Phase II Comprehensive Site Assessment
Walpole Park South
Walpole, Massachusetts
RTN 4-3021915

Submitted to:
Massachusetts Department of Environmental Protection

July 26, 2006

July 26, 2006

Massachusetts Department of Environmental Protection
Southeast Regional Office
Bureau of Waste Site Cleanup
20 Riverside Drive
Lakeville, MA 02347

Re: Phase II Comprehensive Site Assessment
Walpole Park South
Walpole, Massachusetts
RTN 4-3021915

Dear Sir/Madam:

In accordance with the requirements of 310 CMR 40.000, and on behalf of Walpole Park South Trust, Rizzo Associates, Inc. is submitting this Phase II Comprehensive Site Investigation for the above-referenced Site. The Phase II Report has been prepared in accordance with the Massachusetts Contingency Plan, 310 CMR 40.0000 (MCP). The original Massachusetts Department of Environmental Protection BWSC-108 transmittal form is attached to this report, and a copy of the form is in Appendix B.

Very truly yours,

Christopher K. Nitchie
Project Engineer

Raymond C. Johnson, P.G., L.S.P.
Senior Vice President

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1.0 Introduction

This report presents the implementation and findings of a Phase II Comprehensive Site Assessment (Phase II) of the property known as Walpole Park South, identified by RTN 4-3021915, in Walpole, Massachusetts (the Site). The Location of the Site is shown on Figure 1. A Site Plan showing the locations of soil borings and groundwater monitoring wells is shown on Figure 2. The investigations described herein were implemented to develop information to support LSP opinions regarding the nature and extent of releases of Oil and Hazardous Material (OHM), the risks posed by such release, and to evaluate whether further response actions are required at the Site.

The potential release conditions described in this Phase II report are currently tracked by the Massachusetts Department of Environmental Protection (MADEP) release tracking number (RTN) 4-3021915. The RTN has been revised from the original RTN to reflect the reassignment of Disposal Sites in the Town of Walpole from the DEP Northeast Regional Office to the Southeast Regional Office, effective May 1, 2006. RTN 4-3021915 was issued in response to groundwater sample results from an April 18, 2002 sampling event performed by Carr Research Laboratory in which concentrations of lead were reported to be above the applicable reportable concentration (RCGW-1).

2.0 Scope of Work

A Phase II Scope of Work was prepared for the Site by Rizzo Associates. A copy of the Phase II Scope of Work is presented in Appendix G. The Phase II Investigation included the following activities:

- Preparation of a Health and Safety Plan to address the proposed activities;
- Installation of soil boring and groundwater monitoring wells;
- Sampling and laboratory analysis of soil and groundwater from select soil borings and monitoring wells;
- Surveying in order to determine the locations and relative elevations of newly installed monitoring well casings;
- Gauging of groundwater elevations to evaluate the groundwater flow direction and prepare a potentiometric surface map; and
- Hydraulic conductivity testing to estimate the average rate of groundwater flow at the Site.

3.0 Site Description

The Site encompasses approximately 54 acres of land located at the intersection of US Route 1 and Pine Street in Walpole, Massachusetts as shown on Figure 1. The Site is divided into nine lots, seven of which contain buildings occupied by office and warehouse space that are leased to commercial and/or light industrial businesses. The current configuration of the Site and the configuration of the individual building lots are depicted on Figure 2. An access road, Walpole Park South Drive, crosses the Site from Route 1 along the southeast boundary of Walpole Park South, to Pine Street on the southwest boundary of the property. The buildings, driveways and parking areas cover the majority of the Site. The remainder of the property consists of landscaped areas adjacent to the buildings, wooded land and unpaved open areas.

4.0 Disposal Site History and Previous Investigations

The following sections describe the history of the Site, known historical releases of OHM at the Site, and the environmental investigations performed at the Site prior to this Phase II Investigation.

4.1 Site History

Prior to construction of the existing buildings the Site was vacant land, portions of which were reportedly used as a gravel pit. Development of the Site and building construction commenced in 1986. Buildings have been constructed on the Site lots since 1986, and currently two lots remain undeveloped.

4.2 Environmental Investigations Required by Walpole Board of Health

In compliance with requirements issued by the Walpole Board of Health (BOH), seven groundwater monitoring wells were installed at the Site in December 1986 by Carr Research Laboratory (Carr). The wells installed at that time included two wells located on the upgradient side of the property (MW-1 and MW-2), and five wells (MW-3, MW-4, MW-5D, MW-5S and MW-6) on the downgradient portion of the Site. Wells MW-5D and MW-5S were installed as a deep/shallow well couplet, located near the northwest corner of the property. Carr performed annual groundwater sampling during the period from 1987 to 2004 as required by the BOH. The annual sampling required by the Walpole BOH was performed by Rizzo Associates in 2005 and was performed again by Carr in 2006. The results of the BOH sampling are presented in Appendix L.

4.3 Identified Release Areas

A total of three Release Tracking Numbers (RTNs) (3-11220, 3-19859 and 3-21915) have been issued to the Walpole Park South property. RTNs 3-11220 and 3-19859 have achieved closure

through the submission of Response Action Outcome (RAO) Statements. The three RTNs are discussed below.

4.3.1 RTN 3-11220

On June 30, 1994 a release of diesel fuel from a fuel tank at 24 Walpole Park South was reported to the DEP as a 2-hour notification condition. Specifically, approximately 100 gallons of diesel fuel was released when a tractor trailer fuel tank was punctured during unloading of the truck. Reportedly, about 80 gallons of diesel fuel was recovered and placed in 55-gallon drums, and the remainder of the fuel was contained using absorbent pads and sand that was containerized for off-site disposal. Approximately 14 cubic yards of surficial soil was excavated from an unpaved area that was impacted by the release, and analysis of confirmatory soil samples indicated residual concentrations of total petroleum hydrocarbons (TPH) to be below MCP reportable concentrations and Method 1 standards. After completion of response actions a Class A-2 RAO Statement was submitted to DEP by Clean Harbors Environmental Services on August 8, 1994, indicating that a Permanent Solution had been achieved for this RTN.

4.3.2 RTN 3-19859

Based on sampling performed in April 1999 and April 2000, elevated concentrations of chloroform and bromodichloromethane were detected in groundwater samples collected at the Site as part of annual groundwater monitoring and sampling. The detected concentrations represented a 120-day notification condition under the MCP, and a Release Notification Form (RNF) was submitted to the DEP on August 9, 2000. A Class B-1 RAO Statement was submitted by Carr Research Laboratory on July 25, 2001, indicating that a Permanent Solution had been achieved for this RTN. The RAO indicated that the source of the bromodichloromethane was water treatment chemicals used for disinfection in a residential swimming pool located on an upgradient property. The source of the chloroform was identified as a reaction between chlorine used for swimming pool disinfection at the same residence and septage from the septic tank and leach field at the residence.

4.3.3 RTN 4-3021915 (Formerly RTN 3-21915)

In April 2002, following the annual groundwater sampling required by the Walpole BOH, it was noted that the lead concentrations reported by the laboratory for groundwater samples collected from monitoring wells MW-3 and MW-6 were 59 micrograms per liter (ug/l) and 23 ug/l, respectively; concentrations which exceeded the then current MCP reportable concentration of 20 ug/l for groundwater classified as RCGW-1. (The RCGW-1 standard for lead was revised by the DEP in April of 2006 and is now 10 ug/L.) To further evaluate this condition confirmatory groundwater sampling was performed in May 2002. The results of this sampling indicated lead concentrations in samples collected from MW-3 and MW-6 of 46 ug/l and 18 ug/l, respectively. Based on these sampling results it was concluded that the detected lead concentrations represented a 120-day notification condition under the MCP. Therefore, a RNF was prepared and received by the DEP on July 2, 2002. In response to the notification DEP issued a Notice of Responsibility (NOR) on August 15, 2002 and assigned RTN 3-21915 to the reported release.

Based on further review of the historic groundwater monitoring results, it was determined that additional compounds detected at concentrations exceeding the applicable RCGW-1 reportable concentrations had not been previously reported to DEP. These compounds included methylene chloride, total chromium, arsenic, tetrachloroethene (PCE), cadmium, and antimony. Of these compounds, only lead and antimony were detected in samples collected after October 1993, the effective date of the MCP revisions which established specific reportable concentrations for oil and hazardous materials. Methylene chloride is a commonly used laboratory solvent and was only detected once at a concentration exceeding its reportable concentration, in a sample collected from MW-4 in March 1987. PCE was only detected once at a level exceeding its reportable concentration, in the sample collected from MW-1 in March 1988. Cadmium was detected above its reportable concentration once, in the sample collected in March 1991 from MW-5D. Total chromium was detected at levels exceeding its reportable concentration three times, all samples collected from MW-3, most recently in March 1991. Arsenic has been identified in samples from MW-1, MW-3 and MW-5D, but has not been reported at levels exceeding the current RCGW-1 standard since March 1988.

4.4 Previous Environmental Investigations

In September 2000 two additional monitoring wells, designated MW-8 and MW-9, were installed in the southwest portion of the Site. The installation and sampling of MW-8 and MW-9 were implemented as part of investigations relating to the detection of chloroform and bromodichloromethane in groundwater samples collected from MW-6 in 1999 and 2000. This condition is associated with RTN 3-19859 as discussed above.

During the investigations regarding RTN 3-19859 it was observed that grit piles from catch basin clean outs at the Site had been stockpiled on Lot 68, on the eastern portion of the Site. On June 16, 2003 GeoHydroCycle, Inc. (GHC) conducted sampling of the two catch basin grit piles located on lot 68 as a possible source of contamination at the Site. Samples were sent to a laboratory for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), volatile petroleum hydrocarbons (VPH), extractable petroleum hydrocarbons (EPH), polychlorinated biphenyls (PCBs) and metals. A concentration of 240 milligrams per kilogram (mg/kg) of an unidentified petroleum hydrocarbon was detected in one of the pile samples which exceeds the RCS-1 standard of 200 mg/kg for petroleum hydrocarbons. A second round of catch basin grit pile sampling for priority pollutant metals was performed by Carr research on April 15, 2004. No metals were reported to be present at concentrations greater than the RCS-1 standards in the April 15, 2004 samples. Appendix K contains copies of the tabulated analytical data originally presented in Appendix C of the Phase I – Initial Site Investigation, Tier Classification and RAM Status Report. Within these tables Table 3 presents the catch basin grit pile analytical data.

In January 2004, seven additional monitoring wells were installed by GeoHydroCycle, Inc. (GHC) (GHC-1 to GHC-7) to further characterize soil and groundwater conditions and to evaluate whether a source of the compounds detected in groundwater could be identified. 14 soil samples were collected and submitted for laboratory analysis by GHC during the monitoring well installation. The results of the soil analysis did not indicate exceedance of the then

applicable reportable concentrations or applicable MCP Method 1 standards. The results of the soil analysis did, however, indicate the presence of metals such as arsenic, barium, chromium and lead at concentrations below the applicable soil reporting category (RCS-1) standards. These metals occur naturally in the rock types found in this area and their detection at low levels is not necessarily indicative of a release condition. Groundwater samples were collected from the nine previously existing monitoring wells at the Site along with newly installed wells GHC-6 and GHC-7 in February 2004. The analytical results from the February 2004 sampling event reported antimony concentrations of 119 and 122 ug/L in wells MW-6 and GHC-7 respectively, exceeding the RCGW-1 standard for antimony of 6 ug/L. Monitoring wells MW-6 and GHC-7 were re-sampled in April 2004 to further evaluate the presence of antimony in these well. The analytical results from the April 2004 sampling event did not report antimony concentrations at concentrations greater than the laboratory method detection limits; however, the method detection limits for these samples were reported to be 10 ug/L, which is above the RCGW-1 standard. The results from these two groundwater sampling events are shown on copies of Tables 1 and 2 of Appendix C of the *Phase I – Initial Site Investigation, Tier Classification and RAM Status Report*, dated June 4, 2004, which is presented in Appendix K of this report.

4.5 Walpole BOH Groundwater Analytical Results 1987-2006

Carr Research Laboratory has performed groundwater sampling at the Site annually between 1987 and 2006, with the exception of the 2005 sampling event performed by Rizzo Associates, as described in Section 4.2. This groundwater sampling was and continues to be performed to meet the Walpole BOH requirements for the Site, and is conducted in accordance with the approach established in 1986. To properly evaluate potential risks associated with current conditions at the Site, and because Phase II groundwater sampling events were more extensive than those required under the annual BOH sampling program, the results of older annual BOH samplings have not been included in the Method 1 Risk Characterization for purposes of the Phase II report. This approach is consistent with DEP risk characterization guidance which stipulates that the risk characterization provide an evaluation of risk to current and hypothetical future receptors. (Also, as discussed in later section, the risk characterization has concluded that there is potential risk associated with current conditions, and additional sampling will be performed going forward to continue to characterize and update the data set regarding groundwater conditions. If conditions in the future improve to the point that it appears that a Condition of No Significant Risk has been achieved, historic data will be reviewed and a determination will be made, based on the DEP risk characterization guidance in effect at that time, regarding the exclusion of historic data from a revised risk characterization.) The BOH groundwater analytical results do, however, indicate that the Site has a history of occasionally elevated concentrations of metals and/or VOCs at various locations throughout the Site. Table 5 presents the available dates, locations compounds and concentrations of BOH sampling exceedances of the current MCP Method 1 GW-1 and or GW-3 standards. (It is noted that Method 1 standards for some compounds were revised effective April 3, 2006, and the current standards are shown on the data tables.) Appendix L presents available BOH groundwater analytical data tabulated by monitoring well dating back to 1987. The following sections discuss the historical metals and VOCs exceedances and their relevance to this investigation. The

analytical data discussed in this section is based upon information available in Groundwater Sampling Report Winter-Spring 2004 prepared by Carr Research Laboratories, Inc., dated August 10, 2004, and the Phase I – Initial Site Investigation, Tier Classification and RAM Status Report prepared by GHC dated June 4, 2004.

Metals

Antimony, arsenic, cadmium, total chromium and lead have each been reported at concentrations greater than the current MCP Method 1 GW-1 and/or GW-3 standards in groundwater samples collected from various wells at the Site. Lead has been the compound most frequently reported to be above the Method 1 standard. Lead exceedances have been identified 11 times over the 20 year BOH sampling history, in wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-8 and MW-9, at concentrations ranging from 18 micrograms per liter (ug/L) to 119 ug/L. Arsenic exceedances have been reported in wells MW-1, MW-3, MW-4 and MW-5D at concentrations ranging from 28 to 473 ug/L. Cadmium exceedances have been reported in wells MW-3 and MW-5D at concentrations ranging from 6 to 20 ug/L. Chromium exceedances have been reported in well MW-3 at concentrations ranging from 230 to 340 ug/L. Antimony exceedances have been identified in wells MW-6 and GHC-7 at concentrations ranging from 12 to 19 ug/L.

Metals are often persistent and slow migrating in groundwater. Highly variable dissolved metals concentrations can sometimes be the result of inconsistent sampling or laboratory analytical procedures, could be associated with off-site releases, or may be reflective of natural fluctuations in ambient conditions. Changes in groundwater pH can also impact the concentrations of dissolved metals by dissolving metals into solution when the groundwater is more acidic, and precipitating them out when the groundwater has a more neutral pH. There is sufficient historical metals data to indicate that dissolved metals concentrations, particularly lead, fluctuate at the Site and occasionally exist at concentrations greater than the Method 1 GW-1 and GW-3 standards. While lead has been the most frequently occurring metal at the Site based upon the BOH sampling data, antimony, arsenic, cadmium, and total chromium have also been detected occasionally in groundwater samples collected at the Site.

Volatile Organic Compounds

Bromodichloromethane, chloroform, methylene chloride and tetrachloroethylene have each been reported at concentrations greater than the current Method 1 GW-1 and/or GW-3 standards in groundwater samples collected from various wells at the Site. Methylene chloride was reported at a concentration of 8.8 ug/L in well MW-4 in March of 1987, exceeding the current Method 1 GW-1 standard for methylene chloride of 5 ug/L. Methylene chloride is a common laboratory solvent, and low levels of this compound may be related to laboratory cross-contamination. Tetrachloroethylene (PCE) was reported at a concentration of 5.6 ug/L in well MW-1 in March of 1988, this exceeds the current Method 1 GW-1 standard for PCE of 5 ug/L. The exceedances of methylene chloride and PCE were not reported to the DEP at the time that they were discovered; however the extensive analytical data developed since that time indicates that they were isolated detections and, therefore, likely related to sampling error or cross-contamination at the laboratory, and are not persistent at the Site.

Chloroform was reported at a concentration of 5 ug/L in groundwater from well MW-6 in April 1999. In April 2000 and June 2000 chloroform and bromodichloromethane were reported in samples from well MW-6 at concentrations ranging from 5 to 10 ug/L. These reported concentrations exceed the current Method 1 GW-1 standards for bromodichloromethane and chloroform which are both 5 ug/L. The DEP was notified of the detection of these compounds in MW-6 through a RNF submitted on August 9, 2000. A Class B-1 RAO was submitted on July 25, 2001 indicating that the source of the release of the bromodichlormethane and chloroform was releases associated with an up-gradient swimming pool. The RAO is described in further detail in Section 4.3.2 of this report.

Bromodichloromethane was detected in a sample from MW-2 at a concentration of 6.5 ug/L and chloroform was identified in samples from wells MW-2, MW-3 and RIZ-3 at concentrations of 18.0, 11.6 and 9.3 ug/L, respectively, in the April 2006 BOH sampling event performed by Carr Research Laboratory. The results of the April 2006 BOH sampling are included in the BOH analytical results tables presented in Appendix L. These concentrations are similar to those reported in the April 2006 sampling performed by Rizzo for this Phase II investigation which are discussed in Section 8.2.

5.0 Regulatory Information

Based on historic monitoring results and the investigations implemented after submission of the RNF, a Phase I – Initial Site Investigation (Phase I) report and Tier IB Classification was prepared by GHC and submitted to DEP in June 2004. The Phase I report concluded that the nature and extent of contamination does not exhibit a regular pattern, relative to both the locations of wells in which analytical results exceed MCP Method 1 GW-1 standards and the detection of compounds over time. Based on the Numerical Ranking Scoresheet (NRS) prepared by GHC, the Site was classified as a Tier IB Disposal Site. An evaluation performed as part of the Phase I investigation concluded that the identified Site conditions did not represent an Imminent Hazard, indicting that implementation of an Immediate Response Action was not necessary. In an internal memorandum dated July 9, 2004 the DEP Drinking Water Program (DWP) found that "the groundwater contamination levels at the site are all low, compared to most waste sites," and "heavy metals have fairly low mobility in groundwater." DEP concluded "the site does not appear to pose a threat to the Walpole municipal wells, because of the low groundwater contamination levels and the distance from the site to the wells." A Tier IB Permit for RTN 4-3021915 was issued by DEP on July 26, 2004.

6.0 Site Hydrogeological Characteristics

The hydrogeology of the Site has been characterized based on the information presented in the Phase I – Initial Site Investigation, Tier Classification and RAM Status Report prepared by GHC dated June 4, 2004, Annual Groundwater Sampling Reports prepared by Carr Research Laboratories, and a review of published United States Geological Survey (USGS) maps. Boring logs for soil borings and monitoring wells that were advanced under Rizzo oversight are presented in Appendix D. Site hydrogeological characteristics are summarized below.

6.1 Site Area and Topography

The overall topography of the Site generally slopes from southwest to northeast. The majority of the Site is occupied by improvements such as buildings, roadways, parking areas and retention ponds, and these improvement create localized topographic anomalies.

6.2 Potential for Flooding

The nearest surface water features to the Site are the Goldwater Farm Pond and School Meadow Brook. Goldwater Farm Pond is located approximately 650 feet south of the Site, and School Meadow Brook flows in a north and northwesterly direction downstream from the pond. Based on the relative elevation of these surface water features and the Site it appears that flooding on the Site is unlikely. Additionally, the development of the Site included storm water drainage within retention ponds, which further controls and manages overland runoff, reducing the potential for flooding.

6.3 Site Geology

Based on the Bedrock Geological Map of Massachusetts the bedrock below the Site is characterized as Dedham Granite (proterozoic Z) which is described as light grayish-pink to greenish-gray, equigranular to slightly porphyritic, variable altered, granite south and west of Boston. It includes dioritic rock near Scituate and Cohasset and Barefoot Hills Quartz monzonite of Lyons (1969) and Lyons and Wolf (1971). Bedrock outcrops were not observed during Site visits by Rizzo personnel; however, refusal was encountered at depths as shallow as 13 feet (soil boring RIZ-4) on the southwestern portion of the Site. Refusal was generally not encountered on the northern and eastern portions of the Site at depths up to 40 feet (RIZ-3), indicating that the bedrock slopes from the southwest to the northeast.

6.4 Hydraulic Conductivity Tests

Rizzo conducted hydraulic conductivity tests on three wells at the Site, GHC-1, RIZ-1 and RIZ-3, which were chosen to provide general site coverage and based upon which Site wells had sufficient water volume for the tests to be performed. Rising head tests were performed to provide data for use in estimating the rate of groundwater flow at the Site using the procedure outlined below. Each of the subject wells were developed to remove excess silt, which may have collected in the monitoring well and which may clog the well screen. A pressure transducer was placed in the well and the water level was allowed to equilibrate. The pressure transducer supplied pressure readings to an In-Situ Datalogger, which converted the pressure readings to water level readings. At the beginning of the test, a bailer of water (or slug) was quickly removed from the well, resulting in a drop in the groundwater level in each well relative to the pre-test static water level. The Datalogger recorded the recovery of water levels on a logarithmic scale. The level data were plotted using a groundwater modeling program and resulting curves were analyzed using the Bouwer and Rice method for calculating hydraulic conductivity using the Aquitest groundwater software.

The recovery data for the three wells were downloaded from the data logger directly into the Aquitest software spreadsheet, and converted to cumulative time since start of test (in seconds), water level (in feet) and drawdown (in feet). The raw data and the converted data for each well are shown in Appendix E. Input parameters for the Aquitest program included depth to water, depth to bottom of well, screen length, radius of well radius of sand pack, static water level, initial displacement and the depth of the aquifer. The values used for these parameters were recorded during installation of these wells and are shown in the boring logs in Appendix D.

Recovery data was plotted as recharge versus cumulative time on a semi-logarithmic graph by the Aquitest program and the best-fit line was chosen visually, as shown on the graphs in Appendix E. The Aquitest program then calculates hydraulic conductivity, K, from the slop of this line according to equations presented by Bouwer and Rice (1976) for a partially penetrating well. Best-fit lines were hand selected because of the "double straight line effect" described by Bouwer (1989). When a sand pack or developed zone is present around a well, the first straight line segment of the recharge graph is more representative of the hydraulic conductivity of the sand pack, whereas the second and later line segments are more representative of the aquifer material. As suggested by Bouwer (1989), where the "double straight line effect" is observed, the first straight-line segment has been discarded and calculations have been made based on the later line segments. Based on the analysis of the slug test data, hydraulic conductivities of 2.14 ft/day for well RIZ-1, 4.77 ft/day for well RIZ-3 and 8.67 ft/day for well GHC-1 were calculated. These values are consistent with published hydraulic conductivity values for medium to coarse sand and gravel.

Applying Darcy's Law (Freeze and Cherry, 1979), the average linear velocity (v) of the groundwater in the area of the three wells tested was calculated using the K values noted above, an estimated effective porosity (N) of 30 percent (0.30), and a hydraulic gradient (I) ft/foot, based on the following equation:

Rate of groundwater flow = (hydraulic conductivity x hydraulic gradient) / effective porosity

At the Site, the hydraulic gradient is approximately 0.03 feet/ft, based on the potentiometric surface map prepared for the Site. The linear velocity for the areas surrounding each well tested on the flowing table.

Linear Velocity Data for Selected Monitoring Wells

Monitoring Well	Hydraulic Conductivity (ft/day)	Hydraulic Gradient	Linear Velocity (ft/day)
GHC-1	8.67	0.03	0.867
RIZ-1	2.14	0.03	0.214
RIZ-3	4.77	0.03	0.477

7.0 Phase II – Subsurface Investigation Activities

The following sections describe investigations conducted by Rizzo as part of the Phase II investigation. This investigation included the following activities:

- Installation of 7 soil borings;
- Completion of 3 of the soil borings as groundwater monitoring wells;
- Collection of soil and groundwater samples from soil borings and monitoring wells for laboratory analysis;
- Surveying to determine the locations and relative elevations of each newly installed monitoring well measuring point;
- Gauging of groundwater elevations to evaluate the groundwater flow direction and prepare a potentiometric surface map; and
- Hydraulic conductivity testing of three groundwater monitoring wells.

7.1 Soil Boring Installation

On February 15 and 16, 2006 Rizzo personnel observed the installation of 7 soil borings performed by Geosearch of Leominster, Massachusetts at the Site. The soil borings were installed to provide additional information on soil conditions and to permit the installation of additional groundwater monitoring wells.

The soil borings were advanced using a truck-mounted hollow stem auger drill rig. Soil samples were collected from each boring with a two foot long split spoon sampler at five foot intervals or as changes in the subsurface strata were observed. Soil samples were sealed in 8-ounce jars for headspace screening with a Photovac photo-ionization detector (PID) equipped with a 10.2 eV lamp, following the standard jar headspace screening protocol in Appendix H. Headspace readings ranged from 0.0 to 2.9 ppmv for samples collected from these 7 soil borings.

Based on the headspace readings and observations made during the boring installations, one soil sample from each soil boring was selected for laboratory analysis. Each selected soil sample was submitted to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts and analyzed for VOCs by EPA Method 8260 and MCP 14 metals.

Soil conditions observed in the seven borings generally consisted of tan or brown medium to coarse sand and gravel with occasional layers of fine sand. Groundwater was encountered between 5 feet and 18 feet below the ground surface (bgs) in the borings, and auger refusal was encountered as shallow as 13 feet bgs on the western side of the Site. Soil boring logs showing further detail regarding the observed soil conditions at each boring are presented in Appendix D.

7.2 Groundwater Monitoring Well Installation

On February 15 and 16, 2006 Rizzo personnel observed the installation of 7 soil borings as described in Section 7.1 above. Three of these soil borings, RIZ-1, RIZ-2 and RIZ-3, were completed as groundwater monitoring wells. These groundwater monitoring wells were installed to provide a hydraulically upgradient well in the center of the Site and to replace two groundwater monitoring wells, GHC-4 and GHC-7, that had been destroyed or could not be located. The locations of the groundwater monitoring wells are shown on Figure 2.

Groundwater monitoring wells were constructed with 10-foot sections of 0.010-inch, machine-slotted, 2-inch-diameter polyvinyl chloride (PVC) well screen and solid, 2-inch-diameter PVC riser. The annular space around the well screen was filled with graded sand to one foot above the well screen and at least 1 foot of bentonite was placed over the graded material to prevent vertical migration of groundwater within the borehole. Well construction diagrams showing further detail of the construction of each wells are presented in Appendix D.

7.3 Groundwater Sample Collection and Analysis

Rizzo personnel performed four rounds of groundwater sampling during the Phase II investigation. On April 16 and 18, 2005 Rizzo personnel sampled monitoring wells GHC-2, GHC-5, GHC-6, MW-1 through MW-4, MW-5S, MW-5D, MW-6 and MW-9. On July 1, 2005 Rizzo personnel sampled wells MW-1 through MW-4, MW-5D, MW-5S, MW-6, MW-9 and GHC-6. On March 6, 2006, following the installation of the three wells discussed in Section 7.2, Rizzo personnel sampled newly installed monitoring wells RIZ-1 through RIZ-3, along with previously existing wells MW-1 through MW-4, MW-5S, MW-5D, MW-6 and MW-9. Groundwater monitoring wells MW-8, GHC-2 and GHC-6 could not be located on March 6, 2006 due to snow banks and ice. On March 16, 2006 Rizzo personnel returned to the Site to complete the groundwater sampling round; however, insufficient water was available in well MW-8 for sampling. Therefore only wells GHC-2 and GHC-6 were sampled on this date. On April 10, 2006 Rizzo personnel performed the fourth groundwater sampling round by sampling wells RIZ-1 through RIZ-3, MW-1 through MW-4, MW-5S, MW-5D, MW-6, MW-9 and GHC-6. Groundwater sampling was performed by purging each well until constant pH and specific conductance readings were observed in the purge water or until a volume of water equivalent to at least three times the volume of water within the well had been removed, followed by collection of the groundwater samples. All collected dissolved metals samples were field filtered with a 0.45 micron disposable filter at the time of sampling. Table 4 shows the observed final pH and conductivity readings for the sampled wells.

The groundwater samples collected by Rizzo personnel as a part of the Phase II investigations were submitted under chain of custody to Con-Test analytical laboratory in East Longmeadow Massachusetts for analysis for VOCs, extractable petroleum hydrocarbons (EPH) and MCP 14 dissolved metals. The groundwater samples collected from well MW-3 during both 2006 sampling rounds and wells GHC-2, MW-3 and MW-4 in the April 2005 sampling round were also submitted for analysis of total base neutrals.

7.4 Groundwater Elevation Survey

Rizzo personnel surveyed the elevations of previously installed and newly installed monitoring wells on the Site on April 10, 2006. The depths to groundwater recorded during groundwater sampling events were subtracted from the elevations of the top of the PVC riser and/or well casing of the monitoring wells to obtain elevations of the groundwater surface. Table 1 shows the PVC riser and well casing elevations relative to an arbitrary benchmark, as well as the depths to groundwater and relative groundwater elevations collected on April 10, 2006. Figure 3 presents the inferred potentiometric surface map and direction of groundwater flow based on this data.

8.0 Laboratory Analytical Results

Soil and groundwater samples were submitted for laboratory analysis as a part of this Phase II investigation as described in Section 7.0. The following sections provide descriptions of laboratory analytical results for the Phase II activities. Complete laboratory analytical results are available in Appendix F. Additionally, included in this discussion are descriptions of some laboratory analytical results from Walpole BOH required sampling, as described in Section 4.2. Walpole BOH required sampling results were obtained through review of the Phase I – Initial Site Investigation, Tier Classification and RAM Status Report prepared by GHC dated June 4, 2004, and from annual groundwater monitoring reports submitted to the Walpole BOH prepared by Carr Research Laboratory, Inc. and Rizzo Associates. Copies of the laboratory analytical results from the historical Walpole BOH sampling are available in Volume III, Appendix V, of the Phase I – Initial Site Investigation, Tier Classification and RAM Status Report.

8.1 Phase II Soil Analytical Results

A total of 7 soil samples were submitted for laboratory analysis as a part of the Phase II investigation. Table 2 presents a summary of positive laboratory analytical results from soil sampling activities and the resulting exposure point concentrations (EPCs). No VOCs or total metals were reported at concentrations above the applicable MCP Method 1 standards except for a reported beryllium concentration of 0.87 mg/kg in a sample collected at a depth of 15-17 feet below the ground surface from boring RIZ-2. This concentration exceeds the Method 1 S-1/GW-1, GW-2 and GW-3 standards of 0.7 mg/kg, and the Method 1 S-2/GW-1, GW-2 and GW-3 standards of 0.8 g/kg. Naturally occurring beryllium is often found in this area of Massachusetts at concentrations similar to that found at RIZ-2. Based on the depth of sample collection and the fact that the material at this depth consisted of undisturbed native deposits, it is likely that the beryllium is naturally occurring. This is also the only location on the Site where analytical results have indicated the presence of a compound at a concentration exceeding the applicable RCS-1 standard.

8.2 Phase II Groundwater Analytical Results

A total of 36 groundwater samples were submitted for laboratory analysis as a part of this Phase II investigation. Table 3 presents a summary of positive laboratory analytical results from groundwater sampling activities. The following describes groundwater monitoring wells from which collected samples have had reported concentrations of VOCs, EPH, dissolved metals or total base neutrals greater than one or more of the applicable MCP Method 1 standards in one or more of the four groundwater sampling rounds performed by Rizzo Associates in 2005 and 2006.

- **MW-2** – Reported concentrations of bromodichloromethane in the samples collected from well MW-2 in March and April 2006 were 10 ug/L and 8 ug/L, respectively. Reported concentrations of chloroform in the samples collected from well MW-2 in March and April 2006 were 25.4 ug/L and 19.7 ug/L, respectively. These reported bromodichloromethane and chloroform concentrations exceed their respective Method 1 GW-1 standards of 3 ug/L and 5 ug/L.

- **MW-3** –The reported concentration of chloroform in the sample collected from well MW-3 in April 2006 was 9.8 ug/L. This reported concentration exceeds the Method 1 GW-1 standard for chloroform of 5 ug/L.

- **MW-9** - The reported concentration of lead in the sample collected from well MW-9 in March 2006 was 35 ug/L. This reported concentration exceeds the Method 1 GW-1 and GW-3 standards for lead of 15 and 10 ug/L, respectively.

- **RIZ-3** - The reported concentration of bromodichloromethane in the sample collected from well RIZ-3 in March and April 2006 was 5.7 ug/L. Reported concentrations of chloroform in the samples collected from well RIZ-3 in March and April 2006 were 16.4 ug/L and 7 ug/L, respectively These reported bromodichloromethane and chloroform concentrations exceed their respective Method 1 GW-1 standards of 3 ug/L and 5 ug/L.

9.0 Fate and Transport of Oil and Hazardous Materials

The fate and transport pathways for the contamination identification at the Site were evaluated to characterize mobility, persistence, stability, and volatility. The concentrations of OHM potentially requiring response actions included metals (beryllium) in soil, metals (lead) in groundwater and VOCs in groundwater. At this time an on-site release and/or source of the compounds detected at elevated concentrations has not been identified. The metals detected in the soil are likely naturally occurring/background metals concentrations. The metals and VOCs detected in the groundwater may be associated with on-site conditions; however, they may also be related to off-site upgradient releases or naturally occurring contaminants migrating across the Site.

The evaluation of the environmental fate and transport of OHM identified at the Site has been conducted based upon laboratory analytical data collected to date. The evaluation was conducted in accordance with 310 CMR 40.0835 (4), (e) and included:

- An evaluation of the mobility, stability, volatility, persistence, and bioaccummulative potential of each OHM identified at the Site.
- Identification and characterization of existing and potential migration pathways of OHM at and from the Site including air, soil, groundwater and surface water.
- An evaluation of the potential for groundwater to be a source of vapors of OHM to indoor air of occupied structures.

9.1 Mobility and Persistence

The primary contaminants of concern at the Site are metals and VOCs in groundwater. Metals have also been identified in soil at the Site, but only beryllium in a single soil sample has been detected at a concentration exceeding the applicable MCP reportable concentration. Mobility and persistence related to each of the contaminants of concern are discussed below.

