REPORT

Plant Site 1 Groundwater Management Area NAPL Monitoring Report for Fall 2003

Volume I of II

General Electric Company
Pittsfield, Massachusetts

February 2004

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Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue, Pittsfield, MA 01201

Transmitted Via Overnight Courier

February 27, 2004

Mr. Michael Nalipinski
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)
NAPL Monitoring Report for Fall 2003

Dear Mr. Nalipinski:

In accordance with GE's approved *Baseline Monitoring Program Proposal for Plant Site 1 Groundwater Management Area* (September 2000), enclosed is the *Plant Site 1 Groundwater Management Area NAPL Monitoring Report for Fall 2003.* This report summarizes and presents the results of activities performed from July 2003 through December 2003, related to the monitoring and recovery of non-aqueous phase liquid (NAPL) at the Plant Site 1 Groundwater Management Area (also known as GMA 1). This report also provides assessments of the overall effectiveness of the NAPL recovery systems at GMA 1 and, based on the results of those assessments, proposes additional activities to evaluate or enhance the performance of GE's NAPL recovery operations.

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

Sincerely,

John F. Novotny, P.E.
Manager - Facilities and Brownfields Programs

Enclosure
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1. Introduction

1.1 General

On October 27, 2000, a Consent Decree (CD) executed in 1999 by the General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and several other government agencies was entered by the United States District Court for the District of Massachusetts. The CD governs (among other things) the performance of response actions to address polychlorinated biphenyls (PCBs) and other hazardous constituents in soils, sediment, and groundwater in several Removal Action Areas (RAAs) located in or near Pittsfield, Massachusetts that collectively comprise the GE-Pittsfield/Housatonic River Site (the Site). For groundwater and non-aqueous-phase liquid (NAPL), the 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 monitoring and recovery of NAPL at 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 proposal summarized the hydrogeologic information available at that time for GMA 1 and proposed groundwater and NAPL monitoring activities (incorporating, as appropriate, those activities 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. Since initiation of the GMA 1 baseline monitoring program, the NAPL monitoring program has been modified several times following EPA approval of proposals submitted by GE and/or in response to EPA approval conditions.

As part of its NAPL monitoring program, GE is required to submit semi-annual reports summarizing the NAPL monitoring/ recovery results and related activities and, on an annual basis (in the fall semi-annual reports), to evaluate the NAPL monitoring/recovery program and propose modifications to optimize NAPL recovery operations, as appropriate. The semi-annual reports already submitted, field reconnaissance of the selected monitoring locations, and EPA's letters conditionally approving the semi-annual reports (including, most recently, EPA's November 24, 2003 letter conditionally approving GE's *Plant Site 1 Groundwater Management Area NAPL Monitoring Report for Spring 2003* (Spring 2003 NAPL Monitoring Report)) have made modifications to the NAPL monitoring program.

This *Plant Site 1 Groundwater Management Area NAPL Monitoring Report for Fall 2003* (Fall 2003 NAPL Monitoring Report) summarizes and presents the results of these NAPL-related activities performed at GMA 1 from July 2003 through December 2003. Based on review of the existing information, this document also provides assessments of the overall effectiveness of NAPL recovery operations at GMA 1 and includes proposals to modify certain NAPL recovery activities, based on the results of those assessments. Non-NAPL-related groundwater quality monitoring activities regarding GMA 1 are described in separate reports, the most recent of which was the *Plant Site 1 Groundwater Management Area Groundwater Quality Interim Report for Fall 2003*.

1.2 Program Overview

GE has performed NAPL monitoring and recovery activities for over 40 years at some portions of GMA 1, and the results of those activities have been documented in numerous reports prepared under MCP and the Resource Conservation and Recovery Act (RCRA) Corrective Action Programs prior to fall 2000, and under the CD thereafter. GE's NAPL recovery program at GMA 1 includes the operation of several automated hydraulic control and NAPL recovery systems and routine manual monitoring and recovery operations for light non-aqueous-phase liquid (LNAPL) and dense non-aqueous-phase liquid (DNAPL). The manual monitoring program includes a combination of weekly to semi-annual groundwater and NAPL thickness measurements and manual removal of NAPL if the observed thickness is greater than a location-specific criterion.

Approximately 300 monitoring wells were monitored across GMA 1 between July and December 2003. The specific NAPL monitoring and recovery activities performed at the various RAAs within GMA 1 in fall 2003 are discussed in more detail in Section 4. In addition to routine NAPL monitoring activities, GE also modified the groundwater elevation and NAPL monitoring/removal program to more efficiently meet the needs of the program. Those modifications were proposed in the Spring 2003 NAPL Monitoring Report and conditionally approved by EPA in its November 24, 2003 conditional approval letter.

Pursuant to EPA's November 24, 2003 letter, and following a review of the fall 2003 results in concert with historical NAPL monitoring and recovery data, the effectiveness of GE's NAPL recovery program was evaluated in order to identify potential improvements that could be made in the program. The potential modifications are proposed in Section 5.

1.3 Format of Document

The remainder of this report is presented in five sections. Section 2 provides a summary of pertinent background information concerning GMA 1, including descriptions of geologic conditions, areas where the presence of NAPL has been documented, and the applicable NAPL-related Performance Standards under the CD. Section 3 provides an overview of GE's active groundwater and NAPL recovery systems and summarizes the recovery data from those systems. Section 4 presents the results of the fall 2003 NAPL monitoring/recovery activities at GMA 1. Section 5 contains an evaluation of the effectiveness of the current NAPL monitoring/recovery program and proposes certain modifications to the program with the objective of enhancing the current collection efforts and gaining an increased understanding of factors that influence NAPL recovery at GMA 1. Finally, Section 6 presents the schedule for future field and reporting activities related to NAPL monitoring and recovery in GMA 1.

2. Background Information

2.1 General

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 and NAPL may flow between RAAs. GMA 1 incorporates 11 RAAs and occupies an area of approximately 215 acres (Figure 1). Several of these areas are known to contain NAPL in the subsurface. The RAAs within GMA 1 include the following:

- 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 (these locations are being addressed separately in reports dealing with the 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. 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.

The remainder of this section discusses pertinent background information concerning GMA 1, including a general description of the areas where NAPL is present, the types of NAPL found, and the applicable NAPL-related Performance Standards that must ultimately be achieved.

2.2 Hydrogeologic Framework

Over 500 monitoring wells and associated soil borings have been installed across GMA 1. Data collected at the time of soil boring/monitoring well installation (e.g., lithologic descriptions of the subsurface materials) and subsequent groundwater and NAPL monitoring at many of these locations have produced an extensive database of hydrogeologic information. Construction details of the GMA 1 wells monitored during fall 2003 are provided in Table 1. Although variations to the hydrogeologic setting within GMA 1 exist depending on the specific location and RAA, the available data support a general assessment of subsurface stratigraphy within GMA 1 and are sufficient for the purposes of this report. Relative to the presence of NAPL, there are two primary hydrogeologic units present throughout GMA 1 that are important to its extent, as briefly described below.

2.2.1 Geologic Overview

Unconsolidated Granular Deposits

This unit generally consists of heterogeneous fill materials overlying sands and gravels and is the upper unit within GMA 1. The sands sandy gravels are well-sorted and were deposited as glacial outwash and/or in association with recent depositional processes within the Housatonic River. Isolated silty lenses and peat deposits may also be present locally, typically at depths corresponding to the bottom elevations of the river and the former oxbows. At certain locations within GMA 1, non-native fill materials are present above the natural granular deposits. The fill materials, where present, consist of sand, gravel, cinders, brick, glass, and other similar material.

The unconsolidated granular unit extends from ground surface to depths ranging from less than 5 feet (in the northern portion of GMA 1) to over 40 feet (in the southeastern corner of the GMA). The majority of the existing monitoring wells within GMA 1 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 less than 3 feet to over 25 feet below ground surface (bgs). Groundwater generally occurs at shallower depths near the Housatonic River and in the East Street Area 1-South RAA.

Glacial Till

The till unit underlies the granular deposits and consists of approximately 20 to at least 40 feet of dense silt containing varying amounts of clay, sand, and gravel. Discontinuous sandy lenses have also been identified in the till at the Lyman Street Area RAA in the southwestern portion of GMA 1. Till is encountered relatively close to the ground surface at the higher elevation areas in the East Street Area 2-North RAA and in parts of the East Street Area 1-South RAA, but is otherwise generally encountered at depths beginning between approximately 20 to 50 feet beneath the remainder of GMA 1. The top of till elevation contours are illustrated on Figure 2. As shown on that figure, the till surface generally descends from north to south, although erosional depressions and ridges are evident across the surface.

The glacial till unit is much less permeable than the overlying granular deposits and serves as a hydraulic barrier to downward groundwater flow and potential constituent migration. Wells installed within the till are generally located in the East Street Area 2-North RAA, where the till serves as the uppermost water-bearing unit. Additionally, numerous soil borings and monitoring wells throughout GMA 1 have also been drilled to intercept the granular deposit/till interface to monitor for the potential presence of DNAPL along this hydrogeologic interface.

Localized Aquitards

In addition to the primary hydrogeologic units discussed above, portions of GMA 1 also contain localized aquitards that appear to be relatively thin and discontinuous. These aquitards occur within the unconsolidated granular unit and are composed of low permeability material such as peat and silt. These units are likely associated with overbank flood events and/or stagnant bog areas located between meanders of the Housatonic River channel that existed prior to straightening of the channel. Since these silt and peat layers have relatively low permeability, they may provide localized hydraulic barriers that impede vertical migration of constituents in groundwater. DNAPL has been observed at the top of such layers in several monitoring wells in the Newell Street Area II RAA and in and adjacent to portions of the East Street Area 2-South RAA. The volume of DNAPL associated with these localized aquitards is relatively minor in comparison to DNAPL accumulations that are found within structural depressions in the top of the glacial till surface.

GE has developed representative geologic cross-sections across the primary GMA 1 NAPL areas that also incorporate information concerning the recent extent of NAPL in those areas. These figures are discussed in Section 2.3 below, in conjunction with the descriptions of the associated NAPL areas.

2.2.2 Groundwater Flow

Although variations occur in groundwater elevations at various wells or portions of GMA 1, overall groundwater flow patterns have remained relatively stable for several years. In general, groundwater flow is toward the Housatonic River from both the north and south, roughly mimicking surface topography. Other influences on groundwater flow include: Silver Lake; the recharge pond and slurry wall located in East Street Area 2-South which are utilized to aid in hydraulic control efforts; and the recovery systems which are pumped to induce hydraulic depressions in their vicinity. Groundwater flow conditions observed during fall 2002 illustrate the typical patterns observed in GMA 1, and are discussed in more detail in Section 4.

2.3 Identification of Plant Site 1 NAPL Areas

The portions of GMA 1 where NAPL has been observed are discussed below. Figures 3 and 4 illustrate areas within GMA 1 that have been known to contain separate phase LNAPL or DNAPL, based on observations in monitoring wells. These figures represent a compilation of past investigations and show the maximum lateral extent of NAPL that has been observed and documented in prior GE reports, and are not indicative of current conditions. As discussed in Section 4, the extent of NAPL observed in fall 2003 is greatly reduced from that shown on Figures 3 and 4. Figures 5 through 9 contain cross-sections illustrating the vertical extent of NAPL at the primary NAPL areas within GMA 1 (East Street Area 2-South, Lyman Street Area, and Newell Street Area II). The locations of those cross-sections are shown on Figure 1. Figures 11 and 12 present the lateral extent of LNAPL and DNAPL, respectively, based on fall 2003 monitoring data.

2.3.1 20s, 30s, and 40s Complexes

40s Complex (RAA 1)

NAPL presence within this area is related to an approximate 220-gallon release of hydraulic oil that occurred on March 5, 1997 from a hydraulic cylinder associated with a freight elevator located in Building 42. Following reporting of the release in March 1997, GE implemented activities to recover the residual hydraulic oils not immediately collected following the initial release and to assess the potential for further migration of the released oils within the environment. Collectively, these activities included decommissioning of the freight elevator, conversion of the abandoned hydraulic cylinder into an oil recovery well, initiation and performance of oil recovery operations, and investigations to assess the potential for subsurface migration of oils released from the elevator shaft. Installation of a downgradient monitoring well was also completed. GE operated the automated oil recovery system and collected weekly data concerning the depth to water and thickness of oil (if present) through December 2003. GE has recovered almost 90% of the estimated initial release volume. All data associated with these efforts were provided in the monthly status reports prepared by GE and

submitted to EPA pursuant to the CD. As proposed by GE in the Spring 2003 NAPL Monitoring Report, and approved by EPA, planning for the decommissioning of the recovery system (i.e., the removal of the recovery system and the sealing of the elevator shaft with cement/bentonite grout) was initiated in February 2004 in preparation for the demolition of Building 42.

30s Complex (RAA 2)

Indications of the potential presence of NAPL were observed in a soil sample collected from a boring installed in December 2000 during the pre-design investigation at this RAA. In response to this observation, GE, with EPA concurrence, installed a monitoring well (GMA1-10) at this location and monitored the well for the presence of NAPL on a weekly basis for four months following its installation in June 2001. The monitoring frequency was reduced to monthly in October 2001, and further scaled back to quarterly in July 2002. To date, NAPL has not been observed in this well or in any of the other wells located within the 30s Complex, including well ES2-19, which was installed to monitor downgradient of the Building 42 elevator shaft hydraulic oil release discussed above.

20s Complex (RAA 3)

In the past, GE operated a tank farm area which was located across the eastern portion of the 20s Complex and utilized the area to the north of the 20s Complex in various manufacturing and storage capacities. A portion of the 20s Complex was also formerly utilized for coal-gas manufacturing and oil storage by the Berkshire Gas Company. LNAPL extends from East Street Area 2-North to East Street Area 2-South across the central to eastern portion of the 20s Complex. Although the extent of LNAPL in this area extends into the East Street Area 2-North RAA (discussed below), indicating an upgradient source, the former facilities located within the 20s Complex may also have released NAPL to the subsurface in the past.

2.3.2 East Street Area 2-North & South

East Street Area 2-South (RAA 4)

As shown on Figures 3 and 4, multiple areas and types of NAPL have been observed within various portions of this RAA, including an extension of the LNAPL present in East Street Area 2-North RAA and the 20s Complex RAA immediately north of East Street Area 2-South. Additional potential sources of LNAPL in the central to eastern portion of this area may include fill materials placed in Former Oxbow H and several facilities associated with the former Berkshire Gas Company coal-gas manufacturing and storage facility. LNAPL which is recovered from the automated recovery systems contains multiple constituents, typically including PCBs (primarily Aroclor 1260), polynuclear aromatic hydrocarbons (PAHs), chlorobenzene, ethylbenzene, toluene, and xylenes, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene, among other constituents. Additionally, a small LNAPL pocket containing 2-methylnaphthalene and lesser quantities of PCBs (Aroclors 1254 and 1260) has been observed in the former Scrap Yard area south of Building 64 (also referred to as the Materials Reclamation Area).

Two types of DNAPL are present within this area: (1) Coal-tar DNAPL consisting primarily of PAHs (which are constituents associated with wastes from the former Berkshire Gas manufactured gas plant), as well as ethylbenzene, toluene, and xylenes, which have been observed within and along the eastern and western limbs of Former Oxbow H and beneath the Housatonic River; and (2) DNAPL containing PCBs (Aroclor 1260), along with chlorobenzene, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene, which have been observed at scattered locations along Former Oxbow H, near Building 68, and other areas along the Housatonic River.

Figures 5 and 6 present hydrogeologic cross-sections prepared along the riverbank portion of East Street Area 2-South, including the results of recent pre-design investigation soil borings installed at this RAA and NAPL observations made during the fall 2003 semi-annual monitoring event. The presence of DNAPL in certain low areas of the glacial till interface is evident on those figures.

East Street Area 2-North (RAA 5)

In the past, GE used portions of this area in various manufacturing operations, primarily the manufacture of electrical transformers and associated components. This area contained GE's primary transformer oil storage and distribution facilities. As a result, various oils (some containing PCBs) and other materials were released to the environment. The northern edge of the LNAPL plume which extends south across the 20s Complex and into East Street Area 2-South is located near Building 3C, and other isolated LNAPL occurrences have been observed to the east of this area, near

Building 12Y, as shown on Figure 3. Prior to 1964, a portion of the GE facility referred to as the Building 12F Tank Farm was used for the storage of mineral oil dielectric fluid. LNAPL that has been observed in East Street Area 1-North (discussed below) may have originated from this former tank farm area. A small pocket of DNAPL, consisting primarily of PCBs (Aroclor 1260) and lesser amounts of 1,2,4-trichlorobenzene 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene, has also been observed near Building 12Y.

2.3.3 East Street Area 1-North & South

East Street Area 1-North (RAA 6)

As discussed above, LNAPL which may have migrated from the former Building 12F Tank Farm is present within the southern to central portion of this area. In addition, several underground storage tanks (USTs) were formerly utilized by prior property owners in the vicinity of Building 69, which is currently owned by GE. These USTs, which were removed prior to GE's purchase of the property in 1984, included a 10,000-gallon fuel tank (removed in 1960), a 5,000-gallon gasoline tank (removed in 1964), a 5,000-gallon diesel fuel tank (also removed in 1964), and a 1,000-gallon gasoline tank (removed in 1978). The removal permits for these non-GE owned USTs are on file with the City of Pittsfield Fire Department. This LNAPL is addressed by the Northside Recovery System. A physically separate LNAPL area has been observed to the east of this recovery system and extends south onto East Street Area 1-South.

East Street Area 1-South (RAA 18)

Two LNAPL areas have been documented in this RAA. The first and larger LNAPL area extends from north of East Street (in East Street Area 1-North) to slightly inside the boundary to East Street Area 1-South. This LNAPL is contained by the Southside Recovery System. The other area where PCB-containing LNAPL has been observed is to the west of the larger LNAPL zone, between the Northside and Southside Recovery Systems. PCB concentrations in this area range from 4 to 122 ppm.

2.3.4 Lyman Street Area (RAA 12)

This area contains three of the 11 former oxbows or low-lying areas (Former Oxbows B, D, and E) of the Housatonic River which were filled in during the late 1930s and early 1940s as part of a joint program between the City of Pittsfield and the USACE to straighten the river channel and reduce flooding potential of the river. These oxbows were filled with materials originating from the GE facility, as well as other sources. LNAPL and DNAPL have been observed within and near Former Oxbow D, primarily beneath the Lyman Street parking lot in the eastern portion of this RAA, as illustrated on

Figures 3 and 4. The chemical composition of the two NAPL types is similar, in that both contain varying levels of PCBs (Aroclor 1254), PAHs, chlorobenzene, ethylbenzene, toluene, xylenes, 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene, among other constituents.

Hydrogeologic cross-sections prepared through NAPL-bearing regions beneath the Lyman Street parking lot area are shown on Figures 7 and 8. As shown on Figure 7, LNAPL and DNAPL occur within close vertical proximity due to the relatively shallow depth of the till confining layer in this area.

2.3.5 Newell Street Area II (RAA 13)

Former Housatonic River Oxbows F and G are located within this RAA. DNAPL is present within Former Oxbow G and beneath the former Newell Street parking lot at the locations shown on Figure 4. This DNAPL consists primarily of PCBs (Aroclor 1254), with lesser amounts of PAHs (mostly naphthalene and 2-methylnaphthalene), 1,2,4-trichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, toluene, tetrachlorethene, trichloroethene, and xylenes.

DNAPL is present within two areas: an upper DNAPL perched on silty sand and peat deposits and a lower DNAPL located above the top of the glacial till present at depths of approximately 30 to 40 feet below grade. The deeper DNAPL represents, by far, the more significant accumulation and is subject to collection by the automated recovery systems. A hydrogeologic cross-section illustrating the vertical distribution of DNAPL beneath Newell Street Area II is presented on Figure 9.

An isolated occurrence of LNAPL containing PCBs (Aroclor 1254), along with minor amounts of naphthalene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and xylenes, and a measured specific gravity of approximately 0.9 has also been observed beneath the southern corner of the parking lot.

2.4 NAPL-Related Performance Standards

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

1. Containment, defined as no discharge of NAPL to surface waters and/or sediments, which shall include no sheens on surface water and no bank seeps of NAPL.

2. For areas near surface waters in which there is no physical containment barrier between the wells and surface water, elimination of measurable NAPL (i.e., detectable with an oil/water interface probe) in wells near the surface water bank that could potentially discharge NAPL into the surface water, in order to prevent such discharge and assist in achieving groundwater quality Performance Standards.

3. For areas adjacent to physical containment barriers, prevention of any measurable LNAPL migration around the ends of the physical containment barriers.

4. For NAPL areas not located adjacent to surface waters, reduction in the amount of measurable NAPL to levels which eliminate the potential for NAPL migration toward surface water discharge areas or beyond GMA boundaries, and which assist in achieving groundwater quality Performance Standards.

5. For NAPL detected in wells designed to assess GW-2 groundwater (i.e., located at average depths of 15 feet or less from the ground surface and within a horizontal distance of 30 feet from an existing occupied building), a demonstration that constituents in the NAPL do not pose an unacceptable risk to occupants of such building via volatilization and transport to the indoor air of such building. Such demonstration may include assessment activities such as: NAPL sampling, soil gas sampling, desk-top modeling of potential volatilization of chemicals from the NAPL (or associated groundwater) to the indoor air of the nearby occupied buildings, or sampling of the indoor air of such buildings. If necessary, GE shall propose corrective actions, including, but not limited to, containment, recovery, or treatment of NAPL and impacted groundwater.

In addition to these Performance Standards, GE has developed and implemented site-wide criteria for NAPL monitoring and manual recovery requirements, standard procedures for assessment of new NAPL occurrences, and the feasibility of the installation of new recovery systems. In response, GE proposed several NAPL monitoring program guidelines in the Fall 2001 NAPL Monitoring Report (conditionally approved by EPA on August 29, 2002). Those guidelines were incorporated into the draft of the next revision to GE's *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP) submitted to EPA on January 9, 2004, which GE will finalize upon receipt of comments from EPA.

3. Historical NAPL Monitoring and Recovery Activities

3.1 General

This section describes the active groundwater and NAPL recovery systems located in the following RAAs at GMA 1: 40s Complex, East Street Area 2-South, East Street Area 1-North, East Street Area 1-South, Lyman Street Area, and Newell Street Area II. Each recovery system consists of one or more recovery wells or caissons that serve as the point of collection for groundwater, LNAPL, and/or DNAPL.

Certain of these recovery systems are equipped with a groundwater extraction pump that is operated to create a cone of depression within the water table. The cone of depression created by the extraction pump results in a groundwater gradient towards the recovery system, drawing water and oil into perforated collection laterals, wells, or caissons for subsequent removal. In addition to physically removing NAPL, these systems also serve to provide hydraulic control, limiting the migration of NAPL from or within the area.

Depending on the quantity of NAPL in a certain area, some of the recovery systems are equipped with groundwater extraction pump and an oil recovery pump to facilitate NAPL recovery. The collected NAPL is then pumped into temporary storage units near the recovery well prior to collection and proper disposal by GE.

The recovery systems are checked on a weekly basis to ensure that all pumps are functioning properly. As part of these routine maintenance activities, measurements of groundwater and NAPL levels are collected and removal volumes are documented. The data obtained are summarized in GE's monthly reports on overall activities at the GE-Pittsfield/Housatonic River Site and serve as the basis for much of the discussion later in this report.

A brief description of each active recovery system within GMA 1 is provided in the following subsections. Boring logs and construction diagrams of the primary recovery systems are provided in Appendix A. Graphs illustrating overall historical NAPL recovery data from the GMA 1 RAAs are included in Appendix B, while groundwater and NAPL recoveries for the individual automated recovery systems are provided graphically in Appendices C and D for LNAPL and DNAPL recovery systems, respectively. Appendix G contains data and graphs illustrating the efficiency of the East Street Area 2-South LNAPL recovery systems since 2000. Discussions of manual NAPL recovery activities during fall 2003 are included in Section 4.

Condition No. 4 of EPA's June 20, 2003 conditional approval letter required GE to evaluate the efficiency (i.e., percentage of NAPL removed compared to total quantity of liquid removed) of the automated recovery systems at GMA

1. This evaluation was performed for the primary East Street Area 2-South LNAPL recovery systems and those results are discussed below. NAPL recovery efficiency evaluations were limited to these systems for the following reasons:

1. The automated DNAPL recovery systems at GMA 1 do not remove groundwater, thus the efficiency is either 0% (during periods when no DNAPL is recovered) or 100% (when DNAPL is removed). These systems are best assessed by comparison of DNAPL recovery volumes to prior data.

2. The East Street Area 1-North and South recovery systems remove very little LNAPL in comparison to the amount of groundwater pumped as part of their hydraulic control functions. The "efficiency" of these systems is not properly measured in terms of the percentage of LNAPL recovered per unit of recovered groundwater, but in the degree of containment of LNAPL that the systems provide. Therefore, GE does not believe a detailed evaluation of the calculated efficiencies of these systems is appropriate.

3. Similar to the East Street Area 1-North and South recovery systems, the Lyman Street Area automated recovery systems do not remove significant quantities of LNAPL. In addition, the groundwater removal volumes from the three recovery systems in this area are tracked as a combined total, such that individual recovery well efficiencies cannot be calculated.

4. Finally, LNAPL recovery efficiencies were not assessed for certain recovery systems that are utilized solely as hydraulic control points (i.e., RW-2(X)) without any associated LNAPL recovery, or that employ LNAPL skimmers (i.e., Building 42 elevator shaft and well 40R) and do not remove groundwater as part of their operation.

The overall efficiency of each primary East Street Area 2-South automated recovery system since 2000 is presented in Section 3.2.2 below, while variations in efficiency during the current monitoring period are discussed in Section 5.2.1. Data and graphs illustrating the efficiency of the East Street Area 2-South LNAPL recovery systems are provided in Appendix G.

3.2 East Street Area 2-South and 40s Complex

3.2.1 40s Complex

As discussed in Section 2.3.1, an oil recovery system was installed in the former Building 42 elevator shaft in response to the release of hydraulic oil from a hydraulic component of a freight elevator located in Building 42, on March 5, 1997.

GE decommissioned the elevator and converted the hydraulic cylinder into an oil recovery well by drilling several holes through the cylinder wall and installed an automatic LNAPL skimming device, which was operated until early 2004. A total of approximately 194 gallons of the hydraulic oil were recovered by this system. During operation, GE collected weekly data concerning the depth to water and thickness of oil (if present). All data associated with these efforts were provided in monthly status reports prepared by GE and submitted to EPA pursuant to the CD.

As discussed in Section 2.3.1, this recovery system will soon be removed and the elevator shaft will be sealed with cement/bentonite grout in preparation for the demolition of Building 42.

3.2.2 East Street Area 2-South

Nine active groundwater and NAPL recovery wells or caissons are present within East Street Area 2-South as illustrated on Figure 1. The recovery systems that are most important to LNAPL recovery and control are 64S, RW-1(S), 64V, RW-1(X), and RW-2(X). Two other recovery caissons (64X(W) and 64R) are generally pumped at lower rates to facilitate oil recovery, but are not utilized to provide hydraulic control. Additionally, an automated LNAPL removal system is installed in monitoring well 40R, which is located next to Caisson 64R. A DNAPL recovery system is also present in well RW-3(X). Those recovery systems where active groundwater and NAPL recovery are currently being performed are described below. Construction details of these systems are included in Appendix A and automated recovery data for LNAPL and DNAPL are presented in Appendices C and D, respectively. Data and graphs illustrating the efficiency of the East Street Area 2-South LNAPL recovery systems are provided in Appendix G.

Caisson 64R

Caisson 64 R is located approximately 350 feet south of East Street and 675 feet west of Newell Street, upgradient of Caisson 64V (discussed below) and the on-site recharge pond, as shown on Figure 1. Caisson 64R was installed in 1974 and consists of an 8-foot diameter caisson extending 24 feet bgs. The caisson is constructed of perforated steel pipe and includes a series of eight 8-inch oil collection laterals. Four of these horizontal laterals extend 150 feet in a southwestern direction and four extend 125 feet to the northeast. The laterals were installed at depths of 15.3 to 21.3 feet below grade.

Between May 1985 and November 1988, Caisson 64R was equipped with water-level and oil-level probes, a groundwater extraction pump, and a floating oil recovery pump for LNAPL removal. Approximately 79,000 gallons of NAPL were collected during this time period. Beginning in 1988, the 64V recovery system became operational and increased groundwater pumping into the nearby recharge pond subsequently took place. As a result, groundwater levels near the recharge pond (and within Caisson 64) increased above the elevation of the 64R collection laterals. Despite the operation of the groundwater depression pump, water levels in Caisson 64R consistently remained above the uppermost lateral,

resulting in a decrease in LNAPL recovery efficiency. As a result, GE removed the groundwater depression pump in January 1989, and installed it in Caisson 64X(S) to improve oil recovery in that area. Periodic groundwater pumping from Caisson 64R resumed in July 1994. Since 1985, and through December 2003, a combined total of approximately 206,000 gallons of LNAPL have been removed from Caisson 64R and well 40R. LNAPL removed from Caisson 64R and well 40R (discussed below) had been tracked as a combined total since the installation of well 40R until November 2002. At that time, GE installed an inline flow meter in the NAPL removal piping of Caisson 64R. Since installation of the flow meter, approximately 6,493 gallons of LNAPL have been removed from Caisson 64R.

Since January 2000 a combined total of approximately 24,872 gallons of LNAPL and 17.5 million gallons of water have been removed from Caisson 64R and well 40R (all groundwater removal was from Caisson 64R), resulting in a combined LNAPL recovery efficiency of 0.1416% for this system. Since separate LNAPL recovery tracking was initiated in November 2002, the LNAPL recovery efficiency for Caisson 64R has been 0.0883%.

Well 40R

Well 40R is located approximately 350 feet south of East Street and 725 feet west of Newell Street, as shown on Figure 1. LNAPL in this area was previously removed from well 40, which consisted of a 2.5-inch PVC casing with a 2.5-inch PVC screen installed to a depth of 20 feet. An automated LNAPL removal system was installed in well 40 in September 1994 and operated until May 1995. To improve NAPL collection efficiency, well 40R was installed adjacent to well 40 in June 1995, and automated LNAPL recovery operations were relocated to the new well. As stated above, approximately 206,000 gallons of LNAPL have been removed from the 40/40R and 64R recovery systems through December 2003. Of this total, approximately 35,000 gallons can be specifically tracked to wells 40/40R during the period between October 1994 and January 1996. In November 2002, the 40R and 64R recovery systems were modified to record LNAPL collection data separately. As discussed above, GE installed an inline flow meter in the NAPL removal piping of Caisson 64R. The NAPL contribution from well 40R was calculated by subtracting the inline flow data from the total volume recorded in the LNAPL holding tanks. Those data indicate that approximately 217 gallons of LNAPL have been removed from well 40R from November 2002 through December 2002. No LNAPL has been recovered from this well since January 2003.

Caisson 64S

Caisson 64S is located approximately 370 feet south of East Street and 1,170 feet west of Newell Street, as shown on Figure 1. Caisson 64S was installed in 1974 and originally consisted of an 8-foot diameter caisson extending to a depth of 15 feet. The shallow depth of Caisson 64S limited the capture zone of the oil recovery system, so the caisson was

deepened to 28.5 feet on November 13, 1997 utilizing 2-foot diameter augers. Installed inside the caisson is a 1-foot diameter stainless steel well casing with a 25-foot long, 1-foot diameter stainless steel slotted screen.

The original caisson is constructed of concrete and includes five sets of 8-inch collection laterals. The sets of horizontal laterals extend in the following directions: 125 feet northeast, 80 feet northeast, 100 feet north, 100 feet north, and 100 feet northwest. The laterals were installed at depths between 7.5 and 11 feet. Construction details of Caisson 64S, including the collection system modifications implemented in 1997 and 2002, are included in Appendix A. This recovery well was further modified by GE in September 2002, with the installation of a solid steel sleeve around the inner 1-foot well casing to a depth of approximately 19 feet. The purpose of this sleeve is to reduce turbulence due to cascading water from the upper collection laterals in this caisson. This will allow a deeper groundwater depression level in the caisson and enhance the cone of depression.

Shortly after installation of the sleeve, the groundwater depression level was successfully lowered from approximately 972 feet to 963 feet. However, this increased drawdown did not result in a corresponding increase in LNAPL recovery. In fact, no LNAPL was recovered during pumping from within the steel sleeve during the first several months following its installation. LNAPL recovery resumed in April 2003 after the pumping system was moved back into the outer caisson, even though the pumping level was raised back up to approximately 974 feet. In response to the question posed in Condition No. 5 of EPA's June 20, 2003 conditional approval letter, water did collect in the upper caisson section. Therefore, after relocating the pump, GE purchased a second pump to place within the steel sleeve to allow pumping from both locations within this caisson. That pump was installed and dual pumping was initiated in early August 2003. The presence of LNAPL within the deeper sleeve was also documented at that time and LNAPL recovery volumes have increased significantly during the later part of fall 2003.

Caisson 64S is equipped with dual water-level and oil-level probes (for both the inner and outer caisson sections), groundwater extraction pumps, and a floating oil recovery pump for LNAPL removal. Since 1983, approximately 238,000 gallons of LNAPL have been removed from Caisson 64S in conjunction with well RW-1(S). LNAPL removed from Caisson 64S and well RW-1(S) (discussed below) was tracked as a combined total since the installation of well RW-1(S) in 1998. In December 2002, the 64S and RW-1(S) recovery systems were modified to record LNAPL collection data separately. GE installed an inline flow meter in the NAPL removal piping of well RW-1(S) to identify the quantity of LNAPL being removed from that system. The NAPL contribution from Caisson 64S was calculated by subtracting the inline flow data from the total volume recorded in the LNAPL holding tanks. Utilizing this method, an LNAPL recovery of approximately 5,096 gallons has been tracked to Caisson 64S since the installation of the flow meter in December 2002.

Since January 2000 a combined total of approximately 29,126 gallons of LNAPL and 58.6 million gallons of water have been removed from Caisson 64S and well RW-1(S), resulting in a combined LNAPL recovery efficiency of 0.0497% for this system. Since separate LNAPL recovery tracking was initiated in December 2002, the LNAPL recovery efficiency for Caisson 64S has been 0.0736%.

Well RW-1(S)

Well RW-1(S) is located approximately 480 feet south of East Street and 1,400 feet west of Newell Street, as shown on Figure 1. Well RW-1(S) was put into operation in March 1998, and consists of a 1-foot diameter stainless steel well casing with a 1-foot diameter, 20-foot long, stainless steel slotted screen. The well was installed to a depth of 30 feet. Construction details of RW-1(S) are presented in Appendix A. Well RW-1(S) is equipped with a groundwater extraction pump and an oil recovery pump. The cone of depression created by the groundwater extraction pump is approximately 150 feet long and 100 feet wide. As discussed above, LNAPL removed from well RW-1(S) was combined with that from Caisson 64S until December 2002, when GE installed an inline flow meter in the NAPL removal piping of well RW-1(S). Since December 2002, approximately 589 gallons of LNAPL were removed from well RW-1(S). Small amounts of DNAPL (approximately 20 gallons since spring 1998) have also been periodically removed from this well.

