GE
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USA

Transmitted Via Overnight Courier

July 30, 2007

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 1 (GECD310)
Groundwater Quality Monitoring Report for Spring 2007

Dear Mr. Fisher:

In accordance with GE's approved *Baseline Monitoring Program Proposal for Plant Site 1 Groundwater Management Area* (September 2000) and *Plant Site 1 Groundwater Management Area Supplemental Groundwater Quality Monitoring Report for Fall 2006* (January 2007), enclosed is the *Plant Site 1 Groundwater Management Area Supplemental Groundwater Quality Monitoring Report for Spring 2007*. This report summarizes activities performed as part of the Plant Site 1 Groundwater Management Area (GMA 1) groundwater quality monitoring program during spring 2007, including the results of the supplemental groundwater sampling and analysis round at GMA 1.

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

Sincerely,

Richard W. Gates

Richard W. Gates
Remediation Project Manager

Enclosure
G:\GE\GE_Pittsfield_CD_GMA_1\Reports and Presentations\Spring 2007 GW Report\355711324Lt.DOC

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General Electric Company
Pittsfield, Massachusetts

Plant Site 1 Groundwater Management Area Supplemental Groundwater Quality Monitoring Report for Spring 2007

July 2007

ARCADIS BBL

Plant Site 1 Groundwater Management Area Supplemental Groundwater Quality Monitoring Report for Spring 2007

(Spring 2007 GMA 1 Groundwater Quality Report)

General Electric Company
Pittsfield, Massachusetts

Prepared for:
General Electric Company
Pittsfield, Massachusetts

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July 2007

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Appendices

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 Plant Site 1 Groundwater Management Area, also known as and referred to herein as GMA 1.

In September 2000, GE submitted a *Baseline Monitoring Program Proposal for Plant Site 1 Groundwater Management Area* (GMA 1 Baseline Monitoring Proposal). The GMA 1 Baseline Monitoring Proposal summarized the hydrogeologic information available at that time for GMA 1 and proposed groundwater and NAPL monitoring activities (incorporating as appropriate those activities that were in place at that time) for the baseline monitoring period at this GMA. EPA provided conditional approval of the GMA 1 Baseline Monitoring Proposal by letter of March 20, 2001. Thereafter, certain modifications were made to the GMA 1 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 fall 2001, consisted of four semi-annual groundwater quality sampling events followed by preparation and submittal of reports summarizing the groundwater monitoring results and, as appropriate, proposal of modifications to the monitoring program. The fourth baseline monitoring report for GMA 1, entitled *Plant Site 1 Groundwater Management Area Baseline Groundwater Quality Interim Report for Spring 2003* (Spring 2003 GMA 1 Groundwater Quality Report), was submitted to EPA on July 30, 2003. Section 6.1.3 of Attachment H to the SOW provides that if the

two-year "baseline" period ends prior to the completion of soil-related response actions at all the RAAs 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 1 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, the Spring 2003 GMA 1 Groundwater Quality Report contained a proposal to modify and extend baseline groundwater quality monitoring activities at GMA 1 (under a program referred to as the interim monitoring program) until such time as the soil-related Removal Actions at the GMA 1 RAAs are completed and the specific components of a long-term groundwater quality monitoring program are determined. EPA conditionally approved the Spring 2003 GMA 1 Groundwater Quality Report by letter dated September 23, 2003. Under the approved interim monitoring program, annual water quality sampling (alternating between the spring and fall seasons) at selected GMA 1 wells began in spring 2004, following a limited sampling event in fall 2003 involving the collection of groundwater samples from six wells that did not yet have four complete rounds of sampling as part of the baseline monitoring program. The monitoring wells included in the interim monitoring program are shown on Figure 2.

As part of the interim groundwater quality monitoring program, GE is required to submit reports after each groundwater sampling event to summarize the groundwater monitoring results and related activities and, as appropriate, propose modifications to the monitoring program. The results of the round of interim groundwater sampling activities performed at this GMA in spring 2006 were provided in GE's July 2006 *Plant Site 1 Groundwater Management Area Groundwater Quality Interim Report for Spring 2006* (Spring 2006 GMA 1 Groundwater Quality Report), which was conditionally approved by EPA in a letter dated September 27, 2006. That report contained a proposal to perform supplemental sampling activities in fall 2006 at two monitoring wells where elevated concentrations of PCBs were detected in spring 2006. The results of that round of supplemental groundwater sampling activities were provided in GE's January 2007 *Plant Site 1 Groundwater Management Area Supplemental Groundwater Quality Monitoring Report for Fall 2006* (Fall 2006 GMA 1 Supplemental Groundwater Quality Report), which was conditionally approved by EPA in a letter dated March 29, 2007. That report contained a proposal to perform an additional round of supplemental sampling for PCBs at the same two wells sampled in fall 2006 and to resume interim sampling activities in fall 2007.

The results of the supplemental groundwater sampling activities conducted in spring 2007 are provided in this *Plant Site 1 Groundwater Management Area Supplemental Groundwater Quality Monitoring Report for Spring 2007* (Spring 2007 GMA 1 Supplemental

Groundwater Quality Report). As requested by EPA in it's March 29, 2007 letter, this report also contains groundwater elevation data collected at GMA 1 during the spring semi-annual monitoring event performed in April 2007 (both in data tables and plotted in elevation contour maps). GE will continue to present detailed discussions of GE's groundwater flow monitoring, including information on groundwater elevations, flow direction, and seasonal trends, as well as assessments of the presence and extent of NAPL at GMA 1 (including summaries of GE's NAPL recovery efforts), in the separate semi-annual reports submitted under GE's NAPL monitoring program. The most recent GMA 1 NAPL monitoring report (covering the fall 2006 monitoring period) was submitted to EPA in February 2007, and the NAPL monitoring report for the spring 2007 monitoring period will be submitted to EPA in August 2007.

In addition, in accordance with Condition 4 of EPA's conditional approval letter dated May 10, 2006 regarding GE's January 30, 2006 GMA 1 Groundwater Quality Monitoring Interim Report for Fall 2005, GE recently completed a yearlong assessment of groundwater flow patterns at Newell Street Area II. The results of that assessment, which consisted of four quarterly monitoring rounds of groundwater elevations from select water table wells at the RAA, were submitted to EPA in a letter dated June 29, 2007.

1.2 Background Information

As discussed above, the CD and SOW provide for the performance of groundwater-related monitoring and NAPL removal activities at a number of GMAs. Some of these GMAs, including GMA 1, incorporate multiple RAAs to reflect the fact that groundwater may flow between RAAs. GMA 1 encompasses 11 RAAs and occupies an area of approximately 215 acres (Figure 1). The RAAs within GMA 1 are:

- RAA 1 - 40s Complex;
- RAA 2 - 30s Complex;
- RAA 3 - 20s Complex;
- RAA 4 - East Street Area 2-South;
- RAA 5 - East Street Area 2-North;
- RAA 6 - East Street Area 1-North;
- RAA 12 - Lyman Street Area;

- RAA 13 - Newell Street Area II;
- RAA 14 - Newell Street Area I;
- RAA 17 - Silver Lake Area; and
- RAA 18 - East Street Area 1-South.

GMA 1 contains a combination of GE-owned and non-GE-owned industrial areas, residential properties, and recreational areas, including land formerly owned by GE that has been, or will be, transferred to the Pittsfield Economic Development Authority (PEDA) pursuant to the Definitive Economic Development Agreement (DEDA). The Housatonic River flows through the southern portion of this GMA, while Silver Lake is located along the western boundary. 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 (USACE) 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.

Groundwater flow patterns at GMA 1 generally reflect the topography of the site with flow toward the Housatonic River, except where influenced by features such as Silver Lake, the recharge pond, or by recovery systems which are pumped to induce hydraulic depressions in their vicinity. Although variations occur in groundwater elevations at various wells or portions of GMA 1, overall groundwater flow patterns have remained relatively stable for years. As shown on Figure 3, Groundwater flow conditions observed during spring 2007 display the typical patterns observed at GMA 1.

As discussed in Section 1.1 above, the CD and the SOW provide for the performance of groundwater-related Removal Actions at the GMAs, including the implementation of groundwater monitoring, assessment, and recovery programs. In general, these programs consist of a baseline monitoring program conducted over a period of at least two years to establish existing groundwater conditions and a long-term monitoring program performed to assess groundwater conditions over time and to verify the attainment of the Performance Standards for groundwater. As set forth in the GMA 1 Baseline Monitoring Proposal and Addendum, the baseline monitoring program at this GMA initially involved a total of 65 monitoring wells. Subsequent modifications to the program resulted in the addition of one well (LSSC-08I) and replacement of five wells with substitute monitoring wells (ESA2S-52 for ES2-17, MW-3R for MW-3, GMA1-13 for 95-9, ESA1S-33 for ES1-8, and ES1-23R for

ES1-23). All of these wells were monitored for groundwater elevations on a quarterly basis and sampled on a semi-annual basis for analysis of PCBs and/or certain other constituents listed in Appendix IX of 40 CFR Part 264, plus three additional constituents -- benzidine, 2-chloroethylvinyl ether, and 1,2-diphenyhydrazine (Appendix IX+3). The specific groundwater quality parameters for each individual well were selected based on the monitoring objectives of the well.