Metals

Various metals have been identified in the soil at the Site at concentrations greater than the method detection limits, but only beryllium in a single soil sample has been detected at a concentration exceeding the applicable MCP reportable concentration. Based on the depth at which that sample was collected from undisturbed native soil, and conditions elsewhere on the Site, it is likely that the beryllium is naturally occurring and not related to a release.

Dissolved lead was observed at an elevated concentration in groundwater collected from well MW-9 during the third of four groundwater sampling rounds that took place during the Phase II investigation. The location of well MW-9 on the upgradient side of the Site, the lack of a reportable concentration of lead in the groundwater samples collected from well MW-9 in the first, second and fourth groundwater sampling events, and the absence of elevated concentrations of lead in other wells indicates that conditions at the Site are not likely the source of metals in groundwater at the Site. Metals generally have low solubility and will precipitate in most natural groundwater pH ranges, thereby limiting their mobility as a dissolved-phase contaminant. Persistence of metals is typically high except within a corrosive environment.

Volatile Organic Compounds

Detectable concentrations of VOCs, including bromochloromethane, bromodichloromethane, bromoform, chloroform and dibromochloromethane, were identified in the groundwater samples collected in March and April 2006 from monitoring wells MW-2, MW-3 and RIZ-3. Reported concentrations of bromodichloromethane and/or chloroform exceeded the applicable MCP Method-1 standards in wells MW-2, MW-3 and RIZ-3. VOCs can be highly mobile in certain

subsurface environments, and migration can be influenced by a variety of factors. VOC concentrations were greatest in the most upgradient of these three wells, MW-2, and decreased moving downgradient to wells RIZ-3 and MW-3.

Methyl tert-butyl ether (MTBE) was identified in wells MW-9 and RIZ-1; however, the reported concentrations of MTBE did not exceed the MCP-Method 1 standards. MTBE is a highly mobile compound and wells RIZ-1 and MW-9 are located on the upgradient boundary of the Site and, therefore, it is likely that the source of the MTBE is upgradient from the Site.

No on-site source has been identified for VOCs, and it is possible that these VOCs are migrating onto the Site from an off-site source(s). Based on the existing information the VOCs identified at the Site are expected to be moderately to highly mobile, but not highly persistent.

9.2 Migration Pathways

Potential migration pathways for OHM at and from the Site were identified and characterized for soil, groundwater and air. In general, the most likely migration pathway for the contaminants identified at the Site is via horizontal migration as a dissolved-phase constituents in groundwater. Vertical migration of VOCs and metals is expected be limited by the underlying bedrock across the western portion of the Site; however, the depth to the bedrock increases substantially on the eastern portion of the Site. A significant migration pathway via air is unlikely based on indoor air transport modeling performed as a part of the Risk Characterization. A summary of the migration pathways identified and characterized for the OHM reported at the Site at concentrations which exceed the applicable MCP risk-based criteria is presented below.

9.2.1 Soil

Migration pathways for contaminants in soil include generation of dust during activities that result in soil disturbance and transport of soil during precipitation events. Only one exceedance of the MCP Method 1 soil standards was identified during this investigation, a reported Beryllium concentration of 0.87 mg/kg in the RIZ-2, 15-17 foot soil sample. Considering that impacted soil was identified in only one location at the Site at a depth of 15-17 feet below the ground surface, these mechanisms do not appear to have significant potential to transport impacted soil from the current location. In addition, since the impacted area is located under pavement, these transport pathways are not currently complete.

9.2.2 Groundwater

Migration of dissolved phase compounds via advection, dispersion and/or diffusion can be a significant transport pathway. Advection is the process of contaminant mass being transported away from a source by the bulk mass of groundwater flow. Dispersion is the result of attenuation of the advective transport plume that results in reducing the peak concentration but extending the lateral extent of the plume. Diffusion is the process of extending the extent of the plume through variations in flow direction and velocities due to heterogeneities in the

permeability of the soil. Evidence of groundwater transport of VOCs was identified during the Phase II investigations. Evidence of groundwater transport of metals was not identified during the Phase II investigations. Based on the potentiometric surface map generated during the Phase II, the groundwater flow direction at the Site was identified to be to the north-northeast.

9.2.3 Air

One groundwater monitoring well (MW-2) did have a reported average concentration of bromodichloromethane (8.8 ug/L) above the Method 1 GW-2 standard (6 ug/L); however the migration of this compound to indoor in Site buildings has not been identified as a potential migration pathway due to the depth to water in impacted well (12.4 feet), the distance of the impacted wells from the nearest Site building (approximately 40 feet) and the presence of concrete slab flooring in the Site buildings. Based on these factors it is unlikely that concentrations of VOCs in the groundwater are elevated enough to be expected to create a condition of significant risk in the indoor air within the building. We note that the GW-2 standards are very conservative, and are based on infiltration into buildings with basements and extensive transport pathways (e.g., cracks, stone foundations) that are not representative of the structures at the Site.

10.0 Nature and Extent of Contamination

The extent of contamination was evaluated based on soil data collected during the Phase II investigation activities including installation of soil borings and groundwater monitoring wells, and the collection of groundwater samples. Additionally groundwater data from previous and investigations at the Site were utilized in this evaluation where appropriate.

10.1 Extent of Soil Contamination

The soil analytical results reported no compounds at concentrations greater than the applicable MCP Method 1 risk characterization standards (S-1/GW-1) except for beryllium (0.87 mg/kg) reported in a soil sample collected from the RIZ-2 soil boring. This concentration of beryllium exceeds the current S-1/GW-1 standard of 0.7 mg/kg. Based on the depth at which that sample was collected from undisturbed native soil, and conditions elsewhere on the Site, it is likely that the beryllium is naturally occurring and not related to a release.

10.2 Extent of Groundwater Contamination

For the 45 groundwater samples that were submitted for laboratory analysis over four sampling rounds as a part of this Phase II investigation, VOCs and or dissolved metals concentrations greater than one or more of the applicable MCP Method 1 standards were reported in 4 wells. Compounds exceeding the MCP Method 1 standards included bromodichloromethane, chloroform and lead; however, at this time no on-site source has been identified for these compounds. Reported dissolved metals concentrations have been inconsistent over the three

sampling events. Lead was identified at a concentration greater than the method detection limit in well MW-9 in only one of the four groundwater sampling events. Because the locations and concentrations of the identified compounds were not consistent throughout the four groundwater sampling events there is not a clearly definable plume for the dissolved metals.

The presence of bromodichloromethane and/or chloroform along the eastern boundary of the Site, specifically in monitoring wells MW-2, MW-3 and RIZ-3, strongly suggests impacts from releases of chlorinated or brominated water, or potential impacts from road salting. Historically identified concentrations of bromodichloromethane and chloroform along the western boundary of the Site, associated with RTN 3-19859, have been attributed to a release of swimming pool water from the property just upgradient from well MW-6. The chlorinated and/or brominated water was expected to have been reacting with the naturally occurring organic material in the sandy soils of the Site to form bromodichloromethane and chloroform. A similar reaction may now be taking place along the eastern boundary of the Site. Potential sources for the chlorinated or brominated water could be from leaks in municipal water pipes, fire hydrant flushing and/or from infiltrating rainwater mixed with roadway de-icing chemicals such as calcium chloride. Based on the decreasing concentrations of bromodichloromethane and chloroform moving downgradient across the Site, from well MW-2 to well RIZ-3 to well MW-3, it appears that the impacts generating these compounds is likely originating upgradient from well MW-2, generally within or immediately southeast of Route 1. We note that the Water Quality Reports for 2004 and 2005 issued by the Walpole Sewer & Water Department indicate the presence of bromodichloromethane and chloroform in samples collected from the municipal water system, and indicate that these compounds are a "by-product of drinking water disinfection." This is a typical occurrence in this area of Massachusetts.

Historically, metals including antimony, arsenic, cadmium, chromium, and lead have all been identified at elevated concentrations at the Site. However, only two of these metals, antimony, and lead, have been reported at concentrations greater than the current Method 1 GW-1 standards in the past 10 years; and antimony was reported at concentrations greater than then Method 1 GW-1 standards in multiple wells during a single groundwater sampling event and then has not been reported at elevated concentrations in subsequent samplings of the same wells. The infrequent detections of antimony over the extensive sampling duration at the Site suggests that sampling and or laboratory error may account for the reported results, they may be naturally occurring impacts that vary in concentration over time, or related to intermittent off-site releases that migrate through the Site.

Lead is the only dissolved metal that has been identified in the groundwater at the Site on a somewhat regular basis; however, even lead concentrations have not been identified consistently enough to create plume maps or identify a potential on-site source. Since April 1991, based on a combination of historical data and the groundwater sampling performed as a part of the Phase II investigation, lead has been reported at concentrations greater than the current Method 1 GW-1 standard (15 ug/L) three times in well MW-3 (22 to 59 ug/L), twice in MW-9 (23 to 35 ug/L) and once each in MW-2 (18 ug/L), MW-6 (18 ug/L) and MW-8 (26 ug/L). Of these wells only well MW-3 is located on the downgradient side of the Site, indicating that an up-gradient source may be a significant contributor to the elevated lead concentrations on the Site. The town of Walpole

Water Department's 2004 and 2005 Water Quality Reports indicates that lead was detected in samples from 3 homes in town in 2004 and 70 ug/L was the 90th percentile concentration, while lead was detected in 7 homes with a 90th percentile concentration of 18 ug/L in 2005. The lead in the town water is likely related to plumbing fixtures in the residences but could also be related to dissolution of natural deposits, as the Water Quality Reports indicate that the water in the town is corrosive and corrosive water could leach lead from fixtures and connections or from natural deposits. The town of Walpole Sewer & Water Department 2004 and 2005 Water Quality Reports are presented in Appendix M.

11.0 Human Health and Environmental Risk Characterization

The following section presents a Method 2 Risk Characterization to evaluate the potential risks posed to human health, public welfare, public safety and the environment by the conditions discussed in the preceding section. This Risk Characterization was conducted in conformance with the requirements of the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000, and the DEP guidance document for risk characterization, *Guidance for Disposal Site Risk Characterization In Support of the Massachusetts Contingency Plan* (July 1995).

11.1 Method Selection

The MCP defines three methods for risk characterization: Methods 1, 2, and 3. In keeping with the level of complexity of conditions at the Site. We have selected Method 2 as the appropriate method for characterization of risk because Method 1 standards have not been published by the DEP for some compounds identified in soil and groundwater at the Site (isoproplybenzene and p-isopropyltoluene in soil, and copper and bromochloromethane in groundwater). Method 2 allows for a relatively comprehensive, rapid evaluation of risk by comparison of Exposure Point Concentrations (EPCs) to standards published by DEP, and development of supplemental standards for compounds that do not have published standards r modification of published standards based on site-specific information. Method 1 and 2 standards incorporate conservative assumptions for both contaminant transport and exposure, resulting in an overall conservative analysis. For the Site COCs that do not have Method 1 standards, we generated Method 2 standards following the risk characterization guidance.

11.2 Soil and Groundwater Categorization

According to the criteria outlined in 310 CMR 40.0361, soil is classified as S-1 at locations within 500 feet of residentially zoned land, a school, playground, recreational area or park. The Site is located within 500 feet of residential property, and is therefore classified as category S-1.

The Massachusetts Geographic Information System (MassGIS) map, presented in Appendix C shows that the Site is located within a DEP Approved Zone II. According to the DEP, the Zone II designation means the Site is located within the "area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated,

as approved by the Department's Division of Water supply pursuant to 310 CMR 22.00." Thus, groundwater at the Site is classified as GW-1. Groundwater at the Site is also classified as GW-2 since there are occupied buildings on the Site and the average annual depth to groundwater is less than 15 feet. Additionally, groundwater at the Site is classified as GW-3, since by definition all groundwater in the Commonwealth of Massachusetts is GW-3. Therefore, we compare groundwater analytical results to GW-1, GW-2 and GW-3 standards.

11.3 Exposure Point Concentrations (EPCs)

EPCs represent the estimated concentrations of compounds of concern (COCs) to which a receptor may be exposed at the point of exposure. In keeping with DEP guidance, this characterization assumes that contaminant concentrations on the Site remain unchanged. Thus, we do not consider any mitigating factors resulting over the course of time (such as biodegradation). The risk characterization also assumes that for compounds detected at least once above detection limit, samples reported as not detected (ND) by the laboratory are assumed to have a concentration of one-half of the method detection limit (MDL) for that sample.

Data used in this risk characterization include analytical results for soil samples collected from the Site by Rizzo Associates (Rizzo) in February 2006. We also used groundwater data collected at the Site in April and July 2005 and March and April 2006. Tables 2 and 3 present the soil and groundwater data used in the risk characterization. In the risk characterization we evaluate risk from all compounds that were detected in the Site groundwater.

For groundwater exposures, data from each monitoring well were evaluated as separate exposure points as required by the guidance for risk characterization under the MCP. This approach provides a conservative, health-protective assessment of risk. For soil exposures, data from samples in which one or more COCs were detected above the laboratory method detection limit are used to calculate EPCs. Four separate sets of soil EPCs (EPC-1 through EPC-4) were estimated for the Site based on the depth at which the soil samples were collected. EPC-1 is comprised of data from a surficial/near surface soil sample collected at the Site (RIZ-5 collected from 1 to 3 feet below the ground surface (bgs)). EPC-2 is estimated as the average concentrations of COCs in soil samples collected within 5 to 7 feet bgs (RIZ-6 and RIZ-7). EPC-3 is calculated as the average concentration of COCs in soil samples collected from 10 to 17 bgs (RIZ-1, RIZ-2 and RIZ-4). EPC-4 is estimated as the concentrations of COCs in a soil sample collected at approximately 30 to 32 feet bgs (RIZ-3).

11.4 Risk Characterization

According to the MCP, a finding of no significant risk of harm to human health exists if no EPC is greater than the applicable MCP Method 1 soil and groundwater standards. This section presents a comparison of risk conditions with reference standards.

As noted above, two soil COCs do not have Method 1 standards (isopropylbenzene, p-isopropyltoluene). These COCs are identified as tentatively identified compounds (TICs). The

mass of these compounds is included in the mass of the aliphatic and aromatic hydrocarbons analyzed as extractable petroleum hydrocarbons (EPH). Therefore, the estimated Site soil EPCs of these compounds are compared to EPH (C_9-C_{18} aliphatics) standards.

In Table 2, soil concentrations are compared with Method 1 S-1/GW-1, S-1/GW-2 and S-1/GW-3 standards. As shown in the table, the estimated soil EPCs are below the established Method 1 standards.

As mentioned above, bromochloromethane and copper were detected in Site groundwater but do not have Method 1 standards. As a conservative approach, the Method 1 standard for dichloromethane was assigned to bromochloromethane based on structural similarities. In the case of copper, we calculated Method 2 standards following the risk characterization guidance (See Appendix I).

In Table 3, groundwater concentrations are compared to Method 1 GW-1, GW-2 and GW-3 standards. As shown in Table 2, concentrations of bromodichloromethane and chloroform in groundwater samples collected from monitoring well MW-2, chloroform detected in MW-3, and lead detected in groundwater samples from MW-9 exceed their respective Method 2 standards. Therefore, we conclude that a condition of potential "Significant Risk" to human health exists at the Site for the conditions evaluated.

11.4.1 Risk to the Environment

In Table 3, to evaluate risk to the environment, groundwater exposure point concentrations are compared to GW-3 standards developed by DEP from United States Environmental Protection Agency (EPA) Ambient Water Quality Criteria to consider both toxicity to aquatic life and human health. The EPC for lead in MW-9 (16.7 micrograms per liter (ug/L)) exceeds the Method 2 GW-3 standard of 10 ug/L. Therefore, a condition of "Significant Risk" to the environment exists at the Site.

11.4.2 Risk to Public Welfare

Threats to public welfare include any conditions that may result in the existence of nuisance conditions, loss of property value, or the unilateral restriction of the use of other people's property, and other societal costs due to degradation of public and private resources, both physical and intangible. For a threat to exist, these conditions must preclude the full use of the resources at the site under existing conditions or conditions about to occur. We did not find the presence of a risk to public welfare at the Site.

11.4.3 Risk to Public Safety

Threats to public safety include physical conditions and chemical agents that may cause bodily harm or injury (e.g. burns or fractures) as opposed to illness. There are no open pits, lagoons,

drums, dangerous structures, or other apparent threats to public safety and no danger of fire or explosion from the conditions evaluated in this report.

11.5 Risk Assessment Conclusions

Our evaluation found that a condition of "No Significant Risk" to public welfare and public safety exists at the Site based on the conditions evaluated. However, there is a condition of potential "Significant Risk" of harm to human health and the environment at the Site based on the conditions evaluated.

12.0 Conclusion of Phase II – Comprehensive Site Assessment

The Site encompasses approximately 54 acres of land located at the intersection of US Route 1 and Pine Street in Walpole, Massachusetts as shown on Figure 1. The Site is divided into nine lots, seven of which contain buildings occupied by office and warehouse space that are leased to commercial and/or light industrial businesses. The buildings, driveways and parking areas cover the majority of the Site. The remainder of the property consists of landscaped areas adjacent to the buildings, wooded land and unpaved open areas.

Prior to construction of the existing buildings the Site was vacant land, portions of which were used as a gravel pit. Development of the Site and building construction commenced in 1986. Buildings have been constructed on the Site lots on an intermittently ongoing basis since 1986 and at present two Site lots remain undeveloped.

In compliance with requirements issued by the Walpole Board of Health (BOH), seven groundwater monitoring wells were installed at the Site in December 1986 by Carr Research Laboratory (Carr) and annual groundwater monitoring was performed on a limited number of the installed wells.

In the late 90's it was discovered that the reported results from the annual BOH sampling were occasionally exceeding the then current Massachusetts DEP reportable concentrations for GW-1 areas (RCGW-1 standards). Two RTNs were issued based on reported concentrations of compounds identified in groundwater at the Site.

RTN 3-19859 was issued in 2000 based on sampling performed in April 1999 and April 2000 when elevated concentrations of chloroform and bromodichloromethane were reported in groundwater samples collected at the Site. A Class B-1 RAO Statement was submitted by Carr Research Laboratory on July 25, 2001, indicting that a Permanent Solution had been achieved for this RTN. The RAO indicated that the source of the bromodichloromethane was treatment chemicals (brominating tablets) used in a residential swimming pool located on an upgradient property. The source of the chloroform was identified as a reaction between chlorine used for swimming pool disinfection at the same residence and septage from the septic tank and leach field at the residence.

RTN 3-21915 was issued in April 2002 when it was noted that the lead concentrations reported by the laboratory for groundwater samples collected from monitoring wells MW-3 and MW-6 were 59 micrograms per liter (ug/l) and 23 ug/l, respectively; concentrations which exceeded the applicable MCP reportable concentration, RCGW-1, which at that time was 20 ug/l. To further evaluate this condition confirmatory groundwater sampling was performed in May 2002. The results of this sampling indicated lead concentrations in samples collected from MW-3 and MW-6 of 46 ug/l and 18 ug/l, respectively. Based on these sampling results it was concluded that the detected lead concentrations represented a 120-day notification condition under the MCP. Therefore, a RNF was prepared and received by the DEP on July 2, 2002. In response to the notification, DEP issued a Notice of Responsibility (NOR) on August 15, 2002 and assigned RTN 3-21915 to the reported release.

Between September 2000 and February 2006 additional groundwater monitoring wells were installed on several occasions to replace damaged wells and/or to provide sufficient coverage to assess groundwater conditions at the Site. Including the three monitoring wells installed under as a part of the Phase II activities, 17 groundwater monitoring wells exist on the Site at this time.

Based on historic monitoring results and the investigations implemented after submission of the RNF for RTN 3-21915, a Phase I – Initial Site Investigation (Phase I) report and Tier Classification was prepared by GHC and submitted to DEP in June 2004. The Phase I report concluded that the nature and extent of contamination does not exhibit a regular pattern, relative to both the locations of wells in which levels exceed MCP Method 1 GW-1 standards and the detection of compounds over time. Based on the Numerical Ranking Scoresheet (NRS) prepared by GHC, the Site was classified as a Tier IB Disposal Site. An evaluation performed as part of the Phase I investigation concluded that the identified Site conditions did not represent an Imminent Hazard, indicting that implementation of an Immediate Response Action was not necessary. In an internal memorandum dated July 9, 2004, the DEP Drinking Water Program (DWP) found that "the groundwater contamination levels at the site are all low, compared to most waste sites," and "heavy metals have fairly low mobility in groundwater." DEP concluded "the site does not appear to pose a threat to the Walpole municipal wells, because of the low groundwater contamination levels and the distance from the site to the wells."

Following the Phase I investigation Rizzo Associates, Inc. was retained to perform the Phase II Investigation. The Phase II Investigation described in this report included the installation of 7 soil borings and completion of 3 of the soil borings as groundwater monitoring wells; sampling and analysis of soil and groundwater from select soil borings and monitoring wells; surveying to determine the locations and relative elevations of each newly installed monitoring well casing; gauging of groundwater elevations to evaluate the groundwater flow direction and prepare a potentiometric surface map; and hydraulic conductivity testing of three groundwater monitoring wells.

For the 7 soil samples submitted for laboratory analysis as a part of this Phase II investigation no VOCs or total metals were reported at concentrations above the applicable MCP Method 1 standards except for a reported beryllium concentration of 0.87 mg/kg in the RIZ-2 soil boring. This concentration exceeds the Method 1 S-1/GW-1, GW-2 and GW-3 standards of 0.7 mg/kg, and the Method 1 S-2/GW-1, GW-2 and GW-3 standards of 0.8 mg/kg.

For the 45 groundwater samples that were submitted for laboratory analysis over four sampling rounds as a part of this Phase II investigation, VOCs and or dissolved metals concentrations greater than one or more of the applicable MCP Method 1 standards were reported in 9 wells. Compounds exceeding the MCP Method 1 standards included bromodichloromethane, chloroform and lead; however, at this time no on-site source has been identified for these compounds and the reported dissolved metals concentrations have been inconsistent over the four sampling events. Lead was identified at a concentration greater than the method detection limit in well MW-9 in only one of the four groundwater sampling events. Because the locations and concentrations of the identified compounds were not consistent throughout the four groundwater sampling events there is not a clearly definable plume for the identified dissolved metals compounds.

The presence of bromodichloromethane and/or chloroform along the eastern boundary of the Site, wells MW-2, MW-3 and RIZ-3, strongly suggests impacts from releases of chlorinated or brominated water. Historically identified concentrations of bromodichloromethane and chloroform along the western boundary of the Site, associated with RTN 3-19859, have been attributed to a release of swimming pool water from the property upgradient from well MW-6. The chlorinated and/or brominated water was expected to have been reacting with the naturally occurring organic material in the sandy soils of the Site to form bromodichloromethane and chloroform. A similar reaction may now be taking place along the eastern boundary of the Site. Potential sources for the chlorinated or brominated water could be from leaks in municipal water pipes, fire hydrant flushing and/or from infiltrating rainwater mixed with roadway de-icing chemicals such as calcium chloride. Based on the decreasing concentrations of bromodichloromethane and chloroform moving downgradient across the Site from well MW-2 to well RIZ-3 to well MW-3, the source of chlorinated or brominated water is expected to be located somewhere up-gradient from well MW-2, in or on the southeastern side of Route 1.

Historically, metals including antimony, arsenic, cadmium, chromium and lead have all been identified at elevated concentrations at the Site. However, only two of these metals, antimony and lead, have been reported at concentrations greater than the current Method 1 GW-1 standards in the past 10 years; and antimony was reported at concentrations greater than then Method 1 GW-1 standards in multiple wells during a single groundwater sampling event and then has not been reported at elevated concentrations in subsequent samplings of the same wells. The lack of reproducibility of the elevated concentrations of antimony suggests that sampling and or laboratory error may have biased the elevated concentration results.

Lead is the only dissolved metal that has been identified in the groundwater at the Site on a somewhat consistent basis; however, even lead concentrations have not been identified regularly enough to create plume maps or identify a potential on-site source. Since April 1991, based on a combination of historical data and the groundwater sampling performed during the Phase II investigation, lead has been reported at concentrations greater than the current Method 1 standard for lead (15 ug/L) three times in well MW-3 (22 to 59 ug/L), twice in MW-9 (23 to 35 ug/L) and once each in MW-2 (18 ug/L), MW-6 (18 ug/L) and MW-8 (26 ug/L). Of these wells only MW-3 is located on the downgradient side of the Site, indicating that an upgradient source may be a significant contributor to the elevated lead concentrations on the Site.

The Town of Walpole Sewer & Water Department 2004 and 2005 Water Quality Reports indicate that lead was detected in samples from 3 homes in town, and that 70 ug/L was the 90th percentile concentration. The lead in the town water is likely related to plumbing fixtures in the residences, but could also be related to dissolution of natural deposits. The water quality report indicates that the water in the town is corrosive, and corrosive water could leach lead from fixtures and connections or from natural deposits.

Based on the investigations described in this report the metals and VOC concentrations currently identified in the groundwater at the Site include lead, bromodichloromethane and chloroform. The results of the testing performed for this Phase II investigation do not indicate a plume of impacted groundwater that can be clearly delineated, nor do they identify the source or sources of the detected compounds. The data do not suggest a correlation between the groundwater conditions at the Site and the activities of the tenants in the Site buildings. The identified contaminants are likely to originate from off-site releases and/or leakage from water mains, fire hydrant flushing, roadway de-icing chemicals or dissolution of natural deposits. However, based on the results of the Method 1 risk assessment there is insufficient evidence at this time to conclude that a condition of No Significant Risk or a Permanent Solution has been achieved. Therefore, in accordance with the MCP, further response actions are necessary. Remedial action alternatives have been identified and selected for implementation at the Site, as discussed in the Phase III – Remedial Action Plan being submitted concurrently with this report.

Table 1 - Groundwater Elevation Data - April 2006

Well	Top of PVC Elevation* (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)
MW-1	259.30	16.26	243.04
MW-2	240.90	12.40	228.50
MW-3	236.76	38.13	198.63
MW-4	229.58	33.27	196.31
MW-5S	237.88	20.21	217.67
MW-5D	236.29**	18.58	217.71
MW-6	250.21	24.42	225.79
MW-8	258.46	11.89	246.57
MW-9	256.00	30.11	225.89
GHC-1	242.05	11.36	230.69
GHC-2	258.11	15.44	242.67
GHC-3	251.94	dry to 15.49	NA
GHC-5	236.94	dry to 39.25	NA
GHC-6	235.57	8.84	226.73
RIZ-1	239.60	4.80	234.80
RIZ-2	234.94	9.09	225.85
RIZ-3	241.52	18.19	223.33

NA = Not Applicable

*Top of PVC elevations of the wells obtained from the *Groundwater Sampling Report, Winter-Spring 2004* Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc. and April 10, 2006 Rizzo Assocaites elevations survey

** Top of PVC not accessable inside stand pipe, top of stand pipe used as refrence point

Table 2 **Phase II - Positive Soil Analytical Data (mg/kg) - Walpole Park South, Walpole, Massachusetts**

Location:	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.						Soil EPCs (mg/kg)						
Sample Name:	RIZ-1	RIZ-2	RIZ-3	RIZ-4	RIZ-5	RIZ-6	RIZ-7												
Sample Depth:	10'-12'	15'-17'	30'-32'	10'-12'	1'-3'	5'-7'	5'-7'												
Laboratory:	Con-test	Con-test	Con-test	Con-test	Con-test	Con-test	Con-test	Number	Number	Minimum	Maximum	Average	Soil	Soil	Soil	Soil	Method 1	Method 1	Method 1
Laboratory I.D.:	06B06407	06B06408	06B06409	06B06410	06B06411	06B06412	06B06413	of Times	of Times	Concentration	Concentration	Concentration	EPC-1	EPC-2	EPC-3	EPC-4	Standard	Standard	Standard
Sample Date:	15-Feb-06	15-Feb-06	16-Feb-06	15-Feb-06	16-Feb-06	16-Feb-06	16-Feb-06	Detected	Sought	Detected	Detected	Detected	1-3'	5'-7'	10'-17'	30'-32'	S-1/GW-1	S-1/GW-2	S-1/GW-3
Consultant:	Rizzo	Rizzo	Rizzo	Rizzo	Rizzo	Rizzo	Rizzo												
Acetone	<0.059	<0.054	<0.055	<0.047	0.059	0.11	<0.075	2	7	0.06	0.11	0.04	0.06	0.07	0.03	0.03	3	60	60
Ethylbenzene	<0.001	<0.002	<0.002	<0.001	0.001	<0.002	<0.002	1	7	0.001	0.001	0.001	0.001	0.001	0.001	0.001	80	500	500
Isopropylbenzene	<0.001	<0.002	<0.002	<0.001	<0.001	0.002	<0.002	1	7	0.002	0.002	0.001	0.001	0.002	0.001	0.001	NA	NA	NA
Isopropyltoluene, p-	<0.001	<0.002	<0.002	<0.001	<0.001	0.015	<0.002	1	7	0.02	0.02	0.003	0.001	0.01	0.001	0.001	NA	NA	NA
Methylene chloride (dichloromethane)	0.042	<0.011	0.030	<0.009	<0.010	<0.011	<0.015	2	7	0.03	0.042	0.01	0.01	0.01	0.02	0.03	0.1	20	200
Toluene	<0.001	<0.002	<0.002	<0.001	<0.001	0.002	<0.002	1	7	0.002	0.002	0.001	0.001	0.002	0.001	0.001	30	300	500
Barium, Total	29	42.1	16.9	18.5	16.4	23.9	21.8	7	7	16.4	42.1	24.1	16.4	22.9	29.9	16.9	1,000	1,000	1,000
Beryllium, Total	0.45	0.87	0.42	<0.27	<0.27	0.37	0.36	5	7	0.36	0.9	0.39	0.14	0.37	0.49	0.42	0.7	0.7	0.7
Chromium, Total	14.4	6.37	8.22	6.74	6.54	10.7	5.58	7	7	5.58	14.4	8.36	6.5	8.1	9.2	8.2	30	30	30
Lead, Total	6.83	6.27	4.82	6.75	10.6	14.5	12.1	7	7	4.82	14.5	8.84	10.6	13.3	6.6	4.8	300	300	300
Nickel, Total	7.23	3.84	6.68	5.64	4.69	6.43	4.66	7	7	3.84	7.2	5.6	4.7	5.5	5.6	6.7	20	20	20
Vanadium	13.0	7.73	12.2	9.77	12.5	22.2	10.6	7	7	7.73	22.2	12.6	12.5	16.4	10.2	12.2	600	600	600
Zinc, Total	32.3	41.4	27.4	23.2	20.3	24.5	24.9	7	7	20.3	41.4	27.7	20.3	24.7	32.3	27.4	2,500	2,500	2,500
Mercury, Total	<0.011	<0.006	<0.005	<0.011	0.016	0.031	0.029	3	7	0.02	0.03	0.01	0.02	0.03	0.005	0.003	20	20	20

Notes: **For compounds detected at least once above the detection limit, samples reported as not detected (ND) by the laboratory are assumed to have a concentration of one-half of the method detection limit for that sample.**
Concentrations entered as < indicate that they were below the detection limit.

Table 3 **Phase II - Positive Groundwater Analytical Data (µg/L) - Walpole Park South, Walpole, Massachusetts**

Location:	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	MW-1	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	MW-2	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	MW-3	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	MW-4
Sample Name:	**MW-1-041605**	**MW-1-070105**	**MW-1**	**MW-1**	**Well Average**	**MW-2-041605**	**MW-2-070105**	**MW-2**	**MW-2**	**Well Average**	**MW-3-041805**	**MW-3-070105**	**MW-3**	**MW-3**	**Well Average**	**MW-4-041305**	**MW-4-070105**	**MW-4**	**MW-4**	**Well Average**
Laboratory:	**Contest**	**Contest**	**Con-test**	**Con-test**		**Contest**	**Contest**	**Con-test**	**Con-test**		**Contest**	**Contest**	**Con-test**	**Con-test**		**Contest**	**Contest**	**Con-test**	**Con-test**	
Laboratory I.D.:	**05B13963, 05B14227, 05B17962**	**05B26878, 05B26888, 05B27079, 05B27082**	**06B08474**	**06B12557**		**05B13964, 05B14228, 05B17963**	**05B26879, 05B26889, 05B27080, 05B27083**	**06B08475**	**06B12558**		**05B13971, 05B14229, 05B17964**	**05B26880, 05B26890, 05B27081, 05B27084**	**06B08476**	**06B12559**		**05B13972**	**05B26881, 05B26891**	**06B08477**	**06B12560**	
Sample Date:	**16-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**		**16-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**		**18-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**		**16-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**	
Consultant:	**Rizzo**	**Rizzo**	**Rizzo**	**Rizzo**		**Rizzo**	**Rizzo**	**Rizzo**	**Rizzo**		**Rizzo**	**Rizzo**	**Rizzo**	**Rizzo**		**Rizzo**	**Rizzo**	**Rizzo**	**Rizzo**	
Bromochloromethane			<0.5	<1	0.4			4.1	<1	2.3			1.2	<1	0.9			<0.5	<1	0.4
Bromodichloromethane			<1	<1	0.5			10	8	**8.8**			1.1	3.9	2.5			<1	<1	0.5
Bromoform			<1	<1	0.5			1.6	<1	1.1			<1	<1	0.5			<1	<1	0.5
Chloroform			<2	<2	1.0			25.4	19.7	**22.4**			3	9.8	**6.4**			<2	<2	1.0
Dibromochloromethane									3.2	3.2				1.4	1.4					
Methyl tert-butyl ether			<1	<1	0.5			<1	<1	0.5			<1	<1	0.5			<1	<1	0.5
Barium, Dissolved		45.8	27.1	25.1	32.7		73.8	6.2	14.9	31.6		23.6	21.1	25.9	23.5		65.6	54.2	98.3	72.7
Copper, Dissolved	<5				2.5	<5				2.5	6				6.0	45				2.5
Lead, Dissolved		<15	<15	<15	7.5		<15	<15	<15	7.5		<15	<15	<15	7.5		<15	<15	<15	7.5
Mercury, Dissolved				<0.04	0.0				<0.04	0.0				<0.04	0.0				<0.04	0.02
Nickel, Dissolved	<5	<5			2.5		10			10.0	<5	<5			2.5	<5	<5			2.5
Zinc, Dissolved	74	47	43	23	46.8	<10	263	<10	<10	69.5	29	42	17	19	26.8	<10	250	18	50	80.8
C_{11}-C_{22} Aromatics			147	<137	107.8			150	<100	100.0			<100	<119	54.8			<100	<100	50.0

Notes: For compounds detected at least once above the detection limit, samples reported as not detected (ND) by the laboratory are assumed to have a concentration of one-half of the method detection limit for that sample.
Concentrations entered as < indicate that they were below the detection limit.
Bold print indicates exceedence of Method 1 GW-1 Standards.
Shading indicates exceedence of Method 1 GW-3 Standards.