As discussed above, the combined LNAPL recovery efficiency for the Caisson 64S and well RW-1(S) system since January 2000 is 0.0497%. Since separate LNAPL recovery tracking was initiated in December 2002, the LNAPL recovery efficiency for well RW-1(S) has been 0.0048%.

Caisson 64V

Caisson 64V is located approximately 200 feet north of the Housatonic River and 470 feet west of Newell Street, as shown on Figure 1. Caisson 64V has been in operation since April 1988, and extends to a depth of 30 feet. The caisson contains a 2-foot diameter stainless steel well casing with a 2-foot diameter, 20-foot long, stainless steel slotted screen. The caisson is located immediately upgradient from a subgrade slurry wall (discussed below) that provides additional physical containment and assists in the hydraulic control of LNAPL in the area.

Caisson 64V is equipped with water-level and oil-level probes, a groundwater extraction pump, and an oil recovery pump for LNAPL removal. The cone of depression around the caisson extends approximately 350 feet in an east to west direction and as far north as 200 feet. Since 1988, approximately 317,200 gallons of LNAPL have been removed from Caisson 64V. In addition to the LNAPL removal, DNAPL also periodically accumulates in the base of Caisson 64V and is removed by manual pumping. Since 1997, approximately 135 gallons of DNAPL have been pumped from Caisson 64V. The LNAPL recovery efficiency for the Caisson 64V recovery system since January 2000 is 0.0703%, based on an

LNAPL removal volume of 36,859 gallons and a groundwater removal volume of 52.4 million gallons during this timeframe.

Oil Recovery System 64X

Oil recovery system 64X was installed in 1974 and has been operating since 1985. The system consists of three Caissons: 64X(N), 64X(S), and 64X(W), as shown on Figure 1. Caisson 64X(N) is located approximately 160 feet north of the Housatonic River and 515 feet west of Newell Street. Caisson 64X(N) is approximately 9.5 feet in diameter and is installed to a depth of approximately 15 feet. Caisson 64X(S) is located approximately 60 feet north of the Housatonic River and 430 feet west of Newell Street. Caisson 64X(S) is 7 feet in diameter, extends to a depth of 20 feet, and includes a series of horizontal 8-inch diameter oil collection laterals to facilitate LNAPL removal. Caisson 64X(W) is located approximately 70 feet north of the Housatonic River and 530 feet west of Newell Street. Caisson 64X(W) is approximately 5 feet in diameter and is installed to a depth of approximately 17.5 feet. All three caissons are constructed with perforated steel pipe.

Oil collection laterals, which extend from depths of approximately 10 to 15 feet, are contained in a trench that extends between Caissons 64X(W) and 64X(S). The trench is approximately 3-feet wide and filled with gravel. The south (downgradient) wall of the trench, parallel to the riverbank, is lined with a 1-foot thick layer of clay and a high-density polyethylene liner to impede NAPL from flowing out of the trench.

Originally, the Caisson 64X oil recovery system contained oil recovery pumps and water-level and oil-level probes. The oil recovery pumps were upgraded with automatic timers in May 1988, and a groundwater extraction pump was installed in Caisson 64X(W) in January 1989 to lower the groundwater table. The groundwater extraction pump was removed in October 1993 when well RW-2(X) was installed. Groundwater pumping and automated LNAPL recovery were resumed at this well in August 1994. Although it is not necessary to pump groundwater from the 64X system to provide hydraulic control in this area, groundwater is removed from Caisson 64X(W) to facilitate enhanced LNAPL recovery.

Approximately 43,650 gallons of LNAPL have been removed from system 64X in conjunction with recovery well RW-1(X). The majority of LNAPL was collected between 1985 and 1987, solely from the 64X system. Until October 2002, LNAPL removed from the 64X system and well RW-1(X) (discussed below) was tracked as a combined total. Beginning at that time, GE recorded the NAPL volume in the holding tank before and after activation of the manually-operated NAPL removal pump at well RW-1(X) to identify the amount of LNAPL removed by that system. Subtraction of the manual removal from the total NAPL present in the holding tank volume yields the quantity of NAPL originating from the 64X system. Since October 2002, approximately 247 gallons of LNAPL have been recovered by recovery system 64X.

Since January 2000 a combined total of approximately 1,635 gallons of LNAPL and 52.6 million gallons of water have been removed from the 64X/RW-1(X) systems, resulting in a combined LNAPL recovery efficiency of 0.0031%. Since separate LNAPL recovery tracking was initiated in October 2002, the LNAPL recovery efficiency for the 64X system has been 0.0037%.

Well RW-1(X)

Well RW-1(X) is located approximately 70 feet north of the Housatonic River and 500 feet west of Newell Street, as shown on Figure 1. RW-1(X) was installed on November 25, 1992, and consists of an 8-inch diameter stainless steel well casing with an 8-inch diameter, 15-foot long, slotted stainless steel screen. The well extends to a depth of 24 feet. Pumping of the well was initiated on December 7, 1992.

RW-1(X) is equipped with a groundwater extraction pump and a manually-activated LNAPL recovery pump. The pumping of RW-1(X), coupled with RW-2(X) (discussed below), produces two overlapping cones of depression that provide hydraulic control near the riverbank and locally reverse the natural groundwater gradients (towards the recovery well instead of the Housatonic River). Until October 2002, LNAPL removed from the 64X system (discussed above) and well RW-1(X) was tracked as a combined total. To determine the LNAPL contribution from well RW-1(X), GE simply recorded the NAPL volumes in the common holding tank before and after activation of the NAPL removal pump. Since October 2002, approximately 35 gallons of NAPL were recovered by well RW-1(X).

As discussed above, the combined LNAPL recovery efficiency for the 64X/RW-1(X) systems since January 2000 is 0.0031%. Since separate LNAPL recovery tracking was initiated in October 2002, the LNAPL recovery efficiency for well RW-1(X) has been 0.0005%.

Well RW-2(X)

Well RW-2(X) is located approximately 65 feet north of the Housatonic River and approximately 560 feet west of Newell Street, as shown on Figure 1. Well RW-2(X) was installed on October 27, 1993, and is constructed of an 8-inch diameter stainless steel well casing with an 8-inch diameter, 15-foot long, slotted stainless steel screen. The well extends to a depth of 24 feet. Pumping of well RW-2(X) began on November 12, 1993. RW-2(X) is equipped with a groundwater extraction pump that, along with the groundwater depression pump in well RW-1(X), provides hydraulic control near the riverbank and locally reverses the natural groundwater gradients (toward the river). A separate oil recovery pump is not present in RW-2(X) since significant quantities of LNAPL have never accumulated in this well.

Well RW-3(X)

Well RW-3(X) is located approximately 65 feet north of the Housatonic River and 430 feet west of Newell Street, along the riverbank near the 64X recovery system, as shown on Figure 1. RW-3(X), installed on September 13, 1999, was constructed of a 6-inch diameter PVC riser and a 10-foot long, slotted PVC and stainless steel wire wrapped screen. The well extends to a depth of 47 feet. Well RW-3(X) was specifically designed to remove the coal-tar DNAPL present in the riverbank area. Initially, DNAPL accumulations were manually pumped from RW-3(X) until the construction of an automated pumping system was completed in June 2000. Approximately 2,800 gallons of DNAPL have been removed from this well since RW-3(X) was installed.

Additional Containment/Hydraulic Control Features

In addition to the active recovery systems at East Street Area 2-South, several physical barriers have been constructed to control groundwater flow and/or restrict NAPL migration. These features include a subgrade slurry wall, a groundwater recharge pond, and a series of sheetpile containment barriers.

The slurry wall is located to the east of the eastern limb of the former river oxbow in the southeastern portion of East Street Area 2-South and was installed in August 1987. This 350-linear foot, V-shaped slurry wall (extending approximately 200 feet to the east and 150 feet to the west of the center point) is completed to an average depth of 28 feet. Caisson 64V is located immediately upgradient of the center of the slurry wall, while the groundwater Recharge Pond is located to the west. In combination, these items provide physical containment of LNAPL and assist in the hydraulic control in the area. The 64X, RW-1(X), and RW-2(X) recovery systems are located downgradient of the slurry wall to recover LNAPL present between the slurry wall and the river.

Several sheetpile containment barriers are in place along the riverbank portion of East Street Area 2-South. The largest barrier, referred to as the 64X Area Sheetpile, is located along the riverbank near the eastern limb of the former oxbow. This barrier is approximately 400 feet long and extends to a depth of approximately 28 feet. This wall primarily serves to prevent LNAPL and shallow DNAPL migration toward the river, although the western portion of the barrier also impedes deeper DNAPL migration, as it is placed below the glacial till interface. It also provides a partial barrier to groundwater which is impeded by the wall and removed by the RW-1(X), RW-2(X), and 64X(W) pumping wells. Four smaller sheetpile containment barriers (Cell G1, Cell G2, Cell G3, and Cell J1) were constructed along the riverbank portion of East Street Area 2-South during the Upper ½-Mile Reach Removal Action to address observations of NAPL during excavation activities. These barriers range from approximately 90 to 120 feet in length and extend to depths between 21 and 30 feet below grade. The Cell G1 and Cell J1 barriers are keyed into the glacial till, while the Cell G2 and Cell G3 barriers terminate above the till interface. A series of monitoring wells, consisting of a perimeter well at each end of the

barrier and a well behind the center of the barrier, were installed to monitor groundwater elevations and potential NAPL presence near each of these barriers. Finally, an approximately 130-foot sheetpile barrier extending into till to a depth of approximately 30 feet is located to the south of the 60s Complex. This barrier was installed in conjunction with remediation activities performed in the Building 68 Area.

Groundwater removed from the GMA 1 recovery systems is pumped to the Building 64G groundwater treatment facility for processing. After treatment, the majority of the water is discharged to the Housatonic River through NPDES-permitted Outfall 005. However, as part of GE's overall efforts to contain NAPL within the Site and to optimize NAPL recovery operations, a portion of the treated water discharged from the 64G facility is routed to GE's on-site recharge pond (located west of recovery well 64V). Discharge to this pond results in a higher groundwater elevation relative to the surrounding area, which serves as a hydraulic barrier to LNAPL migration. Since April 1988, the elevation of the recharge pond has been controlled via an "Electrogauge" level controller. Between April 1988 and October 1990, the elevation of the recharge pond was held at approximately 985 feet above mean sea level (AMSL). In October 1990, the elevation of the recharge pond was reduced to 984 feet AMSL. In September 1994, the elevation of the pond was reduced again to 983 feet AMSL to decrease the size of the groundwater "mound," while still maintaining the necessary hydraulic barrier. Approximately 29.85 million gallons of water were processed by the Building 64G groundwater treatment facility in fall 2003. Of this total, approximately 95 percent (28.37 million gallons) of the treated groundwater was discharged to the Housatonic River, while the remaining 5 percent (1.48 million gallons) was discharged to the Recharge Pond.

3.3 East Street Area 1-North & South

3.3.1 East Street Area 1-North

The Northside Recovery System is located on the north side of East Street, approximately 200 feet east of the intersection of Newell Street and East Street, as shown on Figure 1. This system was installed in 1979, and consists of a 6.75-foot diameter perforated steel caisson equipped with 22 six-inch diameter, 80-foot long perforated collection laterals (11 on the east side of the caisson and 11 on the west side). The laterals begin at a depth of 7.5 feet bgs and extend to 18.5 feet, and have a vertical collection range sufficient to intercept seasonal variations in the water table. Construction details for the Northside Recovery System are provided in Appendix A.

The Northside Recovery System is equipped with a groundwater extraction pump to create a cone of depression and an oil recovery pump to remove LNAPL from the groundwater surface. The Northside Recovery System discharges the pumped water to GE's Building 64G treatment facility located in East Street Area 2-South. Collected oil is removed from the caisson periodically by GE and properly disposed. Since 1980, the Northside Recovery System has removed

approximately 1,049 gallons of LNAPL. LNAPL and groundwater recovery data for this system are included in Appendix C.

3.3.2 East Street Area 1-South

The Southside Recovery System is located on the south side of East Street, approximately 400 feet east of the intersection of Newell Street and East Street. This system was installed in 1986, and consists of a perforated, pre-cast, concrete caisson extending to a depth of 16 feet.

The Southside Recovery System is equipped with a groundwater extraction pump and an oil recovery pump and essentially operates in the same manner as the Northside Recovery System in East Street Area 1-North. The groundwater extraction pump induces a cone of depression in the local water table and the oil recovery device recovers LNAPL floating on top of the groundwater. Since 1986, approximately 450 gallons of LNAPL have been removed via the Southside Recovery System.

3.4 Lyman Street Area

Three active groundwater and NAPL recovery wells (RW-1R, RW-2, and RW-3) and one former recovery well (RW-1) are located within the Lyman Street Area. The combined capture zone of these three wells extends over 350 feet along the edge of the Housatonic River, capturing and reversing groundwater flow in the vicinity. Together, these wells, in conjunction with a sheetpile barrier installed in July 2002, provide control in the prevention and abatement of bank seeps or sheens along the Housatonic River. Each of these recovery systems is described below.

Wells RW-1/RW-1R

Recovery well RW-1 is located approximately 50 feet north of the Housatonic River and 220 feet east of Lyman Street, as shown on Figure 1. RW-1 was installed on April 9, 1991, and was constructed of a 2-foot diameter stainless steel well casing with a 2-foot diameter, 10-foot long, slotted stainless steel screen installed to a depth of 18 feet. Active groundwater extraction was initiated on August 10, 1992.

Because of apparent well screen fouling, RW-1 was replaced by RW-1R for active LNAPL recovery purposes in September 1998. RW-1R, located approximately 25 feet southeast of RW-1, consists of a 1-foot diameter stainless steel well casing with a 1-foot diameter, 10-foot long, slotted stainless steel wire wound screen extending to 20 feet. Construction details for RW-1 and RW-1R are presented in Appendix A.

RW-1R is equipped with automatic level sensors for NAPL and groundwater and a centrifugal pump for groundwater extraction. LNAPL is recovered using a surface-mounted gear pump and adjustable intake hose. LNAPL recovery measures are initiated manually and NAPL is periodically removed by GE for proper disposal. Since September 1995, the extracted groundwater has been pumped directly to GE's Building 64G groundwater treatment plant for processing. Prior to that time, extracted groundwater was treated on site at a portable groundwater treatment facility. Since 1992, approximately 490 gallons of LNAPL have been removed from RW-1 and RW-1R. DNAPL also periodically accumulates at the base of well RW-1 and is manually removed and properly disposed of by GE. Over 565 gallons of DNAPL have been removed from well RW-1. Approximately two-thirds of this total was removed between 1992 and 1994.

Well RW-2

Well RW-2 is located approximately 40 feet north of the Housatonic River and 350 feet east of Lyman Street, as shown on Figure 1. This well was installed on November 5, 1992 to a depth of 22 feet, and is constructed of an 8-inch diameter stainless steel well casing with an 8-inch diameter, 10-foot long, slotted stainless steel screen. The well was activated on November 20, 1992. Well RW-2 is operated solely as a groundwater extraction well, as no free product has been observed in this well. It is equipped with an automatic groundwater level sensor and a centrifugal pump for groundwater extraction.

Well RW-3

RW-3 is located approximately 50 feet north of the Housatonic River and 70 feet east of Lyman Street, as shown on Figure 1. RW-3 was installed in July 1996, and is constructed of a 2-foot diameter stainless steel well casing with a 2-foot diameter, 11-foot long, slotted stainless steel screen. The well was activated on August 19, 1996.

RW-3 is equipped with automatic level sensors for NAPL and groundwater and a centrifugal pump for groundwater extraction/hydraulic control. LNAPL is recovered using a surface-mounted gear pump and adjustable intake hose. LNAPL recovery measures are similar to RW-1/RW-1R, in that they are initiated manually for subsequent removal and proper disposal. Extracted groundwater is pumped to the 64G groundwater treatment plant. Since 1996, approximately 2,050 gallons of LNAPL have been removed via well RW-3.

Additional Containment/Hydraulic Control Features

As part of the source control activities and Upper ½-Mile Reach Removal Action, a 400-foot long sheetpile containment barrier was constructed along the northern riverbank to the east of Lyman Street. This sheetpiling serves as a barrier to groundwater, LNAPL, and DNAPL migration, extends to a depth of approximately 23 feet below grade, and is keyed into the glacial till. Although all known occurrences of LNAPL are located to the north (upgradient) of the limits of the sheetpile barrier, DNAPL has also been detected at certain wells located to the west of the sheetpile barrier, including wells LSSC-07, LSSC-08I, and LSSC-16I.

3.5 Newell Street Area II

GE operates two automated DNAPL recovery systems (System 1 and System 2) within Newell Street Area II. Each system is composed of multiple recovery wells that are connected via a common DNAPL collection system. These two recovery systems are described below and the wells that comprise them are illustrated on Figure 1. DNAPL recovery data are summarized in Appendix D.

System 1

System 1 consists of wells NS-15, NS-30, and NS-32 located near the western corner of the Newell Street parking lot, between 50 and 100 feet south of the Housatonic River. These wells were installed between June 1995 and February 1996. Each well is constructed with a 2-inch diameter PVC well casing and an approximately 10-foot long slotted PVC screen which intersects the top of a glacial till confining unit at depths of between 35 and 37.5 feet. Construction details for these wells are included in Appendix A.

System 1 became operational on March 1, 1999. Each well is equipped with a pneumatic DNAPL recovery pump which discharges via double-wall containment piping to a 55-gallon drum located within a pre-manufactured storage building. The operation of these pumps is controlled by a timer located adjacent to the well head that can be adjusted, as appropriate, to optimize DNAPL recovery. The air compressor and electrical controls for the pumps are located in a separate equipment storage building located adjacent to the DNAPL storage building. The drums are removed periodically and appropriately disposed of by GE. Since 1999, approximately 1,950 gallons of DNAPL have been removed by System 1.

System 2

System 2 currently consists of wells N2SC-01I, N2SC-03I, and N2SC-14 located west of the Newell Street parking lot, between approximately 140 and 200 feet south of the Housatonic River. These wells were installed between October 1998 and April 2000. Originally, System 2 consisted of only well N2SC-01I, which was put into operation on July 15, 1999. Wells N2SC-02 and N2SC-03I were added to the recovery system on June 30, 2000, and well N2SC-14 was added to the system on July 10, 2000. As discussed in Section 4.5, well N2SC-02 was removed from the recovery system in August 2003 following the completion of DNAPL recovery testing due to lack of DNAPL entering the well.

Each well is constructed with a 2-inch diameter PVC well casing, a 7- to 10-foot long slotted PVC screen, and a 1-foot DNAPL collection sump installed to the top of the till confining unit at depths of between 36 and 38 feet. Construction details for these wells are included in Appendix A.

The System 2 recovery wells are equipped with pneumatic DNAPL recovery pumps which discharge via double-wall containment piping into four 1,000-gallon steel tanks located within a portable box trailer enclosure. The box trailer is located within the GE parking lot, adjacent to well N2SC-01I. The operation of the pumps is controlled by a timer located adjacent to the well head that can be adjusted, as appropriate, to optimize DNAPL recovery. The air compressor installed for System 1 also supplies the air for the pneumatic recovery pumps in System 2. Self-powered vacuum disposal vehicles are used to periodically drain the four steel tanks and transport the DNAPL for appropriate off-site disposal. Since 1999, approximately 31,000 gallons of DNAPL have been recovered via System 2.

4. Fall 2003 NAPL Monitoring and Recovery Results

4.1 General

This section describes the results of the NAPL/groundwater elevation monitoring and NAPL recovery activities performed by GE within GMA 1 from July through December 2003 (henceforth referred to as fall 2003), including the October 2003 semi-annual monitoring event and other routine monitoring conducted during that period. These activities primarily include the operation of the GMA 1 automated NAPL and groundwater recovery systems, the routine measurement of groundwater elevations and NAPL thickness (if present), and the manual removal of NAPL if sufficient thickness is present. These activities were performed in accordance with GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP).

The results of these activities are summarized below for each RAA within GMA 1. GE has also prepared several tables and figures to assist in the interpretation of the fall 2003 monitoring data. The tables show: the amounts of LNAPL and DNAPL, as well as groundwater, recovered from the automated recovery systems on a month-by-month basis in fall 2003 and during the same time period in 2002 (Tables 3 and 4 for LNAPL and DNAPL, respectively); seasonal groundwater elevations and the type of monitoring (based on well screen placement) applicable to each well in fall 2003 (Table 5); groundwater elevation data and LNAPL/DNAPL thickness observations for each well within GMA 1 during the fall 2003 semi-annual monitoring event (Table 6); and a summary of groundwater elevation and NAPL observation/recovery data obtained from all monitoring activities performed within GMA 1 in fall 2003 (Table 7). The figures present LNAPL and DNAPL recoveries in graphical form (Appendices B, C, and D); a groundwater elevation contour map based on the water table data collected during the fall 2003 semi-annual monitoring event (Figure 10); and the approximate extent of LNAPL and DNAPL within GMA 1 in fall 2003 (Figures 11 and 12, respectively). The complete fall 2003 monitoring data set is provided in Appendix E, along with graphs illustrating groundwater elevations and NAPL thicknesses for selected GMA 1 wells. Boring logs and well construction diagrams for new NAPL monitoring wells are provided in Appendix F. Finally, the data obtained from hourly data logger monitoring from behind the Cell G2 sheetpile containment barrier are compared with corresponding river elevations and discharge data in Appendix G.

It should be noted that in comparing the fall 2003 data with the fall 2002 data, the comparisons of groundwater elevation data were based on the water table data collected during the fall semi-annual monitoring events, while the NAPL recovery comparisons utilize the volumes recovered over the entire July-December periods of each year. These comparisons are discussed in the following sections.

Approximately one week prior to the semi-annual monitoring event at these areas, GE monitored all wells in these areas where the presence of NAPL was noted during the prior two semi-annual events and manually removed any NAPL which

was present. During the actual semi-annual monitoring event, if NAPL was found in a well that was not addressed during the bailing round, GE removed the NAPL and returned to monitor the well a week later. The purpose of the bailing round was to ensure that any NAPL present in a well is representative of that in the surrounding formation and not remnant oil which may have been trapped in the well since the prior semi-annual event. These bailing round activities provide a consistent basis to compare the current presence and thickness of NAPL between wells that may otherwise be subject to varying NAPL removal schedules.

A groundwater elevation contour map prepared utilizing the fall 2003 semi-annual monitoring data from water table wells is presented on Figure 10. Typical of results from prior monitoring events, overall groundwater flow patterns converge toward the Housatonic River from both the north and south, 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.

On September 10-12, 2003, a bank inspection along the Housatonic River was conducted to examine the riverbank area adjacent to GMA 1 for the presence of NAPL seeps or sheens. Per Condition 2 of EPA's June 30, 2003 EPA approval letter, riverbank inspections are required to be conducted on a semi-annual basis and after recession of a high flow event (i.e., greater than 1,000 cubic feet per second), as recorded at the Coltsville USGS gauging station. The only such occurrence was recorded in mid-August 2003, so the September inspection allowed potential impacts from that high-flow event to be observed. This inspection was also conducted in conjunction with a monitoring visit related to the Upper ½-Mile Reach of the Housatonic River restoration project, which included inspections to assess the condition of the vegetative community and the aquatic habitat structures that were planted or installed following performance of removal actions in the river. No NAPL seeps or sheens were observed during this inspection. However, it was noted that river levels were higher than normal due to EPA's use of a diversion dam during its performance of remedial activities on the 1½ Mile Reach of the river. The dam is located just downstream of GMA 1, near the Elm Street bridge. An abnormally wet fall season further contributed to the rise in river levels, resulting in the submergence of certain outfalls from the facility. As discussed below, groundwater elevations showed an overall increase across the GMA in fall 2003 as compared to the prior fall and, as a result, the automated recovery systems pumped considerably more groundwater to maintain depression levels.

4.2 East Street Area 2-North & South, 20s, 30s, and 40s Complexes

4.2.1 40s Complex

Given the relatively small size of the area and prior NAPL investigation results, only one well (RF-4) and one recovery system within this area are subject to routine groundwater monitoring. GE monitored well RF-4 on two occasions and

found the groundwater elevation to be approximately 6.4 feet higher than the fall 2002 levels. The fall 2003 monitoring results are summarized in Table 7 and the complete data set is included in Appendix E.

The only NAPL known to be present in this RAA is in an isolated area associated with the Building 42 elevator shaft. GE inspected the recovery system within this elevator shaft on a weekly basis during fall 2003. Only a thin film of LNAPL was observed during those monitoring events and approximately 0.25 gallons of LNAPL were removed from the recovery well in fall 2003. Approximately 0.206 gallons of LNAPL were removed from this location during the same time period in 2002.

In the Spring 2003 NAPL Monitoring Report, GE proposed to remove the skimmer from the elevator shaft and to decommission the elevator shaft itself. Building 42 is slated for demolition in the near future; and since the vast majority of oil has already been recovered from the elevator shaft, it appears that replacement of the existing system after building demolition is not necessary. Therefore, in preparation for building demolition activities, GE proposed to remove the skimmer, fill the elevator shaft with cement/bentonite grout up to the top of the cylinder, and to fill the upper vault area with clean backfill materials obtained from an approved source. EPA approved that proposal and GE initiated plans for the decommissioning activities in February 2004. Those activities are expected to be completed in March 2004.

4.2.2 30s Complex

GE collected groundwater elevation data from eight monitoring wells in the 30s Complex. Groundwater elevations were generally higher (approximately 1.4 feet on average) in fall 2003 than were observed in this area during the prior fall. No NAPL was observed at any of the 30s Complex wells, including well ES2-19, which is located downgradient of the Building 42 elevator shaft, and well GMA1-10, which was installed in response to the observation of NAPL in a soil sample collected during pre-design soil investigations at this location.

4.2.3 20s Complex

GE measured groundwater elevations and assessed the presence of LNAPL at 16 monitoring wells located within the 20s Complex during fall 2003. Groundwater elevations were higher (approximately 4.1 feet, on average) this fall than in fall 2002. Minor amounts of LNAPL were observed in two monitoring wells (II and Y) during the fall semi-annual monitoring event. Three other wells (CC, FF, and U) had NAPL during the bailing round or on other occasions in fall 2003. For comparison, LNAPL was observed at wells CC, FF, U, II, and QQ-R in fall 2002, either during the semi-annual monitoring event, during the bailing round, or on other occasions. In addition, the presence of LNAPL has been recorded at well Y during monitoring events in previous years.

Each well containing LNAPL was bailed as part of the fall semi-annual monitoring event. Approximately 0.088 gallon of LNAPL was removed. The fall 2003 monitoring results for the 20s Complex are summarized in Table 7 and a detailed breakdown are provided in Appendix E.

4.2.4 East Street Area 2-South

Groundwater elevations at East Street Area 2-South in fall 2003 were, on average, approximately 2.5feet higher than the elevations measured during the fall 2002 monitoring event. LNAPL was observed in 32 wells during the fall semi-annual monitoring event as listed in Table 6 and in 7 additional monitoring wells (during the bailing round or other routine monitoring activities) as summarized in Table 7. The fall 2003 extent of LNAPL is illustrated on Figure 10 and is generally similar to that observed in fall 2002, although a few variations from the prior fall were observed. The most pronounced variation in the extent was due to LNAPL observed in the recently-installed monitoring wells GMA1-15 and GMA1-16. LNAPL was first observed in these two wells on July 9, 2003 and EPA was immediately informed those observations. The primary LNAPL area occurs near the former location of the tank farm area and former manufactured gas plant and then diverges to the south, roughly corresponding to the location of Former Oxbow H.

Several active LNAPL recovery systems are present within East Street Area 2-South, as discussed in Section 2.3. Approximately 31.2 million gallons of groundwater and 13,700 gallons of LNAPL were removed by the East Street Area 2-South recovery systems in fall 2003. This volume of recovered LNAPL is greater than the amount recovered in fall 2002, when approximately 19.5 million gallons of groundwater and 8,840 gallons of LNAPL were recovered. As in prior years, no LNAPL was recovered via well RW-2(X).

GE removed a total of approximately 6.9 gallons of LNAPL from East Street Area 2-South during the course of routine monitoring and manual recovery activities in fall 2003, compared to approximately 8.5 gallons during fall 2002.

Approximately 0.5 gallon of the removed LNAPL was collected from well 13, where an enhanced monitoring and LNAPL removal program (twice-weekly) was conducted through the end of October 2003. Graphs summarizing LNAPL monitoring and manual recovery results for well 13 are included in Appendix E.

The extent of DNAPL in fall 2003 was also largely unchanged from fall 2002. The presence of DNAPL was recorded in two monitoring wells (E2SC-03I, E2SC-17) during the fall semi-annual monitoring event, as shown on Figure 12. Each of these wells was known to contain DNAPL based on prior monitoring events. These wells are located along the eastern limb of Former Oxbow H, located north of the Housatonic River. DNAPL was also observed in two recovery systems in the eastern limb of the oxbows (64V, RW-3(X)) and one recovery system (RW-1(S)) along the western limb of the oxbow. Two other wells (ES2-17 and HR-C-RW-1) had DNAPL during the bailing round or on other occasions in fall 2003.

Approximately 330 gallons of DNAPL were recovered from recovery well RW-3(X) in fall 2003. For comparison, approximately 300 gallons were removed by this well in fall 2002.

No DNAPL was manually recovered from well 64V. Although significant thicknesses of DNAPL were observed in wells E2SC-03I and E2SC-17, GE did not recover DNAPL from these wells during fall 2003, due to the inability of pumping equipment to remove the viscous coal-tar DNAPL in these wells. Since these wells are located near the RW-3(X) DNAPL recovery well, DNAPL in this area is addressed by that recovery well rather than from manual removal activities.

Three new LNAPL monitoring wells (GMA1-17E, GMA1-17W, and 26RR) were installed at East Street Area 2-South in fall 2003. The boring logs and construction diagrams for these wells are provided in Appendix F. The GMA1-17E and GMA1-17W well pair was initially planned to be a single monitoring well, but the drill rig utilized during the initial installation attempt reached refusal slightly below the water table. At that point a decision was made to install the well and assess additional actions once water levels stabilized within the well. Subsequent monitoring at that well (designated as GMA1-17E) showed that water levels should be within the screened portion during high groundwater periods, but may fall below the well during drier seasons. A second well (GMA1-17W) was installed at an adjacent location and screened at a deeper interval, but still straddling the fall water table. The combination of these two wells will allow LNAPL monitoring to take place over large variations in seasonal water levels. LNAPL has been observed in well GMA1-17W, but none has entered well GMA1-17E to date. EPA was informed of the initial LNAPL observation at this well on October 24, 2003. After an initial period of weekly monitoring, these two wells have been added to GE's monthly NAPL monitoring program.

In addition, replacement well 26RR was installed in East Street Area 2-South on October 9, 2003, near the intersection of East Street and Merrill Road. This well was installed at an EPA-designated location as a replacement for well 26R, which

was located within the limits of the Future City Recreational Area and decommissioned as part of construction activities there. LNAPL was detected in well 26RR, which is located within a known LNAPL area, in fall 2003. EPA was notified of the initial LNAPL observation on October 24, 2003 and similar to well GMA1-17W, the well was added to GE's monthly NAPL monitoring program after an initial period of weekly monitoring.

Finally, in Condition No. 7(b) of the June 20, 2003 conditional approval letter, EPA noted certain apparent anomalies in NAPL presence, including an area with no measurable LNAPL at well 1R, despite the location of this well in the interior of a known LNAPL area. In response, in the Spring 2003 NAPL Report, GE proposed to re-develop well 1R to determine whether the screen may be clogged and preventing LNAPL from entering the well. This well was re-developed on October 7, 2003 by surging the well screen with a positive displacement pump followed by groundwater removal with a peristaltic pump until clear groundwater was produced. Although no LNAPL was detected with an interface probe utilized during these activities, odors and sheens were noted on the groundwater that was removed, and LNAPL staining was observed on the downhole equipment. The well was monitored two weeks after re-development as part of the fall semi-annual monitoring round and no LNAPL was observed. However, based on the observations made during re-development, this well is interpreted to be located within the surrounding LNAPL area and the current lack of LNAPL may be attributed to a slow response to the clearing of the well screen. GE will continue to monitor this well in its semi-annual program.

4.2.5 East Street Area 2-North

GE measured groundwater elevations and NAPL thickness (if present) at 26 monitoring wells within East Street Area 2-North in fall 2003. Groundwater elevations averaged approximately 2.6 feet higher than in fall 2002. LNAPL was observed in five monitoring wells (11-N, 14-N, 16-N, 23-N, and 24-N) during the fall 2003 semi-annual monitoring event. Two other wells (17-N and 95-12) had NAPL during the bailing round or on other occasions in fall 2003. LNAPL was present at each of these wells during fall 2002. Well 5-N is also routinely monitored for the presence of DNAPL. On five occasions, DNAPL was observed in well 5-N at thicknesses between 0.01 to 0.32 feet. DNAPL was observed during the fall monitoring round at a thickness of 0.01 feet. No DNAPL was observed at the other wells in this area.
Each of the wells containing LNAPL was bailed as part of the semi-annual monitoring event. Approximately 1.0 gallon total of LNAPL was removed from the wells in this area during the bailing round. In addition, approximately 0.01 gallons of DNAPL was recovered from well 5-N.

4.3 East Street Area 1-North & South

4.3.1 East Street Area 1 - North

GE monitored 17 wells within East Street Area 1-North and the North Caisson in fall 2003 and found that groundwater elevations were approximately 1.7 feet higher compared to the fall 2002 data. LNAPL was observed in five monitoring wells (105, 106, 107, 131, and ES1-8) and the North Caisson during the fall semi-annual monitoring event and in one other well (49) during other monitoring rounds. Three of these wells (105, 106, and 131) are routinely monitored and bailed, if necessary. The other wells are located within the vicinity of either the Northside Recovery System (wells 107 and ES1-8) or the Southside Recovery System (well 49).

Approximately five gallons of LNAPL were recovered by the Northside Recovery System and approximately 171,000 gallons of groundwater were removed. During the same time period in 2002, the Northside Recovery System pumped approximately 108,400 gallons of groundwater and recovered approximately 58 gallons of LNAPL.

Each of the wells containing LNAPL was bailed as part of the semi-annual monitoring event, as well as during monthly inspections if LNAPL was observed. Approximately 0.7 gallons of LNAPL were manually removed during routine monitoring activities in fall 2003.

4.3.2 East Street Area 1-South

GE monitored 20 wells located within East Street Area 1-South and the South Caisson during fall 2003. Groundwater elevations were approximately 2.1 feet higher in this monitoring round, on average, than in fall 2002. LNAPL was observed in five monitoring wells (34, 35, 45, 72, and 76). LNAPL was also observed in all of these wells during fall 2002. Wells 34 and 72 were also monitored on a monthly basis and bailed if any LNAPL was observed.

Approximately 2 gallons of LNAPL were recovered by the Southside Recovery System and approximately 530,000 gallons of groundwater were removed. During the same time period in 2002, approximately 349,270 gallons of groundwater and 18 gallons of LNAPL were recovered.
Each of the wells containing LNAPL was bailed as part of the semi-annual monitoring event and/or during routine monitoring if LNAPL was observed. Approximately 0.14 gallon of LNAPL was manually removed during these activities.