After the fourth baseline sampling event at most of the wells in GMA 1 in spring 2003, EPA approved the implementation of the interim monitoring program until the completion of the soil-related Removal Actions at the GMA 1 RAAs, at which time a long-term monitoring program will commence. In the Spring 2003 GMA 1 Groundwater Quality Report, GE described its proposed interim groundwater quality monitoring program. Certain specific monitoring tasks were to be performed in fall 2003, and GE submitted its Fall 2003 GMA 1 Groundwater Quality Report providing the results of those tasks. Beginning in spring 2004, as approved by EPA, the interim groundwater quality monitoring program was to consist of annual sampling (alternating between the spring and fall seasons) and analysis for select constituents at 22 GMA 1 wells. Locations selected for interim groundwater quality monitoring were wells downgradient of known NAPL areas/recovery systems where no additional hydraulic controls are in place, and/or those wells where analytical results from the baseline monitoring rounds did not clearly indicate whether long-term monitoring would be necessary.

Since the spring 2004 groundwater sampling event, GE has presented the results of each sampling event in interim groundwater quality monitoring reports and, based on those results, has proposed and, following EPA approval, implemented modifications to the interim program. The most recent interim groundwater sampling event took place in spring 2006 and, therefore, the next interim groundwater sampling event is schedule for fall 2007. However, in the Spring 2006 GMA 1 Groundwater Quality Report, GE proposed to further assess the concentrations of PCBs observed at wells LSSC-08S and LSSC-18 during the spring 2006 sampling event, by sampling those wells again during the fall 2006 sampling event and analyzing filtered samples for PCBs. EPA approved that proposal and GE performed the sampling. Following analyses of the fall 2006 data GE proposed to conduct another supplemental sampling event at the same wells during spring 2007. EPA approved that supplemental sampling proposal as part of its conditional approval of the Fall 2006 GMA 1 Supplemental Groundwater Quality Report. The results of that additional sampling are presented in this report.

1.3 Format to Document

The remainder of this report is presented in four sections. Section 2 describes the groundwater quality-related activities performed at GMA 1 in spring 2007 and presents the results of groundwater elevation monitoring performed in April 2007. Section 3 presents the analytical results obtained during the supplemental sampling event performed on April 17, 2007 and provides an assessment of the results, including a comparison to the applicable groundwater quality Performance Standards identified in the CD and SOW. Finally, Section 4 presents the schedule for future field and reporting activities related to groundwater quality at GMA 1.

2. Field and Analytical Procedures

2.1 General

As noted above, the next interim groundwater monitoring event at GMA 1 is scheduled for fall 2007. During spring 2007, in addition to the semi-annual NAPL and groundwater elevation monitoring round, GE conducted supplemental sampling activities involving the collection and analysis of groundwater samples at two monitoring wells within GMA 1 (Figure 2). The construction details of the wells are provided in Table 1 and the spring 2007 field sampling data is presented in Appendix A. This section discusses the field procedures used to collect groundwater samples and the methods used to analyze the 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

The spring 2007 semi-annual groundwater elevation monitoring round was performed between April 23 and 27, 2007. This activity involved the collection of groundwater elevation data at the locations listed in Table 2. As noted in GE's June 29, 2007 letter concerning the wells at Newell Street Area II, GE re-surveyed wells N2SC-09S and NS-10, and the results reported in Table 2 of this report reflect the results of that re-surveying. Groundwater levels and NAPL thicknesses (where NAPL is present) were measured in accordance with the procedures specified in GE's approved FSP/QAPP. Groundwater elevations were, on average, approximately 1.80 feet higher then the elevations measured during the previous spring 2006 monitoring event. The groundwater elevation data presented in Table 2 from wells screened across or near the water table were used to prepare a groundwater elevation contour map for spring 2007 (Figure 3). Consistent with prior data, groundwater was found to generally flow toward the Housatonic River.

2.3 Groundwater Sampling and Analysis

The spring 2007 supplemental groundwater sampling event was performed on April 17, 2007. Groundwater samples were collected from two groundwater monitoring wells (LSSC-08S and LSSC-18), shown in Table 2. The groundwater samples were collected by the low-flow techniques specified in the FSP/QAPP. Low-flow sampling techniques using a bladder pump were utilized for the purging and collection of groundwater samples during this sampling event. Each monitoring well was purged utilizing low-flow techniques until field parameters (including temperature, pH, specific conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) stabilized prior to sample collection. Field parameters were measured in combination with the sampling activities at the monitoring

wells. The stabilized field parameter measurements are presented below and the field sampling data are provided in Appendix A.

Parameter	Units	Stabilized Readings	
		LSSC-08S	LSSC-18
Turbidity	Nephelometric turbidity units (NTU)	3.0	0.0
pH	pH units	6.86	6.98
Specific Conductivity	Millisiemens per centimeter	2.072	.984
Oxidation-Reduction Potential	Millivolts	-63.9	-10.5
Dissolved Oxygen	Milligrams per liter	11.9	8.9
Temperature	Degrees Celsius	8.79	9.28

The collected groundwater samples were submitted to SGS Environmental Services, Inc. of Wilmington, North Carolina (SGS) for laboratory analysis. The groundwater samples were filtered and analyzed for PCBs by each laboratory using EPA Method 8082.

Following receipt of the analytical data from the laboratory, the preliminary results were reviewed for completeness and compared to the Massachusetts Contingency Plan (MCP) Method 1 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. Finally, the data were validated in accordance with the FSP/QAPP and the validated results were utilized in the preparation of this report. The data validation report is provided in Appendix C. As discussed in the data validation report, 100% of the spring 2007 groundwater quality data are considered to be useable. The validated analytical results are summarized and discussed in Section 3 below.

3. Spring 2007 Groundwater Monitoring and Analytical Results

3.1 General

A description of the spring 2007 groundwater monitoring and analytical results is presented in this section. An assessment of these results relative to the applicable GW-3 groundwater quality Performance Standards established in the CD and SOW and the MCP UCL for PCBs in groundwater is also provided.

3.2 Groundwater Sample Results

This section describes the results of the groundwater quality sampling activities performed by GE within GMA 1 during the spring 2007 semi-annual monitoring event. These activities were performed in accordance with GE's approved Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP).

Filtered groundwater samples from two monitoring wells (LSSC-08S and LSSC-18) were analyzed for PCBs by SGS Environmental Services, Inc., as part of the spring 2007 supplemental sampling event. The PCB analytical results are provided in Table 3 (the table also provides comparisons to the MCP Method 1 GW-3 standards and MCP UCL for PCBs in groundwater, as discussed below). No PCBs were detected in samples analyzed during this monitoring round. The analytical detection limits for each sample was below both the Performance Standard for this well (the MCP Method 1 GW-3 standard of 0.0003 ppm for PCBs) and the UCL for PCBs in groundwater of 0.005 ppm.

3.3 Overall Assessment of Groundwater Analytical Results

The information presented herein is based on the laboratory results obtained during the spring 2007 groundwater sampling event, supplemented with historical groundwater analytical data when applicable. Graphs illustrating historical total PCB concentrations for both wells sampled in spring 2007 are presented in Appendix B. A review of the graphs contained in Appendix B indicates that the filtered PCB concentrations have generally reverted to levels at or below those detected in these wells prior to the spring 2006 sampling event, during which event elevated concentrations were observed. These results reinforce the suggestion that the spring 2006 results from these wells were anomalous.

Based on the results of the additional sampling completed in fall 2006 and spring 2007, GE plans to return to the previously approved schedule for the interim groundwater sampling program, as discussed in Section 4.2 below.

4. Schedule of Future Activities

4.1 General

In spring 2004, GE initiated the interim groundwater monitoring program to be conducted until completion of the soil-related Removal Actions at the RAAs that comprise GMA 1. Aside from completing baseline sampling events at certain locations that could not be sampled during every round of the initial two-year baseline monitoring program (which was accomplished), the interim monitoring program is designed to obtain additional data from locations where it is not yet clear whether the initial baseline groundwater quality results indicate that the well may require future monitoring in a long-term monitoring program.