Table 3 **Phase II - Positive Groundwater Analytical Data (pg/L) - Walpole Park South, Walpole, Massachusetts**

Location:	**Walpole Pk S.**	**Walpole Pk S.**	**Walpole Pk S.**	**Walpole Pk S.**		**Walpole Pk S.**	**Walpole Pk S.**	**Walpole Pk S.**	**Walpole Pk S.**		**Walpole Pk S.**	**Walpole Pk S.**	**Walpole Pk S.**	**Walpole Pk S.**		**Walpole Pk S.**	**Walpole Pk S.**	**Walpole Pk S.**	**Walpole Pk S.**		**Walpole Pk S.**	**Walpole Pk S.**	
Sample Name:	**MW-5D-041605**	**MW-5D-070105**	**MW-5D**	**MW-5D**	**MW-5D Well Average**	**MW-5S-041605**	**MW-5S-070105**	**MW-5S**	**MW-5S**	**MW-5S Well Average**	**MW-6-041605**	**MW-6-070105**	**MW-6**	**MW-6**	**MW-6 Well Average**	**MW-9-041605**	**MW-9-070105**	**MW-9**	**MW-9**	**MW-9 Well Average**	**RIZ-1**	**RIZ-1**	**RIZ-1 Well Average**
Laboratory:	**Contest**	**Contest**	**Con-test**	**Con test**		**Contest**	**Contest**	**Con-test**	**Con-test**		**Contest**	**Contest**	**Con-test**	**Con-test**		**Contest**	**Contest**	**Con-test**	**Con-test**		**Con-test**	**Con-test**	
Laboratory I.D.:	**05B13966**	**05B26883, 05B26893**	**06B08479**	**06B12562**		**05B13965**	**05B26882, 05B26892**	**06B08478**	**06B12561**		**05B13567, 05B17965**	**05B26884, 05B26394**	**06B08469**	**06B12563**		**05B13968**	**05B26885, 05B26895**	**06B08451**	**06B12564**		**06B08482**	**06B12565**	
Sample Date:	**16-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**		**16-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**		**16-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**		**16-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**		**6-Mar-06**	**10-Apr-06**	
Consultant:	**Rizzo**	**Rizzo**	**Rizzo**	**Rizzo**		**Rizzo**	**Rizzo**	**Rizzo**	**Rizzo**		**Rizzo**	**Rizzo**	**Rizzo**	**Rizzo**		**Rizzo**	**Rizzo**	**Rizzo**	**Rizzo**		**Rizzo**	**Rizzo**	
Bromochloromethane			<0.5	<1	0.4			<0.5	<1	0.4			<0.5	<1	0.4			<0.5	<1	0.4	<0.5	<1	0.4
Bromodichloromethane			<1	<1	0.5			<1	<1	0.5			<1	<1	0.5			<1	<1	0.5	<1	<1	0.5
Bromoform			<1	<1	0.5			<1	<1	0.5			<1	<1	0.5			<1	<1	0.5	<1	<1	0.5
Chloroform			<2	<2	1.0			<2	<2	1.0			<2	<2	1.0			<2	<2	1.0	<2	<2	1.0
Dibromochloromethane																							
Methyl tert-butyl ether			<1	<1	0.5			<1	<1	0.5			<1	<1	0.5			2.2	8.4	5.3	2.7	1.4	2.1
Barium, Dissolved		8.5	8.3	5.1	7.3		59	57.9	46.4	54.4		68	66.3	92.1	75.5		16.4	32.2	18.7	22.4	48.7	72.9	60.8
Copper, Dissolved	<5				2.5	<5				2.5	<5				2.5	<5				2.5			
Lead, Dissolved		<15	<15	<15	7.5		<15	<15	<15	7.5		<15	<15	<15	7.5		<15	17	<15	16.7	<15	<15	7.5
Mercury, Dissolved				<0.04	0.0				<0.04	0.0				0.05	0.1				<0.04	0.0		<0.04	0.0
Nickel, Dissolved	<5	<5			2.5	<5	<5			2.5	<5	<5			2.5	<5	<5			2.5			
Zinc, Dissolved	<10	53	12	14	21.0	13	74	11	11	27.3	32	176	21	27	64.0	15	44	35	20	29.5	35	34	34.5
C_{11}-C_{22} Aromatics			<100	<100	50.0			<100	<100	50.0			<100	<100	50.0			<100	<100	50.0	<100	<100	50.0

Notes: For compounds detected at least once above the detection limit, samples reported as not detected (ND) by the laboratory are assumed to have a concentration of one-half of the method detection limit for that sample.
Concentrations entered as < indicate that they were below the detection limit.
Bold print indicates exceedence of Method 1 GW-1 Standards.
Shading indicates exceedence of Method 1 GW-3 Standards.

Table 3 **Phase II - Positive Groundwater Analytical Data (µg/L) - Walpole Park South, Walpole, Massachusetts**

Location:	Walpole Pk S.	Walpole Pk S.	RIZ-2	Walpole Pk S.	Walpole Pk S.	RIZ-3	Walpole Pk S.	Walpole Pk S.	GHC-2	Walpole Pk S.	GHC-5	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	Walpole Pk S.	GHC-6	Groundwater Summary Statistics (µg/L)							
Sample Name:	RIZ-2	RIZ-2	Well Average	RIZ-3	RIZ-3	Well Average	GHC-2-041805	GHC-2	Well Average	GHC-5-041405		GHC-6-041605	GHC-6-070105	GHC-6	GHC-6	Well Average	Number	Number	Minimum	Average	Maximum	Method 1	Method 1	Method 1
Laboratory:	Con-test	Con-test		Con-test	Con-test		Contest	Con-test		Contest		Contest	Contest	Con-test	Con-test									
Laboratory I.D.:	06B08483	06B12566		06B08484	06B12567		05B13973, 05B17968	06B09491		05B13969, 05B17966		05B13970, 05B17967	05B26886, 05B26896	06B09490	06B12568		of Times	of Times	Concentration	Concentration	Concentration	Standard	Standard	Standard
Sample Date:	6-Mar-06	10-Apr-06		6-Mar-06	10-Apr-06		18-Apr-05	16-Mar-06		16-Apr-05		16-Apr-05	1-Jul-05	16-Mar-06	10-Apr-06		Detected	Sought	Detected	Detected	Detected	GW-1	GW-2	GW-3
Consultant:	Rizzo	Rizzo		Rizzo	Rizzo		Rizzo	Rizzo		Rizzo		Rizzo	Rizzo	Rizzo	Rizzo									
Bromochloromethane	<0.5	<1	0.4	2.8	<1	1.7		<1	0.5					<1	<1	0.5	3	25	1.2	0.7	4.1	3	6	50,000
Bromodichloromethane	<1	<1	0.5	5.7	2.9	**4.3**		<1	0.5					<1	<1	0.5	6	25	1.1	1.6	10.0	3	6	50,000
Bromoform	<1	<1	0.5	1.5	<1	1.0		<1	0.5					<1	<1	0.5	2	25	1.5	0.6	1.6	4	700	50,000
Chloroform	<2	<2	1.0	16.4	7	**11.7**		<2	1.0					<2	<2	1.0	6	25	3.0	3.9	25.4	5	400	10,000
Dibromochloromethane					1.1	1.1											3	3	1.1	1.9	3.2	2	20	50,000
Methyl tert-butyl ether	<1	<1	0.5	<1	<1	0.5		<1	0.5					<1	<1	0.5	4	25	1.4	1.0	6.4	70	50,000	50,000
Barium, Dissolved	14.9	29.8	22.4	36.2	216	126.1		60.6	60.6			79.5		96.7	88.7	88.3	34	34	5.1	52.2	216.0	2,000	NA	50,000
Copper, Dissolved	<15	<15	7.5	<15	<15	7.5	<5	<15	2.5 7.5	<5	2.5	<5	<15	<15	<15	2.5 7.5	1	11	6.0	2.8	6.0	NA	NA	NA
Lead, Dissolved															<0.04	0.02	1	34	35.0	8.2	35.0	15	NA	10
Mercury, Dissolved		<0.04	0.02		<0.04	0.0										2.5	1	12	0.1	0.02	0.1	2	NA	20
Nickel, Dissolved							<5		2.5	8	8	<5	<5				2	19	8.0	3.7	10.0	100	NA	200
Zinc, Dissolved	12	10	11.0	13	14	13.5	23	12	17.5	53	53	14	122	12	<10	38.3	39	45	10.0	38.1	263.0	5,000	NA	900
C_{11}-C_{22} Aromatics	<100	<100	50.0	<100	<100	50.0		<115	57.5					<100	<100	50.0	2	25	147.0	59.2	150.0	200	50,000	30,000

Notes: For compounds detected at least once above the detection limit, samples reported as not detected (ND) by the laboratory are assumed to have a concentration of one-half of the method detection limit for that sample.
Concentrations entered as < indicate that they were below the detection limit.
Bold print indicates exceedence of Method 1 GW-1 Standards.
Shading indicates exceedence of Method 1 GW-3 Standards.

Table 4	Phase II - Groundwater pH and Conductivity Readings - Walpole Park South, Walpole, Massachusetts								
Sample Name:	**MW-1**	**MW-1**	**MW-1**	**MW-2**	**MW-2**	**MW-2**	**MW-2**	**MW-3**	**MW-3**
Sample Date:	**15-Apr-05**	**1-Jul-05**	**10-Apr-06**	**15-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**	**15-Apr-05**	**1-Jul-05**
pH	6.82	6.45	5.94	6.18	6.67	6.17	6.24	6.22	6.23
Conductivity (uS/cm)	512	447	454	1070	2164	590	992	527	880

Sample Name:	**MW-3**	**MW-3**	**MW-4**	**MW-4**	**MW-4**	**MW-4**	**MW-5D**	**MW-5D**	**MW-5D**
Sample Date:	**6-Mar-06**	**10-Apr-06**	**15-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**	**15-Apr-05**	**1-Jul-05**	**6-Mar-06**
pH	5.9	5.31	5.59	5.41	4.5	5.11	6.63	6.93	6.41
Conductivity (uS/cm)	904	1111	150	495	329	634	108	167	166

Sample Name:	**MW-5D**	**MW-5S**	**MW-5S**	**MW-5S**	**MW-5S**	**MW-6**	**MW-6**	**MW-6**	**MW-6**
Sample Date:	**10-Apr-06**	**15-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**	**15-Apr-05**	**1-Jul-05**	**6-Mar-06**	**10-Apr-06**
pH	7.05	6.34	6.05	5.44	5.52	6.3	6.07	5.59	5.32
Conductivity (uS/cm)	144	106	166	166	169	446	507	512	730

Table 4 Phase II - Groundwater pH and Conductivity Readings - Walpole Park South, Walpole, Massachusetts

Sample Name:	MW-9	MW-9	MW-9	MW-9	RIZ-1	RIZ-1	RIZ-2	RIZ-2	RIZ-3
Sample Date:	15-Apr-05	1-Jul-05	6-Mar-06	10-Apr-06	6-Mar-06	10-Apr-06	6-Mar-06	10-Apr-06	6-Mar-06
pH	6.58	6.46	6.1	5.82	5.43	6.55	5.22	6.07	5.19
Conductivity (uS/cm)	153	224	297	304	1390	1883	170	272	940

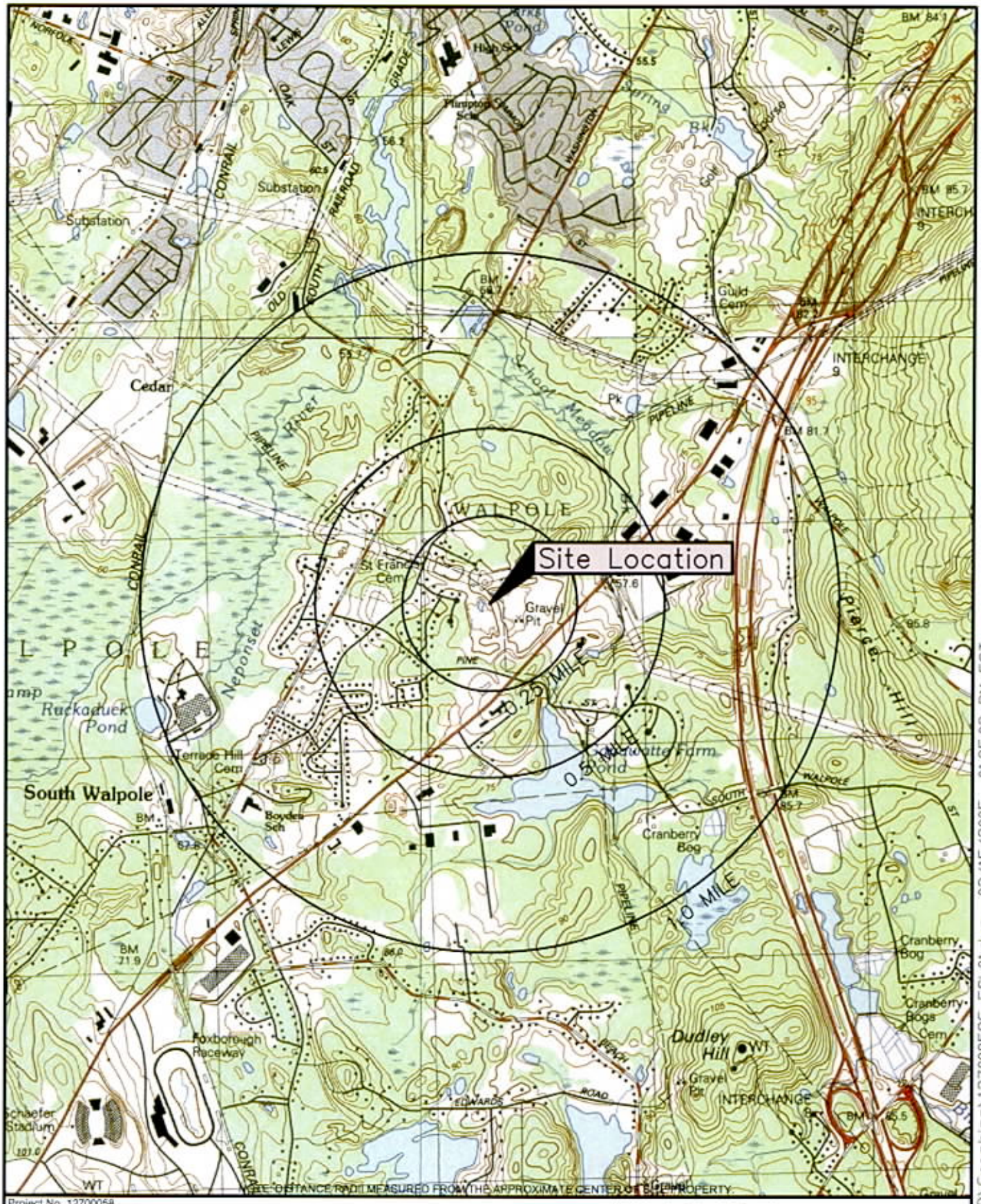
Sample Name:	RIZ-3	GHC-1	GHC-2	GHC-2	GHC-5	GHC-6	GHC-6	GHC-6	GHC-6
Sample Date:	10-Apr-06	15-Apr-05	15-Apr-05	16-Mar-06	15-Apr-05	15-Apr-05	1-Jul-05	16-Mar-06	10-Apr-06
pH	5.17	6.13	6.8	7.25	5.86	6.15	6.13	6.11	5.53
Conductivity (uS/cm)	1552	1124	518	724	417	897	1602	1591	1693

Sample Name:	
Sample Date:	
pH	
Conductivity (uS/cm)	

Table 5 **Walpole BOH Sampling Positive Groundwater Analytical Exceedances**

Compound	Date	Location	Concentration (mg/L)	Method 2 Standard GW-1	Method 2 Standard GW-2	Method 2 Standard GW-3
Antimony	February-04	GHC-7	0.012	0.006	NA	8.000
Antimony	February-04	MW-6	0.019	0.006	NA	8.000
Arsenic	September-87	MW-3	0.091	0.010	NA	0.900
Arsenic	September-87	MW-4	0.028	0.010	NA	0.900
Arsenic	March-88	MW-1	0.434	0.010	NA	0.900
Arsenic	March-88	MW-3	0.473	0.010	NA	0.900
Arsenic	March-88	MW-5D	0.300	0.010	NA	0.900
Arsenic	March-91	MW-3	0.044	0.010	NA	0.900
Cadmium	March-91	MW-5D	0.020	0.005	NA	0.004
Cadmium	April-93	MW-3	0.006	0.005	NA	0.004
Cadmium	April-93	MW-5D	0.010	0.005	NA	0.004
Chromium	September-87	MW-3	0.230	0.100	NA	0.300
Chromium	March-88	MW-3	0.320	0.100	NA	0.300
Chromium	March-91	MW-3	0.340	0.100	NA	0.300
Lead	February-87	MW-1	0.119	0.015	NA	0.010
Lead	February-87	MW-4	0.018	0.015	NA	0.010
Lead	March-91	MW-9	0.023	0.015	NA	0.010
Lead	May-94	MW-1	0.068	0.015	NA	0.010
Lead	May-94	MW-6	0.030	0.015	NA	0.010
Lead	April-02	MW-2	0.018	0.015	NA	0.010
Lead	April-02	MW-3	0.059	0.015	NA	0.010
Lead	May-02	MW-3	0.046	0.015	NA	0.010
Lead	May-03	MW-8	0.026	0.015	NA	0.010
Lead	May-03	MW-3	0.022	0.015	NA	0.010
Lead	April-06	MW-6	0.018	0.015	NA	0.010

NA - Not Availabe



Project No. 12700058

Walpole Park South
Walpole, Massachusetts

0 2,000 Feet

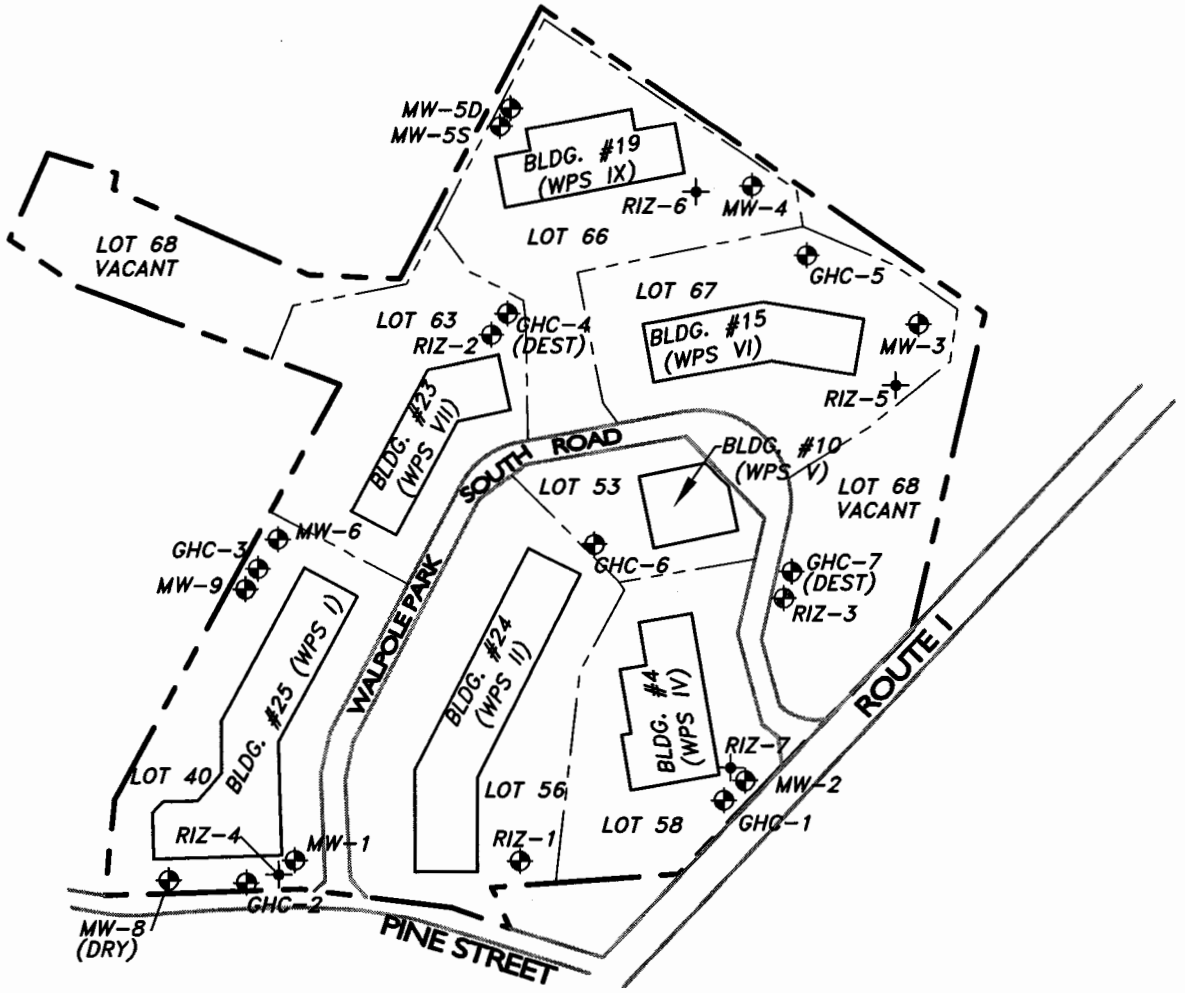
RIZZO ASSOCIATES
A TETRA TECH COMPANY

Information obtained from
USGS Map of Mansfield, Massachusetts
Quadrangle dated 1987 and
USGS Map of Norwood, Massachusetts
Quadrangle dated 1982-1985

Site Locus Plan

Figure 1

J:\Project\12700058\Graphics\12700058G-ESL01.dwg 02/15/2005 01:25:02 PM EST



LEGEND

- SOIL BORING LOCATION
- RECENTLY INSTALLED MONITORING WELL LOCATION
- EXISTING MONITORING WELL LOCATION
- (DEST) DESTROYED OR UN-LOCATABLE MONITORING WELL
- (DRY) INSUFFICIENT WATER FOR SAMPLE COLLECTION
- SITE BOUNDARY RTN 3-21915
- LOT BOUNDARIES

12700058P-ESP01

0 400 Feet

RIZZO ASSOCIATES
A TETRA TECH COMPANY

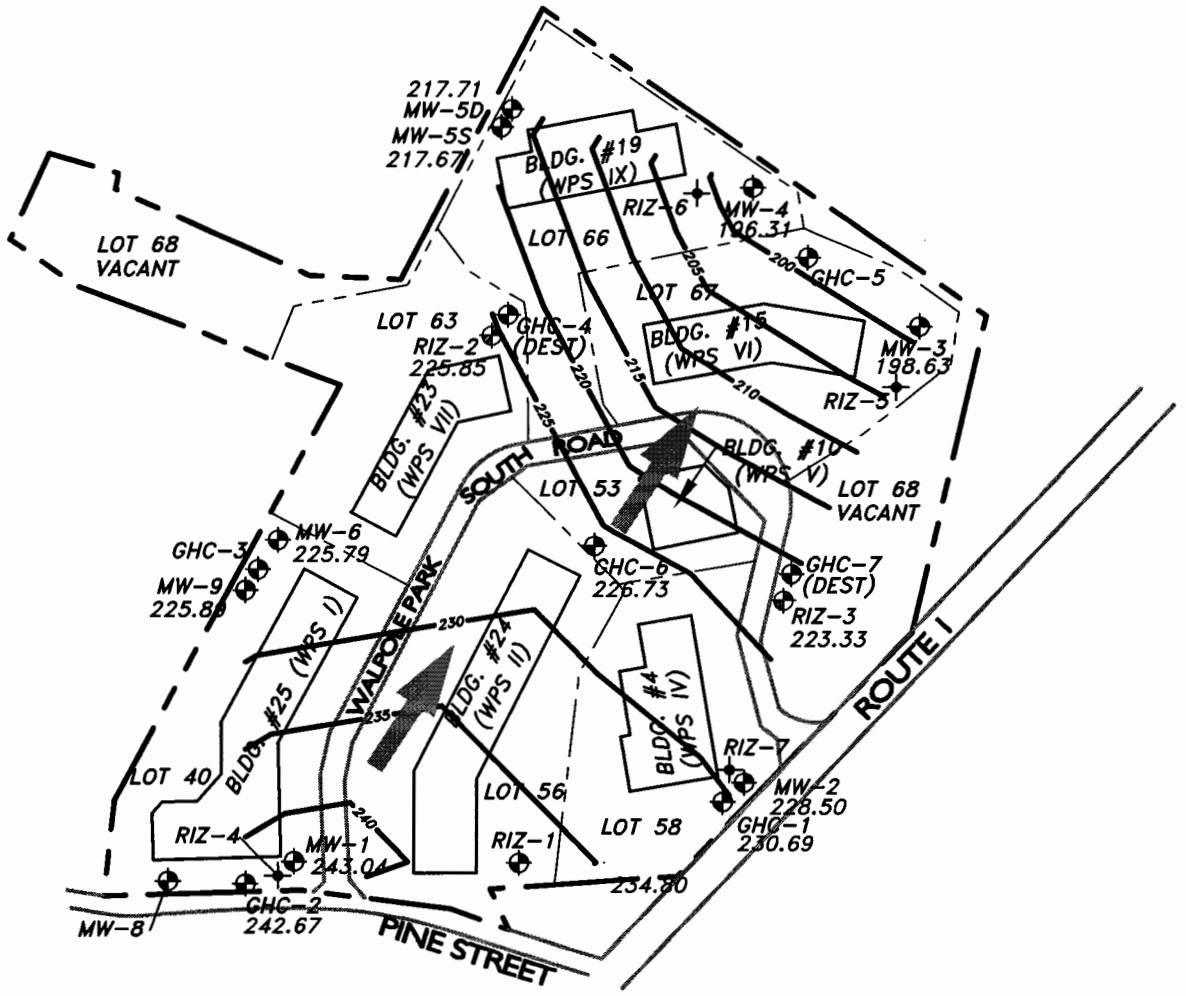
Site Plan by
GeoHydroCycle, Inc.
Dated 5/14/04

Walpole Park South
Walpole, Massachusetts

Site Plan with Soil Boring and Monitoring Well Locations

Figure 2

J:\Project\12700058\Plot\12700058P-ESP01.dwg 7/17/2006 9:43:52 AM EST



LEGEND

- SOIL BORING LOCATION
- RECENTLY INSTALLED MONITORING WELL LOCATION
- EXISTING MONITORING WELL LOCATION
- (DEST) DESTROYED OR UN-LOCATABLE MONITORING WELL
- (DRY) INSUFFICIENT WATER FOR SAMPLE COLLECTION
- SITE BOUNDARY RTN 3-21915
- LOT BOUNDARIES

12700058P-EGW01

0 400 Feet

Site Plan by
GeoHydroCycle, Inc.
Dated 5/14/04

RIZZO ASSOCIATES
A TETRA TECH COMPANY

Walpole Park South
Walpole, Massachusetts

Groundwater Elevation Map

Figure 3

J:\Project\12700058\Plot\12700058P-EGW01.dwg 6/19/2006 4:25:03 PM EST

Appendix A

Statement of Limitations and Conditions

Appendix A: Limitations

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in this report was carried out in accordance with the Terms and Conditions in our contract.

2. In preparing this report, Rizzo Associates has relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to Rizzo Associates at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, Rizzo Associates did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment.

3. Observations were made of the Site and of structures on the Site as indicated within the report. Where access to portions of the Site or to structures on the Site was unavailable or limited, Rizzo Associates renders no opinion as to the presence of hazardous materials or oil, or to the presence of indirect evidence relating to hazardous material or oil, in that portion of the Site or structure. In addition, Rizzo Associates renders no opinion as to the presence of hazardous material or oil, or the presence of indirect evidence relating to hazardous material or oil, where direct observation of the interior walls, floor, or ceiling of a structure on a Site was obstructed by objects or coverings on or over these surfaces.

4. Rizzo Associates did not perform testing or analyses to determine the presence or concentration of asbestos at the Site or in the environment at the Site.

5. It is ENGINEER's understanding that the purpose of this report is to assess the physical characteristics of the subject Site with respect to the presence on the Site of hazardous material or oil. This stated purpose has been a significant factor in determining the scope and level of services provided for in the Agreement. Should the purpose for which the Report is to be used or the proposed use of the site(s) change, this Report is no longer valid and use of this Report by CLIENT or others without ENGINEER's review and written authorization shall be at the user's sole risk. Should ENGINEER be required to review the Report after its date of submission, ENGINEER shall be entitled to additional compensation at then existing rates or such other terms as agreed between ENGINEER and the CLIENT.

6. The conclusions and recommendations contained in this report are based in part, where noted, upon the data obtained from a limited number of soil samples obtained from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

7. Any water level readings made in test pits, borings, and/or observation wells were made at the times and under the conditions stated on the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

8. Except as noted within the text of the report, no quantitative laboratory testing was performed as part of the site assessment. Where such analyses have been conducted by an outside laboratory, Rizzo Associates has relied upon the data provided and has not conducted an independent evaluation of the reliability of these data.

9. The conclusions and recommendations contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. As indicated within the report, some of these data may be preliminary screening level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed, and the conclusions and recommendations presented herein modified accordingly.

10. Chemical analyses have been performed for specific constituents during the course of this site assessment, as described in the text. However, it should be noted that additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the Site.

11. This Report was prepared for the exclusive use of the CLIENT. No other party is entitled to rely on the conclusions, observations, specifications, or data contained therein without the express written consent of ENGINEER.

12. The observations and conclusions described in this Report are based solely on the Scope of Services provided pursuant to the Agreement. ENGINEER has not performed any additional observations, investigations, studies, or testing not specifically stated therein. ENGINEER shall not be liable for the existence of any condition, the discovery of which required the performance of services not authorized under the Agreement.

13. The passage of time may result in significant changes in technology, economic conditions, or site variations that would render the Report inaccurate. Accordingly, neither the CLIENT, nor any other party, shall rely on the information or conclusions contained in this Report after six months from its date of submission without the express written consent of ENGINEER. Reliance on the Report after such period of time shall be at the user's sole risk. Should ENGINEER be required to review the Report after six months from its date of submission, ENGINEER shall be entitled to additional compensation at then existing rates or such other terms as may be agreed upon between ENGINEER and the CLIENT.

14. ENGINEER has endeavored to perform its services based upon engineering practices accepted at the time they were performed. ENGINEER makes no other representations, express or implied, regarding the information, data, analysis, calculations, and conclusions contained herein.

15. The services provided by ENGINEER do not include legal advice. Legal counsel should be consulted regarding interpretation of applicable and relevant federal, state, and local statutes and regulations and other legal matters.

Statement of Limitations and Conditions

Attachment to Opinion of Massachusetts Licensed Site Professional

Rizzo Associates, Inc.

Name of Licensed Site Professional:	Raymond C. Johnson
LSP Registration Number:	6118
Date of Opinion:	July 26, 2006
Client to Whom Opinion was Rendered:	Walpole Park South
Date of Agreement between Rizzo Associates and Client pursuant to which Opinion was Rendered:	December 29, 2005
Response Tracking No./Site No.:	4-3021915

This Statement of Limitations and Conditions is an integral part of, and is incorporated by reference into, the Opinion of Massachusetts Licensed Site Professional referenced above.

Limitations

1. Purpose of Opinion

A. This Opinion is being provided in compliance with the requirements set forth in the Massachusetts Contingency Plan ("MCP"), 310 CMR 40.0000 et seq. Specifically, the LSP has prepared this Opinion at the request of the Client identified above as part of a Phase II – Comprehensive Site Assessment. This stated purpose has been a significant factor in determining the scope and level of services required to render this Opinion.

B. Should the purpose for which this Opinion is to be used change, this Opinion shall no longer be valid.

2. General

A. This Opinion was prepared for the sole and exclusive use of the Client, subject to the provisions of the MCP. No other party is

entitled to rely in any way on the conclusions, observations, specifications, or data contained herein without the express written consent of Rizzo Associates, Inc. and the LSP who rendered this opinion. Any use of this Opinion by anyone other than Client, or any use of this Opinion by Client or others for any purpose other than the stated purpose set forth above, without the LSP's review and the written authorization of Rizzo Associates, Inc. and the LSP, shall be at the user's sole risk, and neither Rizzo Associates, Inc. nor the LSP shall have any liability or responsibility therefor.

B. This Opinion was prepared pursuant to an Agreement between Rizzo Associates, Inc. and the Client referenced above which defines the scope of work and sets out agreements regarding waivers of consequential damages, limitations on liability, and other important conditions and restrictions pursuant to which the Opinion is rendered. All uses of the Opinion are subject to and deemed acceptance of the conditions and restrictions contained in such Agreement. A copy of the Agreement or relevant excerpts from the Agreement will be made available upon requests to any authorized person seeking to use the Opinion.

3. Scope of Services

The observations and conclusions described in this Opinion are based solely on the Services provided pursuant to the Agreement with the Client and any approved additional services authorized by Client. Without limitation of any other applicable limitations or conditions, neither Rizzo Associates, Inc. nor the LSP shall be liable for the existence of any condition, the discovery of which would have required the performance of services not authorized under the Agreement. To the best of the knowledge and belief of Rizzo Associates, Inc. and the LSP who signed this Opinion, no inquiry of an attorney-at-law having being made, no laws, regulations, orders, permits or approvals are applicable to the response actions to which this opinion relates except, if and to the extent applicable, M.G.L. c. 21A, Sections 19-19J, 309 CMR, M.G.L. c. 21 E and 310 CMR 40.0000. Accordingly, this opinion is not intended to and does not address compliance with any other laws, regulation, orders, permits or approvals.

4. Changed Circumstances

The passage of time may result in changes in technology, economic conditions or regulatory standards, manifestations of latent conditions, or the occurrence of future events which would render this Opinion inaccurate or otherwise inapplicable. Neither Rizzo Associates, Inc. nor the LSP shall be liable or responsible for the consequences of any such changed circumstances or conditions on the accuracy of this Opinion. In addition, under no circumstances shall the Client nor any other person or entity rely on the information or conclusions contained in this Opinion after six months from its date of submission without the express written consent of Rizzo Associates, Inc. and the LSP. Reliance on the Opinion after such period of time shall be at the user's sole risk.

5. Should Rizzo Associates, Inc. or the LSP be required or requested to review or authorize others to use this Opinion after its date of submission, Rizzo Associates, Inc. shall be entitled to additional compensation at then existing rates or such other terms as may be agreed upon between Rizzo Associates, Inc. and the Client. Nothing herein contained shall be deemed to require Rizzo Associates, Inc. or the LSP to undertake any such review or authorize others to use this Opinion.