In addition to these routine LNAPL monitoring activities, well 72R was recently installed to the west of existing well 72. GE had previously proposed to replace well 72 with a larger, 4-inch diameter well and to perform a pumping test. However, due to overhead obstructions, well 72R could not be placed at the well 72 location and was installed in the East

Street right-of-way in front of the adjacent property to the west of well 72. No NAPL was observed at this location during installation of this well. Moreover, limited quantities of groundwater were observed to be present in the formation, indicating that the location would not be an effective groundwater extraction point. GE initiated development of this well in December 2003 by surging the well screen as groundwater was removed with a positive displacement pump. Water levels were measured during this pre-development activity at nearby wells 72, 33, 34, and ES1-8 to determine the extent of any impact on area groundwater elevations from the removal of groundwater from well 72R. No decrease in water levels was observed in any of the wells monitored. GE was unable to complete the development of this well due to the onset of a winter storm and has postponed a return to this roadside well until snowfall and plowed snow in the area is cleared and a workspace around the well can be safely established. Upon return to complete development, GE will again monitor water levels in adjacent wells as well 72R is pumped to assess whether a larger scale pump test is necessary at this location.

Well 72R will be monitored on a monthly basis as part of the NAPL monitoring program and any recoverable accumulations of NAPL (none has been observed to date) will be removed from the well. The boring log and construction diagram for this well are provided in Appendix F.

4.4 Lyman Street Area

GE monitored 44 Lyman Street Area wells during fall 2003. Groundwater elevations were an average of approximately 2.5 feet higher than measured in fall 2002. LNAPL was observed in nine monitoring wells (LS-2, LS-13, LS-21, LS-23, LS-35, LSSC-06, RW-1, RW-1R, and RW-3) during the fall 2003 monitoring event and in two other monitoring wells at other times during fall 2003. The extent of LNAPL is slightly larger to that observed last fall in this area due to observed LNAPL at well LS-13, and it roughly mimics the extent of Former Oxbow Area D. LNAPL previously has been observed in well LS-13 during prior monitoring events. DNAPL was observed in seven wells (LS-04, LS-34, LS-38, LSSC-07, LSSC-08I, LSSC-16I, and RW-1) during the fall semi-annual monitoring event, but it was also observed in four other wells during routine monitoring activities. The extent of DNAPL at this area is also similar to that recorded during fall 2002.

Approximately 2,185,000 gallons of groundwater and 70 gallons of LNAPL were removed in fall 2003 from the active recovery systems. All of the LNAPL volume was removed by recovery well RW-3. For comparison, in fall 2002, 1,365,480 gallons of groundwater and 92 gallons of LNAPL (73 gallons by well RW-3 and 19 gallons by well RW-1R) were recovered. No LNAPL was recovered via well RW-2 during either year, nor has any LNAPL historically been observed at this location.

Approximately 0.3 gallon of LNAPL was manually removed from monitoring wells at the Lyman Street Area during routine monitoring activities in fall 2003, compared to approximately 1.5 gallons during the prior fall. GE also removed approximately 3.8 gallons of DNAPL during routine fall 2003 monitoring events, which is less than the 18 gallons manually removed in fall 2002.

Per Condition No. 1(a) of EPA's June 20, 2003 conditional approval letter, GE monitored well LSSC-08I on a weekly basis in fall 2003 and intended to collect DNAPL samples for analyses of physical and chemical parameters. However, sufficient volumes of DNAPL to conduct such analyses have not been observed in this well to date. As shown in Table 7, DNAPL was observed on only 13 of 24 monitoring rounds at this well and at thicknesses ranging between 0.01 and 0.06 feet.

In addition, GE installed one replacement well (MW-4R) in fall 2003. This well was installed as a replacement for damaged well MW-4, which was used primarily for groundwater quality monitoring purposes, but also for groundwater elevation and LNAPL monitoring activities. Groundwater elevations at well MW-4 have been anomalously high during each groundwater elevation monitoring event. Well MW-4 is located in a high traffic area utilized as part of the Removal Action for the 1½ Mile Reach of the Housatonic River and the surface seal of the well appeared to be compromised. Replacement well MW-4R was installed to the east of the MW-4 well location, adjacent to the south wall of the building at 10 Lyman Street so that it would not be impacted by traffic along the access road. The location of the replacement well was approved by EPA. A monitoring well log for the new well is presented in Appendix F.

4.5 Newell Street Area II

GE monitored 31 wells at Newell Street Area II during fall 2003. Groundwater elevations were, on average, approximately 2.8 feet higher compared to fall 2002. LNAPL was observed in one monitoring well and DNAPL was recorded in seven wells, as summarized in Table 7 and Appendix E. The extent of LNAPL is similar to that previously observed in this area. Specifically, a pocket of LNAPL is present near well NS-10 (see Figure 10). LNAPL was not observed in adjacent well NS-16 during the fall 2003 monitoring event or during other routine monitoring activities, as summarized in Table 7. DNAPL was observed in the same wells where its presence was recorded in fall 2002, with the addition of N2SC-16.

Approximately 1,430 gallons of DNAPL were recovered by the two recovery systems at Newell Street Area II in fall 2003. Most of this volume was removed via System 2 (1,190 gallons), while approximately 237 gallons of DNAPL were removed by System 1. As shown in Table 4, DNAPL recovery was significantly higher than the amount recovered during

the same time period in 2002, when approximately 390 gallons and 67 gallons of DNAPL were recovered by System 2 and System 1, respectively.

GE also manually removed DNAPL if thicknesses of greater than 0.5 feet were measured during routine monitoring events. In fall 2003, approximately 14.2 gallon of DNAPL was manually recovered, compared to approximately 0.32 gallons in fall 2002. The majority (approximately 9 gallons) of the recovered DNAPL was removed from well N2SC-14.

Less than 0.1 gallon of LNAPL was manually removed from Newell Street Area II wells during fall 2003, compared to less than 0.001 gallon removed in fall 2002. All of the LNAPL volume came from well NS-10.

From August 13, 2003 to September 4, 2003, GE performed a DNAPL recovery assessment at System 2, which consists of wells N2SC-01I, N2SC-02, N2SC-03I, and N2SC-14. Specifically, GE took each well off-line, in turn, surged the well screen to remove any sediments that may be loosened from the filter pack around the well, and re-developed the wells. GE then monitored each well for DNAPL, and performed a DNAPL recovery test similar to testing that was performed prior to the addition of each well to the automated recovery system. Any DNAPL accumulations were removed from the wells on approximately an hourly basis for a two- to three-day period. At the conclusion of each recovery test, GE performed a brief assessment of the field data, and at three of the four wells, re-installed the pumping equipment and connected the well back into System 2. However, since no DNAPL was observed during the recovery test at well N2SC-02, GE has continued to perform manual monitoring at this location, rather than re-connecting the automated recovery system. The results of the DNAPL recovery tests are provided in Appendix H, along with summaries of similar tests performed at these wells between February 1999 and April 2000, prior to the initial installation of the recovery pumps. The amount of DNAPL recovered from each well was significantly less than was removed during the previous tests, but DNAPL still consistently returned to the three wells that were re-connected to the automated recovery system. As during the initial testing, well N2SC-01I was found to be the most productive well in terms of DNAPL recovery, followed by well N2SC-14 and N2SC-03I.

As noted above, DNAPL recovery from the System 2 wells increased in fall 2003 following completion of the DNAPL recovery testing, despite the removal of well N2SC-02 and down time as wells were taken off line for testing. This increase may be attributed to the well surging and re-development activities performed prior to the DNAPL recovery tests. However, recovery from System 1 (where no well rehabilitation activities were performed) also increased in fall 2003 by approximately the same relative amount (i.e., approximately triple the volume recovered in fall 2002).

4.6 Newell Street Area I

GE collected groundwater elevation data from one monitoring well (IA-9R) at Newell Street Area I during fall 2003. These monitoring results are summarized in Table 7 and the actual data are provided in Appendix E. The groundwater elevation was approximately 2.9 feet higher than measured in fall 2002. Consistent with prior investigations, no NAPL was observed at Newell Street Area I.

5. Effectiveness Evaluation and Proposed Program Modifications

5.1 General

This section discusses the effectiveness of the fall 2003 NAPL monitoring activities and proposes modifications to the existing NAPL monitoring and recovery program at GMA 1. Overall, the ongoing NAPL recovery operations at GMA 1 have proven effective in removing LNAPL and DNAPL from the subsurface and preventing NAPL migration. Approximately 958, 000 gallons of NAPL have been removed from this area since 1975, and the lateral extent of NAPL, particularly LNAPL in East Street Area 2-South, has decreased significantly. Of the total amount of NAPL collected since 1975, approximately 95% was LNAPL collected from East Street Area 2-South.

Although the existing NAPL recovery efforts have been very effective at removing both LNAPL and DNAPL and controlling its migration, GE continues to evaluate potential enhancements to its current program. Several such enhancements were implemented since the last fall NAPL monitoring report was submitted, including:

- Installation of pumps within and outside of the steel sleeve around the upper portion of Caisson 64S to allow for increased pumping from this system;
- Continued monitoring of NAPL flow meters to assess LNAPL recoveries from the 40R, 64R, 64S, and RW-1(S) recovery systems;
- Installation of eight new monitoring wells within GMA 1 (in addition to 12 new wells installed at Silver Lake, which are addressed separately in reports on the Silver Lake RAA);
- Monitoring of a transducer and data logger in a river monitoring point near the Cell G2 sheetpile containment barrier; and
- Performance of DNAPL recovery testing at the Newell Street Area II System 2 wells.

An overall increase in groundwater elevations was observed at GMA 1 in fall 2003 as compared to fall 2002. This increase likely caused the amount of groundwater removed by the automated systems during the six-month evaluation period to increase by over 13 millions gallons, as compared to a similar time period in 2002. Although some systems exhibited similar or decreased LNAPL recoveries in fall 2003 as compared to fall 2002, in most cases, the increase in overall groundwater removal produced corresponding increases in NAPL recovery. During the six-month fall evaluation period in 2003, approximately 15,500 total gallons of NAPL were removed from GMA 1 as compared to 7,400 gallons in

2002. The graphs in Appendix C show historical LNAPL recovery compared to groundwater recovery, while historical DNAPL recovery results are displayed in Appendix D.

LNAPL within East Street Area 2-South generally appears to be recovered in proportion to the amount of overall groundwater pumping by the recovery systems, while LNAPL recovery at other areas (e.g., East Street Area 1-North and Lyman Street Area) does not appear to correlate well with either high or low groundwater conditions. LNAPL recovery rates in these areas may be more related to the physical properties of the particular LNAPL and/or localized hydrogeologic characteristics. For example, the Lyman Street LNAPL has been shown to have a relatively high viscosity that may influence its recovery potential regardless of water table conditions. An alternative explanation is that there are lesser quantities of LNAPL present in East Street Area 1-North and South and in the Lyman Street Area, so that changes in the water table do not significantly affect the already-low recovery.

The observed increase in overall groundwater elevations would not normally be anticipated to have affected DNAPL recovery at the GMA 1 automated DNAPL recovery systems. Generally, mobile DNAPL does not occur near the top of the water column, so fluctuations in water table elevation would not significantly impact DNAPL mobility or recovery rates.

With respect to DNAPL physical properties and influence on recovery, the less viscous DNAPL is more readily recovered. This is evident by comparing the relatively high recovery rates of low-viscosity DNAPL from the Newell Street Area II recovery systems with the lower recovery of the more viscous coal-tar DNAPL from East Street Area 2-South. The existing specific gravity data are too variable to infer any DNAPL migration characteristics due to the presence of multiple-component DNAPLs in several areas. The only generalization that can be made is that the DNAPL consisting primarily of PCBs is typically denser but less viscous than coal-tar or mixed DNAPL.

As previously stated, several enhancements were implemented since the last fall NAPL monitoring report was submitted. While these recently implemented measures at East Street Area 2-South will require additional time to be evaluated, GE has identified certain other enhancements that are proposed in the following sections.

5.2 Assessment of Automated NAPL Recovery Systems and Proposed Program Modifications

To evaluate the overall performance of existing NAPL recovery systems within GMA 1, each individual recovery system is discussed below. Where warranted, additional activities to evaluate or enhance the performance of these systems are proposed.

5.2.1 East Street Area 2-South and 40s Complex

40s Complex

Approximately 0.25 gallons of LNAPL was recovered by the skimmer in the Building 42 elevator shaft in fall 2003, and NAPL has not been observed elsewhere in the 40s Complex or in adjacent downgradient areas. As discussed in Section 4.2.1, this building is slated for demolition in the near future; and EPA has approved GE's proposal for the decommissioning of the elevator shaft in preparation for building demolition activities. In February 2004, GE initiated plans to perform the decommissioning activities.

Although no migration of NAPL from this release has been detected in downgradient monitoring wells, GE will continue to monitor downgradient well ES2-19 as part of its semi-annual monitoring program.

East Street Area 2–South

The volume of LNAPL recovered from the East Street Area 2-South automated recovery systems was more than double the volume removed during fall 2002. The volume of groundwater removed by the systems also increased by a similar amount. The 64V system is the highest volume LNAPL-producing system in GMA 1 and, in conjunction with the nearby slurry wall, provides very effective collection and hydraulic control of LNAPL in this area. Although the production rate has declined since the peak recoveries achieved in the initial years of operation (i.e., 1988 to 1993), such a decline is to be expected and Caisson 64V still removed more LNAPL in 2003 than any other GMA 1 system. As illustrated in the tables and graphs contained in Appendix G, LNAPL recovery efficiency increased steadily during the course of fall 2003, following a similar pattern to that observed in prior years. Therefore, in light of the success of Caisson 64V, no adjustments to this recovery system are proposed at the present time.

Previously, the remaining East Street Area 2-South automated systems utilized common holding tanks, so accurate contributions of individual wells/caissons could not be determined. In fall 2002, GE instituted measures (i.e., installation of NAPL flow meters or additional record keeping) to identify the quantity of LNAPL being removed from several of these systems. Specifically, LNAPL recovery volumes at the previously-paired 64X/RW-1(X), 64R/40R, and 64S/RW-1(S) systems are no longer combined as of October 2002, November 2002, and December 2002, respectively. Since these modifications were made in late fall of 2002, a comparison of the separately-tracked recovery data in fall 2003 cannot yet be made. Therefore, for comparison purposes, GE has calculated LNAPL recovery volumes and efficiency as these systems were previously combined. Evaluations of the recovery data since separate tracking began are also presented below.

Approximately 10.9 million gallons of groundwater were removed from the 64S/RW-1(S) recovery systems as compared to approximately 5.9 million gallons of groundwater removed from this well in fall 2002. NAPL removal from the 64S/RW-1(S) systems was also higher in fall 2003, by approximately 33%. The LNAPL recovery efficiency of the combined systems was slightly below that observed in prior years, primarily due to the downtime of the 64S system while upgrades were being made, followed by a period of limited recovery after start up as the cone of depression was re-established around the well. A similar period of low LNAPL recovery was observed after the system was modified in fall 2002. Since December 2002, the first month when separate NAPL recoveries were tracked for wells 64S and RW-1(S), approximately 90% of the LNAPL recovered, but only 30% of groundwater removed from these two systems, was via caisson 64S. The majority of the groundwater is typically removed from well RW-1(S), but no prior data are available to assess the significance of the amount of LNAPL recovered from this well. As such, GE proposes no additional modifications to the 64S or RW-1(S) systems until more LNAPL recovery data is collected and evaluated.

The volumes of LNAPL and groundwater removed from the 64R/40R recovery systems were each approximately three times that recovered in fall 2002. All recovery was from the 64R caisson; no LNAPL has been recovered from well 40R since February 2003. The historical LNAPL recovery efficiency data presented in Appendix G for this combined system is quite variable, presumably due to the fact that no groundwater is removed by the skimmer in well 40R, resulting in large changes in the calculated efficiency based on variations in LNAPL recovery from the well. Since separate tracking was initiated, the LNAPL recovery efficiency of caisson 64 has varied from month to month, but has followed a slight upward trend. Although no LNAPL recovery has been tracked to well 40R in recent months, no changes to the recovery system are proposed at this time. However, as discussed below, GE is proposing to conduct LNAPL recovery testing at two wells in East Street Area 2-South to assess the feasibility of installing automated LNAPL recovery systems. If well 40R continues to be unproductive, GE may propose to remove the skimmer system and place it in one of the wells subject to LNAPL recovery testing (depending on the results of the tests).

The 64X/RW-1(X) systems were the only LNAPL recovery systems at East Street Area 2-South where a decrease in LNAPL recovery was recorded in fall 2003 compared to fall 2002. However, the decrease was only by 33 gallons, while approximately1.57 million gallons more water was removed by these wells. These systems are the least efficient for LNAPL recovery as they primarily serve a hydraulic control function near the riverbank and only small amounts of LNAPL occur. Since LNAPL only sporadically enters these wells, particularly well RW-1(X), the historical LNAPL recovery efficiency data does not show a clear trend. The 64X/RW-1(X) recovery systems appear to be functioning as effective hydraulic control points that also intercept LNAPL when available. Therefore, despite the slight decrease in LNAPL recovery in fall 2003, GE does not propose any modifications to these systems.

The volume of DNAPL recovered from recovery well RW-3(X) in fall 2003 was approximately 11% greater than the volume removed by this well in fall 2002. However, this comparison is biased by lower than normal recoveries during one month in 2002. Otherwise, DNAPL recovery volumes have remained relatively consistent on a month-to-month basis since fall 2000. Therefore, there is no need to modify this recovery system at this time.

As discussed in Section 4.2.4, LNAPL was found in new wells GMA1-15 and GMA1-16, which were installed in response to observations during pre-design soil investigations at East Street Area 2-South, in fall 2003. Well GMA1-15 was installed at East Street Area 2-South pre-design investigation grid node RAA4-I19 and well GMA1-16 was placed at grid node RAA4-K23. These wells are located just downgradient of the previously-mapped extents of LNAPL along the western limb of former Oxbow H and downgradient of the NAPL pocket in the former Scrap Yard area south of Building 64. There are currently no other monitoring wells located in this area to further delineate the extent of LNAPL in the subsurface (although coverage further downgradient along the riverbank is provided by the Cell G2 and Cell G3 sheetpile containment barriers and associated monitoring well networks). However, pre-design soil borings RAA4-K19, RAA4-K21, RAA4-M19, RAA4-M21, and RAA4-M23 were installed downgradient of these wells during the pre-design investigation at East Street Area 2-South. Soil boring RAA4-K25 was also installed at a cross-gradient location near well GMA1-16. The boring logs for these locations are provided in Appendix F and the only potential indications of the presence of NAPL was a strong petroleum odor and elevated photoionization detector readings at the base of boring RAA4-K21. To supplement this existing data, GE proposes to install additional soil borings and monitoring wells to further assess these NAPL observations. Specifically, GE proposes to install two exploratory soil borings at locations RAA4-K17 and RAA4-L25 identified on Figure 1. The borings will be installed to a depth of at least two feet below the water table, which is anticipated to be encountered at approximately 12- to 14-feet below grade. Soil samples will be collected for descriptive purposes and photoionization detector screening only.

These borings, in conjunction with the six nearby soil borings previously installed during the pre-design investigation for East Street Area 2-South will provide coverage across the entire area downgradient of these two new LNAPL wells. Upon completion of the soil borings, GE will review the field data and select at least two of the proposed and/or existing boring locations for potential conversion to LNAPL monitoring wells. GE will install any such wells following EPA approval of the chosen locations. The wells will be constructed with a 10-foot length of 0.02-inch slot size screens designed to intersect the water table and a size #1 filter pack. Following installation and development, GE will monitor the wells on a monthly basis and will utilize the standard NAPL monitoring and manual recovery criteria (i.e., LNAPL accumulations observed in excess of 0.25 feet and DNAPL accumulations in excess of 0.5 feet will be manually removed).

In addition to the proposed investigations to assess the extent of LNAPL in East Street Area 2-South, GE proposes to conduct LNAPL removal testing at wells GMA1-15 and GMA1-17W to assess whether the installation of an automated

LNAPL recovery system would be feasible in either of these wells. GE will remove LNAPL accumulations from these wells, initially on an hourly basis, over a two- to three-day testing period and document the rate and volume of LNAPL returning to each well. The results of this testing will be presented in the next semi-annual NAPL monitoring report.

During the LNAPL removal testing at well GMA1-15, GE will collect samples of the LNAPL for laboratory analysis of VOCs, SVOCs, PCBs, specific gravity, and viscosity. GE will also collect LNAPL samples from well GMA1-16 for analysis of the same constituent list to assess any possible relationship between the two new LNAPL observations in this area.

Finally, it should be noted that on November 19, 2003, GE and EPA reached an agreement regarding the construction of an outdoor staging area in East Street Area 2-South for the stockpiling of bank soils from the 1½ Mile Reach Removal Action. The construction of this staging area will require that wells ES2-14, ES2-15, and ES2-17 be covered with steel plates and temporarily paved over. As a result, these locations will be removed from the semi-annual monitoring program until EPA no longer utilizes the stockpile area (estimated to be approximately three years). Nearby wells 94-4, 94-5, and ES2-11 are not anticipated to be impacted, but, if these wells were to become inaccessible due to modifications to the staging area in the future, they would also be removed from the monitoring program.

5.2.2 East Street Area 1-North & South

The two East Street Area 1 recovery caissons have effectively maintained hydraulic depressions utilized to contain and capture LNAPL. The amount of water removed by each recovery system in fall 2003 was slightly increased compared to fall 2002, while LNAPL recovery from each recovery system was considerably less than the prior fall. However, the data from the prior fall is skewed by a significant increase in LNAPL recovery recorded at the Northside Recovery System in December 2002, when 55 gallons of LNAPL were removed during system maintenance activities. GE has examined boring logs from the pre-design soil investigations at East Street Area 1-North to identify whether any changes in LNAPL distribution have occurred in this area. Since all indications show that the East Street Area 1 recovery systems are containing the LNAPL within their respective areas of influence and LNAPL volumes are small, GE does not propose any modifications to these systems at this time.

As discussed in Section 4.3.2, well 72R was recently installed to the west of existing well 72, with the intention of conducting a pumping test to determine whether an additional automated recovery system would be feasible in this area. No LNAPL has entered the well since its installation and limited quantities of groundwater were observed to be present in the formation, indicating that the location would not be an effective groundwater extraction point. Monitoring conducted at nearby wells during the pre-development surging activities did not show any variation as groundwater was removed from

well 72R. GE will further assess groundwater fluctuations in this area during final development of the well and may propose to postpone the performance of a full pump test if appropriate.

In addition, Condition No. 3 of EPA's November 24, 2003 conditional approval letter requires GE to demonstrate that the constituents of LNAPL detected in well 72 do not pose an unacceptable risk to occupants of the nearby residences via volatilization and transport into indoor air. Although several LNAPL samples have been collected and analyzed from East Street Area 1-North and South in the past, only one sample has been analyzed for volatile organic compounds (VOCs). That sample was collected from the Northside Recovery System on July 31, 1996 and no VOCs were detected. The well 72 LNAPL has never been sampled, but the limited quantities of LNAPL observed in this well (typically around 0.01 feet thick) are insufficient to collect a sample for analysis.

To address this condition, GE proposes to continue to monitor well 72 and adjacent well 34 and, if sufficient quantities are observed during routine monitoring of these wells, to collect an LNAPL sample from one of these wells (preferably well 72) and analyze the sample for VOCs. In order to have enough LNAPL for sampling, the existing manual removal activities will be discontinued until an adequate LNAPL accumulation builds up. If one of these wells cannot be sampled due to insufficient LNAPL quantity prior to the fall 2004 bailing round, GE will attempt to collect a composite LNAPL sample from the two wells. If and when sampling occurs, the manual removal activities will resume. If VOCs are detected in the LNAPL sample, GE will assess the results and present a proposal to EPA for additional activities, if appropriate.

5.2.3 Lyman Street Area

As seen on the recovery graphs presented in Appendix C, following the initial surge in NAPL removal at the onset of pumping, LNAPL recovery has remained relatively consistent at each of the Lyman Street wells where NAPLs are present. No disproportionate changes in groundwater elevations or NAPL distribution have been observed behind the sheetpile containment barrier between the Lyman Street parking lot and the Housatonic River since its installation. The potential for groundwater mounding behind this barrier is limited due to the presence of the three automated recovery wells that are currently in operation in this area.

Significantly more groundwater was removed by the Lyman Street Area recovery systems in fall 2003 as compared to fall 2002, likely due to increased groundwater levels resulting from a backup of the Housatonic River at the nearby 1-1/2 Mile Reach diversion dam in combination with heavy fall precipitation. However, NAPL recoveries decreased in fall 2003, indicating that an increased groundwater pump rate does not affect the amount of NAPL recovery by the Lyman Street systems. Despite the decreased recovery, the systems have effectively contained the NAPL at Lyman Street as no new

occurrences were observed. As such, GE does not propose to make any modifications to the automated recovery systems or routine monitoring program in this area.

Per Condition No. 1(a) of EPA's June 20, 2003 conditional approval letter, GE has attempted to collect DNAPL samples for analyses of physical and chemical parameters from well LSSC-08I during the course of the routine monitoring events at this location. However, sufficient volumes of DNAPL to conduct such analyses have not been observed in this well to date. As shown in Table 7, DNAPL was observed on only 13 of 24 monitoring rounds at this well and at thicknesses ranging between 0.01 and 0.06 feet. For comparison purposes, an LNAPL thickness of approximately 0.1 feet would be required to obtain enough volume to analyze for either volatile organic compounds or specific gravity in a two-inch diameter well. Those two analyses require the least amount of sample volume to conduct; other analyses require between two and eight times this volume. GE will continue monitor this well and will collect analytical samples if possible. Priority will be given to the performance of physical properties analyses if a complete sample set cannot be collected during a single monitoring event. Unlike at well 72 in East Street Area 1-South, GE does not propose to allow NAPL to accumulate in the well to obtain analytical samples. Based on the location of this well, GE will continue to remove any recoverable accumulations of DNAPL when observed and properly dispose of quantities that are insufficient for laboratory analysis.

5.2.4 Newell Street Area II

DNAPL recovery in Newell Street Area II automated Systems 1 and 2 increased in fall 2003 as compared to fall 2002. This increase in DNAPL recovery at the two systems represents the reversal of a declining trend in recovery at this area, as seen on the recovery graphs presented in Appendix D. In light of these increases in DNAPL recovery, GE does not propose any modifications to the two recovery systems. However, based on the lack of DNAPL observed in well N2SC-02 during and since the performance of DNAPL recovery testing GE proposes to perform manual DNAPL monitoring and recovery at this location on a monthly basis, rather than re-connecting the well to the automated recovery system. DNAPL accumulations of greater than the standard criteria of 0.5 feet, if present, will be manually removed.

Overall, the monitoring/removal activities appear to be effective in reducing the volume of subsurface DNAPL and limiting the migration potential of DNAPL at Newell Street Area II, as no new occurrences of DNAPL were recorded in fall 2003. None of the monitoring wells exhibited the consistent presence of sufficient quantities of DNAPL to consider installation of additional automated recovery systems.

A manual monitoring/removal program is addressing the sole pocket of LNAPL in the vicinity of well NS-10. Given the minor amount of LNAPL present in this area, no modifications to the LNAPL monitoring or recovery programs are necessary at this time.

6. Schedule for Future Activities

6.1 General

Schedule requirements related to the baseline monitoring programs were generally identified in Attachment H to the SOW, and further clarified in the GMA 1 Baseline Monitoring Proposal and subsequent NAPL monitoring reports. Since the schedule for most of the routine groundwater and NAPL monitoring activities is unchanged from the previously-approved plan, this section provides a schedule primarily for the implementation of changes to the GMA 1 NAPL monitoring program proposed in this report, as well as for certain non-routine activities which will be conducted in the near future.

6.2 Field Activities Schedule

GE will continue to perform its routine NAPL monitoring and recovery activities in accordance with the current monitoring schedule listed in Table 2. GE will continue to operate the data logger in the Housatonic River and manually monitor the wells in the vicinity of the sheetpile barrier according to their previously-approved monitoring schedules, as shown in Table 2. As discussed in Section 4.2.1, GE has initiated plans to remove the skimmer from the Building 42 elevator shaft and to decommission the elevator shaft itself. Those activities are expected to be completed in March 2004.

The spring 2004 semi-annual bailing round and monitoring event will be conducted in April 2004. During or after performance of the semi-annual monitoring round, GE will conduct an inspection of the riverbank areas adjacent to GMA 1 for signs of NAPL seeps or sheens. The schedule of this inspection may be modified if a high flow event is recorded at the Coltsville gauging station. Additional riverbank inspections may be performed at East Street Area 2-South, Lyman Street Area, and Newell Street Area II if multiple high flow events are recorded during the spring. Those inspections, if necessary, will be conducted approximately 1-2 weeks after the high flow conditions subside.

Upon EPA approval of GE's proposals contained in Section 5.2.1, GE will:

- Install two soil borings at the proposed locations downgradient of wells GMA1-15 and GMA1-16 no later than one month following EPA approval of this report. GE will then review the results of the borings with EPA and propose at least two locations for monitoring well installations. Following EPA approval of the proposed locations, GE will proceed to install and develop the wells. Thereafter, the new monitoring wells will be added to GE's monthly NAPL monitoring program.

- Conduct LNAPL recovery testing at wells GMA1-15 and GMA1-17W approximately two months after EPA approval of this report. GE will also collect LNAPL samples from wells GMA1-15 and GMA1-16 for analysis of VOCs, SVOCs, PCBs, specific gravity, and viscosity during the time that testing is being performed at well GMA 1-15. This testing/LNAPL sampling will not be performed until after the installation of the new monitoring wells discussed above to allow an opportunity to modify the testing/sampling locations based on the results of the new well installations, if warranted.

Upon EPA approval of GE's proposal contained in Section 5.2.2, GE will attempt to sample LNAPL from well 72 (preferably) or adjacent well 34 during its routine monthly monitoring of these wells. If not enough LNAPL are present to be sampled, GE will discontinue existing manual removal activities until an adequate accumulation of LNAPL builds up. If and when sampling occurs, ordinary manual removal activities will resume. If, after a six month period, GE has been unable to obtain an adequate LNAPL sample from either well 34 or 72, GE will attempt to collect a composite sample from the two wells 72 and 34. GE anticipates that this composite sampling, if necessary, would occur during the bailing round to be performed prior to the fall 2004 semi-annual monitoring event.

Also, GE will complete the development of well 72R and conduct a limited pump test during the well development activities, as discussed in Section 5.2.2. GE plans to conduct this activity in early spring, but may expedite the schedule if weather conditions are favorable.

GE will provide EPA with 7 days notice prior to performing the soil boring installations and pump testing activities to allow the assignment of field oversight personnel.

6.3 Reporting Schedule

GE will submit the Spring 2004 NAPL Monitoring Report for GMA 1 by August 31, 2004, in accordance with the previously approved reporting schedule. That report will present the NAPL monitoring and recovery data for the period of January 2004 through June 2004.

One month prior to the submittal date for that report, GE will also prepare and submit a related report, the *GMA 1 Groundwater Quality Interim Report for Spring 2004*, which will discuss the results of the spring 2004 groundwater sampling event. GE will continue to provide the results of ongoing NAPL monitoring and recovery efforts in its monthly reports on overall activities at the GE-Pittsfield/Housatonic River Site.