A summary of the interim sampling program for GMA 1 as already approved by EPA is provided in Table 4. As discussed in GE's June 29, 2007 Newell Street Area II groundwater elevation assessment letter, no modifications to the groundwater monitoring program at GMA 1 were determined to be necessary based on the monitoring results at that RAA. In addition, the spring 2007 supplemental sampling results (i.e., no PCBs were detected either of the two wells that were sampled) do not indicate a need for additional activities beyond the sampling to be conducted under the approved interim monitoring program. Since no modifications to the interim monitoring program are proposed, this section contains a description of the schedule for future groundwater quality monitoring activities and reporting for GMA 1. This section also provides a schedule for the upcoming fall 2007 interim monitoring event, and associated reporting activities.

4.2 Field Activities Schedule

GE will conduct the fall 2007 interim sampling event in October 2007, in conjunction with groundwater sampling activities that will be performed at the other GMAs. Following the fall 2007 interim sampling event, the next sampling event will take place in spring 2008, with each subsequent annual event alternating between spring and fall schedules. Prior to performance of these activities, GE will provide EPA with 7 days advance notice to allow the assignment of field oversight personnel.

4.3 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.

GE will submit the fall 2007 Interim Groundwater Quality Report for GMA 1 by January 31, 2008, in accordance with the reporting schedule approved by EPA. That report will present the final, validated fall 2007 interim sampling results and a brief discussion of the results, including any proposals to further modify the interim monitoring program, if necessary. GE will also include an updated summary of available groundwater monitoring results and analytical data collected at the adjacent East Street Mobil Site, to the extent that such information is available to GE.

Subsequent annual Interim Groundwater Quality Reports for GMA 1 will be submitted by January 31 where sampling activities were performed in the prior fall, or by July 31 where sampling activities were performed in the prior spring.

Tables

Table 1
Spring 2007 Supplemental Groundwater Quality Monitoring Wells

Plant Site 1 Groundwater Management Area
Supplemental Groundwater Quality Monitoring Report For Spring 2007
General Electric Company - Pittsfield, Massachusetts

Well Number	Monitoring Well Usage	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)
		Northing	Easting							
RAA 12 - Lyman Street Area										
LSSC-08S	GW-3 Perimeter (Downgradient)	532408.9	130817.2	2	983.6	983.11	5.0	10.0	978.6	968.6
LSSC-18	GW-3 Perimeter (Downgradient)	532664.7	131107.5	2	987.6	987.32	9.0	10.0	978.6	968.6

NOTES:

1. The listed wells were utilized during Spring 2007 for supplemental groundwater quality sampling. Samples were collected by BBL, an ARCADIS company (BBL), and submitted to SGS Environmental Services, Inc. (SGS) for analysis of PCBs (filtered).
2. feet AMSL: Feet above mean sea level
3. feet BGS: Feet below ground surface

Table 2
Groundwater Elevation Data - Spring 2007 Monitoring Round

Supplemental Groundwater Quality Monitoring Report For Spring 2007
Plant Site 1 Groundwater Management Area
General Electric Company - Pittsfield, Massachusetts

Well ID	Date	Groundwater Elevation (Feet AMSL[1])
20s Complex		
CC	4/24/2007	983.89
EE	4/24/2007	983.55
FF	4/24/2007	984.72
GG	4/24/2007	984.53
II	4/24/2007	985.09
JJ	4/24/2007	984.43
LL-R	4/24/2007	984.17
P-R	4/24/2007	983.01
QQ-R	4/24/2007	983.74
U	4/24/2007	983.43
Y	4/24/2007	983.93
30s Complex		
95-16	4/24/2007	992.52
ES2-19	4/24/2007	994.06
GMA1-12	4/24/2007	976.80
RF-02	4/24/2007	977.93
RF-03	4/24/2007	976.16
RF-03D	4/24/2007	978.99
RF-16R	4/27/2007	977.71
40s Complex		
95-17	4/24/2007	983.69
East Street Area 1-North		
25	4/25/2007	995.92
49	4/25/2007	995.59
ESA1N-52	4/25/2007	995.21
60R	4/25/2007	993.73
105	4/25/2007	996.30
106	4/25/2007	997.34
107	4/25/2007	998.11
108A	4/25/2007	997.89
109A	4/25/2007	997.43
118	4/25/2007	998.05
128	4/25/2007	995.76
131	4/25/2007	998.33
140	4/25/2007	993.50
ES1-08	4/25/2007	996.80
North Cassion	4/26/2007	981.49

Table 2
Groundwater Elevation Data - Spring 2007 Monitoring Round

Supplemental Groundwater Quality Monitoring Report For Spring 2007
Plant Site 1 Groundwater Management Area
General Electric Company - Pittsfield, Massachusetts

Well ID	Date	Groundwater Elevation (Feet AMSL[1])
East Street Area 1-South		
31R	4/24/2007	991.83
ESA1S-33	4/24/2007	994.85
34	4/24/2007	994.81
35	4/24/2007	995.35
45	4/24/2007	995.30
46	4/24/2007	994.65
72	4/24/2007	994.82
72R	4/24/2007	995.22
75	4/24/2007	995.01
76	4/24/2007	994.05
78	4/24/2007	994.63
80	4/24/2007	985.80
90	4/24/2007	982.36
139R	4/24/2007	978.51
ES1-13	4/24/2007	994.45
ES1-23R	4/24/2007	986.69
GMA1-6	4/24/2007	993.34
GMA1-7	4/24/2007	974.16
GMA1-18	4/24/2007	993.99
South Caisson	4/26/2007	988.46
East Street Area 2-North		
05-N	4/25/2007	985.76
11-N	4/25/2007	985.43
14-N	4/25/2007	987.10
16-N	4/25/2007	984.66
17A	4/25/2007	1,017.84
17-N	4/25/2007	984.96
19-N	4/25/2007	985.75
20-N	4/25/2007	986.01
23-N	4/25/2007	985.45
24-N	4/25/2007	985.77
ES1-05	4/25/2007	987.50
ES1-18	4/25/2007	1,043.30
ES1-20	4/25/2007	990.81
ES1-27R	4/25/2007	1,013.07

Table 2
Groundwater Elevation Data - Spring 2007 Monitoring Round

Supplemental Groundwater Quality Monitoring Report For Spring 2007
Plant Site 1 Groundwater Management Area
General Electric Company - Pittsfield, Massachusetts

Well ID	Date	Groundwater Elevation (Feet AMSL[1])
East Street Area 2-South		
01R	4/26/2007	981.29
2	4/25/2007	981.46
5	4/25/2007	984.33
6	4/25/2007	979.57
09R	4/26/2007	975.51
10	4/26/2007	975.58
13	4/24/2007	975.93
14	4/24/2007	976.46
16R	4/24/2007	976.22
19	4/24/2007	974.84
25R	4/26/2007	979.11
26RR	4/26/2007	982.41
28	4/25/2007	978.89
29	4/25/2007	975.75
30	4/25/2007	978.33
31	4/25/2007	979.07
32	4/25/2007	979.39
34	4/26/2007	976.68
35	4/26/2007	975.10
36	4/26/2007	976.66
37	4/26/2007	976.27
38	4/26/2007	978.24
42	4/25/2007	978.49
43	4/25/2007	976.38
44	4/25/2007	978.77
47	4/25/2007	975.54
48	4/25/2007	977.72
49R	4/25/2007	975.84
49RR	4/25/2007	975.77
50	4/25/2007	976.71
51	4/25/2007	975.71
ESA2S-52	4/25/2007	975.31
53	4/24/2007	975.15
54	4/24/2007	974.76
55	4/25/2007	975.10

Table 2
Groundwater Elevation Data - Spring 2007 Monitoring Round

Supplemental Groundwater Quality Monitoring Report For Spring 2007
Plant Site 1 Groundwater Management Area
General Electric Company - Pittsfield, Massachusetts

Well ID	Date	Groundwater Elevation (Feet AMSL[1])
East Street Area 2-South		
57	4/25/2007	980.41
58	4/25/2007	974.93
59	4/25/2007	974.19
ESA2S-64	4/25/2007	974.37
64R	4/26/2007	976.67
64S	4/26/2007	966.67
64S-Caisson	4/26/2007	973.64
64V	4/26/2007	965.59
64X(N)	4/26/2007	963.13
64X(S)	4/26/2007	968.66
64X(W)	4/26/2007	968.82
95-1	4/24/2007	975.57
95-04R	4/25/2007	973.36
95-5	4/25/2007	975.78
95-07R	4/25/2007	977.93
E2SC-03I	4/25/2007	974.27
E2SC-17	4/25/2007	975.29
E2SC-21	4/25/2007	974.92
E2SC-23	4/24/2007	977.12
E2SC-24	4/24/2007	974.60
3-6C-EB-14	4/24/2007	975.22
3-6C-EB-22	4/24/2007	975.19
3-6C-EB-25	4/24/2007	975.16
3-6C-EB-28	4/24/2007	974.89
ES2-01	4/24/2007	975.88
ES2-02A	4/25/2007	975.67
ES2-05	4/24/2007	976.39
ES2-06	4/24/2007	975.45
ES2-08	4/24/2007	976.32
ES2-11	4/25/2007	976.35
ES2-16	4/25/2007	977.11
ES2-18	4/24/2007	975.56
GMA1-13	4/25/2007	793.95
GMA1-14	4/26/2007	981.79
GMA1-15	4/24/2007	975.44
GMA1-16	4/24/2007	975.77