6. The conclusions stated in this Opinion are based upon:

- Visual inspection of existing physical conditions;
- Review and interpretation of site history and site usage information which was made available or obtained within the scope of work authorized by the Client;
- Information provided by the Client;
- Information and/or analyses for designated substances or parameters provided by an independent testing service or laboratory on a limited number of samples; and
- A limited number of subsurface explorations made on dates indicated in documentation supporting this Opinion;

upon which the LSP has relied and presumed accurate, and upon which the LSP is entitled to reasonably rely. The LSP was not authorized and did not attempt to independently verify the accuracy or

completeness of information or materials received from the Client and/or from laboratories and other third parties during the performance of its services. Neither Rizzo Associates, Inc. nor the LSP shall be liable for any condition, information, or conclusion, the discovery of which required information not available to the LSP or for independent investigation of information provided to the LSP by the Client and/or independent third parties.

7. This Opinion is rendered for the limited purpose stated above, and is not and should not be deemed to be an opinion concerning the compliance of any past or present owner or operator of the site with any federal, state or local law or regulation. No warranty or guarantee, whether express or implied, is made by this opinion, and any implied warranties of merchantability or fitness for a particular purpose are expressly disclaimed. Without limiting the generality of the foregoing, no warranty or guarantee is made that all contamination at a site or sources or contamination has been detected or identified, that any action or recommended action will achieve all of its objectives, or that this Opinion or any action as to which this Opinion relates will be upheld by any audit conducted by the DEP or any other party.

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Appendix B

Copy of BWSC-108 Transmittal Form

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

Release Tracking Number
4 - 3021915

A. SITE LOCATION:

1. Site Name: Walpole Park South
2. Street Address: Route 1 and Pine Street
3. City/Town: Walpole 4. ZIP Code: 02081-2561
5. UTM Coordinates: a. UTM N: 4664551 b. UTM E: 314471
6. ☑ Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.
   ☐ a. Tier IA ☑ b. Tier IB ☐ c. Tier IC ☐ d. Tier II
7. If applicable, provide the Permit Number: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

☐ 1. Submit a **Phase I Completion Statement**, pursuant to 310 CMR 40.0484.

☐ 2. Submit a **Revised Phase I Completion Statement**, pursuant to 310 CMR 40.0484.

☐ 3. Submit a **Phase II Scope of Work**, pursuant to 310 CMR 40.0834.

☐ 4. Submit an **interim Phase II Report**. This report does not satisfy the response action deadline requirements in 310 CMR 40.0500.

☑ 5. Submit a **final Phase II Report and Completion Statement**, pursuant to 310 CMR 40.0836.

☐ 6. Submit a **Revised Phase II Report and Completion Statement**, pursuant to 310 CMR 40.0836.

☐ 7. Submit a **Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.

☐ 8. Submit a **Revised Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.

☐ 9. Submit a **Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.

☐ 10. Submit a **Modified Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.

☐ 11. Submit an **As-Built Construction Report**, pursuant to 310 CMR 40.0875.

☐ 12. Submit a **Phase IV Status Report**, pursuant to 310 CMR 40.0877.

☐ 13. Submit a **Phase IV Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.

Specify the outcome of Phase IV activities: (check one)

☐ a. Phase V Operation, Maintenance or Monitoring of the Comprehensive Remedial Action is necessary to achieve a Response Action Outcome.

☐ b. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ d. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

(All sections of this transmittal form must be filled out unless otherwise noted above)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

Release Tracking Number
4 - 3021915

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

☐ 14. Submit a **Revised Phase IV Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.

☐ 15. Submit a **Phase V Status Report**, pursuant to 310 CMR 40.0892.

☐ 16. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP.)

a. Type of Report: (check one) ☐ i. Initial Report ☐ ii. Interim Report ☐ iii. Final Report

b. Frequency of Submittal: (check all that apply)

☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.

☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.

☐ iii. A Remedial Monitoring Report(s) submitted concurrent with a Status Report.

c. Status of Site: (check one) ☐ i. Phase V ☐ ii. Remedy Operation Status ☐ iii. Class C RAO

d. Number of Remedial Systems and/or Monitoring Programs: _____

A separate BWSC108A, CRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

☐ 17. Submit a **Remedy Operation Status**, pursuant to 310 CMR 40.0893.

☐ 18. Submit a **Status Report to maintain a Remedy Operation Status**, pursuant to 310 CMR 40.0893(2).

☐ 19. Submit a **Modification of a Remedy Operation Status**, pursuant to 310 CMR 40.0893(5).

☐ 20. Submit a **Termination of a Remedy Operation Status**, pursuant to 310 CMR 40.0893(6).

☐ 21. Submit a **Phase V Completion Statement**, pursuant to 310 CMR 40.0894.

Specify the outcome of Phase V activities: (check one)

☐ a. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement (BWSC104) will be submitted to DEP.

☐ b. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and/or that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ 22. Submit a **Revised Phase V Completion Statement**, pursuant to 310 CMR 40.0894.

☐ 23. Submit a **Post-Class C Response Action Outcome Status Report**, pursuant to 310 CMR 40.0898.

(All sections of this transmittal form must be filled out unless otherwise noted above)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

Release Tracking Number
4 - 3021915

C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> *if Section B indicates that a* ***Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that a* ***Phase II Scope of Work*** *or a* ***Phase IV Remedy Implementation Plan*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that an* ***As-Built Construction Report, a Remedy Operation Status****, a* ***Phase IV, Phase V or Post-Class C RAO Status Report,*** *a* ***Status Report to Maintain a Remedy Operation Status*** *and/or a* ***Remedial Monitoring Report*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 6118

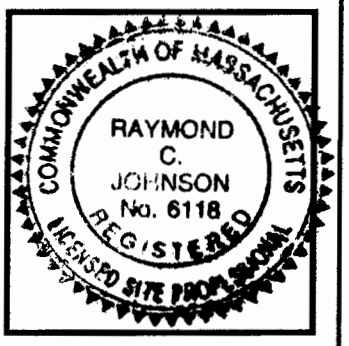
2. First Name: Raymond 3. Last Name: Johnson

4. Telephone: 508-903-2000 5. Ext.: 2356 6. FAX: 508-903-2001

7. Signature: Raymond C Johnson

8. Date: 7/26/06 (mm/dd/yyyy)

9. LSP Stamp:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

Release Tracking Number
4 - 3021915

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

D. PERSON UNDERTAKING RESPONSE ACTIONS:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: Walpole Park South

3. Contact First Name: Donnell 4. Last Name: Murphy

5. Street: P.O. Box 123 6. Title: Trustee

7. City/Town: Walpole 8. State: MA 9. ZIP Code: 02081-2522

10. Telephone: 508-668-1200 11. Ext.: 12. FAX: 508-668-1201

E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS:

☑ 1. RP or PRP ☑ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☐ e. Other RP or PRP Specify:

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Undertaking Response Actions Specify Relationship:

F. REQUIRED ATTACHMENT AND SUBMITTALS:

☐ 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

☑ 2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.

☐ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase III Remedial Action Plan.

☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase IV Remedy Implementation Plan.

☐ 5. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of any field work involving the implementation of a Phase IV Remedial Action.

☐ 6. If submitting a Modification of a Remedy Operation Status, check here to certify that a statement detailing the compliance history, as per 310 CMR 40.0893(5), for the person making this submittal is attached.

☐ 7. If submitting a Modification of a Remedy Operation Status, check here to certify that written consent of the person who submitted the Remedy Operation Status submittal, as per 310 CMR 40.0893(5), is attached.

☐ 8. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Name. Send corrections to the DEP Regional Office.

☑ 9. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

Release Tracking Number
4 - 3021915

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:

1. I, Donnell Murphy, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: _____ (Signature) 3. Title: Trustee

4. For: Walpole Park South (Name of person or entity recorded in Section D) 5. Date: 7/26/06 (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Appendix C

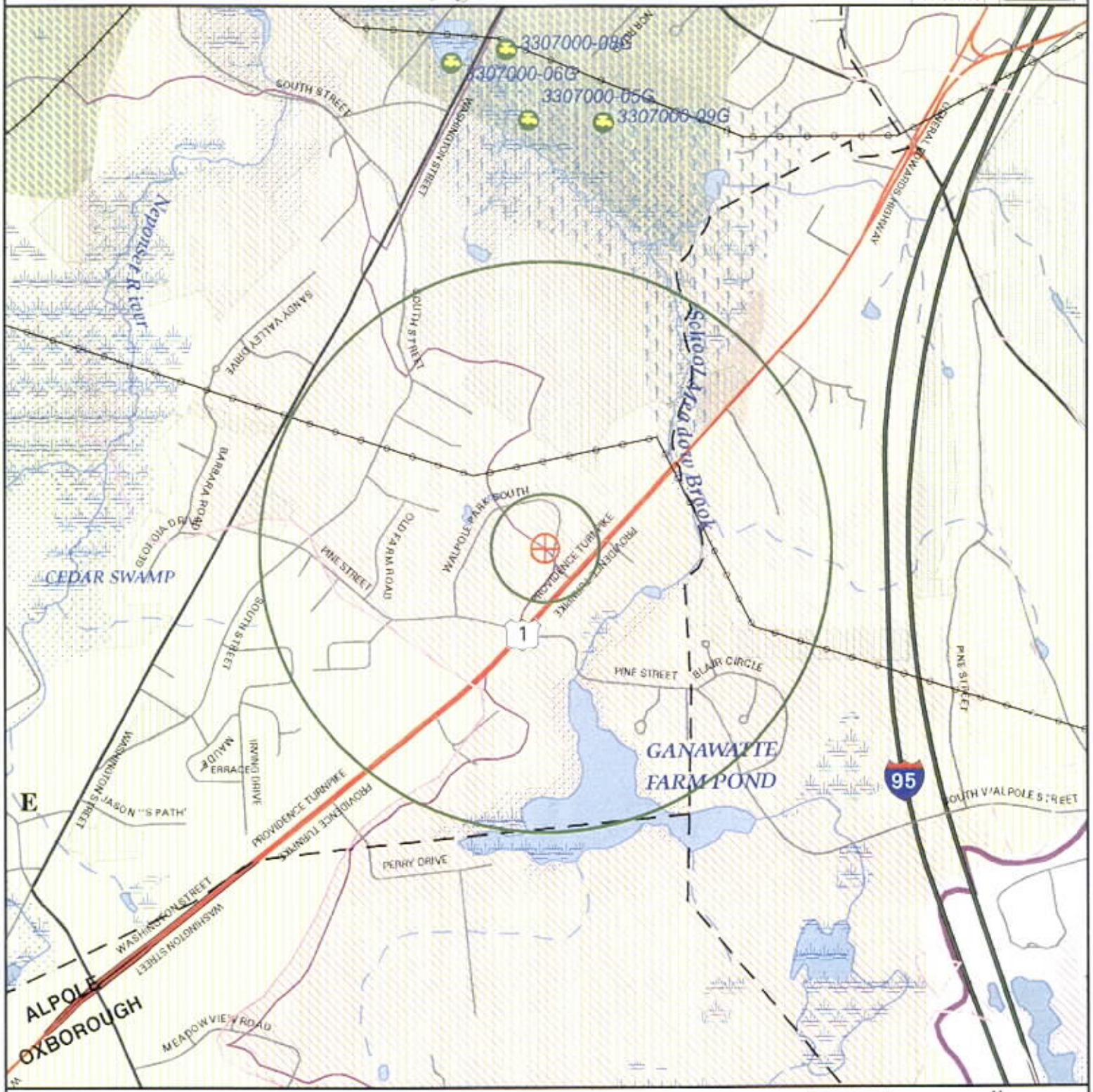
Massachusetts Geographic Information System Map

MA DEP - Bureau of Waste Site Cleanup

Site Scoring Map: 500 feet & 0.5 Mile Radii

SITE NAME:
Walpole Park South
25 Walpole Park South
Walpole, MA 02081
4664551n 314471ew

MASS GIS — Office of Geographic and Environmental Information
Massachusetts Executive Office of Environmental Affairs - 2006



Roads: Limited Access, Divided, Major Road, Connector, Street, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dams
Potentially Productive Aquifers: Medium,High Yield
Non-Potential Drinking Water Source Area: Medium,High Yield

EPA Sole Source Aquifer; FEMA 100-year floodplain
Public Water Supplies: Ground,Surface,Non Community
Approved Zone2; IWPA; Surface Water Supply Zone A
Hydrography: Water Features,Public Surface Water Supply
Wetlands: Fresh,Salt,NHESP Wetlands Habitat
Protected Open Space; ACEC
DEP Permitted Solid Waste Facilities; Certified Vernal Pools

N W E S

SCALE 1:15000

0 1/2 0 1/2 KILOMETERS

June 07, 2006

NRS (21e) SCORING MAP DATA SOURCES

AQUIFERS: USGS-WRD/MassGIS, 1:48,000. Automated by MassGIS from the USGS Water Resources Div. Hydrologic Atlas series manuscripts. The definitions of high and medium yield vary among basins. Source dates 1977-1988.

SOLE SOURCE AQUIFERS: US EPA/MA DEP/MassGIS, various scales. EPA defines them as aquifers that are the 'sole or principal source' of drinking water for a given aquifer service area. Last updated May 1996.

NON-POTENTIAL DRINKING WATER SOURCE AREAS: DEP-BWSC (Bureau of Waste Site Cleanup). Those portions of high and medium yield aquifers, which may not be considered as areas of groundwater conducive to the locations of public water supplies. Please refer to the MCP guidelines for the definitions of these areas. Last updated November 2003.

DEP APPROVED ZONE II's: MA DEP, 1:25,000. As stated in 310 CMR 22.02 'that area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated.' Digitized from data provided to DEP in approved hydrologic engineering reports. Data are updated continually.

INTERIM WELLHEAD PROTECTION AREAS: DEP-DWS (Division of Water Supply), 1:25,000. These polygons represent an interim Zone II for a groundwater source until an actual one is approved by the DEP Division of Water Supply. The radius of an IWPA varies according to the approved pumping rate. Updated in parallel with the Public Water Supplies data.

PUBLIC WATER SUPPLIES: DEP-DWS, 1:25,000. Community and non-community surface and withdrawal points were field collected using Global Positioning System receivers. The attributes were added from the DEP Division of Water Supply database. Continually updated.

HYDROGRAPHY: USGS/MassGIS. 1:25,000 USGS Digital Line Graph (DLG) data modified by MassGIS. Approximately 40% of the data was provided by USGS and MassGIS created the remainder to USGS specifications. Source dates 1977-1997. Last updated February 2005.

DRAINAGE BASINS: USGS-WRD/MassGIS, 1:24,000. Automated by MassGIS from USGS Water Resources Division manuscripts with approximately 2400 sub-basins as interpreted from 1:24,000 USGS quadrangle contour lines. 1987-1993. Last update March 2003.

WETLANDS: UMass Amherst RMP/MassGIS, 1:25,000. Includes nonforested wetlands extracted from the 1999 Land Use datalayer, which was photointerpreted from summer CIR photography. Interpretation was not done in stereo. Also includes, in most areas, forested wetlands from USGS Digital Line Graph (DLG) data.

PROTECTED OPEN SPACE: EOEA (Executive Office of Environmental Affairs) MassGIS, 1:25,000. Includes federal, state, county, municipal, non-profit and protected private conservation and outdoor recreation lands. Ongoing updates.

ACECs: DEM, 1:25,000. Areas of Critical Environmental Concern are areas designated by the Secretary of EOEA as having a number of valuable environmental features coexisting. Projects in ACECs are subject to the highest standards of review and performance. Last updated December 2003.

ROADS: USGS/MassGIS/MHD, 1:100,000. MassGIS extracted roads from the USGS Transportation DLG files. MA Highway Dept. updated roads through July 2004. MassGIS and MA DEP GIS group further edited this layer. Numbered routes are part of the state, U.S. or Interstate highway systems.

POLITICAL BOUNDARIES: MassGIS/USGS, 1:25,000. This datalayer was digitized by MassGIS from mylar USGS quads. Source date is approximately 1985.

DEP PERMITTED SOLID WASTE FACILITIES: DEP-DSW (Division of Solid Waste), 1:25,000. Includes only facilities regulated since 1971. Data includes sanitary landfills, transfer stations and recycling or composting facilities. Facility boundaries were compiled or approximate facility point locations drafted onto USGS quadrangles and automated by the DEP Division of Solid Waste. Last updated November 2003.

NHESP ESTIMATED HABITATS OF RARE WETLANDS WILDLIFE: Polygons show estimated habitats for all processed occurrences of rare wetlands wildlife. Data collected by Natural Heritage & Endangered Species Program and compiled at 1:24,000 or 1:25,000 scale. For use with Wetlands Protection Act Only. Effective 2005-2007.

NHESP CERTIFIED VERNAL POOLS: Points show all vernal pools certified by NHESP/MADFW (Fisheries and Wildlife) as of June 30, 1999. Data compiled at 1:24,000 or 1:25,000 scale. Effective 2005-2007.

Appendix D

Boring Logs and Well Construction Diagrams

RIZZO ASSOCIATES
A TETRA TECH COMPANY

BORING NUMBER RIZ-1

CLIENT Walpole Park South Trust
PROJECT NAME Walpole Park South
PROJECT NUMBER
PROJECT LOCATION Walpole, Massachusetts
DATE STARTED 10/14/05 **COMPLETED** 10/14/05
GROUND ELEVATION **HOLE SIZE** 2"
DRILLING CONTRACTOR Soil Exploration
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Dimitri Gounis **CHECKED BY** Chris Nitchie
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	RECOVERY (inches)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	WELL DIAGRAM
0								
5		11 15 52 93	12/24	0		Tan course to very course sand with some gravel, moist, no odor 7.0		Backfill: Cuttings PVC Riser
10		42 30	6/24	0.8		Tan medium to fine sand, uniform, wet, no odor 12.0 12.5 boulder		Bentonite
15		11 42 40 45	24/24	0.5		Tan fine sand with some plasticity with gravel and very course sand, wet, no odor 17.0		Filter Pack PVC Screen
20			0/24	0		Refusal at 21' suspected bedrock 21.0 Bottom of hole at 21.0 feet.		

RIZZO ASSOCIATES
A TETRA TECH COMPANY

BORING NUMBER RIZ-2

CLIENT Walpole Park South Trust
PROJECT NAME Walpole Park South
PROJECT NUMBER
PROJECT LOCATION Walpole, Massachusetts
DATE STARTED 10/14/05 **COMPLETED** 10/14/05
GROUND ELEVATION **HOLE SIZE** 2"
DRILLING CONTRACTOR Soil Exploration
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Dimitri Gounis **CHECKED BY** Chris Nitchie
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	RECOVERY (inches)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	WELL DIAGRAM
0		50	8/24	0		Tan madium to fine sand and gravel, dry, no odor		Backfill: Cuttings
3.0								Bentonite PVC Riser
5			0/24			Gravel and cobbles off auger, some angular gravel, some tan medium to fine dry sand		
7.0								
10		6 12 22 12	8/24	0		Tan coarse sand and gravel with fine sand, wet, no odor		Filter Pack PVC Screen
12.0								
15		70	6/24	0		Tan coarse sand and gravel with fines, slightly plastic/cohesive, wet, no odor, auger refusal at 15.5'		
17.0						Bottom of hole at 15.5 feet.		

RIZZO ASSOCIATES
A TETRA TECH COMPANY

BORING NUMBER RIZ-3

CLIENT Walpole Park South Trust
PROJECT NAME Walpole Park South
PROJECT NUMBER
PROJECT LOCATION Walpole, Massachusetts
DATE STARTED 10/14/05 **COMPLETED** 10/14/05
GROUND ELEVATION **HOLE SIZE** 2"
DRILLING CONTRACTOR Soil Exploration
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Dimitri Gounis **CHECKED BY** Chris Nitchie
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	RECOVERY (inches)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	WELL DIAGRAM
0				0		Brown uniform medium sand fill, moist, no odor, off auger		
3.0								
5								
5.0						Brown uniform medium to fine sand, moist, no odor		
		5 7 8 6	18/24	0				
10								Backfill: Cuttings
		6 7 9 12	12/24	0		Brown/tan coarse sand and fine sand with gravel, wet, no odor		PVC Riser
12.0								
15								
		1 6 11 12	8/24	0		Brown/tan coarse sand and fine sand with some gravel, wet, no odor		Bentonite
17.0								
20								
		3 6 8 21	18/24	0		Brown/tan coarse sand with some fines, wet, no odor		
22.0								
25								PVC Screen
		15 20 23 27	20/24	0		Brown/tan coarse sand to very corase sand and gravel with some fines, wet, no odor		Filter Pack
27.0								
30								
		7 11 9 11	20/24	0		Brown/tan coarse sand to very corase sand and gravel with fines, wet, no odor		
32.0								
35								

ENVIRONMENTAL BH HSA BORING LOGS.GPJ GINT US.GDT 7/14/06

(Continued Next Page)

RIZZO ASSOCIATES
A TETRA TECH COMPANY

BORING NUMBER RIZ-3

CLIENT Walpole Park South Trust **PROJECT NAME** Walpole Park South

PROJECT NUMBER **PROJECT LOCATION** Walpole, Massachusetts

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	RECOVERY (inches)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	WELL DIAGRAM
35								
40			0/24	0		Mounding prevents acurate sample from this depth, no soil desc. End or boring at 40', no refusal.		
						42.0 Bottom of hole at 42.0 feet.		

RIZZO ASSOCIATES
A TETRA TECH COMPANY

BORING NUMBER RIZ-4

CLIENT Walpole Park South Trust
PROJECT NAME Walpole Park South
PROJECT NUMBER
PROJECT LOCATION Walpole, Massachusetts
DATE STARTED 10/14/05 **COMPLETED** 10/14/05
GROUND ELEVATION **HOLE SIZE** 2"
DRILLING CONTRACTOR Soil Exploration
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Dimitri Gounis **CHECKED BY** Chris Nitchie
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	RECOVERY (inches)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	WELL DIAGRAM
0				0		Brown medium to fine sand and gravel, dry, no odor, off auger		
						3.0		
5		25 30 27 23	18/24	0		Brown medium to fine sand and gravel, dry, no odor		
						7.0		
10		17 27 27 29	8/24	0		Brown medium to fine sand and gravel with some coarse sand few orange mottles, moist, no odor. Auger refusal at 13'		
						12.0		
						Bottom of hole at 13.0 feet.		

RIZZO ASSOCIATES
A TETRA TECH COMPANY

BORING NUMBER RIZ-5

CLIENT Walpole Park South Trust
PROJECT NAME Walpole Park South
PROJECT NUMBER
PROJECT LOCATION Walpole, Massachusetts
DATE STARTED 2/16/06 **COMPLETED** 2/16/06
GROUND ELEVATION **HOLE SIZE** 6"
DRILLING CONTRACTOR Geosearch
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Chris Nitchie **CHECKED BY** Chris Nitchie
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	RECOVERY (inches)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	WELL DIAGRAM
0		8 9 12 9	12/24	0		Brown medium to fine uniform sand, moist, no odor 3.0		
5		16 18 20 25	6/24	0		Brown medium to fine uniform sand with angular gravel, dry, no odor 7.0		
10		6 21 45 30	0/24	0		No recovery, brown medium to fine uniform sand with angular gravel off auger 12.0		
15		6 9 11 7	20/24	0		Brown/tan medium sand uniform with little gravel, moist, no odor 17.0		
						Bottom of hole at 17.0 feet.		

RIZZO ASSOCIATES
A TETRA TECH COMPANY

BORING NUMBER RIZ-6

CLIENT Walpole Park South Trust
PROJECT NAME Walpole Park South
PROJECT NUMBER
PROJECT LOCATION Walpole, Massachusetts
DATE STARTED 2/16/06 **COMPLETED** 2/16/06
GROUND ELEVATION **HOLE SIZE** 6"
DRILLING CONTRACTOR Geosearch
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Chris Nitchie **CHECKED BY** Chris Nitchie
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	RECOVERY (inches)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	WELL DIAGRAM
0		6 10 9 10	24/24	0		12" loamy top soil, 12" brown medium to coarse sand and gravel with some fines, moist to wet, no odor.		
						3.0		
5		10 9 8 7	8/24	2.9		Brown medium to fine sand and gravel with some organic material (plant), wet at bottom of spoon		
						7.0		
10		3 9 10 13	20/24	0		Tan uniform medium to fine sand, moist, no odor, boring ended due to proximity to overhead utilities, no refusal		
						12.0		
						Bottom of hole at 12.0 feet.		

RIZZO ASSOCIATES
A TETRA TECH COMPANY

BORING NUMBER RIZ-7

CLIENT Walpole Park South Trust
PROJECT NAME Walpole Park South
PROJECT NUMBER
PROJECT LOCATION Walpole, Massachusetts
DATE STARTED 2/16/06 **COMPLETED** 2/16/06
GROUND ELEVATION **HOLE SIZE** 6"
DRILLING CONTRACTOR Geosearch
GROUND WATER LEVELS:
DRILLING METHOD Hollow Stem Auger
AT TIME OF DRILLING ---
LOGGED BY Chris Nitchie **CHECKED BY** Chris Nitchie
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

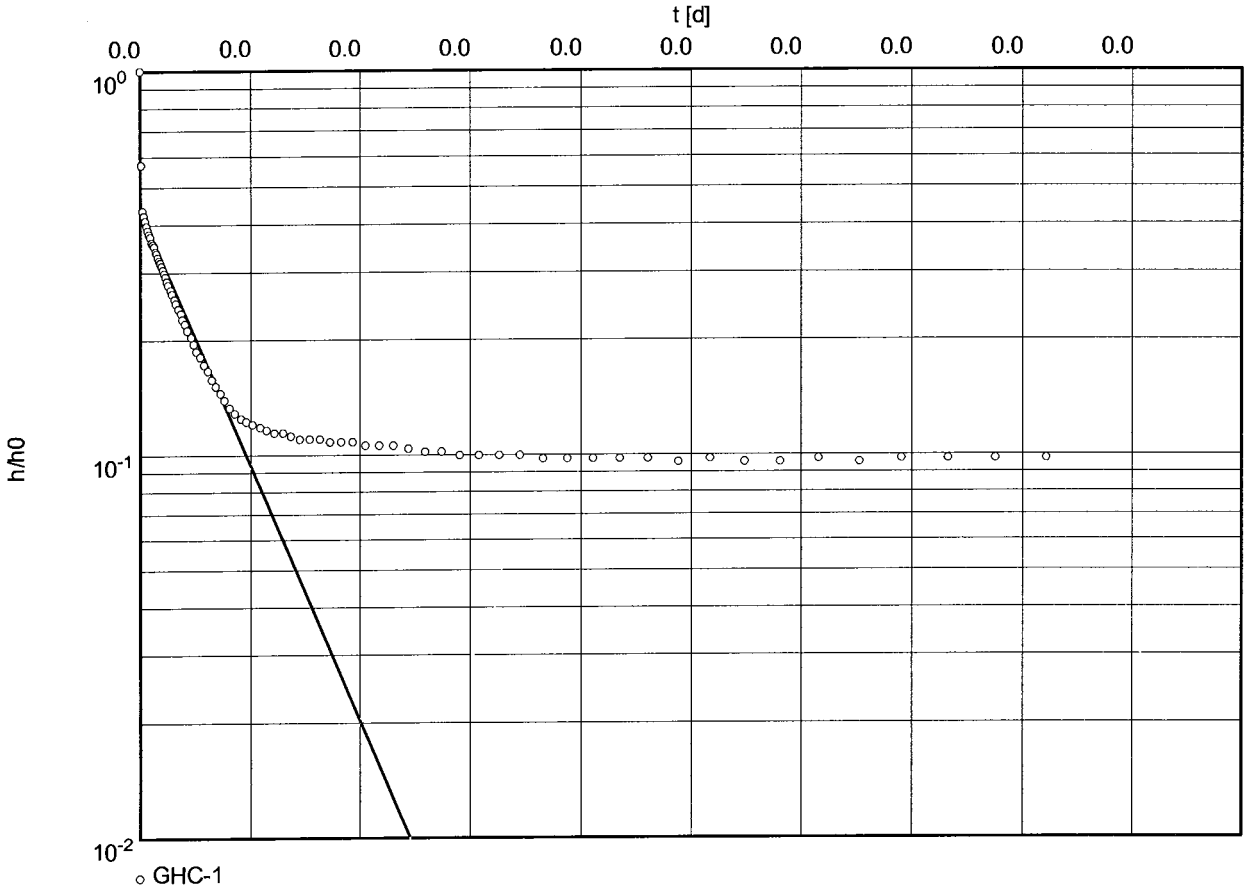
DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	RECOVERY (inches)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	REMARKS	WELL DIAGRAM
0						Tan to light brown medium sand and gravel with some fines, wet (snow melt), no odor		
						3.0		
5		5 5 6 7	6/24	0		Brown medium to coarse sand with fines and some gravel, wet (snow melt), no odor		
						7.0		
10		14 43 63 30	10/24	0		Tan/Brown medium to caorse sand with fines and gravel, wet, no odor. Likely near top of water table		
						12.0		
15		51	12/24	0		Tan/Brown uniform coarse sand with some fines transitioning to angular gravel with fines. Auguer refusal at 18'		
						17.0		
						Bottom of hole at 18.0 feet.		

Appendix E

Hydraulic Conductivity Graphs

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 18.07.2006	Page 1
		Project: 12700058	
		Evaluated by:	

Slug Test No.	Test conducted on: 17.07.2006
GHC-1	



Hydraulic conductivity [ft/d]: 8.67×10^{0}

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 18.07.2006	Page 2
		Project: 12700058	
		Evaluated by:	

Slug Test No.	Test conducted on: 17.07.2006
GHC-1	GHC-1

Static water level: 11.00 ft below datum

	Pumping test duration [d]	Water level [ft]	Drawdown [ft]
1	0.00000	6.18	-4.82
2	0.00001	8.25	-2.75
3	0.00002	8.91	-2.09
4	0.00003	8.97	-2.03
5	0.00005	9.03	-1.97
6	0.00006	9.09	-1.91
7	0.00007	9.14	-1.86
8	0.00008	9.18	-1.82
9	0.00009	9.21	-1.79
10	0.00010	9.27	-1.73
11	0.00012	9.29	-1.71
12	0.00013	9.31	-1.69
13	0.00014	9.36	-1.64
14	0.00015	9.38	-1.62
15	0.00016	9.42	-1.58
16	0.00017	9.45	-1.55
17	0.00019	9.47	-1.53
18	0.00020	9.50	-1.50
19	0.00021	9.53	-1.47
20	0.00022	9.56	-1.44
21	0.00023	9.59	-1.41
22	0.00024	9.63	-1.37
23	0.00025	9.66	-1.34
24	0.00028	9.70	-1.30
25	0.00029	9.73	-1.27
26	0.00031	9.77	-1.23
27	0.00032	9.80	-1.20
28	0.00035	9.84	-1.16
29	0.00037	9.87	-1.13
30	0.00038	9.91	-1.09
31	0.00041	9.94	-1.06
32	0.00043	9.98	-1.02
33	0.00046	10.02	-0.98
34	0.00049	10.06	-0.94
35	0.00051	10.10	-0.90
36	0.00054	10.13	-0.87
37	0.00058	10.17	-0.83
38	0.00061	10.20	-0.80
39	0.00065	10.24	-0.76
40	0.00068	10.27	-0.73
41	0.00073	10.30	-0.70
42	0.00076	10.33	-0.67
43	0.00081	10.36	-0.64
44	0.00086	10.38	-0.62
45	0.00091	10.40	-0.60
46	0.00096	10.41	-0.59
47	0.00102	10.42	-0.58
48	0.00109	10.43	-0.57
49	0.00115	10.44	-0.56
50	0.00122	10.45	-0.55

Waterloo Hydrogeologic
180 Columbia St. W.
Waterloo,Ontario,Canada
ph.(519)746-1798

slug/bail test analysis
BOUWER-RICE's method

Date: 18.07.2006 | Page 3

Project: 12700058

Evaluated by:

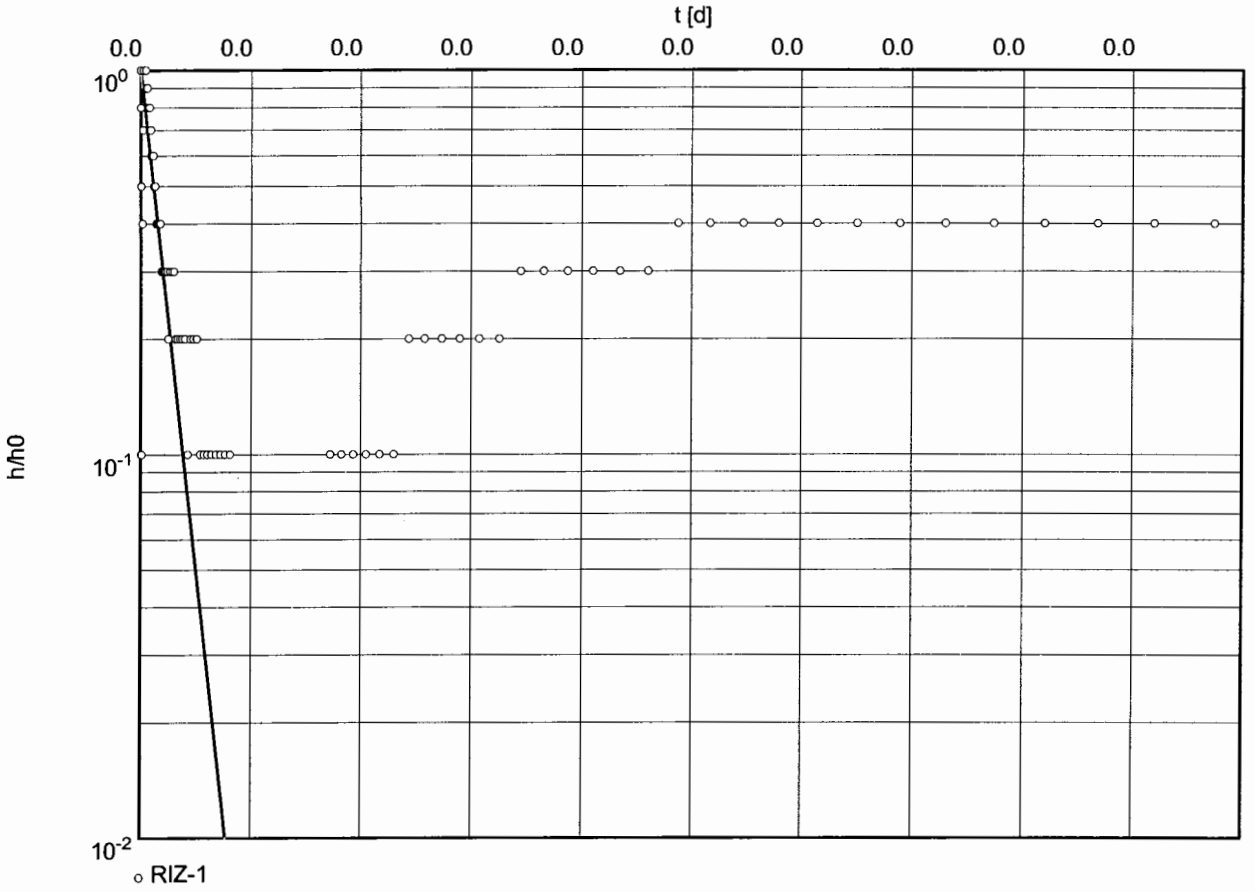
Slug Test No.	Test conducted on: 17.07.2006
GHC-1	GHC-1