Tables

TABLE 1
MONITORING WELL CONSTRUCTION SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Survey Coordinates		Ground 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)	Till/Silt Elevation (Approximate) (Feet AMSL)
	Northing	Easting									
20s Complex											
95-23	533824.00	132085.70	999.4	1,002.33	10	10	989.4	979.4	11.2	988.2	987
CC	534251.19	132927.20	998.8	998.84	16.8	15	982.0	967.0	19.4	979.4	972
EE	534244.32	133101.21	1,004.5	1004.27	20	15	984.5	969.5	24.8	979.7	974
FF	534236.98	133165.10	1,005.7	1005.70	20	15	985.7	970.7	24.8	980.9	969
GG	534237.47	133226.06	1,007.4	1007.40	20	15	987.4	972.4	25.1	982.3	973
II	534294.74	132437.51	1,007.3	1007.26	20	15	987.3	972.3	27.3	980.0	973
JJ	534286.40	132524.77	1,006.4	1006.38	23	15	983.4	968.4	26.8	979.6	968
KK	534273.98	132574.04	1,004.5	1006.61	25	15	979.5	964.5	25.2	979.3	967
LL-R	534257.60	133170.00	1,007.7	1010.59	18	15	989.7	974.7	25.8	981.9	977
N-R	534244.60	132570.22	1,008.5	1008.24	N/A	N/A	N/A	N/A	29.1	979.4	967
O-R	534098.79	132518.74	1,000.7	1000.42	N/A	N/A	N/A	N/A	16.2	984.5	965
P-R	534101.50	132615.40	1,003.0	1005.01	16.2	10	986.8	976.8	24.5	978.5	961
QQ-R	534174.50	132893.90	998.6	998.32	13	15	985.6	970.6	20.3	978.3	967
U	534111.32	132740.27	998.9	998.89	4	25	994.9	969.9	20.1	978.8	965
UU-R	533918.72	132329.71	998.0	997.70	14.5	15	983.5	968.5	20.7	977.3	965
Y	534233.56	132692.64	1,002.9	1002.86	6	30	996.9	966.9	23.9	979.0	966
30s Complex											
95-15	534225.37	131091.35	986.6	986.38	7	10	979.6	969.6	8.5	978.1	966
95-16	534082.14	131773.76	1,007.9	1007.65	14	10	993.9	983.9	15.9	992.0	988
ES2-19	534344.32	131781.79	1,007.6	1,007.22	11.5	8	996.1	988.1	14.0	993.6	1,000
GMA1-1	534349.20	131186.70	989.1	988.43	9.5	10	979.6	969.6	10.3	978.9	982
GMA1-2	533981.90	131570.50	1,007.0	1,006.75	6.2	10	1,000.8	990.8	16.3	990.7	985
GMA1-3	533679.90	131685.40	991.3	990.78	5.7	10	985.6	975.6	7.8	983.5	970
GMA1-10	533752.30	131312.70	985.1	984.86	5.21	15	979.9	964.9	8.2	976.9	965
GMA1-12	534218.00	131263.10	989.3	992.26	9.38	10	979.9	969.9	13.1	976.2	977
RF-02	533507.30	131111.20	983.4	982.43	3	15	980.4	965.4	7.1	976.4	965
RF-03	533872.30	131153.90	985.6	985.40	3	15	982.6	967.6	9.6	976.0	965
RF-03D	533879.30	131154.60	985.5	985.31	30.6	5	954.9	949.9	8.2	977.4	965
RF-16	534255.30	130931.53	988.2	987.91	7	15	981.2	966.2	9.9	978.3	967

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	Northing	Easting									
40s Complex											
RF-04	534714.97	130997.69	1,012.2	1,011.99	10	15	1,002.2	987.2	16.4	995.8	988
95-17	534485.61	130681.43	1,007.6	1,007.67	20	10	987.6	977.6	24.1	983.5	983
East Street Area 1-North											
6	534363.38	534363.38	1,003.9	1003.90	3.5	10	1,000.4	990.4	6.3	997.6	N/A
25	534255.49	134362.69	1,000.7	1000.70	2	15	998.7	983.7	5.9	994.8	991
49	534248.57	134406.54	999.9	999.90	2	20	997.9	977.9	5.5	994.4	991
52	534257.78	134216.20	999.7	999.26	2	20	997.7	977.7	5.8	994.0	990
60R	534263.60	133932.60	1,000.6	1004.03	5.41	10	995.2	985.2	7.8	992.8	985
105	534272.77	134057.88	1,002.9	1002.85	2	15	1,000.9	985.9	7.3	995.6	985
106	534277.70	134109.40	1,003.1	1004.06	3	20.00	1,000.1	980.1	7.3	995.8	985
107	534282.78	134160.80	1,003.9	1,003.86	2	15	1,001.9	986.9	6.9	997.0	986
108A	534336.66	134174.14	1,007.8	1,007.79	5	15	1,002.8	987.8	10.0	997.8	992
109A	534317.23	134068.87	1,005.5	1,005.43	5	15	1,000.5	985.5	8.2	997.4	988
118	534363.96	134345.23	1,001.5	1,001.50	2	8	999.5	991.5	4.4	997.1	993
120	534283.01	134356.93	1,001.3	1,001.30	2	13	999.3	986.3	6.0	995.3	992
127	534255.61	134421.31	1,001.1	1,001.13	3	10	998.1	988.1	6.5	994.6	992
128	534262.27	134443.76	1,001.4	1,001.41	1	14	1,000.4	986.4	6.8	994.6	991
131	534334.97	134401.77	1,001.3	1001.18	3	5	998.3	993.3	4.8	996.5	993
140	534238.61	134022.06	1,000.3	1,000.30	2	15	998.3	983.3	7.1	993.2	988
ES1-8	534257.78	134216.20	1,001.2	1,000.85	5	10	996.2	986.2	6.0	995.1	987
ES1-14	534305.55	134930.66	998.8	998.74	10	10	988.8	978.8	8.3	990.5	986
East Street Area 1-South											
31-R	534143.90	134059.50	1,000.5	1000.23	5.5	10	995.0	985.0	9.1	991.4	991
33	534197.32	134184.99	999.5	999.50	3	20	996.5	976.5	6.0	993.5	982
34	534204.90	134261.79	999.9	999.90	3	20	996.9	976.9	5.9	994.0	983
35	534216.67	134377.60	1,000.2	1000.15	3	20	997.2	977.2	5.9	994.3	990
37R	533949.60	133932.60	989.0	988.79	7.77	10	981.3	971.3	8.3	980.8	966
45	534220.26	134405.22	1,000.1	1000.10	2	20	998.1	978.1	7.7	992.4	990
46	534223.35	134455.17	999.8	999.80	2	20	997.8	977.8	6.2	993.6	990
47	534227.17	134507.15	999.7	999.70	2	20	997.7	977.7	6.0	993.7	988
72	534191.24	134257.11	1,000.6	1000.62	3	20	997.6	977.6	6.8	993.8	983

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	Northing	Easting									
72R	534196.10	134234.60	1,001.2	1000.92	4	10	997.2	987.2	6.9	994.3	988
75	534188.71	134334.44	1,000.7	1000.65	3	20	997.7	977.7	6.5	994.2	990
76	534194.27	134426.76	1,000.5	1000.45	3	20	997.5	977.5	7.0	993.5	988
77	533974.72	134174.21	990.3	990.26	6.5	25	983.8	958.8	5.2	985.1	970
78	534076.98	134253.66	997.6	997.61	2	20	995.6	975.6	3.2	994.4	982
89	534032.28	134341.86	993.9	993.89	1	10	992.9	982.9	2.1	991.8	984
97	534104.42	134296.31	1,000.4	1000.43	0	15	1,000.4	985.4	5.7	994.7	984
139	533863.20	134993.81	987.1	987.13	5	10	982.1	972.1	11.0	976.1	962
ES1-13	534209.68	134576.80	1,000.0	999.93	4	10	996.0	986.0	8.6	991.4	987
ES1-23R	533883.20	134539.90	987.9	989.94	4	10	983.9	973.9	NA	NA	<974
GMA1-6	534084.30	134455.50	1,000.7	1,000.44	5	10	995.7	985.7	8.5	992.3	985
GMA1-7	533766.80	134345.00	986.1	985.81	5.4	10	980.7	970.7	11.8	974.3	964
East Street Area 2-North											
05-N	534367.44	133101.83	1,009.5	1,009.23	18	10	991.5	981.5	24.6	984.9	985
06-N	534367.53	132925.77	1,011.2	1010.83	27	10	984.2	974.2	31.3	979.9	981
09-N	534431.60	132374.08	1,011.2	1011.01	24	10	987.2	977.2	27.9	983.3	982
11-N	534386.95	132639.74	1,011.5	1010.85	30	10	981.5	971.5	31.7	979.8	972
14-N	534368.48	133215.75	1,010.7	1010.53	24	10	986.7	976.7	23.7	987.0	988
16-N	534382.34	132782.39	1,011.0	1010.65	30	10	981.0	971.0	31.4	979.6	972
17-N	534404.43	132702.02	1,010.6	1010.49	30	10	980.6	970.6	30.9	979.7	975
17A	535187.45	132107.05	1,024.2	1,023.86	5	15	1,019.2	1,004.2	7.8	1,016.4	1,014
19-N	534406.01	132514.18	1,011.1	1010.68	30	10	981.1	971.1	31.1	980.0	977
20-N	534419.83	132465.12	1,011.2	1010.66	30	10	981.2	971.2	29.8	981.4	977
21-N	534365.44	132983.71	1,011.1	1010.81	30	10	981.1	971.1	30.6	980.5	979
22-N	534361.54	132852.78	1,010.8	1010.64	30	10	980.8	970.8	31.3	979.5	973
23-N	534444.85	132701.53	1,011.3	1011.13	30	10	981.3	971.3	31.4	979.9	979
24-N	534465.08	132697.89	1,011.1	1010.50	30	10	981.1	971.1	31.0	980.1	980
27-N	534625.27	132729.89	1,010.9	1010.40	25	10	985.9	975.9	25.9	985.0	987
95-12	534383.12	132689.27	1,010.4	1010.20	30	10.00	980.4	970.4	30.6	979.8	970
95-20	534445.16	133286.98	1,010.8	1,010.67	10	10	1,000.8	990.8	14.1	996.8	997
A7	535015.65	132828.48	1,024.1	1,024.07	4	10	1,020.1	1,010.1	8.8	1,015.3	1,014
ES1-5	534741.49	135065.35	1,023.4	1,023.33	35	10	988.4	978.4	40.7	982.7	982

TABLE 1
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	Northing	Easting									
ES1-10	534813.90	134583.80	1,024.0	1,023.99	7	10.5	1,017.0	1,006.5	6.2	1,017.8	1,008
ES1-11	534671.61	134188.65	1,023.6	1023.44	5	10	1,018.6	1,008.6	1.8	1,021.8	1,016
ES1-18	535027.22	133724.97	1,049.8	1,049.71	4	10	1,045.8	1,035.8	7.0	1,042.8	1,044
ES1-19	535027.22	133724.97	1,025.8	1,025.82	5	10	1,020.8	1,010.8	3.0	1,022.8	N/A
ES1-20	535315.58	134927.06	997.8	1,001.56	6	10	991.8	981.8	11.0	986.8	<981
ES1-27R	534603.10	134604.20	1,023.4	1,023.19	9.3	10	1,014.1	1,004.1	8.2	1,015.2	1,007
F-1	534711.00	134287.30	1,024.0	1,023.84	4	15	1,020.0	1,005.0	3.2	1,020.8	1,004
GMA1-4	534702.10	132178.30	1,011.8	1,011.52	10.3	10	1,001.5	991.5	16.3	995.5	993
GMA1-11	534532.60	134052.20	1,024.0	1,026.75	8	10	1,016.0	1,006.0	11.9	1,012.1	1,005
East Street Area 2-South											
01R	533928.73	133219.80	992.9	992.72	10	15	982.9	967.9	12.6	980.3	963
2	533902.02	133104.87	996.4	995.64	15	10	981.4	971.4	18.7	977.7	967
5	533817.68	132719.06	996.0	996.10	9	15	987.0	972.0	17.2	978.8	949
6	533799.18	132650.34	991.4	991.18	15	10	976.4	966.4	14.7	976.7	947
8	533602.50	132525.05	985.4	985.35	10	10	975.4	965.4	9.2	976.2	945
09R	533566.96	132431.53	987.3	986.88	5	15	982.3	967.3	13.3	974.0	950
10	533530.59	132376.71	988.3	987.95	10	10	978.3	968.3	15.1	973.2	957
11R	533485.06	132252.51	989.2	988.86	5	20	984.2	964.2	14.7	974.5	964
13	533453.66	132080.55	991.3	990.88	10	20	981.3	961.3	17.8	973.5	964
14	533441.04	132035.29	992.4	991.61	10	20	982.4	962.4	18.6	973.8	964
15R	533418.19	131897.82	989.7	989.23	8	20	981.7	961.7	16.0	973.7	958
16R	533349.53	131807.57	987.2	987.10	5.9	20	981.3	961.3	11.8	975.4	951
17R	533299.10	131689.67	985.0	984.89	6.6	15	978.4	963.4	9.9	975.1	953
19	532948.30	132198.00	984.1	983.59	10	15	974.1	959.1	11.2	972.9	947
25R	533997.60	133152.50	995.5	998.31	9	20	986.5	966.5	18.6	976.9	963
26RR	534111.70	133258.00	998.4	1,000.58	13	15	985.4	970.4	18.7	979.7	<970.4
28	533841.79	133276.19	991.5	991.86	15	10	976.5	966.5	13.0	978.5	958
29	533775.00	133278.82	992.1	991.59	17	10	975.1	965.1	18.3	973.8	955
30	533681.14	133124.29	990.0	989.34	14	10	976.0	966.0	13.1	976.9	960
31	533655.48	133114.65	991.0	990.60	15	10	976.0	966.0	13.9	977.0	960
32	533651.50	133032.33	991.0	990.81	9	10	982.0	972.0	12.9	978.1	965
34	533651.28	132726.36	982.5	982.54	5	10	977.5	967.5	7.1	975.4	950

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	Northing	Easting									
35	533686.10	132606.52	983.0	982.81	5	10	978.0	968.0	8.2	974.8	943
36	533521.11	132657.53	983.5	983.02	5	10	978.5	968.5	9.2	974.3	950
37	533610.91	132816.39	980.5	980.37	5	10	975.5	965.5	6.1	974.4	960
38	533629.02	132922.84	981.4	980.77	5	10	976.4	966.4	5.9	975.5	967
40R	533758.52	133159.76	991.6	991.60	5	20	986.6	966.6	16.1	975.5	960
42	533615.04	133252.28	988.5	988.33	10	10	978.5	968.5	13.1	975.4	952
43	533534.56	133230.22	985.7	989.67	10	10	975.7	965.7	11.1	974.6	952
44	533554.95	133143.65	988.8	988.33	10	10	978.8	968.8	13.1	975.7	957
47	533769.03	133425.13	991.6	991.09	15	10.00	976.6	966.6	17.9	973.7	952
48	533661.94	133479.47	989.0	992.39	15	10.00	974.0	964.0	15.7	973.3	948
49R	533676.54	133574.30	989.1	988.71	5	20	984.1	964.1	15.8	973.3	948
49RR	533698.66	133560.68	990.0	989.80	10	15	980.0	965.0	16.5	973.5	948
50	533355.07	132662.42	986.0	985.79	4.5	20	981.5	961.5	10.5	975.5	953
51	533298.79	132545.57	985.3	985.38	4.5	20	980.8	960.8	11.8	973.5	942
52	533230.95	132440.97	985.5	985.18	4.2	20	981.3	961.3	11.5	974.0	942
53	533585.77	133562.47	987.2	986.90	8	20	979.2	959.2	13.9	973.3	947
54	533545.63	133474.93	986.1	985.78	7	20	979.1	959.1	13.3	972.8	947
55	533634.73	133502.84	987.5	989.45	7	20	980.5	960.5	14.3	973.2	947
56	533643.80	133329.04	987.3	987.28	7	20	980.3	960.3	14.9	972.4	947
57	533638.76	133262.06	990.1	989.80	8	20	982.1	962.1	13.1	977.0	952
58	533568.99	133374.44	986.3	985.79	8	20	978.3	958.3	13.3	973.0	948
59	533600.67	133366.09	986.8	986.32	8	20	978.8	958.8	14.8	972.0	948
62	532980.17	132526.72	979.4	979.11	3	17	976.4	959.4	6.3	973.1	943
63	533407.29	133207.15	986.7	986.48	13	15	973.7	958.7	13.9	972.8	952
64	533152.10	132820.00	985.1	984.98	7	15	978.1	963.1	11.6	973.5	964
95-1	532967.25	131961.89	983.9	983.77	8	10	975.9	965.9	9.5	974.4	N/A
95-2	533265.89	132663.54	982.5	985.53	5.5	10	977.0	967.0	8.6	973.9	954
95-4	533546.03	132539.70	985.6	988.70	10	10	975.6	965.6	11.2	974.4	943
95-5	533509.36	132457.58	986.8	989.45	8	10	978.8	968.8	12.0	974.7	947
95-7	533791.58	132612.36	991.9	994.91	17.5	10	974.4	964.4	16.0	975.8	946
95-19	533307.10	131940.89	989.9	989.91	11.4	10	978.5	968.5	15.6	974.3	968

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	Northing	Easting									
95-25	533093.52	131384.41	985.1	988.20	8	10	977.1	967.1	11.1	974.0	949
C60	533015.61	132543.65	979.6	979.62	N/A	N/A	N/A	N/A	4.5	975.1	945
E2SC-03I	533473.03	133392.16	980.4	982.12	34.5	10	945.9	935.9	7.8	972.6	936
E2SC-17	533516.03	133454.75	983.8	985.38	36.7	10	947.1	937.1	10.6	973.2	941
E2SC-21	533227.19	132595.20	982.3	981.70	5	10	977.3	967.3	8.7	973.6	950
E2SC-22	533312.81	132693.71	984.1	986.51	5	10	979.1	969.1	10.4	973.7	955
E2SC-23	533344.44	133132.75	990.1	992.07	9	10	981.1	971.1	15.1	975.0	955
E2SC-24	533535.46	133544.45	986.0	987.90	9	10	977.0	967.0	13.1	972.9	940
E2SC-25	533951.00	133131.20	994.8	997.06	28	10	966.8	956.8	17.3	977.5	966
3-6C-EB-14	532899.25	132124.98	984.7	984.20	12	9.5	972.7	963.2	11.2	973.4	950
3-6C-EB-22	532909.20	131931.76	983.3	986.94	6.7	9.8	976.6	966.8	9.4	973.9	958
3-6C-EB-25	532878.08	131757.32	982.6	986.31	11.8	9.5	970.8	961.3	9.5	973.2	958
3-6C-EB-26	532872.19	131696.79	983.9	986.74	6.5	15	977.4	962.4	11.4	972.4	957
3-6C-EB-28	532872.86	131728.32	982.8	985.79	6.9	14.5	975.9	961.4	10.0	972.8	958
3-6C-EB-29	532890.51	131786.21	982.9	986.13	4.8	14.5	978.1	963.6	9.8	973.1	959
ES2-01	533454.42	133267.97	985.7	985.36	25	10	960.7	950.7	12.2	973.5	945
ES2-02A	533454.42	133267.97	980.2	979.63	3	15	977.2	962.2	6.7	973.5	940
ES2-04	532898.81	132064.12	984.3	983.84	7	15	977.3	962.3	10.7	973.6	957
ES2-05	533324.15	132017.21	990.8	990.65	9	15	981.8	966.8	17.0	973.8	963
ES2-06	533465.77	133277.92	986.3	986.00	37.5	10	948.8	938.8	12.7	973.6	943
ES2-07	533019.49	132511.08	980.4	980.03	33	10	947.4	937.4	6.7	973.7	944
ES2-08	533337.75	132969.67	995.3	994.87	10	15	985.3	970.3	21.4	973.9	962
ES2-09	533782.33	132501.21	991.6	991.25	10	10	981.6	971.6	14.1	977.5	955
ES2-10	533728.02	132378.40	991.8	991.55	10	10	981.8	971.8	14.4	977.4	963
ES2-11	533441.48	132610.85	985.8	985.05	5	15	980.8	965.8	11.4	974.4	945
ES2-12	533269.34	132750.66	985.1	984.41	4.5	15	980.6	965.6	11.3	973.8	963
ES2-14	533387.35	132421.21	986.7	985.93	12	10	974.7	964.7	12.7	974.0	945
ES2-15	533414.92	132494.96	986.8	986.55	10	10	976.8	966.8	12.6	974.2	943
ES2-16	533463.77	132335.90	987.1	986.88	10	10	977.1	967.1	10.8	976.3	960
ES2-17	533340.30	132477.40	986.7	986.62	11	10	975.7	965.7	13.2	973.5	943
ES2-18	533420.31	132264.62	987.1	986.86	12	22	975.1	953.1	13.2	973.9	962
GMA1-13	533785.70	133705.20	985.5	991.41	15	10	970.5	960.5	12.2	973.3	<964

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	Northing	Easting									
GMA1-14	534006.20	132995.20	995.3	997.29	12	10	983.3	973.3	16.3	979.0	<973
GMA1-15	533257.00	132155.00	986.6	988.59	6	10	980.6	970.6	12.7	973.9	<970
GMA1-16	533167.90	132359.90	985.1	986.82	8	10	977.1	967.1	11.1	974.0	<967
GMA1-17E	533783.10	132983.90	993.4	993.03	7.5	10	985.9	975.9	14.9	978.4	<975
GMA1-17W	533784.60	134234.60	993.3	992.63	14	10	979.3	969.3	14.9	978.4	<969
HR-C-RW-1	533430.50	133334.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HR-G1-MW-1	533112.00	132805.24	980.3	982.42	7.4	10	972.9	962.9	7.6	972.7	965
HR-G1-MW-2	533091.85	132769.58	978.0	980.23	15.5	10	962.5	952.5	5.3	972.7	960
HR-G1-MW-3	533046.00	132710.10	978.3	980.21	7	10	971.3	961.3	5.3	973.0	955
HR-G2-MW-1	532985.87	132603.97	979.1	982.60	3.4	10	975.7	965.7	6.6	972.4	953
HR-G2-MW-2	532963.36	132559.45	977.9	981.39	3	10	974.9	964.9	4.6	973.3	950
HR-G2-MW-3	532917.49	132477.30	984.1	987.14	8.8	10	975.3	965.3	11.6	972.5	940
HR-G2-RW-1	532955.37	132567.50	975.0	976.88	7.8	5	967.2	962.2	2.7	972.3	950
HR-G3-MW-1	532900.30	132455.10	983.6	987.18	4.1	10	979.5	969.5	13.2	970.4	940
HR-G3-MW-2	532888.18	132335.06	984.3	987.88	4.1	10	980.2	970.2	12.2	972.1	935
HR-G3-RW-1	532872.09	132399.69	976.8	977.78	7.23	2	969.6	967.6	3.9	972.9	937
HR-J1-MW-1	532861.41	131662.66	983.6	985.95	8.22	15	975.4	960.4	11.3	972.3	959
HR-J1-MW-2	532833.58	131568.25	983.7	983.56	7.92	10	975.8	965.8	10.9	972.8	952
HR-J1-MW-3	532823.00	131534.12	984.6	987.68	6.32	15	978.3	963.3	11.9	972.7	951
HR-J1-RW-1	532815.99	131580.58	975.0	975.05	12	2	963.0	961.0	3.0	972.0	952
M-R	533918.80	132612.00	995.8	998.19	15.8	10	980.0	970.0	15.7	980.1	952
P2	533634.60	133233.18	988.5	988.22	4	10	984.5	974.5	10.8	977.7	953
P3	533662.24	133183.10	989.3	989.25	4	10	985.3	975.3	5.2	984.1	955
P3D	533662.24	133183.10	988.6	988.54	12.75	2	975.8	973.8	9.7	978.8	955
P6	533485.00	133203.93	981.6	985.71	1.5	10	980.1	970.1	5.7	975.9	953
P7	533596.94	133115.96	985.3	989.10	0.5	10	984.8	974.8	9.0	976.3	960
PZ-1S	533390.53	133214.18	990.1	989.93	13.26	5.58	976.8	971.3	17.2	972.9	950
PZ-6S	533452.92	133327.82	984.3	984.13	7.34	5.5	977.0	971.5	11.6	972.7	942
RB-1	533453.71	133305.72	985.0	985.18	8	15	977.0	962.0	12.4	972.6	943
RF-01	532890.83	131687.35	984.8	984.42	4	15	980.8	965.8	10.6	974.2	953
TMP-1	533798.77	133577.02	N/A	992.74	N/A	N/A	N/A	N/A	N/A	973.6	954

TABLE 1
MONITORING WELL CONSTRUCTION SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Survey Coordinates		Ground 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)	Till/Silt Elevation (Approximate) (Feet AMSL)
	Northing	Easting									
Lyman Street Area											
B-2	532267.18	130211.26	978.5	978.06	3	15	975.5	960.5	6.9	971.7	N/A
E-4	532781.86	131381.90	986.0	987.98	11.6	10	974.4	964.4	13.8	972.2	953
E-7	533185.22	131010.85	983.3	982.87	4.6	15	978.7	963.7	7.8	975.5	960
EPA-01	532404.00	130818.40	983.3	983.04	18	4	965.3	961.3	8.1	975.2	N/A
GMA1-5	532063.90	129887.50	979.6	979.50	3.5	10	976.1	966.1	7.5	972.1	N/A
LS-2	532520.02	130890.83	983.6	983.32	8	10	975.6	965.6	12.4	971.2	966
LS-4	532602.54	131014.91	984.7	984.51	9	10	975.7	965.7	12.6	972.1	965
LS-12	532544.49	130773.27	982.6	985.49	7	15	975.6	960.6	9.5	973.1	958
LS-13	532726.19	130912.04	985.1	984.65	10	15	975.1	960.1	11.5	973.6	965
LS-20	532627.52	131041.92	985.8	985.64	8	10	977.8	967.8	13.6	972.2	967
LS-21	532586.35	130987.89	983.9	983.42	8	10	975.9	965.9	11.7	972.2	967
LS-23	532604.05	131005.58	984.4	984.38	10	5.25	974.4	969.1	11.9	972.5	967
LS-24	532649.54	131078.86	986.6	986.58	10.45	11.45	976.1	964.7	14.2	972.4	961
LS-25	532625.68	131037.88	985.0	985.75	36.8	5	948.2	943.2	9.6	975.4	967
LS-28	532643.84	130705.47	983.6	986.06	8.6	15	975.0	960.0	9.4	974.2	960
LS-29	532807.58	131047.39	988.3	988.25	24.6	10	963.7	953.7	13.5	974.8	954
LS-30	532620.97	130874.13	984.2	986.44	8.6	10	975.6	965.6	11.7	972.5	966
LS-31	532663.75	130942.01	984.9	987.09	10.6	10	974.3	964.3	11.6	973.2	965
LS-32	532535.03	130929.57	982.9	985.75	4.7	15	978.2	963.2	11.0	971.9	963
LS-33	532483.72	130868.99	983.4	986.42	7.6	10	975.8	965.8	11.6	971.8	966
LS-34	532547.16	130747.16	983.0	985.79	16	9.5	967.0	957.5	10.4	972.6	958
LS-35	532567.72	131005.31	984.7	986.80	8.6	10	976.1	966.1	12.9	971.9	967
LS-37	532991.21	130998.26	987.3	989.62	8.6	15	978.7	963.7	9.3	978.0	<963
LS-38	532456.55	130852.31	984.7	986.95	12.6	10	972.1	962.1	12.7	972.0	962
LS-41	532495.55	130904.66	983.9	986.41	5.2	14.5	978.7	964.2	12.9	971.0	965
LS-43	532463.03	130718.21	981.4	981.17	16.7	9.5	964.7	955.2	8.5	972.9	956
LS-44	532395.07	130746.02	981.3	980.78	16.7	9.5	964.6	955.1	8.5	972.8	956
LS-45	532362.28	130651.08	980.6	980.25	22.2	9.5	958.4	948.9	8.3	972.3	949
LSSC-06	532545.35	130828.21	983.4	984.91	8	10.00	975.4	965.4	11.0	972.5	965
LSSC-07	532512.77	130714.02	982.9	982.48	16	10	966.9	956.9	9.9	973.0	954

TABLE 1
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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Survey Coordinates		Ground 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)	Till/Silt Elevation (Approximate) (Feet AMSL)
	Northing	Easting									
LSSC-08I	532406.30	130816.34	983.6	983.13	13	10	970.6	960.6	10.7	972.9	985
LSSC-08S	532408.89	130817.23	983.6	983.11	5	10	978.6	968.6	12.0	971.7	958
LSSC-09	532560.28	130968.42	983.4	985.06	6	10	977.4	967.4	11.4	971.9	965
LSSC-16I	532495.89	130691.87	981.6	980.88	18	10	963.6	953.6	9.3	972.3	956
LSSC-16S	532500.50	130690.30	981.5	981.37	5	10	976.5	966.5	8.8	972.7	956
LSSC-18	532664.70	131107.50	987.6	987.32	9	10	978.6	968.6	15.3	972.3	961
LSSC-32	532377.06	130590.77	980.9	980.68	26	10	954.9	944.9	8.5	972.4	949
LSSC-33	532416.27	130678.87	981.0	980.49	20	10	961.0	951.0	8.7	972.3	955
LSSC-34I	532506.10	130803.12	983.0	984.74	15	10	968.0	958.0	10.9	972.1	960
LSSC-34S	532502.63	130807.44	982.9	985.01	5	10	977.9	967.9	10.7	972.2	960
MW-3R	532488.50	130320.80	981.9	981.78	10	5	971.9	966.9	6.3	975.6	<966.9
MW-4	532297.50	130347.00	983.7	983.66	9	5	974.7	969.7	7.7	976.0	<969.7
MW-6R	532826.50	130329.50	985.5	985.14	4	10	981.5	971.5	11.4	974.1	<971.5
Newell Street Area I											
FW-16R	532907.36	132756.80	984.1	986.51	8	9.5	976.1	966.6	11.1	973.0	955
IA-9R	532749.28	132436.47	984.7	984.14	7.4	9.5	977.3	967.8	11.4	973.3	958
MM-1	532538.00	132097.40	988.3	988.04	5	10	983.3	973.3	12.2	976.2	957
SZ-1	532497.73	132750.76	985.3	984.98	6	10	979.3	969.3	9.0	976.3	960
Newell Street Area II											
GMA1-8	532537.20	131175.60	981.9	981.66	5.7	10	976.2	966.2	9.9	972.0	961
GMA1-9	532597.60	131346.30	979.1	982.36	7.1	10	972.0	962.0	6.6	972.5	957
MW-1D	532513.20	131501.30	984.5	987.20	21.9	14.5	962.6	948.1	11.6	972.9	950
MW-1S	532519.00	131497.20	984.6	986.60	7.9	14.5	976.7	962.2	11.8	972.8	950
N2SC-02	532594.30	131592.60	983.3	985.56	26.5	10	956.8	946.8	9.3	974.0	N/A
N2SC-03S	532540.96	131575.80	983.7	985.18	10	10	973.7	963.7	8.3	975.4	948
N2SC-07	532721.95	131582.50	982.9	984.61	25	10	957.9	947.9	10.8	972.1	948
N2SC-07S	532707.00	131599.50	983.2	982.93	8.9	10	974.3	964.3	10.7	972.5	948
N2SC-08	532481.42	131722.50	983.7	986.07	29	10	954.7	944.7	10.1	973.6	945
N2SC-09I	532443.75	131612.08	985.2	987.77	30	10	955.2	945.2	11.8	973.4	949
N2SC-09S	532438.64	131611.72	985.4	987.84	5	10	980.4	970.4	9.9	975.5	949
N2SC-11	532446.09	131830.96	985.7	988.05	25	10	960.7	950.7	10.5	975.1	950
N2SC-12	532360.06	131797.47	985.6	987.26	28	10	957.6	947.6	9.6	975.9	948

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Well ID	Survey Coordinates		Ground 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)	Till/Silt Elevation (Approximate) (Feet AMSL)
	Northing	Easting									
N2SC-13I	532549.04	131638.27	983.0	984.75	28.5	10	954.5	944.5	9.7	973.3	945
N2SC-13S	532550.95	131642.84	983.1	985.15	4	10	979.1	969.1	7.7	975.4	945
N2SC-15	532547.81	131701.26	984.1	985.58	29	10	955.1	945.1	10.6	973.5	947
N2SC-16	532613.40	131558.12	983.4	985.62	29	10	954.4	944.4	10.8	972.6	944
N2SC-17	532647.06	131530.10	982.5	984.73	24	10	958.5	948.5	10.3	972.2	949
NS-01	532673.58	131598.80	983.5	983.40	7.5	10	976.0	966.0	11.2	972.3	946
NS-09	532760.60	131761.70	983.2	982.51	5	15	978.2	963.2	10.7	972.6	956
NS-10	532517.00	131813.65	984.9	984.59	5	15	979.9	964.9	10.2	974.7	950
NS-11	532564.88	131841.90	984.8	984.54	5	15	979.8	964.8	8.9	975.9	950
NS-16	532560.58	131790.92	984.7	984.46	10	10	974.7	964.7	10.4	974.3	949
NS-17	532656.18	131503.34	982.0	984.64	6	10	976.0	966.0	9.6	972.4	948
NS-20	532361.30	131815.43	985.6	985.29	6	10	979.6	969.6	7.0	978.6	954
NS-21	532718.93	131728.33	983.8	983.39	8	10	975.8	965.8	11.4	972.4	938
NS-24	532777.09	132183.03	984.5	984.37	8	10	976.5	966.5	11.1	973.4	938
NS-31	532712.61	131618.29	983.4	986.05	25.9	9.5	957.5	948.0	11.1	972.3	949
NS-34	532631.81	131733.77	984.1	986.81	24.05	9.5	960.1	950.6	11.5	972.6	950
NS-35	532631.81	131733.77	980.4	982.99	18.85	9.5	961.6	952.1	7.8	972.6	953
NS-36	532631.81	131733.77	982.8	985.20	7.05	9.5	975.8	966.3	10.2	972.6	957
NS-37	532631.81	131733.77	983.6	986.20	11.05	9.5	972.6	963.1	11.1	972.5	943
SILVER LAKE AREA											
SLGW-1D	534103.00	130536.10	981.2	983.13	30	5	951.2	946.2	2.4	978.9	<945.2
SLGW-1S	534100.50	130531.10	981.2	982.94	4	10	977.2	967.2	5.0	976.2	<945.2
SLGW-2D	533727.50	129779.00	983.6	985.10	30	5	953.6	948.6	5.8	977.8	<947.6
SLGW-2S	533726.00	129785.50	983.5	985.39	4	10	979.5	969.5	5.9	977.6	<947.5
SLGW-3D	533471.80	129332.90	977.2	979.14	26	5	951.2	946.2	-0.7	977.9	<945.2
SLGW-3S	533477.60	129331.10	977.6	981.21	1.5	10	976.1	966.1	1.3	976.3	<945.6
SLGW-4D	533121.90	129350.50	981.8	983.51	30	5	951.8	946.8	4.3	977.5	<945.8
SLGW-4S	533117.20	129348.30	982.0	984.02	4	10	978.0	968.0	5.6	976.4	<946
SLGW-5D	533005.60	130016.30	979.6	979.30	29	5	950.6	945.6	3.5	976.1	<945.64
SLGW-5S	533003.70	130023.50	979.8	979.12	2	10	977.78	967.78	3.7	976.1	<945.78
SLGW-6D	533313.70	131019.30	982.2	981.63	30	5	952.16	947.16	5.8	976.4	<946.16
SLGW-6S	533308.00	131017.30	982.2	981.66	4	10	978.2	968.2	5.7	976.5	<946.2

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Survey Coordinates		Ground 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)	Till/Silt Elevation (Approximate) (Feet AMSL)
	Northing	Easting									

NOTES:

1. The listed wells were utilized during spring 2003 for baseline groundwater quality sampling.
2. Feet AMSL: Feet above mean sea level
3. Feet bgs: Feet below ground surface
4. N/A: Information not available.

