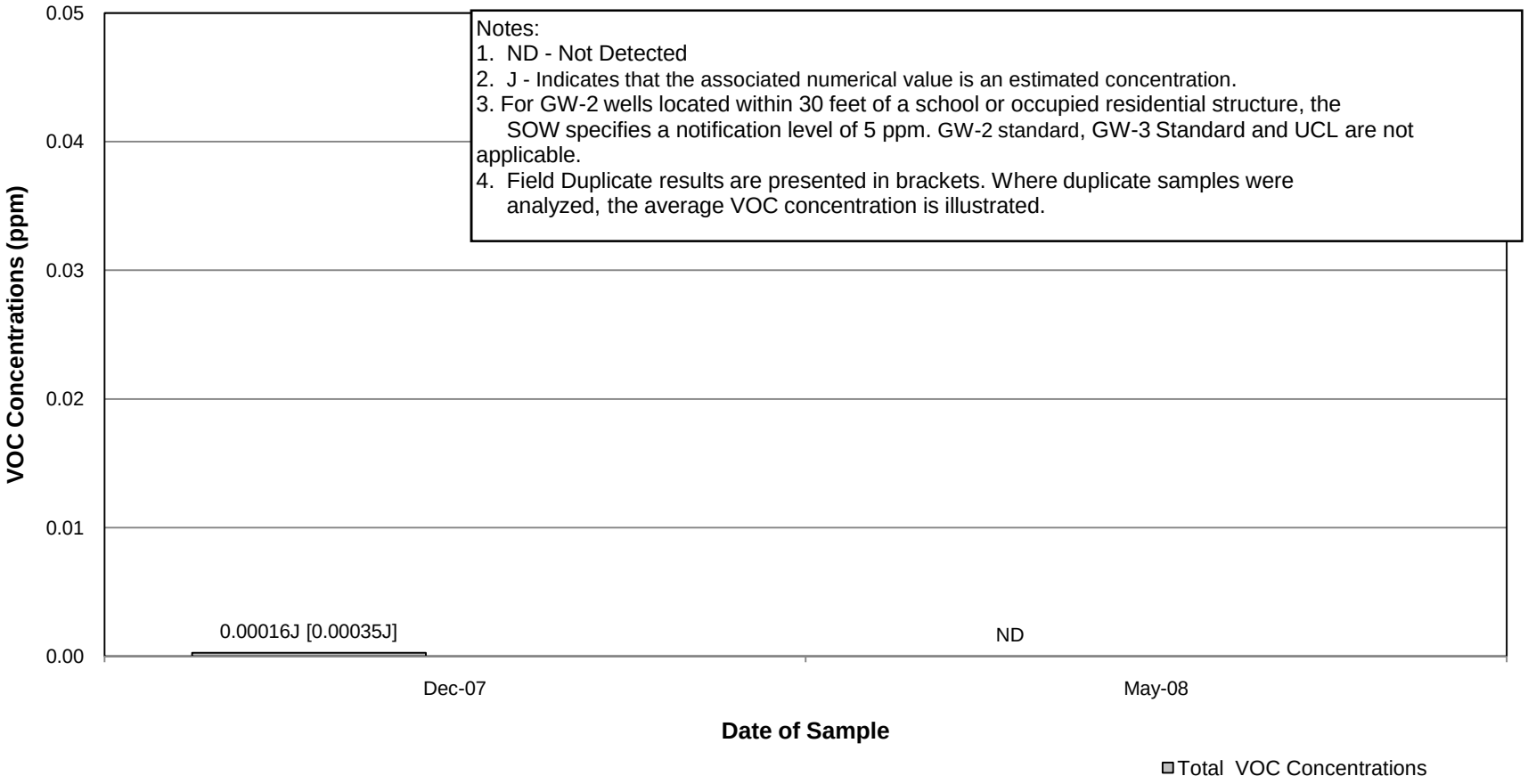
Appendix D
Well GMA5-9 Historical Total VOC Concentrations

Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts



Appendix D
Well GMA5-10 Historical Total VOC Concentrations

Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts

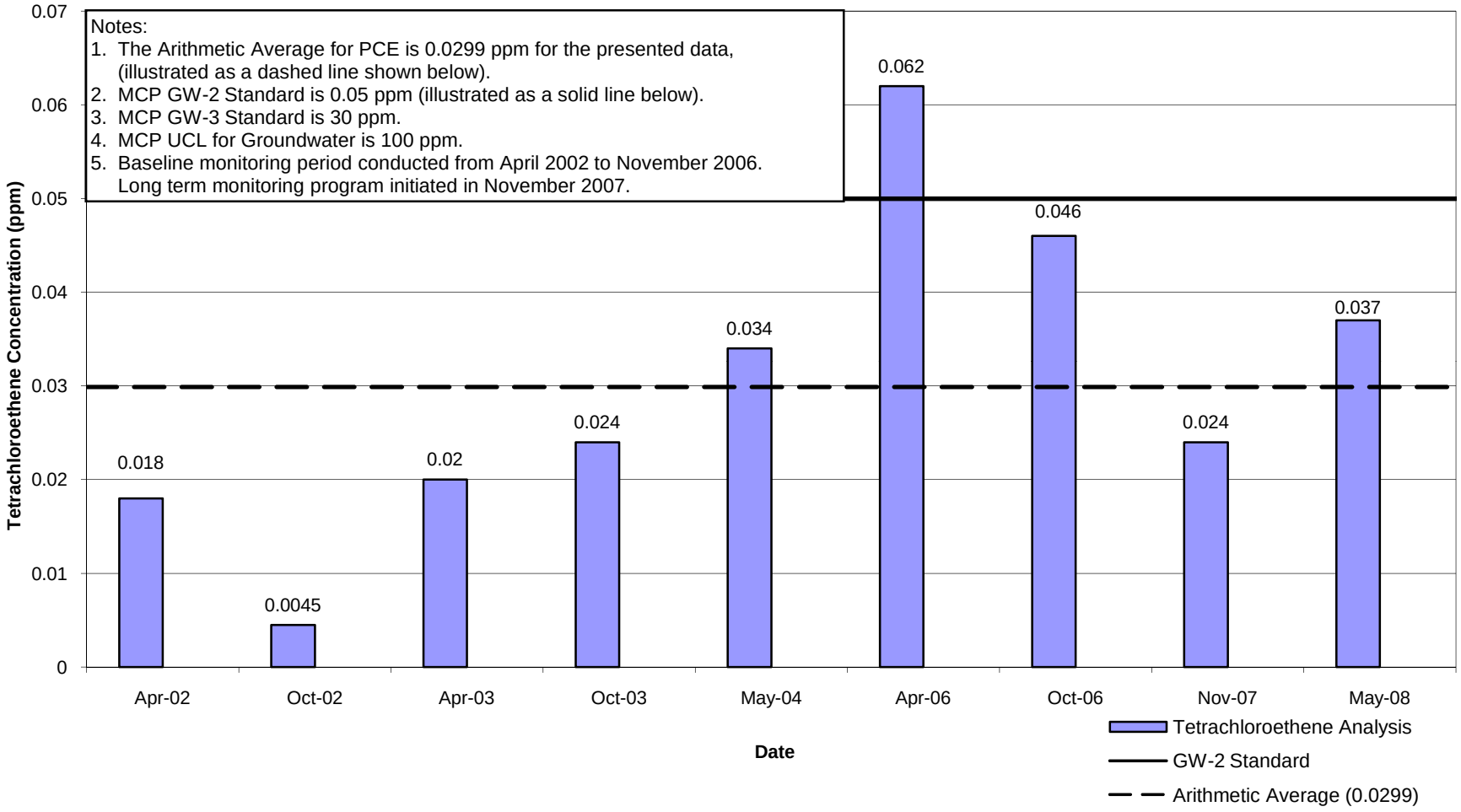


ARCADIS

Tetrachloroethene Concentrations – Selected Wells

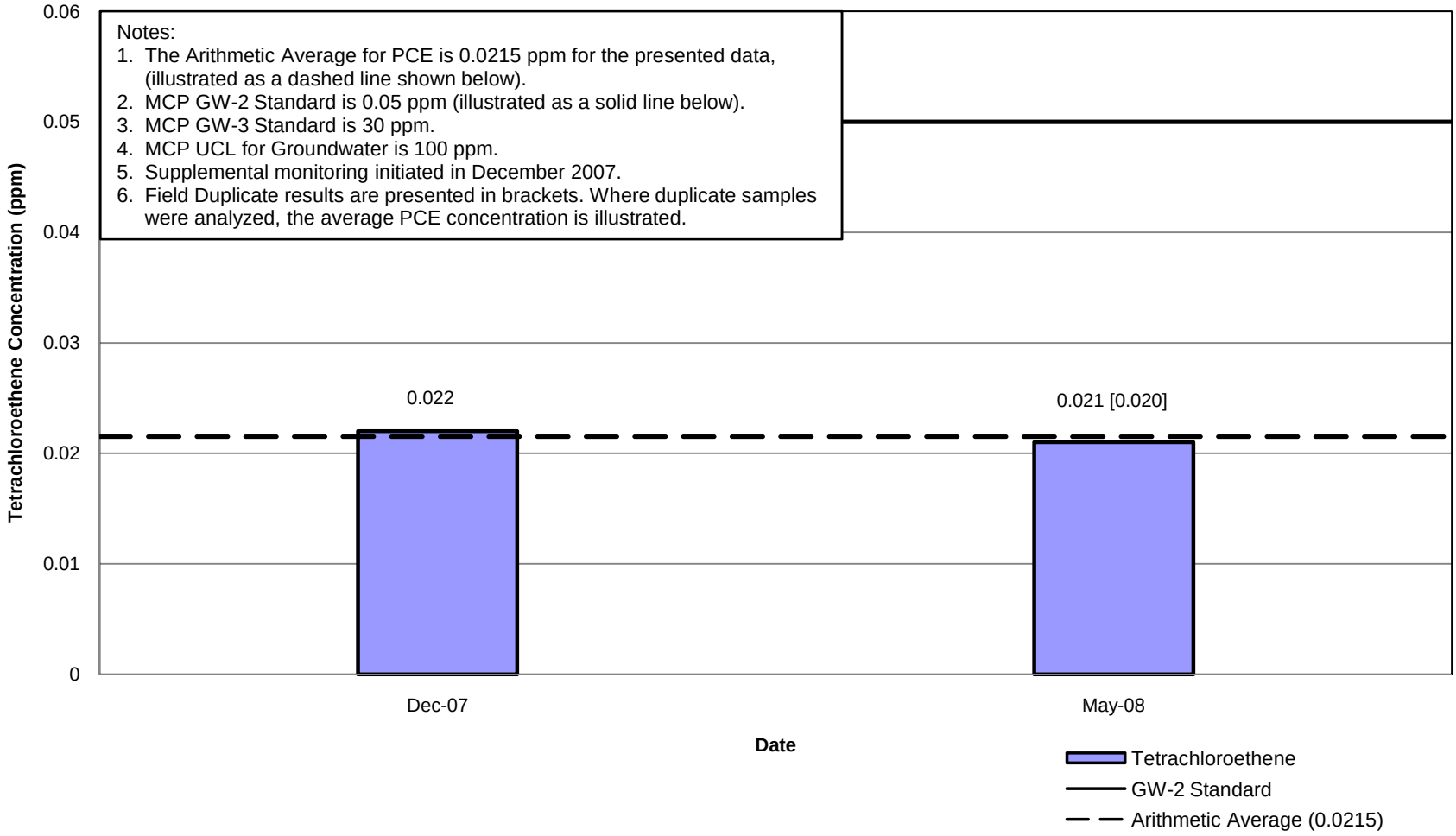
Appendix D
Well GMA5-7 Historical Tetrachloroethene (PCE) Concentrations

Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts



Appendix D
Well GMA5-9 Historical Tetrachloroethene (PCE) Concentrations

Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts

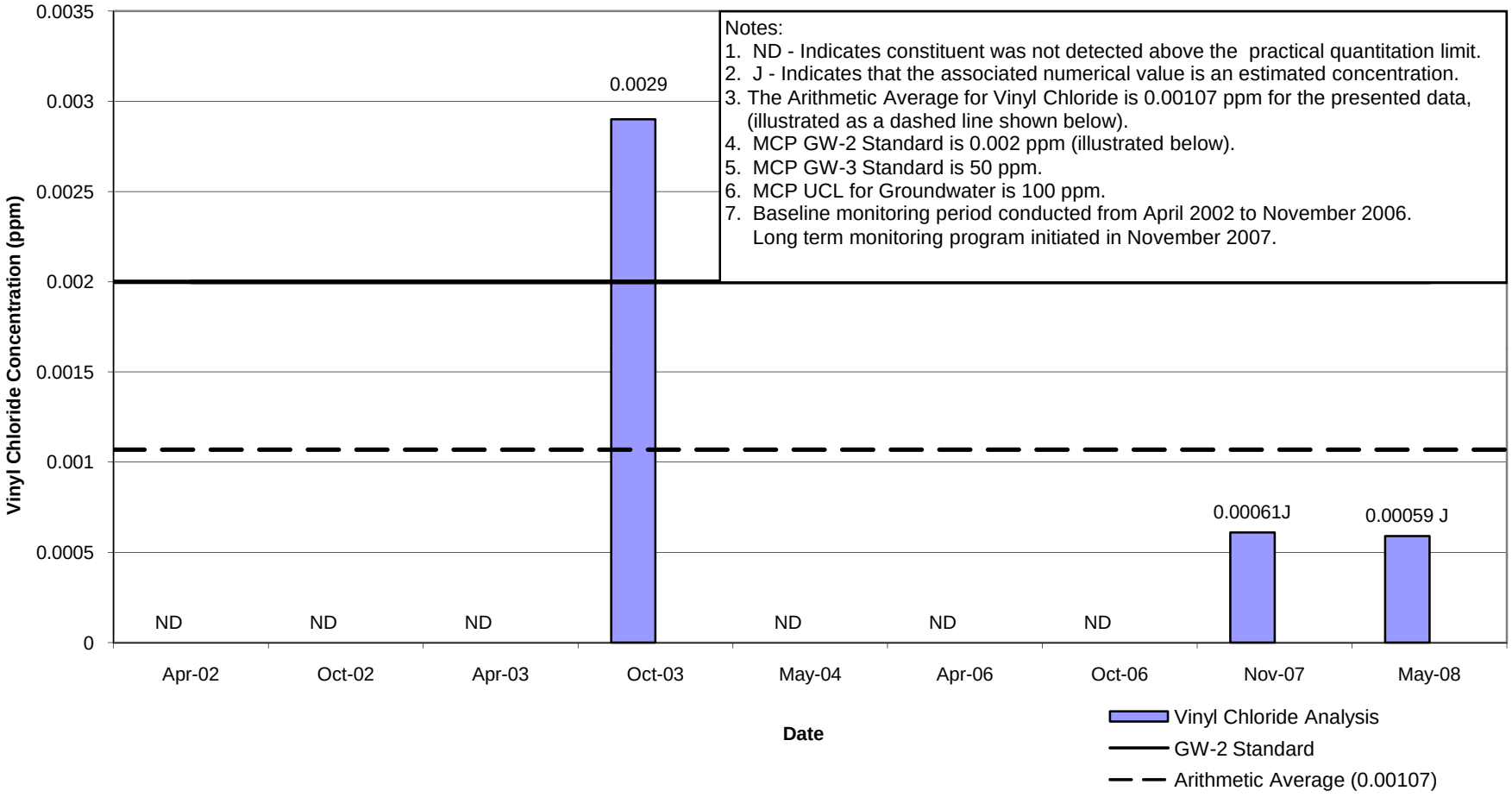


ARCADIS

Vinyl Chloride Concentrations – Well GMA5-7

Appendix D
Well GMA5-7 Historical Vinyl Chloride Concentrations

Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts



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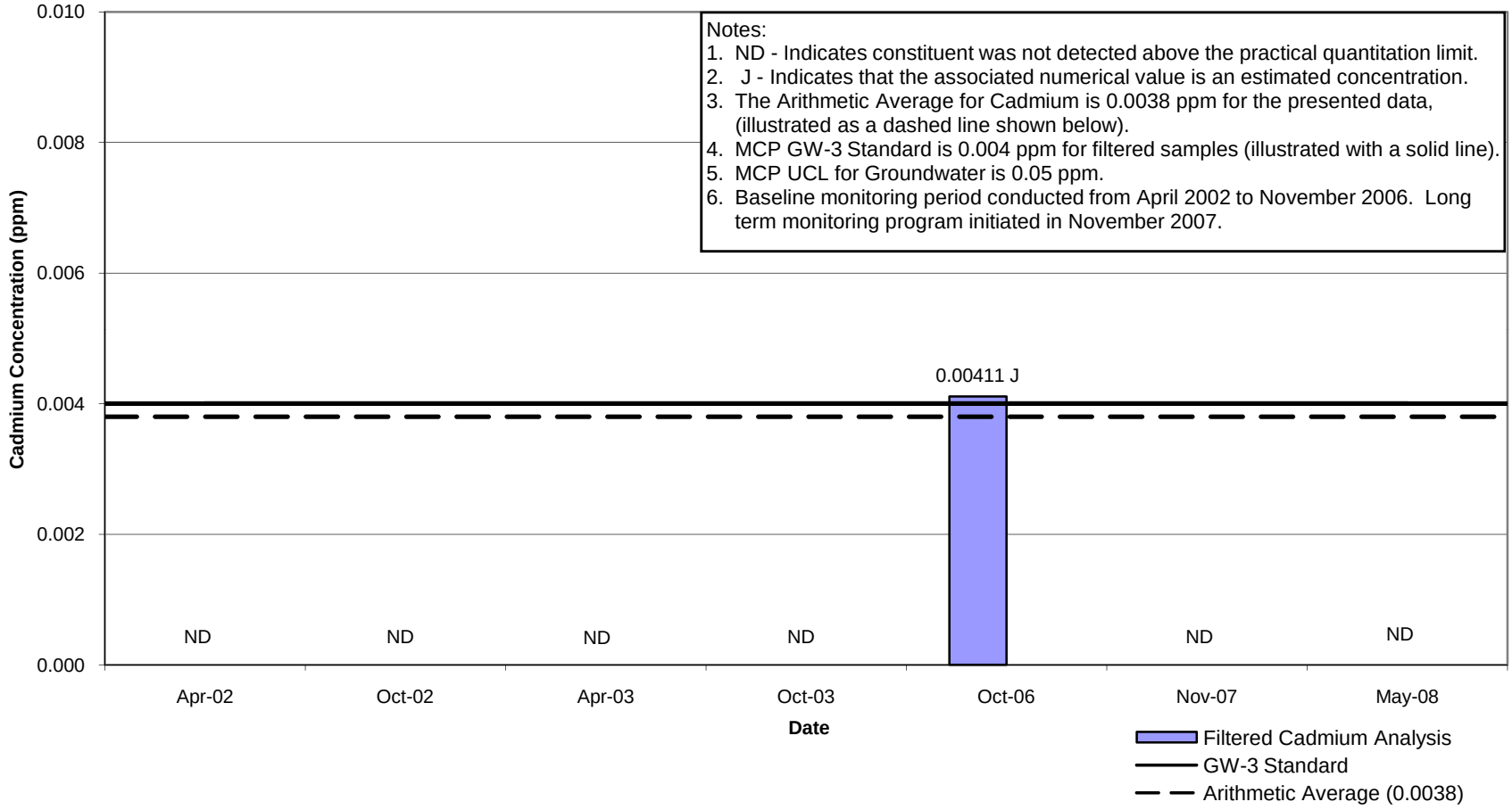
Cadmium Concentrations –
Well GMA5-4