Static water level: 11.00 ft below datum

	Pumping test duration [d]	Water level [ft]	Drawdown [ft]
51	0.00130	10.45	-0.55
52	0.00137	10.46	-0.54
53	0.00145	10.47	-0.53
54	0.00154	10.47	-0.53
55	0.00163	10.47	-0.53
56	0.00172	10.48	-0.52
57	0.00183	10.48	-0.52
58	0.00193	10.48	-0.52
59	0.00205	10.49	-0.51
60	0.00218	10.49	-0.51
61	0.00230	10.49	-0.51
62	0.00244	10.50	-0.50
63	0.00259	10.51	-0.49
64	0.00274	10.51	-0.49
65	0.00291	10.52	-0.48
66	0.00308	10.52	-0.48
67	0.00326	10.52	-0.48
68	0.00345	10.52	-0.48
69	0.00366	10.53	-0.47
70	0.00388	10.53	-0.47
71	0.00411	10.53	-0.47
72	0.00435	10.53	-0.47
73	0.00461	10.53	-0.47
74	0.00488	10.54	-0.46
75	0.00517	10.53	-0.47
76	0.00549	10.54	-0.46
77	0.00581	10.54	-0.46
78	0.00616	10.53	-0.47
79	0.00653	10.54	-0.46
80	0.00691	10.53	-0.47
81	0.00733	10.53	-0.47
82	0.00775	10.53	-0.47
83	0.00822	10.53	-0.47

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 18.07.2006	Page 1
		Project: 12700058	
		Evaluated by:	

Slug Test No.	Test conducted on:
RIZ-1	



Hydraulic conductivity [ft/d]: 2.14×10^{0}

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 18.07.2006	Page 2
		Project: 12700058	
		Evaluated by:	

Slug Test No.	Test conducted on:
RIZ-1	RIZ-1

Static water level: 4.00 ft below datum

	Pumping test duration [d]	Water level [ft]	Drawdown [ft]
1	0.00000	4.10	0.10
2	0.00001	4.08	0.08
3	0.00002	4.05	0.05
4	0.00003	4.01	0.01
5	0.00005	3.99	-0.01
6	0.00006	3.96	-0.04
7	0.00007	3.93	-0.07
8	0.00008	3.90	-0.10
9	0.00009	3.88	-0.12
10	0.00010	3.84	-0.16
11	0.00012	3.83	-0.17
12	0.00013	3.89	-0.11
13	0.00014	3.90	-0.10
14	0.00015	3.91	-0.09
15	0.00016	3.91	-0.09
16	0.00017	3.91	-0.09
17	0.00019	3.91	-0.09
18	0.00020	3.92	-0.08
19	0.00021	3.92	-0.08
20	0.00022	3.92	-0.08
21	0.00023	3.92	-0.08
22	0.00024	3.92	-0.08
23	0.00025	3.93	-0.07
24	0.00028	3.93	-0.07
25	0.00029	3.94	-0.06
26	0.00031	3.94	-0.06
27	0.00032	3.94	-0.06
28	0.00035	3.94	-0.06
29	0.00037	3.95	-0.05
30	0.00038	3.95	-0.05
31	0.00041	3.95	-0.05
32	0.00043	3.96	-0.04
33	0.00046	3.96	-0.04
34	0.00049	3.96	-0.04
35	0.00051	3.96	-0.04
36	0.00054	3.96	-0.04
37	0.00058	3.97	-0.03
38	0.00061	3.97	-0.03
39	0.00065	3.97	-0.03
40	0.00068	3.97	-0.03
41	0.00073	3.97	-0.03
42	0.00076	3.98	-0.02
43	0.00081	3.97	-0.03
44	0.00086	3.97	-0.03
45	0.00091	3.97	-0.03
46	0.00096	3.98	-0.02
47	0.00102	3.98	-0.02
48	0.00109	3.98	-0.02
49	0.00115	3.98	-0.02
50	0.00122	3.98	-0.02

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 18.07.2006	Page 3
		Project: 12700058	
		Evaluated by:	

Slug Test No.	Test conducted on:
RIZ-1	RIZ-1

Static water level: 4.00 ft below datum

	Pumping test duration [d]	Water level [ft]	Drawdown [ft]
51	0.00130	3.99	-0.01
52	0.00137	3.98	-0.02
53	0.00145	3.98	-0.02
54	0.00154	3.98	-0.02
55	0.00163	3.99	-0.01
56	0.00172	3.99	-0.01
57	0.00183	3.99	-0.01
58	0.00193	3.99	-0.01
59	0.00205	3.99	-0.01
60	0.00218	3.99	-0.01
61	0.00230	3.99	-0.01
62	0.00244	3.99	-0.01
63	0.00259	4.00	0.00
64	0.00274	4.00	0.00
65	0.00291	4.00	0.00
66	0.00308	4.00	0.00
67	0.00326	4.00	0.00
68	0.00345	4.00	0.00
69	0.00366	4.00	0.00
70	0.00388	4.00	0.00
71	0.00411	4.00	0.00
72	0.00435	4.00	0.00
73	0.00461	4.00	0.00
74	0.00488	4.00	0.00
75	0.00517	4.01	0.01
76	0.00549	4.01	0.01
77	0.00581	4.01	0.01
78	0.00616	4.01	0.01
79	0.00653	4.01	0.01
80	0.00691	4.01	0.01
81	0.00733	4.02	0.02
82	0.00775	4.02	0.02
83	0.00822	4.02	0.02
84	0.00870	4.02	0.02
85	0.00922	4.02	0.02
86	0.00977	4.02	0.02
87	0.01035	4.03	0.03
88	0.01097	4.03	0.03
89	0.01162	4.03	0.03
90	0.01230	4.03	0.03
91	0.01304	4.03	0.03
92	0.01382	4.03	0.03
93	0.01463	4.04	0.04
94	0.01551	4.04	0.04
95	0.01642	4.04	0.04
96	0.01740	4.04	0.04
97	0.01844	4.04	0.04
98	0.01953	4.04	0.04
99	0.02068	4.04	0.04
100	0.02191	4.04	0.04

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 18.07.2006	Page 4
		Project: 12700058	
		Evaluated by:	

Slug Test No.	Test conducted on:
RIZ-1	RIZ-1

Static water level: 4.00 ft below datum

	Pumping test duration [d]	Water level [ft]	Drawdown [ft]	
101	0.02322	4.04	0.04	
102	0.02459	4.04	0.04	
103	0.02605	4.04	0.04	
104	0.02759	4.04	0.04	
105	0.02924	4.04	0.04	

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 18.07.2006	Page 1
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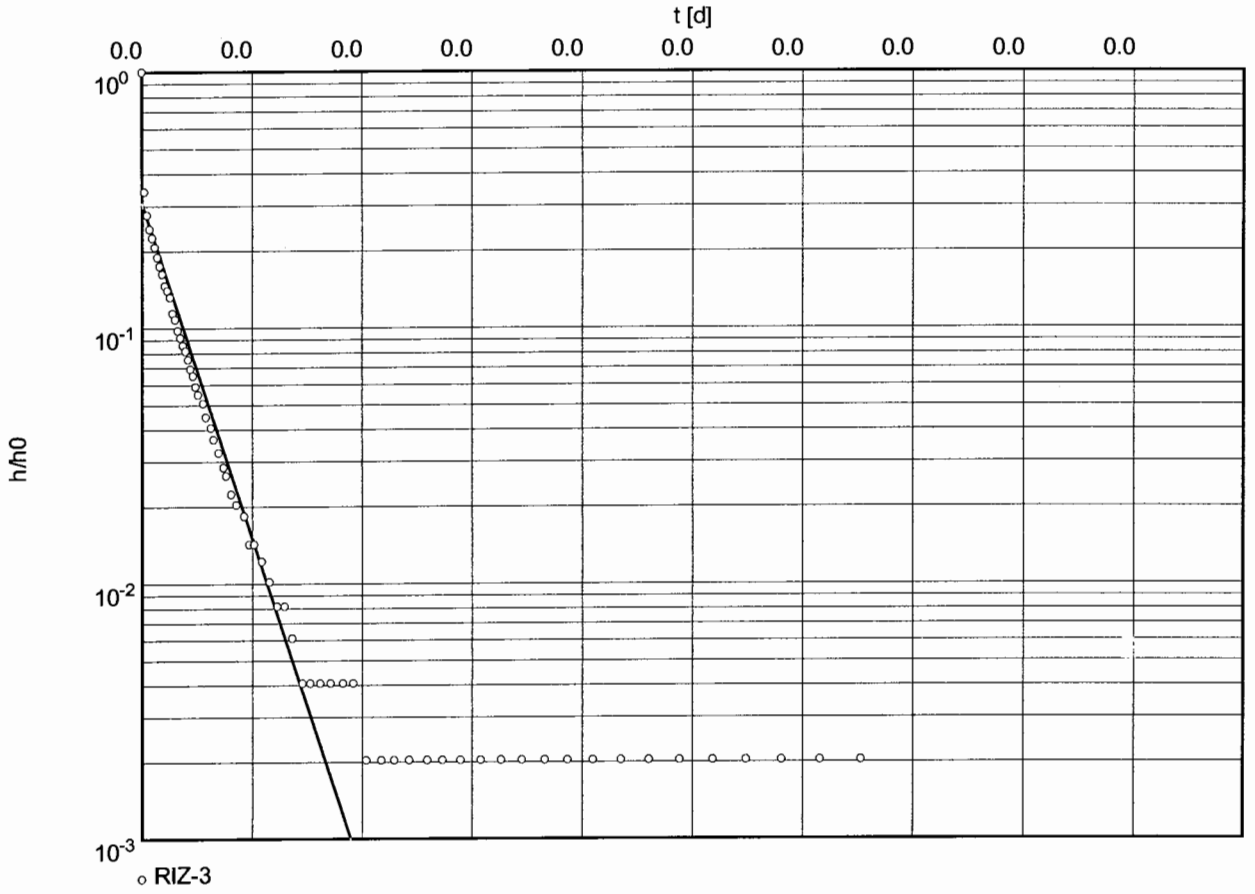
		Evaluated by: CKN	

Slug Test No.	Test conducted on: 17.07.2006
RIZ-3	



Hydraulic conductivity [ft/d]: 4.77×10^{0}

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		Project: 12700058	
		Evaluated by: CKN	

Slug Test No.	Test conducted on: 17.07.2006
RIZ-3	RIZ-3

Static water level: 14.70 ft below datum

	Pumping test duration [d]	Water level [ft]	Drawdown [ft]
1	0.00000	9.79	-4.91
2	0.00001	13.02	-1.68
3	0.00002	13.34	-1.36
4	0.00003	13.50	-1.20
5	0.00005	13.59	-1.11
6	0.00006	13.68	-1.02
7	0.00007	13.77	-0.93
8	0.00008	13.84	-0.86
9	0.00009	13.90	-0.80
10	0.00010	13.98	-0.72
11	0.00012	14.01	-0.69
12	0.00013	14.05	-0.65
13	0.00014	14.14	-0.56
14	0.00015	14.17	-0.53
15	0.00016	14.22	-0.48
16	0.00017	14.25	-0.45
17	0.00019	14.28	-0.42
18	0.00020	14.30	-0.40
19	0.00021	14.33	-0.37
20	0.00022	14.36	-0.34
21	0.00023	14.38	-0.32
22	0.00024	14.41	-0.29
23	0.00025	14.43	-0.27
24	0.00028	14.45	-0.25
25	0.00029	14.48	-0.22
26	0.00031	14.50	-0.20
27	0.00032	14.52	-0.18
28	0.00035	14.54	-0.16
29	0.00037	14.56	-0.14
30	0.00038	14.57	-0.13
31	0.00041	14.59	-0.11
32	0.00043	14.60	-0.10
33	0.00046	14.61	-0.09
34	0.00049	14.63	-0.07
35	0.00051	14.63	-0.07
36	0.00054	14.64	-0.06
37	0.00058	14.65	-0.05
38	0.00061	14.66	-0.04
39	0.00065	14.66	-0.04
40	0.00068	14.67	-0.03
41	0.00073	14.68	-0.02
42	0.00076	14.68	-0.02
43	0.00081	14.68	-0.02
44	0.00086	14.68	-0.02
45	0.00091	14.68	-0.02
46	0.00096	14.68	-0.02
47	0.00102	14.69	-0.01
48	0.00109	14.69	-0.01
49	0.00115	14.69	-0.01
50	0.00122	14.69	-0.01

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Date: 18.07.2006	Page 3
		Project: 12700058	
		Evaluated by: CKN	

Slug Test No.	Test conducted on: 17.07.2006
RIZ-3	RIZ-3

Static water level: 14.70 ft below datum

	Pumping test duration [d]	Water level [ft]	Drawdown [ft]
51	0.00130	14.69	-0.01
52	0.00137	14.69	-0.01
53	0.00145	14.69	-0.01
54	0.00154	14.69	-0.01
55	0.00163	14.69	-0.01
56	0.00172	14.69	-0.01
57	0.00183	14.69	-0.01
58	0.00193	14.69	-0.01
59	0.00205	14.69	-0.01
60	0.00218	14.69	-0.01
61	0.00230	14.69	-0.01
62	0.00244	14.69	-0.01
63	0.00259	14.69	-0.01
64	0.00274	14.69	-0.01
65	0.00291	14.69	-0.01
66	0.00308	14.69	-0.01
67	0.00326	14.69	-0.01

Appendix G

Phase II Scope of Work

Phase II Scope of Work
Walpole Park South
Walpole, Massachusetts
Release Tracking Number 3-21915

Rizzo Associates, Inc. has prepared this Scope of Work for a Phase II – Comprehensive Site Assessment for the above-referenced property in accordance with the provisions of the Massachusetts Contingency Plan (MCP) (310 CMR 40.0834). Specifically the Scope of Work describes: (1) the scope and nature of investigative sampling programs that will be undertaken to characterize the extent, and migration pathways of oil and/or hazardous material, and the risk posed to health, safety, public welfare and/or the environment; (2) the name and license number of the Licensed Site Professional (LSP) engaged or employed by the person conducting the Comprehensive Response Action; and (3) a schedule for implementation of the Phase II – Comprehensive Site Assessment.

Background

Walpole Park South (the Site) encompasses approximately 54 acres of land located at the intersection of US Route 1 and Pine Street in Walpole, Massachusetts. On August 15, 2003, the Massachusetts Department of Environmental Protection (DEP) issued a Notice of Responsibility (NOR) pursuant to the Massachusetts Contingency Plan (MCP) to Walpole Park South Trust regarding a potential release of Oil or Hazardous Materials (OHM) at the Site. In accordance with the MCP, a Phase I – Initial Site Investigation, Tier Classification and Tier IB Permit Application were submitted to DEP on June 4, 2004 by GeoHydroCycle, Inc. (GHC). The Phase I report discussed the Site history, current Site conditions, and sampling which periodically identified lead, total chromium, cadmium, antimony, arsenic, methylene chloride and tetrachloroethylene in groundwater samples collected from monitoring wells located on the Site. A specific source or sources of the contamination has not been identified, and the pattern and frequency of detections does not permit delineation of a plume or plumes of the detected contaminants. In accordance with the requirements of the MCP, a Phase II – Comprehensive Site Assessment (Phase II) must be submitted by July 2006, along with a Phase III – Remedial Action Plan (Phase III) if the results of the Phase II report do not permit submission of a Class A or Class B Response Action Outcome (RAO) Statement.

The following scope of work has been prepared to begin the process of evaluating and addressing issues relevant to the MCP requirements for the Phase II and the PIP in accordance with the requirements of the MCP, during the implementation of these activities we will evaluate the information obtained for evidence of conditions that could represent an Imminent Hazard, a Substantial Hazard, a Condition of Substantial Release Migration, or to identify the existence of Critical Exposure Pathways. The scope of these investigations has been developed based on the

information generated for the Site to date and our review of conditions in the Site area. However, the results of these proposed activities may indicate that further testing is necessary to evaluate subsurface conditions and characterize the nature and extent of the release. If further testing is necessary a supplemental Scope of Work will be prepared.

Proposed Investigative Activities

- **Health and Safety Plan and Pre-Field Implementation.** Prior to commencement of field work we will update the site-specific Health & Safety Plan to reflect the potential hazards associated with the installation of soil borings and groundwater monitoring wells, and to address weather conditions specific to the proposed field work. We will provide notification to Dig Safe and local water and sewer utilities at least 72 hours prior to commencement of field investigations, and will review utility plans if supplied by the CLIENT, but will not be responsible for damage to utilities or other underground structures.

- **Installation of Soil Borings and Groundwater Monitoring Wells.** Rizzo Associates will coordinate the installation of soil borings and groundwater monitoring wells to replace previously installed monitoring wells that have been destroyed or which cannot be located and are presumed destroyed or buried, and one new monitoring wells located adjacent to Pine Street, on the up-gradient side of the Site. In addition, soil borings will be advanced at several locations on the Site to permit the collection of soil samples for laboratory analysis and use in the risk characterization. It is anticipated that replacement monitoring wells will be installed in the area of previous wells GHC-4 and GHC-7, a new monitoring well will be installed adjacent to Pine Street and in the presumed downgradient direction from the 2195 Providence Highway property, and four soil borings will be advanced to provide a general characterization of soil conditions at the Site.

  The soil borings will be advanced using truck-mounted hollow-stem auger drilling equipment. Soil samples will be collected from the borings using a split-spoon sampler, examined for visual evidence of contamination and screened in the field for the presence of headspace VOCs using a photoionization detector (PID). Approximately one soil sample will be selected from each boring, based on visual observations and PID, and submitted for laboratory analysis for VOCs by EPA Method 8260 and MCP 14 total metals.

Monitoring wells installed in the borings will be constructed with 10-foot sections of 0.010-inch, machine-slotted, 2-inch-diameter polyvinyl chloride (PVC) well screen and solid, 2-inch-diameter PVC riser. The top of each shallow well screen will be placed at least 2 to 3 feet above the encountered water table and will be set 5 to 10 feet into the water table. Annular space around the well screen will be filled with graded sand or fine gravel to 1 foot above the top of the well screen, and at least 1 foot of bentonite will be placed over the graded material to form a seal to block infiltration of surface water. In areas of traffic, wells will be protected with flush-mounted steel or cast aluminum road boxes set in concrete. Locking standpipes will be used in areas not subject to traffic. For budgeting purposes we have assumed that the maximum depth of boring advancement will be 30 feet below the ground surface.

- **Groundwater Sampling.** Groundwater samples have been collected from selected wells at the Site on an annual basis since 1993. Two rounds of groundwater samples have been collected recently at the Site, in April and July 2005. To develop additional information regarding groundwater conditions, and to provide a general indication of whether there are seasonal fluctuations in the presence and concentrations of detected constituents, two additional rounds of groundwater sampling are proposed after the installation of the wells. It is anticipated that groundwater samples will be collected in mid-February and late-April 2006.

  After installation of the replacement monitoring wells and the up-gradient well, we will purge selected monitoring wells using a sampling pump or disposable polyethylene bailer. It is anticipated that samples will be collected from the replacement wells, newly installed up-gradient monitoring well, and monitoring wells in which various target compounds have been detected at concentrations exceeding current MCP reportable concentrations and Method 1 GW-1 standards during historic sampling events. These wells include MW-1, MW-2, MW-3, MW-4, MW-5S, MW-5D, MW-6, MW-8, MW-9, GHC-4 (replacement), GHC-6, GHC-7 (replacement) and the new up-gradient monitoring well. The wells will be purged to constant pH and specific conductance, or until a volume of groundwater equivalent to at least three times the volume of water within the well has been removed. The samples will be submitted for laboratory analysis for MCP 14 dissolved metals, EPH and VOCs. The sample collected from MW-3 during each sampling event will also be submitted for analysis for total base neutrals, since elevated concentrations were detected in samples collected in February 2004.

- **Evaluation of the Rate and Direction of Groundwater Flow** Up to 3 rising head slug tests will be conducted in monitoring wells in varying areas of the Site.

The slug tests will be performed by quickly removing a volume of water from a well and measuring the rate at which the water level in the well recovers to the pre-test level. Measurements will be made with a pressure transducer and data logger. The data collected will be analyzed by the Bouwer and Rice method to provide estimates of hydraulic conductivity of the soil in the vicinity of the monitoring well. The slug test data will be used, along with the hydraulic gradient computed based on water level elevations, to assess the rate and direction of groundwater flow.

- **Data Review and Evaluation.** After completion of the second round of groundwater sampling in April 2006, we will evaluate all of the Site data to look for data gaps and assess whether further testing is needed for the risk characterization. The data will be tabulated in a format suitable for inclusion in the Phase II report and to facilitate completion of the risk characterization. Exposure point concentrations will be identified for detected compounds and compared to applicable MCP Method 1 standards.

- **Risk Characterization.** A primary element of a Phase II investigation is a risk characterization, a process where exposures are evaluated and a determination is made of whether remedial actions are required or, conversely, a condition of No Significant Risk has been achieved. Depending on the results of the sampling discussed above, and assuming the available data indicates that the implementation of further response actions is unlikely to be required; we will prepare either a Method 1, Method 2 or Method 3 risk characterization, as appropriate for the identified conditions.

  The risk characterization will be prepared in accordance with the requirements of the MCP and DEP risk characterization guidance. The risk characterization will identify the compounds of concern (COCs) at the Site, evaluate receptors and exposure point concentrations, and evaluate the risk to each receptor group based on the exposures to the identified COCs. If the results of the risk characterization indicate that a condition of No Significant Risk has not been achieved relative to the groundwater and soil conditions identified at the Site, we will prepare the appropriate Phase II and Phase III reports. If a condition of No Significant Risk has been achieved, we will complete the Phase II report and prepare a Response Action Outcome Statement.

- **Report Preparation** The information and data developed for the Site will be used to prepare a Phase II – CSA in accordance with the requirements of the MCP (310 CMR 40.0835). At a minimum the Phase II Report will include: (1) a disposal site history updated, supplemented, or modified if necessary from information provided in the Phase I Report; (2) a discussion of Site hydrogeological characteristics including without limitation a description of all relevant geologic, hydrologic and geophysical

investigations conducted on the Site; (3) a detailed characterization of geologic and hydrogeologic conditions at the disposal site including groundwater potentiometric surface(s), gradients, flow rates and flow directions, soil type(s), stratigraphy and permeability and where appropriate bedrock type, depths and contours; (4) an evaluation of the environmental fate and transport characteristics of the contaminants of concern identified at the disposal site; (5) identification and characterization of existing and potential migration pathways; (6) the nature and the extent of the contamination; (7) an exposure assessment including the identification and characterization of all potential human and environmental receptors; and (8) the results of the risk characterization for applicable human and environmental receptors identified at and near the disposal site.

Licensed Site Professional

The LSP engaged by the Walpole Park South Trust is:

Raymond C. Johnson
LSP Number 6118
Rizzo Associates, Inc.
One Grant Street
Framingham, Massachusetts 01701

Schedule for Implementation of Comprehensive Site Assessment Activities

The Phase II activities are scheduled to be performed in the winter and spring of 2006 with report preparation scheduled for June and July of 2006. Per the provisions of the MCP (310 CMR 40.0834(1)), DEP approval of the Phase II Scope of Work is not required. Following the completion of the proposed field activities, a Phase II-Comprehensive Site Assessment report will be completed in conformance with the MCP (310 CMR 40.0835). It is currently anticipated that the Phase II report will be completed and submitted to the DEP prior to the July 31, 2006 deadline.

Appendix H

Standard Protocols

Standard Operating Protocol for Completing Soil Borings and Monitoring Well Borings in Unconsolidated Surficial Deposits

1. All drilling is inspected continuously by a staff geologist or inspector. The geologist or inspector is familiar with the particular drilling program, and is responsible for ensuring that established procedures are followed. The geologist or inspector has the authority to modify the program and/or procedures when warranted by unanticipated field conditions.

2. The geologist or inspector is responsible for maintaining field notes and for keeping a well log independent of the driller.

3. All drilling equipment is steam-cleaned prior to each use. Steam cleaning is performed on the augers and/or casing, drilling rods, samplers, auger forks, lifting hooks, and other equipment needed for establishing the well. The working end of the drill rig is steam-cleaned, and the rig is generally inspected by the geologist or inspector for evidence of leaks (i.e., gasoline or diesel fuel and hydraulic fluid). Finally, well construction materials, including casing, screens, protective risers, and/or road boxes, are also steam-cleaned prior to use.

4. Soil samples are collected at five-foot intervals unless otherwise specified, and/or at changes in strata, utilizing a clean split-spoon sampler. These soil samples are used for characterizing the physical nature of the subsurface sediments and may be collected for laboratory analyses. Similarly, spoon samples may be screened in the field for contamination utilizing appropriate field analytical devices.

5. Sediments collected from the sampler or brought to the surface by the drilling process are left on-site, unless there are specific instructions to the contrary. Sediments will be screened using a photoionization detector (PID) or a flame ionization detector (FID), and the results of that screening will be used to determine the disposal method for the soil. Soils exhibiting detector responses of greater then 10 ppm will be placed in drums or will be stockpiled on and covered with polyethylene sheeting. Soils exhibiting responses of less than 10 ppm will be placed in an unlined stockpile on the site.

6. When installing a groundwater monitoring well, the well screen is set at a depth whereby it intercepts the surface of the water table, unless otherwise specified. The screen is set to extend above the highest anticipated groundwater levels to a maximum of within two feet of the land surface. The annular space between the wall of the bore hole and the screen is then packed with clean silica sand to a level one foot above the screen (to allow for settling), and then with a minimum one-foot bentonite seal. The method of backfilling the borehole above the bentonite seal will be left to the discretion of the site geologist or inspector. If the borehole creates the potential for migration of contaminants into previously uncontaminated deposits, the borehole will be filled with a portland cement and bentonite slurry. If migration of contaminants is not a concern, then the well will be backfilled with the drill cuttings if detector responses are less than 10 ppm, or with clean backfill material if detector responses are greater than 10 ppm. The final one foot is filled with cement, into which is set a protective riser with locking cap or a road box.

Standard Operating Protocol for Decontaminating Sampling Equipment

Whenever possible, sampling equipment will be dedicated to each sampling location or disposable equipment will be used. When this is not possible, field decontamination of the equipment will occur prior to the collection of samples for chemical analysis. The method of choice for decontamination is that which most fully removes site contaminants from the sampling equipment with the least interference to the ultimate chemical analysis. Do not use fluids that have been stored in plastic bottles to decontaminate field equipment. Deionized water and methanol used for decontamination should be stored in nalgene or teflon bottles.

Equipment used to collect samples for chemical analysis will be decontaminated as follows:

1. Wash equipment with a nonphosphate detergent solution (e.g., Alconox) and a brush.
2. Rinse thoroughly with tap water.
3. Rinse with reagent grade methanol.
4. Rinse the equipment thoroughly with deionized water.
5. Equipment that is stored or transported will be kept in a dedicated plastic bag or wrapped in aluminum foil to prevent contamination prior to use.
6. When collecting water samples, rinse the equipment three times with the media being sampled before collecting the sample.

Steam cleaning is another acceptable technique for field decontamination.

Decontamination procedures will be recorded in the field book or on the field report form. These entries will include the date, time, location, personnel, equipment, and specific procedures used for the decontamination of field equipment and the source of all fluids, including water, used in the procedure. Deviations from the standard protocols will also be noted in the field log.

Waste water and methanol solutions generated during decontamination procedures will be discharged on-site, provided that the pH is between 2 and 12.

Standard Operating Protocol for Determining Subsurface Liquid Levels in Monitoring Wells

In order to determine the hydraulic gradient at a site, groundwater elevation data can be collected from a system of monitoring wells (minimum of three), and a potentiometric surface can be mapped. This protocol outlines the collection of groundwater elevation data from monitoring wells for the purpose of determining groundwater flow direction, depth of the water table from the ground surface, and appropriate purge volumes required for sampling monitoring wells.

Procedures for Measuring Static Liquid Level

1. A measuring point should be established and marked on the top of the casing of each monitoring well, or on the road box rim. The measuring points should be surveyed for location and elevation. All liquid level measurements should be made from the established measuring point. If a point on the top of the well casing is chosen as the measuring point, record the distance from this point to the road box rim.

2. Prior to measuring the liquid level in a monitoring well, the field engineer or scientist should determine whether the water in the well is at equilibrium with the groundwater in the surrounding formation. Improper well installation, surface water infiltration, and purging of monitoring wells can cause changes in water levels that are not representative of the water level in the surrounding formation.

3. For monitoring wells in which floating non-aqueous phase liquid (NAPL) has not been previously detected and is not suspected, use a water level meter consisting of a measuring tape and an electronic water sensing probe. Check the operation of the probe by inserting it into water and noting if the signal registers clearly. Check the tape for stretching and for evidence of splicing.

4. Slowly lower the probe and tape into the well until the signal is heard, indicating the presence of water around the sensing tip. Retract the tape slightly until the signal stops, and lower it again to accurately determine the level of water. Record the distance from the measuring point to the water to the nearest 0.01 feet. Decontaminate the sensing probe prior to lowering it into the next well.

5. The engineer or scientist may record a second static water level measurement after a few minutes to determine whether the static water level in a monitoring well is stable. If the measurements agree within 0.01 or 0.02 feet, the results are considered reliable. If not, the engineer or scientist should continue to record measurements until they stabilize or the reason for their instability is determined.

6. For monitoring wells in which floating non-aqueous phase liquid (NAPL) has been previously detected or is suspected, use a measuring device with a sensing probe that emits one of two distinct signals when it detects NAPL or water. Lower the probe into the well as described in 4 above. Record the distance from the measuring point to both the top of the

NAPL layer (the air-oil interface) and the water (oil-water interface) to the nearest 0.01 feet. Decontaminate the sensing probe prior to lowering it into the next well.

7. When gauging a well containing viscous NAPL such as #4 or #6 fuel oil, the sensing probe can become coated with oil and unable to sense water. Wetting the probe with soapy water prior to gauging can facilitate movement of the oil off the probe as it passes through the oil-water interface. Lowering the probe into the well very slowly will also aid in the detection of the oil-water interface.

8. If elevation data collected from monitoring wells containing floating NAPL are to be used to calculate a potentiometric surface, the lower specific gravity of the NAPL relative to the water should be considered, and the elevations may have to be corrected.

Adapted from:

Standard Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well, ASTM D 4750-87 (Reapproved 1993).

Standard Operating Protocol for Hydraulic Conductivity Testing

Hydraulic conductivity is a measure of the ease of flow of a specific fluid through a specific porous medium. When the fluid in question is water, the hydraulic conductivity is a function of the intrinsic permeability of the geologic formation. Testing is performed for the following reasons:

- To estimate groundwater flow velocity
- To estimate responses of aquifers to applied stresses such as pumping
- To estimate the rate of movement of various chemicals in tested subsurface zones
- To identify zones favorable for development of groundwater resources
- To construct and calibrate groundwater flow models

In situ hydraulic conductivity tests are conducted in bore holes as drilling proceeds or in monitoring wells after they are developed. The staff geologist will consider the purpose of the specific testing and field conditions when determining the specific procedures to be employed when measuring hydraulic conductivity.

Variable head tests will be performed on wells that are screened entirely within the saturated portion of the aquifer.

Falling Head Test

Displace the standing water in a well as quickly as possible with a tube-shaped slug. Measure the drop in water level over time as the excess head declines to zero (the static water level).

Rising Head Test

Rapidly remove the slug from the well and again measure the change in water level over time as the water level returns to the static water level. Water levels will recover at a logarithmic rate with rapid recovery occurring during the early part of the test. A pressure transducer and an electronic data logger that can measure water levels at a rapid rate will be used for these tests. The staff geologist is responsible for keeping a field log that documents water level measurements, the conditions that day, and the time and duration of the test performed.

Pumping Tests

An aquifer pumping test is used to determine performance characteristics of a well. The staff geologist is responsible for measuring and recording all data on the aquifer test as well as information on the static water level and the construction details of the wells used in the test, including the screen depth, the pump, the depth of the pump in the well and the distance between the pumping well and the observation wells. At least two observation wells will be monitored for water level changes during the drawdown and recovery portions of the aquifer test.

The well will be pumped at a constant yield, and water level measurements will be taken at time intervals determined by the staff geologist. The discharge rate will be continuously monitored to ensure that it remains constant throughout the test. Pumping tests will be run for between 8 and 72 hours. Deviations from constant pumping will be documented in the field log.

Continuous water level measurements will be collected at selected observation wells with electronic water level indicators. In addition, manual readings will be taken periodically at the direction of the staff geologist. Water level measurements will be taken after pumping is stopped until the water level in the observation wells returns to static level.

Standard Operating Protocol for Jar Headspace Screening

The following procedures will be used to screen soil samples for volatile organic compounds with a portable photoionization detector (PID) or a flame ionization detector (FID).

1. Half-fill a clean glass 8-ounce jar with the sample to be analyzed. Quickly cover the open top with a sheet of clean aluminum foil and apply the screw cap to tightly seal the jar.

2. Vigorously shake the jar for 10 seconds both at the beginning and end of the headspace development period. Allow the jar to stand 10 minutes for headspace development. When ambient temperatures are below 32°F (0°C), allow the samples to stand in a heated vehicle or building.

3. After the headspace development period, remove screw lid to expose the foil seal. Puncture the foil seal with an instrument sampling probe, to a point about one-half of the headspace depth. Do not allow water droplets or soil particulates to touch the instrument probe.

4. Observe the instrument response and record the highest meter response as the jar headspace concentration. The maximum response should occur from two to five seconds after the probe is inserted into the jar. The meter response may be erratic when the concentration of organic vapor is high or if there is excessive moisture in the sample. The experience and judgment of the instrument operator must be used to determine the validity of the headspace measurement.