TABLE 2
GROUNDWATER/NAPL MONITORING PROGRAM AND REMOVAL CRITERIA

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Current Monitoring Frequency	NAPL Removal Criteria (If different from Standard Criteria for wells located where NAPL is known to be present)
40s Complex		
RF-04	Semi-Annual	
30s Complex		
95-16	Semi-Annual	
ES2-19	Semi-Annual	
GMA1-10	Semi-Annual	
RF-03	Semi-Annual	
RF-16	Semi-Annual	
20s Complex		
CC	Semi-Annual	
EE	Semi-Annual	
GG	Semi-Annual	
II	Semi-Annual	
JJ	Semi-Annual	
LL-R	Semi-Annual	
O-R	Semi-Annual	
P-R	Semi-Annual	
QQ-R	Semi-Annual	
U	Semi-Annual	
Y	Semi-Annual	
East Street Area 2-South		
01R	Semi-Annual	
2	Semi-Annual	
5	Semi-Annual	
6	Semi-Annual	
09R	Semi-Annual	
10	Semi-Annual	
13	Monthly	Any recoverable quantities of NAPL are removed
14	Monthly	Any recoverable quantities of NAPL are removed
15R	Monthly	Any recoverable quantities of NAPL are removed
16R	Semi-Annual	
19	Semi-Annual	
25R	Semi-Annual	
26RR	Monthly	
28	Semi-Annual	
29	Semi-Annual	
30	Semi-Annual	
31	Semi-Annual	
32	Semi-Annual	
34	Semi-Annual	
35	Semi-Annual	
36	Semi-Annual	
37	Semi-Annual	
38	Semi-Annual	
42	Semi-Annual	
43	Semi-Annual	
44	Semi-Annual	
47	Semi-Annual	

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Current Monitoring Frequency	NAPL Removal Criteria (If different from Standard Criteria for wells located where NAPL is known to be present)
48	Semi-Annual	
49R	Monthly	
49RR	Monthly	
50	Quarterly	
51	Semi-Annual	
52	Semi-Annual	
53	Quarterly	
54	Semi-Annual	
55	Monthly	
57	Semi-Annual	
58	Semi-Annual	
59	Semi-Annual	
64	Semi-Annual	
95-01	Monthly	
95-04	Semi-Annual	
95-05	Semi-Annual	
95-07	Semi-Annual	
E2SC-03I	Semi-Annual	No NAPL is removed during routine monitoring
E2SC-17	Semi-Annual	No NAPL is removed during routine monitoring
E2SC-21	Semi-Annual	
E2SC-23	Monthly	
E2SC-24	Monthly	
3-6C-EB-14	Semi-Annual	
3-6C-EB-22	Monthly	
3-6C-EB-25	Semi-Annual	
3-6C-EB-28	Semi-Annual	
ES2-01	Semi-Annual	
ES2-02A	Semi-Annual	
ES2-05	Semi-Annual	
ES2-06	Semi-Annual	
ES2-08	Semi-Annual	
ES2-09	Semi-Annual	
ES2-11	Semi-Annual	
ES2-14	Semi-Annual	Monitoring to be discontinued during EPA operation of staging area
ES2-15	Semi-Annual	Monitoring to be discontinued during EPA operation of staging area
ES2-16	Semi-Annual	
ES2-17	Semi-Annual	Monitoring to be discontinued during EPA operation of staging area
ES2-18	Semi-Annual	
GMA1-13	Semi-Annual	
GMA1-14	Monthly	
GMA1-15	Monthly	
GMA1-16	Monthly	
GMA1-17E	Monthly	
GMA1-17W	Monthly	
HR-C-RW-1	Semi-Annual	

TABLE 2
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NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Current Monitoring Frequency	NAPL Removal Criteria (If different from Standard Criteria for wells located where NAPL is known to be present)
HR-G1-MW-1	Quarterly	
HR-G1-MW-2	Quarterly	
HR-G1-MW-3	Quarterly	
HR-G2-MW-1	Monthly	
HR-G2-MW-2	Monthly	
HR-G2-MW-3	Monthly	
HR-G2-RW-1	Monthly	
HR-G3-MW-1	Quarterly	
HR-G3-MW-2	Quarterly	
HR-G3-RW-1	Quarterly	
HR-J1-MW-1	Quarterly	
HR-J1-MW-2	Quarterly	
HR-J1-MW-3	Quarterly	
HR-J1-RW-1	Quarterly	
M-R	Semi-Annual	
P3	Semi-Annual	
PZ-1S	Semi-Annual	
PZ-6S	Semi-Annual	
TMP-1	Quarterly	
East Street Area 2-North		
05-N	Semi-Annual	
11-N	Semi-Annual	
14-N	Semi-Annual	
16-N	Semi-Annual	
17-N	Semi-Annual	
17A	Semi-Annual	
19-N	Semi-Annual	
20-N	Semi-Annual	
23-N	Semi-Annual	
24-N	Semi-Annual	
27-N	Semi-Annual	
ES1-05	Semi-Annual	
ES1-18	Semi-Annual	
ES1-20	Semi-Annual	
ES1-27R	Semi-Annual	
East Street Area 1-North		
25	Semi-Annual	
49	Semi-Annual	
52	Quarterly	Any recoverable quantities of NAPL are removed
60R	Semi-Annual	
105	Semi-Annual	
106	Semi-Annual	
107	Semi-Annual	
108A	Semi-Annual	
109A	Semi-Annual	
118	Semi-Annual	
120	Semi-Annual	
128	Semi-Annual	

TABLE 2
GROUNDWATER/NAPL MONITORING PROGRAM AND REMOVAL CRITERIA

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Current Monitoring Frequency	NAPL Removal Criteria (If different from Standard Criteria for wells located where NAPL is known to be present)
131	Quarterly	Any recoverable quantities of NAPL are removed
140	Quarterly	
ES1-08	Quarterly	
ES1-14	Semi-Annual	
East Street Area 1 - South		
31R	Monthly	
33	Monthly	
34	Monthly	Any recoverable quantities of NAPL are removed
35	Semi-Annual	
45	Semi-Annual	
46	Semi-Annual	
72	Monthly	Any recoverable quantities of NAPL are removed
72R	Monthly	Any recoverable quantities of NAPL are removed
75	Semi-Annual	
76	Semi-Annual	
78	Semi-Annual	
139	Semi-Annual	
ES1-13	Semi-Annual	
GMA1-6	Semi-Annual	
GMA1-7	Semi-Annual	
Lyman Street Area		
B-02	Semi-Annual	
E-04	Semi-Annual	
EPA-1	Monthly	
GMA1-5	Semi-Annual	
LS-02	Semi-Annual	
LS-04	Semi-Annual	
LS-12	Semi-Annual	
LS-13	Semi-Annual	
LS-20	Semi-Annual	
LS-21	Semi-Annual	
LS-23	Semi-Annual	
LS-24	Monthly	
LS-30	Monthly	
LS-31	Monthly	
LS-32	Semi-Annual	
LS-34	Quarterly	
LS-35	Semi-Annual	
LS-38	Monthly	Any recoverable quantities of NAPL are removed
LS-41	Semi-Annual	
LS-43	Quarterly	
LS-44	Monthly	
LSSC-06	Semi-Annual	
LSSC-07	Weekly	Any recoverable quantities of NAPL are removed
LSSC-08I	Weekly	Any recoverable quantities of NAPL are removed
LSSC-08S	Monthly	
LSSC-09	Semi-Annual	
LSSC-16I	Monthly	Any NAPL will be removed

TABLE 2
GROUNDWATER/NAPL MONITORING PROGRAM AND REMOVAL CRITERIA

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Current Monitoring Frequency	NAPL Removal Criteria (If different from Standard Criteria for wells located where NAPL is known to be present)
LSSC-16S	Semi-Annual	
LSSC-18	Monthly	
LSSC-32	Monthly	
LSSC-33	Monthly	
LSSC-34I	Quarterly	
LSSC-34S	Semi-Annual	
MW-3R	Semi-Annual	
MW-4R	Quarterly	
Newell Street Area I		
FW-16R	Semi-Annual	
IA-9R	Semi-Annual	
MM-1	Semi-Annual	
Newell Street Area II		
GMA1-8	Semi-Annual	
GMA1-9	Semi-Annual	
MW-1D	Quarterly	
MW-1S	Quarterly	
N2SC-02	Monthly	Any NAPL will be removed
N2SC-07	Monthly	Any NAPL will be removed
N2SC-07S	Semi-Annual	
N2SC-08	Monthly	
N2SC-09I	Semi-Annual	
N2SC-13I	Semi-Annual	
N2SC-15	Semi-Annual	
N2SC-16	Semi-Annual	
N2SC-17	Semi-Annual	
NS-10	Quarterly	
NS-16	Semi-Annual	
NS-20	Semi-Annual	
NS-36	Semi-Annual	
NS-37	Semi-Annual	
Silver Lake Area		
SLGW-5S	Semi-Annual	
SLGW-6S	Semi-Annual	

NOTES:

1. Unless noted otherwise, the listed wells utilize the proposed Standard Criteria for manual NAPL removal during routine monitoring of 0.25 feet for LNAPL and 0.5 feet for DNAPL.
2. The exceptions listed above only apply for the type of NAPL that the well is designed to monitor.
3. Any NAPL observed during the bailing round conducted prior to the spring and fall semi-annual monitoring events is manually removed.
4. No NAPL is manually removed from any wells during the spring and fall semi-annual monitoring events, provided that NAPL was removed during the bailing round.
5. No NAPL is manually removed from any wells during non-routine data collection activities.

TABLE 3
AUTOMATED LNAPL RECOVERY SYSTEM SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY-PITTSFIELD, MASSACHUSETTS

Removal Action Area / Recovery System	July 2002 Recovery (Gallons)		August 2002 Recovery (Gallons)		September 2002 Recovery (Gallons)		October 2002 Recovery (Gallons)	
	LNAPL	Groundwater	LNAPL	Groundwater	LNAPL	Groundwater	LNAPL	Groundwater
EAST STREET AREA 1 - NORTH								
NORTHSIDE RECOVERY SYSTEM	2	19,700	0	12,500	0	10,800	0	14,500
EAST STREET AREA 1 - SOUTH								
SOUTHSIDE RECOVERY SYSTEM	2	69,680	14	49,620	0	36,570	0	53,000
40s COMPLEX								
BLDG. 42 ELEVATOR	0	0	0	0	0	0	0	0
EAST STREET AREA 2 - SOUTH								
64R/40R[1]	125	248,500	75	73,900	110	14,900	760	15,000
64R[1]	--	--	--	--	--	--	--	--
40R[1]	--	--	--	--	--	--	--	--
64S [2]	675	553,656	921	217,153	225	58,536	225	324,556
RW-1(S) [2]	675	749,685	921	749,685	225	464,990	225	650,450
64V	265	1,181,700	5	881,500	306	784,500	663	970,300
64X [3]	0	507,000	0	403,200	15	388,800	48	504,000
RW-1(X) [3]	0	686,400	0	507,600	15	461,900	5	590,800
RW-2(X)	0	290,100	0	209,300	0	198,300	0	226,300
LYMAN STREET AREA								
RW-1R [4]	13	219,781	0	127,581	4	165,634	0	271,056
RW-2 [4]	0	219,781	0	127,581	0	165,634	0	271,056
RW-3 [4]	5	219,781	15	127,581	10	165,634	15	271,056
GMA 1 TOTAL	1,087	4,526,202	1,030	3,232,039	670	2,584,930	1,711	3,619,962

NOTES:

1. LNAPL collection is a combined total from 40R/64R until November 2002; groundwater recovery is all from 64R. Data collected during and after November 2002 are recorded separately at each location.
2. LNAPL collection is a combined total from the RW-1(S) and 64S recovery systems until December 2002. Data collected during and after December 2002 are recorded separately at each location.
3. LNAPL collection is a combined total from the RW-1(X) and 64X recovery systems until October 2002. Data collected during and after October 2002 are recorded separately at each location.
4. Groundwater collection is a combined total from the RW-1(R), RW-2, and RW-3 recovery systems.

TABLE 3
AUTOMATED LNAPL RECOVERY SYSTEM SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY-PITTSFIELD, MASSACHUSETTS

Removal Action Area / Recovery System	November 2002 Recovery (Gallons)		December 2002 Recovery (Gallons)		Fall 2002 Total Recovery (Gallons)	
	LNAPL	Groundwater	LNAPL	Groundwater	LNAPL	Groundwater
EAST STREET AREA 1 - NORTH						
NORTHSIDE RECOVERY SYSTEM	1	20,700	55	30,200	58	108,400
EAST STREET AREA 1 - SOUTH						
SOUTHSIDE RECOVERY SYSTEM	2	61,700	0	78,700	18	349,270
40s COMPLEX						
BLDG. 42 ELEVATOR	0	0	0	0	0	0
EAST STREET AREA 2 - SOUTH						
64R/40R[1]	--	--	--	--	1,070	352,300
64R[1]	0	79,600	0	275,600	0	355,200
40R[1]	175	0	25	0	200	0
64S [2]	300	311,198	0	387,100	2,346	1,852,199
RW-1(S) [2]	300	600,680	150	842,760	2,496	4,058,250
64V	663	845,000	675	1,134,000	2,577	5,797,000
64X [3]	50	403,200	10	489,600	123	2,695,800
RW-1(X) [3]	0	518,300	5	412,300	25	3,177,300
RW-2(X)	0	143,800	0	143,400	0	1,211,200
LYMAN STREET AREA						
RW-1R [4]	0	264,950	2	316,482	19	1,365,484
RW-2 [4]	0	264,950	0	316,482	0	1,365,484
RW-3 [4]	5	264,950	23	316,482	73	1,365,484
GMA 1 TOTAL	1,196	3,249,128	790	4,110,142	6,644	20,967,203

NOTES:

1. LNAPL collection is a combined total from 40R/64R until November 2002; groundwater recovery is all from 64R. Data collected during and after November 2002 is recorded separately at each location.
2. LNAPL collection is a combined total from the RW-1(S) and 64S recovery systems until December 2002. Data collected during and after December 2002 are recorded separately at each location.
3. LNAPL collection is a combined total from the RW-1(X) and 64X recovery systems until October 2002. Data collected during and after October 2002 are recorded separately at each location.
4. Groundwater collection is a combined total from the RW-1(R), RW-2, and RW-3 recovery systems.

TABLE 3
AUTOMATED LNAPL RECOVERY SYSTEM SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY-PITTSFIELD, MASSACHUSETTS

Removal Action Area / Recovery System	July 2003 Recovery (Gallons)		August 2003 Recovery (Gallons)		September 2003 Recovery (Gallons)		October 2003 Recovery (Gallons)	
	LNAPL	Groundwater	LNAPL	Groundwater	LNAPL	Groundwater	LNAPL	Groundwater
EAST STREET AREA 1 - NORTH								
NORTHSIDE RECOVERY SYSTEM	0	23,100	0	13,800	5	26,800	0	22,700
EAST STREET AREA 1 - SOUTH								
SOUTHSIDE RECOVERY SYSTEM	2	101,000	0	65,900	0	77,600	0	94,000
40s COMPLEX								
BLDG. 42 ELEVATOR	0	0	0.25	0	0	0	0	0
EAST STREET AREA 2 - SOUTH								
64R	750	525,200	300	580,600	1,150	639,200	975	717,300
40R	0	0	0	0	0	0	0	0
64S	750	48,725	38	320,161	0	443,631	150	983,801
RW-1(S)	0	821,262	12	776,403	50	811,790	25	1,303,720
64V	408	1,184,900	391	1,026,400	867	1,020,100	1,071	1,482,600
64X	20	500,300	30	403,200	15	403,200	10	460,800
RW-1(X)	0	541,200	0	499,300	10	486,700	0	690,100
RW-2(X)	0	504,000	0	481,800	0	403,800	0	498,300
LYMAN STREET AREA								
RW-1R [(1)]	0	244,776	0	290,984	0	309,162	0	485,653
RW-2 [(1)]	0	244,776	0	290,984	0	309,162	0	485,653
RW-3 [(1)]	10	244,776	10	290,984	20	309,162	20	485,653
GMA 1 TOTAL	1,940	4,494,463	781	4,458,548	2,117	4,621,983	2,251	6,738,974

NOTES:
1. Groundwater collection is a combined total from the RW-1(R), RW-2, and RW-3 recovery systems.

TABLE 3
AUTOMATED LNAPL RECOVERY SYSTEM SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY-PITTSFIELD, MASSACHUSETTS

Removal Action Area / Recovery System	November 2003 Recovery (Gallons)		December 2003 Recovery (Gallons)		Fall 2003 Total Recovery (Gallons)	
	LNAPL	Groundwater	LNAPL	Groundwater	LNAPL	Groundwater
EAST STREET AREA 1 - NORTH						
NORTHSIDE RECOVERY SYSTEM	0	37,300	0	47,300	5	171,000
EAST STREET AREA 1 - SOUTH						
SOUTHSIDE RECOVERY SYSTEM	0	85,100	0	106,600	2	530,200
40s COMPLEX						
BLDG. 42 ELEVATOR	0	0	0	0	0.25	0
EAST STREET AREA 2 - SOUTH						5,955,600.00
64R	200	563,400	625	290,500	4,000	3,316,200
40R	0	0	0	0	0	0
64S	1,198	1,041,476	925	1,529,896	3,061	4,367,690
RW-1(S)	52	1,155,983	0	1,677,094	139	6,546,252
64V	1,377	1,309,800	2,261	1,719,700	6,375	7,743,500
64X	10	403,200	5	504,000	90	2,674,700
RW-1(X)	0	488,500	0	575,100	10	3,280,900
RW-2(X)	0	461,400	0	917,800	0	3,267,100
LYMAN STREET AREA						
RW-1R [(1)]	0	363,979	0	490,517	0	2,185,071
RW-2 [(1)]	0	363,979	0	490,517	0	2,185,071
RW-3 [(1)]	10	363,979	0	490,517	70	2,185,071
GMA 1 TOTAL	2,847	5,910,138	3,816	7,858,507	13,752	34,082,613

NOTES:
1. Groundwater collection is a combined total from the RW-1(R), RW-2, and RW-3 recovery systems.

TABLE 4
AUTOMATED DNAPL RECOVERY SYSTEM SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY-PITTSFIELD, MASSACHUSETTS

Removal Action Area / Recovery System	July 2002 DNAPL Recovery (Gallons)	August 2002 DNAPL Recovery (Gallons)	September 2002 DNAPL Recovery (Gallons)	October 2002 DNAPL Recovery (Gallons)	November 2002 DNAPL Recovery (Gallons)	December 2002 DNAPL Recovery (Gallons)	FALL 2002 Total DNAPL Recovery (Gallons)
EAST STREET AREA 2-SOUTH							
RW-3(X)	50	54	54	55	55	27	295
NEWELL STREET AREA II							
SYSTEM 1	9	10	17	9	11	10.6	66.6
SYSTEM 2	80	80	50	65	50	65	390
GMA 1 TOTAL	139	144	121	129	116	102.6	751.6

Removal Action Area / Recovery System	July 2003 DNAPL Recovery (Gallons)	August 2003 DNAPL Recovery (Gallons)	September 2003 DNAPL Recovery (Gallons)	October 2003 DNAPL Recovery (Gallons)	November 2003 DNAPL Recovery (Gallons)	December 2003 DNAPL Recovery (Gallons)	FALL 2003 Total DNAPL Recovery (Gallons)
EAST STREET AREA 2-SOUTH							
RW-3(X)	56	54	55	56	55	56	332
NEWELL STREET AREA II							
SYSTEM 1	28	53	26	56	27	47	237
SYSTEM 2	130	115	390	227	146	182	1,190
GMA 1 TOTAL	214	222	471	339	228	285	1,759.0

TABLE 5
SEASONAL GROUNDWATER ELEVATION DATA AND MONITORING WELL USAGE SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Ground Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Base of Screen Elevation (Feet AMSL)	Overall Average Groundwater Elevation (Feet AMSL)	Average Low Groundwater Elevation (Feet AMSL)	Average High Groundwater Elevation (Feet AMSL)	Till/Silt Elevation (Approximate) (Feet AMSL)	Type of Monitoring Applicable to Well in Fall 2003		
								Water Table	LNAPL	DNAPL
20s Complex										
95-23	999.4	989.4	979.4	988.2	987.5	988.7	987	X	X	X
CC	998.8	982.0	967.0	979.4	978.7	980.1	972	X	X	X
EE	1,004.5	984.5	969.5	979.7	979.1	980.4	974	X	X	X
FF	1,005.7	985.7	970.7	980.9	980.2	981.7	969	X	X	---
GG	1,007.4	987.4	972.4	982.3	981.5	983.0	973	X	X	X
II	1,007.3	987.3	972.3	980.0	978.7	981.3	973	X	X	X
JJ	1,006.4	983.4	968.4	979.6	978.4	980.8	968	X	X	X
KK	1,004.5	979.5	964.5	979.3	978.4	980.2	967	X	X	X
LL-R	1,007.7	989.7	974.7	981.9	982.1	982.2	977	X	X	---
N-R	1,008.5	N/A	N/A	979.4	978.2	980.5	967	X	X	---
O-R	1,000.7	N/A	N/A	984.5	983.9	985.1	965	X	X	---
P-R	1,003.0	986.8	976.8	978.5	978.5	978.5	961	X	X	---
QQ-R	998.6	985.6	970.6	978.3	977.7	978.9	967	X	X	---
U	998.9	994.9	969.9	978.8	977.8	979.7	965	X	X	---
UU-R	998.0	983.5	968.5	977.3	975.4	979.3	965	X	X	---
Y	1,002.9	996.9	966.9	979.0	978.0	980.1	966	X	X	X
30s Complex										
95-15	986.6	979.6	969.6	978.1	978.5	978.5	966	X	X	---
95-16	1,007.9	993.9	983.9	992.0	991.9	992.3	988	X	X	---
ES2-19	1,007.6	996.1	988.1	993.6	993.7	993.8	1,000	X	X	X
GMA1-1	989.1	979.6	969.6	978.9	978.3	979.5	982	X	X	X
GMA1-2	1,007.0	1,000.8	990.8	990.7	990.6	990.8	985	X	X	---
GMA1-3	991.3	985.6	975.6	983.5	983.3	983.7	970	X	X	---
GMA1-10	985.1	979.9	964.9	976.9	976.8	977.5	965	X	X	X
GMA1-12	989.3	979.9	969.9	976.2	976.3	976.5	977	X	X	X
RF-02	983.4	980.4	965.4	976.4	976.3	977.2	965	X	X	X
RF-03	985.6	982.6	967.6	976.0	976.1	976.1	N/A	X	X	---
RF-03D	985.5	954.9	949.9	977.4	977.3	977.9	N/A	---	---	---
RF-16	988.2	981.2	966.2	978.3	978.4	978.9	967	X	X	X
40s Complex										
RF-04	1,012.2	1,002.2	987.2	995.8	995.1	997.2	988	X	X	X
95-17	1,007.6	987.6	977.6	983.5	983.5	983.7	983	X	X	---
East Street Area 1-North										
6	1,003.9	1,000.4	990.4	997.6	997.6	N/A	N/A	X	X	---
25	1,000.7	998.7	983.7	994.8	994.4	995.1	991	X	X	X
49	999.9	997.9	977.9	994.4	994.0	994.8	991	X	X	X

TABLE 5
SEASONAL GROUNDWATER ELEVATION DATA AND MONITORING WELL USAGE SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Ground Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Base of Screen Elevation (Feet AMSL)	Overall Average Groundwater Elevation (Feet AMSL)	Average Low Groundwater Elevation (Feet AMSL)	Average High Groundwater Elevation (Feet AMSL)	Till/Silt Elevation (Approximate) (Feet AMSL)	Type of Monitoring Applicable to Well in Fall 2003		
								Water Table	LNAPL	DNAPL
52	999.7	997.7	977.7	994.0	993.9	994.2	990	X	X	X
60R	1,000.6	995.2	985.2	992.8	992.1	993.1	985	X	X	X
105	1,002.9	1,000.9	985.9	995.6	995.4	996.1	985	X	X	X
106	1,003.1	1,000.1	980.1	995.8	995.4	997.0	985	X	X	X
107	1,003.9	1,001.9	986.9	997.0	996.7	997.3	986	X	X	X
108A	1,007.8	1,002.8	987.8	997.8	997.6	997.9	992	X	X	X
109A	1,005.5	1,000.5	985.5	997.4	997.2	997.5	988	X	X	X
118	1,001.5	999.5	991.5	997.1	996.7	997.5	993	X	X	X
120	1,001.3	999.3	986.3	995.3	994.9	995.7	992	X	X	X
127	1,001.1	998.1	988.1	994.6	994.3	994.9	992	X	X	X
128	1,001.4	1,000.4	986.4	994.6	994.3	994.9	991	X	X	X
131	1,001.3	998.3	993.3	996.5	996.5	997.2	993	X	X	X
140	1,000.3	998.3	983.3	993.2	992.6	993.7	988	X	X	X
ES1-8	1,001.2	996.2	986.2	995.1	994.9	996.4	987	X	X	X
ES1-14	998.8	988.8	978.8	990.5	989.3	991.9	986	X	---	X
North Caisson	998.0	990.5	979.5	980.1	979.8	980.4	990	X	X	X
East Street Area 1-South										
31R	1,000.5	995.0	985.0	991.4	991.1	991.9	991	X	X	---
33	999.5	996.5	976.5	993.5	993.1	993.1	982	X	X	X
34	999.9	996.9	976.9	994.0	993.6	994.7	983	X	X	X
35	1,000.2	997.2	977.2	994.3	994.0	994.7	990	X	X	X
37R	989.0	981.3	971.3	980.8	978.5	987.1	966	X	X	---
45	1,000.1	998.1	978.1	992.4	994.0	990.8	990	X	X	X
46	999.8	997.8	977.8	993.6	993.1	994.1	990	X	X	X
47	999.7	997.7	977.7	993.7	993.3	994.0	988	X	X	X
72	1,000.6	997.6	977.6	993.8	993.5	994.3	983	X	X	X
72R	1,001.2	997.2	987.2	994.3	994.3	N/A	988	X	X	X
75	1,000.7	997.7	977.7	994.2	993.9	994.5	990	X	X	X
76	1,000.5	997.5	977.5	993.5	993.2	993.8	988	X	X	X
77	990.3	983.8	958.8	985.1	984.4	985.7	970	X	X	X
78	997.6	995.6	975.6	994.4	994.3	994.6	982	X	X	X
89	993.9	992.9	982.9	991.8	991.2	992.3	984	X	X	X
97	1,000.4	1,000.4	985.4	994.7	994.5	995.0	984	X	X	---
139	987.1	982.1	972.1	976.1	974.9	978.2	962	X	X	---
ES1-13	1,000.0	996.0	986.0	991.4	993.6	994.0	987	X	X	X
ES1-23R	987.9	983.9	973.9	NA	983.5	987.0	<974	---	---	X

TABLE 5
SEASONAL GROUNDWATER ELEVATION DATA AND MONITORING WELL USAGE SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Ground Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Base of Screen Elevation (Feet AMSL)	Overall Average Groundwater Elevation (Feet AMSL)	Average Low Groundwater Elevation (Feet AMSL)	Average High Groundwater Elevation (Feet AMSL)	Till/Silt Elevation (Approximate) (Feet AMSL)	Type of Monitoring Applicable to Well in Fall 2003		
								Water Table	LNAPL	DNAPL
GMA1-6	1,000.7	995.7	985.7	992.3	992.3	992.6	985	X	X	X
GMA1-7	986.1	980.7	970.7	974.3	974.8	975.4	964	X	X	---
East Street Area 2-North										
05-N	1,009.5	991.5	981.5	984.9	984.8	985.2	985	X	X	X
06-N	1,011.2	984.2	974.2	979.9	979.5	980.3	981	X	X	X
09-N	1,011.2	987.2	977.2	983.3	982.7	983.9	982	X	X	X
11-N	1,011.5	981.5	971.5	979.8	979.1	980.6	972	X	X	X
14-N	1,010.7	986.7	976.7	987.0	986.7	987.3	988	X	X	X
16-N	1,011.0	981.0	971.0	979.6	978.8	980.5	972	X	X	X
17-N	1,010.6	980.6	970.6	979.7	978.9	980.5	975	X	X	X
17A	1,024.2	1,019.2	1,004.2	1,016.4	1,016.6	1,016.5	1,014	X	X	X
19-N	1,011.1	981.1	971.1	980.0	979.2	980.8	977	X	X	X
20-N	1,011.2	981.2	971.2	981.4	980.8	981.9	977	X	X	X
21-N	1,011.1	981.1	971.1	980.5	980.1	980.8	979	X	X	X
22-N	1,010.8	980.8	970.8	979.5	978.7	980.2	973	X	X	X
23-N	1,011.3	981.3	971.3	979.9	979.1	980.6	979	X	X	X
24-N	1,011.1	981.1	971.1	980.1	979.4	980.8	980	X	X	X
27-N	1,010.9	985.9	975.9	985.0	984.7	985.3	987	X	X	X
95-12	1,010.4	980.4	970.4	979.8	978.5	980.2	970	X	X	X
95-20	1,010.8	1,000.8	990.8	996.8	996.8	997.0	997	X	X	X
A7	1,024.1	1,020.1	1,010.1	1,015.3	1,015.4	1,016.4	1,014	X	X	X
ES1-5	1,023.4	988.4	978.4	982.7	982.2	983.6	982	X	X	X
ES1-10	1,024.0	1,017.0	1,006.5	1,017.8	1,017.5	1,018.4	1,008	X	X	X
ES1-11	1,023.6	1,018.6	1,008.6	1,021.8	1,022.0	1,022.1	1,016	X	---	X
ES1-18	1,049.8	1,045.8	1,035.8	1,042.8	1,044.0	1,042.6	1,044	X	X	X
ES1-19	1,025.8	1,020.8	1,010.8	1,022.8	1,022.8	1,022.9	N/A	X	X	---
ES1-20	997.8	991.8	981.8	986.8	985.7	989.1	<981	X	X	---
ES1-27R	1,023.4	1,014.1	1,004.1	1,015.2	1,015.9	1,015.9	1,007	X	X	X
F-1	1,024.0	1,020.0	1,005.0	1,020.8	1,021.2	1,020.9	1,004	X	---	---

TABLE 5
SEASONAL GROUNDWATER ELEVATION DATA AND MONITORING WELL USAGE SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Ground Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Base of Screen Elevation (Feet AMSL)	Overall Average Groundwater Elevation (Feet AMSL)	Average Low Groundwater Elevation (Feet AMSL)	Average High Groundwater Elevation (Feet AMSL)	Till/Silt Elevation (Approximate) (Feet AMSL)	Type of Monitoring Applicable to Well in Fall 2003		
								Water Table	LNAPL	DNAPL
GMA1-4	1,011.8	1,001.5	991.5	995.5	995.7	995.9	993	---	---	X
GMA1-11	1,024.0	1,016.0	1,006.0	1,012.1	1,012.1	1,012.4	1,005	X	X	---
East Street Area 2-South										
01R	992.9	982.9	967.9	980.3	980.0	980.9	963	X	X	---
2	996.4	981.4	971.4	977.7	977.1	978.6	967	X	X	---
5	996.0	987.0	972.0	978.8	978.1	980.4	949	X	X	---
6	991.4	976.4	966.4	976.7	976.0	978.3	947	X	X	---
8	985.4	975.4	965.4	976.2	976.1	976.3	945	---	---	---
09R	987.3	982.3	967.3	974.0	973.3	974.7	950	X	X	---
10	988.3	978.3	968.3	973.2	973.1	973.4	957	X	X	---
11R	989.2	984.2	964.2	974.5	974.0	975.0	964	X	X	X
13	991.3	981.3	961.3	973.5	973.5	974.7	964	X	X	X
14	992.4	982.4	962.4	973.8	973.7	975.1	964	X	X	X
15R	989.7	981.7	961.7	973.7	973.8	974.9	958	X	X	---
16R	987.2	981.3	961.3	975.4	974.4	976.4	951	X	X	---
17R	985.0	978.4	963.4	975.1	973.9	976.3	953	X	X	---
19	984.1	974.1	959.1	972.9	972.6	973.3	947	X	X	---
25R	995.5	986.5	966.5	976.9	976.1	977.4	963	X	X	---
26R	991.4	979.2	969.2	974.0	973.0	975.0	967	X	X	---
26RR	998.4	985.4	970.4	979.7	979.7	N/A	<970.4	X	X	---
28	991.5	976.5	966.5	978.5	976.7	979.6	958	X	X	---
29	992.1	975.1	965.1	973.8	973.4	974.5	955	X	X	---
30	990.0	976.0	966.0	976.9	976.4	977.4	960	X	X	---
31	991.0	976.0	966.0	977.0	976.6	977.5	960	X	---	---
32	991.0	982.0	972.0	978.1	978.0	978.5	965	X	X	---
34	982.5	977.5	967.5	975.4	974.5	976.3	950	X	X	---
35	983.0	978.0	968.0	974.8	974.8	975.7	943	X	X	---
36	983.5	978.5	968.5	974.3	973.9	975.7	950	X	X	---
37	980.5	975.5	965.5	974.4	974.1	975.5	960	X	X	---
38	981.4	976.4	966.4	975.5	974.8	976.8	967	X	X	X
40R	991.6	986.6	966.6	975.5	974.7	976.7	960	X	X	---
42	988.5	978.5	968.5	975.4	975.1	976.6	952	X	X	---
43	985.7	975.7	965.7	974.6	975.1	974.7	952	X	X	---
44	988.8	978.8	968.8	975.7	975.3	976.7	957	X	X	---
47	991.6	976.6	966.6	973.7	973.2	975.1	952	X	X	---

TABLE 5
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NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Ground Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Base of Screen Elevation (Feet AMSL)	Overall Average Groundwater Elevation (Feet AMSL)	Average Low Groundwater Elevation (Feet AMSL)	Average High Groundwater Elevation (Feet AMSL)	Till/Silt Elevation (Approximate) (Feet AMSL)	Type of Monitoring Applicable to Well in Fall 2003		
								Water Table	LNAPL	DNAPL
48	989.0	974.0	964.0	973.3	973.0	974.3	948	X	X	---
49R	989.1	984.1	964.1	973.3	973.3	974.8	948	X	X	---
49RR	990.0	980.0	965.0	973.5	973.2	974.6	948	X	X	---
50	986.0	981.5	961.5	975.5	975.1	976.7	953	X	X	---
51	985.3	980.8	960.8	973.5	973.1	974.9	942	X	X	---
52	985.5	981.3	961.3	974.0	975.5	974.6	942	X	X	---
53	987.2	979.2	959.2	973.3	972.9	975.5	947	X	X	---
54	986.1	979.1	959.1	972.8	972.5	974.2	947	X	X	---
55	987.5	980.5	960.5	973.2	972.9	974.5	947	X	X	---
56	987.3	980.3	960.3	972.4	972.7	973.2	947	X	X	---
57	990.1	982.1	962.1	977.0	976.5	978.1	952	X	X	---
58	986.3	978.3	958.3	973.0	972.8	973.9	948	X	X	---
59	986.8	978.8	958.8	972.0	971.7	972.9	948	X	X	---
61	992.5	982.5	967.5	973.1	N/A	N/A	N/A	X	X	---
62	979.4	976.4	959.4	973.1	972.8	974.5	943	X	X	---
63	986.7	973.7	958.7	972.8	972.7	973.8	952	X	X	---
64	985.1	978.1	963.1	973.5	972.4	974.2	964	X	X	X
64R	994.0	978.7	972.7	976.5	976.7	976.5	957	X	X	---
64S	983.5	980.0	955.0	970.1	968.1	970.5	947	X	X	---
64S-Caisson	--	--	--	974.2	974.2	N/A	N/A	X	X	---
64V	987.0	977.0	957.0	965.2	965.2	965.2	948	X	X	X
64X(N)	983.8	N/A	969.0	972.8	972.6	973.5	947	X	X	---
64X(S)	980.5	970.5	965.5	971.9	970.9	974.0	940	X	X	---
64X(W)	983.8	973.8	966.3	971.7	970.9	973.0	945	X	X	---
66	990.9	980.9	960.9	973.6	973.0	975.0	955	X	X	---
95-1	983.9	975.9	965.9	974.4	975.2	974.7	N/A	X	X	---
95-2	982.5	977.0	967.0	973.9	973.0	974.8	954	X	X	---
95-4	985.6	975.6	965.6	974.4	973.9	974.9	943	X	X	---
95-5	986.8	978.8	968.8	974.7	974.5	974.9	947	X	X	---
95-7	991.9	974.4	964.4	975.8	976.0	975.7	946	X	X	---
95-9	994.4	979.4	969.4	977.0	976.2	977.7	969	X	X	X
95-19	989.9	978.5	968.5	974.3	973.7	974.9	968	X	X	X
95-25	985.1	977.1	967.1	974.0	973.9	975.1	949	X	X	---
C60	979.6	N/A	N/A	975.1	974.9	975.9	945	X	X	---
E2SC-03I	980.4	945.9	935.9	972.6	971.9	974.6	936	---	---	X
E2SC-17	983.8	947.1	937.1	973.2	973.7	974.1	941	---	---	X