Table 2
Groundwater Elevation Data - Spring 2007 Monitoring Round

Supplemental Groundwater Quality Monitoring Report For Spring 2007
Plant Site 1 Groundwater Management Area
General Electric Company - Pittsfield, Massachusetts

Well ID	Date	Groundwater Elevation (Feet AMSL[1])
East Street Area 2-South		
GMA1-17E	4/26/2007	980.02
GMA1-19	4/24/2007	975.49
GMA1-20	4/24/2007	975.18
GMA1-21	4/24/2007	975.83
GMA1-22	4/24/2007	975.85
GMA1-23	4/24/2007	975.76
GMA1-24	4/24/2007	975.21
HR-G1-MW-1	4/25/2007	973.92
HR-G1-MW-2	4/25/2007	974.21
HR-G1-MW-3	4/25/2007	973.68
HR-G2-MW-1	4/25/2007	973.52
HR-G2-MW-2	4/25/2007	974.72
HR-G2-MW-3	4/25/2007	974.39
HR-G2-RW-1	4/25/2007	972.91
HR-G3-MW-1	4/25/2007	969.47
HR-G3-MW-2	4/25/2007	974.43
HR-G3-RW-1	4/25/2007	974.81
HR-J1-MW-3	4/24/2007	974.70
HR-J1-MW-2	4/24/2007	974.90
HR-J1-MW-1	4/24/2007	974.50
HR-J1-RW-1	4/24/2007	974.04
M-R	4/25/2007	982.19
P3	4/25/2007	984.11
PZ-1S	4/24/2007	975.18
PZ-6S	4/24/2007	974.58
RW-1(S)	4/26/2007	970.03
RW-1(X)	4/26/2007	969.78
RW-2(X)	4/26/2007	974.76
RW-3(X)	4/26/2007	973.38
TMP-1	4/25/2007	975.55
SG-HR-1	4/23/2007	975.41

Table 2
Groundwater Elevation Data - Spring 2007 Monitoring Round

Supplemental Groundwater Quality Monitoring Report For Spring 2007
Plant Site 1 Groundwater Management Area
General Electric Company - Pittsfield, Massachusetts

Well ID	Date	Groundwater Elevation (Feet AMSL[1])
Lyman Street Area		
GMA1-5	4/27/2007	972.60
B-2	4/23/2007	972.81
E-4	4/27/2007	974.13
E-7	4/27/2007	977.57
EPA-1	4/23/2007	972.74
LS-12	4/23/2007	973.93
LS-13	4/23/2007	975.74
LS-21	4/23/2007	974.64
LS-24	4/23/2007	974.70
LS-29	4/23/2007	976.03
LS-30	4/23/2007	974.28
LS-31	4/23/2007	975.17
LS-34	4/23/2007	976.99
LS-38	4/23/2007	973.25
LS-44	4/23/2007	973.04
LSSC-06	4/23/2007	975.27
LSSC-07	4/24/2007	973.58
LSSC-08S	4/23/2007	972.70
LSSC-08I	4/23/2007	972.72
LSSC-09	4/23/2007	974.18
LSSC-16I	4/23/2007	973.73
LSSC-16S	4/23/2007	973.80
LSSC-18	4/23/2007	975.00
LSSC-32	4/23/2007	973.34
LSSC-33	4/23/2007	973.37
LSSC-34I	4/23/2007	973.42
LSSC-34S	4/23/2007	973.42
MW-3R	4/23/2007	975.01
MW-4R	4/23/2007	973.30
MW-6R	4/23/2007	975.54
RW-1	4/26/2007	974.68
RW-1(R)	4/26/2007	969.99
RW-2	4/26/2007	975.64
RW-3	4/26/2007	967.08

Table 2
Groundwater Elevation Data - Spring 2007 Monitoring Round

Supplemental Groundwater Quality Monitoring Report For Spring 2007
Plant Site 1 Groundwater Management Area
General Electric Company - Pittsfield, Massachusetts

Well ID	Date	Groundwater Elevation (Feet AMSL[1])
Newell Street Area I		
FW-16R	4/23/2007	974.26
IA-9R	4/23/2007	974.74
MM-1	4/23/2007	977.34
Newell Street Area II		
GMA1-8	4/23/2007	974.09
GMA1-9	4/23/2007	974.64
GMA1-25	4/23/2007	976.16
GMA1-26	4/23/2007	975.51
GMA1-27	4/23/2007	977.00
GMA1-28	4/23/2007	975.10
MW-1D	4/23/2007	975.70
MW-1S	4/23/2007	975.13
N2SC-01I	4/23/2007	975.15
N2SC-01I(R)	4/26/2007	972.23
N2SC-02	4/23/2007	980.60
N2SC-03I	4/23/2007	977.00
N2SC-03I(R)	4/26/2007	973.94
N2SC-07	4/23/2007	976.45
N2SC-08	4/23/2007	976.84
N2SC-09I	4/23/2007	980.23
N2SC-09S	4/23/2007	973.40
N2SC-13I	4/23/2007	976.83
N2SC-14	4/26/2007	972.46
N2SC-16	4/23/2007	977.50
NS-10	4/23/2007	976.40
NS-15R	4/23/2007	974.19
NS-16	4/23/2007	984.46
NS-17	4/23/2007	974.43
NS-20	4/23/2007	980.38
NS-32	4/23/2007	977.86
NS-37	4/23/2007	974.14

Table 2
Groundwater Elevation Data - Spring 2007 Monitoring Round

Supplemental Groundwater Quality Monitoring Report For Spring 2007
Plant Site 1 Groundwater Management Area
General Electric Company - Pittsfield, Massachusetts

Well ID	Date	Groundwater Elevation (Feet AMSL[1])
Silver Lake Area		
SLGW-01S	4/25/2007	976.30
SLGW-01D	4/25/2007	979.44
SLGW-03S	4/25/2007	976.32
SLGW-04S	4/26/2007	979.24
SLGW-04D	4/26/2007	975.69
SLGW-05S	4/26/2007	976.09
SLGW-05D	4/26/2007	976.20
SLGW-06S	4/25/2007	976.70
SLGW-06D	4/25/2007	977.23
Silver Lake Gauge	4/24/2007	976.09

Notes:

1. AMSL - Above Mean Sea Level

Table 3
Comparison of Groundwater Analytical Results To MCP Method 1 GW-3 Standards and MCP UCLs for Groundwater

Plant Site 1 Groundwater Management Area
Supplemental Groundwater Quality Monitoring Report For Spring 2007
General Electric Company - Pittsfield, massachusetts
(Results are presented in parts per million, ppm)

Sample ID: / Parame Date Collected:	Method 1 GW-3 Standards	MCP UCL for GroundWater	LSSC-08S 04/17/07	LSSC-18 04/17/07
PCBs-Filtered				
Aroclor-1016	Not Listed	Not Listed	ND(0.00011)	ND(0.00011)
Aroclor-1221	Not Listed	Not Listed	ND(0.00011)	ND(0.00011)
Aroclor-1232	Not Listed	Not Listed	ND(0.00011)	ND(0.00011)
Aroclor-1242	Not Listed	Not Listed	ND(0.00011)	ND(0.00011)
Aroclor-1248	Not Listed	Not Listed	ND(0.00011)	ND(0.00011)
Aroclor-1254	Not Listed	Not Listed	ND(0.00011)	ND(0.00011)
Aroclor-1260	Not Listed	Not Listed	ND(0.00011)	ND(0.00011)
Total PCBs	0.0003	0.005	ND(0.00011)	ND(0.00011)

Notes:

1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of PCBs (filtered).
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, ARCADIS BBL (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.