5. Benzene or an equivalent compound will be used to calibrate the field screening instrument. Jar headspace sample results will be reported as total organic vapors in ppm (v/v). Instruments will be operated, maintained, and calibrated in accordance with the manufacturer's specifications. A calibration and maintenance log is kept at Rizzo Associates' office for each instrument. The daily calibration data are transcribed to the field log for each day that the instrument is used. Some samples may be collected and analyzed in duplicate to measure sample variability.

Standard Operating Protocol for Sampling Monitoring Wells

Discussion

To obtain a representative sample of groundwater, it must be understood that the water within the well casing and in close proximity to the well is generally not representative of the groundwater quality at that sampling site. Therefore, the well will be pumped or bailed until it is thoroughly flushed of standing water and contains water from the aquifer. Wells may be purged and sampled with a pump from the ground surface, with a submersible pump or with a bailer, depending on the specific needs of the sampling program. Bailers are generally preferred for collecting samples where volatile stripping is of concern. Pumps are useful for purging large volumes of water from deep wells or when a sample from a discrete depth below the water surface is desired. Refer to DEP Policy #WSC-310-91 to choose the appropriate method for purging and sampling a well and operate sampling equipment according to manufacturer's directions.

Procedures for Purging and Sampling

1. Using clean, noncontaminating equipment (i.e., an electronic level indicator [avoid indicating paste]), determine and record in the field logbook the water level in the well, then calculate the fluid volume in the casing.

   The volume of water in the well can be calculated using the following equation:

   $$v = \frac{(\pi r^2 h)}{c}$$

   where:

   v = one well volume of water (gallons)
   π = 3.14
   r = the radius of the well or one half of the diameter (inches)
   h = the height of the water column in the well (inches)
   c = 231 cubic inches per gallon; constant to convert cubic inches to gallons

2. Use a pump or bailer to begin flushing the well. Periodically during the purging of the well, measure and record the pH, temperature, and specific conductivity of the water being removed.

3. Avoid contamination and do not allow sampling equipment or the bailer line to contact the ground while sampling.

4. Continue purging the well until the following is achieved:

   a. a minimum of three casing volumes have been removed from the well, and pH, temperature, and conductivity have stabilized; or

b. five well volumes have been removed; or

c. the well is evacuated to dryness

Three times the well volume (gallons) in a 2-inch-diameter well is approximately one half the height of the water column measured in feet.

5. After water pH, temperature, and specific conductance have stabilized, allow the water level to return to a sufficient level to collect a complete sample and proceed with the sample collection as described below.

6. Select sample bottles and preservative as required by the analysis. Sample bottles containing preservative may be obtained from the laboratory, or samples may be preserved in the field. Samples for metals analysis that require field filtering will be collected in a transfer vessel and then filtered into a preserved container.

7. When transferring the sample in the bailer to the sample container, tip the bailer to allow a slow discharge from the bailer top to flow gently down the side of the sample bottle with minimum entry turbulence.

8. When collecting a sample with a pump, the flow rate of the pump should be low so as to minimize disturbing the sample.

9. In order to compare analytical data for a given well over time, the same purging and sampling method should be used consistently at a given well.

10. Check that a teflon liner is present in the cap, if required. Secure the cap tightly.

11. Label the sample bottle with an appropriate label and waterproof ink. Record the sample number, location, well purging information, the temperature, pH, specific conductivity, and deviations from protocol and relevant observations, such as colors, odors, or sheens, in the field logbook. Complete the chain of custody. Samples will be stored in a cooler until they are delivered to the laboratory.

12. Discard disposable bailers after use in one well. If reusable bailers are used, clean and store each bailer according to the Standard Operating Protocol for Decontaminating Sampling Equipment.

13. Tubing used with a pump may be discarded after each well or cleaned by pumping the decontamination fluids through the tubing according to the Standard Operating Procedure for Decontaminating Field Equipment.

Adapted from:

Standard References for Monitoring Wells, The Massachusetts Department of Environmental Protection #WSC-310-91.

Appendix I

Derivation of Method 2 Standards for Risk Characterization

Appendix I: Derivation of Method 2 Standards

1.0 Introduction

The risk characterization for the Site was conducted using Method 2 prescribed by the Massachusetts Contingency Plan (MCP). Method 2 was employed for this Site because Method 1 standards were not available for copper associated with groundwater at the Site. The Method 2 groundwater standards were derived using the procedures described in "Background Documentation for the Development of the MCP Numerical Standards," (MADEP, 1994).

The MADEP has created multi-stage methods for deriving site-specific risk-based standards. The procedures prescribed by the MADEP to derive groundwater standards are described in this appendix. In addition, groundwater standards for copper were derived, using the process illustrated.

2.0 Description of Groundwater Standards

There are three categories of groundwater for which standards are developed, defined by types of potential exposures. GW-1 standards apply to groundwater that is considered to be either a current or future source of drinking water. The GW-2 standards are based upon the potential for VOCs to migrate into indoor air. These standards apply to locations where there are occupied structures and the average annual depth to groundwater is 15 feet or less. GW-2 standards are calculated for chemicals with vapor pressures equal to or greater than 0.01 Torr (measured at 20 to 30 ^{0}C). GW-3 standards are intended to provide protection to ecological receptors against the migration and eventual discharge of groundwater contaminants to surface water. A dilution/attenuation factor of 10 is applied to allowable surface water concentrations to identify allowable groundwater concentrations.

The procedures for estimating groundwater standards, as described in the *Background Documentation for the Development of MCP Numerical Standards,* include several sequential steps. To derive Method 2 Standards for OHM without promulgated standards, or to modify Method 1 Standards with site-specific information, the sequential procedures have to be followed. As discussed in the report, the applicable Site groundwater categories are GW-1, GW-2 and GW-3. As indicated above, GW-2 standards are intended to address the potential migration of volatile oil and/or hazardous materials from the groundwater into indoor air. The GW-2 standard is not applicable to copper since it is not a volatile compound.

The sequential approaches described in the background document to derive each standard are described here for:

GW-1 Groundwater standard for copper

GW-3 Groundwater standard for copper

3.0 Derivation of Method 2 GW-1 Standard

MCP Category GW-1 Standards (310 CMR 40.0974 (2)) apply to groundwater as current or potential drinking water source. The DEP uses a sequential approach to derive these standards. In order to derive groundwater standards for copper which has no DEP derived standard, we used the same methodology. The sequential approach used by DEP to derive MCP Method 2 Groundwater GW-1 Standards is presented is described below.

3.1 GW-1 Sequential Approach

Step Description

(1) Adopt an existing drinking water standard or guideline when one exists. If no such standard or guideline exists, follow the following steps.
(2) Identify risk/odor-based concentrations associated with (a) 20% of an allowable daily intake, (based on non-cancer health effects), (b) a one in one million excess lifetime cancer risk, or (c) a 50% odor recognition threshold. Carry the lowest of these three values through the process.
(3) Determine 1/2 the solubility of the OHM.
(4) Identify the lowest of steps 2, 3 and a ceiling concentration of 50,000 ug/l.
(5) Identify a Practical Quantitation Limit (PQL) for an appropriately sensitive analytical method.
(6) Identify a background concentration for the OHM, if available.
(7) Adopt the highest of the values identified in steps 4, 5, and 6 as the GW-1 standard.

1.1 Calculation of Noncarcinogenic Risk-Based Groundwater Standards

$$[OHM]dw = \frac{0.2 \times RfD \times BW \times AP \times C}{VI \times RAFx \times Fx \times D1x \times D2} \quad (5)$$

When simplified, this equation becomes:

$$OHM_{dw} = \frac{7{,}000 \times RfD}{RAF} \quad (6)$$

Where:

$[OHM]_{gw}$ = A risk-based concentration in drinking water, for the OHM (ug/liter).
0.2 = A 20 % source allocation factor, used to insure that only 20% of an allowable daily intake of the OHM may come from the ingestion of drinking water.
RfD = The oral Reference Dose or substitute toxicity value identified for the OHM (mg/kg/day).
BW = Receptor's Body Weight (kg)
D2 and AP = The Duration (D2) of the exposure period and the Averaging Period (AP). The assumed exposures are D2 = 70 years, AP = 70 years. The quotient of these two terms is equal to 1 and is dimensionless.
C = Units Conversion Factor 10^3 ug/mg.
VI = Daily volume of drinking water ingested by the receptor of concern: 2 liters/day.
RAF = Relative absorption factor for drinking water ingestion. Dimensionless.
F and D1 = The Frequency (F) of exposure and the Duration (D1) of each exposure event. F1 = 1 event per day, and D1 = 1 day/event. The product of these terms is equal to 1 and dimensionless.
ELCR = Target Excess Lifetime Cancer Risk: one-in one million, or 1x 10^{-6} (dimensionless)
CSF = The oral Cancer Slope Factor for the OHM, $(mg/kg/day)^{-1}$

1.2 Calculation of Carcinogenic Risk-Based Groundwater Standards

$$[OHM]dw = \frac{ELCR \times BW \times AP \times C}{VI \times RAF \times F \times D1 \times D2 \times CSF} \quad (7)$$

When simplified, this equation becomes:

$$OHM_{dw} = \frac{0.035}{CSF \times RAF} \quad (8)$$

Where:
$[OHM]gw$ = A risk-based concentration in drinking water, for the OHM (ug/liter).
BW = Receptor's Body Weight (kg)
D2 and AP= The Duration (D2) of the exposure period and the Averaging Period (AP). The assumed exposures are D2 = 70 years, AP = 70 years. The quotient of these two terms is equal to 1 and is dimensionless.
C = Units Conversion Factor 10^3 ug/mg.
VI = Daily volume of drinking water ingested by the receptor of concern: 2 liters/day.
RAF = Relative absorption factor for drinking water ingestion. Dimensionless.

F and D1 = The Frequency (F) of exposure and the Duration (D1) of each exposure event. F1 = 1 event per day, and D1 = 1 day/event. The product of these terms is equal to 1 and dimensionless.

ELCR = Target Excess Lifetime Cancer Risk: one-in one million, or 1x 10^{-6} (dimensionless)

CSF = The oral Cancer Slope Factor for the OHM, $(mg/kg/day)^{-1}$

The exposure parameters that go into these equations are discussed in Section 4.1.3 of the Background Documentation.

4.0 Derivation of Method 2 GW-3 Standard

MCP Category GW-3 Standards apply to groundwater representing a potential environmental impact of contaminated groundwater discharging to surface water. The DEP used a sequential approach to derive these standards. The sequential approach used by DEP to derive MCP Method 2 Groundwater GW-3 Standards is described below.

4.1 GW-3 Sequential Approach

Step Description

(1) Identify the lowest of the four ecologically-based US EPA Ambient Water Quality Criteria: (a) fresh water acute, (b) fresh water chronic, (c) marine acute, and (d) marine chronic.

(2) Multiply the outcome of (1) by a dilution/attenuation factor of 10.

(3) Identify the value corresponding to one-half the solubility of the chemical.

(4) Identify the lowest of three values identified as (2), (3), and a ceiling concentration of 0.005% (50,000 ug/l).

(5) Identify the practical quantitation limit (PQL) for an appropriately sensitive analytical method.

(6) Identify a background concentration in groundwater, if available.

(7) Adopt the highest of the three values identified in steps (4), (5), and (6) as the GW-3 Standard (MADEP, 1994).

The spreadsheet used to calculate the Method 2 GW-1 and GW-3 standards for copper is presented as Table I-1.

References

Massachusetts Department of Environmental Protection, Massachusetts Contingency Plan, 310 CMR 40.0000. April 4, 2006.

Massachusetts Department of Environmental Protection, 1994. Background Documentation for the Development of the MCP Numerical Standards. Bureau of Waste Site Cleanup and Office of Research and Standards, April 1994.

Table I - 1 - Method 2 Standards for Copper

Compound Name	DEP Name	CASRN	GW-1 (ug/L)	GW-2 (ug/L)	GW-3 (ug/L)	Toxicological Potency Values for Copper												
						Cancer Potency Factors					Chronic Reference Doses and Concentrations				Subchronic Reference Doses and Concentrations			
						Oral (mg/(kg*d))-1	Ref	Inhalation (ug/m3)-1	Ref	Weight of Evidence	Oral (mg/(kg*d)	Ref	Inhalation (ug/m3)	Ref	Oral (mg/(kg*d)	Ref	Inhalation (ug/m3)	Ref
Copper, total	Copper (as CuSO4)	7440-50-8	300	NA	30	No data	IRIS	No data	IRIS	D	3.7E-02	HEAST	No data	IRIS	3.7E-02	HEAST	No data	HEAST

IRIS - Integrated Risk Information System, 2005.
HEAST - US EPA Health Effects Assessment Tables, Fiscal Year 1995, and supplements.
NA = Not Applicable

Table I -1 - Method 2 Standards for Copper

			Relative Absorption Factors for Copper		Physical and Chemical Properties of Copper									
Compound Name	DEP Name	CASRN	Chronic Water Ingestion	Cancer Water Ingestion	Molecular Weight (g/mol)	Water Solubility (ug/L)	Vapor Pressure (atm)	ap ess tor	Henry's Law Constant (atm m3/mol)	Koc (mL/g)	Log10 Kow (—)	Odor Threshold in Water (ug/L)	Odor Threshold in Air (ug/m3)	Odor Threshold in Air (ppm)
Copper, total	Copper (as CuSO4)	7440-50-8	1	NC	1.6E+02	1.4E+08	NA	##	0	NA	NA	NA	NA	NA

NC = Non Carcinogenic

US EPA Handbook of RCRA Groundwater Monitoring Constituents: Chemical and Physical Properties, 1992.

Agency for Toxic Substances and Disease Registry, Toxicological Profiles for Chemicals.

Verschueren, Handbook of Environmental Data on Organic Chemicals, 1983.

MA DEP Background Documentation for the Development of MCP Numerical Standards.

Table I -1 - Method 2 Standards for Copper

Input Values for Deriving Method 2 Standards for Copper																				
			Background		Quantitation Limits	Ceiling Concentrations	Non-Cancer Risk Based Concentrations			Cancer Risk-Based Concentrations			Ambient Water Quality Criteria					Drinking Water Criteria	
Compound Name	DEP Name	CASRN	Water (ug/L)	Air (ug/m3)	Water (ug/L)	Water (ug/L)	GW-1 (ug/L)	GW-2 (air) (ug/m3)	GW-3 (ug/L)	GW-1 (ug/L)	GW-2 (air) (ug/m3)	GW-3 (ug/L)	Freshwater Acute (ug/L)	Freshwater Chronic (ug/L)	Marine Acute (ug/L)	Marine Chronic (ug/L)	Minimum AWQC (ug/L)	MMCL (ug/L)	ORSGL (ug/L)
Copper, total	Copper (as CuSO4)	7440-50-8	7.0E+00	1.0E-01	6.0E+00	50000	260	none	NA	none	none	NA	9.2E+00	6.5E+00	2.9E+00	none	2.9E+00	none	none

Appendix J

Copies of Public Notification Letters

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July 26, 2006

Mr. Joseph Denneen, Chairman
Board of Selectmen
Town of Walpole
135 School Street
Walpole, MA 02081

Re: Notice of Phase II Comprehensive Site Assessment Submittal
Walpole Park South
Walpole, Massachusetts
RTN 4-3021915

Dear Mr. Denneen:

On behalf of Walpole Park South, Rizzo Associates, Inc. is providing this notification that a Phase II – Comprehensive Site Assessment will be filed with the Department of Environmental Protection (DEP) for the above referenced Disposal Site on or about August 1, 2006.

This notification is being made pursuant to the requirements of the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000. In accordance with the requirements of the MCP (310 CMR 40.1403(3) (e)), a summary of the Phase II report conclusions is attached to this letter. The report will be available for review at the DEP Southeast Regional Office located at 20 Riverside Drive in Lakeville, Massachusetts by appointment. A copy of the report will also be available in the Public Information Repository at the Walpole Public Library.

Please contact the undersigned if you have any questions.

Very truly yours,

Raymond C. Johnson

Raymond C. Johnson, P.G., L.S.P.
Senior Vice President

Attachment

C: Mr. Michael E. Boynton, Town Administrator

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Conclusion of Phase II – Comprehensive Site Assessment

The Site encompasses approximately 54 acres of land located at the intersection of US Route 1 and Pine Street in Walpole, Massachusetts. The Site is divided into nine lots, seven of which contain buildings occupied by office and warehouse space that are leased to commercial and/or light industrial businesses. The buildings, driveways and parking areas cover the majority of the Site. The remainder of the property consists of landscaped areas adjacent to the buildings, wooded land and unpaved open areas. Prior to construction of the existing buildings the Site was vacant land, portions of which were used as a gravel pit. Development of the Site and building construction commenced in 1986. Buildings have been constructed on the Site lots on an intermittently ongoing basis since 1986 and at present two Site lots remain undeveloped.

In compliance with requirements issued by the Walpole Board of Health (BOH), seven groundwater monitoring wells were installed at the Site in December 1986 by Carr Research Laboratory (Carr) and annual groundwater monitoring was performed on a limited number of the installed wells. In the late 90's it was discovered that the reported results from the annual BOH sampling were occasionally exceeding the then current Massachusetts DEP reportable concentrations for GW-1 areas (RCGW-1 standards). Two RTNs were issued based on reported concentrations of compounds identified in groundwater at the Site.

RTN 3-19859 was issued in 2000 based on sampling performed in April 1999 and April 2000 when elevated concentrations of chloroform and bromodichloromethane were reported in groundwater samples collected at the Site. A Class B-1 RAO Statement was submitted by Carr Research Laboratory on July 25, 2001, indicting that a Permanent Solution had been achieved for this RTN. The RAO indicated that the source of the bromodichloromethane was treatment chemicals (brominating tablets) used in a residential swimming pool located on an upgradient property. The source of the chloroform was identified as a reaction between chlorine used for swimming pool disinfection at the same residence and septage from the septic tank and leach field at the residence.

RTN 3-21915 was issued in April 2002 when it was noted that the lead concentrations reported by the laboratory for groundwater samples collected from monitoring wells MW-3 and MW-6 were 59 micrograms per liter (ug/l) and 23 ug/l, respectively; concentrations which exceeded the applicable MCP reportable concentration, RCGW-1, which at that time was 20 ug/l. To further evaluate this condition confirmatory groundwater sampling was performed in May 2002. The results of this sampling indicated lead concentrations in samples collected from MW-3 and MW-6 of 46 ug/l and 18 ug/l, respectively. Based on these sampling results it was concluded that the detected lead concentrations represented a 120-day notification condition under the MCP. Therefore, a RNF was prepared and received by the DEP on July 2, 2002. In response to the notification, DEP issued a Notice of Responsibility (NOR) on August 15, 2002 and assigned RTN 3-21915 to the reported release.

Between September 2000 and February 2006 additional groundwater monitoring wells were installed on several occasions to replace damaged wells and/or to provide sufficient coverage to assess groundwater conditions at the Site. Including the three monitoring wells installed under as a part of the Phase II activities, 17 groundwater monitoring wells exist on the Site at this time.

Based on historic monitoring results and the investigations implemented after submission of the RNF for RTN 3-21915, a Phase I – Initial Site Investigation (Phase I) report and Tier Classification was prepared by GHC and submitted to DEP in June 2004. The Phase I report concluded that the nature and extent of contamination does not exhibit a regular pattern, relative to both the locations of wells in which levels exceed MCP Method 1 GW-1 standards and the detection of compounds over time. Based on the Numerical Ranking Scoresheet (NRS) prepared by GHC, the Site was classified as a Tier IB Disposal Site. An evaluation performed as part of the Phase I investigation concluded that the identified Site conditions did not represent an Imminent Hazard, indicting that implementation of an Immediate Response Action was not necessary. In an internal memorandum dated July 9, 2004, the DEP Drinking Water Program (DWP) found that "the groundwater contamination levels at the site are all low, compared to most waste sites," and "heavy metals have fairly low mobility in groundwater." DEP concluded "the site does not appear to pose a threat to the Walpole municipal wells, because of the low groundwater contamination levels and the distance from the site to the wells."

Following the Phase I investigation Rizzo Associates, Inc. was retained to perform the Phase II Investigation. The Phase II field investigation included the installation of 7 soil borings and completion of 3 of the soil borings as groundwater monitoring wells; sampling and analysis of soil and groundwater from select soil borings and monitoring wells; surveying to determine the locations and relative elevations of each newly installed monitoring well casing; gauging of groundwater elevations to evaluate the groundwater flow direction and prepare a potentiometric surface map; and hydraulic conductivity testing of three groundwater monitoring wells.

For the 7 soil samples submitted for laboratory analysis as a part of the Phase II no VOCs or total metals were reported at concentrations above the applicable MCP Method 1 standards except for a reported beryllium concentration of 0.87 mg/kg in the RIZ-2 soil boring. This concentration exceeds the Method 1 S-1/GW-1, GW-2 and GW-3 standards of 0.7 mg/kg, and the Method 1 S-2/GW-1, GW-2 and GW-3 standards of 0.8 mg/kg.

For the 45 groundwater samples that were submitted for laboratory analysis over four sampling rounds as a part of the Phase II, VOCs and or dissolved metals concentrations greater than one or more of the applicable MCP Method 1 standards were reported in 9 wells. Compounds exceeding the MCP Method 1 standards included bromodichloromethane, chloroform and lead; however, no on-site source has been identified for these compounds and the reported dissolved metals concentrations have been inconsistent over the four sampling events. Lead was identified at a concentration greater than the method detection limit in well MW-9 in only one of the four groundwater sampling events. Because the locations and concentrations of the identified compounds were not consistent throughout the four groundwater sampling events there is not a clearly definable plume for the identified dissolved metals compounds.

The presence of bromodichloromethane and/or chloroform along the eastern boundary of the Site, wells MW-2, MW-3 and RIZ-3, strongly suggests impacts from releases of chlorinated or brominated water. Historically identified concentrations of bromodichloromethane and chloroform along the western boundary of the Site, associated with RTN 3-19859, have been attributed to a release of swimming pool water from the property upgradient from well MW-6. The chlorinated and/or brominated water was expected to have been reacting with the naturally occurring organic material in the sandy soils of the Site to form bromodichloromethane and

chloroform. A similar reaction may now be taking place along the eastern boundary of the Site. Potential sources for the chlorinated or brominated water could be from leaks in municipal water pipes, fire hydrant flushing and/or from infiltrating rainwater mixed with roadway de-icing chemicals such as calcium chloride. Based on the decreasing concentrations of bromodichloromethane and chloroform moving downgradient across the Site from well MW-2 to well RIZ-3 to well MW-3, the source of chlorinated or brominated water is expected to be located somewhere up-gradient from well MW-2, in or on the southeastern side of Route 1.

Historically, metals including antimony, arsenic, cadmium, chromium and lead have all been identified at elevated concentrations at the Site. However, only two of these metals, antimony and lead, have been reported at concentrations greater than the current Method 1 GW-1 standards in the past 10 years; and antimony was reported at concentrations greater than then Method 1 GW-1 standards in multiple wells during a single groundwater sampling event and then has not been reported at elevated concentrations in subsequent samplings of the same wells. The lack of reproducibility of the elevated concentrations of antimony suggests that sampling and or laboratory error may have biased the elevated concentration results.

Lead is the only dissolved metal that has been identified in the groundwater at the Site on a somewhat consistent basis; however, even lead concentrations have not been identified regularly enough to create plume maps or identify a potential on-site source. Since April 1991, based on a combination of historical data and the groundwater sampling performed during the Phase II investigation, lead has been reported at concentrations greater than the current Method 1 standard for lead (15 ug/L) three times in well MW-3 (22 to 59 ug/L), twice in MW-9 (23 to 35 ug/L) and once each in MW-2 (18 ug/L), MW-6 (18 ug/L) and MW-8 (26 ug/L). Of these wells only MW-3 is located on the downgradient side of the Site, indicating that an upgradient source may be a significant contributor to the elevated lead concentrations on the Site.

The Town of Walpole Sewer & Water Department 2004 and 2005 Water Quality Reports indicate that lead was detected in samples from 3 homes in town, and that 70 ug/L was the 90^{th} percentile concentration. The lead in the town water is likely related to plumbing fixtures in the residences, but could also be related to dissolution of natural deposits. The water quality report indicates that the water in the town is corrosive, and corrosive water could leach lead from fixtures and connections or from natural deposits.

Based on the results of the Phase II investigation the metals and VOC concentrations currently identified in the groundwater at the Site include lead, bromodichloromethane and chloroform. The results of the testing performed for the Phase II investigation do not indicate a plume of impacted groundwater that can be clearly delineated, nor do they identify the source or sources of the detected compounds. The data do not suggest a correlation between the groundwater conditions at the Site and the activities of the tenants in the Site buildings. The identified contaminants are likely to originate from off-site releases and/or leakage from water mains, fire hydrant flushing, roadway de-icing chemicals or dissolution of natural deposits. However, based on the results of the Method 1 risk assessment there is insufficient evidence at this time to conclude that a condition of No Significant Risk or a Permanent Solution has been achieved. Therefore, in accordance with the MCP, further response actions are necessary. Remedial action alternatives identified and selected for implementation at the Site are discussed in a Phase III – Remedial Action Plan that is being submitted concurrently with the Phase II report.

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July 26, 2006

Ms. Robin Chapell, Health Agent
Town of Walpole
Board of Health
135 School Street
Walpole, MA 02081

Re: Notice of Phase II Comprehensive Site Assessment Submittal
Walpole Park South
Walpole, Massachusetts
RTN 4-3021915

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Very truly yours,

Raymond C. Johnson, P.G., L.S.P.
Senior Vice President

Attachment

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RTN 3-21915 was issued in April 2002 when it was noted that the lead concentrations reported by the laboratory for groundwater samples collected from monitoring wells MW-3 and MW-6 were 59 micrograms per liter (ug/l) and 23 ug/l, respectively; concentrations which exceeded the applicable MCP reportable concentration, RCGW-1, which at that time was 20 ug/l. To further evaluate this condition confirmatory groundwater sampling was performed in May 2002. The results of this sampling indicated lead concentrations in samples collected from MW-3 and MW-6 of 46 ug/l and 18 ug/l, respectively. Based on these sampling results it was concluded that the detected lead concentrations represented a 120-day notification condition under the MCP. Therefore, a RNF was prepared and received by the DEP on July 2, 2002. In response to the notification, DEP issued a Notice of Responsibility (NOR) on August 15, 2002 and assigned RTN 3-21915 to the reported release.

Between September 2000 and February 2006 additional groundwater monitoring wells were installed on several occasions to replace damaged wells and/or to provide sufficient coverage to assess groundwater conditions at the Site. Including the three monitoring wells installed under as a part of the Phase II activities, 17 groundwater monitoring wells exist on the Site at this time.

Based on historic monitoring results and the investigations implemented after submission of the RNF for RTN 3-21915, a Phase I – Initial Site Investigation (Phase I) report and Tier Classification was prepared by GHC and submitted to DEP in June 2004. The Phase I report concluded that the nature and extent of contamination does not exhibit a regular pattern, relative to both the locations of wells in which levels exceed MCP Method 1 GW-1 standards and the detection of compounds over time. Based on the Numerical Ranking Scoresheet (NRS) prepared by GHC, the Site was classified as a Tier IB Disposal Site. An evaluation performed as part of the Phase I investigation concluded that the identified Site conditions did not represent an Imminent Hazard, indicting that implementation of an Immediate Response Action was not necessary. In an internal memorandum dated July 9, 2004, the DEP Drinking Water Program (DWP) found that "the groundwater contamination levels at the site are all low, compared to most waste sites," and "heavy metals have fairly low mobility in groundwater." DEP concluded "the site does not appear to pose a threat to the Walpole municipal wells, because of the low groundwater contamination levels and the distance from the site to the wells."

Following the Phase I investigation Rizzo Associates, Inc. was retained to perform the Phase II Investigation. The Phase II field investigation included the installation of 7 soil borings and completion of 3 of the soil borings as groundwater monitoring wells; sampling and analysis of soil and groundwater from select soil borings and monitoring wells; surveying to determine the locations and relative elevations of each newly installed monitoring well casing; gauging of groundwater elevations to evaluate the groundwater flow direction and prepare a potentiometric surface map; and hydraulic conductivity testing of three groundwater monitoring wells.

For the 7 soil samples submitted for laboratory analysis as a part of the Phase II no VOCs or total metals were reported at concentrations above the applicable MCP Method 1 standards except for a reported beryllium concentration of 0.87 mg/kg in the RIZ-2 soil boring. This concentration exceeds the Method 1 S-1/GW-1, GW-2 and GW-3 standards of 0.7 mg/kg, and the Method 1 S-2/GW-1, GW-2 and GW-3 standards of 0.8 mg/kg.

For the 45 groundwater samples that were submitted for laboratory analysis over four sampling rounds as a part of the Phase II, VOCs and or dissolved metals concentrations greater than one or more of the applicable MCP Method 1 standards were reported in 9 wells. Compounds exceeding the MCP Method 1 standards included bromodichloromethane, chloroform and lead; however, no on-site source has been identified for these compounds and the reported dissolved metals concentrations have been inconsistent over the four sampling events. Lead was identified at a concentration greater than the method detection limit in well MW-9 in only one of the four groundwater sampling events. Because the locations and concentrations of the identified compounds were not consistent throughout the four groundwater sampling events there is not a clearly definable plume for the identified dissolved metals compounds.

The presence of bromodichloromethane and/or chloroform along the eastern boundary of the Site, wells MW-2, MW-3 and RIZ-3, strongly suggests impacts from releases of chlorinated or brominated water. Historically identified concentrations of bromodichloromethane and chloroform along the western boundary of the Site, associated with RTN 3-19859, have been attributed to a release of swimming pool water from the property upgradient from well MW-6. The chlorinated and/or brominated water was expected to have been reacting with the naturally occurring organic material in the sandy soils of the Site to form bromodichloromethane and

chloroform. A similar reaction may now be taking place along the eastern boundary of the Site. Potential sources for the chlorinated or brominated water could be from leaks in municipal water pipes, fire hydrant flushing and/or from infiltrating rainwater mixed with roadway de-icing chemicals such as calcium chloride. Based on the decreasing concentrations of bromodichloromethane and chloroform moving downgradient across the Site from well MW-2 to well RIZ-3 to well MW-3, the source of chlorinated or brominated water is expected to be located somewhere up-gradient from well MW-2, in or on the southeastern side of Route 1.

Historically, metals including antimony, arsenic, cadmium, chromium and lead have all been identified at elevated concentrations at the Site. However, only two of these metals, antimony and lead, have been reported at concentrations greater than the current Method 1 GW-1 standards in the past 10 years; and antimony was reported at concentrations greater than then Method 1 GW-1 standards in multiple wells during a single groundwater sampling event and then has not been reported at elevated concentrations in subsequent samplings of the same wells. The lack of reproducibility of the elevated concentrations of antimony suggests that sampling and or laboratory error may have biased the elevated concentration results.

Lead is the only dissolved metal that has been identified in the groundwater at the Site on a somewhat consistent basis; however, even lead concentrations have not been identified regularly enough to create plume maps or identify a potential on-site source. Since April 1991, based on a combination of historical data and the groundwater sampling performed during the Phase II investigation, lead has been reported at concentrations greater than the current Method 1 standard for lead (15 ug/L) three times in well MW-3 (22 to 59 ug/L), twice in MW-9 (23 to 35 ug/L) and once each in MW-2 (18 ug/L), MW-6 (18 ug/L) and MW-8 (26 ug/L). Of these wells only MW-3 is located on the downgradient side of the Site, indicating that an upgradient source may be a significant contributor to the elevated lead concentrations on the Site.

The Town of Walpole Sewer & Water Department 2004 and 2005 Water Quality Reports indicate that lead was detected in samples from 3 homes in town, and that 70 ug/L was the 90^{th} percentile concentration. The lead in the town water is likely related to plumbing fixtures in the residences, but could also be related to dissolution of natural deposits. The water quality report indicates that the water in the town is corrosive, and corrosive water could leach lead from fixtures and connections or from natural deposits.

Based on the results of the Phase II investigation the metals and VOC concentrations currently identified in the groundwater at the Site include lead, bromodichloromethane and chloroform. The results of the testing performed for the Phase II investigation do not indicate a plume of impacted groundwater that can be clearly delineated, nor do they identify the source or sources of the detected compounds. The data do not suggest a correlation between the groundwater conditions at the Site and the activities of the tenants in the Site buildings. The identified contaminants are likely to originate from off-site releases and/or leakage from water mains, fire hydrant flushing, roadway de-icing chemicals or dissolution of natural deposits. However, based on the results of the Method 1 risk assessment there is insufficient evidence at this time to conclude that a condition of No Significant Risk or a Permanent Solution has been achieved. Therefore, in accordance with the MCP, further response actions are necessary. Remedial action alternatives identified and selected for implementation at the Site are discussed in a Phase III – Remedial Action Plan that is being submitted concurrently with the Phase II report.