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

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								Water Table	LNAPL	DNAPL
E2SC-21	982.3	977.3	967.3	973.6	973.0	974.2	950	X	X	---
E2SC-22	984.1	979.1	969.1	973.7	973.6	975.4	955	X	X	---
E2SC-23	990.1	981.1	971.1	975.0	974.0	976.3	955	X	X	---
E2SC-24	986.0	977.0	967.0	972.9	972.3	974.8	940	X	X	---
E2SC-25	994.8	966.8	956.8	977.5	977.0	978.7	966	---	---	X
3-6C-EB-14	984.7	972.7	963.2	973.4	973.9	974.5	950	X	---	---
3-6C-EB-22	983.3	976.6	966.8	973.9	975.7	973.5	958	X	X	---
3-6C-EB-25	982.6	970.8	961.3	973.2	973.2	975.0	958	X	---	---
3-6C-EB-26	983.9	977.4	962.4	972.4	972.9	973.7	957	X	X	---
3-6C-EB-28	982.8	975.9	961.4	972.8	973.0	974.1	958	X	X	---
3-6C-EB-29	982.9	978.1	963.6	973.1	972.9	974.7	959	X	X	---
ES2-01	985.7	960.7	950.7	973.5	973.2	975.2	945	---	---	---
ES2-02A	980.2	977.2	962.2	973.5	973.1	974.1	940	X	X	---
ES2-04	984.3	977.3	962.3	973.6	973.6	974.6	957	X	X	---
ES2-05	990.8	981.8	966.8	973.8	974.0	975.0	963	X	X	---
ES2-06	986.3	948.8	938.8	973.6	973.1	975.5	943	---	---	X
ES2-07	980.4	947.4	937.4	973.7	973.5	975.3	944	---	---	X
ES2-08	995.3	985.3	970.3	973.9	973.3	975.4	962	X	X	---
ES2-09	991.6	981.6	971.6	977.5	977.5	977.4	955	X	X	---
ES2-10	991.8	981.8	971.8	977.4	977.1	977.7	963	X	X	---
ES2-11	985.8	980.8	965.8	974.4	973.9	974.9	945	X	X	---
ES2-12	985.1	980.6	965.6	973.8	973.0	974.6	963	X	X	---
ES2-14	986.7	974.7	964.7	974.0	973.4	974.5	945	X	X	---
ES2-15	986.8	976.8	966.8	974.2	973.7	974.8	943	X	X	---
ES2-16	987.1	977.1	967.1	976.3	976.1	976.5	960	X	X	---
ES2-17	986.7	975.7	965.7	973.5	973.3	974.7	943	X	X	X
ES2-18	987.1	975.1	953.1	973.9	973.3	974.5	962	X	X	X
GMA1-13	985.5	970.5	960.5	973.3	974.0	N/A	<964	X	X	---
GMA1-14	995.3	983.3	973.3	979.0	979.6	N/A	<973	X	X	---
GMA1-15	986.6	980.6	970.6	973.9	975.0	N/A	<970	X	X	---
GMA1-16	985.1	977.1	967.1	974.0	974.9	N/A	<967	X	X	---
GMA1-17E	993.4	985.9	975.9	978.4	978.4	N/A	N/A	X	X	---
GMA1-17W	993.3	979.3	969.3	978.4	978.4	N/A	N/A	X	X	---
HR-C-RW-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	---	---	X
HR-G1-MW-1	980.3	972.9	962.9	972.7	972.3	974.1	965	X	X	X
HR-G1-MW-2	978.0	962.5	952.5	972.7	972.4	974.2	960	---	---	X

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								Water Table	LNAPL	DNAPL
HR-G1-MW-3	978.3	971.3	961.3	973.0	973.2	974.7	955	X	---	---
HR-G2-MW-1	979.1	975.7	965.7	972.4	972.6	974.1	953	X	X	---
HR-G2-MW-2	977.9	974.9	964.9	973.3	973.4	975.0	950	X	X	---
HR-G2-MW-3	984.1	975.3	965.3	972.5	973.0	973.0	940	X	X	---
HR-G2-RW-1	975.0	967.2	962.2	972.3	971.5	974.0	950	X	X	---
HR-G3-MW-1	983.6	979.5	969.5	970.4	970.8	972.2	940	X	X	---
HR-G3-MW-2	984.3	980.2	970.2	972.1	973.3	970.7	935	X	X	---
HR-G3-RW-1	976.8	969.6	967.6	972.9	972.9	974.6	937	X	---	---
HR-J1-MW-1	983.6	975.4	960.4	972.3	973.0	972.3	959	X	X	X
HR-J1-MW-2	983.7	975.8	965.8	972.8	973.6	972.9	952	X	X	---
HR-J1-MW-3	984.6	978.3	963.3	972.7	973.1	973.5	951	X	X	---
HR-J1-RW-1	975.0	963.0	961.0	972.0	972.5	972.3	952	---	---	X
M-R	995.8	980.0	970.0	980.1	977.5	982.7	952	X	X	---
P2	988.5	984.5	974.5	977.7	977.5	977.8	953	X	X	---
P3	989.3	985.3	975.3	984.1	984.5	984.1	955	X	X	---
P3D	988.6	975.8	973.8	978.8	979.1	979.3	955	X	---	---
P6	981.6	980.1	970.1	975.9	976.4	975.4	953	X	X	---
P7	985.3	984.8	974.8	976.3	976.9	977.0	960	X	X	---
PZ-1S	990.1	976.8	971.3	972.9	972.5	974.7	950	X	X	---
PZ-6S	984.3	977.0	971.5	972.7	972.5	973.9	942	X	X	---
RB-1	985.0	977.0	962.0	972.6	972.2	974.3	943	X	X	---
RF-01	984.8	980.8	965.8	974.2	973.9	974.5	953	X	X	---
RW-1(S)	987.0	977.0	957.0	969.2	969.3	969.5	950	X	X	X
RW-1(X)	982.7	973.7	958.7	967.3	967.4	967.9	943	X	X	---
RW-2(X)	986.2	977.2	962.2	967.8	968.6	969.5	951	X	X	---
RW-3(X)	980.9	944.9	934.9	971.9	971.7	972.9	936	---	---	X
TMP-1	N/A	N/A	N/A	973.6	973.1	975.1	954	X	X	---

TABLE 5
SEASONAL GROUNDWATER ELEVATION DATA AND MONITORING WELL USAGE SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Ground Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Base of Screen Elevation (Feet AMSL)	Overall Average Groundwater Elevation (Feet AMSL)	Average Low Groundwater Elevation (Feet AMSL)	Average High Groundwater Elevation (Feet AMSL)	Till/Silt Elevation (Approximate) (Feet AMSL)	Type of Monitoring Applicable to Well in Fall 2003		
								Water Table	LNAPL	DNAPL
Lyman Street Area										
B-2	978.5	975.5	960.5	971.7	971.5	973.3	N/A	X	X	---
E-4	986.0	974.4	964.4	972.2	972.6	973.2	953	X	X	---
E-7	983.3	978.7	963.7	975.5	975.0	976.7	960	X	X	---
EPA-01	983.3	965.3	961.3	975.2	975.2	N/A	N/A	X	---	X
GMA1-5	979.6	976.1	966.1	972.1	972.4	973.2	N/A	X	X	---
LS-2	983.6	975.6	965.6	971.2	971.0	971.9	966	X	X	X
LS-4	984.7	975.7	965.7	972.1	972.2	973.1	965	X	X	X
LS-12	982.6	975.6	960.6	973.1	972.8	974.4	958	X	X	X
LS-13	985.1	975.1	960.1	973.6	973.6	974.3	965	X	X	X
LS-20	985.8	977.8	967.8	972.2	972.7	972.8	967	X	X	X
LS-21	983.9	975.9	965.9	972.2	972.3	973.5	967	X	X	X
LS-23	984.4	974.4	969.1	972.5	972.4	973.3	967	X	X	X
LS-24	986.6	976.1	964.7	972.4	972.8	973.0	961	X	X	---
LS-25	985.0	948.2	943.2	975.4	975.5	976.7	967	---	---	X
LS-28	983.6	975.0	960.0	974.2	974.4	975.0	960	X	X	X
LS-29	988.3	963.7	953.7	974.8	974.6	974.4	954	---	---	X
LS-30	984.2	975.6	965.6	972.5	972.4	973.1	966	X	X	X
LS-31	984.9	974.3	964.3	973.2	973.1	973.9	965	X	X	X
LS-32	982.9	978.2	963.2	971.9	971.9	972.6	963	X	X	X
LS-33	983.4	975.8	965.8	971.8	971.6	972.9	966	X	X	X
LS-34	983.0	967.0	957.5	972.6	972.4	973.8	958	X	---	X
LS-35	984.7	976.1	966.1	971.9	972.0	972.7	967	X	X	X
LS-37	987.3	978.7	963.7	978.0	N/A	978.0	<963	X	X	---
LS-38	984.7	972.1	962.1	972.0	971.8	973.0	962	X	X	X
LS-41	983.9	978.7	964.2	971.0	971.0	971.6	965	X	X	X
LS-43	981.4	964.7	955.2	972.9	972.0	973.6	956	---	---	X
LS-44	981.3	964.6	955.1	972.8	974.5	973.1	956	---	---	X
LS-45	980.6	958.4	948.9	972.3	971.2	974.0	956	---	---	X
LSSC-06	983.4	975.4	965.4	972.5	972.7	973.5	965	X	X	X
LSSC-07	982.9	966.9	956.9	973.0	972.7	974.1	954	---	---	X
LSSC-08I	983.6	970.6	960.6	972.9	973.0	974.5	958	X	X	---
LSSC-08S	983.6	978.6	968.6	971.7	972.4	972.8	958	X	X	---
LSSC-09	983.4	977.4	967.4	971.9	972.1	972.9	965	X	X	---
LSSC-16I	981.6	963.6	953.6	972.3	972.3	973.4	956	---	---	X
LSSC-16S	981.5	976.5	966.5	972.7	972.3	974.1	956	X	X	---

TABLE 5
SEASONAL GROUNDWATER ELEVATION DATA AND MONITORING WELL USAGE SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Ground Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Base of Screen Elevation (Feet AMSL)	Overall Average Groundwater Elevation (Feet AMSL)	Average Low Groundwater Elevation (Feet AMSL)	Average High Groundwater Elevation (Feet AMSL)	Till/Silt Elevation (Approximate) (Feet AMSL)	Type of Monitoring Applicable to Well in Fall 2003		
								Water Table	LNAPL	DNAPL
LSSC-18	987.6	978.6	968.6	972.3	972.9	973.3	961	X	X	---
LSSC-32	980.9	954.9	944.9	972.4	972.8	973.6	949	---	---	X
LSSC-33	981.0	961.0	951.0	972.3	972.8	973.5	955	---	---	X
LSSC-34I	983.0	968.0	958.0	972.1	971.9	973.3	960	---	---	X
LSSC-34S	982.9	977.9	967.9	972.2	972.4	973.4	960	X	X	---
MW-3R	981.9	971.9	966.9	975.6	975.6	N/A	<966.9	X	X	---
MW-4	983.7	974.7	969.7	976.0	976.2	976.6	<969.7	X	---	---
MW-6R	985.5	981.5	971.5	974.1	974.0	974.8	<971.5	X	X	---
RW-1	984.3	976.3	966.3	972.0	971.9	972.7	967	X	X	X
RW-1(R)	984.8	975.4	965.4	968.9	968.9	968.9	965	X	X	X
RW-2	986.0	975.0	965.0	970.9	969.9	973.8	968	X	X	X
RW-3	984.0	N/A	N/A	968.1	968.0	968.4	965	X	X	---
Newell Street Area I										
FW-16R	984.1	976.1	966.6	973.0	972.4	974.3	955	X	X	---
IA-9R	984.7	977.3	967.8	973.3	973.7	974.0	958	X	X	---
MM-1	988.3	983.3	973.3	976.2	975.6	977.0	957	X	X	---
SZ-1	985.3	979.3	969.3	976.3	975.5	977.1	960	X	X	---
Newell Street Area II										
GMA1-8	981.9	976.2	966.2	972.0	971.6	973.1	961	X	X	---
GMA1-9	979.1	972.0	962.0	972.5	973.5	972.3	957	X	---	---
MW-1D	984.5	962.6	948.1	972.9	972.7	974.1	950	---	---	X
MW-1S	984.6	976.7	962.2	972.8	972.3	973.9	950	X	X	X
N2SC-02	983.3	956.8	946.8	974.0	974.0	N/A	N/A	---	---	X
N2SC-03S	983.7	973.7	963.7	975.4	974.5	976.7	948	X	---	---
N2SC-07	982.9	957.9	947.9	972.1	972.3	972.7	948	---	---	X
N2SC-07S	983.2	974.3	964.3	972.5	973.1	973.4	948	X	X	---
N2SC-08	983.7	954.7	944.7	973.6	973.1	975.1	945	---	---	X
N2SC-09I	985.2	955.2	945.2	973.4	973.1	974.3	949	---	---	X
N2SC-09S	985.4	980.4	970.4	975.5	974.2	978.1	949	X	X	X
N2SC-11	985.7	960.7	950.7	975.1	975.1	975.8	950	---	---	---
N2SC-12	985.6	957.6	947.6	975.9	975.5	976.6	948	---	---	X
N2SC-13I	983.0	954.5	944.5	973.3	973.0	974.2	945	---	---	X

TABLE 5
SEASONAL GROUNDWATER ELEVATION DATA AND MONITORING WELL USAGE SUMMARY

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Ground Elevation (Feet AMSL)	Top of Screen Elevation (Feet AMSL)	Base of Screen Elevation (Feet AMSL)	Overall Average Groundwater Elevation (Feet AMSL)	Average Low Groundwater Elevation (Feet AMSL)	Average High Groundwater Elevation (Feet AMSL)	Till/Silt Elevation (Approximate) (Feet AMSL)	Type of Monitoring Applicable to Well in Fall 2003		
								Water Table	LNAPL	DNAPL
N2SC-13S	983.1	979.1	969.1	975.4	974.8	976.5	945	X	X	---
N2SC-15	984.1	955.1	945.1	973.5	973.4	974.3	947	---	---	X
N2SC-16	983.4	954.4	944.4	972.6	972.4	973.6	944	---	---	X
N2SC-17	982.5	958.5	948.5	972.2	972.6	973.0	949	---	---	X
NS-01	983.5	976.0	966.0	972.3	972.9	972.9	946	X	X	---
NS-09	983.2	978.2	963.2	972.6	973.0	973.9	956	X	X	---
NS-10	984.9	979.9	964.9	974.7	974.5	975.8	950	X	X	---
NS-11	984.8	979.8	964.8	975.9	975.4	976.9	951	---	---	X
NS-16	984.7	974.7	964.7	974.3	974.4	975.2	949	X	X	---
NS-17	982.0	976.0	966.0	972.4	972.7	973.2	948	X	X	---
NS-20	985.6	979.6	969.6	978.6	978.5	979.4	954	X	X	---
NS-21	983.8	975.8	965.8	972.4	973.2	973.0	938	X	X	---
NS-24	984.5	976.5	966.5	973.4	973.9	974.7	938	X	X	---
NS-31	983.4	957.5	948.0	972.3	972.5	973.3	949	---	---	X
NS-34	984.1	960.1	950.6	972.6	973.0	973.3	950	---	---	X
NS-35	980.4	961.6	952.1	972.6	972.8	973.1	953	---	---	X
NS-36	982.8	975.8	966.3	972.6	972.7	973.5	957	X	X	---
NS-37	983.6	972.6	963.1	972.5	972.7	973.9	943	X	X	---
SILVER LAKE AREA										
SLGW-1D	981.2	951.2	946.2	978.9	979.3	N/A	<945.2	X	---	X
SLGW-1S	981.2	977.2	967.2	976.2	976.7	N/A	<945.2	X	X	---
SLGW-2D	983.6	953.6	948.6	977.8	978.3	N/A	<947.6	X	---	X
SLGW-2S	983.5	979.5	969.5	977.6	978.1	N/A	<947.5	X	X	---
SLGW-3D	977.2	951.2	946.2	977.9	978.5	N/A	<945.2	X	---	X
SLGW-3S	977.6	976.1	966.1	976.3	976.8	N/A	<945.6	X	X	---
SLGW-4D	981.8	951.8	946.8	977.5	977.9	N/A	<945.8	X	---	X
SLGW-4S	982.0	978.0	968.0	976.4	977.0	N/A	<946	X	X	---
SLGW-5D	979.6	950.6	945.6	976.1	976.5	N/A	<945.64	X	---	X
SLGW-5S	979.8	977.78	967.78	976.1	976.5	N/A	<945.78	X	X	---
SLGW-6D	982.2	952.16	947.16	976.4	977.4	N/A	<946.16	X	---	X
SLGW-6S	982.2	978.2	968.2	976.5	977.2	N/A	<946.2	X	X	---

NOTES:

1. Feet AMSL: Feet above mean sea level
2. Feet BGS: Feet below ground surface
3. N/A: Information not available.
4. Wells are considered to be applicable for DNAPL monitoring if the base of the well screen is less than 1 foot above the till/silt elevation, or if DNAPL has been observed in the well at other depths.

TABLE 6
GROUNDWATER ELEVATION AND NAPL THICKNESS - FALL 2003 MONITORING ROUND

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Groundwater Elevation (Feet AMSL)	LNAPL Thickness (Feet)	DNAPL Thickness (Feet)
20s Complex			
95-23	988.34	ND	ND
CC	981.46	ND	ND
EE	981.03	ND	ND
FF	981.50	ND	NA
GG	982.38	ND	ND
II	981.93	0.08	ND
JJ	981.48	ND	ND
KK	981.41	ND	ND
LL-R	982.09	ND	NA
N-R	981.24	ND	NA
O-R	985.11	ND	NA
P-R	980.68	ND	NA
QQ-R	980.87	ND	NA
U	980.49	ND	NA
UU-R	977.68	ND	NA
Y	980.78	0.01	ND
30s Complex			
95-15	978.61	ND	ND
GMA1-2	990.91	ND	NA
GMA1-10	978.11	ND	ND
GMA1-12	976.85	ND	ND
RF-02	977.34	ND	ND
RF-03	976.56	ND	NA
RF-03D	978.39	NA	NA
RF-16	978.93	ND	ND
40s Complex			
95-17	983.45	ND	ND
RF-04	977.48	ND	NA
Building 42	NA	<0.01	NA
East Street Area 1-North			
6	998.35	ND	NA
25	994.90	ND	ND
49	994.29	ND	ND
ESA1N-52	994.37	ND	ND
60R	993.39	ND	ND
105	995.96	0.43	ND
106	996.95	0.05	ND
107	998.76	0.01	ND
108A	997.74	ND	ND
109A	997.60	ND	ND
118	997.25	ND	ND
120	995.35	ND	ND
127	994.80	ND	ND
128	994.76	ND	ND
131	996.76	0.01	ND
140	993.03	ND	ND

TABLE 6
GROUNDWATER ELEVATION AND NAPL THICKNESS - FALL 2003 MONITORING ROUND

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Groundwater Elevation (Feet AMSL)	LNAPL Thickness (Feet)	DNAPL Thickness (Feet)
ES1-8	995.76	0.11	ND
North Caisson	981.33	0.01	ND
East Street Area 1-South			
31R	991.09	ND	NA
ESA1S-33	993.52	ND	ND
34	994.36	0.05	ND
35	994.55	0.03	ND
37R	978.84	ND	NA
45	994.46	0.01	ND
46	994.24	ND	ND
47	994.32	ND	ND
72	994.19	0.01	ND
72R	994.56	ND	ND
75	994.45	ND	ND
76	993.79	0.04	ND
77	986.34	ND	ND
78	995.36	ND	ND
89	992.71	ND	ND
97	995.63	ND	NA
ES1-13	994.73	ND	ND
ES1-23R	987.84	NA	ND
GMA1-6	993.06	ND	ND
GMA1-7	977.64	ND	NA
South Caisson	987.78	0.03	ND
East Street Area 2-North			
05-N	984.41	ND	0.01
6-N	981.39	ND	ND
9-N	983.83	ND	ND
11-N	981.66	0.01	ND
14-N	986.88	0.65	ND
16-N	981.44	0.01	ND
17A	1,015.85	ND	ND
17-N	981.51	ND	ND
19-N	981.78	ND	ND
20-N	982.25	ND	ND
21-N	981.47	ND	ND
22-N	981.29	ND	ND
23-N	981.68	0.14	ND
24-N	981.85	0.05	ND
27-N	985.14	ND	ND
95-12	981.38	ND	ND
95-20	996.83	ND	ND
A7	1,016.37	ND	ND
ES1-5	983.58	ND	ND
ES1-10	1,018.93	ND	ND
ES1-18	1,045.79	ND	ND
ES1-20	987.36	ND	NA

TABLE 6
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NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Groundwater Elevation (Feet AMSL)	LNAPL Thickness (Feet)	DNAPL Thickness (Feet)
ES1-27R	1,015.67	ND	ND
F-1	1,021.57	NA	NA
GMA1-4	995.74	NA	ND
GMA1-11	1,012.16	ND	NA
East Street Area 2-South			
01R	980.57	ND	NA
2	979.56	0.06	NA
5	983.14	0.04	NA
6	978.58	ND	NA
8	Dry	NA	NA
09R	975.08	0.01	NA
10	974.94	ND	NA
11R	975.84	ND	ND
13	975.09	0.12	ND
14	975.59	ND	ND
15R	975.32	ND	NA
16R	976.92	ND	NA
17R	Dry	ND	NA
19	974.19	ND	NA
25R	978.96	2.91	NA
26RR	979.70	0.01	ND
28	979.16	ND	NA
29	975.00	0.14	NA
30	978.02	0.95	NA
31	978.02	NA	NA
32	978.47	ND	NA
34	976.04	ND	NA
35	976.41	ND	NA
36	975.82	ND	NA
37	975.80	ND	NA
38	977.12	ND	ND
40R	976.57	<0.01	NA
42	977.32	ND	NA
43	976.25	ND	NA
44	977.22	ND	NA
47	974.86	0.32	NA
48	974.51	1.1	NA
49R	974.65	ND	NA
49RR	974.69	ND	NA
50	976.20	0.06	NA
51	974.96	ND	NA
ESA2S-52	974.68	ND	NA
53	974.05	ND	NA
54	973.53	ND	NA
55	974.52	0.13	NA
56	972.72	ND	NA
57	978.95	ND	NA

TABLE 6
GROUNDWATER ELEVATION AND NAPL THICKNESS - FALL 2003 MONITORING ROUND

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Groundwater Elevation (Feet AMSL)	LNAPL Thickness (Feet)	DNAPL Thickness (Feet)
58	974.01	ND	NA
59	973.04	ND	NA
62	974.84	ND	NA
63	974.74	ND	NA
ESA2S-64	973.77	ND	ND
64R	977.55	0.32	NA
64S	964.28	<0.01	NA
64V	965.73	0.9	<0.01
64X(N)	973.70	0.14	NA
64X(S)	967.77	0.01	NA
64X(W)	967.93	0.01	NA
95-1	975.17	ND	NA
95-2	974.43	ND	NA
95-4	976.24	4.03	NA
95-5	975.38	0.23	NA
95-7	976.94	6.38	NA
95-19	975.11	ND	ND
95-25	975.59	ND	NA
C60	976.23	ND	NA
E2SC-03I	974.72	NA	6.43
E2SC-17	975.28	NA	1.4
E2SC-21	974.40	ND	NA
E2SC-22	975.37	ND	NA
E2SC-23	975.78	ND	NA
E2SC-24	973.65	ND	NA
E2SC-25	979.61	NA	ND
3-6C-EB-14	975.64	NA	ND
3-6C-EB-22	975.72	NA	ND
3-6C-EB-25	975.89	NA	NA
3-6C-EB-26	975.94	ND	NA
3-6C-EB-28	975.77	ND	NA
3-6C-EB-29	975.68	ND	NA
ES2-01	975.11	NA	NA
ES2-02A	975.38	ND	NA
ES2-04	975.55	ND	NA
ES2-05	975.72	ND	NA
ES2-06	974.99	NA	ND
ES2-07	975.35	NA	ND
ES2-08	975.26	ND	NA
ES2-09	978.86	ND	NA
ES2-10	979.00	ND	NA
ES2-11	975.64	ND	NA
ES2-12	974.76	ND	NA
ES2-14	975.02	0.15	NA
ES2-15	975.46	0.77	NA
ES2-16	977.58	ND	NA
ES2-17	974.94	ND	ND

TABLE 6
GROUNDWATER ELEVATION AND NAPL THICKNESS - FALL 2003 MONITORING ROUND

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Groundwater Elevation (Feet AMSL)	LNAPL Thickness (Feet)	DNAPL Thickness (Feet)
ES2-18	975.01	ND	ND
GMA1-13	974.95	ND	NA
GMA1-14	979.63	ND	NA
GMA1-15	974.95	1.35	NA
GMA1-16	974.89	0.06	NA
GMA1-17E	978.43	ND	ND
GMA1-17W	978.35	1.85	ND
HR-G1-MW-1	973.41	ND	ND
HR-G1-MW-2	973.67	NA	ND
HR-G1-MW-3	976.59	NA	NA
HR-G2-MW-1	973.32	ND	NA
HR-G2-MW-2	974.43	ND	NA
HR-G2-MW-3	973.79	ND	NA
HR-G2-RW-1	972.48	0.01	NA
HR-G3-MW-1	968.90	ND	NA
HR-G3-MW-2	975.84	ND	NA
HR-G3-RW-1	974.48	NA	NA
HR-J1-MW-1	973.71	ND	ND
HR-J1-MW-2	974.14	ND	NA
HR-J1-MW-3	973.88	ND	NA
HR-J1-RW-1	973.03	NA	ND
M-R	979.90	0.01	NA
P2	978.10	ND	NA
P3	984.25	0.02	NA
P3D	978.24	NA	NA
P6	976.63	ND	NA
P7	977.49	ND	NA
PZ-1S	974.68	ND	NA
PZ-6S	974.89	ND	NA
RB-1	974.20	ND	NA
RF-01	974.77	ND	NA
RW-1(S)	969.20	1.09	<0.01
RW-1(X)	968.39	0.14	NA
RW-2(X)	973.98	ND	NA
RW-3(X)	972.17	NA	3
TMP-1	974.64	ND	NA
Lyman Street Area			
B-2	972.89	ND	NA
E-4	973.88	ND	NA
E-7	976.68	ND	NA
EPA-01	975.20	NA	ND
GMA1-5	974.65	ND	NA
LS-2	972.21	0.04	ND
LS-4	974.00	ND	0.43
LS-12	974.68	ND	ND
LS-13	975.25	0.20	ND
LS-20	975.29	ND	ND

TABLE 6
GROUNDWATER ELEVATION AND NAPL THICKNESS - FALL 2003 MONITORING ROUND

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Groundwater Elevation (Feet AMSL)	LNAPL Thickness (Feet)	DNAPL Thickness (Feet)
LS-21	974.44	0.17	ND
LS-23	973.91	0.3	ND
LS-24	976.10	ND	NA
LS-25	977.90	NA	ND
LS-28	976.26	ND	ND
LS-29	976.61	NA	ND
LS-30	973.76	ND	ND
LS-31	974.88	ND	ND
LS-32	973.98	ND	ND
LS-33	973.12	ND	ND
LS-34	974.08	NA	0.19
LS-35	973.89	0.21	ND
LS-38	973.29	ND	0.40
LS-41	973.07	ND	ND
LS-44	977.04	NA	ND
LSSC-06	975.25	0.11	ND
LSSC-07	973.78	NA	0.07
LSSC-08S	976.39	ND	NA
LSSC-08I	973.02	ND	0.03
LSSC-09	973.52	ND	NA
LSSC-16I	973.89	NA	0.04
LSSC-16S	974.02	ND	NA
LSSC-18	974.41	ND	NA
LSSC-32	976.77	NA	ND
LSSC-33	976.54	NA	ND
LSSC-34I	973.53	NA	ND
LSSC-34S	974.53	ND	NA
MW-3R	975.59	ND	NA
MW-4	977.60	NA	NA
MW-6R	975.60	ND	NA
RW-1	974.61	<0.01	<0.01
RW-1(R)	969.36	<0.01	0.00
RW-2	975.32	ND	ND
RW-3	968.05	0.18	NA
Newell Street Area I			
IA-9R	975.91	ND	NA
Newell Street Area II			
GMA1-9	976.30	NA	NA
MW-1D	975.00	NA	0.12
MW-1S	973.80	ND	0.12
N2SC-02	976.05	NA	0.03
N2SC-03S	976.68	NA	NA
N2SC-07	973.60	NA	ND
N2SC-07S	975.87	ND	NA
N2SC-08	974.97	NA	0.43
N2SC-09I	974.92	NA	0.07
N2SC-09S	977.54	ND	ND

TABLE 6
GROUNDWATER ELEVATION AND NAPL THICKNESS - FALL 2003 MONITORING ROUND

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well ID	Groundwater Elevation (Feet AMSL)	LNAPL Thickness (Feet)	DNAPL Thickness (Feet)
N2SC-11	976.45	NA	NA
N2SC-12	976.86	NA	ND
N2SC-13I	974.91	NA	0.16
N2SC-13S	976.80	ND	NA
N2SC-15	976.13	NA	ND
N2SC-16	974.28	NA	0.02
N2SC-17	976.08	NA	ND
NS-01	975.80	ND	NA
NS-09	975.90	ND	NA
NS-10	975.76	0.11	NA
NS-11	975.86	NA	ND
NS-16	975.48	ND	NA
NS-17	975.89	ND	NA
NS-20	979.55	ND	NA
NS-21	976.66	ND	NA
NS-24	976.52	ND	NA
NS-31	976.14	NA	ND
NS-34	975.93	NA	ND
NS-35	976.07	NA	ND
NS-36	975.75	ND	NA
NS-37	977.22	ND	NA
Silver Lake Area			
SLGW-1S	976.66	ND	NA
SLGW-1D	979.31	NA	ND
SLGW-2S	978.05	ND	NA
SLGW-2D	978.27	NA	ND
SLGW-3S	976.80	ND	NA
SLGW-3D	978.45	NA	ND
SLGW-4S	976.97	ND	NA
SLGW-4D	977.92	NA	ND
SLGW-5S	976.45	ND	NA
SLGW-5D	976.48	NA	ND
SLGW-6S	977.21	ND	NA
SLGW-6D	977.40	NA	ND

1. The listed wells were monitored during the Fall 2003 groundwater elevation monitoring event.
2. FEET AMSL: Feet above mean sea level
3. NA: Not Applicable - Well not screened to monitor for either LNAPL or DNAPL.
4. ND: Not Detected.

TABLE 7
GROUNDWATER ELEVATION AND NAPL MONITORING/RECOVERY DATA SUMMARY: FALL 200

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
40s Complex												
95-17	3	1,007.67	24.05	24.22	0	--	--	NA	--	--	0.0000	0.0000
RF-04	2	1,011.99	14.50	14.51	0	--	--	0	--	--	0.0000	0.0000
BLDG-42	26	NA	16.08	19.88	26	<0.01	0.01	NA	--	--	0.2508	0.0000
30s Complex												
95-15	4	986.38	7.77	8.20	0	--	--	0	--	--	0.0000	0.0000
ES2-19	1	1,007.22	14.31	14.31	0	--	--	0	--	--	0.0000	0.0000
GMA1-1	1	988.43	9.02	9.02	0	--	--	0	--	--	0.0000	0.0000
GMA1-2	3	1,006.75	16.03	DRY	0	--	--	NA	--	--	0.0000	0.0000
GMA1-3	1	990.78	7.14	7.14	0	--	--	NA	--	--	0.0000	0.0000
GMA1-10	4	984.86	6.75	7.71	0	--	--	0	--	--	0.0000	0.0000
GMA1-12	4	992.26	15.41	16.19	0	--	--	0	--	--	0.0000	0.0000
RF-02	4	982.43	5.09	6.01	0	--	--	0	--	--	0.0000	0.0000
RF-03	4	985.40	8.84	9.62	0	--	--	NA	--	--	0.0000	0.0000
RF-03D	4	985.31	6.92	7.70	NA	--	--	NA	--	--	0.0000	0.0000
RF-16	4	987.91	5.25	9.25	0	--	--	0	--	--	0.0000	0.0000
20s Complex												
95-23	2	1,002.33	13.99	14.02	0	--	--	0	--	--	0.0000	0.0000
CC	2	998.84	17.38	18.34	1	0.04	0.04	0	--	--	0.0066	0.0000
EE	1	1,004.27	23.24	23.24	0	--	--	0	--	--	0.0000	0.0000
FF	2	1,005.70	24.20	24.34	1	0.02	0.02	NA	--	--	0.0032	0.0000
GG	1	1,007.40	25.02	25.02	0	--	--	0	--	--	0.0000	0.0000
II	2	1,007.26	25.40	26.06	1	0.08	0.47	0	--	--	0.0767	0.0000
JJ	1	1,006.38	24.90	24.90	0	--	--	0	--	--	0.0000	0.0000
KK	1	1,006.61	25.20	25.20	0	--	--	0	--	--	0.0000	0.0000
LL-R	2	1,010.39	28.30	28.95	0	--	--	NA	--	--	0.0000	0.0000
N-R	1	1,008.24	27.00	27.00	0	--	--	NA	--	--	0.0000	0.0000
O-R	1	1,000.42	15.31	15.31	0	--	--	NA	--	--	0.0000	0.0000
P-R	1	1,005.01	24.33	24.33	0	--	--	NA	--	--	0.0000	0.0000
QQ-R	2	998.32	17.45	17.73	0	--	--	NA	--	--	0.0000	0.0000
U	2	998.89	18.40	18.60	1	0.01	0.01	NA	--	--	0.0016	0.0000
UU-R	1	997.70	20.02	20.02	0	--	--	NA	--	--	0.0000	0.0000
Y	2	1,002.86	22.09	22.27	1	0.01	0.01	0	--	--	0.0000	0.0000

TABLE 7
GROUNDWATER ELEVATION AND NAPL MONITORING/RECOVERY DATA SUMMARY: FALL 200

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
East Street Area 2 - South												
01R	3	992.72	11.86	12.62	0	--	--	NA	--	--	0.0000	0.0000
2	2	995.64	16.14	16.41	2	0.06	0.17	NA	--	--	0.0278	0.0000
5	2	996.10	13.00	13.62	2	0.04	0.5	NA	--	--	0.0101	0.0000
6	1	991.18	12.60	12.60	0	--	--	NA	--	--	0.0000	0.0000
8	1	985.35	DRY	DRY	NA	--	--	NA	--	--	0.0000	0.0000
09R	2	986.88	11.81	11.90	2	0.01	0.01	NA	--	--	0.0016	0.0000
10	1	987.95	13.01	13.01	0	--	--	NA	--	--	0.0000	0.0000
11R	1	988.86	13.02	13.02	0	--	--	0	--	--	0.0000	0.0000
13	40	990.88	10.13	18.50	29	0.01	0.43	0	--	--	0.4921	0.0000
14	21	991.61	15.05	19.00	17	0.01	0.71	0	--	--	0.4021	0.0000
15	3	985.79	9.23	9.44	3	0.04	0.08	0	--	--	0.0000	0.0000
15R	21	989.23	12.95	16.24	10	0.01	0.04	NA	--	--	0.0362	0.0000
16R	1	987.10	10.18	10.18	0	--	--	NA	--	--	0.0000	0.0000
17R	1	984.89	DRY	DRY	0	--	--	NA	--	--	0.0000	0.0000
19	1	983.59	9.40	9.40	0	--	--	NA	--	--	0.0000	0.0000
25R	3	998.31	21.10	25.24	3	1.94	4.46	NA	--	--	1.1240	0.0000
26RR	7	1,000.58	18.50	20.89	1	0.01	0.01	0	--	--	0.0016	0.0000
28	2	991.86	12.65	12.70	1	0.04	0.04	NA	--	--	0.0066	0.0000
29	2	991.59	12.35	16.72	2	0.11	0.14	NA	--	--	0.0180	0.0000
30	2	989.34	12.20	13.20	2	0.95	1.98	NA	--	--	0.3233	0.0000
31	1	990.60	12.58	12.58	NA	--	--	NA	--	--	0.0000	0.0000
32	4	990.81	12.34	12.98	0	--	--	NA	--	--	0.0000	0.0000
34	1	982.54	6.50	6.50	0	--	--	NA	--	--	0.0000	0.0000
35	2	982.81	6.40	7.62	0	--	--	NA	--	--	0.0000	0.0000
36	4	983.02	7.20	9.02	0	--	--	NA	--	--	0.0000	0.0000
37	4	980.37	4.57	6.10	0	--	--	NA	--	--	0.0000	0.0000
38	4	980.77	3.65	5.45	0	--	--	0	--	--	0.0000	0.0000
40R	27	991.60	12.00	16.55	26	<0.01	<0.01	NA	--	--	0.0000	0.0000
42	1	988.33	11.01	11.01	0	--	--	NA	--	--	0.0000	0.0000
43	2	989.67	13.31	13.42	0	--	--	NA	--	--	0.0000	0.0000
44	1	988.33	11.11	11.11	0	--	--	NA	--	--	0.0000	0.0000
47	2	991.09	15.83	16.21	2	0.32	0.62	NA	--	--	0.1013	0.0000
48	2	992.39	18.90	18.98	2	1.1	1.58	NA	--	--	0.2579	0.0000
49R	21	988.71	12.95	16.40	0	--	--	NA	--	--	0.0000	0.0000
49RR	21	989.80	14.01	17.48	0	--	--	NA	--	--	0.0000	0.0000