Table 4
Interim Groundwater Quality Monitoring Program Activities - Fall 2007

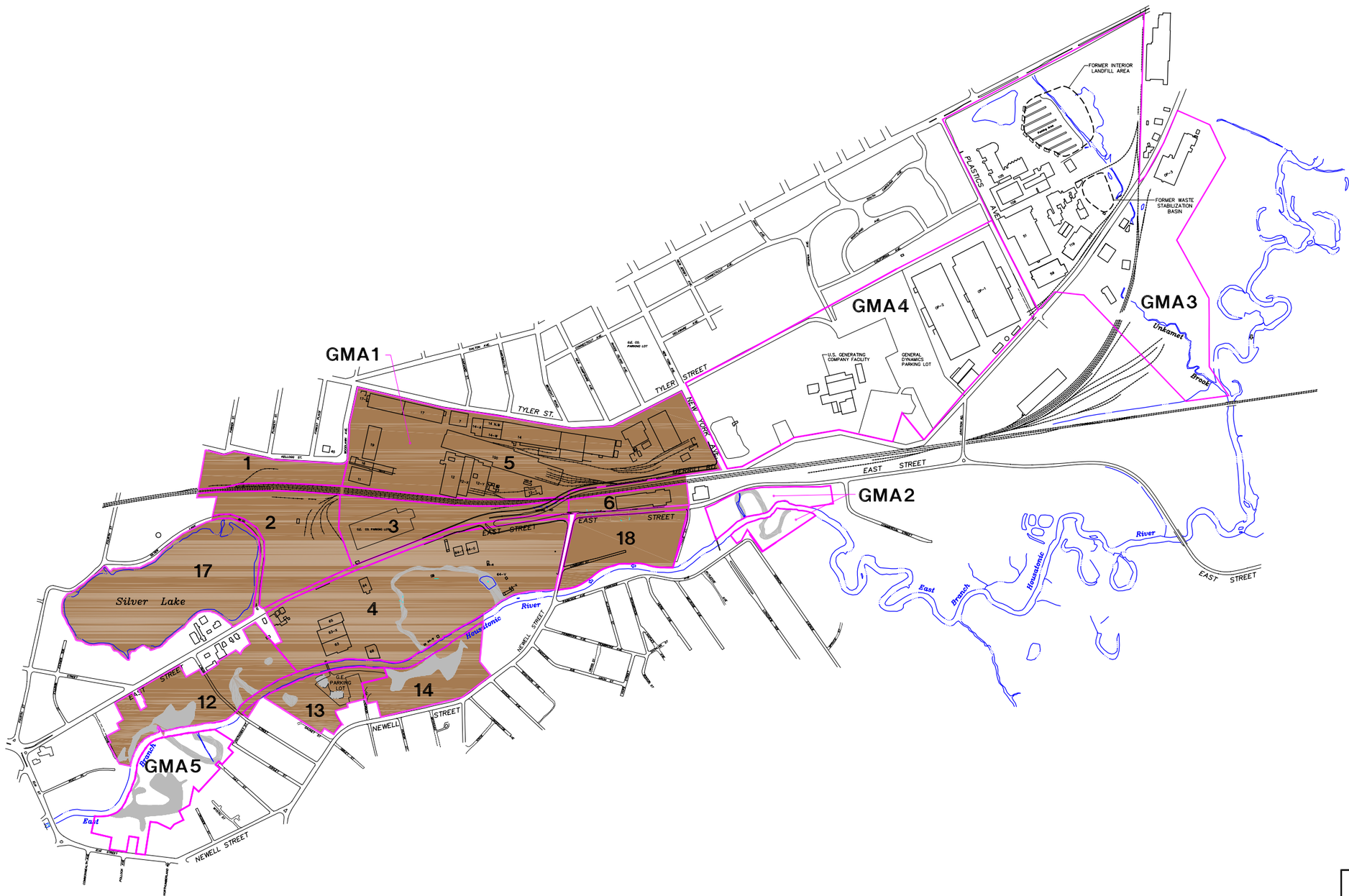
Plant Site 1 Groundwater Management Area
Supplemental Groundwater Quality Monitoring Report For Spring 2007
General Electric Company - Pittsfield, Massachusetts

Well Number	Monitoring Well Usage	Fall 2007 Analyses
RAA 2 - 30s Complex		
RF-02	GW-3 Perimeter (Downgradient)	PCB
RAA 4 - East Street Area 2-South		
3-6C-EB-14	GW-3 Perimeter (Downgradient)	VOC
GMA1-13	GW-3 General/Source Area Sentinel	PCB
E2SC-23	GW-3 Perimeter (Downgradient)	PCB
E2SC-24	GW-3 Perimeter (Downgradient)	PCB
ES2-02A	GW-3 Perimeter (Downgradient)	VOC
ESA2S-64	GW-3 Perimeter (Downgradient)	VOC
HR-G3-MW-1	GW-3 Perimeter (Downgradient)	PCB
RAA 5 - East Street Area 2-North		
ES1-05	GW-3 Perimeter (Downgradient)	PCB
ES1-27R	GW-3 General/ Source Area Sentinel	PCB
RAA 6 - East Street Area 1-North		
ESA1N-52	GW-2 Sentinel/ GW-3 General/Source Area Sentinel	PCB
RAA 12 - Lyman Street Area		
LS-29	GW-3 General/ Source Area Sentinel	PCB
LSSC-08S	GW-3 Perimeter (Downgradient)	PCB
LSSC-16S	GW-2 Sentinel	VOC (+5 SVOC)
LSSC-18	GW-3 Perimeter (Downgradient)	PCB
MW-4R	GW-3 Perimeter (Downgradient)	VOC
RAA 13 - Newell Street Area II		
N2SC-07S	GW-3 Perimeter (Downgradient)	PCB
RAA 18 - East Street Area 1-South		
72R	GW-2 Sentinel/ GW-3 General/Source Area Sentinel	VOC(+5 SVOC)/ PCB/Metals/ Cyanide
139R	GW-2 Sentinel/GW-3 Perimeter (Downgradient)	PCB
GMA1-6	GW-2 Sentinel/ GW-3 General/Source Area Sentinel	VOC(+5 SVOC)/ PCB
GMA1-18	GW-2 Sentinel/ GW-3 General/Source Area Sentinel	PCB

NOTES:

1. Modifications to the interim groundwater quality monitoring program were proposed in the July 2006 Plant Site 1 Groundwater Management Area Groundwater Quality Monitoring Interim Report for Spring 2006. The wells and analytical parameters listed above represent the approved interim monitoring program per EPA's September 27, 2006 Conditional Approval Letter related to that report.
2. The wells proposed for annual groundwater quality sampling will be sampled for the listed parameters on an annual basis, alternating between the spring and fall seasons, during the interim period between the completion of the baseline monitoring program and the initiation of a long-term monitoring program. The next scheduled interim sampling round will be conducted in fall 2007.
3. All analyses for PCB, metals, and cyanide conducted under the interim monitoring program will be performed on filtered samples only.

Figures



LEGEND:

GMA 1 (PLANT SITE 1)

COMPRISED OF:

- RAA 1–40s COMPLEX
- RAA 2–30s COMPLEX
- RAA 3–20s COMPLEX
- RAA 4–EAST STREET AREA 2–SOUTH
- RAA 5–EAST STREET AREA 2–NORTH
- RAA 6–EAST STREET AREA 1–NORTH
- RAA 12–LYMAN STREET AREA (INCLUDING FORMER OXBOWS B, D AND E)
- RAA 13–NEWELL STREET AREA II
- RAA 14–NEWELL STREET AREA I
- RAA 17–SILVER LAKE AREA
- RAA 18–EAST STREET AREA 1–SOUTH (NAPL/GROUNDWATER ONLY)

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. P.C. CONSTRUCTION PLANS.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES/LIMITS ARE APPROXIMATE.