Appendix K

Appendix C from Phase I – Initial Site Investigation, Tier Classification and RAM Status Report

Appendix C - Tables

TABLE 1
Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Groundwater Sampling Results for Volatile Organic Compounds
Sampling Date: 2/10/04

Compound-(µg/L)	02/10/04 MW-8	02/10/04 MW-2	MW-6 02/10/04 (µg/L)	MW-3 02/10/04 (µg/L)	MW-1 02/10/04 (µg/L)	MW-4 02/10/04 (µg/L)	MW-5 SH 02/10/04 (µg/L)	MW-5 DP 02/10/04 (µg/L)	MW-9 02/10/04 (µg/L)	GHC-6 02/t0/04 (µg/L)	GHC-7 02/10/04 (µg/L)	RC GW-1 (µg/L)	Stnd GW-1 (µg/L)	Stnd GW-2 (µg/L)	Stnd GW-3 (µg/L)
cenaphthylene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	300	300	N/A	3,000
cenapthene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	20	20	N/A	5,000
Anthracene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	2,000	2,000	N/A	3,000
Benzene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	2,000	7,000
enzidine	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	100	N/A	N/A	N/A
enzo (g,h,i) perylene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	300	300	N/A	3,000
enzo(a)anthracene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	1	1	N/A	3,000
Benzo(a)pyrene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.2	0.2	N/A	3,000
Benzo(b,k)fluoranthene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A
is (2-Chloroethoxy)	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A
is(2-Chloroethyl)ether	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	30	30	100	50,000
is(2-Chloroisopropyl)ether	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	30	30	400	50,000
bis(2-Ethylhexyl)phthalate	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	6	6	50,000	30
Bromodichloromethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	N/A	50,000
romoform	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.005	5	800	50,000
romomethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.002	10	2	50,000
-Bromophenyl Phenyl Ether	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	1,000	N/A	N/A	N/A
Butyl Benzyl Phthalate	NA	ND^*	ND^*	5.9	NA	NA	NA	NA	NA	NA	NA	1,000	N/A	N/A	N/A
Carbon Tetrachloride	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	20	50,000
hlorobenzene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.10	100	1,000	500
hloroethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	1	N/A	N/A	N/A
-Chlorophenyl Phenyl Ether	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	10,000	N/A	N/A	N/A
2-Chloroethylvinylether	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	ND**	5,000	N/A	N/A	N/A
hloroform	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	400	10,000
hloromethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	1	N/A	N/A	N/A
-Chloronaphthalene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	10,000	N/A	N/A	N/A
hrysene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	2	2	N/A	3,000
cis-1,3-Dichloropropene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.0005	N/A	N/A	N/A
ibenzo(a,h)Anthracene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.5	0.5	N/A	3,000
ibromochloromethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	N/A	5	N/A	50,000
2-Dichlorobenzene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.60	600	10,000	8,000
2-Dichlorobenzene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.60	600	10,000	8,000
1,3-Dichlorobenzene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.60	600	10,000	8,000
3-Dichlorobenzene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.60	600	10,000	8,000
4-Dichlorobenzene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	30,000	8,000
4-Dichlorobenzene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.01	5	30,000	8,000
3,3'-Dichlorobenzidine	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	80.00	80	N/A	50,000
1,1-Dichloroethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.07	70	9,000	50,000
2-Dichloroethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	20	50,000
1-Dichloroethylene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	1.00	7	1	50,000
2-Dichloropropane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	9	30,000
Diethyl Phthalate	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	30.00	6,000	N/A	30
Dimethyl Phthalate	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	30.00	50,000	N/A	30
i-n-butylphthalate	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	500.00	N/A	N/A	N/A
4-Dinitrotoluene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	30.00	30	N/A	2,000
6-Dinitrotoluene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	1,000.00	N/A	N/A	N/A

Notes:
- Values shaded exceed applicable Cleanup Standards.
lues in Bold exceed reportable concentrations (GW-1).
)= Not Detected.
NA= Not Analyzed.
N/A= Not Applicable.
Detection Level = 5.0 µg/L.
Detection Level = 25 µg/L.
*Detection Level = 5.6 µg/L.
B = In Lab Blank.
See Figure 8 for Sample Locations.

TABLE 1
Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Groundwater Sampling Results for Volatile Organic Compounds
Sampling Date: 2/10/04

Compound-(µg/L)	02/10/04 MW-8	02/10/04 MW-2	MW-6 02/10/04 (µg/L)	MW-3 02/10/04 (µg/L)	MW-1 02/10/04 (µg/L)	MW-4 02/10/04 (µg/L)	MW-5 SH 02/10/04 (µg/L)	MW-5 DP 02/10/04 (µg/L)	MW-9 02/10/04 (µg/L)	GHC-6 02/10/04 (µg/L)	GHC-7 02/10/04 (µg/L)	RC GW-1 (µg/L)	Stnd GW-1 (µg/L)	Stnd GW-2 (µg/L)	Stnd GW-3 (µg/L)
i-n-octyl phthalate	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	10,000	N/A	N/A	N/A
thylbenzene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	1	700	30,000	4,000
luoranthene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	200	300	N/A	200
Fluorene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	300	300	N/A	3,000
Hexachlorobenzene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	1	1	N/A	40
lexachlorobutadiene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.0006	0.6	1	90
exachlorocyclopentadiene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	500	N/A	N/A	N/A
lexachloroethane	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	8	8	10	5,000
Indeno (1,2,3-cd)Pyrene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.5	0.5	N/A	3,000
sophorone	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	1,000	N/A	N/A	N/A
ethylene Chloride	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	50,000	50,000
aphthalene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.02	20	6,000	6,000
itrobenzene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	5,000	N/A	N/A	N/A
N-Nitrosodimethylamine	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	500	N/A	N/A	N/A
-nitroso-di-n-propylamine	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	500	N/A	N/A	N/A
-Nitrosodiphenylamine	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	1,000	N/A	N/A	N/A
enanthrene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	50	300	N/A	50
yrene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	200	200	N/A	3,000
Tetrachloroethylene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	5	5	3,000	5,000
1,2,2-tetrachloroethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	2	20	20,000
oluene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	1	1,000	6,000	50,000
ans-1,2-Dichloroethylene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	100	100	20,000	50,000
ans-1,3-Dichloropropene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.0005	N/A	N/A	N/A
1,2,4-Trichlorobenzene	NA	ND^*	ND^*	ND^*	NA	NA	NA	NA	NA	NA	NA	0.07	70	10,000	500
1,2-Trichloroethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0.01	5	20,000	50,000
richloroethylene	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	5	5	300	20,000
richlorofluoromethane	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	10	N/A	N/A	N/A
inyl Chloride	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	ND^*	0	2	2	40,000

tes:
- Values shaded exceed applicable Cleanup Standards.
lues in Bold exceed reportable concentrations (GW-1).
ND= Not Detected.
NA= Not Analyzed.
A= Not Applicable.
Detection Level = 5.0 µg/L.
Detection Level = 25 µg/L.
***Detection Level = 5.6 µg/L.
B = In Lab Blank.
Figure 8 for Sample Locations.

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Groundwater Sampling Results for VPH and EPH
Sampling Date: 2/10/04

VPH Analytes	MW8 2/10/2004 (µg/L)	MW2 2/10/2004 (µg/L)	MW6 2/10/2004 (µg/L)	MW3 2/10/2004 (µg/L)	MW1 2/10/2004 (µg/L)	MW4 2/10/2004 (µg/L)	MW5 SH 2/10/2004 (µg/L)	MW5 DP 2/10/2004 (µg/L)	MW9 2/10/2004 (µg/L)	GHC6 2/10/2004 (µg/L)	GHC7 2/10/2004 (µg/L)	RC GW-1 (µg/l)	Stnd GW-1 (µg/L)	Stnd GW-2 (µg/L)	Stnd GW-3 (µg/L)
C_5-C_8 Aliphatics	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	400	400	1,000	4,000
C_9-C_{12} Aliphatics	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	4,000	1,000	20,000
C_9-C_{10} Aromatics	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	200	5,000	4,000
Methy Tert Butyl Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70	70	50,000	50,000
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	5	2,000	7,000
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	1,000	6,000	50,000
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	700	700	30,000	4,000
M & P XYLENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6,000	10,000	6,000	50,000
O-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6,000	10,000	6,000	50,000
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	20	6,000	6,000

EPH Analytes-(µg/L)	MW8	MW2	MW6	MW3	MW1	MW4	MW5 SH	MW5 DP	MW9	GHC6	GHC7	RCGW-1	GW-1	GW-2	GW-3
C_9-C_{18} Aliphatics	NA	ND	43.5	40.0	ND	ND	79.4	ND	ND	37.8	ND	1,000	4,000	1,000	20,000
C_{19}-C_{36} Aliphatics	NA	ND	ND	55.2	ND	46.5	ND	ND	ND	ND	72.1	5,000	5,000	N/A	20,000
C_{11}-C_{22} Aromatics	NA	ND	ND	ND	ND	ND	ND	ND	95.0	ND	ND	200	200	50,000	30,000
Naphthalene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	20	6,000	6,000
2-Methyl Naphthalene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	10	10,000	3,000
Acenaphthylene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	300	300	N/A	3,000
Acenaphthene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	20	N/A	5,000
Fluorene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	300	300	N/A	3,000
Phenanthrene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50	300	N/A	50
Anthracene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	600	2,000	N/A	3,000
Fluoranthene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	300	N/A	200
Pyrene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	200	N/A	3,000
Benzo (a) Anthracene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	1	N/A	3,000
Chrysene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	2	N/A	10
Benzo (b) Flouranthene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	1	N/A	3,000
Benzo (k) Flouranthene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N/A	1	N/A	3,000
Benzo (a) Pyrene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	0.2	N/A	3,000
Indeno (1,2,3-cd) Pyrene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	0.5	N/A	3,000
Dibenzo (a,h) Anthracene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	0.5	N/A	3,000
Benzo (g,h,i) Perylene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	300	300	N/A	3,000

Notes:

- Values shaded exceed applicable GW-1 Standards.

Values in Bold exceed reportable concentrations (GW-1).

ND= Not Detected.

NA= Not Analyzed.

N/A - Not Applicable.

See Figure 8 for Sample Locations.

TABLE 1

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Groundwater Sampling for Metals
Sampling Date: 2/10/04

Total Metals	MW2 2/10/2004 (mg/L)	MW6 2/11/2004 (mg/L)	MW3 2/10/2004 (mg/L)	MW1 2/10/2004 (mg/L)	MW4 2/10/2004 (mg/L)	MW5 SH 2/10/2004 (mg/L)	MW5 DP 2/10/2004 (mg/L)	MW8 2/10/2004 (mg/L)	MW9 2/10/2004 (mg/L)	GHC6 2/10/2004 (mg/L)	GHC7 2/10/2004 (mg/L)	RC GW-1 (mg/L)	Stnd GW-1 (mg/L)	Stnd GW-2 (mg/L)	Stnd GW-3 (mg/L)
Sodium, Dissolved	362	55.2	71.6	39.2	32.1	9.1	5.26	82.2	18.9	134	101	N/A	N/A	N/A	N/A
Nitrogen, Nitrite	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A
Nitrogen, Nitrate	ND	2	1	NA	NA	NA	NA	NA	NA	NA	NA	N/A	N/A	N/A	N/A
Hexavalent Chromium	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	0.05	0.05	N/A	N/A

Priority Pollutant Metals	MW2	MW6	MW3	MW1	MW4	MW5 SH	MW5 DP	MW8	MW9	GHC6	GHC7	RCGW-1	GW-1	GW-2	GW-3
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05	0.05	N/A	0.4
Antimony	ND	[redacted]	ND	ND	ND	ND	ND	ND	ND	ND	[redacted]	0.006	0.006	N/A	0.3
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.004	0.004	N/A	0.05
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.005	0.005	N/A	0.01
Chromium	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00758	ND	0.1	0.1	N/A	2
Copper	ND	ND	0.216	0.0118	ND	ND	ND	0.0166	ND	0.00557	0.00999	10	N/A	N/A	N/A
Lead	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	0.015	N/A	0.03
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001	0.002	N/A	0.001
Nickel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.08	0.1	N/A	0.08
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.007	0.04	N/A	0.007
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05	0.05	N/A	0.08
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002	0.002	N/A	0.4
Zinc	ND	ND	0.238	ND	ND	ND	ND	0.0302	ND	ND	ND	0.9	2	N/A	0.9

Notes:

[redacted] - Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (GW-1).

ND= Not Detected.

NA= Not Analyzed.

N/A= Not Applicable.

See Figure 8 for Sample Locations

TABLE 2

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
MW-6 and GHC-7 Groundwater Sampling Results for Metals
Sampling Date: 4/15/04

Priority Pollutant Metals	MW-6 4/15/2004 (mg/L)	GHC-7 4/15/2004 (mg/L)	RC GW-1 (mg/L)	Stnd GW-1 (mg/L)	Stnd GW-2 (mg/L)	Stnd GW-3 (mg/L)
Arsenic	<0.0100	<0.0100	0.05	0.05	N/A	0.05
Antimony	<0.0100	<0.0100	0.006	0.006	N/A	0.3
Beryllium	<0.00250	<0.00250	0.004	0.004	N/A	0.05
Cadmium	0.00116	<0.00110	0.005	0.005	N/A	0.01
Chromium	<0.00600	<0.00600	0.1	0.1	N/A	2
Copper	0.0126	0.413	10	N/A	N/A	N/A
Lead	<0.01	<0.0100	0.02	0.015	N/A	0.03
Mercury	<0.000200	<0.00020	0.001	0.002	N/A	0.001
Nickel	<0.040	<0.040	0.08	0.1	N/A	0.08
Silver	<0.00500	<0.0050	0.007	0.04	N/A	0.007
Selenium	<0.0200	<0.0200	0.05	0.05	N/A	0.08
Thallium	<0.0200	<0.0200	0.002	0.002	N/A	0.4
Zinc	<0.0300	0.294	0.9	2	N/A	0.9

Notes:

- Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (GW-1).

<### = Below Method Detection Limit.

NA= Not Analyzed.

N/A= Not Applicable.

See Figure 8 for Sample Locations.

TABLE 3

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Catchbasin Grit Pile Sampling Results for VOCs, Method 8260
Sampling Date: 6/16/03

VOC Analytes	Pile 1 6/16/2003 (µg/Kg)	Pile 2 6/16/2003 (µg/Kg)	RC S-1 (µg/Kg)	Standards S-1/GW-1 (µg/Kg)	Standards S-1/GW-2 (µg/Kg)	Standards S-1/GW-3 (µg/Kg)
Acetone	ND	ND	3,000	3,000	60,000	60,000
Acrylonitrile	ND	ND	100,000	N/A	N/A	N/A
Benzene	ND	ND	10,000	10,000	40,000	40,000
Bromobenzene	ND	ND	100,000	N/A	N/A	N/A
Bromochloromethane	ND	ND	N/A	N/A	N/A	N/A
Bromodichloromethane	ND	ND	100	100	20,000	20,000
Bromoform	ND	ND	100	100	20,000	100,000
Bromomethane	ND	ND	3,000	10,000	3,000	50,000
2-Butanone-(MEK)	ND	ND	300	300	40,000	40,000
n-Butylbenzene	ND	ND	N/A	N/A	N/A	N/A
sec-Butlybenzene	ND	ND	N/A	N/A	N/A	N/A
tert-Butylbenzene	ND	ND	100,000	N/A	N/A	N/A
Carbon Disulfide	ND	ND	100,000	N/A	N/A	N/A
Carbon Tetrachloride	ND	ND	1,000	1,000	4,000	7,000
Chlorobenzene	ND	ND	8,000	8,000	80,000	40,000
Chloroethane	ND	ND	100,000	N/A	N/A	N/A
Chloroform	ND	ND	100	100	10,000	200,000
Chloromethane	ND	ND	100,000	N/A	N/A	N/A
2-Chlorotoluene	ND	ND	N/A	N/A	N/A	N/A
4-Chlorotoluene	ND	ND	N/A	N/A	N/A	N/A
1,2-Dibromo-3-Chloropropane	ND	ND	10,000	N/A	N/A	N/A
Dibromochloromethane	ND	ND	N/A	90	10,000	10,000
1,2-Dibromochloromethane (EDB)	ND	ND	N/A	N/A	N/A	N/A
Dibromomethane	ND	ND	500,000	N/A	N/A	N/A
1,2-Dichlorobenzene	ND	ND	100,000	100,000	100,000	100,000
1,3-Dichlorobenzene	ND	ND	100,000	100,000	100,000	100,000
1,4-Dichlorobenzene	ND	ND	2,000	2,000	40,000	40,000
Dichlorodifluoromethane	ND	ND	1,000,000	N/A	N/A	N/A
1,1-Dichloroethane	ND	ND	3,000	3,000	100,000	100,000
1,2-Dichloroethane	ND	ND	50	50	200	10,000
1,1-Dichloroethene	ND	ND	100	N/A	N/A	N/A
cis-1,2-Dichloroethene	ND	ND	2,000	N/A	N/A	N/A
trans-1,2-Dichloroethene	ND	ND	4,000	N/A	N/A	N/A
1,2-Dichloropropane	ND	ND	100	100	200	8,000
1,3-Dichloropropane	ND	ND	500,000	N/A	N/A	N/A
2,2-Dichloropropane	ND	ND	N/A	N/A	N/A	N/A
1,1-Dichloropropene	ND	ND	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropene	ND	ND	10	N/A	N/A	N/A
trans-1,3-Dichloropropene	ND	ND	10	N/A	N/A	N/A

Notes:

■■■ - Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

ND - Not Detected.

N/A - Not Applicable.

See Figure 8 for Sample Locations.

TABLE 3

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Catchbasin Grit Pile Sampling Results for VOCs, Method 8260
Sampling Date: 6/16/03

VOC Analytes	Pile 1 6/16/2003 (µg/Kg)	Pile 2 6/16/2003 (µg/Kg)	RC S-1 (µg/Kg)	Standards S-1/GW-1 (µg/Kg)	Standards S-1/GW-2 (µg/Kg)	Standards S-1/GW-3 (µg/Kg)
Ethylbenzene	ND	ND	80,000	80,000	500,000	500,000
Hexachlorobutadiene	ND	ND	3,000	3,000	3,000	5,000
2-Hexanone (MBK)	ND	ND	100,000	N/A	N/A	N/A
Isopropylbenzene	ND	ND	1,000,000	N/A	N/A	N/A
4-Isopropyltoluene	ND	ND	N/A	N/A	N/A	N/A
Methyl-tert-butyl ether (MTBE)	ND	ND	300	300	100,000	100,000
4-Methyl-2-pentanone (MIBK)	ND	ND	500	N/A	N/A	N/A
Methylene chloride	ND	ND	100	100	100,000	100,000
Napthalene	ND	ND	4,000	4,000	100,000	100,000
n-Propylbenzene	ND	ND	N/A	N/A	N/A	N/A
Styrene	ND	ND	2,000	2,000	20,000	20,000
1,1,1,2-Tetrachloroethane	ND	ND	400	400	500	4,000
1,1,2,2-Tetrachloroethane	ND	ND	20	20	200	500
Tetrachloroethene	ND	ND	500	N/A	N/A	N/A
Toluene	ND	ND	90,000	90,000	500,000	500,000
1,2,3-Trichlorobenzene	ND	ND	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene	ND	ND	100,000	100,000	400,000	400,000
1,1,1-Trichloroethane	ND	ND	30,000	30,000	100,000	100,000
1,1,2-Trichloroethane	ND	ND	300	300	2,000	2,000
Trichloroethene	ND	ND	400	N/A	N/A	N/A
Trichlorofluoromethane	ND	ND	1,000,000	N/A	N/A	N/A
1,2,3-Trichloropropane	ND	ND	100,000	N/A	N/A	N/A
1,2,4-Trimethylbenzene	ND	ND	1,000,000	N/A	N/A	N/A
1,3,5-Trimethylbenzene	ND	ND	10,000	N/A	N/A	N/A
Vinyl chloride	ND	ND	300	300	300	300
m,p-Xylene	ND	ND	500,000	500,000	500,000	500,000
o-Xylene	ND	ND	500,000	500,000	500,000	500,000

Notes:

■ - Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

ND - Not Detected.

N/A - Not Applicable.

See Figure 8 for Sample Locations.

TABLE 3

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Catchbasin Grit Pile Results for Semivolatile Organic Compounds
Sampling Dates: 6/16/03

Semivolatile Analytes	Pile 1 6/16/2003 (µg/Kg)	Pile 2 6/16/2003 (µg/Kg)	RC S-1 (µg/Kg)	Standards S-1/GW-1 (µg/Kg)	Standards S-1/GW-2 (µg/Kg)	Standards S-1/GW-3 (µg/Kg)
Acenaphthene	ND	ND	20,000	20,000	1,000,000	1,000,000
Acenaphthylene	ND	ND	100,000	100,000	100,000	100,000
Aniline	ND	ND	1,000,000	N/A	N/A	N/A
Anthracene	ND	ND	100,000	1,000,000	1,000,000	1,000,000
Azobenzene/Diphenyldiazine	ND	ND	N/A	N/A	N/A	N/A
Benzidine	ND	ND	10,000	N/A	N/A	N/A
Benzo (a) anthracene	ND	ND	700	700	700	700
Benzo (a) pyrene	ND	ND	700	700	700	700
Benzo (b) fluoranthene	ND	ND	700	700	700	700
Benzo (g,h,i) perylene	ND	ND	1,000,000	1,000,000	1,000,000	1,000,000
Benzo(k) fluoranthene	ND	ND	7000	7,000	7,000	7,000
Benzoic acid	ND	ND	1,000,000	N/A	N/A	N/A
Benzyl alcohol	ND	ND	N/A	N/A	N/A	N/A
Bis (2-chloroethyl) ether	ND	ND	700	700	700	700
Bis(2-chloroethoxy) methane	ND	ND	500,000	N/A	N/A	N/A
Bis(2-chloroisopropyl) ether	ND	ND	700	700	2,000	2,000
Bis(2-ethylexyl) phthalate	ND	ND	100,000	100,000	200,000	200,000
4-Bromophenyl phenyl ether	ND	ND	100,000	N/A	N/A	N/A
Butyl benzyl phthalate	ND	ND	100,000	N/A	N/A	N/A
Carbazole	ND	ND	N/A	N/A	N/A	N/A
4-Chloroaniline	ND	ND	1,000	1,000	100,000	100,000
2-Chloronaphthalene	ND	ND	1,000,000	N/A	N/A	N/A
2-Chlorophenol	ND	ND	700	700	100,000	100,000
4-Chloro-3-methylphenol	ND	ND	N/A	N/A	N/A	N/A
4-Chlorophenyl phenyl ether	ND	ND	1,000,000	N/A	N/A	N/A
Chrysene	ND	ND	7,000	7,000	7,000	7,000
Dibenz (a,h) anthracene	ND	ND	700	700	700	700
Dibenzofuran	ND	ND	100,000	N/A	N/A	N/A
1,2-Dichlorobenzene	ND	ND	100,000	100,000	100,000	100,000
1,3-Dichlorobenzene	ND	ND	100,000	100,000	100,000	100,000
1,4-Dichlorobenzene	ND	ND	2,000	2,000	40,000	40,000
3,3'-Dichlorobenzidine	ND	ND	1,000	1,000	1,000	1,000
2,4-Dichlorophenol	ND	ND	10,000	10,000	40,000	40,000
Diethyl phthalate	ND	ND	700	100,000	1,000,000	1,000,000
Dimethylphthalate	ND	ND	700	30,000	1,000,000	1,000,000
2,4-Dimethylphenol	ND	ND	700	700	400,000	400,000
Di-n-butylphthalate	ND	ND	50,000	N/A	N/A	N/A
4,6-Dinitro-2-methylphenol	ND	ND	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	ND	ND	700	700	1,000	1,000
2,6-Dinitrotoluene	ND	ND	100,000	N/A	N/A	N/A
Di-n-octylphthalate	ND	ND	1,000,000	N/A	N/A	N/A
Fluoranthene	ND	ND	1,000,000	1,000,000	1,000,000	1,000,000
Fluorene	ND	ND	400,000	400,000	1,000,000	1,000,000
Hexachlorobenzene	ND	ND	700	700	700	700
Hexachlorobutadiene	ND	ND	3,000	3,000	3,000	3,000
Hexachlorocyclopentadiene	ND	ND	50,000	N/A	N/A	N/A
Hexachloroethane	ND	ND	6,000	6,000	6,000	6,000
Indeno (1,2,3-cd) pyrene	ND	ND	700	700	700	700
Isophorone	ND	ND	100,000	N/A	N/A	N/A
2-Methylnapthalene	ND	ND	4,000	4,000	500,000	500,000
2-Methylphenol (o-cresol)	ND	ND	500,000	N/A	N/A	N/A
3-Methylphenol (m-cresol)	ND	ND	500,000	N/A	N/A	N/A
4-Methylphenol (p-cresol)	ND	ND	500,000	N/A	N/A	N/A
Napthalene	ND	ND	4,000	4,000	100,000	100,000

Notes:

■ - Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

N/A - Not Applicable

ND - Not Detected

See Figure 8 for Sample Locations.

TABLE 3

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Catchbasin Grit Pile Results for Semivolatile Organic Compounds
Sampling Dates: 6/16/03

Semivolatile Analytes	Pile 1 6/16/2003 (µg/Kg)	Pile 2 6/16/2003 (µg/Kg)	RC S-1 (µg/Kg)	Standards S-1/GW-1 (µg/Kg)	Standards S-1/GW-2 (µg/Kg)	Standards S-1/GW-3 (µg/Kg)
2-Nitroaniline	ND	ND	N/A	N/A	N/A	N/A
3-Nitroaniline	ND	ND	N/A	N/A	N/A	N/A
4-Nitroaniline	ND	ND	N/A	N/A	N/A	N/A
Nitrobenzene	ND	ND	500,000	N/A	N/A	N/A
2-Nitrophenol	ND	ND	100,000	N/A	N/A	N/A
4-Nitrophenol	ND	ND	100,000	N/A	N/A	N/A
n-Nitrosodimethylamine	ND	ND	50,000	N/A	N/A	N/A
n-Nitroso-di-n-propylamine	ND	ND	50,000	N/A	N/A	N/A
n-Nitrosodiphenylamine	ND	ND	100,000	N/A	N/A	N/A
Pentachlorophenol	ND	ND	5,000	5,000	7,000	7,000
Phenanthrene	ND	ND	100,000	700,000	1,000,000	1,000,000
Phenol	ND	ND	60,000	60,000	500,000	500,000
Pyrene	ND	ND	700,000	700,000	700,000	700,000
Pyridine	ND	ND	500,000	N/A	N/A	N/A
1,2,4-Trichlorobenzene	ND	ND	100,000	100,000	400,000	400,000
2,4,5-Trichlorophenol	ND	ND	2,000	3,000	1,000,000	1,000,000
2,4,6-Trichlorophenol	ND	ND	3,000	3,000	40,000	40,000

Notes:

- Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

N/A - Not Applicable.

ND - Not Detected.

See Figure 8 for Sample Locations.

Table 3

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Catchbasin Grit Pile Results for Polychlorinated Biphenyls (PCBs)
Sampling Dates: 6/16/03

PCBs	Pile 1 6/16/2003 (µg/Kg)	Pile 2 6/16/2003 (µg/Kg)	RC S-1 (µg/Kg)	Standards S-1/GW-1 (µg/Kg)	Standards S-1/GW-2 (µg/Kg)	Standards S-1/GW-3 (µg/Kg)
PCB-1016	ND	ND	2,000	2,000	2,000	2,000
PCB-1221	ND	ND	2,000	2,000	2,000	2,000
PCB-1232	ND	ND	2,000	2,000	2,000	2,000
PCB-1242	ND	ND	2,000	2,000	2,000	2,000
PCB-1248	ND	ND	2,000	2,000	2,000	2,000
PCB-1254	ND	ND	2,000	2,000	2,000	2,000
PCB-1260	ND	44	2,000	2,000	2,000	2,000

Notes:

- Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

N/A - Not Applicable.

ND - Not Detected.

See Figure 8 for Sample Locations.

TABLE 3

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Catchbasin Grit Pile Sampling Results for Total Metals
Sampling Date: 6/16/03

Total Metals	Pile 1 6/16/2003 mg/kg	Pile 2 6/16/2003 mg/kg	RC S-1 (mg/Kg)	Standards S-1/GW-1 (mg/Kg)	Standards S-1/GW-2 (mg/Kg)	Standards S-1/GW-3 (mg/Kg)
Silver	ND	ND	100	100	100	100
Arsenic	ND	ND	30	30	30	30
Barium	13.5	4.15	1,000	1,000	1,000	1,000
Cadmium	ND	ND	30	30	30	30
Chromium	7.07	4.46	1,000	1,000	1,000	1,000
Lead	13.5	9.82	300	300	300	300
Selenium	ND	ND	400	400	400	400
Mercury	ND	ND	20	20	20	20
% Solids	97.4	95.8	N/A	N/A	N/A	N/A

Notes:

- Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

NA - Not Analyzed.

ND - Not Detected.

N/A - Not Applicable.

See Figure 8 for Sample Locations.

TABLE 3

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Catchbasin Grit Pile Sampling Results for VPH, EPH, TPH
Sampling Date: 6/16/03

VPH Analytes	Pile 1 6/16/2003 (mg/Kg)	Pile 2 6/16/2003 (mg/Kg)	RC S-1 (mg/Kg)	RC S-2 (mg/Kg)	Standards S-1/GW-1 (mg/Kg)	Standards S-1/GW-2 (mg/Kg)	Standards S-1/GW-3 (mg/Kg)
C_5-C_8 Aliphatics	ND	ND	100	500	100	100	100
C_9-C_{12} Aliphatics	ND	ND	1,000	2,500	1,000	1,000	1,000
C_9-C_{10} Aromatics	ND	ND	100	500	100	100	100
Methyl Tert Butyl Ether (MTBE)	ND	ND	0	200	0.3	100.0	100
Benzene	ND	ND	10	60	10	40	40
Toluene	ND	ND	90	500	90	500	500
Ethylbenzene	ND	ND	80	500	80	500	500
m,p- Xylenes	ND	ND	500	500	500	500	500
O-Xylene	ND	ND	500	6,500	500	500	500
Naphthalene	ND	ND	4	1,000	4	100	100

EPH Analytes	Pile 1	Pile 2	S-1	S-2	S-1/GW-1	S-1/GW-2	S-1/GW-3
C_9-C_{18} Aliphatics	ND	ND	100	2,500	1,000	1,000	1,000
C_{19}-C_{36} Aliphatics	170	77	2,500	5,000	2,500	2,500	2,500
C_{11}-C_{22} Aromatics	71	ND	200	2,000	200	800	800
Naphthalene	ND	ND	4	1,000	4	100	100
2-Methyl Naphthalene	ND	ND	4	1,000	4	500	500
Acenaphthylene	ND	ND	100	1,000	100	100	100
Acenaphthene	ND	ND	20	2,500	20	1,000	1,000
Fluorene	ND	ND	400	2,000	400	1,000	1,000
Phenanthrene	ND	ND	100	100	700	1,000	100
Anthracene	ND	ND	1,000	1,000	1,000	1,000	1,000
Fluoranthene	0.29	ND	1,000	1,000	1,000	1,000	1,000
Pyrene	0.29	ND	700	2,000	700	700	700
Benzo (a) Anthracene	ND	ND	1	1	0.7	0.7	0.7
Chrysene	0.21	ND	7	10	7	7	7
Benzo (b) Flouranthene	0.22	ND	1	1	0.7	0.7	0.7
Benzo (k) Flouranthene	ND	ND	N/A	N/A	7	7	7
Benzo (a) Pyrene	ND	ND	1	1	0.7	0.7	0.7
Indeno (1,2,3-cd) Pyrene	ND	ND	1	1	0.7	0.7	0.7
Dibenzo (a,h) Anthracene	ND	ND	1	1	0.7	0.7	0.7
Benzo (g,h,i) Perylene	ND	ND	1,000	2,500	1,000	1,000	1,000

TPH Analytes (ppm)	Pile 1	Pile 2	S-1	S-2	S-1/GW-1	S-1/GW-2	S-1/GW-3
Gasoline	ND	ND	200	2,000	N/A	N/A	N/A
Fuel Oil #2	ND	ND	200	2,000	200	800	800
Fuel Oil #4	ND	ND	200	2,000	200	800	800
Fuel Oil #6	ND	ND	200	2,000	200	800	800
Motor Oil	*	*	200	2,000	200	800	800
Ligroin	ND	ND	200	2,000	200	800	800
Aviation Fuel	ND	ND	200	2,000	N/A	N/A	N/A
Unidentified	[redacted]	77	200	2,000	200	800	800
Other Oil	ND	ND	200	2,000	200	800	800
Total Hydrocarbons	[redacted]	77	200	2,000	200	800	800

Notes:

* - Refers to the Unidentified Oil.

[redacted] - Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

N/A - Not Applicable.

See Figure 8 for Sample Locations.

TABLE 4

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Catchbasin Grit Pile Results for Metals
Sampling Date: 4/15/04

Priority Pollutant Metals	CB Pile 1 4/15/2004 (mg/Kg)	CB Pile 2 4/15/2004 (mg/Kg)	RC S-1 (mg/Kg)	Stnd S-1/GW-1 (mg/Kg)	Stnd S-1/GW-2 (mg/Kg)	Stnd S-1/GW-3 (mg/Kg)
Arsenic	1.14	2.14	30	30	30	30
Antimony	<2.17	<1.67	10	10	10	10
Beryllium	<0.325	<0.250	0.7	0.7	0.7	0.7
Cadmium	<0.325	<0.250	30	30	30	30
Chromium	6.35	6.84	1,000	1,000	1,000	1,000
Copper	7.1	12.1	1,000	N/A	N/A	N/A
Lead	7.29	15.4	300	300	300	300
Mercury	<0.04	<0.04	20	20	20	20
Nickel	4.33	6.91	300	300	300	300
Silver	<0.325	<0.250	100	100	100	100
Selenium	<2.17	<1.67	400	400	400	400
Thallium	<2.17	<1.67	8	8	8	8
Zinc	19.1	29.2	2,500	2,500	2,500	2,500

Notes:

- Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

<#### = Below Method Detection Limit.

NA= Not Analyzed

N/A= Not Applicable

See Figure 8 for Sampling Locations.

TABLE 5

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
MW-3 Soil Sampling Results for Lead
Sampling Date: 5/21/03

Compound	MW-3 (5 ft) 5/21/2003 (mg/kg)	MW-3 (50 ft) 5/21/2003 (mg/kg)	RC S-1 (mg/Kg)	Standards S-1/GW-1 (mg/Kg)	Standards S-1/GW-2 (mg/Kg)	Standards S-1/GW-3 (mg/Kg)
Lead	5.21	5.41	300	300	300	300

Notes:

- Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

NA - Not Analyzed.

ND - Not Detected.

N/A - Not Applicable.

See Figure 8 for Sample Locations.

TABLE 6

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
MW-1 Soil Sampling Results for Total Metals
Sampling Date: 6/16/03

Compound	MW-1-S1-5 6/16/2003 (mg/kg)	MW-1-S2-10 6/16/2003 (mg/kg)	MW-1-S3-15 6/16/2003 (mg/kg)	MW-1-S4-20 6/16/2003 (mg/kg)	RC S-1 (mg/Kg)	Standards S-1/GW-1 (mg/Kg)	Standards S-1/GW-2 (mg/Kg)	Standards S-1/GW-3 (mg/Kg)
Lead	14.50	11.8	90.1	22.7	300	300	300	300

Notes:

- Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

NA - Not Analyzed.

ND - Not Detected.

N/A - Not Applicable.

See Figure 8 for Sample Locations.