Appendix D
Well GMA5-4 Historical Cadmium Concentrations (Filtered Analysis)

Groundwater Management Area 5
General Electric Company - Pittsfield, Massachusetts



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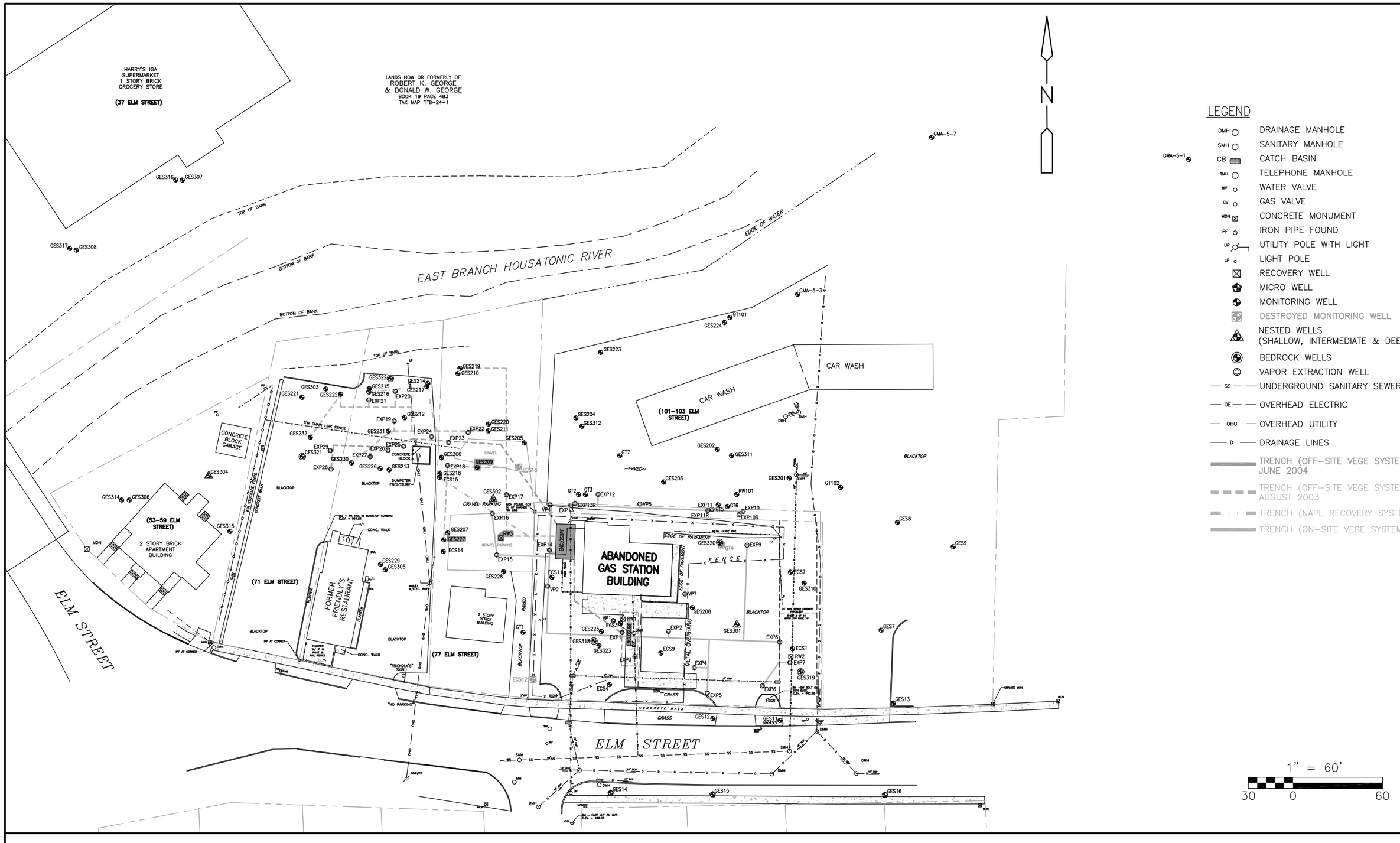
Appendix E

Monitoring Results for Adjacent MCP Disposal Site



FORMER MOBIL SERVICE STATION (#01-ECQ)
83-89 ELM STREET
PITTSFIELD, MASSACHUSETTS

SITE PLAN

FIGURE 1-2

CDM

P:\20474\32302\01-ECQ\CSTPL001.DWG

TABLE 2-1
SUMMARY OF SOIL VAPOR EXTRACTION REMOVAL RATES
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date	Days in Period	VE Hour Meter	Up/Down on Arrival	Percent Runtime %	Influent TOV (ppm)	Effluent TOV (ppm)	Removal Efficiency %	Airflow (scfm)	Blower Vacuum (in w.c)	Average Pounds Removed		
										per hour	per period	cumulative
19-Jul-04	Start-Up	13718.4	-	0%	299.0	0.3	100%	349	46	0.00	0.0	0.0
26-Jul-04	7	13881.9	U	97%	77.0	0.0	100%	332	48	1.54	259.1	259.1
04-Aug-04	9	14096.9	U	100%	63.3	0.0	100%	314	44	0.39	83.3	342.4
13-Aug-04	9	14306.3	D (2)	97%	114.0	0.0	100%	262	107	0.29	63.2	405.6
23-Aug-04	10	14547.3	D (2)	100%	183.0	1.8	99%	262	106	0.45	109.2	514.8
02-Sep-04	10	14732.5	U	77%	27.1	0.0	100%	218	98	0.56	134.7	649.5
13-Sep-04	11	14995.3	U	100%	233.0	5.1	98%	218	100	0.77	202.8	852.4
27-Sep-04	14	15305.6	U	92%	13.2	0.0	100%	305	132	0.06	19.0	871.3
04-Oct-04	7	15496.4	U	100%	42.9	0.6	99%	262	126	0.17	28.6	900.0
11-Oct-04	7	15633.9	U	82%	17.0	0.0	100%	236	120	0.05	8.4	908.4
16-Oct-04	5	15800.7	U	100%	16.8	0.0	100%	240	122	0.06	7.3	915.7
25-Oct-04	9	15970.0	U	78%	259.0	0.0	100%	140	114	0.43	92.9	1008.7
05-Nov-04	11	16233.9	U	100%	315.0	0.0	100%	218	108	1.04	275.3	1284.0
08-Nov-04	3	16310.3	U	100%	371.0	0.0	100%	393	96	2.21	159.3	1443.2
15-Nov-04	7	16471.6	U	96%	365.0	0.0	100%	393	102	2.09	351.0	1794.2
22-Nov-04	7	16639.8	U	100%	275.0	0.0	100%	175	98	0.73	122.6	1916.8
29-Nov-04	7	16810.3	U	100%	92.2	0.0	100%	262	118	0.37	61.6	1978.4
06-Dec-04	7	16978.5	U	100%	109.0	0.0	100%	240	114	0.40	66.8	2045.2
13-Dec-04	7	17146.4	U	100%	73.6	0.0	100%	196	117	0.22	36.8	2082.0
21-Dec-04	8	17246.0	D (8)	52%	116.0	0.0	100%	262	102	0.24	45.9	2127.9
27-Dec-04	6	17345.5	D (8)	69%	52.0	0.0	100%	140	92	0.08	11.0	2138.9
03-Jan-05	7	17505.4	U	95%	60.6	0.0	100%	436	86	0.38	64.2	2203.1
10-Jan-05	7	17673.2	U	100%	78.9	0.0	100%	436	96	0.52	87.7	2290.8
18-Jan-05	8	17873.9	U	100%	97.2	0.0	100%	65	137	0.10	18.5	2309.3
24-Jan-05	6	18014.4	U	98%	6.6	0.0	100%	153	108	0.01	2.1	2311.5
31-Jan-05	7	18180.9	U	99%	6.2	0.0	100%	209	100	0.02	3.3	2314.8
09-Feb-05	9	18392.9	U	98%	50.8	0.0	100%	428	96	0.32	69.9	2384.7
14-Feb-05	5	18514.9	U	100%	7.8	0.0	100%	506	100	0.06	7.2	2391.9
21-Feb-05	7	18684.6	U	100%	30.6	0.0	100%	153	120	0.07	11.9	2403.8
28-Feb-05	7	18851.6	U	99%	8.1	0.0	100%	227	110	0.03	4.7	2408.5
09-Mar-05	9	19069.5	U	100%	278.0	0.0	100%	393	106	1.66	358.0	2766.5
14-Mar-05	5	19187.6	U	98%	396*	91.2*	100%	240	100	0.00	0.0	2766.5
22-Mar-05	8	19380.0	U	100%	3.0	0.0	100%	218	110	0.01	1.9	2768.4
28-Mar-05	6	19519.5	U	97%	70.0	0.0	100%	375	116	0.39	55.6	2824.0
04-Apr-05	7	19686.3	U	99%	41.8	0.0	100%	314	142	0.20	33.3	2857.2
11-Apr-05	7	19855.7	U	100%	2.9	0.0	100%	524	130	0.02	3.9	2861.1
18-Apr-05	7	19930.5	U	45%	9.2	0.0	100%	227	106	0.01	2.4	2863.5
25-Apr-05	7	20096.0	U	99%	2.6	0.0	100%	524	108	0.02	3.4	2866.9
02-May-05	7	20263.5	U	100%	0.5	0.0	100%	524	118	0.00	0.7	2867.6
09-May-05	7	20433.8	U	100%	4.5	0.0	100%	419	110	0.03	4.8	2872.4
16-May-05	7	20602.3	U	100%	17.1	0.0	100%	196	108	0.05	8.6	2881.0
31-May-05	15	20958.6	U	99%	2.2	0.0	100%	349	116	0.01	4.2	2885.1
06-Jun-05	6	21101.4	U	99%	5.8	0.0	100%	349	106	0.03	4.4	2889.5
13-Jun-05	7	21273.6	U	100%	46.8	0.0	100%	175	106	0.12	20.8	2910.4
20-Jun-05	7	21442.9	U	100%	2.5	0.0	100%	153	118	0.01	1.0	2911.3
27-Jun-05	7	21606.9	U	98%	1.5	0.0	100%	332	114	0.01	1.2	2912.6
05-Jul-05	8	21797.4	U	99%	65.7	0.0	100%	297	0	0.29	56.4	2968.9
11-Jul-05	6	21944.7	U	100%	19.2	0.0	100%	209	122	0.06	8.8	2977.7
18-Jul-05	7	22111.5	U	99%	15.0	0.0	100%	297	116	0.07	11.3	2989.0
01-Aug-05	14	22442.9	U	99%	1.6	0.0	100%	375	94	0.01	3.0	2992.0
08-Aug-05	7	22611.0	U	100%	3.3	0.0	100%	349	96	0.02	2.9	2995.0
15-Aug-05	7	22783.2	U	100%	5.6	0.0	100%	305	120	0.03	4.4	2999.3
23-Aug-05	8	22974.1	U	99%	1.3	0.0	100%	262	120	0.01	1.0	3000.3
29-Aug-05	6	23117.7	U	100%	3.2	0.0	100%	262	118	0.01	1.8	3002.1

TABLE 2-1
SUMMARY OF SOIL VAPOR EXTRACTION REMOVAL RATES
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date	Days in Period	VE Hour Meter	Up/Down on Arrival	Percent Runtime %	Influent TOV (ppm)	Effluent TOV (ppm)	Removal Efficiency %	Airflow (scfm)	Blower Vacuum (in w.c)	Average Pounds Removed		
										per hour	per period	cumulative
06-Sep-05	8	23305.8	U	98%	2.6	0.0	100%	305	126	0.01	2.3	3004.4
14-Sep-05	8	23503.2	U	100%	0.0	0.0	100%	236	126	0.00	0.0	3004.4
20-Sep-05	6	23644.1	U	98%	7.7	0.0	100%	236	100	0.03	3.9	3008.3
26-Sep-05	6	23785.6	U	98%	8.7	0.0	100%	393	100	0.05	7.3	3015.6
03-Oct-05	7	23856.4	U	42%	5.6	0.0	100%	393	80	0.01	2.4	3018.0
10-Oct-05	7	23988.5	U	79%	5.1	0.0	100%	349	124	0.02	3.6	3021.6
17-Oct-05	7	23992.1	D	2%	41.5	0.0	100%	305	136	0.00	0.7	3022.3
24-Oct-05	7	24157.7	D	99%	12.9	0.0	100%	393	180	0.08	12.7	3035.0
01-Nov-05	8	24348.8	D	100%	1.0	0.0	100%	314	142	0.00	0.9	3035.9
07-Nov-05	6	24493.2	U	100%	4.1	0.0	100%	305	132	0.02	2.7	3038.6
19-Nov-05	12	24658.4	D	57%	0.0	0.0	100%	393	98	0.00	0.0	3038.6
22-Nov-05	3	24850.0	U	100%	4.6	0.0	100%	305	134	0.02	1.5	3040.2
28-Nov-05	6	24996.4	D	100%	4.5	0.0	100%	349	142	0.02	3.4	3043.6
05-Dec-05	7	25162.1	D	99%	1.6	0.0	100%	332	136	0.01	1.3	3045.0
16-Dec-05	11	25427.8	D	100%	0.8	0.7	13%	305	102	0.00	1.0	3045.9
22-Dec-05	6	25572.1	D	50%	61.2	0.0	100%	349	92	0.16	23.4	3069.3
03-Jan-06	12	25856.8	D	50%	2.3	0.0	100%	305	104	0.01	1.5	3070.8
09-Jan-06	6	26002.8	U	100%	0.0	0.0	100%	428	124	0.00	0.0	3070.8
16-Jan-06	7	26171.7	U	100%	0.5	0.0	100%	349	140	0.00	0.4	3071.3
23-Jan-06	7	26334.5	U	100%	1.5	0.0	100%	367	138	0.01	1.4	3072.7
31-Jan-06	8	26528.0	U	100%	2.6	0.0	100%	349	160	0.01	2.6	3075.3
16-Mar-06	--	27221.3	D (17)	--	0.0	0.0	100%	310	96	0.00	NA	3075.3
31-Mar-06	15	NR	D	80%	3.2	0.0	100%	NR	110	NA	NA	3075.3
06-Apr-06	6	27256.8	D	17%	NR	NR	NA	700	20	NA	NA	3075.3
26-Apr-06	20	27652.0	D	82%	NR	NR	NA	NR	NR	NA	NA	3075.3
28-Apr-06	2	27653.5	D	3%	NR	NR	NA	NR	110	NA	NA	3075.3
10-May-06	12	27913.3	O	90%	4.3	0.0	100%	NR	140	NA	NA	3075.3
24-May-06	14	28244.8	U	99%	0.7	0.0	100%	191	193	0.00	0.7	3076.0
01-Jun-06	8	28435.6	U	99%	0.0	0.0	100%	204	196	0.00	0.0	3076.0
08-Jun-06	7	28605.2	U	100%	0.0	0.0	100%	204	178	0.00	0.0	3076.0
20-Jun-06	12	28717.1	O	58%	1.8	0.0	100%	NR	110	NA	NA	3076.0
26-Jun-06	6	28861.8	U	100%	1.0	0.0	100%	NR	118	NA	NA	3076.0
07-Jul-06	11	29127.6	U	100%	0.0	0.0	100%	265	120	0.00	0.0	3076.0
12-Jul-06	5	29250.1	U	100%	0.3	0.0	100%	NR	122	NA	NA	3076.0
19-Jul-06	7	29418.0	U	100%	0.0	0.0	100%	NR	120	NA	NA	3076.0
24-Jul-06	5	29536.7	U	100%	0.0	0.0	100%	NR	120	NA	NA	3076.0
02-Aug-06	9	29753.4	U	100%	0.0	0.0	100%	NR	122	NA	NA	3076.0
11-Aug-06	9	29962.0	U	100%	0.0	0.0	100%	NR	124	NA	NA	3076.0
15-Aug-06	4	30059.9	U	100%	NR	NR	NA	NR	120	NA	NA	3076.0
23-Aug-06	8	30244.0	U	100%	NR	NR	NA	250	126	NA	NA	3076.0
30-Aug-06	7	30408.3	U	100%	0.0	0.0	100%	NR	126	NA	NA	3076.0
05-Sep-06	6	30550.9	U	100%	0.0	0.0	100%	NR	122	NA	NA	3076.0
13-Sep-06	8	30742.7	U	100%	NR	NR	NA	NR	122	NA	NA	3076.0
18-Sep-06	5	30865.1	U	100%	0.0	0.0	100%	NR	121	NA	NA	3076.0
27-Sep-06	9	31005.3	U	100%	1.8	0.0	100%	307	128	0.01	1.2	3077.2
05-Oct-06	8	31196.8	U	100%	0.0	0.0	100%	NR	130	NA	NA	3077.2
11-Oct-06	6	31197.0	O	0%	NR	NR	NA	NR	NR	NA	NA	3077.2
25-Oct-06	14	31200.0	O	0%	1.5	0.0	100%	NR	130	NA	NA	3077.2
01-Nov-06	7	31365.2	U	100%	0.0	0.0	100%	NR	128	NA	NA	3077.2
07-Nov-06	6	31509.5	U	100%	0.6	0.0	100%	NR	130	NA	NA	3077.2
17-Nov-06	10	31749.9	U	100%	0.3	0.0	100%	NR	120	NA	NA	3077.2
21-Nov-06	4	31844.8	U	100%	0.3	0.0	100%	NR	122	NA	NA	3077.2
27-Nov-06	6	32013.0	U	100%	NR	NR	NA	NR	120	NA	NA	3077.2
08-Dec-06	11	32249.0	U	100%	0.0	0.0	100%	NR	178	NA	NA	3077.2
11-Dec-06	3	32325.0	U	100%	3.8	0.0	100%	NR	180	NA	NA	3077.2
19-Dec-06	8	32519.8	U	100%	0.4	0.0	100%	NR	176	NA	NA	3077.2
28-Dec-06	9	32727.8	U	100%	NR	NR	NA	NR	178	NA	NA	3077.2
03-Jan-07	6	32872.8	U	100%	4.8	0.0	100%	NR	178	NA	NA	3077.2
09-Jan-07	6	32999.1	U	100%	1.0	0.0	100%	235	180	0.00	0.5	3077.6
24-Jan-07	15	33130.3	U	100%	0.0	0.0	100%	220	188	0.00	0.0	3077.6
02-Feb-07	9	33350.9	U	100%	0.1	0.0	100%	219	180	0.00	0.1	3077.7
20-Feb-07	18	33774.7	U	100%	16.6	0.0	100%	570	195	0.14	60.9	3138.6