TABLE 7
GROUNDWATER ELEVATION AND NAPL MONITORING/RECOVERY DATA SUMMARY: FALL 200

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
50	18	988.71	9.01	10.70	18	0.02	0.29	NA	--	--	0.0622	0.0000
51	4	985.38	10.42	12.20	0	--	--	NA	--	--	0.0000	0.0000
ESA2S-52	4	985.18	10.50	12.33	0	--	--	NA	--	--	0.0000	0.0000
53	20	986.90	10.78	14.85	0	--	--	NA	--	--	0.0000	0.0000
54	20	985.78	10.15	14.23	0	--	--	NA	--	--	0.0000	0.0000
55	6	989.45	14.19	18.30	6	0.06	1.15	NA	--	--	0.4733	0.0000
56	1	987.28	14.56	14.56	0	--	--	NA	--	--	0.0000	0.0000
57	2	989.80	10.85	11.04	0	--	--	NA	--	--	0.0000	0.0000
58	2	985.79	11.68	11.78	0	--	--	NA	--	--	0.0000	0.0000
59	1	986.32	13.28	13.28	0	--	--	NA	--	--	0.0000	0.0000
61	1	992.31	19.19	19.19	0	--	--	0	--	--	0.0000	0.0000
62	4	979.11	4.27	6.96	0	--	--	NA	--	--	0.0000	0.0000
63	1	986.48	11.74	11.74	0	--	--	NA	--	--	0.0000	0.0000
ESA2S-64	2	984.98	11.21	13.14	0	--	--	0	--	--	0.0000	0.0000
64R	27	993.37	12.65	17.29	27	<0.01	0.8	NA	--	--	0.0000	0.0000
64S	22	984.48	10.54	21.85	19	<0.01	<0.01	NA	--	--	0.0000	0.0000
64S2	1	NA	7.32	7.32	0	--	--	0	--	--	0.0000	0.0000
64S-Caisson	27	984.48	9.95	10.98	27	0.23	0.93	0	--	--	0.0000	0.0000
64S-Sleeve	5	984.48	10.29	10.83	5	<0.01	<0.01	0	--	--	0.0000	0.0000
64V	27	987.29	21.90	22.65	27	0.7	1.4	26	<0.01	0.1	0.0000	0.0000
64X(N)	27	984.83	8.63	12.82	27	0.09	0.18	NA	--	--	0.0000	0.0000
64X(S)	27	981.56	10.61	15.48	27	<0.01	0.16	NA	--	--	0.0000	0.0000
64X(W)	27	984.87	13.79	18.54	27	<0.01	0.3	NA	--	--	0.0000	0.0000
66	5	990.70	17.62	18.05	0	--	--	NA	--	--	0.0000	0.0000
95-01	5	983.77	7.97	10.45	0	--	--	NA	--	--	0.0000	0.0000
95-02	1	985.53	11.10	11.10	0	--	--	NA	--	--	0.0000	0.0000
95-04	2	988.70	15.20	16.21	2	2.8	4.03	NA	--	--	0.1151	0.0000
95-05	2	989.45	13.73	14.28	2	0.23	0.23	NA	--	--	0.0376	0.0000
95-07	2	994.91	23.74	23.90	2	6.38	6.51	NA	--	--	0.2680	0.0000
95-19	1	989.91	14.80	14.80	0	--	--	0	--	--	0.0000	0.0000
95-25	2	988.20	12.61	14.30	0	--	--	NA	--	--	0.0000	0.0000
C60	1	979.62	3.39	3.39	0	--	--	NA	--	--	0.0000	0.0000
E2SC-03I	5	982.12	5.79	10.15	NA	--	--	5	2.94	6.93	0.0000	0.0000
E2SC-17	5	985.38	9.04	12.71	NA	--	--	5	0.92	2.31	0.0000	0.0000
E2SC-21	1	981.70	7.30	7.30	0	--	--	NA	--	--	0.0000	0.0000
E2SC-22	4	986.51	11.14	13.65	0	--	--	NA	--	--	0.0000	0.0000

TABLE 7
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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
E2SC-23	21	992.07	14.95	17.66	0	--	--	NA	--	--	0.0000	0.0000
E2SC-24	21	987.90	11.70	16.30	0	--	--	NA	--	--	0.0000	0.0000
E2SC-25	2	997.06	17.45	18.81	NA	--	--	0	--	--	0.0000	0.0000
3-6C-EB-14	2	984.20	8.56	11.72	NA	--	--	0	--	--	0.0000	0.0000
3-6C-EB-22	5	986.94	7.27	14.60	0	--	--	NA	--	--	0.0000	0.0000
3-6C-EB-25	1	986.31	10.42	10.42	NA	--	--	NA	--	--	0.0000	0.0000
3-6C-EB-26	1	986.74	10.80	10.80	0	--	--	NA	--	--	0.0000	0.0000
3-6C-EB-28	1	985.79	10.02	10.02	0	--	--	NA	--	--	0.0000	0.0000
3-6C-EB-29	2	986.13	10.45	13.58	0	--	--	NA	--	--	0.0000	0.0000
ES2-01	2	985.36	10.25	12.95	NA	--	--	NA	--	--	0.0000	0.0000
ES2-02A	2	979.63	2.35	4.25	0	--	--	NA	--	--	0.0000	0.0000
ES2-04	4	983.84	8.29	10.90	0	--	--	NA	--	--	0.0000	0.0000
ES2-05	2	990.65	14.93	17.20	0	--	--	NA	--	--	0.0000	0.0000
ES2-06	4	986.00	11.01	13.68	NA	--	--	0	--	--	0.0000	0.0000
ES2-07	2	980.03	4.68	7.40	NA	--	--	0	--	--	0.0000	0.0000
ES2-08	4	994.87	19.61	21.56	0	--	--	NA	--	--	0.0000	0.0000
ES2-09	1	991.25	12.39	12.39	0	--	--	NA	--	--	0.0000	0.0000
ES2-10	1	991.55	12.55	12.55	0	--	--	NA	--	--	0.0000	0.0000
ES2-11	1	985.05	9.41	9.41	0	--	--	NA	--	--	0.0000	0.0000
ES2-12	1	984.41	9.65	9.65	0	--	--	NA	--	--	0.0000	0.0000
ES2-14	2	985.93	10.54	11.05	2	0.15	0.36	NA	--	--	0.0587	0.0000
ES2-15	2	986.55	11.30	11.81	2	0.74	0.77	NA	--	--	0.1209	0.0000
ES2-16	1	986.88	9.30	9.30	0	--	--	NA	--	--	0.0000	0.0000
ES2-17	5	986.62	11.45	13.45	0	--	--	1	0.27	0.27	0.0000	0.0000
ES2-18	1	986.86	11.85	11.85	0	--	--	0	--	--	0.0000	0.0000
GMA1-13	5	991.41	16.46	18.84	0	--	--	NA	--	--	0.0000	0.0000
GMA1-14	5	997.43	15.72	19.64	0	--	--	NA	--	--	0.0000	0.0000
GMA1-15	21	988.59	13.08	16.15	21	0.14	1.39	NA	--	--	2.4128	0.0000
GMA1-16	21	986.82	10.07	14.12	13	0.01	0.13	NA	--	--	0.0799	0.0000
GMA1-17E	9	993.03	12.14	14.80	0	--	--	0	--	--	0.0000	0.0000
GMA1-17W	9	992.63	11.84	16.00	7	0.01	1.85	0	--	--	0.4800	0.0000
HR-C-RW-1	4	--	3.65	8.18	1	0.01	0.01	3	0.03	0.06	0.0000	0.0000
HR-G1-MW-1	4	982.42	9.01	10.79	0	--	--	0	--	--	0.0000	0.0000
HR-G1-MW-2	4	980.23	6.56	8.38	NA	--	--	0	--	--	0.0000	0.0000
HR-G1-MW-3	4	980.21	3.62	8.82	NA	--	--	NA	--	--	0.0000	0.0000
HR-G2-MW-1	5	982.60	7.54	11.25	0	--	--	NA	--	--	0.0000	0.0000

TABLE 7
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Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
HR-G2-MW-2	5	981.39	5.15	9.26	0	--	--	NA	--	--	0.0000	0.0000
HR-G2-MW-3	5	987.14	5.57	15.21	0	--	--	NA	--	--	0.0000	0.0000
HR-G2-RW-1	4	976.88	4.14	7.03	3	0.01	0.01	NA	--	--	0.0000	0.0000
HR-G3-MW-1	5	982.45	10.52	15.42	0	--	--	NA	--	--	0.0000	0.0000
HR-G3-MW-2	4	987.88	12.04	15.99	0	--	--	NA	--	--	0.0000	0.0000
HR-G3-RW-1	4	977.78	3.30	5.77	NA	--	--	NA	--	--	0.0000	0.0000
HR-J1-MW-1	4	985.95	12.24	14.73	0	--	--	0	--	--	0.0000	0.0000
HR-J1-MW-2	4	983.56	9.42	11.52	0	--	--	NA	--	--	0.0000	0.0000
HR-J1-MW-3	4	987.68	13.10	15.88	0	--	--	NA	--	--	0.0000	0.0000
HR-J1-RW-1	4	975.05	1.38	4.02	NA	--	--	0	--	--	0.0000	0.0000
M-R	2	998.19	18.30	18.37	2	0.01	0.01	NA	--	--	0.0016	0.0000
P2	1	988.22	10.12	10.12	0	--	--	NA	--	--	0.0000	0.0000
P3	2	989.25	5.02	5.20	2	0.02	0.22	NA	--	--	0.0360	0.0000
P3D	2	988.54	10.30	10.44	NA	--	--	NA	--	--	0.0000	0.0000
P6	1	985.71	9.08	9.08	0	--	--	NA	--	--	0.0000	0.0000
P7	1	989.10	11.61	11.61	0	--	--	NA	--	--	0.0000	0.0000
PZ-1S	1	989.93	15.25	15.25	0	--	--	NA	--	--	0.0000	0.0000
PZ-6S	2	984.13	9.24	11.35	0	--	--	NA	--	--	0.0000	0.0000
RB-1	2	985.18	10.98	12.54	0	--	--	NA	--	--	0.0000	0.0000
RF-1	1	984.42	9.65	9.65	0	--	--	NA	--	--	0.0000	0.0000
RW-1(S)	27	987.23	17.95	19.70	27	<0.01	1.75	27	<0.01	0.1	0.0000	0.0000
RW-1(X)	27	982.68	10.10	16.20	27	<0.01	1.8	NA	--	--	0.0000	0.0000
RW-2(X)	27	985.96	10.13	19.35	0	--	--	NA	--	--	0.0000	0.0000
RW-3(X)	27	980.28	5.33	9.55	NA	--	--	27	2.7	3.3	0.0000	0.0000
TMP-1	20	992.74	17.33	20.50	0	--	--	NA	--	--	0.0000	0.0000
East Street Area 2 - North												
05-N	5	1,009.23	24.22	24.60	0	--	--	5	0.01	0.32	0.0000	0.0521
06-N	1	1,010.83	29.44	29.44	0	--	--	0	--	--	0.0000	0.0000
09-N	1	1,011.01	27.18	27.18	0	--	--	0	--	--	0.0000	0.0000
11-N	2	1,010.85	29.20	29.59	2	0.01	0.03	0	--	--	0.0050	0.0000
14-N	2	1,010.53	24.25	26.10	2	0.65	2.52	0	--	--	0.4114	0.0000
16-N	2	1,010.65	29.22	29.44	2	0.01	0.03	0	--	--	0.0050	0.0000
17-N	2	1,010.49	28.98	29.26	1	0.08	0.08	0	--	--	0.0130	0.0000
17A	2	1,023.86	8.01	8.36	0	--	--	0	--	--	0.0000	0.0000
19-N	2	1,010.68	28.90	29.29	0	--	--	0	--	--	0.0000	0.0000
20-N	1	1,010.66	28.41	28.41	0	--	--	0	--	--	0.0000	0.0000

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Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
21-N	1	1,010.81	29.34	29.34	0	--	--	0	--	--	0.0000	0.0000
22-N	1	1,010.64	29.35	29.35	0	--	--	0	--	--	0.0000	0.0000
23-N	2	1,011.13	29.58	32.80	2	0.14	3.01	0	--	--	0.4913	0.0000
24-N	2	1,010.50	28.70	28.94	2	0.05	0.08	0	--	--	0.0130	0.0000
27-N	1	1,010.40	25.26	25.26	0	--	--	0	--	--	0.0000	0.0000
95-12	3	1,010.20	28.82	30.66	2	0.21	1.69	0	--	--	0.0693	0.0000
95-20	2	1,010.67	13.84	13.98	0	--	--	0	--	--	0.0000	0.0000
A7	3	1,024.07	7.70	8.10	0	--	--	0	--	--	0.0000	0.0000
ES1-05	3	1,023.33	39.71	40.61	0	--	--	0	--	--	0.0000	0.0000
ES1-10	2	1,023.99	5.06	6.71	0	--	--	0	--	--	0.0000	0.0000
ES1-11	1	1,023.44	3.10	3.10	NA	--	--	0	--	--	0.0000	0.0000
ES1-18	2	1,049.71	3.92	8.60	0	--	--	0	--	--	0.0000	0.0000
ES1-20	2	1,001.56	14.20	14.94	0	--	--	NA	--	--	0.0000	0.0000
ES1-27R	2	1,023.19	7.52	8.74	0	--	--	0	--	--	0.0000	0.0000
F-1	2	1,023.84	2.27	3.18	NA	--	--	NA	--	--	0.0000	0.0000
GMA1-04	3	1,011.52	15.78	15.99	NA	--	--	0	--	--	0.0000	0.0000
GMA1-11	2	1,026.75	14.59	14.68	0	--	--	NA	--	--	0.0000	0.0000
East Street Area 1 - North												
6	1	1,003.90	5.55	5.55	0	--	--	NA	--	--	0.0000	0.0000
25	1	1,000.70	5.80	5.80	0	--	--	0	--	--	0.0000	0.0000
49	2	999.90	5.40	5.61	1	0.06	0.06	0	--	--	0.0979	0.0000
ESA1N-52	4	999.26	4.82	5.31	0	--	--	0	--	--	0.0000	0.0000
60R	1	1,004.03	10.64	10.64	0	--	--	0	--	--	0.0000	0.0000
105	2	1,002.85	7.29	8.65	2	0.43	1.39	0	--	--	0.2270	0.0000
106	2	1,004.06	7.16	9.35	2	0.05	1.85	0	--	--	0.3019	0.0000
107	2	1,003.86	5.11	7.48	2	0.01	0.17	0	--	--	0.0278	0.0000
108A	2	1,007.79	10.05	10.21	0	--	--	0	--	--	0.0000	0.0000
109A	1	1,005.43	7.83	7.83	0	--	--	0	--	--	0.0000	0.0000
118	1	1,001.50	4.25	4.25	0	--	--	0	--	--	0.0000	0.0000
120	1	1,001.30	5.95	5.95	0	--	--	0	--	--	0.0000	0.0000
127	1	1,001.13	6.33	6.33	0	--	--	0	--	--	0.0000	0.0000
128	1	1,001.41	6.65	6.65	0	--	--	0	--	--	0.0000	0.0000
131	5	1,001.18	4.30	4.81	2	0.01	0.05	0	--	--	0.0045	0.0000
140	1	1,000.30	7.27	7.27	0	--	--	0	--	--	0.0000	0.0000
ES1-08	5	1,000.85	5.19	5.80	2	0.09	0.11	0	--	--	0.0037	0.0000
ES1-14	1	998.74	5.82	5.82	NA	--	--	0	--	--	0.0000	0.0000
North Caisson	27	997.84	16.25	18.71	27	0.01	0.03	0	--	--	0.0000	0.0000

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
East Street Area 1 - South												
31R	5	1,000.23	8.84	9.15	0	--	--	NA	--	--	0.0000	0.0000
ESA1S-33	4	999.50	5.20	5.98	0	--	--	0	--	--	0.0000	0.0000
34	5	999.90	5.59	6.14	5	0.01	0.05	0	--	--	0.0111	0.0000
35	2	1,000.15	5.63	5.68	2	0.02	0.03	0	--	--	0.0032	0.0000
37R	2	988.79	9.95	10.00	0	--	--	NA	--	--	0.0000	0.0000
45	2	1,000.10	5.65	5.78	2	0.01	0.09	0	--	--	0.0148	0.0000
46	1	999.80	5.56	5.56	0	--	--	0	--	--	0.0000	0.0000
47	1	999.70	5.38	5.38	0	--	--	0	--	--	0.0000	0.0000
72	6	1,000.62	5.92	7.00	3	0.01	0.02	0	--	--	0.0048	0.0000
72R	2	1,000.92	6.11	6.36	0	--	--	0	--	--	0.0000	0.0000
75	1	1,000.65	6.20	6.20	0	--	--	0	--	--	0.0000	0.0000
76	2	1,000.45	6.66	6.81	2	0.04	0.64	0	--	--	0.1045	0.0000
77	1	990.26	3.92	3.92	0	--	--	0	--	--	0.0000	0.0000
78	1	997.61	2.25	2.25	0	--	--	0	--	--	0.0000	0.0000
89	1	993.89	1.18	1.18	0	--	--	0	--	--	0.0000	0.0000
97	1	1,000.43	4.80	4.80	0	--	--	NA	--	--	0.0000	0.0000
139	1	987.13	DRY	DRY	0	--	--	NA	--	--	0.0000	0.0000
ES1-13	1	999.93	5.20	5.20	0	--	--	0	--	--	0.0000	0.0000
ES1-23R	2	989.94	2.10	7.70	NA	--	--	0	--	--	0.0000	0.0000
GMA1-6	2	1,000.44	7.38	8.40	0	--	--	0	--	--	0.0000	0.0000
GMA1-7	2	985.81	8.17	12.28	0	--	--	NA	--	--	0.0000	0.0000
South Caisson	27	1,001.11	8.38	14.62	27	0.01	0.1	0	--	--	0.0000	0.0000
Lyman Street Area												
B-02	3	978.06	5.17	7.07	0	--	--	NA	--	--	0.0000	0.0000
BM-2A	18	986.32	8.58	16.02	NA	--	--	NA	--	--	0.0000	0.0000
E-04	2	987.98	14.10	16.23	0	--	--	NA	--	--	0.0000	0.0000
E-07	5	982.87	5.85	7.53	0	--	--	NA	--	--	0.0000	0.0000
EPA-01	5	983.04	7.05	12.20	0	--	--	0	--	--	0.0000	0.0000
GMA1-5	2	979.50	4.85	8.40	0	--	--	NA	--	--	0.0000	0.0000
LS-02	2	983.32	10.93	11.15	2	0.03	0.04	0	--	--	0.0050	0.0000
LS-04	2	984.51	10.46	10.51	0	--	--	2	0.43	0.83	0.0000	0.1355
LS-12	20	985.49	9.11	13.76	0	--	--	1	0.03	0.03	0.0000	0.0000
LS-13	2	984.65	9.42	10.20	2	0.02	0.9	0	--	--	0.1468	0.0000
LS-20	1	985.64	10.35	10.35	0	--	--	0	--	--	0.0000	0.0000

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Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
LS-21	2	983.42	8.90	9.14	2	0.17	0.24	0	--	--	0.0392	0.0000
LS-23	2	984.38	10.35	10.50	2	0.03	0.05	0	--	--	0.0000	0.0000
LS-24	5	986.58	10.48	14.64	0	--	--	NA	--	--	0.0000	0.0000
LS-25	2	985.75	7.85	15.56	NA	--	--	0	--	--	0.0000	0.0000
LS-28	2	986.06	9.80	12.24	0	--	--	0	--	--	0.0000	0.0000
LS-29	3	988.25	11.64	14.77	NA	--	--	0	--	--	0.0000	0.0000
LS-30	21	986.44	10.83	14.32	10	0.01	0.02	20	0.07	1.02	0.0000	0.9153
LS-31	21	987.09	11.47	14.16	8	0.01	0.09	21	0.02	1.03	0.0000	0.7503
LS-32	1	985.75	11.77	11.77	0	--	--	0	--	--	0.0000	0.0000
LS-33	2	986.42	13.20	13.30	0	--	--	0	--	--	0.0000	0.0000
LS-34	20	985.79	9.70	14.02	NA	--	--	20	0.05	0.7	0.0000	0.2172
LS-35	2	986.80	13.11	13.30	23	0.21	0.57	0	--	--	0.0931	0.0000
LS-38	21	986.95	11.03	15.78	0	--	--	9	0.04	0.11	0.0000	0.1064
LS-41	1	986.41	13.34	13.34	0	--	--	0	--	--	0.0000	0.0000
LS-43	1	981.17	2.44	2.44	NA	--	--	0	--	--	0.0000	0.0000
LS-44	5	980.78	3.74	9.68	NA	--	--	0	--	--	0.0000	0.0000
LSSC-06	2	984.91	9.75	9.76	2	0.07	0.11	0	--	--	0.0114	0.0000
LSSC-07	63	982.48	6.15	10.95	NA	--	--	58	0.02	0.49	0.0000	1.2911
LSSC-08I	24	983.13	6.18	12.40	0	--	--	13	0.01	0.06	0.0000	0.0849
LSSC-08S	5	983.11	6.72	12.32	0	--	--	NA	--	--	0.0000	0.0000
LSSC-09	1	985.06	11.54	11.54	0	--	--	NA	--	--	0.0000	0.0000
LSSC-16I	21	980.88	4.60	9.98	NA	--	--	17	<0.01	0.2	0.0000	0.1630
LSSC-16S	2	981.37	7.35	9.50	0	--	--	NA	--	--	0.0000	0.0000
LSSC-18	21	987.32	11.36	15.50	0	--	--	NA	--	--	0.0000	0.0000
LSSC-32	5	980.68	3.91	9.21	NA	--	--	0	--	--	0.0000	0.0000
LSSC-33	5	980.49	3.95	9.10	NA	--	--	0	--	--	0.0000	0.0000
LSSC-34I	20	984.74	8.60	13.44	NA	--	--	18	0.04	0.7	0.0000	0.1796
LSSC-34S	20	985.01	8.95	13.74	0	--	--	NA	--	--	0.0000	0.0000
MW-3R	3	983.54	7.95	10.55	0	--	--	NA	--	--	0.0000	0.0000
MW-4	2	983.66	6.06	7.50	NA	--	--	NA	--	--	0.0000	0.0000
MW-6R	5	985.14	9.30	11.15	0	--	--	NA	--	--	0.0000	0.0000
RW-1	27	984.88	9.10	13.06	27	<0.01	<0.01	27	<0.01	0.1	0.0000	0.0000
RW-1(R)	27	985.07	10.36	16.38	27	<0.01	0.01	0	--	--	0.0000	0.0000
RW-2	27	987.82	11.35	18.70	0	--	--	0	--	--	0.0000	0.0000
RW-3	27	984.08	10.21	17.05	27	<0.01	0.45	NA	--	--	0.0000	0.0000

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GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
Newell Street Area II												
GMA1-8	1	981.66	10.48	10.48	0	--	--	NA	--	--	0.0000	0.0000
GMA1-9	2	982.36	6.06	10.51	NA	--	--	NA	--	--	0.0000	0.0000
MW-1D	5	987.20	12.20	15.13	NA	--	--	5	0.12	0.38	0.0000	0.0619
MW-1S	5	986.60	12.80	14.60	0	--	--	5	0.07	0.36	0.0000	0.0521
N2SC-01I	4	NA	9.83	10.61	0	--	--	4	2.12	3.71	0.0000	2.9895
N2SC-02	14	985.56	9.51	13.13	0	--	--	11	0.02	0.11	0.0000	0.0032
N2SC-03I	3	NA	--	--	0	--	--	3	1.11	1.98	0.0000	1.1336
N2SC-03S	1	985.18	8.50	8.50	NA	--	--	NA	--	--	0.0000	0.0000
N2SC-07	21	984.61	8.20	13.35	NA	--	--	2	0.04	0.07	0.0000	0.0180
N2SC-07S	3	982.93	7.06	11.54	0	--	--	NA	--	--	0.0000	0.0000
N2SC-08	3	986.07	9.23	11.79	NA	--	--	3	0.43	2.74	0.0000	0.7947
N2SC-09I	2	987.77	12.85	13.50	NA	--	--	2	0.07	0.38	0.0000	0.0619
N2SC-09S	3	987.84	10.26	13.93	0	--	--	0	--	--	0.0000	0.0000
N2SC-11	2	988.05	11.60	13.50	NA	--	--	NA	--	--	0.0000	0.0000
N2SC-12	2	987.26	10.40	11.54	NA	--	--	0	--	--	0.0000	0.0000
N2SC-13I	5	984.75	9.84	12.18	NA	--	--	5	0.04	0.17	0.0000	0.1111
N2SC-13S	2	985.15	8.35	10.65	0	--	--	NA	--	--	0.0000	0.0000
N2SC-14	2	985.58	10.73	10.75	0	--	--	2	1.36	1.92	0.0000	9.0347
N2SC-15	1	985.58	9.45	9.45	NA	--	--	0	--	--	0.0000	0.0000
N2SC-16	5	985.62	11.34	13.75	NA	--	--	5	0.02	0.1	0.0000	0.0196
N2SC-17	1	984.73	8.65	8.65	NA	--	--	0	--	--	0.0000	0.0000
NS-01	2	983.40	7.60	11.85	0	--	--	NA	--	--	0.0000	0.0000
NS-09	3	982.50	6.61	11.23	0	--	--	NA	--	--	0.0000	0.0000
NS-10	21	984.59	7.09	10.84	21	0.03	0.18	NA	--	--	0.0653	0.0000
NS-11	2	984.54	8.68	9.25	NA	--	--	0	--	--	0.0000	0.0000
NS-16	21	984.46	7.21	10.81	0	--	--	NA	--	--	0.0000	0.0000
NS-17	3	984.64	8.75	13.06	0	--	--	NA	--	--	0.0000	0.0000
NS-20	3	985.29	5.74	6.52	0	--	--	NA	--	--	0.0000	0.0000
NS-21	2	983.39	6.73	11.87	0	--	--	NA	--	--	0.0000	0.0000
NS-24	2	984.37	7.85	12.41	0	--	--	NA	--	--	0.0000	0.0000
NS-31	4	986.05	9.91	14.60	NA	--	--	0	--	--	0.0000	0.0000
NS-34	1	986.81	10.88	10.88	NA	--	--	0	--	--	0.0000	0.0000
NS-35	4	982.99	6.92	11.10	NA	--	--	0	--	--	0.0000	0.0000
NS-36	4	985.20	9.45	13.56	0	--	--	NA	--	--	0.0000	0.0000
NS-37	5	986.20	8.98	14.92	0	--	--	NA	--	--	0.0000	0.0000

TABLE 7
GROUNDWATER ELEVATION AND NAPL MONITORING/RECOVERY DATA SUMMARY: FALL 200

NAPL MONITORING REPORT FOR FALL 2003
PLANT SITE 1 GROUNDWATER MANAGEMENT AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Well Name	Number of Measurements	Measuring Point Elevation (Feet AMSL)	Depth to Water		LNAPL Observations			DNAPL Observations			NAPL Recovery	
			Minimum (Feet BMP)	Maximum (Feet BMP)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	Times Observed	Minimum Thickness (Feet)	Maximum Thickness (Feet)	LNAPL Recovery (Gallons)	DNAPL Recovery (Gallons)
Newell Street Area I												
FW-16R	1	986.51	14.33	14.33	0	--	--	NA	--	--	0.0000	0.0000
IA-9R	2	984.14	8.23	11.72	0	--	--	NA	--	--	0.0000	0.0000
Silver Lake Area												
SLGW-1S	6	982.94	6.28	7.15	ND	--	--	NA	--	--	0.0000	0.0000
SLGW-1D	6	983.13	3.78	4.78	NA	--	--	ND	--	--	0.0000	0.0000
SLGW-2S	6	985.39	7.34	8.31	ND	--	--	NA	--	--	0.0000	0.0000
SLGW-2D	6	985.10	6.77	7.72	NA	--	--	ND	--	--	0.0000	0.0000
SLGW-3S	6	980.21	3.41	4.46	ND	--	--	NA	--	--	0.0000	0.0000
SLGW-3D	7	979.14	0.31	4.11	NA	--	--	ND	--	--	0.0000	0.0000
SLGW-4S	6	984.02	7.05	8.29	ND	--	--	NA	--	--	0.0000	0.0000
SLGW-4D	6	983.51	5.22	6.50	NA	--	--	ND	--	--	0.0000	0.0000
SLGW-5S	6	979.12	2.67	3.40	ND	--	--	NA	--	--	0.0000	0.0000
SLGW-5D	6	979.30	2.82	3.58	NA	--	--	ND	--	--	0.0000	0.0000
SLGW-6S	7	981.66	4.45	5.95	ND	--	--	NA	--	--	0.0000	0.0000
SLGW-6D	7	981.63	4.11	6.65	NA	--	--	ND	--	--	0.0000	0.0000

NOTES:
1. Measurements collected between July 1, 2003 and December 31, 2003
2. Feet AMSL = Feet above mean sea level.
3. Feet BMP = Feet below measuring point
4. N/A - Not Applicable

Figures

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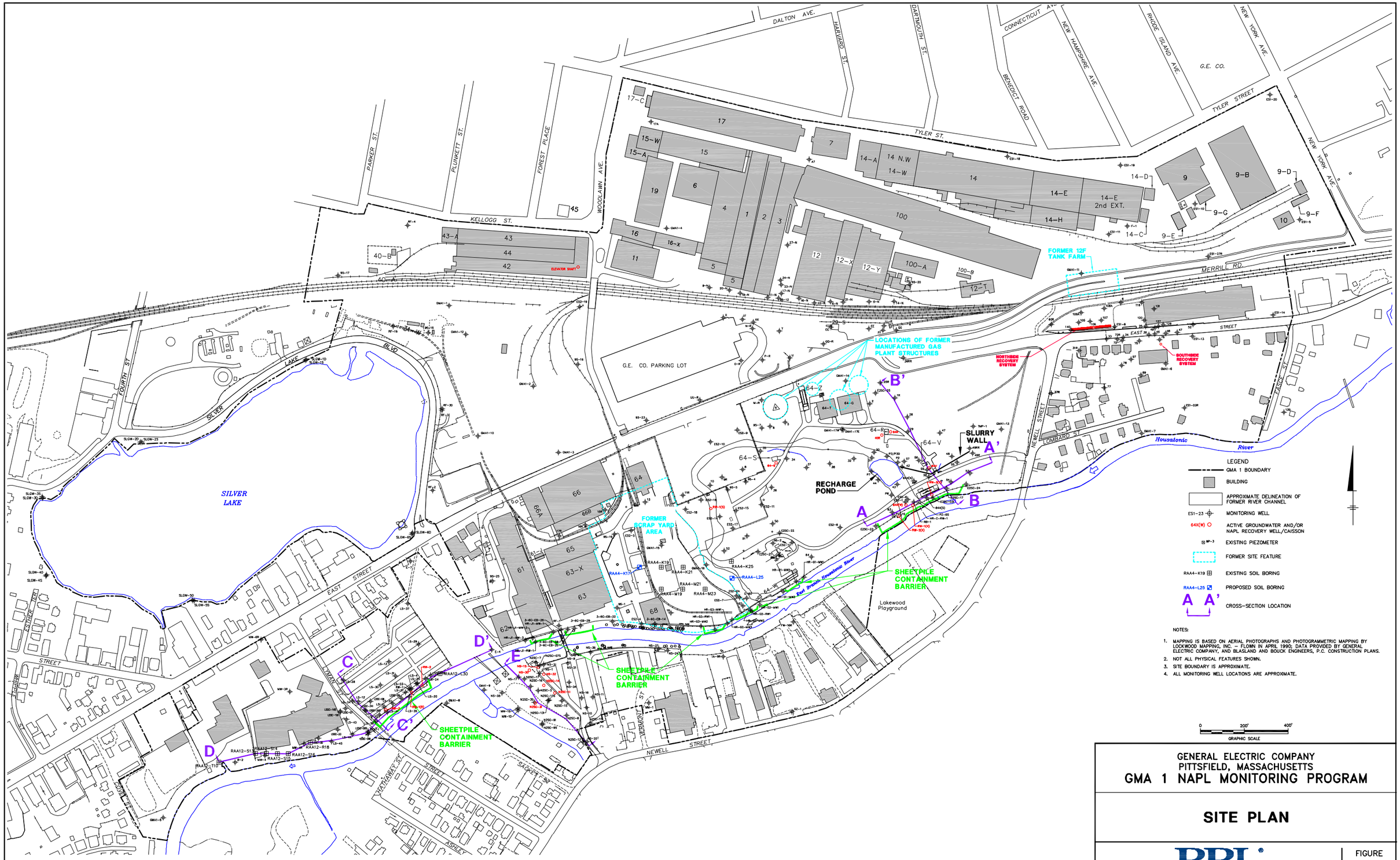
engineers, scientists, economists



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. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARY IS APPROXIMATE.
4. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.