0 500' 1000'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
GMA 1 INTERIM MONITORING PROGRAM

GROUNDWATER MANAGEMENT AREAS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
1

SYR-85-GMS SDL GMS LAYER: ON=*; OFF=REF
G:\CAD\GE-CAD\GE_ACTIVE\VV\10113001\FALL06\10113B01.DWG SAVED:7/25/2007 4:29 PM LAYOUT:Layout1 PAGESETUP:PDF-D2B PENTABLE:PLTFULL.CTB PRINTED:7/25/2007 4:30 PM BY:GSTOWELL
PROJECTNAME:-----
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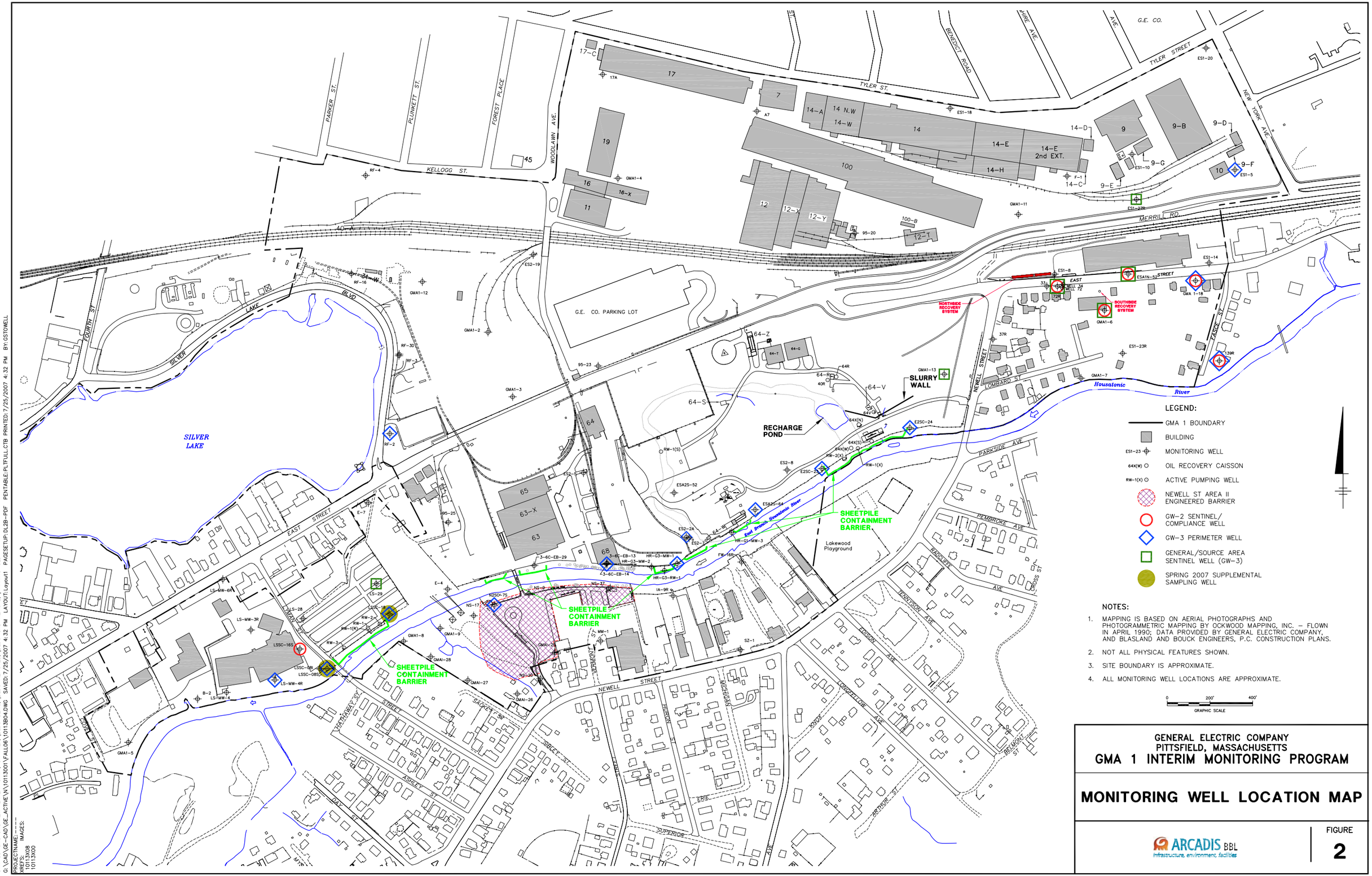
10113X00



SYR-BS-GMS GMS KEW LAYER: ON=*; OFF=REF, [BLDG-DEMO, [BLDG-REMOVED, [BLDG-SHD-REMOVE, [PARKING-OLD
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PROJECTNAME:----
IMAGES:
XREFS:
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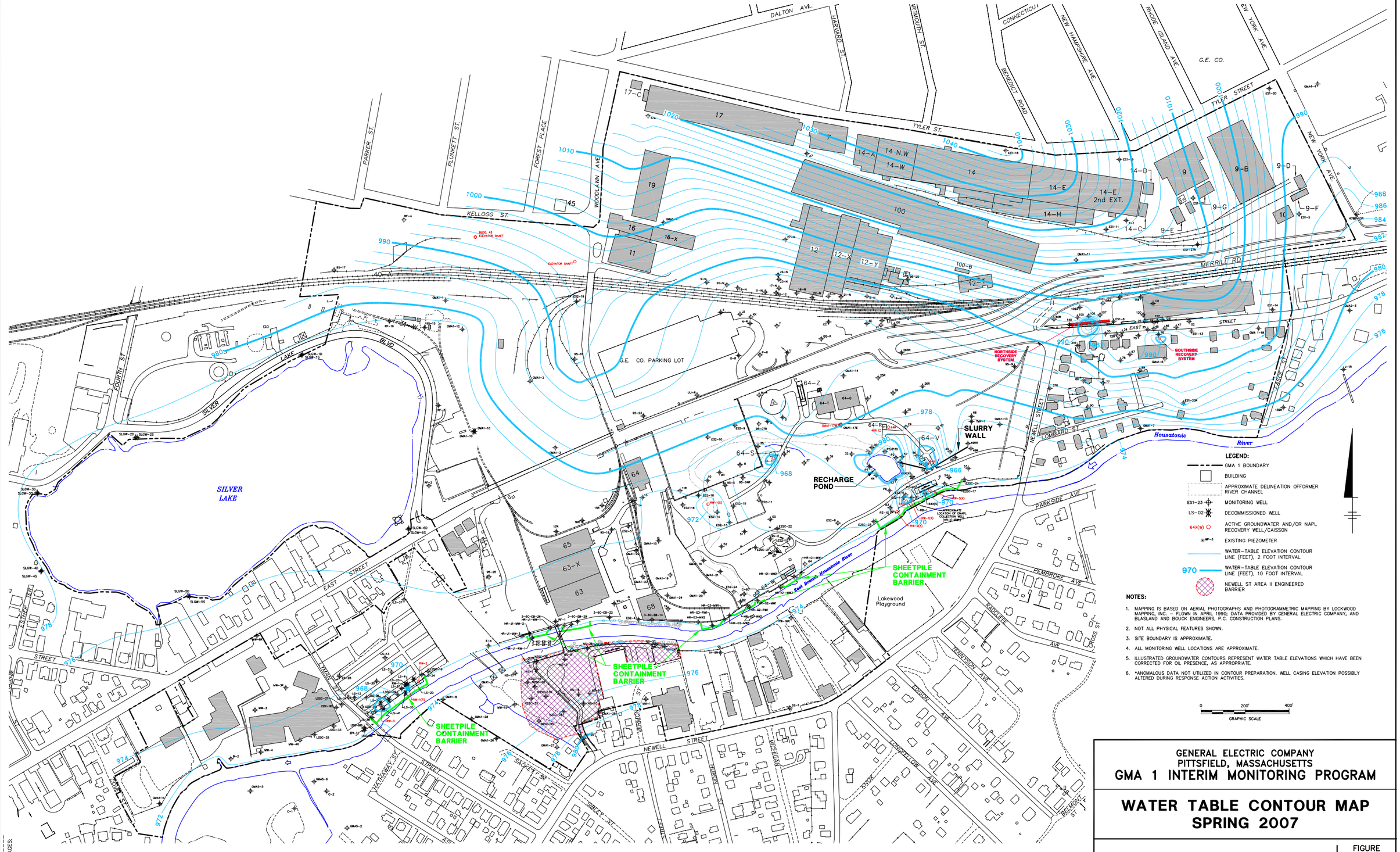
1013X09



GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
GMA 1 INTERIM MONITORING PROGRAM

WATER TABLE CONTOUR MAP SPRING 2007

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 3

SYR-BS-RLP KEW GMS LAYER: ON=*; OFF=REF; [BLDG-REMOVED], [PARKING-OLD], [BLDG-DEMO], [BLDG-SHD-REMOVE
G:\CAD\GE-CAD\GE_ACTIVE\N\10113001\FALL06\10113W01.DWG SAVED:7/25/2007 4:38 PM LAYOUT:Layout1 PAGESETUP:DL2B-PDF PENTABLE:PLTFULL.CTB PRINTED:7/25/2007 4:38 PM BY:GSTOWELL
PROJECTNAME: ----
XREFS: IMAGES:
10113X08
10113X00

Appendices

ARCADIS BBL

Appendix A

Field Sampling Data

GROUNDWATER SAMPLING LOG

Well No. LSSC-08S
Key No. ____
PID Background (ppm) 0
Well Headspace (ppm) 0

Site/CMA Name GMAL/GE Pittsfield
Sampling Personnel NPS, SAB, KIC
Date 4/17/07
Weather Cold, mid 30's, overcast