TABLE 2-1
SUMMARY OF SOIL VAPOR EXTRACTION REMOVAL RATES
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date	Days in Period	VE Hour Meter	Up/Down on Arrival	Percent Runtime %	Influent TOV (ppm)	Effluent TOV (ppm)	Removal Efficiency %	Airflow (scfm)	Blower Vacuum (in w.c)	Average Pounds Removed per hour	Average Pounds Removed per period	Average Pounds Removed cumulative
01-Mar-07	9	33982.2	U	100%	6.3	0.0	100%	449	190	0.04	8.9	3147.5
06-Mar-07	5	34104.9	U	100%	12.1	0.0	100%	544	192	0.10	12.3	3159.7
13-Mar-07	7	34269.5	U	100%	3.1	0.0	100%	232	190	0.01	1.8	3161.5
19-Mar-07	6	34417.8	U	100%	0.0	0.0	100%	152	200	0.00	0.0	3161.5
27-Mar-07	8	34605.1	U	100%	0.8	0.0	100%	272	NR	NA	NA	3161.5
05-Apr-07	9	34819.5	U	100%	0.4	0.0	100%	282	174	0.00	0.4	3161.9
12-Apr-07	7	34987.2	U	100%	0.8	0.0	100%	274	160	0.00	0.6	3162.4
17-Apr-07	5	35107.3	U	100%	5.3	0.0	100%	269	176	0.02	2.6	3165.0
23-Apr-07	6	35251.3	U	100%	0.4	0.0	100%	420	68	0.00	0.4	3165.4
26-Apr-07	3	35321.1	U	100%	6.8	0.0	100%	449	68	0.05	3.2	3168.7
27-Apr-07	1	35321.1	O	100%	7.2	0.0	100%	426	68	0.05	0.0	3168.7
11-May-07	14	35654.4	U	100%	0.7	0.0	100%	425	54	0.00	1.5	3170.2
17-May-07	6	35797.2	U	100%	7.1	0.0	100%	442	54	0.05	6.8	3177.0
25-May-07	8	35989.2	U	100%	1.7	0.0	100%	469	0	0.01	2.3	3179.3
05-Jun-07	11	36224.0	D	91%	3.0	0.0	100%	479	630	0.02	5.1	3184.4
07-Jun-07	2	36276.8	U	100%	NR	NR	NA	NR	14	NA	NA	3184.4
12-Jun-07	5	36390.4	U	100%	NR	NR	NA	NR	0	NA	NA	3184.4
19-Jun-07	7	36552.2	U	100%	0.0	0.0	100%	264	559	0.00	0.0	3184.4
28-Jun-07	9	36723.2	O	66%	43.0	0.0	100%	164	184	0.11	18.3	3202.7
03-Jul-07	5	36727.5	O	0%	NR	NR	NA	176	177	NA	NA	3202.7
12-Jul-07	9	36727.5	O	0%	NR	NR	NA	NR	NR	NA	NA	3202.7
14-Jul-07	2	36727.5	O	0%	NR	NR	NA	NR	NR	NA	NA	3202.7
20-Jul-07	6	36727.5	O	0%	NR	NR	NA	NR	NR	NA	NA	3202.7
25-Jul-07	5	36728.0	O	20%	4.4	0.0	100%	135	190	0.01	0.0	3202.7
02-Aug-07	8	36913.1	U	100%	5.1	0.0	100%	141	211	0.01	2.0	3204.7
07-Aug-07	5	36938.1	D	20%	NR	0.0	NA	137	190	NA	NA	3204.7
16-Aug-07	9	37151.9	U	100%	11.5	0.0	100%	136	184	0.02	5.1	3209.8
21-Aug-07	5	37272.1	U	100%	71.6	0.0	100%	135	170	0.15	17.7	3227.5
27-Aug-07	6	37357.7	O	50%	NR	NR	NA	NR	NR	NA	NA	3227.5

Cumulative Total (Pre + Post 2004 Upgrade)	
As of 11/21/06	20,043.6

Notes:

VE = vapor extraction.
scfm = standard cubic feet per minute.
in w.c. = inches of water column.
Molecular weight of gasoline = 96 lb/mol.
NA = not available.
ppm = parts per million.
TOV = total organic vapors.
Volume of 1 lb of air at 55 degrees Fahrenheit = 379.4 ft^3/mol.
System start-up was on July 21, 2004. Earliest system data prior to start-up was from July 19, 2004
(1) = No alarms indicated.
(2) = Low flow to catox.
(3) = Airflow estimated with blower performance curve.
(4) = Main breaker tripped.
(5) = System frozen.
(6) = Low temperature on Catox.
(7) = VE system restarted on April 10th repair visit.
(8) = High water level in moisture separator.
(9) = System restarted on May 9, 2003 visit.
(10) = System manually shut down on 7/16/03 to allow aquifer to return to steady state for Sitewide fluid levels.
(11) = System down due to power outage.
(12) = System down due to tripped transfer pump on oil water separator.
(13) = System down for blower repairs as of August 8, 2003.
(14) = System down due to VE blower failure.
(15) = System down to relocation/consolidation.
(16) = Down pending carbon changeout.
(17) = CDM assumes O&M responsibilities. Cumulative mass VOCs removed between 1/31/06 and 3/16/06 is unknown.
* = Suspect numbers are inaccurate. Will not include in mass removal calculations.

Calculations:

Pounds of Hydrocarbons Removed:

$$[\text{lb/hour}] = \frac{\text{Influent TOV (ppm)} \times \text{Airflow (scfm)} \times 96\ \text{(lb/mol)} \times 60\ \text{(min/hr)}}{379.4\ (\text{ft}^3/\text{mol}) \times 10^6} \times \text{Percent Runtime}$$

$$[\text{lb/period}] = [\text{lb/hour}] \times \text{days in period} \times 24\ \text{(hr/day)}$$

TABLE 2-2
SUMMARY OF SOIL VAPOR EXTRACTION SYSTEM DATA
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date of Visit	March 2006		April 2006			May 2006		June 2006			
	03/16/06	03/31/06	04/06/06	04/26/06	04/28/06	05/10/06	05/24/06	06/01/06	06/08/06	06/20/06	06/26/06
Operation Time											
	--	15	6	20	2	12	14	8	7	12	6
Days of Operation Since CDM Startup	23	38	44	64	66	78	92	100	107	119	125
System Status (Up / Down / Off)											
Alarm Condition (Y/N)	Y	N	Y	NR	N	N	N	N	N	N	N
On Arrival	D	D	D	D	D	O	U	U	U	O	U
On Departure	U	D	U	D	U	U	U	U	U	U	U
Valve Position (0 to 1)											
Dilution Valve	0.25	NR	NR	NR	0	NR	NR	NR	NR	NR	NR
Vacuum ("H2O)											
Manifold #1	42	NR	3	NR	50	104	146	152	132	60	66
Manifold #2	42	NR	3	NR	58	84	125	119	105	54	62
SVE Blower											
Intake Vacuum ("H2O)	96	110	20	NR	110	140	193	196	178	110	118
Run Temperature (°F)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Exhaust Temperature (°F)	NR	NR	90	NR	80	NR	130	129	NR	124	NR
Exhaust Air Flow (cfm)	310	NR	700	NR	NR	NR	191	204	NR	204	NR
Run Time on Arrival (hrs)	27221.3	NR	27256.8	27652	27653.5	27913.3	28244.8	28435.6	28717.1	28605.2	28861.8
Air/Water Separator											
Vacuum ("H2O)	45	50	20	NR	58	106	146	148	132	52	60
Volume Drained (gal)	0	NR	NR	NR	NR	NR	0	0	0	0	0
Pump Pressure (psi)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CAT OX System											
Temperature Setpoints (°C)											
Heater Temp. Setpoint	330	330	330	330	330	330	330	330	330	330	330
Heater Temp. Actual	331	328	319	331	323	324	331	330	331	329	331
Effluent Temp. Setpoint	550	550	550	550	550	550	550	550	550	550	550
Effluent Temp. Actual	333	330	324	332	327	324	328	327	331	333	332
Core Temp. Setpoint	550	550	550	550	550	550	550	550	550	550	550
Core Temp. Actual	345	340	336	344	341	339	344	343	345	345	344
VOC Concentrations (ppmV)											
Influent	0	3.2	NR	NR	NR	4.3	0.7	0	0	1.8	1
Effluent	0	0	NR	NR	NR	0	0	0	0	0	0
CATOX Destruction Efficiency (%	100.00%	100.00%	NA	NA	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Pressure ("H2O)											
Inlet CAT OX System	29.8	NR	37	NR	NR	NR	16.6	15.2	20.1	26.6	29.6
Electric Meter Reading (kW-h)	NR	63838	64092	65086	65130	65769	66537	67077	67592	67935	68271

Notes:

GAC = Granular Activated Carbon
MTBE = methyl tertiary-butyl ether
TSS = Total Suspended Solids
mg/L = micrograms per liter
ppmV = part per million by volume
ppb = parts per billion
ft = feet
" H2O = inches of water column
kW-h = kilowatt per hour
psi = pounds per square inch
* = exceeded hold times

ND = Not Detected
NS = Not Sampled
N/A = Not Applicable
NG = Not Gauged
NM = Not Measured
NR = Not Recorded
NC = Not Calculated
gpm = gallons per minute
Measured in inches of Hg, converted to inches of H2O

CDM startup on: 2/21/2006

TABLE 2-2
SUMMARY OF SOIL VAPOR EXTRACTION SYSTEM DATA
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date of Visit	July 2006				August 2006					September 2006			
	07/07/06	07/12/06	07/19/06	07/24/06	08/02/06	08/11/06	08/15/06	08/23/06	08/30/06	9/5/2006	9/13/2006	9/18/2006	9/27/2006
Operation Time													
	11	5	7	5	9	9	4	8	7	6	8	5	9
Days of Operation Since CDM Startup	136	141	148	153	162	171	175	183	190	196	204	209	218
System Status (Up / Down / Off)													
Alarm Condition (Y/N)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	N
On Arrival	U	U	U	U	U	U	U	U	U	U	U	U	U
On Departure	U	U	U	U	U	U	U	U	U	U	U	O	U
Valve Position (0 to 1)													
Dilution Valve	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vacuum ("H2O)													
Manifold #1	70	70	61	62	64	68	62	69	64	62	58	59	68
Manifold #2	65	65	64	62	65	63	59	65	75	60	58	58	52
SVE Blower													
Intake Vacuum ("H2O)	120	122	120	120	122	124	120	126	126	122	122	121	128
Run Temperature (°F)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Exhaust Temperature (°F)	129	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Exhaust Air Flow (cfm)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Run Time on Arrival (hrs)	29127.6	29250.1	29418	29536.7	297534	29962	30059.9	30244	30408.3	30550.9	30742.7	30865.1	31005.3
Air/Water Separator													
Vacuum ("H2O)	62	62	58	62	50	60	56	60	62	56	52	52	62
Volume Drained (gal)	NR	0	0	0	0	0	0	0	0	0	NR	NR	0
Pump Pressure (psi)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CAT OX System													
Temperature Setpoints (°C)													
Heater Temp. Setpoint	330	330	330	330	330	330	330	330	330	330	330	330	330
Heater Temp. Actual	330	330	329	330	331	330	330	324	330	329	330	330	328
Effluent Temp. Setpoint	550	550	550	550	550	550	550	550	550	550	550	550	550
Effluent Temp. Actual	332	332	332	332	332	333	332	326	333	334	333	333	333
Core Temp. Setpoint	550	550	550	550	550	550	550	550	550	550	550	550	550
Core Temp. Actual	343	343	344	344	343	344	342	340	344	344	343	343	344
VOC Concentrations (ppmV)													
Influent	0	0.3	0	0	0	0	NR	NR	0	0	NR	0	1.8
Effluent	0	0	0	0	0	0	NR	NR	0	0	NR	0	0
CATOX Destruction Efficiency (%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	NA	NA	100.00%	100.00%	NA	100.00%	100.00%
Pressure ("H2O)													
Inlet CAT OX System	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Electric Meter Reading (kW-h)	69067	69375	NR	69998	70596	71049	71239	71815	NR	72498	73035	73318	73829

Notes:

GAC = Granular Activated Carbon	ND = Not Detected
MTBE = methyl tertiary-butyl ether	NS = Not Sampled
TSS = Total Suspended Solids	N/A = Not Applicable
mg/L = micrograms per liter	NG = Not Gauged
ppmV = part per million by volume	NM = Not Measured
ppb = parts per billion	NR = Not Recorded
ft = feet	NC = Not Calculated
" H2O = inches of water column	gpm = gallons per minute
kW-h = kilowatt per hour	Measured in inches of Hg, converted to inches of H2O
psi = pounds per square inch	
* = exceeded hold times	

CDM startup on: 2/21/2006

TABLE 2-2
SUMMARY OF SOIL VAPOR EXTRACTION SYSTEM DATA
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date of Visit	October 2006			November 2006					December 2006			
	10/5/2006	10/11/2006	10/25/2006	11/1/2006	11/7/2006	11/17/2006	11/21/2006	11/27/2006	12/8/2006	12/11/2006	12/19/2006	12/28/2006
Operation Time												
	8	6	14	7	6	10	4	6	11	3	8	9
Days of Operation Since CDM Startup	226	232	246	253	259	269	273	279	290	293	301	310
System Status (Up / Down / Off)												
Alarm Condition (Y/N	N	N	N	N	N	N	N	N	N	N	N	N
On Arrival	U	O	O	U	U	U	U	U	U	U	U	U
On Departure	O	O	U	U	U	U	U	U	U	U	U	U
Valve Position (0 to 1)												
Dilution Valve	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vacuum ("H2O)												
Manifold #1	68	NR	68	62	56	52	58	56	110	113	102	106
Manifold #2	52	N	52	58	68	58	52	52	94	100	86	96
SVE Blower												
Intake Vacuum ("H2O)	130	NR	130	128	130	120	122	120	178	180	176	178
Run Temperature (°F)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Exhaust Temperature (°F)	111	NR	NR	NR	NR	NR	NR	NR	NR	119.4	NR	NR
Exhaust Air Flow (cfm)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Run Time on Arrival (hrs)	31196.8	31197	31200	31365.2	31509.5	31749.9	31844.8	32013	32249.8	32325	32519.8	32727.8
Air/Water Separator												
Vacuum ("H2O)	62	NR	NR	58	60	48	50	48	118	112	109	109
Volume Drained (gal	0	NR	0	0	0	0	0	0	0	0	0	0
Pump Pressure (psi)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CAT OX System												
Temperature Setpoints (°C)												
Heater Temp. Setpoint	330	NR	330	330	330	330	330	NR	330	330	330	330
Heater Temp. Actual	329	NR	330	330	331	331	330	NR	331	330	331	331
Effluent Temp. Setpoint	550	NR	660	600	600	514	514	NR	514	514	514	514
Effluent Temp. Actual	332	NR	333	333	332	332	334	NR	329	331	333	331
Core Temp. Setpoint	550	NR	580	580	580	580	580	NR	580	580	580	580
Core Temp. Actual	343	NR	347	345	344	345	344	NR	345	344	346	344
VOC Concentrations (ppmV)												
Influent	0	NR	1.5	0	0.6	0.3	0.3	NR	0	3.8	0.4	NR
Effluent	0	NR	0	0	0	0	0	NR	0	0	0	NR
CATOX Destruction Efficiency (%	100.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	NA	100.00%	100.00%	100.00%	NA
Pressure ("H2O)												
Inlet CAT OX System	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Electric Meter Reading (kW-h)	74377	74380	74396	75058	75499	79191	76530	77148	77982	78267	78919	79554

Notes:

GAC = Granular Activated Carbon
MTBE = methyl tertiary-butyl ether
TSS = Total Suspended Solids
mg/L = micrograms per liter
ppmV = part per million by volume
ppb = parts per billion
ft = feet
" H2O = inches of water column
kW-h = kilowatt per hour
psi = pounds per square inch
* = exceeded hold times

ND = Not Detected
NS = Not Sampled
N/A = Not Applicable
NG = Not Gauged
NM = Not Measured
NR = Not Recorded
NC = Not Calculated
gpm = gallons per minute
Measured in inches of Hg, converted to inches of H2O