X: 10113X08.DWG
L: ON=*, OFF=REF
P: PAGESET/PLT-DL2B
2/25/04 SYR-BS-NJR LJP DMW
N/10113001/FALL03/10113B09.DWG

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

GMA 1 NAPL MONITORING PROGRAM

SITE PLAN

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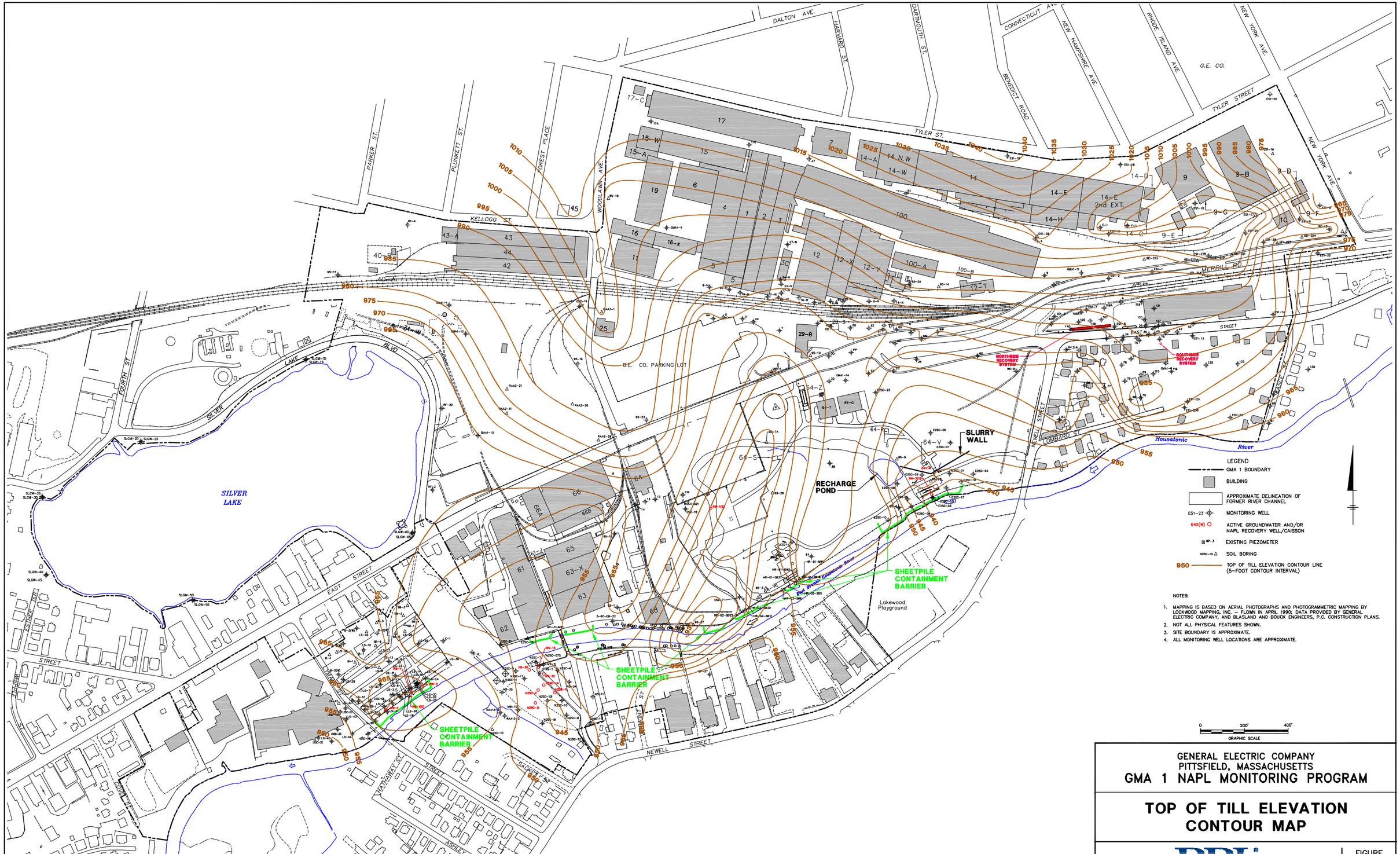
engineers, scientists, economists

FIGURE
1



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8/28/03 SYR-RLP DMW LAF
N/10113001/SPRING03/10113B02.DWG

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PITTSFIELD, MASSACHUSETTS

GMA 1 NAPL MONITORING PROGRAM

TOP OF TILL ELEVATION CONTOUR MAP

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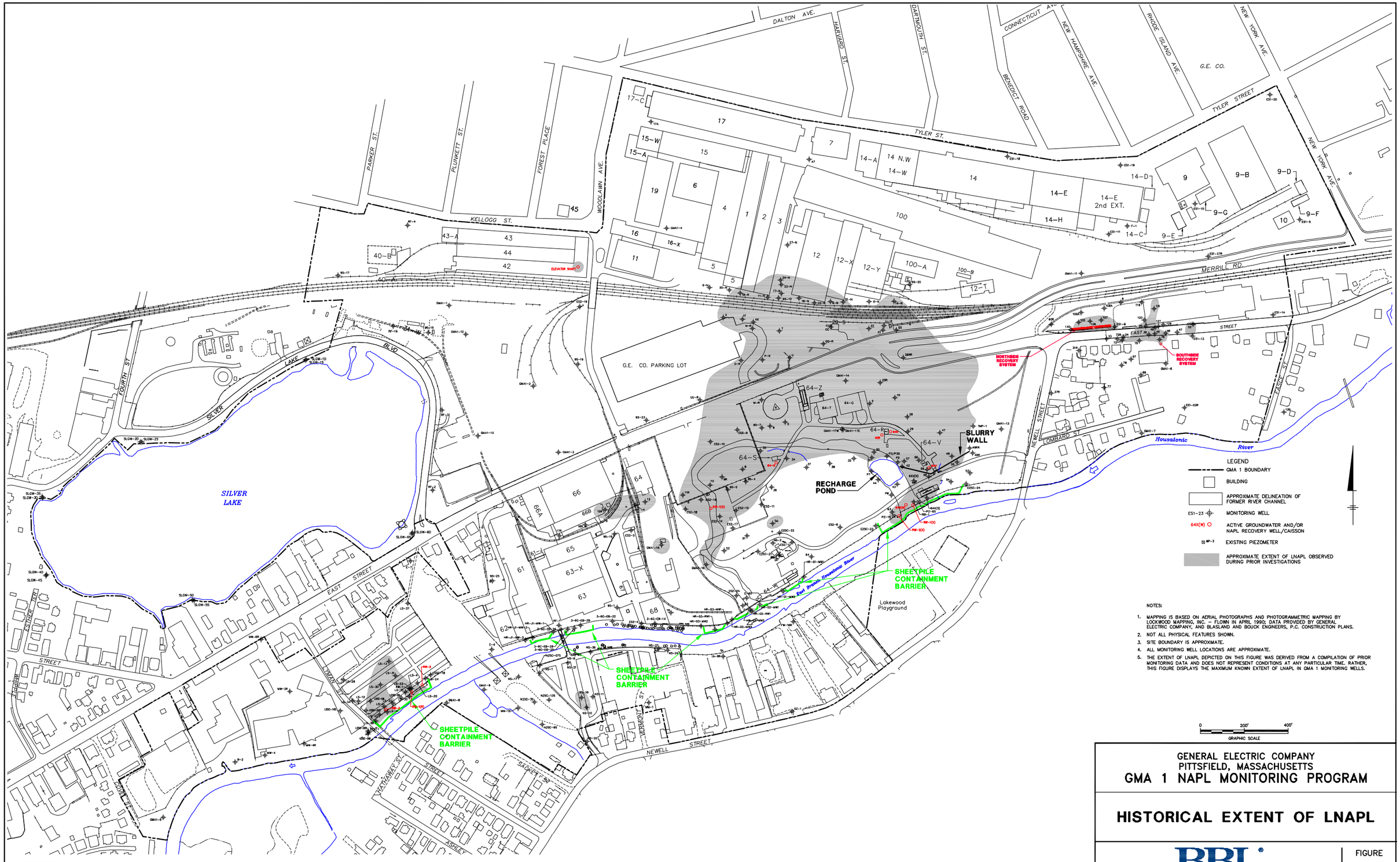
FIGURE 2



NOTES:

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2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARY IS APPROXIMATE.
4. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.
5. THE EXTENT OF LNAPL DEPICTED ON THIS FIGURE WAS DERIVED FROM A COMPILATION OF PRIOR MONITORING DATA AND DOES NOT REPRESENT CONDITIONS AT ANY PARTICULAR TIME. RATHER, THIS FIGURE DISPLAYS THE MAXIMUM KNOWN EXTENT OF LNAPL IN GMA 1 MONITORING WELLS.

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PITTSFIELD, MASSACHUSETTS

GMA 1 NAPL MONITORING PROGRAM

HISTORICAL EXTENT OF LNAPL

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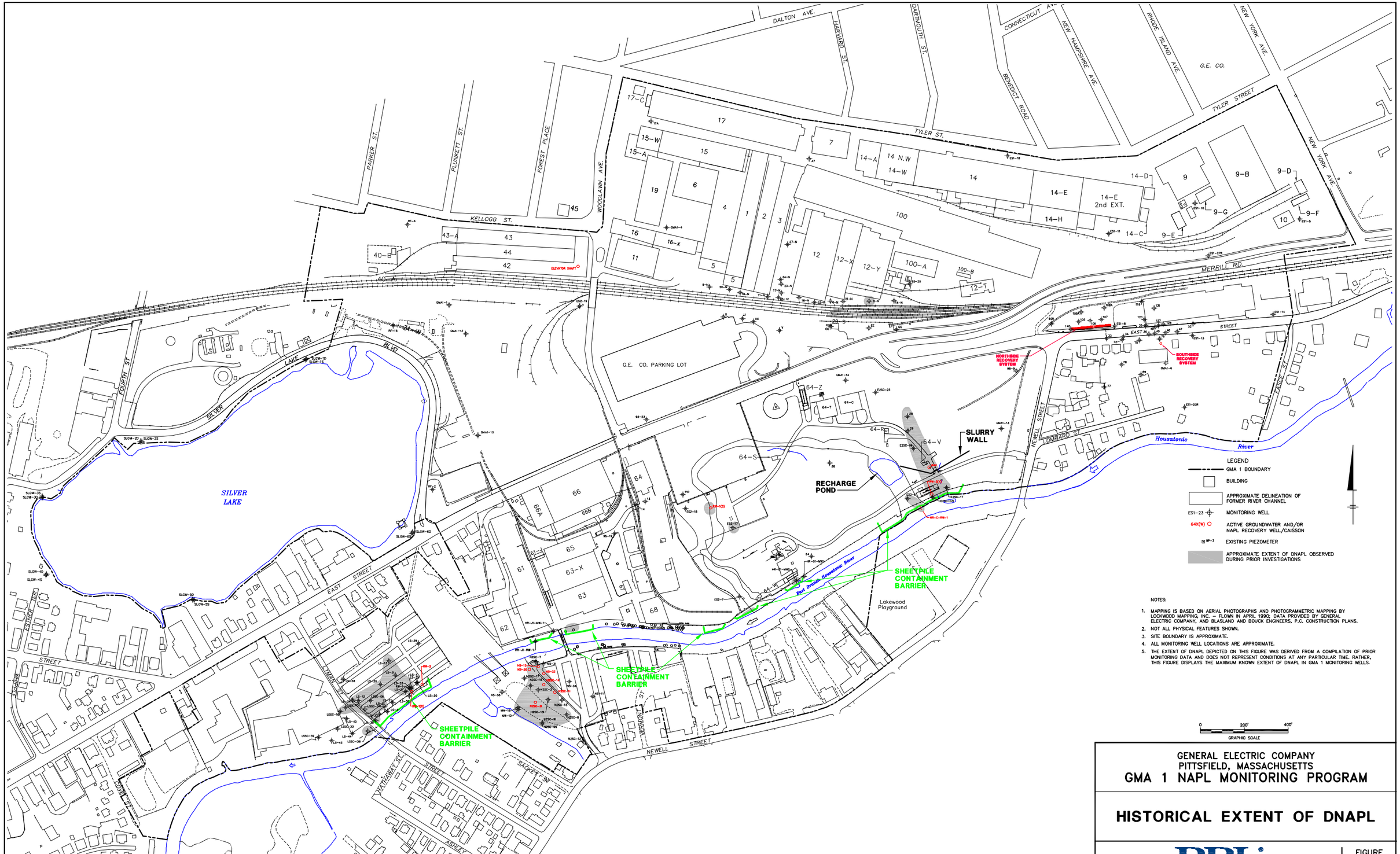
FIGURE 3

X: 10113X08.DWG
L: ON=*, OFF=REF
P: PAGESET/PLT-DL2B
2/25/04 SYR-RLP NJR DMW
N/10113001/FALL03/10113B03.DWG



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2/25/04 SYR-RLP NJR DMW
N/10113001/FALL03/10113B04.DWG

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GMA 1 NAPL MONITORING PROGRAM

HISTORICAL EXTENT OF DNAPL

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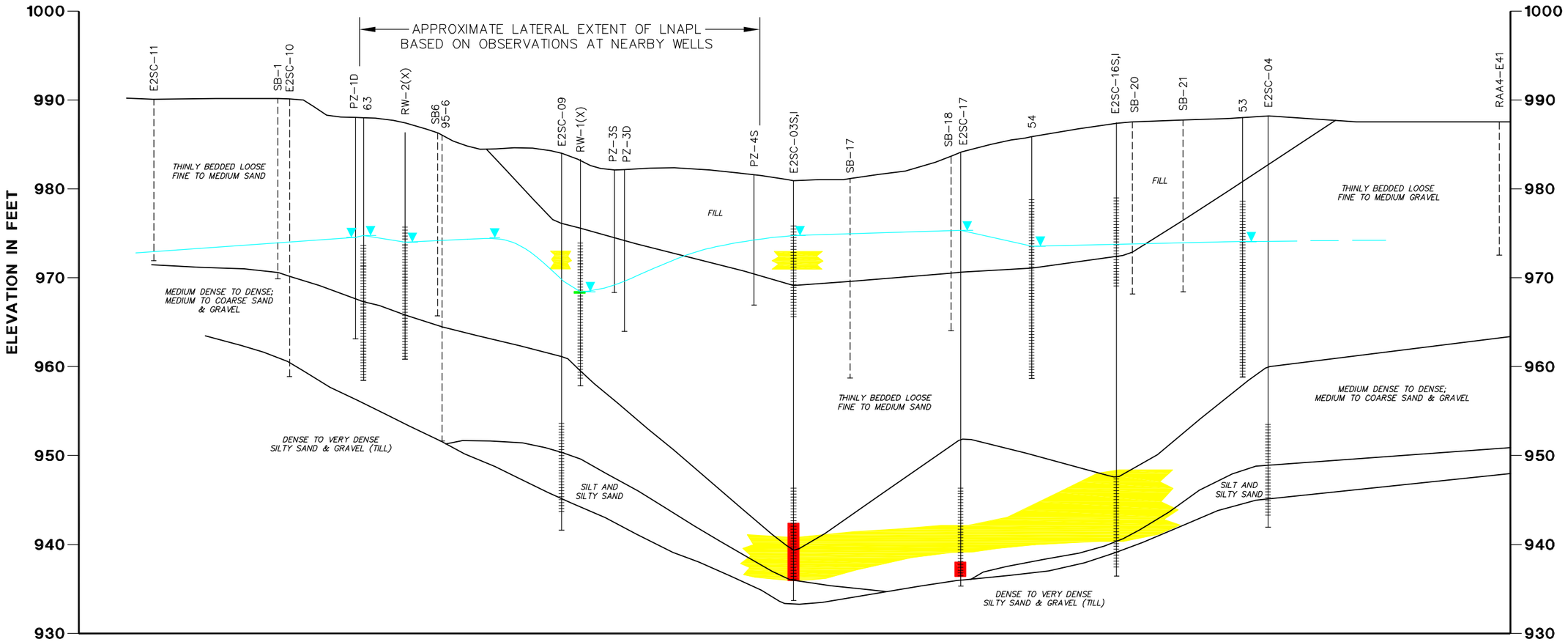
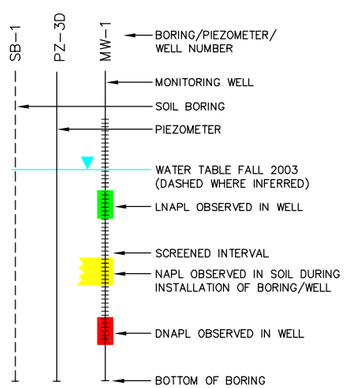
FIGURE 4

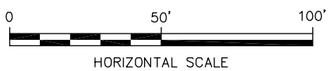
WEST
A

EAST
A'



LEGEND:





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2/04/04 SYR-B5-DMW LJP RCB
C/10113001/10113V01.DWG

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GEOLOGIC CROSS SECTION A-A'

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engineers & scientists

FIGURE
5

SOUTH
B

NORTH
B'

APPROXIMATE LATERAL EXTENT OF LNAPL
BASED ON OBSERVATIONS AT NEARBY WELLS

ELEVATION IN FEET

1000
990
980
970
960
950
940
930

RIVER
SHEETPILE CONTAINMENT BARRIER
E2SC-17
54
95-28
E2SC-01
58
SLURRY WALL
59
64V
RAA4-E38
56
E2SC-07
E2SC-06
47
E2SC-05
29
28
RAA4-C36
1R
25/25R
RAA4-A35

FILL
THINLY BEDDED LOOSE FINE TO MEDIUM SAND
PEAT
LOOSE MEDIUM DENSE SAND WITH INTERBEDDED ORGANICS
MEDIUM DENSE TO DENSE MEDIUM TO COARSE SAND & GRAVEL
DENSE TO VERY DENSE SILTY SAND & GRAVEL (TILL)
SILT AND SILTY SAND

LEGEND:

SB-1 PZ-3D MW-1

- BORING/PIEZOMETER/ WELL NUMBER
- MONITORING WELL
- SOIL BORING
- PIEZOMETER
- WATER TABLE FALL 2003 (DASHED WHERE INFERRED)
- LNAPL OBSERVED IN WELL
- SCREENED INTERVAL
- NAPL OBSERVED IN SOIL DURING INSTALLATION OF BORING/WELL
- DNAPL OBSERVED IN WELL
- BOTTOM OF BORING

0 60' 120'
HORIZONTAL SCALE

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GMA 1 NAPL MONITORING PROGRAM

GEOLOGIC CROSS SECTION B-B'

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FIGURE 6

L: ON=*, OFF=REF
P: PAGESET/PLT-DL
2/4/04 SYR-85-DMW LJP RCB
C/10113001/10113V02.DWG

NORTH

C

SOUTH

C'

RAA12-J18

RAA12-L20

LS-28

LS-34

LS-12

LSSC-34I/S
LS-1

LSSC-11
LS-33
LS-38

SHEETPILE CONTAINMENT BARRIER
P-6

HOUSATONIC RIVER

990

980

970

960

950

940

930

920

ELEVATION IN FEET

FILL

FINE TO MEDIUM SAND

MEDIUM TO COARSE SAND & GRAVEL

DENSE TO VERY DENSE SILTY SAND & GRAVEL (TILL)

FINE TO MEDIUM SAND

LEGEND:

SB-1

PZ-3D

LS-38

BORING/PIEZOMETER/ WELL NUMBER

MONITORING WELL

SOIL BORING

PIEZOMETER

WATER TABLE FALL 2003 (DASHED WHERE INFERRED)

SCREENED INTERVAL

LNAPL OBSERVED IN WELL

DNAPL OBSERVED IN WELL

BOTTOM OF BORING

0 40' 80'

HORIZONTAL SCALE

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PITTSFIELD, MASSACHUSETTS
GMA 1 NAPL MONITORING PROGRAM

GEOLOGIC CROSS SECTION C-C'

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engineers & scientists

FIGURE 7

L: ON=*, OFF=REF
P: PAGESET/PLT-DL
2/4/04 SYR-85-DMW LJP RCB
C/10113001/10113V03.DWG

WEST
D

EAST
D'

LYMAN STREET

ELEVATION IN FEET

990
980
970
960
950
940

RAA12–T10
RAA12–S13
RAA12–S14
RAA12–S15
RAA12–S16
RAA12–R18
LS–45
LS–44
LSSC–08I
LS–38
LS–41
LS–35
LSSC–18
RAA12–L30
E–3
E–4

FILL
SAND & SILT
SILT & ORGANICS
FINE TO MEDIUM SAND
SAND & SILT
SILT & ORGANICS
SAND & SILT
FINE TO MEDIUM SAND
SAND & SILT
GRAVEL
SILT
FILL
SAND & SILT
FINE TO MEDIUM SAND
SILT
FILL
SAND & SILT
FINE TO MEDIUM SAND
FINE TO COARSE SAND & GRAVEL

LEGEND:

RAA12–S13
LS–41

- BORING/WELL NUMBER
- MONITORING WELL
- SOIL BORING
- WATER TABLE FALL 2003 (DASHED WHERE INFERRED)
- LNAPL OBSERVED IN WELL
- SCREENED INTERVAL
- NAPL OBSERVED IN SOIL DURING INSTALLATION OF BORING/WELL
- DNAPL OBSERVED IN WELL
- BOTTOM OF BORING

0 100' 200'
HORIZONTAL SCALE

L: ON=*, OFF=REF
P: PAGESET/PLT-DL
2/4/04 SYR-85-LJP DMW RCB
C/10113001/10113V05.DWG

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PITTSFIELD, MASSACHUSETTS
GMA 1 NAPL MONITORING PROGRAM

GEOLOGIC CROSS SECTION D-D'

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FIGURE 8

NORTH

E

SOUTH

E'

ELEVATION IN FEET

1000
990
980
970
960
950
940
930

HOUSATONIC RIVER

N2SC-05
NS-17
N2SC-17
N2SC-16
N2SC-02
N2SC-31/S
RAA13-D91
N2SC-08/NS-19
RAA13-F93
N2SC-12
NS-20

FILL
INTERBEDDED FINE TO MEDIUM SAND, SILT, & ORGANICS
FINE TO COARSE SAND & GRAVEL
DENSE TO VERY DENSE SILTY SAND & GRAVEL (TILL)

LEGEND

SB-1
PZ-3D
LS-38

- BORING/PIEZOMETER/ WELL NUMBER
- MONITORING WELL
- SOIL BORING
- PIEZOMETER
- WATER TABLE FALL 2003
- SCREENED INTERVAL
- DNAPL OBSERVED IN WELL
- BOTTOM OF BORING

0 50' 100'

HORIZONTAL SCALE

L: ON=*, OFF=REF
P: PAGESET/PLT-DL2B
2/4/04 SYR-85-DMW LJP RCB
C/10113001/10113V04.DWG

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PITTSFIELD, MASSACHUSETTS

GMA 1 NAPL MONITORING PROGRAM

GEOLOGIC CROSS SECTION E-E'

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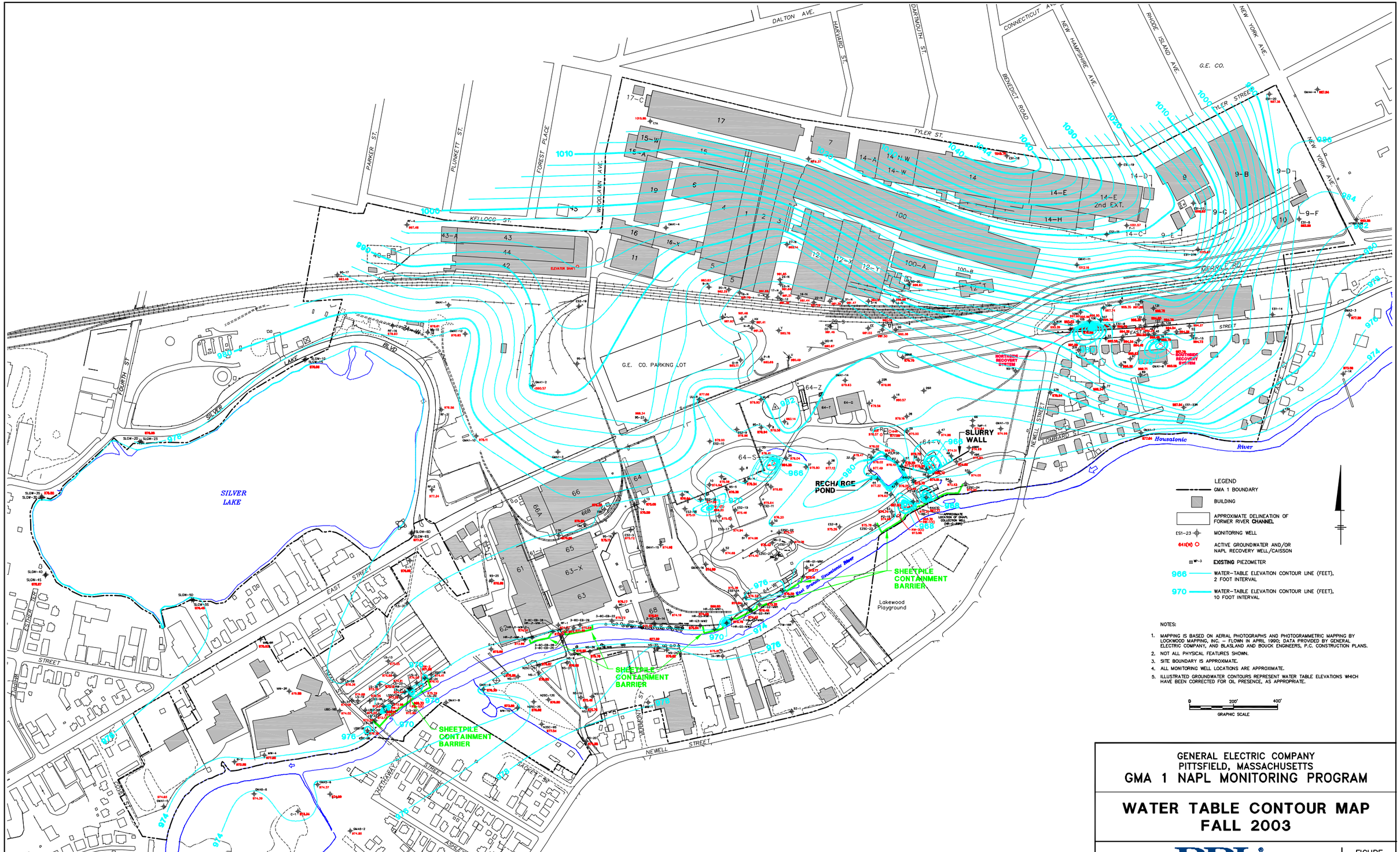
FIGURE 9



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P: PAGESET/PLT-DL2B
2/25/04 SYR-RLP NJR DMW
N/10113001/FALL03/10113B07.DWG

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

GMA 1 NAPL MONITORING PROGRAM

WATER TABLE CONTOUR MAP FALL 2003

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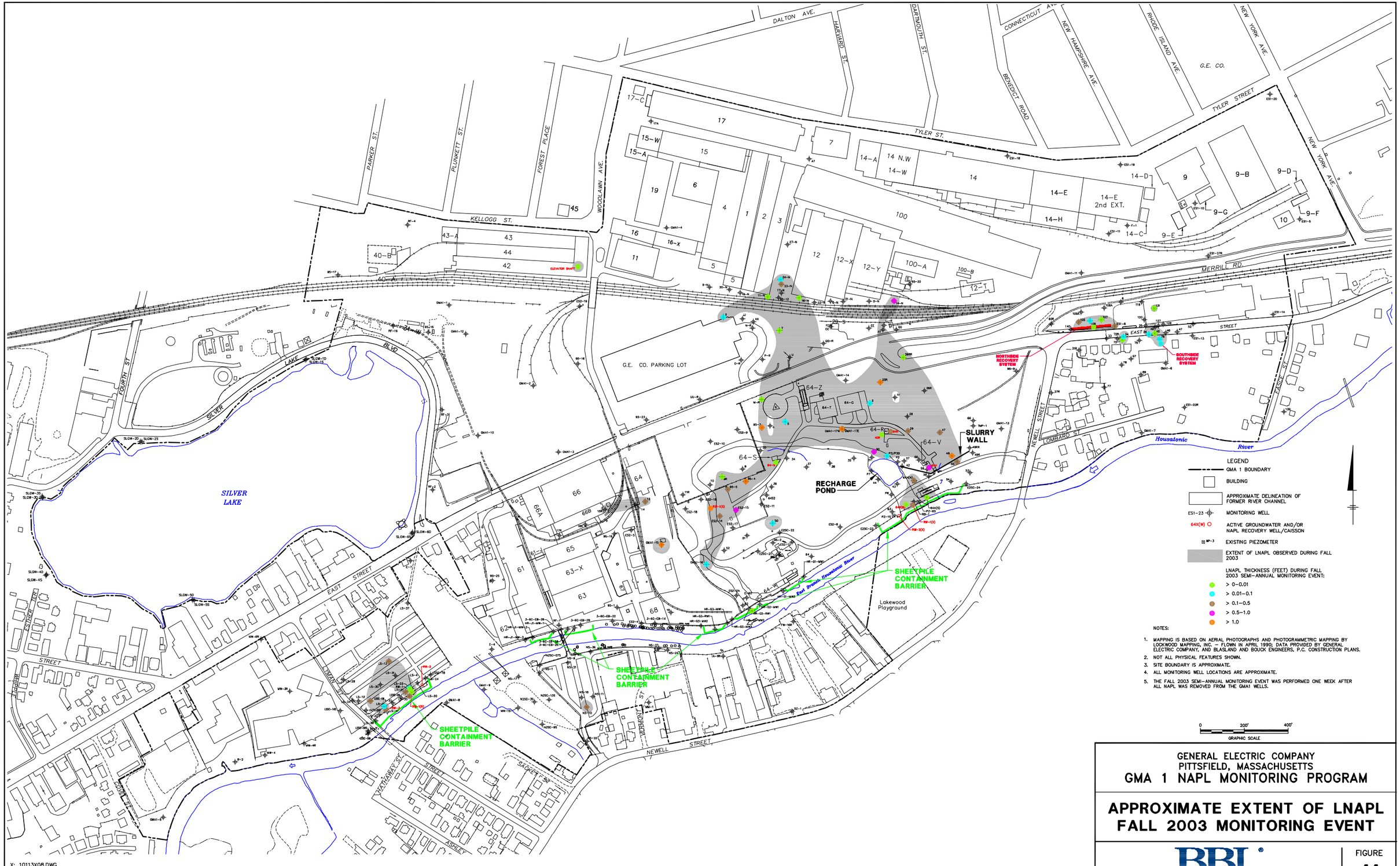
engineers, scientists, economists

FIGURE 10



NOTES:

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2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARY IS APPROXIMATE.
4. ALL MONITORING WELL LOCATIONS ARE APPROXIMATE.
5. THE FALL 2003 SEMI-ANNUAL MONITORING EVENT WAS PERFORMED ONE WEEK AFTER ALL NAPL WAS REMOVED FROM THE GMA1 WELLS.

0 200' 400'
GRAPHIC SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

GMA 1 NAPL MONITORING PROGRAM

APPROXIMATE EXTENT OF LNAPL FALL 2003 MONITORING EVENT

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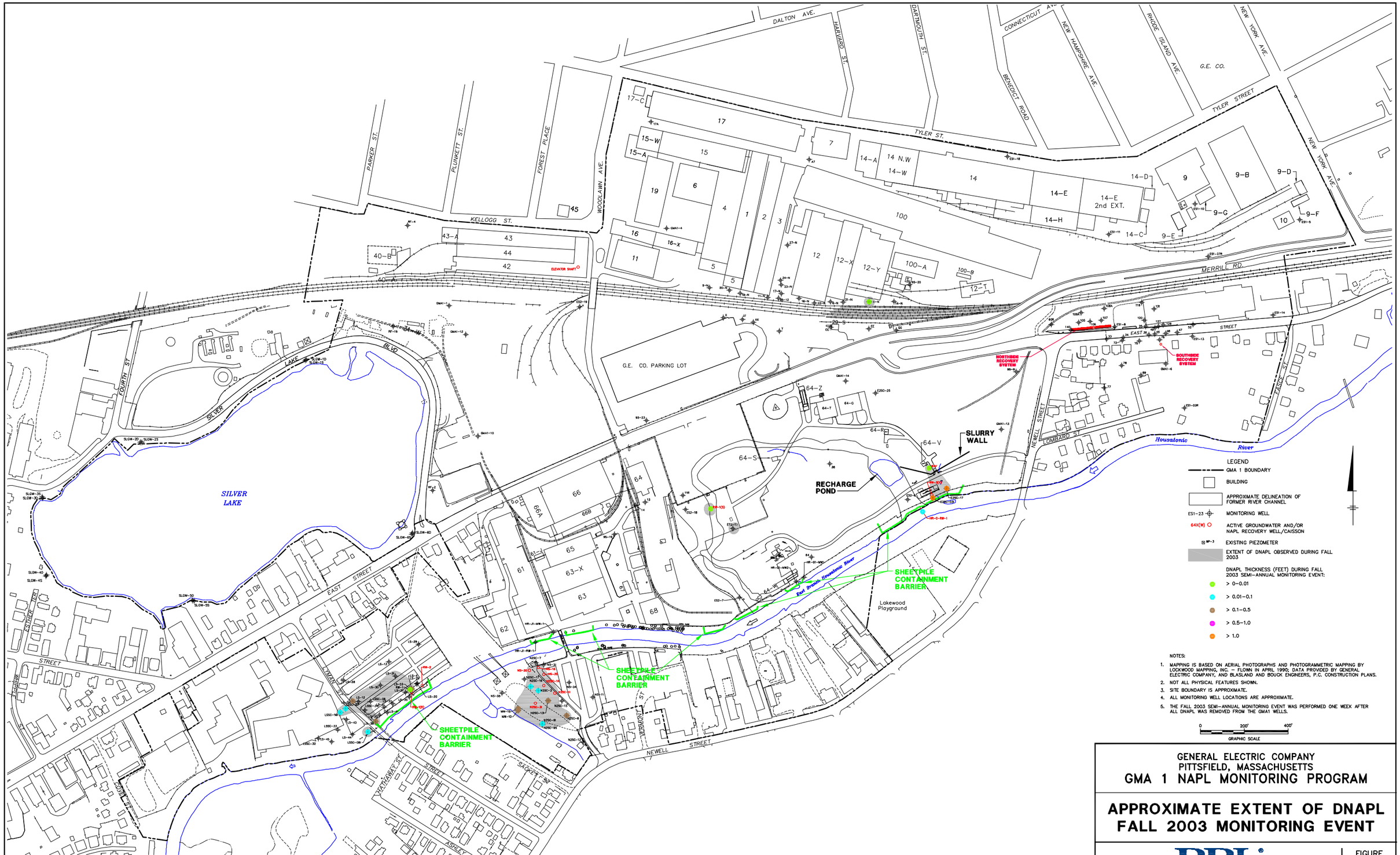
engineers, scientists, economists

FIGURE
11

X: 10113X08.DWG
L: ON=*, OFF=REF
P: PAGESET/PLT-DL2B
2/25/04 SYR-NJR SDL DMW
N/10113001/FALL03/10113B05.DWG



NOTES:

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5. THE FALL 2003 SEMI-ANNUAL MONITORING EVENT WAS PERFORMED ONE WEEK AFTER ALL DNAPL WAS REMOVED FROM THE GMA1 WELLS.

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS

GMA 1 NAPL MONITORING PROGRAM

APPROXIMATE EXTENT OF DNAPL FALL 2003 MONITORING EVENT

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engineers, scientists, economists

FIGURE
12

X: 10113X08.DWG
L: ON=*, OFF=REF
P: PAGESET/PLT-DL2B
2/25/04 SYR-NJR SDL DMW
N/10113001/FALL03/10113B06.DWG