WELL INFORMATION

Reference Point Marked? Y N
Height of Reference Point BGS Meas. From TIC
Well Diameter 2"
Screen Interval Depth 5-15 Meas. From TIC
Water Table Depth 7.35 Meas. From TIC
Well Depth 14.05 Meas. From TIC
Length of Water Column 6.70'
Volume of Water in Well 1.09 gallons
Intake Depth of Pump/Tubing 12.0' Meas. From TIC

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

Redevelop? Y (N)

Sample Time 1135
Sample ID LSSC-08S
Duplicate ID DUP #1
MS/MSD —
Split Sample ID —

Required	Analytical Parameters:	Collected
( )	VOCs (Std. list)	( )
(1	VOCs (Exp. list)	( )
( )	SVOCs	( )
( )	PCBs (Total)	( )
(X)	PCBs (Dissolved)	(X)
( )	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 10:55
Pump Stop Time 12:05
Minutes of Pumping 12+ 70
Volume of Water Removed 3.7 gallons
Did Well Go Dry? Y (N)

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

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

Time	Pump Rate (ml/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 1100	—	—	7.47	—	—	—	—	—	—
1100 1105	200	0.26	7.47	—	—	—	25	—	—
1105 1110	200	0.53	7.49	8.25	6.66	2.047	16	21.0	-41.9
1110	200	0.79	7.53	8.60	6.64	2.052	11	17.4	-55.3
1115	200	1.06	7.54	8.80	6.63	2.078	8	14.9	-57.1
1120	200	1.32	7.55	8.94	6.86	2.075	6	11.6	-61.1
1125	200	1.59	7.58	8.91	6.89	2.070	4	10.1	-63.3
1130	200	1.85	7.58	8.87	6.86	2.069	3	11.1	-62.2

* 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. LSSC-085

Site/GMA Name GE Pittsfield GMA1
Sampling Personnel ADS, KLC, SAB
Date 4/17/07
Weather Cold, Mid 30s, overcast

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]*
1135	200	2.11	7.58	9.79	6.86	~~2.84~~ 2.072	3	11.9	-63.9

* 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. LSSC-18
Key No. —
PID Background (ppm) 0
Well Headspace (ppm) 0

Site/CMA Name GMA1 GE Pittsfield
Sampling Personnel WPS, KLC, SAB
Date 4/17/07
Weather Cold Hi 30's, overcast

WELL INFORMATION

Reference Point Marked? Y N
Height of Reference Point — Meas. From —
Well Diameter 2"
Screen Interval Depth 9-19 Meas. From Ground
Water Table Depth 12.26 Meas. From TIC
Well Depth 18.39 Meas. From TIC
Length of Water Column 6.13'
Volume of Water in Well 1.00 gallon
Intake Depth of Pump/Tubing 17.5 Meas. From TIC

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

Redevelop? Y (N)

Sample Time 1025
Sample ID LSSC-18
Duplicate ID —
MS/MSD LSSC-18 MS/MSD
Split Sample ID —

Required	Analytical Parameters:	Collected
( )	VOCs (Std. list)	( )
( )	VOCs (Exp. list)	( )
( )	SVOCs	( )
( )	PCBs (Total)	( )
(X)	PCBs (Dissolved)	(X)
( )	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 ~~0740~~ 0934
Pump Stop Time 1040
Minutes of Pumping 66
Volume of Water Removed 3-5 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 Number: 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]*
0934 ~~1017~~	—	—	12.30	0					
0940	200	0.32	12.33				3		
0945	200	0.58	12.31	9.46	6.99	.990	1	17.2	58.6
0950	200	0.84	12.31	9.35	6.98	.987	1	9.2	44.3
0955	200	1.10	12.31	9.23	6.99	.984	1	7.2	21.3
1000	200	1.36	12.31	9.17	6.98	.983	0	7.2	11.4
1005	200	1.62	12.31	9.09	6.98	.983	0	9.8	3.7
1010	200	1.88	12.31	9.21	6.98	.982	0	8.1	-4.0

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

OBSERVATIONS/SAMPLING METHOD DEVIATIONS —

SAMPLE DESTINATION

Laboratory: SGS
Delivered Via: UPS
Airbill #: —

Field Sampling Coordinator: [signature]

GROUNDWATER SAMPLING LOG

Well No. LSSC-18

Site/GMA Name GMA GC Pittsfield
Sampling Personnel MC, SPS, SAB
Date 4/17/07
Weather cold, mid 30's, rain

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]*
1015	200	2.14	12.31	9.21	6.98	.985	0	8.8	-6.5
1020	200	2.40	12.31	9.28	6.98	.984	0	8.9	-10.5