CDM startup on: 2/21/2006

TABLE 2-2
SUMMARY OF SOIL VAPOR EXTRACTION SYSTEM DATA
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date of Visit	January 2007			February 2007			March 2007				
	1/3/2007	1/9/2007	1/24/2007	2/2/2007	2/8/2007	2/20/2007	3/1/2007	3/6/2007	3/13/2007	3/19/2007	3/27/2007
Operation Time											
	6	6	15	9	6	12	9	5	7	6	8
Days of Operation Since CDM Startup	316	322	337	346	352	364	373	378	385	391	399
System Status (Up / Down / Off)											
Alarm Condition (Y/N)	N	N	N	N	N	N	N	N	N	N	N
On Arrival	U	U	U	U	U	U	U	U	U	U	U
On Departure	O	U	U	U	U	U	U	U	U	U	U
Valve Position (0 to 1)											
Dilution Valve	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vacuum ("H2O)											
Manifold #1	108	116	128	130	NR	24	28	24	42	48	60
Manifold #2	98	114	0	0	NR	100	100	100	100	100	94
SVE Blower											
Intake Vacuum ("H2O)	178	180	188	180	NR	195	190	192	190	200	NR
Run Temperature (°F)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Exhaust Temperature (°F)	121	129	125.7	124.9	NR	122	124.8	123.7	123.7	NR	118
Exhaust Air Flow (cfm)	NR	235	220	219	NR	NR	NR	NR	232	152	272
Run Time on Arrival (hrs)	32872.8	32999.1	33130.3	33350.9	33494.5	33774.7	33982.2	34104.9	34269.5	34417.8	34607.9
Air/Water Separator											
Vacuum ("H2O)	115	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Volume Drained (gal)	0	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pump Pressure (psi)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CAT OX System											
Temperature Setpoints (°C)											
Heater Temp. Setpoint	330	330	330	330	NR	330	330	330	330	330	330
Heater Temp. Actual	329	329	329	330	NR	328	330	329	330	329	329
Effluent Temp. Setpoint	514	515	550	550	NR	550	550	550	550	550	550
Effluent Temp. Actual	329	326	327	327	NR	335	328	331	329	328	329
Core Temp. Setpoint	580	580	550	550	NR	550	550	550	550	550	550
Core Temp. Actual	343	344	344	345	NR	354	345	343	345	345	345
VOC Concentrations (ppmV)											
Influent	4.8	1	0	0.1	NR	16.6	6.3	12.1	3.1	0	0.8
Effluent	0	0	0	0	NR	0	0	0	0	0	0
CATOX Destruction Efficiency (%	100.00%	100.00%	100.00%	100.00%	NA	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Pressure ("H2O)											
Inlet CAT OX System	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Electric Meter Reading (kW-h)	80076	80591	81297	81900	82320	83137	NR	84718	85163	85668	86427

Notes:

GAC = Granular Activated Carbon
MTBE = methyl tertiary-butyl ether
TSS = Total Suspended Solids
mg/L = micrograms per liter
ppmV = part per million by volume
ppb = parts per billion
ft = feet
" H2O = inches of water column
kW-h = kilowatt per hour
psi = pounds per square inch
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ND = Not Detected
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NG = Not Gauged
NM = Not Measured
NR = Not Recorded
NC = Not Calculated
gpm = gallons per minute
Measured in inches of Hg, converted to inches of H2O

CDM startup on: 2/21/2006

TABLE 2-2
SUMMARY OF SOIL VAPOR EXTRACTION SYSTEM DATA
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date of Visit	April 2007						May 2007			June 2007				
	4/5/2007	4/12/2007	4/17/2007	4/23/2007	4/26/2007	4/27/2007	5/11/2007	5/17/2007	5/25/2007	6/5/2007	6/7/2007	6/12/2007	6/19/2007	6/28/2007
Operation Time														
	9	7	5	6	3	1	14	6	8	11	2	5	7	9
Days of Operation Since CDM Startup	408	415	420	426	429	430	444	450	458	469	471	476	483	492
System Status (Up / Down / Off)														
Alarm Condition (Y/N)	N	N	N	N	N	N	N	N	N	N	N	N	N	N
On Arrival	U	U	U	U	U	O	U	U	U	D	U	U	U	O
On Departure	U	U	U	U	O	U	U	U	U	U	U	U	U	O
Valve Position (0 to 1)														
Dilution Valve	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vacuum ("H2O)														
Manifold #1	48	42	66	40.8	20.4	27.2	34	13.6	0	0	27.2	0	0	NR
Manifold #2	88	76	88	61.2	61.2	54.4	68	68	0	27.2	0	13.6	13.6	NR
SVE Blower														
Intake Vacuum ("H2O)	174	160	176	68	68	68	54.4	47.6	0	629.68	13.6	0	558.96	183.6
Run Temperature (°F)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Exhaust Temperature (°F)	121	120.3	120.8	120	133.5	125	124.9	140	139.2	131.5	NR	NR	139.7	186
Exhaust Air Flow (cfm)	281.5	274	269.1	420	449	425.8	425	442	469	479	NR	NR	264	164
Run Time on Arrival (hrs)	34819.5	34987.2	35107.3	35251.3	35321.1	NR	35654.4	35797.2	35989.2	36224	36276.8	36390.4	36552.2	36723.2
Air/Water Separator														
Vacuum ("H2O)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Volume Drained (gal)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pump Pressure (psi)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CAT OX System														
Temperature Setpoints (°C)														
Heater Temp. Setpoint	330	330	330	330	330	330	330	330	330	330	330	330	330	330
Heater Temp. Actual	331	329	330	328	328	329	329	330	329	324	331	330	330	332
Effluent Temp. Setpoint	550	550	550	550	550	550	550	550	550	550	550	550	550	550
Effluent Temp. Actual	328	327	328	330	328	324	328	327	328	321	328	329	328	335
Core Temp. Setpoint	550	550	550	550	550	550	550	550	550	550	550	550	550	550
Core Temp. Actual	345	343	345	344	344	331	344	345	345	342	345	346	344	353
VOC Concentrations (ppmV)														
Influent	0.4	0.8	5.3	0.4	6.8	7.2	0.7	7.1	1.7	3	NR	NR	0	43
Effluent	0	0	0	0	0	0	0	0	0	0	NR	NR	0	0
CATOX Destruction Efficiency (%)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	N/A	N/A	100.00%	100.00%
Pressure ("H2O)														
Inlet CAT OX System	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Electric Meter Reading (kW-h)	87461	NR	88890	89509	NR	NR	91045	91600	91960	92704	92855	93317	93950	94730

Notes:

GAC = Granular Activated Carbon
MTBE = methyl tertiary-butyl ether
TSS = Total Suspended Solids
mg/L = micrograms per liter
ppmV = part per million by volume
ppb = parts per billion
ft = feet
" H2O = inches of water column
kW-h = kilowatt per hour
psi = pounds per square inch
* = exceeded hold times

ND = Not Detected
NS = Not Sampled
N/A = Not Applicable
NG = Not Gauged
NM = Not Measured
NR = Not Recorded
NC = Not Calculated
gpm = gallons per minute
Measured in inches of Hg, converted to inches of H2O

CDM startup on: 2/21/2006

TABLE 2-2
SUMMARY OF SOIL VAPOR EXTRACTION SYSTEM DATA
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Date of Visit	July 2007					August 2007				
	7/3/2007	7/12/2007	7/14/2007	7/20/2007	7/25/2007	8/2/2007	8/7/2007	8/16/2007	8/21/2007	8/27/2007
Operation Time										
	5	9	2	6	11	8	5	9	5	11
Days of Operation Since CDM Startup	497	506	508	514	519	527	532	541	546	552
System Status (Up / Down / Off)										
Alarm Condition (Y/N	N	N	N	N	N	N	Y	N	N	N
On Arrival	O	O	O	O	O	U	D	U	U	O
On Departure	O	O	O	O	U	U	U	U	U	O
Valve Position (0 to 1)										
Dilution Valve	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Vacuum ("H2O)										
Manifold #1	NR	NR	NR	NR	163.2	170	170	176.8	163.2	NR
Manifold #2	NR	NR	NR	NR	170	183.6	176.8	176.8	163.2	NR
SVE Blower										
Intake Vacuum ("H2O)	176.8	NR	NR	NR	190.4	210.8	190.4	183.6	170	NR
Run Temperature (°F)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Exhaust Temperature (°F)	141.7	NR	NR	NR	NR	181	179.1	174	172	NR
Exhaust Air Flow (cfm)	176	NR	NR	NR	135	141	137	136.4	135.2	NR
Run Time on Arrival (hrs)	36727.5	NR	NR	36727.5	36727.5	36913.1	36938.1	37151.9	37272.1	37357.7
Air/Water Separator										
Vacuum ("H2O)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Volume Drained (gal	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pump Pressure (psi)	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
CAT OX System										
Temperature Setpoints (°C)										
Heater Temp. Setpoint	330	NR	NR	NR	330	330	330	330	330	NR
Heater Temp. Actual	339	NR	NR	NR	329	332	330	332	331	NR
Effluent Temp. Setpoint	550	NR	NR	NR	550	550	550	550	550	NR
Effluent Temp. Actual	401	NR	NR	NR	325	328	328	319	332	NR
Core Temp. Setpoint	550	NR	NR	NR	550	550	550	550	550	NR
Core Temp. Actual	407	NR	NR	NR	359	348	347	340	351	NR
VOC Concentrations (ppmV)										
Influent	187	NR	NR	NR	4.4	5.1	NR	11.5	71.6	NR
Effluent	0	NR	NR	NR	0	0	0	0	0	NR
CATOX Destruction Efficiency (%	100.00%	N/A	N/A	N/A	100.00%	100.00%	N/A	100.00%	100.00%	N/A
Pressure ("H2O)										
Inlet CAT OX System	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Electric Meter Reading (kW-h)	95059	95600	95700	95744	96033	96763	97092	97827	98288	98703

Notes:

GAC = Granular Activated Carbon
MTBE = methyl tertiary-butyl ether
TSS = Total Suspended Solids
mg/L = micrograms per liter
ppmV = part per million by volume
ppb = parts per billion
ft = feet
" H2O = inches of water column
kW-h = kilowatt per hour
psi = pounds per square inch
* = exceeded hold times

ND = Not Detected
NS = Not Sampled
N/A = Not Applicable
NG = Not Gauged
NM = Not Measured
NR = Not Recorded
NC = Not Calculated
gpm = gallons per minute
Measured in inches of Hg, converted to inches of H2O

CDM startup on: 2/21/2006

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
ECS-4	21 Apr 00	8.93	NA	NA	NA	NA	31.6	216	40	385	673	<5.0	83	750	1,920	1,270
NA	23 Aug 00	8.32	NA	NA	NA	NA	<1.0	<5.0	<5.0	22.7	22.7	<5.0	54.6	200	190	400
	20 Nov 00	11.43	NA	NA	NA	NA	<1.0	6.3	23	65.7	95	<5.0	30.2	640	550	630
	12 Jan 01	12.85	NA	NA	NA	NA	<1.0	8.5	47.5	131.3	187.3	7.8	14.1	700	420	630
	11 Jul 01	10.45	NA	NA	NA	NA	<1.0	<5.0	<5.0	22.7	22.7	<5.0	36.8	350	170	150
	12 Oct 01	13.06	NA	NA	NA	NA	<1.0	<5.0	<5.0	<15.0	ND	<5.0	13.5	160	<100	100
992.14	20 Aug 02	13.51	NA	NA	NA	978.63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	9.54	NA	NA	NA	982.60	<0.50	<1.0	<1.0	13.9	13.9	<1.0	14.2	72.2	<50	71
	01 Dec 03	9.05	NA	NA	NA	983.09	<2.0	9.9	159	310.4	479.3	<2.0	86.0	530	<50	835
	24 Feb 04	16.05	NA	NA	NA	976.09	<2.0	<2.0	<2.0	<4.0	ND	2.0	<3.0	219	<50	<50
	14 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	92.3	9.3	101.6	<2.0	40.7	919	861	1,120
	23 Feb 05	9.20	NA	NA	NA	982.94	<2.0	<2.0	<2.0	13.1	13.1	<2.0	6.2	279	<50	194
	10 May 06	9.12	NA	NA	NA	983.02	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	21-Sep-06	11.49	NA	NA	NA	980.65	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	17-Oct-07	14.59	NA	NA	NA	977.55	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	62.9	<50	<50
ECS-7	19 May 98	14.18	NA	NA	NA	977.48	<25	<50	372	270	642	<25	129	310	1,730	770
991.66	30 Nov 98	17.33	NA	NA	NA	974.33	7.2	<50	249	<50	256.2	1,220	<50	<250	690	690
	01 Apr 99	14.55	NA	NA	NA	977.11	<5.0	38	735	**1,492**	2,265	27	104	790	1,120	2,060
	24 Aug 99	16.35	NA	NA	NA	975.31	2.9	16.5	561	378.6	959	96.3	60.5	560	900	1,190
	24 Nov 99	16.46	NA	NA	NA	975.20	<5.0	<25	634	**598**	1,232	51	153	<500	980	1,420
	21 Apr 00	14.44	NA	NA	NA	977.22	<5.0	105	691	**1,218**	2,014	<25	185	770	2,920	2,310
	23 Aug 00	13.73	NA	NA	NA	977.93	1.5	64	596	**878**	1,539.5	<5.0	144	<500	1,360	1,890
	20 Nov 00	15.47	NA	NA	NA	976.19	3.0	19.1	439	420.6	881.7	22.8	99.9	980	3,390	1,540
	11 Jul 01	14.40	NA	NA	NA	977.26	<1.0	16.8	180	355	551.8	6.8	45.4	350	880	610
	12 Oct 01	16.75	NA	NA	NA	974.91	1.9	<5.0	126	7.7	135.6	11.4	7.4	300	260	530
991.71	20 Aug 02	16.92	NA	NA	NA	974.79	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 May 03	18.30	NA	NA	NA	973.41	<2.0	<2.0	15.3	15.2	30.5	<2.0	<3.0	117.0	<50	82.2
	01 Dec 03	16.73	NA	NA	NA	974.98	<2.0	<2.0	21.3	4.7	26	<2.0	<3.0	<50	<50	67.7
	25 Feb 04	20.08	NA	NA	NA	971.63	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	14 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	22 Feb 05	16.78	NA	NA	NA	974.93	<2.0	<2.0	5.7	<4.0	5.7	<2.0	<3.0	<50	<50	<50

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
ECS-9	18 Oct 96	14.02	NA	NA	NA	977.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
991.43	25 Nov 96	17.06	16.44	0.62	0.30	974.84	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	19 Dec 96	11.88	11.80	0.08	NA	979.61	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	31 Jan 97	14.65	13.95	0.70	0.50	977.31	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06 Mar 97	14.32	14.12	0.20	NA	977.26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	19 May 98	14.66	14.31	0.35	NA	977.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	30 Nov 98	19.09	18.73	0.36	NA	972.61	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01 Apr 99	12.35	12.24	0.11	0.20	979.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	24 Aug 99	18.87	18.65	0.22	0.10	972.73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	24 Nov 99	17.52	NA	0.00	NA	973.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28 Jan 00	16.60	16.28	0.32	0.10	975.07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
991.43 *	10 Feb 00	16.91	16.70	0.21	0.53	974.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	21 Apr 00	14.14	14.13	0.01	0.10	977.30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	23 Aug 00	12.75	11.88	0.87	0.00	979.34	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 Dec 00	Presumed DESTROYED, Well Found on 10/01/01														
	11 Dec 02	14.95	13.81	1.14	0.00	977.35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 May 03	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01 Dec 03	13.00	12.88	0.12	0.00	978.52	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	27 Feb 04	NA	22.11	1.29	0.00	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09 Aug 05	20.23	20.10	0.13	0.00	971.30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10 May 06	16.22	15.44	0.78	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ECS-10	18 Oct 96	16.42	NA	NA	NA	977.02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
993.44	25 Nov 96	17.43	16.83	0.60	0.30	976.47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	19 Dec 96	16.35	NA	NA	NA	977.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	31 Jan 97	17.18	15.85	1.33	0.50	977.27	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06 Mar 97	15.53	15.28	0.25	NA	977.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	19 May 98	16.25	16.20	0.05	NA	977.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	30 Nov 98	19.54	19.20	0.34	NA	973.90	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
993.44	01 Apr 99	16.34	16.32	0.02	0.10	977.12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	24 Aug 99	19.23	19.08	0.15	0.10	974.32	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	24 Nov 99	18.15	18.14	0.01	NA	975.30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28 Jan 00	18.47	18.45	0.02	0.00	974.99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	30 Mar 00	14.47	14.37	0.10	<0.03	979.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	21 Apr 00	15.85	15.83	0.02	0.03	977.61	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	23 Aug 00	16.71	14.48	2.23	0.00	978.42	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 Dec 00	DESTROYED														