* 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

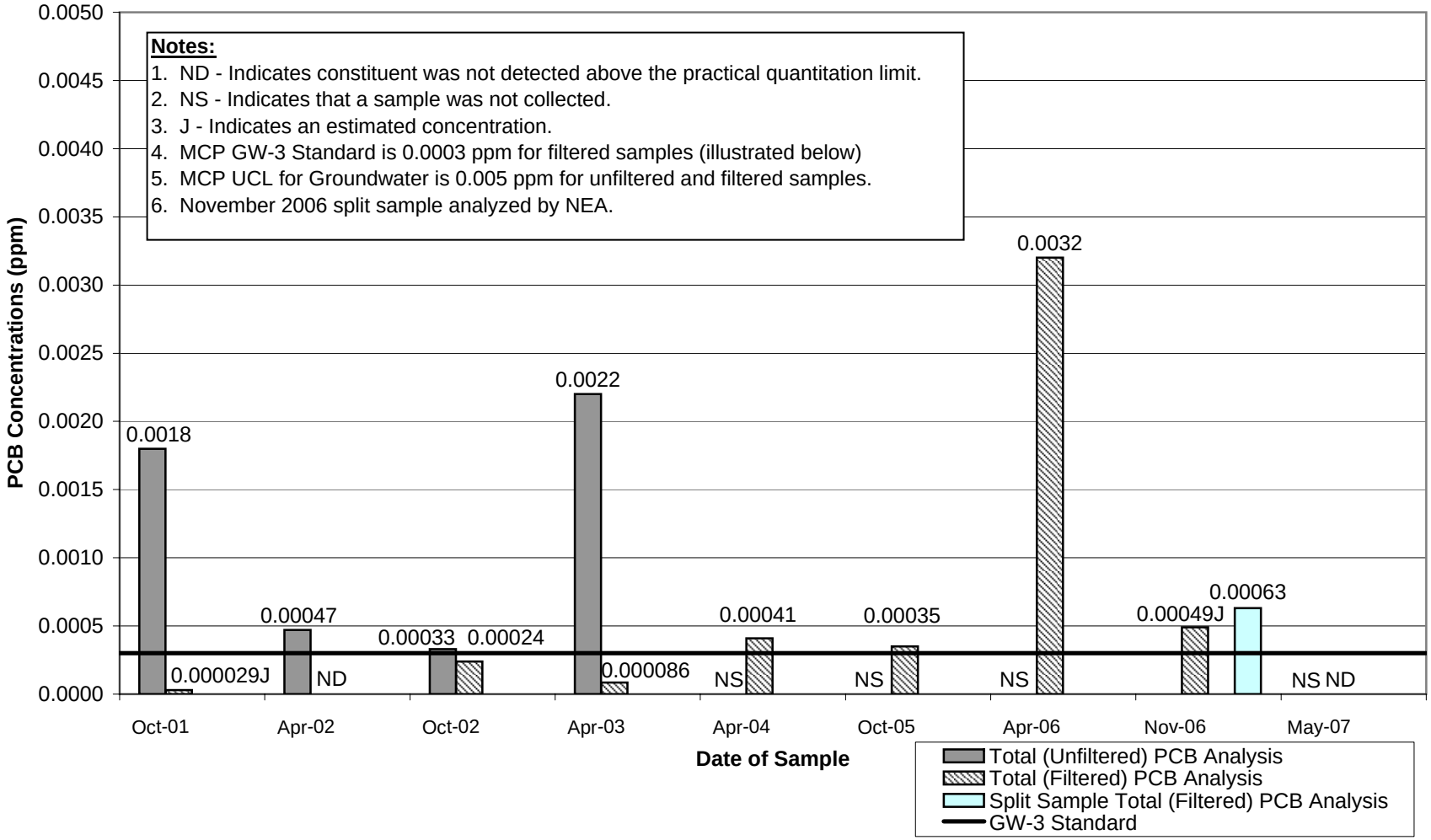
ARCADIS BBL

Appendix B

Historical Groundwater Data

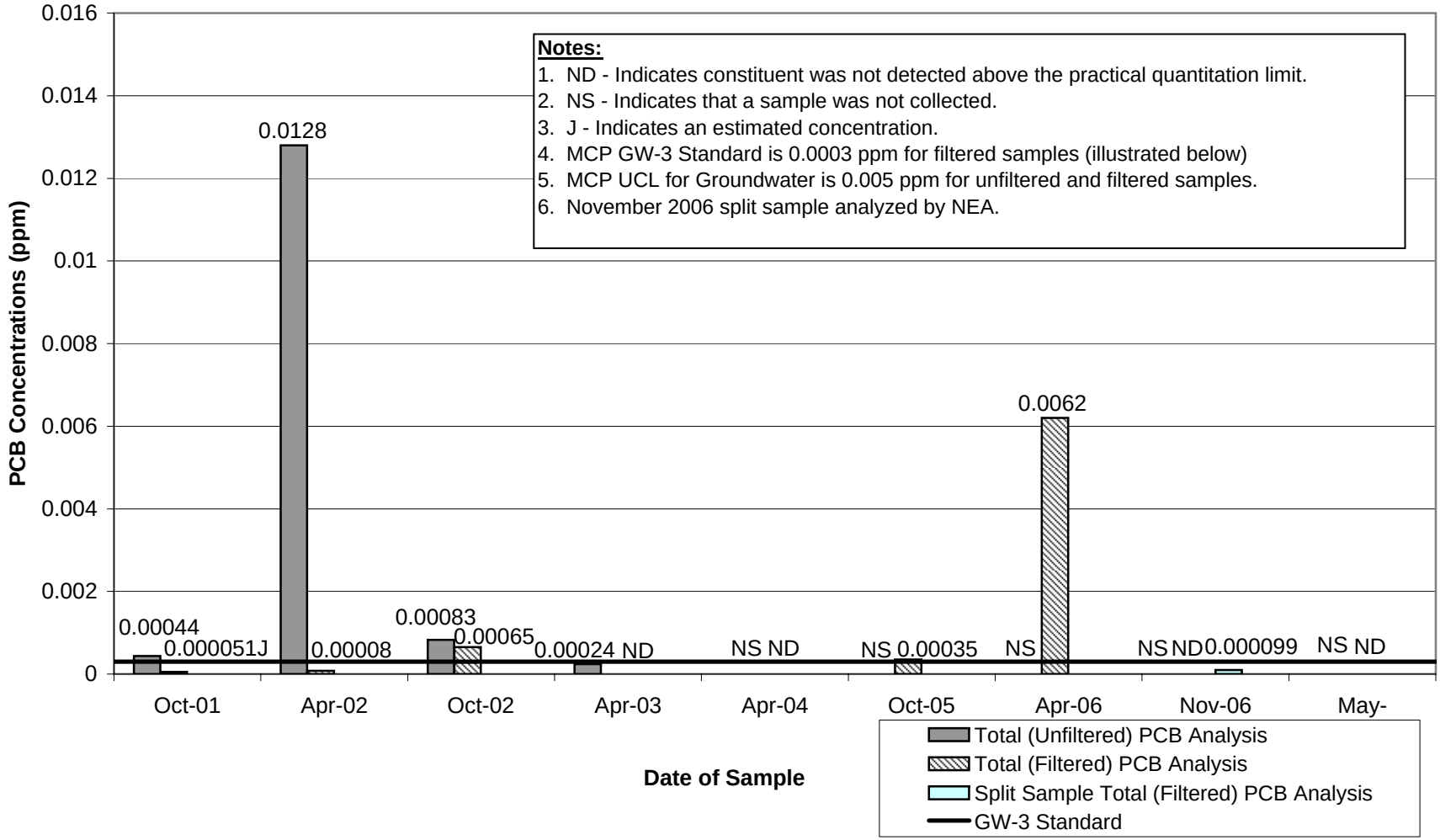
Appendix: B

Groundwater Management Area 1
General Electric Company
Pittsfield, Massachusetts
Well LSSC-08S Historical PCB Concentrations



Appendix: B

Groundwater Management Area 1
General Electric Company
Pittsfield, Massachusetts
Well LSSC-18 Historical PCB Concentrations



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Appendix C

Data Validation Report

Appendix C
Groundwater Sampling Data Validation Report
Groundwater Management Area 1 - Spring 2007

General Electric Company
Pittsfield, Massachusetts

1.0 General

This attachment summarizes the Tier I and Tier II data reviews performed for groundwater samples collected during supplemental sampling activities conducted at Groundwater Management Area 1, located at the General Electric Company/Housatonic River Site in Pittsfield, Massachusetts. The samples were analyzed for polychlorinated biphenyls (PCBs) by SGS Environmental Services, Inc. (formerly Paradigm Analytical Labs, Inc.) of Wilmington, North Carolina. Data validation was performed for three polychlorinated biphenyl (PCB) 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 (approved March 15, 2007 and re-submitted March 30, 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 Organics Analyses*, USEPA Region I (February 1, 1988) (Modified November 1, 1988); and
- *Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*, USEPA Region I (Draft, December 1996).

A tabulated summary of the Tier I and Tier II data evaluations is presented in Table C-1. Each sample subjected to evaluation is listed in Table C-1 to document that data review was performed, as well as present the highest level of data validation (Tier I or Tier II) that was applied. Samples that required data qualification are listed separately for each parameter (compound or analyte) that required qualification.

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 and adjusted for dilution and (for solid samples only) percent moisture. Non-detect sample results are presented as ND(PQL) within this report and in Table C-1 for consistency with documents previously prepared for investigations conducted at this 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 and in Table C-1 for consistency with documents previously prepared for this investigation.

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

The FSP/QAPP provides (in Section 7.5) that all 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* (USEPA guidelines). Accordingly, 100% of the analytical data for these investigations were subjected to Tier I review. The Tier I review consisted of a completeness evidence audit, as outlined in the *USEPA Region I CSF Completeness Evidence Audit Program* (USEPA Region I, 7/31/91), to ensure that all 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 USEPA Region I Tier I data completeness requirements.

As specified in the FSP/QAPP, approximately 25% of the laboratory sample delivery group packages were randomly chosen to be subjected to Tier II review. A Tier II review was also performed to resolve data usability limitations identified from laboratory qualification of the data during the Tier I data review. The Tier II data review consisted of a review of all 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. Due to the variable sizes of the data packages and the number of data qualification issues identified during the Tier I review, approximately 33% of the data were subjected to a Tier II review. A tabulated summary of the samples subjected to Tier I and Tier II data evaluations 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	
PCBs	2	0	0	0	0	1	3
Total	**2**	**0**	**0**	**0**	**0**	**1**	**3**

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 USEPA 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 below for each analytical method.

4.0 Data Review

Based on USEPA Region I Tier II data validation procedures, QA/QC parameter deviations that required sample result qualification were not observed for these data.

5.0 Overall Data Usability

This section summarizes the analytical data in terms of its completeness and usability for site characterization purposes. 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 and Tier II data validation reviews. Data completeness with respect to usability was calculated separately for inorganic and each of the organic analysis. The percent usability calculation also includes quality control samples collected to aid in the evaluation of data usability. Therefore, field/equipment blank, trip blank, and field duplicate data determined to be unusable as a result of the validation process are represented in the percent usability value tabulated in the following table.

Data Usability

Parameter	Percent Usability	Rejected Data
PCBs	100	None

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

5.1 Precision

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

5.2 Accuracy

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

5.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is a qualitative parameter, which is most concerned with the proper design of the sampling program. The representativeness criterion is best satisfied by making certain that sampling locations are selected properly and a sufficient number of samples are collected. This parameter has been addressed by collecting samples at locations specified in MDEP-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 USEPA-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 program, 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. The USEPA SW-846[1] analytical methods presented in the FSP/QAPP are updated on occasion by the USEPA to benefit from recent technological advancements in analytical chemistry and instrumentation. In most cases, the method upgrades include the incorporation of new technology that improves the sensitivity and stability of the instrumentation or allows the laboratory to increase throughput without hindering accuracy and precision. Overall, the analytical methods for this investigation have remained consistent in their general approach through continued use of the basic analytical techniques (e.g., sample extraction/preparation, instrument calibration, QA/QC procedures). Through this use of consistent base analytical procedures and by requiring that updated procedures meet the QA/QC criteria specified in the FSP/QAPP, the analytical data from past, present, and future sampling events will be comparable to allow for qualitative and quantitative assessment of site conditions.

5.5 Completeness

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

[1] Test Methods for evaluating Solid Waste, SW-846, USEPA, Final Update III, December 1996.

Table C-1
Analytical Data Validation Summary
Groundwater Management Area 1 - Spring 2007

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
PCBs											
G135-390	LSSC-08S (Filtered)	4/17/2007	Water	Tier I	No						
G135-390	LSSC-18 (Filtered)	4/17/2007	Water	Tier I	No						
G135-414	GMA1-RB-1 (Filtered)	5/14/2007	Water	Tier II	No						