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

	Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
								Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
		Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
							MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
							MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
†	**ECS-11**	19 May 98	15.07	12.00	3.07	NA	980.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	992.83	30 Nov 98	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		24 Aug 99	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		28 Jan 00	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10 Feb 00	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		21 Apr 00	11.03	11.01	0.02	NA	981.82	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		20 Nov 00	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		29 Dec 00	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	993.01	20 Aug 02	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		11 Dec 02	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		29 May 03	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		01 Dec 03	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		27 Feb 04	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09 Aug 05	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
†	**ECS-14**	01 Apr 99	8.90	NA	NA	NA	NA	<1.0	<5.0	11.6	139.4	151	<5.0	33.1	<50	95	407
	NA	24 Nov 99	8.92	NA	NA	NA	NA	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
		21 Apr 00	6.70	NA	NA	NA	NA	<1.0	<5.0	5.4	117.2	122.6	<5.0	14	<100	400	490
		11 Dec 02	7.39	NA	NA	NA	NA	<0.50	2.4	<1.0	5.5	7.9	<1.0	<5.0	<50	<50	<50
		01 Dec 03	7.65	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		21 Feb 05	8.47	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		16 Oct 07	13.38	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		16 Oct 07 Dup	13.38	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	ECS-15	21 Apr 00	10.16	NA	NA	NA	979.70	<1.0	15	15.4	181.3	211.7	<5.0	13.8	870	480	500
	989.86	20 Nov 00	11.36	NA	NA	NA	978.50	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	**4,190**	<500	<500
		11 Dec 02	10.73	NA	NA	NA	979.13	1.8	37.9	19.4	106	165.1	<1.0	8.0	457	52.7	134
		07 Feb 03	11.39	NA	NA	NA	978.47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		28 Feb 03	11.17	NA	NA	NA	978.69	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		22 Apr 03	10.81	NA	NA	NA	979.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		23 Apr 03	11.35	NA	NA	NA	978.51	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		30 May 03	13.95	NA	NA	NA	975.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		03 Dec 03	12.81	NA	NA	NA	977.05	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	GES-7	24 Nov 99	14.71	NA	NA	NA	983.07	1.2	19	10	56.6	87.1	<5.0	8.5	140	<100	120
	997.78	21 Apr 00	12.78	NA	NA	NA	985.00	<1.0	<5.0	<5.0	18.5	18.5	<5.0	6.6	<100	<100	<100
		23 Aug 00	10.31	NA	NA	NA	987.47	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
		20 Nov 00	12.70	NA	NA	NA	985.08	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	992.10	12 Jan 01	14.05	NA	NA	NA	978.05	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	130
		11 Jul 01	10.73	NA	NA	NA	981.37	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
		11 Dec 02	14.20	NA	NA	NA	977.90	<0.50	<1.0	<1.0	<1.0	ND	<1.0	<5.0	<50	<50	<50
		01 Dec 03	14.76	NA	NA	NA	977.34	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
GES-8	24 Nov 99	12.03	NA	NA	NA	983.75	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
995.78	21 Apr 00	9.83	NA	NA	NA	985.95	<1.0	50.2	38.8	197.5	286.5	<5.0	23.9	<100	600	600
	23 Aug 00	10.67	NA	NA	NA	985.11	<1.0	<5.0	<5.0	18.3	18.3	<5.0	<5.0	<100	<100	<100
	20 Nov 00	11.77	NA	NA	NA	984.01	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
995.78	12 Jan 01	13.17	NA	NA	NA	982.61	<1.0	<5.0	<5.0	73.6	73.6	<5.0	<5.0	<100	310	510
	11 Jul 01	10.82	NA	NA	NA	984.96	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	12 Oct 01	13.65	NA	NA	NA	982.13	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
990.15	20 Aug 02	12.01	NA	NA	NA	978.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	10.05	NA	NA	NA	980.10	<0.50	<1.0	<1.0	<1.0	ND	<1.0	<5.0	<50	<50	<50
	02 Dec 03	14.52	NA	NA	NA	975.63	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
GES-9	24 Nov 99	14.91	NA	NA	NA	981.47	<1.0	<5.0	<5.0	<15	ND	<5.0	4.7	<100	<100	<100
996.38	21 Apr 00	13.36	NA	NA	NA	983.02	<1.0	<5.0	<5.0	20.4	20.4	<5.0	<5.0	<100	<100	<100
	23 Aug 00	12.23	NA	NA	NA	984.15	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	20 Nov 00	14.11	NA	NA	NA	982.27	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	12 Jan 01	14.83	NA	NA	NA	981.55	<1.0	<5.0	<5.0	29.7	29.7	<5.0	7.1	<100	180	300
990.72	20 Aug 02	14.57	NA	NA	NA	976.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	13.80	NA	NA	NA	976.92	<0.50	1.1	<1.0	<1.0	1.1	<1.0	<5.0	<50	<50	<50
	02 Dec 03	15.66	NA	NA	NA	975.06	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
GES-11	23 Aug 00	12.67	NA	NA	NA	985.44	<5.0	54	346	**2,100**	2,500	<25	143	1,940	2,560	3,390
998.11	20 Nov 00	14.86	NA	NA	NA	983.25	<5.0	<25	496	**1,348**	1,844	<25	187	3,510	3,640	2,930
	12 Jan 01	15.23	NA	NA	NA	982.88	<1.0	7.8	255	**526.4**	789.2	12	82	1,850	1,050	1,370
	19 Jan 01	15.65	NA	NA	NA	982.46	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Jul 01	14.46	NA	NA	NA	983.65	<1.0	17	325	**999**	1,341	<5.0	145	2,270	2,400	1,400
	12 Oct 01	17.23	NA	NA	NA	980.88	<5.0	<25	344	**1,160**	1,504	<25	118	1,640	1,130	2,070
992.65	20 Aug 02	17.82	NA	NA	NA	974.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 May 03	16.70	NA	NA	NA	975.95	<2.0	8.9	226	**1,013.2**	1,248.1	<2.0	123	1,870	574	1,780
	01 Dec 03	16.90	NA	NA	NA	975.75	<2.0	<2.0	62.4	165.2	227.6	<2.0	47	813	<50	564
	25 Feb 04	19.49	NA	NA	NA	973.16	<2.0	4.0	170	**956.4**	1,130.4	<2.0	229	2,420	<50	2,420
	14 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	121	447.2	568.2	<2.0	101	1,450	1,200	1,200
	23 Feb 05	16.10	NA	NA	NA	976.55	<2.0	<2.0	118	404.1	522.1	<2.0	68.9	1,280	233	1,330
	10 Aug 05	19.20	NA	NA	NA	973.45	<2.0	<2.0	14.1	2.5	16.6	<2.0	7.6	424	<50	<50
	09 May 06	16.21	NA	NA	NA	976.44	<2.0	2.4	353	**2,945**	3,300.4	<2.0	319	**4,440**	1,990	**4,050**
	20-Sep-06	18.11	NA	NA	NA	974.54	<2.0	<2.0	21.4	64.3	85.7	<2.0	17.4	504	101	219

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
GES-12	23 Aug 00	12.47	NA	NA	NA	985.38	<5.0	2,740	2,030	**10,120**	14,890	<25	490	**22,700**	14,400	**12,800**
997.85	20 Nov 00	14.34	NA	NA	NA	983.51	104	3,810	2,010	**8,740**	14,664	<50	416	**17,200**	19,200	**7,800**
	12 Jan 01	14.70	NA	NA	NA	983.15	108	2,640	1,960	**9,380**	14,088	<100	530	**9,700**	11,300	**13,300**
	19 Jan 01	15.04	NA	NA	NA	982.81	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Jul 01	13.90	NA	NA	NA	983.95	48	3,360	2,570	**12,410**	18,388	<100	670	**14,800**	**22,400**	**10,900**
	12 Oct 01	16.66	NA	NA	NA	981.19	99	1,790	1,790	**8,280**	11,959	<100	430	**12,700**	8,000	**8,200**
	20 Aug 02	17.26	NA	NA	NA	975.12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
992.38	11 Dec 02	14.43	NA	NA	NA	977.95	84.5	955	1,480	**7,300**	9,819.5	<2.0	448	**8,650**	7,180	**9,800**
	29 May 03	16.40	NA	NA	NA	975.98	<10	333	1,470	**6,310**	8,113	<10	549	**15,600**	4,480	**11,300**
	02 Dec 03	14.64	NA	NA	NA	977.74	<2.0	54.1	410	**3,716**	4,180.1	<2.0	423	**4,610**	<50	**18,300**
	25 Feb 04	18.81	NA	NA	NA	973.57	<10	53.1	1,090	**5,047**	6,190.1	<10	959	**38,700**	<250	**126,000**
	14 Sep 04	NM	NA	NA	NA	NA	<10	293.0	1,280	**4,958**	6,531.0	543	566	**86,400**	**41,000**	**28,800**
	23 Feb 05	15.87	NA	NA	NA	976.51	14.6	125.0	612	**4,110**	4,861.6	<10	343	**12,900**	4,720	**13,200**
	10 Aug 05	18.42	NA	NA	NA	973.96	18.3	48.8	52.2	47.7	167.0	<2.0	32.6	498	<50	248
	09 May 06	10.02	NA	NA	NA	982.36	42.2	414	981	**3,064**	4,501.2	<2.0	481	**2,620**	<50	**5,880**
	20 Sep 06	17.31	NA	NA	NA	975.07	22.8	341	619	**2,540**	3,522.8	<4.0	292	**5,450**	2,860	**4,840**
	27 Apr 07	12.60	NA	NA	NA	979.78	<4.0	19.5	264	**1,671**	1,954.5	<4.0	130	2,180	<100	3,290
	27 Apr 07 Dup	12.60	NA	NA	NA	979.78	<2.0	12.4	88.1	499.2	599.7	<2.0	32.3	1,680	75.9	1,170
GES-13	23 Aug 00	12.22	NA	NA	NA	986.50	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
998.72	20 Nov 00	15.63	NA	NA	NA	983.09	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	12 Jan 01	16.09	NA	NA	NA	982.63	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	19 Jan 01	16.65	NA	NA	NA	982.07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Jul 01	15.42	NA	NA	NA	983.30	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	12 Oct 01	18.22	NA	NA	NA	980.50	<1.0	<5.0	5.0	23	28	<5.0	<5.0	<100	<100	<100
993.27	20 Aug 02	18.72	NA	NA	NA	974.55	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	15.12	NA	NA	NA	978.15	<0.50	<1.0	<1.0	3.3	3.3	<1.0	<5.0	<50	<50	<50
	01 Dec 03	13.51	NA	NA	NA	979.76	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
GES-14	12 Jan 01	NS	NA	NA	NA	NA	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
998.65	19 Jan 01	7.20	NA	NA	NA	991.45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	20 Aug 02	13.39	NA	NA	NA	979.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	30 May 03	NS	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
993.22	02 Dec 03	3.81	NA	NA	NA	989.41	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
GES-15	12 Jan 01	NS	NA	NA	NA	NA	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
998.52	19 Jan 01	6.07	NA	NA	NA	992.45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
993.08	20 Aug 02	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	30 May 03	NS	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	02 Dec 03	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-16	12 Jan 01	NS	NA	NA	NA	NA	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	19 Jan 01	16.06	NA	NA	NA	982.80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Jul 01	14.52	NA	NA	NA	984.34	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
998.86	12 Oct 01	17.97	NA	NA	NA	980.89	<1.0	9.0	<5.0	<15	9.0	<5.0	<5.0	<100	<100	<100
	20 Aug 02	18.57	NA	NA	NA	974.85	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
993.42	30 May 03	NA	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	02 Dec 03	DRY	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
GT-101	09 Aug 94	NS	NA	NA	NA	NA	0.4	ND	ND	ND	0.4	11	NS	NS	NS	NS
989.72	07 Dec 94	16.38	NA	NA	NA	973.34	ND	ND	ND	ND	ND	23	NS	NS	NS	NS
	07 Apr 95	15.27	NA	NA	NA	974.45	ND	ND	ND	1	1	11	NS	NS	NS	NS
	03 Aug 95	15.01	NA	NA	NA	974.71	0.4	0.3	ND	ND	0.7	15	NS	NS	NS	NS
	14 Nov 95	16.98	NA	NA	NA	972.74	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS
989.68	20 Aug 02	19.11	NA	NA	NA	970.57	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	18.20	NA	NA	NA	971.48	<0.50	<1.0	<1.0	<1.0	ND	65.5	<5.0	<50	<50	<50
	29 May 03	21.35	NA	NA	NA	968.33	<2.0	<2.0	<2.0	<4.0	ND	123	<3.0	<50	<50	<50
	03 Dec 03	18.40	NA	NA	NA	971.28	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	24 Feb 04	19.93	NA	NA	NA	969.75	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	22 Feb 05	18.12	NA	NA	NA	971.56	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	10 Aug 05	18.85	NA	NA	NA	970.83	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
GT-102	09 Aug 94	NS	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS
990.03	07 Dec 94	15.37	NA	NA	NA	974.66	ND	ND	ND	ND	ND	5	NS	NS	NS	NS
	07 Apr 95	14.85	NA	NA	NA	975.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03 Aug 95	16.55	NA	NA	NA	973.48	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS
	14 Nov 95	14.76	NA	NA	NA	975.27	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	23 Aug 00	14.03	NA	NA	NA	976.00	<1.0	<5.0	<5.0	32.9	32.9	<5.0	<5.0	<100	<100	<100
	12 Jan 01	15.48	NA	NA	NA	974.55	<1.0	<5.0	<5.0	11	11	<5.0	<5.0	<100	<100	<100
	11 Jul 01	14.47	NA	NA	NA	975.56	<1.0	<5.0	<5.0	<10	ND	<5.0	<5.0	<100	<100	<100
	12 Oct 01	16.43	NA	NA	NA	973.60	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	20 Aug 02	16.43	NA	NA	NA	973.72	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	15.50	NA	NA	NA	974.65	<0.50	<1.0	<1.0	<1.0	ND	<1.0	<5.0	<50	<50	<50
	02 Dec 03	16.87	NA	NA	NA	973.28	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
† **GT-1**	24 Aug 99	11.00	NA	NA	NA	NA	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	23 Aug 00	7.23	NA	NA	NA	NA	<1.0	<5.0	6.1	105.3	111.4	<5.0	18.2	<100	590	860
	12 Jan 01	11.09	NA	NA	NA	NA	<1.0	<5.0	7.0	40	47.0	<5.0	<5.0	<100	<100	<100
	11 Jul 01	9.13	NA	NA	NA	NA	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
	12 Oct 01	10.64	NA	NA	NA	NA	<1.0	<5.0	<5.0	<15	ND	<5.0	<5.0	<100	<100	<100
992.80	20 Aug 02	12.17	NA	NA	NA	980.63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	7.95	NA	NA	NA	984.85	<0.50	<1.0	<1.0	<1.0	ND	<1.0	<5.0	<50	<50	<50
	30 May 03	9.90	NA	NA	NA	982.90	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	01 Dec 03	7.01	NA	NA	NA	985.79	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	27 Feb 04	16.16	NA	NA	NA	976.64	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09 Aug 05	11.15	NA	NA	NA	981.65	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
GT-2	19 May 98	15.01	NA	NA	NA	975.49	**3,180**	**7,460**	310	**12,440**	23,390	<250	770	**15,300**	**20,500**	**6,400**
990.50	30 Nov 98	16.98	NA	NA	NA	973.52	**5,520**	**12,900**	1,140	**10,570**	30,130	<250	<500	**14,100**	**15,100**	**7,300**
	01 Apr 99	14.70	NA	NA	NA	975.80	**3,580**	**8,270**	510	**8,330**	20,690	<130	340	**16,900**	**5,000**	**7,800**
	24 Aug 99	17.09	NA	NA	NA	973.41	**2,960**	**6,650**	530	**7,550**	17,690	<100	300	**14,200**	**4,300**	**5,600**
	24 Nov 99	16.26	NA	NA	NA	974.24	**2,650**	**5,660**	310	**6,000**	14,620	<100	260	**10,600**	**4,300**	3,700
990.50	21 Apr 00	15.03	NA	NA	NA	975.47	**2,710**	**5,060**	280	**6,750**	14,800	<100	370	**10,600**	**8,000**	**4,800**
	23 Aug 00	14.49	NA	NA	NA	976.01	**3,060**	**6,030**	730	**7,300**	17,120	<100	350	**11,700**	**6,300**	**5,600**
	12 Jan 01	15.84	NA	NA	NA	974.66	**2,640**	**5,270**	499	**6,430**	14,839	<50	312	**10,600**	**6,700**	**5,400**
	11 Jul 01	15.03	NA	NA	NA	975.47	1,290	3,070	332	**5,040**	9,732	<50	174	**7,200**	**9,800**	**5,600**
	12 Oct 01	16.73	NA	NA	NA	973.77	**2,510**	**6,050**	1,080	**7,660**	17,300	<50	339	**11,100**	**6,600**	**6,200**
990.29	20 Aug 02	16.23	16.22	0.01	NA	974.07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 May 03	20.90	NA	NA	NA	969.39	1,560	2,950	320	**5,210**	10,040	<10	152	**8,620**	**2,160**	**5,550**
	03 Dec 03	18.96	NA	NA	NA	971.33	1,200	1,660	1,360	**8,160**	12,380	<10	610	**67,300**	<250	**24,800**
	25 Feb 04	21.60	NA	NA	NA	968.69	1,180	2,280	881	**4,680**	9,021	<10	424	**275,000**	<250	**11,600**
	13 Sep 04	NM	NA	NA	NA	NA	925	1,130	618	**3,111**	5,784	<10	252	**8,700**	**5,600**	**4,140**
	22 Feb 05	20.05	NA	NA	NA	970.24	716	1,380	518	**2,808**	5,422	<4.0	194	**8,400**	**1,290**	3,230
	10 May 06	18.71	NA	NA	NA	971.58	722	1,430	552	**3,515**	6,219	<2.0	239	**10,700**	**1,520**	**4,480**
	20 Sep 06	19.31	NA	NA	NA	970.98	784	110	623	**2,437**	3,954	<4.0	249	**8,880**	**2,260**	2,800
	26 Apr 07	16.55	NA	NA	NA	973.74	380	805	460	**1,947**	3,592	<4.0	137	**4,110**	<100	2,320
	17 Oct 07	19.84	NA	NA	NA	970.45	726	989	677	**2,416**	4,808	<2.0	189	**8,270**	766	2,380
† **GT-3**	18 Oct 97	14.75	14.67	0.08	NA	975.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
990.27	25 Nov 96	14.96	14.94	0.02	NA	975.33	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	19 Dec 96	13.30	13.28	0.02	NA	976.99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	31 Jan 97	14.18	14.16	0.02	NA	976.11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06 Mar 97	13.90	NA	NA	NA	976.37	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01 Apr 99	13.80	13.78	0.02	0.10	976.49	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
990.27	24 Nov 99	17.05	15.95	1.10	NA	974.06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28 Jan 00	16.80	15.89	0.91	0.50	974.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10 Feb 00	16.66	16.32	0.34	0.50	973.87	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	21 Apr 00	13.90	13.63	0.27	0.03	976.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	23 Aug 00	13.15	NA	0.00	NA	977.12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	20 Nov 00	14.83	14.82	0.01	0.03	975.45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 Dec 00	14.78	14.76	0.02	0.00	975.51	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 Jan 01	16.21	15.65	0.56	0.25	974.49	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Jul 01	14.04	13.93	0.11	NA	976.31	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12 Oct 01	15.89	15.10	0.79	0.80	974.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
990.53	20 Aug 02	16.89	NA	0.00	NA	973.64	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	15.69	14.50	1.19	0.80	975.74	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 May 03	17.65	NA	NA	NA	972.88	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03 Dec 03	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	**2,000**	**8,000**	**30,000**	**9,000**	-	**50,000**	**1,000**	**1,000**	**1,000**	**5,000**
						MCP Method 1 GW-3 Standard:	**10,000**	**4,000**	**4,000**	**500**	-	**50,000**	**20,000**	**4,000**	**20,000**	**4,000**
GT-4	30 Nov 98	17.50	NA	NA	NA	975.59	298	170	369	**3,500**	4,337	1,020	500	1,630	15,400	**11,800**
993.09	01 Apr 99	13.54	NA	NA	NA	979.55	269	33	126	**1,519**	1,947	1,690	468	<250	3,700	**8,910**
	24 Aug 99	16.97	NA	NA	NA	976.12	309	76	160	**1,953**	2,498	1,540	-	<500	4,860	**8,850**
	24 Nov 99	15.55	NA	NA	NA	977.54	588	63	174	**1,998**	2,823	2,230	874	<500	6,530	**8,600**
	21 Apr 00	12.17	NA	NA	NA	980.92	308	36	100	**1,335**	1,779	533	390	<500	8,620	**6,900**
	23 Aug 00	11.32	NA	NA	NA	981.77	166	79	307	**2,026**	2,578	66	476	<500	5,620	**7,160**
	09 Aug 05	DESTROYED														
† **GT-5**	21 Apr 00	13.22	13.05	0.17	0.02	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	23 Aug 00	12.67	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Jul 01	12.52	NA	NA	NA	NA	21	1,230	875	**9,730**	11,856	133	431	**4,700**	**23,400**	**13,200**
NA	12 Oct 01	15.59	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
990.15	20 Aug 02	15.58	15.57	0.01	NA	974.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	13.85	NA	NA	NA	976.30	12.9	519	945	**15,400**	16,876.9	15.1	847	**11,900**	**11,300**	**17,400**
	29 May 03	17.20	NA	NA	NA	972.95	<10	56.7	173	**5,720**	5,949.7	<10	365	**3,680**	**2,750**	**14,500**
	24 Feb 04	18.43	NA	NA	NA	971.72	<10	27.2	194	**3,577**	3,798.2	18.3	414	**9,400**	<250	**23,700**
GT-6	18 Oct 96	14.86	14.82	0.04	NA	975.44	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
990.27	25 Nov 96	14.91	14.87	0.04	NA	975.39	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	19 Dec 96	13.49	13.45	0.04	NA	976.81	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	31 Jan 97	14.34	14.31	0.03	NA	975.95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06 Mar 97	13.81	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01 Apr 99	14.14	NS	NS	NA	NS	1,220	**5,010**	560	**8,160**	14,950	230	410	**6,400**	5,100	**10,200**
	24 Nov 99	15.69	NA	0.00	NA	974.58	2,420	**9,080**	2,190	**11,610**	25,300	1,270	770	**12,400**	6,800	**8,200**
	28 Jan 00	15.99	15.97	0.02	0.00	974.30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	21 Apr 00	13.43	13.28	0.15	NA	976.95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	23 Aug 00	13.89	13.86	0.03	0.00	976.40	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	20 Nov 00	14.98	14.95	0.03	0.00	975.31	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 Jan 01	16.02	15.59	0.43	0.25	974.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Jul 01	14.30	14.27	0.03	NA	975.84	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12 Oct 01	16.23	16.22	0.01	NA	973.90	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	20 Aug 02	16.42	16.41	0.01	NA	973.71	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 May 03	19.10	19.00	0.10	NA	971.10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02 Dec 03	17.20	NA	NA	NA	972.92	901	**11,300**	**10,200**	**46,500**	68,901	<100	4,560	**120,000**	<2500	**135,000**
	27 Feb 04	NA	20.44	0.02	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10 May 06	17.74	17.62	0.12	NA	972.53	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

	Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
								Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units		feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	MCP Method 1 GW-2 Standard:							2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
	MCP Method 1 GW-3 Standard:							10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
†	**GT-7**	19 May 98	14.08	NA	NA	NA	975.77	<25	<50	<25	**536**	536	<25	188	<250	500	<250
	989.85	30 Nov 98	16.23	NA	NA	NA	973.62	6.3	<10	<5	22	28.6	<5	94	<50	195	138
		01 Apr 99	13.80	NA	NA	NA	976.05	2.6	37	49	**667**	756.2	<5.0	118	434	**1,210**	1,980
		24 Aug 99	16.35	NA	NA	NA	973.50	8.2	<5.0	<5.0	14	22.2	<5.0	108	<100	<100	110
		24 Nov 99	15.24	NA	NA	NA	974.61	7.6	15	60	156.4	239.5	<5.0	123	230	280	380
		21 Apr 00	13.73	NA	NA	NA	976.12	5.9	10.5	31.8	176.1	224.3	<5.0	75.7	410	400	380
		23 Aug 00	13.10	NA	NA	NA	976.75	6.1	12.4	25.1	160.6	204.2	<5.0	93.8	280	280	440
		12 Jan 01	14.72	NA	NA	NA	975.13	3.8	<5.0	7.8	<15	11.6	<5.0	12.5	<100	<100	<100
		11 Jul 01	13.82	NA	NA	NA	976.03	5.6	<5.0	19.3	43.1	68.0	<5.0	63.3	<100	260	250
		12 Oct 01	15.75	NA	NA	NA	974.10	7.6	<5.0	<5.0	<15	7.6	<5.0	<5.0	<100	<100	<100
	989.76	20 Aug 02	13.23	NA	NA	NA	976.53	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		11 Dec 02	14.82	NA	NA	NA	974.94	4.1	7.5	50.6	179.0	241.2	<1.0	34.7	211	117	319
		29 May 03	19.20	NA	NA	NA	970.56	<2.0	<2.0	<2.0	2.1	2.1	<2.0	<3.0	<50	<50	<50
		02 Dec 03	17.31	NA	NA	NA	972.45	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
†	**RW-1**	18 Oct 96	16.00	NA	NA	NA	976.48	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	992.48	31 Jan 97	NS	NS	NS	1.00	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		06 Mar 97	NS	NS	NS	0.10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		01 Apr 99	NS	NS	NS	1.50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		24 Aug 99	20.20	18.98	1.22	2.00	973.21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		28 Jan 00	18.52	18.30	0.22	0.30	974.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10 Feb 00	NS	NS	0.67	2.00	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		21 Apr 00	16.80	16.50	0.30	0.50	975.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		23 Aug 00	16.20	15.85	0.35	NA	976.55	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		20 Nov 00	16.80	14.00	2.80	1.75	977.81	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		29 Dec 00	16.75	16.70	0.05	2.00	975.77	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		29 Jan 01	17.86	17.76	0.10	0.25	974.70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		11 Jul 01	17.17	15.40	1.77	1.00	976.66	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12 Oct 01	18.34	18.30	0.04	0.60	974.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	992.46	20 Aug 02	21.46	17.63	3.83	0.00	973.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		29 May 03	22.50	20.95	1.55	NA	971.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	RW-101	24 Feb 04	20.33	NA	NA	NA	969.66	<2.0	<2.0	<2.0	5.9	5.9	<2.0	<3.0	<50	<50	<50
	989.99																
	RW-2	28 Jan 00	17.50	16.05	1.45	1.10	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	NA	30 Mar 00	16.33	14.95	1.38	3.00	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		21 Apr 00	14.52	14.39	0.13	0.50	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		23 Aug 00	13.69	13.65	0.04	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		20 Nov 00	15.22	NS	NS	0.60	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		29 Jan 01	17.10	16.00	1.10	1.75	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		11 Jul 01	15.59	14.57	1.02	1.20	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12 Oct 01	17.30	17.22	0.08	0.10	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	991.49	20 Aug 02	17.58	NA	NA	NA	973.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		11 Dec 02	16.45	NA	NA	NA	975.04	3,320	**13,700**	3,390	**20,600**	41,010	30	1,160	**18,700**	13,000	**13,600**
		29 May 03	18.60	NA	NA	NA	972.89	2,250	**9,870**	2,570	**12,450**	27,140	<20	789	**20,600**	6,200	**14,800**
		10 Aug 05	19.38	NA	NA	NA	972.11	120.0	70.8	35.3	112.4	338.5	3.2	34.0	567	168	341

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
RW-3	31 Jan 97	NS	NS	NS	0.40	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
989.89	06 Mar 97	NS	NS	NS	1.20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	28 Jan 00	16.96	15.32	1.64	0.60	974.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	30 Mar 00	14.30	13.52	0.78	1.00	976.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	21 Apr 00	14.60	14.09	0.51	0.06	975.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	23 Aug 00	13.66	NA	0.00	NA	976.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	20 Nov 00	14.83	14.82	0.01	NA	975.07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 Jan 01	16.18	15.72	0.46	0.50	974.06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Jul 01	14.55	14.34	0.21	0.50	975.50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12 Oct 01	16.07	15.87	0.20	0.20	973.97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	20 Aug 02	16.16	16.15	0.01	NA	973.84	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Dec 02	15.65	14.15	1.50	0.20	975.48	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	29 May 03	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-201	11 Dec 02	15.14	NA	NA	NA	974.92	71.2	9.8	466	1,100	1,647	51.2	176	2,110	2,100	**4,330**
990.06	29 May 03	17.90	NA	NA	NA	972.16	41.1	74.5	353	**519.5**	988.1	46.1	69.3	3,160	542	2,970
	20 Jun 03	18.36	NA	NA	NA	971.70	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	24 Feb 04	17.10	NA	NA	NA	972.96	6.0	<2.0	18.3	15.8	40.1	10	6.2	1,200	<50	531
	13 Sep 04	NM	NA	NA	NA	NA	7.6	<2.0	6.3	<4.0	13.9	<2.0	4.1	1,100	88	509
	22 Feb 05	16.80	NA	NA	NA	973.26	2.9	4.1	142.0	224.1	373.1	<2.0	35.2	332	207	791
	10 Aug 05	18.04	NA	NA	NA	972.02	4.2	<2.0	7.1	<2.0	11.3	<2.0	<3.0	367	<50	83
	10 May 06	16.88	NA	NA	NA	973.18	4.1	<2.0	23.6	12.5	40.2	<2.0	4.2	367	61.1	220
	20 Sep 06	17.63	NA	NA	NA	972.43	4.7	<2.0	8.5	5.4	18.6	<2.0	<3.0	358	80.0	167
	26 Apr 07	14.66	NA	NA	NA	975.40	<2.0	<2.0	12.4	28.9	41.3	<2.0	5.5	198	<50	205
	17 Oct 07	18.22	NA	NA	NA	971.84	5.2	2.8	10.1	52.3	70.4	<2.0	25.6	892	106.0	752
† **GES-202**	11 Dec 02	13.69	NA	NA	NA	976.42	<0.5	<1.0	<1.0	<1.0	ND	5.6	<5.0	<50	<50	<50
990.11	29 May 03	17.60	NA	NA	NA	972.51	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	20 Jun 03	18.49	NA	NA	NA	971.62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02 Dec 03	16.35	NA	NA	NA	973.76	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	24 Feb 04	20.58	NA	NA	NA	969.53	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
† **GES-203**	11 Dec 02	11.90	NA	NA	NA	977.94	<0.50	2.9	4.9	75.3	83.1	<1.0	99.3	116	<50	882
989.84	29 May 03	13.50	NA	NA	NA	976.34	<2.0	<2.0	<2.0	10.0	10.0	<2.0	67.0	104	109	581
	20 Jun 03	16.21	NA	NA	NA	973.63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02 Dec 03	13.67	NA	NA	NA	976.17	<2.0	<2.0	<2.0	9.5	9.5	<2.0	34.0	62.8	<50	479
	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	72.8
	21 Feb 05	16.04	NA	NA	NA	973.80	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	17 Oct 07	17.35	NA	NA	NA	972.49	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
GES-204	11 Dec 02	14.86	NA	NA	NA	974.57	<0.50	<1.0	<1.0	<1.0	ND	<1.0	<5.0	<50	<50	<50
989.43	29 May 03	17.00	NA	NA	NA	972.43	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	20 Jun 03	19.58	NA	NA	NA	969.85	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02 Dec 03	14.69	NA	NA	NA	974.74	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	24 Feb 04	20.78	NA	NA	NA	968.65	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	16 Oct 07	18.86	NA	NA	NA	970.57	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
GES-205	11 Dec 02	14.07	NA	NA	NA	974.99	<0.50	<1.0	<1.0	<1.0	ND	<1.0	<5.0	<50	<50	<50
989.06	30 May 03	18.50	NA	NA	NA	970.56	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	01 Dec 03	19.33	NA	NA	NA	969.73	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	10 May 06	16.64	NA	NA	NA	972.42	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	21 Sep 06	16.02	NA	NA	NA	#VALUE!	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	16 Oct 07	18.46	NA	NA	NA	970.60	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

	Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
								Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units		feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	MCP Method 1 GW-2 Standard:							2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
	MCP Method 1 GW-3 Standard:							10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
**	**GES-206**	11 Dec 02	23.30	12.75	10.55	NA	973.78	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	989.06	04 Dec 03	21.34	19.48	1.86	NA	969.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		27 Feb 04	21.86	21.83	0.03	NA	967.22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		12 Mar 04	22.96	22.55	0.41	NR	966.25	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
†	**GES-208**	11 Dec 02	13.37	NA	NA	NA	980.10	470	3,790	1,980	**13,400**	19,640	401	416	**7,810**	**10,300**	**8,990**
	993.47	29 May 03	16.00	NA	NA	NA	977.47	311	2,950	2,360	**9,920**	15,541	237	547	**7,500**	**6,140**	**7,510**
		02 Dec 03	16.85	NA	NA	NA	976.62	512	224	1,960	**9,010**	11,706	82.7	510	**9,440**	52.0	**9,030**
		27 Feb 04	20.00	NA	NA	NA	973.47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		13 Sep 04	NM	NA	NA	NA	NA	630	298	1,520	**5,591**	8,039	26.3	720	**4,790**	**4,850**	**8,720**
		23 Feb 05	18.60	NA	NA	NA	974.87	745	616	2,070	**7,300**	10,731	<10	588	**9,720**	**3,400**	**10,400**
		10 Aug 05	19.67	NA	NA	NA	973.80	207	55.7	286	**1,167**	1,715.7	<2.0	147	**6,140**	305	**6,810**
		10 May 06	15.50	NA	NA	NA	977.97	314	632	3,000	**15,580**	19,526	<2.0	598	**6,210**	**1,080**	**33,600**
		20 Sep 06	17.96	NA	NA	NA	975.51	302	525	2,090	**10,020**	12,937	<2.0	1,100	**8,710**	**10,900**	**17,800**
		26 Apr 07	11.67	NA	NA	NA	981.80	10.4	212	388	**3,714**	4,324	<4.0	200	**1,450**	<100	**8,940**
		17 Oct 07	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	GES-209	21 Mar 03	12.96	NA	NA	NA	976.36	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	989.32	30 May 03	13.10	NA	NA	NA	976.22	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		03 Dec 03	13.09	NA	NA	NA	976.23	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
		27 Feb 04	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	989.31	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
		22 Feb 05	16.00	NA	NA	NA	973.31	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	GES-210	30 May 03	9.80	NA	NA	NA	975.86	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	985.66	04 Dec 03	8.23	NA	NA	NA	977.43	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
		27 Feb 04	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09 Aug 05	13.00	NA	NA	NA	969.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	GES-211	21 Mar 03	13.66	NA	NA	NA	977.21	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	990.87	30 May 03	14.40	NA	NA	NA	976.47	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		04 Dec 03	14.63	NA	NA	NA	976.24	<2.0	<2.0	<2.0	<2.0	ND	<2.1	<3.1	<50	<50	<50
		27 Feb 04	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		09 Aug 05	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	GES-212	21 Mar 03	10.89	NA	NA	NA	976.74	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	987.63	30 May 03	11.65	NA	NA	NA	975.98	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
		05 Dec 03	MISSING under mud.					NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	987.59	14 Sep 04	NM	NA	NA	NA	NA	12.2	55.3	61.4	**2,047**	2,175.9	<2.0	232	1,290	2,590	**7,440**
		21 Feb 05	11.69	NA	NA	NA	975.90	3.3	<2.0	19.2	292	314.5	<2.0	49.6	490	411	942
		10 Aug 05	12.24	NA	NA	NA	975.35	<2.0	<2.0	<2.0	34.6	34.6	<2.0	6.7	<50	<50	<50
	GES-213	21 Mar 03	9.53	NA	NA	NA	979.67	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	989.20	30 May 03	9.90	NA	NA	NA	979.30	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		04 Dec 03	10.74	NA	NA	NA	978.46	<2.0	<2.0	<2.0	3.3	3.3	<2.0	<3.0	348	<50	<50
		27 Feb 04	13.87	13.85	0.02	NA	975.35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
GES-214	21 Mar 03	10.65	NA	NA	NA	975.95	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
986.60	30 May 03	12.20	NA	NA	NA	974.40	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	05 Dec 03	11.79	NA	NA	NA	974.81	228	44.4	76.6	**964**	1,313	<2.0	42.7	691	109	806
	27 Feb 04	15.94	NA	NA	NA	970.66	195	4.6	181	258.2	638.8	<2.0	115	868	<50	1,030
986.57	13 Sep 04	NM	NA	NA	NA	NA	3.2	<2.0	4.0	26.3	33.5	7.8	60.0	71.3	<50	564
	21 Feb 05	13.38	NA	NA	NA	973.19	<2.0	<2.0	<2.0	3.3	3.3	<2.0	<3.0	<50	<50	<50
	10 Aug 05	15.30	NA	NA	NA	971.27	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
GES-215	21 Mar 03	11.46	NA	NA	NA	975.19	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
986.65	30 May 03	13.70	NA	NA	NA	972.95	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	04 Dec 03	11.66	NA	NA	NA	974.99	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	27 Feb 04	15.91	NA	NA	NA	970.74	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	4.3	<3.0	<50	<50	<50
	21 Feb 05	15.39	NA	NA	NA	971.26	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	10 Aug 05	15.45	NA	NA	NA	971.20	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
GES-216	10 Apr 03	14.05	NA	NA	NA	NA	245	559	602	**2,777**	4,183	<4.0	261	2,820	1,000	**4,110**
986.88	30 May 03	20.50	NA	NA	NA	NA	66.7	1,330	2,010	**9,010**	12,416.7	<10	1,110	**9,730**	4,380	**20,300**
	03 Dec 03	19.28	19.25	0.03	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01 Feb 04	20.91	20.80	0.11	NA	966.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10 Aug 05	22.69	NA	NA	NA	964.19	10.5	72.9	201.0	**3,403**	3,687.4	<10.0	465.0	**6,240**	<250	**22,900**
	09 May 06	17.05	NA	NA	NA	969.83	11.1	14.5	11.0	42.8	79.4	<2.0	7.1	230	100	541
	21 Sep 06	17.53	NA	NA	NA	969.35	245.0	327.0	267.0	**672**	1,511.0	<2.0	103.0	2,790	751	1,160
GES-217	10 Apr 03	13.46	NA	NA	NA	NA	19.6	14.4	11.6	32	77.6	2.8	<3.0	88.1	<50	<50
986.76	30 May 03	20.65	NA	NA	NA	NA	450	158	191	333.2	1,132.2	<2.0	61.4	2,070	68.0	549
	05 Dec 03	19.10	NA	NA	NA	NA	539	**10,100**	**4,540**	**40,100**	55,279	100	5,120	**67,700**	3,400	**85,600**
	26 Feb 04	20.78	NA	NA	NA	965.98	28.1	442	300	**2,636**	3,406	<2.0	416	**14,700**	<50	**14,200**
	12 Mar 04	21.50	NA	NA	NA	965.26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	21 Feb 05	21.13	20.53	0.60	NA	966.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10 Aug 05	22.68	NA	NA	NA	964.08	383	1,360	**5,250**	**36,850**	43,843	<50	4,550	**220,000**	**34,000**	**171,000**
	09 May 06	16.94	NA	NA	NA	969.82	90.5	15.5	96.8	**906**	1,109.2	6.3	176	**6,380**	<50	**11,000**
	21 Sep 06	17.31	NA	NA	NA	969.45	119.0	39.5	337.0	**673**	1,168.3	<2.0	295	**16,900**	7,110	**5,820**
GES-218	03 Dec 03	21.10	20.46	0.64	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
989.74	27 Feb 04	25.01	NA	NA	NA	964.73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12 Mar 04	NM	22.66	NM	NR	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09 Aug 05	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-219	30 May 03	16.10	NA	NA	NA	NA	416	259	199	477.9	1,351.9	<4.0	64.0	1,850	<100	695
981.58	05 Dec 03	13.84	NA	NA	NA	NA	232	19.7	22.0	68.4	342.1	90.7	32.6	1,280	<50	199
	27 Feb 04	15.55	NA	NA	NA	966.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12 Mar 04	16.99	NA	NA	NA	964.59	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	13 Sep 04	NM	NA	NA	NA	NA	2.8	<2.0	<2.0	<4.0	2.8	2.7	<3.0	<50	<50	<50
	22 Feb 05	15.65	NA	NA	NA	965.93	115.0	<2.0	13.4	<4.0	128.4	33.6	<3.0	400	<50	73.0
	11 Aug 05	15.41	NA	NA	NA	966.17	<2.0	<2.0	<2.0	12.8	12.8	<2.0	6.1	<50	93.7	295
	09 May 06	11.83	NA	NA	NA	969.75	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	21 Sep 06	12.24	NA	NA	NA	969.34	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	16 Oct 07	12.49	NA	NA	NA	969.09	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
GES-220	30 May 03	19.50	NA	NA	NA	NA	688	121	299	470.6	1,578.6	38.5	73.9	2,100	<100	862
	05 Dec 03	18.70	NA	NA	NA	NA	683	134	253	**557**	1,627	69.4	104	3,600	112	822
988.39	26 Feb 04	20.78	NA	NA	NA	967.61	91.6	2.4	<2.0	7.3	101.3	12.0	11.3	603	<50	94.0
	12 Mar 04	20.56	NA	NA	NA	967.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Aug 05	27.25	NA	NA	NA	961.14	347	10.8	209	143.8	710.6	29.3	36.5	2,150	280	466
	16 Oct 07	19.55	NA	NA	NA	968.84	10.7	<2.0	<2.0	<4.0	10.7	<2.0	<3.0	<50	<50	<50
GES-221	04 Dec 03	19.00	NA	NA	NA	968.28	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
987.28	27 Feb 04	20.38	NA	NA	NA	966.90	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	12 Mar 04	21.54	NA	NA	NA	965.74	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	21 Feb 05	20.09	NA	NA	NA	967.19	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	10 Aug 05	21.31	NA	NA	NA	965.97	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	09 May 06	17.25	NA	NA	NA	970.03	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	21 Sep 06	17.77	NA	NA	NA	969.51	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
GES-222	05 Dec 03	19.00	NA	NA	NA	NA	1,640	**9,010**	993	**9,370**	21,013	57.5	473	**21,800**	1,760	**8,090**
986.73	26 Feb 04	20.70	NA	NA	NA	966.03	37.9	127	54.2	**700**	919.1	11.0	44.8	1,690	<50	959
	12 Mar 04	21.60	21.10	0.50	NR	965.51	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09 Aug 05	19.05	19.00	0.05	NA	967.72	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-223	02 Dec 03	17.63	NA	NA	NA	NA	674	3.6	9.3	7.6	694.5	1,600	<3.0	1,090	<50	177
989.16	24 Feb 04	21.00	NA	NA	NA	968.16	925	<2.0	<2.0	<4.0	925	1,460	<3.0	1,430	<50	69.1
	13 Sep 04	NM	NA	NA	NA	NA	98.6	<2.0	<2.0	<4.0	98.6	309	<3.0	<50	<50	<50
	22 Feb 05	19.45	NA	NA	NA	969.71	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	10 Aug 05	19.54	NA	NA	NA	969.62	<2.0	<2.0	<2.0	5.3	5.3	7.7	<3.0	<50	<50	76.5
	09 May 06	17.90	NA	NA	NA	971.26	<2.0	<2.0	<2.0	<4.0	ND	7.4	<3.0	<50	<50	<50
	20 Sep 06	18.50	NA	NA	NA	970.66	<2.0	<2.0	<2.0	<4.0	ND	30.9	<3.0	<50	<50	<50
	26 Apr 07	15.96	NA	NA	NA	973.20	<2.0	<2.0	<2.0	<4.0	ND	4.4	<3.0	<50	<50	<50
	16 Oct 07	18.94	NA	NA	NA	970.22	<2.0	<2.0	<2.0	<4.0	ND	7.0	<3.0	<50	<50	<50
GES-224	03 Dec 03	18.65	NA	NA	NA	970.83	<2.0	<2.0	<2.0	<2.0	ND	1,040	<3.0	<50	<50	<50
989.48	24 Feb 04	21.43	NA	NA	NA	968.05	3.6	<2.0	<2.0	<4.0	3.6	232	<3.0	<50	<50	<50
	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	3.7	<3.0	<50	<50	<50
	22 Feb 05	20.15	NA	NA	NA	969.33	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	10 Aug 05	20.02	NA	NA	NA	969.46	<2.0	<2.0	<2.0	2.8	2.8	104.0	<3.0	<50	<50	<50
	09 May 06	18.70	NA	NA	NA	970.78	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	20 Sep 06	19.28	NA	NA	NA	970.20	<2.0	<2.0	<2.0	<4.0	ND	12.5	<3.0	<50	<50	<50
	26 Apr 07	16.90	NA	NA	NA	972.58	<2.0	<2.0	<2.0	<4.0	ND	2.5	<3.0	<50	<50	<50
	17 Oct 07	17.79	NA	NA	NA	971.69	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
GES-225	02 Dec 03	18.17	NA	NA	NA	NA	611	**9,160**	2,410	**12,610**	24,791	<2.0	549	**21,200**	211	**10,900**
992.82	27 Feb 04	23.20	NA	NA	NA	969.62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12 Mar 04	22.85	22.80	0.05	NA	970.01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Aug 05	20.57	NA	NA	NA	972.25	115	314	2,100	**8,546**	11,075	49.7	363	**9,240**	**7,460**	**9,380**
	10 May 06	18.14	NA	NA	NA	974.68	243	587	1,930	**8,285**	11,045	<2.0	468	**8,170**	354	**9,600**
	10 May 06 DUP	18.14	NA	NA	NA	974.68	252	614	1,760	**7,657**	10,283	<2.0	501	**8,310**	<50	**9,090**
	21 Sep 06	19.87	NA	NA	NA	972.95	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	17 Oct 07	20.40	NA	NA	NA	972.42	27.6	21.0	1,460	**5,369.6**	6,878.2	<2.0	603	**8,430**	898	**8,440**
	17 Oct 07 Dup	20.40	NA	NA	NA	972.42	22.4	16.9	1,470	**5,225.9**	6,735.2	<2.0	601	**7,920**	1,230	**7,950**
GES-226	04 Dec 03	17.53	NA	NA	NA	NA	128	578	92.6	408.8	1,207.4	<2.0	<3.0	**12,800**	<50	375
989.27	24 Feb 04	19.70	NA	NA	NA	969.57	12.9	19.3	3.1	42.7	78.0	16.0	3.1	**4,100**	<50	165
	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	217	<50	<50
	21 Feb 05	20.11	NA	NA	NA	969.16	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	11 Aug 05	20.84	NA	NA	NA	968.43	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<3.0	<50	<50	<50

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
						MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
						MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
GES-227	27 Feb 04	23.02	23.00	0.02	NA	967.42	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
990.42	12 Mar 04	23.74	23.15	0.59	NA	967.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	21 Feb 05	25.90	25.00	0.90	NA	965.20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-228	01 Dec 03	23.57	NA	NA	NA	NA	22.2	2,160	1,400	**9,930**	13,512.2	<20	**1,460**	**16,500**	<500	**41,300**
991.40	27 Feb 04	23.61	23.56	0.05	NA	967.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	13 Sep 04	NM	NA	NA	NA	NA	81.6	786	343	**4,600**	5,810.6	<2.0	643	**21,400**	**4,130**	**11,700**
	09 Aug 05	26.30	26.20	0.05	NA	965.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10 May 06	18.71	18.62	0.09	NA	972.76	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-229	04 Dec 03	24.13	NA	NA	NA	NA	<2.0	<2.0	<2.0	2.3	2.3	<2.0	<3.0	<50	<50	<50
990.80	25 Feb 04	23.81	NA	NA	NA	966.99	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	21 Feb 05	20.88	NA	NA	NA	969.92	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
GES-230	04 Dec 03	20.12	20.06	0.06	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
988.82	27 Feb 04	22.92	NA	NA	NA	965.90	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12 Mar 04	23.81	23.79	0.02	NA	965.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-231	05 Dec 03	23.48	23.02	0.46	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
987.72	26 Feb 04	21.68	NA	NA	NA	966.04	935	**6,370**	1,480	**9,160**	17,945	<2.0	694	**13,300**	<50	**11,500**
	10 Aug 05	25.15	NA	NA	NA	962.57	55.3	48.4	62.3	142.4	308.4	13.8	22.5	1,050	233	348
	09 May 06	17.91	NA	NA	NA	969.81	507	726	252	**955**	2,440	<2.0	119	2,580	220	1,720
	21 Sep 06	18.27	NA	NA	NA	969.45	395	456	245	**857**	1,953	<2.0	150	3,660	1,640	2,110
GES-232	04 Dec 03	20.19	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
988.21	27 Feb 04	25.10	20.60	4.50	NA	963.11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12 Mar 04	22.42	NM	NA	NA	965.79	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-301D	26 Feb 04	16.51	NA	NA	NA	975.89	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
992.40	14 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	23 Feb 05	15.33	NA	NA	NA	977.07	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	10 Aug 05	17.03	NA	NA	NA	975.37	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	268	205
GES-301I	10 May 06	22.15	18.84	3.31	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-301M	27 Feb 04	27.20	20.84	6.36	NA	970.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
992.40	09 Aug 05	20.86	22.25	1.39	NA	972.60	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GES-301S	26 Feb 04	11.64	NA	NA	NA	980.77	<2.0	<2.0	13.7	32.4	46.1	<2.0	11.1	76.4	<50	370
992.41	10 Aug 05	11.50	NA	NA	NA	980.91	<2.0	<2.0	<2.0	2.4	2.4	<2.0	<3.0	<50	<50	<50
	10 May 06	10.09	NA	NA	NA	982.32	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	20 Sep 06	10.91	NA	NA	NA	981.50	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	17 Oct 07	12.03	NA	NA	NA	980.38	<2.0	<2.0	2.8	<4.0	2.8	<2.0	<3.0	<50	<50	152
GES-302D	24 Feb 04	16.19	NA	NA	NA	974.19	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
990.38	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	2.4	2.4	<2.0	<3.0	<50	<50	<50
	21 Feb 05	15.87	NA	NA	NA	974.51	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
GES-302I	24 Feb 04	22.05	NA	NA	NA	968.34	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
990.39	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	21 Feb 05	20.25	NA	NA	NA	970.14	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

	Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
								Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units		feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	MCP Method 1 GW-2 Standard:							2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
	MCP Method 1 GW-3 Standard:							10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
	GES-302S	27 Feb 04	14.95	NA	NA	NA	975.45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	990.40																
	GES-303	27 Feb 04	13.96	NA	NA	NA	973.20	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	987.16	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	3.3	<3.0	<50	<50	<50
		21 Feb 05	14.23	NA	NA	NA	972.93	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		10 Aug 05	15.38	NA	NA	NA	971.78	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
		16 Oct 07	13.70	NA	NA	NA	973.46	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
†	**GES-304D**	24 Feb 04	16.98	NA	NA	NA	972.00	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	988.98	22 Feb 05	17.30	NA	NA	NA	971.68	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
†	**GES-304I**	24 Feb 04	17.00	NA	NA	NA	971.98	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	988.98	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
†	**GES-304S**	24 Feb 04	10.99	NA	NA	NA	978.02	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	989.01																
†	**GES-305**	25 Feb 04	17.96	NA	NA	NA	972.99	<2.0	<2.0	<2.0	2.2	2.2	<2.0	<3.0	<50	<50	<50
	990.95	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		21 Feb 05	12.20	NA	NA	NA	978.75	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
†	**GES-306**	24 Feb 04	16.36	NA	NA	NA	974.59	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	989.37	10 Aug 05	18.57	NA	NA	NA	972.38	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
†	**GES-307**	25 Feb 04	16.56	NA	NA	NA	972.33	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	988.89																
†	**GES-308**	27 Feb 04	13.81	NA	NA	NA	976.75	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	990.56																
	GES-310	27 Feb 04	22.82	NA	NA	NA	968.91	2.8	<2.0	2.4	2.8	8.0	6.5	3.8	295	<50	223
	991.73	13 Sep 04	NM	NA	NA	NA	NA	5.6	<2.0	8.1	14.7	28.4	<2.0	<3.0	1,500	549	772
		22 Feb 05	18.20	NA	NA	NA	973.53	4.8	3.0	36.5	39.6	83.9	<2.0	6.8	321	138	366
		09 May 06	18.26	NA	NA	NA	973.47	<2.0	<2.0	2.0	4.7	6.7	<2.0	<3.0	<50	<50	50.6
		20 Sep 06	19.33	NA	NA	NA	972.40	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		26 Apr 07	14.78	NA	NA	NA	976.95	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		17 Oct 07	19.94	NA	NA	NA	971.79	2.3	<2.0	17.3	2.7	22.3	<2.0	18.7	406	54.5	206
	GES-311	24 Feb 04	20.63	NA	NA	NA	969.52	<2.0	<2.0	<2.0	<4.0	ND	9.7	<3.0	<50	<50	<50
	990.15	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	4.9	<3.0	<50	<50	<50
		21 Feb 05	17.95	NA	NA	NA	972.20	<2.0	<2.0	<2.0	<4.0	ND	3.2	<3.0	<50	<50	<50
	GES-312	24 Feb 04	20.58	NA	NA	NA	968.90	74.4	<2.0	<2.0	25.4	99.8	65.8	4.7	530	<50	126
	989.48	13 Sep 04	NM	NA	NA	NA	NA	3.5	<2.0	<2.0	<4.0	3.5	2.0	<3.0	<50	<50	<50
		21 Feb 05	17.80	NA	NA	NA	971.68	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
†	**GES-314**	24 Feb 04	19.01	NA	NA	NA	970.11	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	989.12																
†	**GES-315**	24 Feb 04	13.12	NA	NA	NA	977.25	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	990.37	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		22 Feb 05	11.83	NA	NA	NA	978.54	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	GES-316	25 Feb 04	25.03	NA	NA	NA	964.21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	989.24																
†	**GES-317**	27 Feb 04	15.98	NA	NA	NA	974.71	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	990.69																
†	**GES-318D**	26 Feb 04	17.73	NA	NA	NA	975.13	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	992.86																

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

	Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
								Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
	Units		feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	MCP Method 1 GW-2 Standard:							2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
	MCP Method 1 GW-3 Standard:							10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
†	**GES-318S**	26 Feb 04	19.42	NA	NA	NA	973.29	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	992.71	14 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	3.2	3.2	<2.0	<3.0	295	<50	<50
		23 Feb 05	12.87	NA	NA	NA	979.84	3	516	205	**5,500**	6,223.6	<2.0	135	762	**1,980**	3,010
		10 May 06	18.37	NA	NA	NA	974.34	<2.0	<2.0	<2.0	2.2	2.2	<2.0	<3.0	<50	<50	<50
		10 May 06 Dup	18.37	NA	NA	NA	974.34	<2.0	<2.0	<2.0	2.1	2.1	<2.0	<3.0	<50	<50	<50
		21 Sep 06	19.69	NA	NA	NA	973.02	179	199	1,560	**6,163.0**	8,101.0	<2.0	632	**7,500**	**5,050**	**7,100**
		17 Oct 07	20.76	NA	NA	NA	971.95	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	GES-319D	26 Feb 04	19.76	NA	NA	NA	972.55	<2.0	3.9	<2.0	<4.0	3.9	<2.0	<3.0	<50	<50	<50
	992.31	10 Aug 05	16.58	NA	NA	NA	975.73	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	GES-319S	26 Feb 04	27.25	NA	NA	NA	965.07	<2.0	5.2	<2.0	<4.0	5.2	<2.0	<3.0	<50	<50	<50
	992.32	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		22 Feb 05	14.69	NA	NA	NA	977.63	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		10 Aug 05	16.57	NA	NA	NA	975.75	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	68.3	197	114
†	**GES-320D**	26 Feb 04	17.28	NA	NA	NA	975.88	<2.0	24.5	<2.0	3.2	27.7	<2.0	<3.0	<50	<50	<50
	993.16	10 Aug 05	17.81	NA	NA	NA	975.35	<2.0	4.5	<2.0	4.3	8.8	<2.0	<3.0	<50	<50	<50
†	**GES-320S**	26 Feb 04	32.31	NA	NA	NA	960.80	<2.0	2.2	<2.0	2.3	4.5	<2.0	<3.0	<50	<50	<50
	993.11	13 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		23 Feb 05	17.97	NA	NA	NA	975.14	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		10 Aug 05	18.23	NA	NA	NA	974.88	<2.0	<2.0	<2.0	2.6	2.6	<2.0	<3.0	<50	<50	<50
†	**GES-321D**	27 Feb 04	12.14	NA	NA	NA	976.30	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	988.44																
†	**GES-321S**	27 Feb 04	20.18	NA	NA	NA	968.02	<2.0	4.2	2.9	14.4	21.5	<2.0	<3.0	<50	<50	<50
	988.20	14 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	2.7	2.7	<2.0	<3.0	231	<50	<50
	GES-322D	27 Feb 04	10.10	NA	NA	NA	976.09	<2.0	3.1	<2.0	<4.0	3.1	<2.0	<3.0	<50	<50	<50
	986.19	10 Aug 05	10.60	NA	NA	NA	975.59	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
	GES-322S	27 Feb 04	19.74	NA	NA	NA	966.62	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
	986.36	14 Sep 04	NM	NA	NA	NA	NA	<2.0	<2.0	<2.0	6.0	6.0	<2.0	<3.0	420	66	<50
		21 Feb 05	19.97	NA	NA	NA	966.39	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		10 Aug 05	20.93	NA	NA	NA	965.43	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
†	**EXP-2**	27 Feb 04	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	993.25																
	EXP-4	26 Feb 04	13.91	NA	NA	NA	978.87	<2.0	<2.0	<2.0	2.8	2.8	<2.0	<3.0	<50	<50	<50
	992.78																
	EXP-6	01 Dec 03	18.37	NA	NA	NA	974.04	6.3	15.1	39.8	**653**	714.2	<2.0	116	935	<50	1,390
	992.41	09 May 06	17.79	NA	NA	NA	974.62	5.4	5.4	220	435	665.8	<2.0	111	1,940	244	1,330
		20 Sep 06	19.40	NA	NA	NA	973.01	3.8	7.7	121	348	480.5	<2.0	71	**13,220**	388	822
		26 Apr 07	15.41	NA	NA	NA	977.00	<2.0	5.8	27.7	183.4	216.9	<2.0	25.2	567	<50	420
		26 Apr 07 Dup	15.41	NA	NA	NA	977.00	<2.0	5.6	27.0	179.9	212.5	<2.0	26.9	549	55.9	396
	EXP-7	01 Dec 03	19.10	NA	NA	NA	NA	247	118	237	**930.8**	1,532.8	<2.0	79.1	2,560	<50	1,850
	992.30	27 Feb 04	21.84	NA	NA	NA	970.46	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		14 Sep 04	NM	NA	NA	NA	NA	14.8	2.7	31	100.4	148.9	<2.0	11.9	968	429	418
		22 Feb 05	13.09	NA	NA	NA	980.11	19.8	10.8	15.0	49.3	94.9	<2.0	<3.0	116	<50	<50
		10 Aug 05	18.75	NA	NA	NA	973.55	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
		09 May 06	19.20	NA	NA	NA	973.10	50.0	39.2	192	419	700.2	<2.0	33.0	744	116	558
		20 Sep 06	19.86	NA	NA	NA	972.44	64.4	4.8	44	256	369.6	<2.0	28.7	805	231	521
		26 Apr 07	17.74	NA	NA	NA	974.56	<2.0	<2.0	2.1	3.7	5.8	<2.0	<3.0	<50	<50	<50
		17 Oct 07	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	EXP-9	01 Dec 03	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	993.20	27 Feb 04	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

	Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
								Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
		Units	feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
							MCP Method 1 GW-2 Standard:	2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
							MCP Method 1 GW-3 Standard:	10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
	EXP-10	10 May 06	17.03	17.02	0.01	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	EXP-10R	03 Dec 03	19.96	19.84	0.12	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	990.11	27 Feb 04	20.35	NA	NA	NA	969.76	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		21 Feb 05	17.85	17.86	0.01	NA	972.27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		10 May 06	17.79	17.31	0.48	NA	972.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
†	**EXP-11R**	03 Dec 03	18.70	NA	NA	NA	NA	135	589	290	**1,811**	2,825	13.8	243	**2,090**	<50	3,070
		24 Feb 04	20.65	NA	NA	NA	969.61	234	25.9	567	**1,423**	2,249.9	23.2	418	**5,360**	<50	**4,670**
		12 Mar 04	15.20	NA	NA	NA	975.06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	990.26	11 Aug 05	13.72	NA	NA	NA	976.54	20	255	211	**1,039**	1,525	<2.0	125	770	<50	1,560
		10 May 06	17.82	NA	NA	NA	972.44	128	109	939	**1,786.9**	2,962.9	<2.0	340	**4,560**	343	3,570
		20 Sep 06	18.53	NA	NA	NA	971.73	361	361	713	**1,376.0**	2,811.0	<2.0	297	**6,230**	**1,800**	2,460
		27 Apr 07	15.70	NA	NA	NA	974.56	167	344	603	**1,492.0**	2,606	17.7	168	**2,930**	<100	2,160
		17 Oct 07	19.15	NA	NA	NA	971.11	456	357	781	**1,363.0**	2,957	<2.0	170	**5,380**	457	2,010
†	**EXP-12**	03 Dec 03	18.08	NA	NA	NA	NA	132	342	248	**1,517**	2,239	8.9	259	**3,030**	<50	3,800
	990.14	24 Feb 04	21.25	NA	NA	NA	968.89	134	61.1	360	**640.5**	1,195.6	16.5	365	**5,610**	<50	2,600
	990.08	12 Mar 04	15.60	NA	NA	NA	974.48	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10 May 06	16.34	NA	NA	NA	973.74	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		20 Sep 06	17.33	NA	NA	NA	972.75	<2.0	94.4	153	**1,124.0**	1,371.4	<2.0	44	**2,550**	828	1,500
		26 Apr 07	17.45	NA	NA	NA	972.63	144	11.5	136	316.6	608.1	<2.0	40.1	**1,590**	<50	664
		17 Oct 07	18.91	NA	NA	NA	971.17	353	24.3	494	446.3	1,317.6	<2.0	115.0	**5,040**	235	1,310
	EXP-13	03 Dec 03	19.68	19.17	0.51	NA	971.20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	990.37	12 Mar 04	22.00	21.00	1.00	NA	969.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10 May 06	18.85	18.48	0.37	NA	971.80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
†	**EXP-13R**	03 Dec 03	18.80	18.77	0.03	NA	971.64	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	990.42	12 Mar 04	14.40	NA	NA	NA	976.02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	EXP-16	03 Dec 03	20.78	NA	NA	NA	NA	63.1	49.1	5.6	224.1	341.9	<2.0	40.3	2,960	<50	2,940
	990.42																
	EXP-17	05 Dec 03	21.20	NA	NA	NA	NA	857	**13,100**	**5,050**	**26,570**	45,577	126	3,130	**73,200**	4,690	**43,600**
	990.39	26 Feb 04	21.11	NA	NA	NA	969.28	<2.0	<2.0	<2.0	<4.0	ND	<2.0	<3.0	<50	<50	<50
		12 Mar 04	20.80	NA	NA	NA	969.59	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		11 Aug 05	16.90	NA	NA	NA	973.49	326	61.8	234	316.4	938.2	<2.0	54	1,120	<50	544
		10 May 06	18.47	NA	NA	NA	971.92	243	62.1	178	161.7	644.8	<2.0	49.5	1,710	72.1	414
		21 Sep 06	16.02	NA	NA	NA	974.37	134	53.1	149	64.1	400.2	<2.0	21.6	1,190	145.0	177
		27 Apr 07	16.15	NA	NA	NA	974.24	24.4	58.1	45	88.1	216	<2.0	5.8	339	<50	81.3
		16 Oct 07	19.57	NA	NA	NA	970.82	5.3	<2.0	2.6	<4.0	7.9	<2.0	<3.0	<50	<50	<50
	EXP-18	03 Dec 03	20.15	20.02	0.13	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	988.87	26 Feb 04	22.05	NA	NA	NA	966.82	<2.0	96.5	6.7	**2,779**	2,882.2	<2.0	319	**7,330**	<50	**16,300**
		12 Mar 04	22.69	NA	NA	NA	966.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		14 Sep 04	NM	NA	NA	NA	NA	<2.0	589.0	267.0	**2,386**	3,242.0	201	200	**39,600**	**24,700**	**5,780**
		09 Aug 05	DRY	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10 May 06	18.77	NA	NA	NA	970.10	14.6	87.9	24.0	**1,891**	2,017.5	<2.0	84.4	3,210	73.5	3,810
		21 Sep 06	19.23	NA	NA	NA	969.64	13.9	40.1	16.0	**581**	651.0	<2.0	44.4	2,550	828.0	1,500
		27 Apr 07	16.74	NA	NA	NA	972.13	12.9	31.3	11.3	428	483.5	<2.0	19.3	759	<50	656
		16 Oct 07	19.39	NA	NA	NA	969.48	12.3	10.8	13.1	188	224.6	<2.0	22.2	1,250	307	586
	EXP-20	26 Feb 04	20.15	NA	NA	NA	966.09	21.1	4.6	6.9	34.8	67.4	3.5	3.4	243	<50	65.3
	986.24	12 Mar 04	20.95	NA	NA	NA	965.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		10 Aug 05	22.87	NA	NA	NA	963.78	9.5	<2.0	<2.0	<2.0	ND	12.6	<3.0	<50	<50	<50

TABLE 2-7
HISTORICAL GROUNDWATER MONITORING DATA
VOLATILE PETROLEUM HYDROCARBONS
Former Mobil Service Station No. 01-ECQ
83-89 Elm Street
Pittsfield, Massachusetts

Well ID/MP El (feet)	Date of Sampling	Depth to Water (feet)	Depth to Product (feet)	NAPL Thickness (feet)	NAPL Recovered (gallons)	Groundwater Elevation (feet)	VPH Target Analytes							VPH Fractions		
							Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	Naphthalene	C5-C8 Aliphatics	C9-C12 Aliphatics	C9-C10 Aromatics
Units		feet	feet	feet	gallons	feet	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MCP Method 1 GW-2 Standard:							2,000	8,000	30,000	9,000	-	50,000	1,000	1,000	1,000	5,000
MCP Method 1 GW-3 Standard:							10,000	4,000	4,000	500	-	50,000	20,000	4,000	20,000	4,000
EXP-21	27 Feb 04	NA**	20.12	>2.59	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
986.85	12 Mar 04	NA**	21.00	>1.2	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10 Aug 05	20.40	NA	NA	NA	NA	<2.0	<2.0	<2.0	<2.0	ND	<2.0	<3.0	<50	<50	<50
EXP-22	05 Dec 03	18.80	NA	NA	NA	969.43	284	1,720	368	**3,629**	6,001	41	170	**9,800**	1,200	2,470
988.23	26 Feb 04	20.62	NA	NA	NA	967.61	30.7	152	64.9	**857**	1,104.6	<2.0	52.0	1,450	<50	1,170
	12 Mar 04	20.66	NA	NA	NA	967.57	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11 Aug 05	17.80	NA	NA	NA	967.61	2.3	2.4	4.3	100.8	109.8	8.0	13.2	739	167	420
	10 May 06	17.00	NA	NA	NA	971.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
BTEX = benzene, toluene, ethylbenzene, and xylenes
MTBE = methyl tert-butyl ether
NA = not applicable
"<" = less than the laboratory reporting limit
ND = not detected
NS = not sampled, analyzed and/or measured
VPH = volatile petroleum hydrocarbons (analyzed according to Massachusetts Department of Environmental Protection VPH Methodology)
MCP = Massachusetts Contingency Plan 310 CMR 40.0000
† MCP Method 1 Groundwater Standard "GW-3" is applicable to all wells; however, "GW-2" is also applicable to this well
Bolded values represent concentrations that exceed applicable groundwater standard
*Well was thought to have been destroyed, but was found and saved during 9/01 trenching activities
**Well was blocked therefore depth to groundwater could not be determined
NAPL = non aqueous-phase liquid
NAPL recovered = non aqueous-phase liquid recovered during bailing

ARCADIS

Appendix F

Statistical Summary of
Groundwater Analytical Data

Table F-1
Summary Of Historical Groundwater Analytical Results - Well GMA5-4

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	Method 1 GW-2 Standards	Method 1 GW-3 Standards	MCP UCL for GroundWater	Spring 2008 Results GMA5-4 05/15/08	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
Inorganics-Filtered											
Cadmium	Not Listed	0.004	0.05	ND(0.0100) [ND(0.0100)]	1/7	0.00411	0.00411	0.00410	0.00380	0.00361	0.00126

Notes:

1. Samples were collected by ARCADIS between 2002 and 2008 and submitted to SGS Environmental Services, Inc. for analysis.
2. Analytical results have been validated as per GE's approved Field Sampling Plan/Quality Assurance Project Plan.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. Only constituents which were detected during at least one prior sampling event and were analyzed for during the spring 2008 sampling event are summarized.
5. Field duplicate sample results are presented in brackets.

Table F-2
Summary Of Historical Groundwater Analytical Results - Well GMA5-7

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	Method 1 GW-2 Standards	Method 1 GW-3 Standards	MCP UCL for GroundWater	Spring 2008 Results GMA5-7 05/15/08	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
Volatile Organics											
Acetone	50	50	100	ND(0.0050) J	1/9	0.014	0.014	0.00500	0.00517	0.00445	0.00353
Ethylbenzene	20	5	100	0.00018 J	2/9	0.00018	0.00023	0.00250	0.00177	0.00120	0.00110
Tetrachloroethene	0.05	30	100	0.037	9/9	0.0045	0.062	0.0240	0.0299	0.0246	0.0170
Toluene	50	40	100	ND(0.0010)	1/9	0.0011	0.0011	0.00250	0.00168	0.00133	0.000992
trans-1,2-Dichloroethene	0.09	50	100	0.00080 J	3/9	0.0008	0.0011	0.00250	0.00175	0.00149	0.000906
Trichloroethene	0.03	5	50	0.0028	6/9	0.0023	0.0067	0.00250	0.00307	0.00289	0.00139
Vinyl Chloride	0.002	50	100	0.00059 J	3/9	0.00059	0.0029	0.00100	0.00107	0.000930	0.000719
Total VOCs	5	Not Listed	Not Listed	0.041 J	9/9	0.0045	0.064	0.0340	0.0346	0.0287	0.0171

Notes:

1. Samples were collected by ARCADIS between 2002 and 2008 and submitted to SGS Environmental Services, Inc. for analysis.
2. Analytical results have been validated as per GE's approved Field Sampling Plan/Quality Assurance Project Plan.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. Only constituents which were detected during at least one prior sampling event and were analyzed for during the spring 2008 sampling event are summarized.

Organics

Table F-3
Summary Of Historical Groundwater Analytical Results - Well GMA5-9

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	Method 1 GW-2 Standards	Method 1 GW-3 Standards	MCP UCL for GroundWater	Spring 2008 Results GMA5-9 05/16/08	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
Volatile Organics											
Chlorobenzene	0.2	1	10	0.00011 J [ND(0.0010)]	1/2	0.00011	0.00011	0.000405	0.000405	0.000394	0.000134
Tetrachloroethene	0.05	30	100	0.021 [0.020]	2/2	0.02	0.022	0.0215	0.0215	0.0215	0.000707
Total VOCs	5	Not Listed	Not Listed	0.021 [0.020]	2/2	0.02	0.022	0.0215	0.0215	0.0215	0.000707

Notes:

1. Samples were collected by ARCADIS between 2007and 2008 and submitted to SGS Environmental Services, Inc. for analysis.
2. Analytical results have been validated as per GE's approved Field Sampling Plan/Quality Assurance Project Plan.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. Only constituents which were detected during at least one prior sampling event and were analyzed for during the spring 2008 sampling event are summarized.
5. Field duplicate sample results are presented in brackets.

Table F-4
Summary Of Historical Groundwater Analytical Results - Well GMA5-10

Groundwater Management Area 5 Long-Term Monitoring Program
Monitoring Event Evaluation Report for Spring 2008
General Electric Company - Pittsfield, Massachusetts
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	Method 1 GW-2 Standards	Method 1 GW-3 Standards	MCP UCL for GroundWater	Spring 2008 Results GMA5-10 05/16/08	Detection Frequency	Minimum Detect	Maximum Detect	Median Value	Arithmetic Average	Geometric Mean	Standard Deviation
Volatile Organics											
Toluene	50	40	100	ND(0.0010)	1/2	0.00016	0.00035	0.000380	0.000380	0.000361	0.000170
Total VOCs	5	Not Listed	Not Listed	ND(0.10)	1/2	0.00016	0.00035	0.0251	0.0251	0.00361	0.0352

Notes:

1. Samples were collected by ARCADIS between 2007and 2008 and submitted to SGS Environmental Services, Inc. for analysis.
2. Analytical results have been validated as per GE's approved Field Sampling Plan/Quality Assurance Project Plan.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. Only constituents which were detected during at least one prior sampling event and were analyzed for during the spring 2008 sampling event are summarized.
5. Toluene was detected in duplicate samples analyzed during the December 2007 sampling event, which was the only sampling event where VOCs were detected in this well. The minimum and maximum detected concentrations represent the duplicate sample results from that single sampling event.