TABLE 7

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Soil Sampling Results for VOC
Sampling Date: January 19, 2004

VOC Analytes	GHC-1 SS-1 1/19/2004 (mg/kg)	GHC-1 SS-3 1/19/2004 (mg/kg)	GHC-2 SS-1 1/19/2004 (mg/kg)	GHC-2 SS-4 1/19/2004 (mg/kg)	GHC-3 SS-1 1/19/2004 (mg/kg)	RC S-1 (mg/Kg)	Method 1 Standards S-1/GW-1 (mg/kg)	Method 1 Standards S-1/GW-2 (mg/kg)	Method 1 Standards S-1/GW-3 (mg/kg)
Acetone	<0.773	<0.783	<0.478	<0.610	<0.668	3	3	60	60
Acrylonitrile	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	100	N/A	N/A	N/A
Benzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	10	10	40	40
Bromobenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	100	N/A	N/A	N/A
Bromochloromethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
Bromodichloromethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.1	0.1	20	20
Bromoform	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.1	0.1	20	100
Bromomethane	<0.0773	<0.0783	<0.0478	<0.0610	<0.0668	3	10	3	50
2-Butanone-(MEK)	<0.386	<0.392	<0.239	<0.305	<0.334	0.3	0.3	40	40
n-Butylbenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
sec-Butlybenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
tert-Butylbenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	100	N/A	N/A	N/A
Carbon Disulfide	<0.193	<0.196	<0.120	<0.153	<0.167	100	N/A	N/A	N/A
Carbon Tetrachloride	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	1	1	4	7
Chlorobenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	8	8	80	40
Chloroethane	<0.0773	<0.0783	<0.0478	<0.0610	<0.0668	100	N/A	N/A	N/A
Chloroform	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.1	0.1	10	200
Chloromethane	<0.0773	<0.0783	<0.0478	<0.0610	<0.0668	100	N/A	N/A	N/A
2-Chlorotoluene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
4-Chlorotoluene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
1,2-Dibromo-3-Chloropropane	<0.0773	<0.0783	<0.0478	<0.0610	<0.0668	10	N/A	N/A	N/A
Dibromochloromethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	0.09	10	10
1,2-Dibromochloromethane (EDB)	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
Dibromomethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	500	N/A	N/A	N/A
1,2-Dichlorobenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	100	100	100	100
1,3-Dichlorobenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	100	100	100	100
1,4-Dichlorobenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	2	2	40	40
Dichlorodifluoromethane	<0.0773	<0.0783	<0.0478	<0.0610	<0.0668	1,000	N/A	N/A	N/A
1,1-Dichloroethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	3	3	100	100
1,2-Dichloroethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.05	0.05	0.2	10
1,1-Dichloroethene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.1	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	2	N/A	N/A	N/A
trans-1,2-Dichloroethene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	4	N/A	N/A	N/A
1,2-Dichloropropane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.1	0.1	0.2	8
1,3-Dichloropropane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	500	N/A	N/A	N/A
2,2-Dichloropropane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
1,1-Dichloropropene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.01	N/A	N/A	N/A
trans-1,3-Dichloropropene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.01	N/A	N/A	N/A
Ethylbenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	80	80	500	500
Hexachlorobutadiene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	3.0	3	3	5
2-Hexanone (MBK)	<0.386	<0.392	<0.239	<0.305	<0.334	100	N/A	N/A	N/A
Isopropylbenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	1,000	N/A	N/A	N/A
4-Isopropyltoluene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
Methyl tert-butyl ether	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.3	0.3	100	100
4-Methyl-2-pentanone (MBK)	<0.386	<0.392	<0.239	<0.305	<0.334	0.5	N/A	N/A	N/A
Methylene chloride	<0.386	<0.392	<0.239	<0.305	<0.334	0.1	0.1	100	100
Napthalene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	4	4	100	100
n-Propylbenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
Styrene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	2	2	20	20
1,1,1,2-Tetrachloroethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.4	0.4	0.5	4
1,1,2,2-Tetrachloroethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.02	0.02	0.2	0.5
Tetrachloroethene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.5	N/A	N/A	N/A
Toluene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	90	90	500	500
1,2,3-Trichlorobenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	100	100	400	400
1,1,1-Trichloroethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	30	30	100	100
1,1,2-Trichloroethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.3	0.3	2	2
Trichloroethene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.4	N/A	N/A	N/A
Trichlorofluoromethane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	1,000	N/A	N/A	N/A
1,2,3-Trichloropropane	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	100	N/A	N/A	N/A
1,2,4-Trimethylbenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	1,000	N/A	N/A	N/A
1,3,5-Trimethylbenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	10	N/A	N/A	N/A
Vinyl chloride	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	0.3	0.3	0.3	0.3
m,p-Xylene	<0.0773	<0.0783	<0.0478	<0.0610	<0.0668	500	500	500	500
o-Xylene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	500	500	500	500

Notes:

< ##### - Indicates less than the Method Detection Limits.

[redacted] - Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

N/A - not applicable.

See Figure 8 for Sample Locations.

TABLE 7

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Soil Sampling Results for VOC
Sampling Date: January 19, 2004

VOC Analytes	GHC-3 SS-3 1/19/2004 (mg/kg)	GHC-4 SS-1 1/19/2004 (mg/kg)	GHC-4 SS-3 1/19/2004 (mg/kg)	GHC-5 SS-1 1/19/2004 (mg/kg)	GHC-5 SS-4 1/19/2004 (mg/kg)	RC S-1 (mg/Kg)	Method 1 Standards S-1/GW-1 (mg/kg)	Method 1 Standards S-1/GW-2 (mg/kg)	Method 1 Standards S-1/GW-3 (mg/kg)
Acetone	<0.408	<0.435	<0.690	<0.543	<0.703	3	3	60	60
Acrylonitrile	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	100	N/A	N/A	N/A
Benzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	10	10	40	40
Bromobenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	100	N/A	N/A	N/A
Bromochloromethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
Bromodichloromethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.1	0.1	20	20
Bromoform	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.1	0.1	20	100
Bromomethane	<0.0408	<0.0435	<0.0690	<0.0543	<0.0703	3	10	3	50
2-Butanone-(MEK)	<0.204	<0.218	<0.345	<0.272	<0.352	0.3	0.3	40	40
n-Butylbenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
sec-Butlybenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
tert-Butylbenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	100	N/A	N/A	N/A
Carbon Disulfide	<0.102	<0.109	<0.172	<0.136	<0.176	100	N/A	N/A	N/A
Carbon Tetrachloride	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	1	1	4	7
Chlorobenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	8	8	80	40
Chloroethane	<0.0408	<0.0435	<0.0690	<0.0543	<0.0703	100	N/A	N/A	N/A
Chloroform	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.1	0.1	10	200
Chloromethane	<0.0408	<0.0435	<0.0690	<0.0543	<0.0703	100	N/A	N/A	N/A
2-Chlorotoluene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
4-Chlorotoluene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
1,2-Dibromo-3-Chloropropane	<0.0408	<0.035	<0.0690	<0.0543	<0.0703	10	N/A	N/A	N/A
Dibromochloromethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	0.09	10	10
1,2-Dibromochloromethane (EDB)	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
Dibromomethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	500	N/A	N/A	N/A
1,2-Dichlorobenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	100	100	100	100
1,3-Dichlorobenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	100	100	100	100
1,4-Dichlorobenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	2	2	40	40
Dichlorodifluoromethane	<0.0408	<0.0435	<0.0690	<0.0543	<0.0703	1,000	N/A	N/A	N/A
1,1-Dichloroethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	3	3	100	100
1,2-Dichloroethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.05	0.05	0.2	10
1,1-Dichloroethene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.1	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	2	N/A	N/A	N/A
trans-1,2-Dichloroethene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	4	N/A	N/A	N/A
1,2-Dichloropropane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.1	0.1	0.2	8
1,3-Dichloropropane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	500	N/A	N/A	N/A
2,2-Dichloropropane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
1,1-Dichloropropene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.01	N/A	N/A	N/A
trans-1,3-Dichloropropene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.01	N/A	N/A	N/A
Ethylbenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	80	80	500	500
Hexachlorobutadiene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	3.0	3	3	5
2-Hexanone (MBK)	<0.204	<0.218	<0.345	<0.272	<0.352	100	N/A	N/A	N/A
Isopropylbenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	1,000	N/A	N/A	N/A
4-Isopropyltoluene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
Mthyl tert-butyl ether	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.3	0.3	100	100
4-Methyl-2-pentanone (MBK)	<0.204	<0.218	<0.345	<0.272	<0.352	0.5	N/A	N/A	N/A
Methylene chloride	<0.204	<0.218	<0.345	<0.272	<0.352	0.1	0.1	100	100
Napthalene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	4	4	100	100
n-Propylbenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
Styrene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	2	2	20	20
1,1,1,2-Tetrachloroethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.4	0.4	0.5	4
1,1,2,2-Tetrachloroethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.02	0.02	0.2	0.5
Tetrachloroethene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.5	N/A	N/A	N/A
Toluene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	90	90	500	500
1,2,3-Trichlorobenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	100	100	400	400
1,1,1-Trichloroethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	30	30	100	100
1,1,2-Trichloroethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.3	0.3	2	2
Trichloroethene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.4	N/A	N/A	N/A
Trichlorofluoromethane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	1,000	N/A	N/A	N/A
1,2,3-Trichloropropane	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	100	N/A	N/A	N/A
1,2,4-Trimethylbenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	1,000	N/A	N/A	N/A
1,3,5-Trimethylbenzene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	10	N/A	N/A	N/A
Vinyl chloride	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	0.3	0.3	0.3	0.3
m,p-Xylene	<0.0408	<0.0435	<0.0690	<0.0543	<0.0703	500	500	500	500
o-Xylene	<0.0204	<0.0218	<0.0345	<0.0272	<0.0352	500	500	500	500

Notes:

< ##### - Indicates less than the Method Detection Limits.

[redacted] - Values shaded exceed applicable Cleanup Standards.

Values in Bold exceed reportable concentrations (S-1).

N/A - not applicable.

See Figure 8 for Sample Locations.

TABLE 7

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Soil Sampling Results for VOC
Sampling Date: January 19, 2004

VOC Analytes	GHC-6 SS-1 (mg/kg) 1/19/2004	GHC-6 SS-2 (mg/kg) 1/19/2004	GHC-7 SS-1 (mg/kg) 1/19/2004	GHC-7 SS-4 (mg/kg) 1/19/2004	RC S-1 (mg/Kg)	Method 1 Standards S-1/GW-1 (mg/kg)	Method 1 Standards S-1/GW-2 (mg/kg)	Method 1 Standards S-1/GW-3 (mg/kg)
Acetone	<0.800	<0.508	<0.887	<0.819	3	3	60	60
Acrylonitrile	<0.0400	<0.0254	<0.0443	<0.0409	100	N/A	N/A	N/A
Benzene	<0.0400	<0.0254	<0.0443	<0.0409	10	10	40	40
Bromobenzene	<0.0400	<0.0254	<0.0443	<0.0409	100	N/A	N/A	N/A
Bromochloromethane	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
Bromodichloromethane	<0.0400	<0.0254	<0.0443	<0.0409	0.1	0.1	20	20
Bromoform	<0.0400	<0.0254	<0.0443	<0.0409	0.1	0.1	20	100
Bromomethane	<0.0800	<0.0508	<0.0887	<0.0819	3	10	3	50
2-Butanone-(MEK)	<0.400	<0.254	<0.443	<0.409	0.3	0.3	40	40
n-Butylbenzene	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
sec-Butlybenzene	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
tert-Butylbenzene	<0.0400	<0.0254	<0.0443	<0.0409	100	N/A	N/A	N/A
Carbon Disulfide	<0.200	<0.127	<0.222	<0.205	100	N/A	N/A	N/A
Carbon Tetrachloride	<0.0400	<0.0254	<0.0443	<0.0409	1	1	4	7
Chlorobenzene	<0.0400	<0.0254	<0.0443	<0.0409	8	8	80	40
Chloroethane	<0.0800	<0.0508	<0.0887	<0.0819	100	N/A	N/A	N/A
Chloroform	<0.0400	<0.0254	<0.0443	<0.0409	0.1	0.1	10	200
Chloromethane	<0.0800	<0.0508	<0.0887	<0.0819	100	N/A	N/A	N/A
2-Chlorotoluene	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
4-Chlorotoluene	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
1,2-Dibromo-3-Chloropropane	<0.0800	<0.0508	<0.0887	<0.0819	10	N/A	N/A	N/A
Dibromochloromethane	<0.0400	<0.0254	<0.0443	<0.0409	N/A	0.09	10	10
1,2-Dibromochloromethane (EDB)	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
Dibromomethane	<0.0400	<0.0254	<0.0443	<0.0409	500	N/A	N/A	N/A
1,2-Dichlorobenzene	<0.0400	<0.0254	<0.0443	<0.0409	100	100	100	100
1,3-Dichlorobenzene	<0.0400	<0.0254	<0.0443	<0.0409	100	100	100	100
1,4-Dichlorobenzene	<0.0400	<0.0254	<0.0443	<0.0409	2	2	40	40
Dichlorodifluoromethane	<0.0800	<0.0508	<0.0887	<0.0819	1,000	N/A	N/A	N/A
1,1-Dichloroethane	<0.0400	<0.0254	<0.0443	<0.0409	3	3	100	100
1,2-Dichloroethane	<0.0400	<0.0254	<0.0443	<0.0409	0.05	0.05	0.2	10
1,1-Dichloroethene	<0.0400	<0.0254	<0.0443	<0.0409	0.1	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.0400	<0.0254	<0.0443	<0.0409	2	N/A	N/A	N/A
trans-1,2-Dichloroethene	<0.0400	<0.0254	<0.0443	<0.0409	4	N/A	N/A	N/A
1,2-Dichloropropane	<0.0400	<0.0254	<0.0443	<0.0409	0.1	0.1	0.2	8
1,3-Dichloropropane	<0.0400	<0.0254	<0.0443	<0.0409	500	N/A	N/A	N/A
2,2-Dichloropropane	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
1,1-Dichloropropene	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropene	<0.0400	<0.0254	<0.0443	<0.0409	0.01	N/A	N/A	N/A
trans-1,3-Dichloropropene	<0.0400	<0.0254	<0.0443	<0.0409	0.01	N/A	N/A	N/A
Ethylbenzene	<0.0400	<0.0254	<0.0443	<0.0409	80	80	500	500
Hexachlorobutadiene	<0.0400	<0.0254	<0.0443	<0.0409	3.0	3	3	5
2-Hexanone (MBK)	<0.400	<0.254	<0.443	<0.409	100	N/A	N/A	N/A
Isopropylbenzene	<0.0400	<0.0254	<0.0443	<0.0409	1,000	N/A	N/A	N/A
4-Isopropyltoluene	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
Mthyl tert-butyl ether	<0.0400	<0.0254	<0.0443	<0.0409	0.3	0.3	100	100
4-Methyl-2-pentanone (MBK)	<0.400	<0.254	<0.443	<0.409	0.5	N/A	N/A	N/A
Methylene chloride	<0.400	<0.254	<0.443	<0.409	0.1	0.1	100	100
Napthalene	<0.0400	<0.0254	<0.0443	<0.0409	4	4	100	100
n-Propylbenzene	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
Styrene	<0.0400	<0.0254	<0.0443	<0.0409	2	2	20	20
1,1,1,2-Tetrachloroethane	<0.0400	<0.0254	<0.0443	<0.0409	0.4	0.4	0.5	4
1,1,2,2-Tetrachloroethane	<0.0400	<0.0254	<0.0443	<0.0409	0.02	0.02	0.2	0.5
Tetrachloroethene	<0.0400	<0.0254	<0.0443	<0.0409	0.5	N/A	N/A	N/A
Toluene	<0.0400	<0.0254	<0.0443	<0.0409	90	90	500	500
1,2,3-Trichlorobenzene	<0.0400	<0.0254	<0.0443	<0.0409	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene	<0.0400	<0.0254	<0.0443	<0.0409	100	100	400	400
1,1,1-Trichloroethane	<0.0400	<0.0254	<0.0443	<0.0409	30	30	100	100
1,1,2-Trichloroethane	<0.0400	<0.0254	<0.0443	<0.0409	0.3	0.3	2	2
Trichloroethene	<0.0400	<0.0254	<0.0443	<0.0409	0.4	N/A	N/A	N/A
Trichlorofluoromethane	<0.0400	<0.0254	<0.0443	<0.0409	1,000	N/A	N/A	N/A
1,2,3-Trichloropropane	<0.0400	<0.0254	<0.0443	<0.0409	100	N/A	N/A	N/A
1,2,4-Trimethylbenzene	<0.0400	<0.0254	<0.0443	<0.0409	1,000	N/A	N/A	N/A
1,3,5-Trimethylbenzene	<0.0400	<0.0254	<0.0443	<0.0409	10	N/A	N/A	N/A
Vinyl chloride	<0.0400	<0.0254	<0.0443	<0.0409	0.3	0.3	0.3	0.3
m,p-Xylene	<0.0800	<0.0508	<0.0887	<0.0819	500	500	500	500
o-Xylene	<0.0400	<0.0254	<0.0443	<0.0409	500	500	500	500

Notes:

< ##### - Indicates less than the Method Detection Limits.

[redacted] - Values shaded exceed applicable Cleanup Standards.

Values in Bold exceed reportable concentrations (S-1).

N/A - Not Applicable.

See Figure 8 for Sampling Locations.

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Soil Sampling Results for VPH-EPH
Sampling Date: 1/19/04

VPH Analytes	GHC-1 SS-1 1/19/04 (mg/Kg)	GHC-1 SS-3 1/19/04 (mg/Kg)	GHC-2 SS-1 1/19/04 (mg/Kg)	GHC-2 SS-4 1/19/04 (mg/Kg)	GHC-3 SS-1 1/19/04 (mg/Kg)	GHC-3 SS-3 1/19/04 (mg/Kg)	GHC-4 SS-1 1/19/04 (mg/Kg)	RC S-1 (mg/Kg)	Method 1 Standards S-1/GW-1 (mg/Kg)	Method 1 Standards S-1/GW-2 (mg/Kg)	Method 2 Standards S-1/GW-3 (mg/Kg)
C_5-C_8 Aliphatics	<0.579	<0.587	<0.359	<0.458	<0.501	<0.306	<0.326	100	100	100	100
C_9-C_{12} Aliphatics	<1.93	<0.196	0.206	<0.153	0.321	<0.102	<0.109	1,000	1,000	1,000	1,000
C_9-C_{10} Aromatics	<1.93	<0.196	0.747	<0.153	0.786	<0.102	<0.109	100	100	100	100
Methy Tert Butyl Ether	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	<0.0204	<0.0218	0.3	0.3	100	100
Benzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	<0.0204	<0.0218	10	10	40	40
Toluene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	<0.0204	<0.0218	90	90	500	500
Ethylbenzene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	<0.0204	<0.0218	80	80	500	500
M & P XYLENE	<0.0773	<0.0783	<0.0478	<0.061	<0.0668	<0.0408	<0.0435	500	500	500	500
O-Xylene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	<0.0204	<0.0218	500	500	500	500
Naphthalene	<0.0386	<0.0392	<0.0239	<0.0305	<0.0334	<0.0204	<0.0218	4	4	100	100
EPH Analytes											
C_9-C_{18} Aliphatics	<34.7	<33	<32.1	<30.9	<31	<32.7	<31.3	100	1,000	1,000	1,000
C_{19}-C_{36} Aliphatics	<34.7	<33	41.1	<30.9	<31	<32.7	<31.3	2,500	2,500	2,500	2,500
C_{11}-C_{22} Aromatics	<34.7	<33	<32.1	<30.9	<31	<32.7	<31.3	200	200	800	800
Naphthalene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	4	4	100	100
2-Methyl Naphthalene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	4	4	500	500
Acenaphthylene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	100	100	100	100
Acenaphthene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	20	20	1,000	1,000
Fluorene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	400	400	1,000	1,000
Phenanthrene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	100	700	1,000	100
Anthracene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	1,000	1,000	1,000	1,000
Fluoranthene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	1,000	1,000	1,000	1,000
Pyrene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	700	700	700	700
Benzo (a) Anthracene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	0.7	0.7	0.7	0.7
Chrysene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	7	7	7	7
Benzo (b) Flouranthene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	0.7	0.7	0.7	0.7
Benzo (k) Flouranthene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	N/A	7	7	7
Benzo (a) Pyrene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	0.7	0.7	0.7	0.7
Indeno (1,2,3-cd) Pyrene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	0.7	0.7	0.7	0.7
Dibenzo (a,h) Anthracene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	0.7	0.7	0.7	0.7
Benzo (g,h,i) Perylene	<0.173	<0.164	<0.160	<0.154	<0.154	<0.163	<0.156	1,000	1,000	1,000	1,000

Notes:

< ##### - Indicates less than the Method Detection Limits.

[redacted] - Values shaded exceed applicable Cleanup Standards.

Values in Bold exceed reportable concentrations (S-1).

N/A - not applicable.

See Figure 8 for Sample Locations.

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Soil Sampling Results for VPH-EPH
Sampling Date: 1/19/04

VPH Analytes	GHC-4 SS-3 1/19/04 (mg/Kg)	GHC-5 SS-1 1/19/04 (mg/Kg)	GHC-5 SS-4 1/19/04 (mg/Kg)	GHC-6 SS-1 1/19/04 (mg/Kg)	GHC-6 SS-2 1/19/04 (mg/Kg)	GHC-7 SS-1 1/19/04 (mg/Kg)	GHC-7 SS-4 1/19/04 (mg/Kg)	RC S-1 (mg/Kg)	Method 1 Standards S-1/GW-1 (mg/Kg)	Method 1 Standards S-1/GW-2 (mg/Kg)	Method 2 Standards S-1/GW-3 (mg/Kg)
C_5-C_8 Aliphatics	<0.517	<0.407	<0.528	<0.6	<0.381	<0.665	<0.614	100	100	100	100
C_9-C_{12} Aliphatics	<0.172	<0.136	<0.176	<0.2	<0.127	<0.222	<0.205	1,000	1,000	1,000	1,000
C_9-C_{10} Aromatics	<0.172	<0.136	<0.176	<0.2	<0.127	<0.222	<0.205	100	100	100	100
Methy Tert Butyl Ether	<0.0345	<0.0272	<0.0352	<0.040	<0.0254	<0.0443	<0.0409	0.3	0.3	100	100
Benzene	<0.0345	<0.0272	<0.0352	<0.040	<0.0254	<0.0443	<0.0409	10	10	40	40
Toluene	<0.0345	<0.0272	<0.0352	<0.040	<0.0254	<0.0443	<0.0409	90	90	500	500
Ethylbenzene	<0.0345	<0.0272	<0.0352	<0.040	<0.0254	<0.0443	<0.0409	80	80	500	500
M & P XYLENE	<0.069	<0.0543	<0.0703	<0.080	<0.0508	<0.0887	<0.0819	500	500	500	500
O-Xylene	<0.0345	<0.0272	<0.0352	<0.040	<0.0254	<0.0443	<0.0409	500	500	500	500
Naphthalene	<0.0345	<0.0272	<0.0352	<0.040	<0.0254	<0.0443	<0.0409	4	4	100	100
EPH Analytes											
C_9-C_{18} Aliphatics	<35.6	<31.7	<30.2	<32.1	<33	<34.8	<37.3	100	1,000	1,000	1,000
C_{19}-C_{36} Aliphatics	<35.6	<31.7	<30.2	<32.1	<33	166	<37.3	2,500	2,500	2,500	2,500
C_{11}-C_{22} Aromatics	<35.6	<31.7	<30.2	<32.1	<33	38.4	<37.3	200	200	800	800
Naphthalene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	4	4	100	100
2-Methyl Naphthalene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	4	4	500	500
Acenaphthylene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	100	100	100	100
Acenaphthene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	20	20	1,000	1,000
Fluorene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	400	400	1,000	1,000
Phenanthrene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	100	700	1,000	100
Anthracene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	1,000	1,000	1,000	1,000
Fluoranthene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	1,000	1,000	1,000	1,000
Pyrene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	700	700	700	700
Benzo (a) Anthracene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	0.7	0.7	0.7	0.7
Chrysene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	7	7	7	7
Benzo (b) Flouranthene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	0.7	0.7	0.7	0.7
Benzo (k) Flouranthene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	N/A	7	7	7
Benzo (a) Pyrene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	0.7	0.7	0.7	0.7
Indeno (1,2,3-cd) Pyrene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	0.7	0.7	0.7	0.7
Dibenzo (a,h) Anthracene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	0.7	0.7	0.7	0.7
Benzo (g,h,i) Perylene	<0.177	<0.158	<0.151	<0.160	<0.165	<0.173	<0.186	1,000	1,000	1,000	1,000

Notes:
< ##### - Indicates less than the Method Detection Limits.
■ - Values shaded exceed applicable Cleanup Standards.
Values in **Bold** exceed reportable concentrations (S-1).
N/A - not applicable.
See Figure 8 for Sample Locations.

Initial Phase I Site Investigation
RTN 3-21915
Walpole Park South, Walpole, MA
Soil Sampling Results for Metals
Sampling Date:January 19, 2004

Total Metals	GHC-1 SS-1 1/19/2004 (mg/kg)	GHC-1 SS-3 1/19/2004 (mg/kg)	GHC-2 SS-1 1/19/2004 (mg/kg)	GHC-2 SS-4 1/19/2004 (mg/kg)	GHC-3 SS-1 1/19/2004 (mg/kg)	GHC-3 SS-3 1/19/2004 (mg/kg)	GHC-4 SS-1 1/19/2004 (mg/kg)	MCP RC S-1 (mg/Kg)	MCP Standards S-1/GW-1 (mg/Kg)	MCP Standards S-1/GW-2 (mg/Kg)	MCP Standards S-1/GW-3 (mg/Kg)
Silver	<2.19	<2.07	<1.98	<1.93	<2.05	<1.94	<2.02	100	100	100	100
Arsenic	3.85	4.13	<2.97	<2.89	<3.08	<2.91	<3.03	30	30	30	30
Barium	17.5	32.7	18.3	36.9	9.74	11.1	15.8	1,000	1,000	1,000	1,000
Cadmium	<0.548	<0.517	<0.495	<0.482	<0.514	<0.484	<0.505	30	30	30	30
Chromium	7.81	3.89	11.70	30.70	6.50	8.09	10.90	1,000	1,000	1,000	1,000
Lead	8.57	4.40	<1.98	18.8	3.07	<1.45	<1.61	300	300	300	300
Selenium	<3.29	<3.10	<2.97	<2.89	<3.08	<2.91	<3.03	400	400	400	400
Mercury	<0.208	<0.169	<0.166	<0.192	<0.191	<0.173	<0.186	20	20	20	20

Total Metals	GHC-4 SS-3 1/19/2004 (mg/kg)	GHC-5 SS-1 1/19/2004 (mg/kg)	GHC-5 SS-4 1/19/2004 (mg/kg)	GHC-6 SS-1 1/19/2004 (mg/kg)	GHC-6 SS-2 1/19/2004 (mg/kg)	GHC-7 SS-1 1/19/2004 (mg/kg)	GHC-7 SS-4 1/19/2004 (mg/kg)	MCP RC S-1 (mg/Kg)	MCP Standards S-1/GW-1 (mg/Kg)	MCP Standards S-1/GW-2 (mg/Kg)	MCP Standards S-1/GW-3 (mg/Kg)
Silver	<2.31	<2.17	<1.96	<2.10	<2.14	<2.14	<2.24	100	100	100	100
Arsenic	<3.47	<3.25	<2.94	<3.41	<3.47	<3.22	<3.37	30	30	30	30
Barium	42.7	14.1	11.3	17.2	34.9	19.8	24.6	1,000	1,000	1,000	1,000
Cadmium	<0.578	<0.542	<0.490	<0.525	<0.534	<0.536	<0.561	30	30	30	30
Chromium	4.68	9.71	11.00	9.95	5.55	9.38	12.70	1,000	1,000	1,000	1,000
Lead	<4.62	<2.06	<1.47	4.23	4.99	8.69	<1.96	300	300	300	300
Selenium	<3.47	<3.25	<2.94	<3.15	<3.21	<3.22	<3.37	400	400	400	400
Mercury	<0.204	<0.174	<0.175	<0.176	<0.184	<0.186	<0.206	20	20	20	20

Notes:

< ##### - Indicates less than the Method Detection Limits.

[redacted] - Values shaded exceed applicable Cleanup Standards.

Values in **Bold** exceed reportable concentrations (S-1).

N/A - not applicable.

See Figure 8 for Sample Locations.

Appendix L

Tabulated Walpole Board of Health Groundwater Analytical Data

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL-1												
Sample Date:	**Feb-87**	**Mar-87**	**Jun-87**	**Sep-87**	**Dec-87**	**Mar-88**	**Jun-88**	**Sep-88**	**Dec-88**	**Mar-89**	**Jun-89**	**Sep-89**	**Dec-89**
pH $_{field}$ (pH units)	7.8		6.15	5.4	6.15	NA	5.65	5.25	7.4	5.5	5	5.2	NA
PID $_{field}$	0.05		ND	ND	ND	0.05	ND	ND	ND	NA	ND	ND	NA
Specific Conductance $_{field}$ (umho cm)	224		100	244	141	140	163.5	138	128.2	157	109.8	145	NA
Arsenic	<0.005	<0.005	NA	0.011	NA	.434*	NA	<0.005	NA	NA	NA	<0.02	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	<0.1	<0.1	NA	0.29	NA	0.2	NA	<0.1	NA	NA	NA	<0.1	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	<0.005	<0.005	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA
Chromium, Total	<0.02	<0.02	NA	0.06	NA	0.09	NA	<0.02	NA	NA	NA	<0.02	NA
Chromium (VI)	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.119*	0.119	NA	<.01	NA	<0.10	NA	<0.1	NA	NA	NA	<0.1	NA
Mercury	<0.001	<0.001	NA	<0.001	NA	<0.001	NA	<0.001	NA	NA	NA	<0.001	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.005	<0.005	NA	<0.005	NA	<0.005	NA	<0.005	NA	NA	NA	<0.005	NA
Silver	<0.02	<0.02	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA
Sodium	8	8	NA	8.27	NA	211	NA	5.7	NA	NA	NA	8.2	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	1.66	1.66	NA	3.5	NA	0.4	NA	0.4	NA	NA	NA	5.1	NA
Phenols, Total	0.041	0.041	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA
Base Neutrals, Total (ppb)	ND	ND	NA	ND	NA	ND	NA	ND	NA	NA	NA	ND	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	1.83	1.83	NA	1.12	NA	3.3	NA	2.9	NA	NA	NA	5.3	NA
Fecal Coliform (CFU/100ml)	<4	<4	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	<4	<4	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA

Notes:

All values have units of ppm (mg/L) unless indicated otherwise.

A new MW-1 was installed on 16 June 2003: the old MW-1 had been damaged beyond repair. The new MW-1 is very close to the old MW-1.

The well was not sampled during the 2001 through 2003 rounds of sampling because it was damaged.

ND = None detected

NA = Not analyzed (Particular test was not performed on the given date)

* = Exceeds allowable limits

** = Lab contaminant found in blank at 7 ppb

The April 1993 through February 2004 groundwater data is obtained from the following document:

Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.

The April 2005 sampling was conducted as part of MCP site investigations.

Historical Groundwater Data - Walpole Park S

Sample Date:	WELL-1 Mar-90	Jun-90	Sep-90	Dec-90	Mar-91	Jun-91	Sep-91	Dec-91	Mar-92	Jun-92	Sep-92	Dec-92	Apr-93
pH $_{field}$ (pH units)	7.4	6	5.2	6	6.3	5.5	6.5	6.6	5.8	5.97	5.92	6.34	7.2
PID $_{field}$	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Specific Conductance $_{field}$ (umho cm)	133	180	133	184	128	186	177	204	159	236	72	142	268
Arsenic	NA	NA	<0.005	NA	<0.005	NA	NA	NA	<0.005	NA	<0.005	NA	0.005
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	<0.1	NA	0.1	NA	NA	NA	<0.1	NA	<0.1	NA	<0.10
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA	<0.02	NA	<0.005
Chromium, Total	NA	NA	<0.02	NA	0.05	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02
Chromium (VI)	NA	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	<0.1	NA	<0.10	NA	NA	NA	<0.1	NA	<0.1	NA	<0.005
Mercury	NA	NA	<0.001	NA	<0.001	NA	NA	NA	<0.001	NA	<0.001	NA	<0.001
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	<0.005	NA	<0.005	NA	NA	NA	<0.005	NA	<0.005	NA	<0.005
Silver	NA	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02
Sodium	NA	NA	8.2	NA	8.9	NA	NA	NA	8.29	NA	8.36	NA	7.1
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	18.8	NA	1	NA	NA	NA	5.2	NA	<0.2	NA	2.6
Phenols, Total	NA	NA	<0.025	NA	<0.01	NA	NA	NA	<0.02	NA	<0.01	NA	<0.01
Base Neutrals, Total (ppb)	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	ND
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	14**	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	2.87	NA	2.48	NA	NA	NA	1.69	NA	3.65	NA	1.15
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	0	NA	NA	NA	<10	NA	NA	NA	0
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	0	NA	NA	NA	<10	NA	NA	NA	0

Notes:

Historical Groundwater Data - Walpole Park S

Sample Date:	WELL-1										
	Jun-93	Dec-93	May-94	Mar-95	Apr-96	Apr-97	Apr-98	Apr-99	Apr-00	Apr-01	Apr-02
pH $_{field}$ (pH units)	7.09	7.19	5.68	5.69	5.87	5.67	5.72	5.7	5.36	NA	NA
PID $_{field}$	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Specific Conductance $_{field}$ (umho cm)	350.1	192	568	281	403	322	278.3	270.5	352	NA	NA
Arsenic	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	<0.01	0.08	0.02	0.03	0.02	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	<0.01	<0.005	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA
Chromium, Total	NA	<0.02	0.05	<0.02	<0.02	<0.02	NA	NA	NA	NA	NA
Chromium (VI)	NA	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	<0.05	0.068*	<0.001	<0.001	0.002	NA	NA	NA	NA	NA
Mercury	NA	<0.001	<0.0005	<0.001	<0.001	<0.001	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA
Silver	NA	<0.02	<0.02	<0.007	<0.007	<0.007	NA	NA	NA	NA	NA
Sodium	NA	10	33.6	13	15	17	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	6.2	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA
Phenols, Total	NA	<0.02	<0.02	0.12	<0.005	<0.005	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	2.6	1.7	3.33	4.8	3.3	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	0	<100	<2	<2	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	0	<100	<2	<2	NA	NA	NA	NA	NA

Notes:

Historical Groundwater Data - Walpole Park S				Method 1	Method 1	Method 1
		WELL-1				
Sample Date:	**Apr-03**	**Feb-04**	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	NA	6.4	6.82			
PID $_{field}$	NA	ND	ND			
Specific Conductance $_{field}$ (umho cm)	NA	513	512			
Arsenic	NA	ND	ND	0.01	NA	0.9
Antimony	NA	ND	ND	0.06	NA	8
Barium	NA	NA	NA	2	NA	50
Beryllium	NA	ND	ND	0.004	NA	0.05
Cadmium	NA	ND	ND	0.005	NA	0.004
Chromium, Total	NA	ND	ND	0.1	NA	0.3
Chromium (VI)	NA	NA	NA	0.1	NA	0.3
Copper	NA	0.0118	ND	NA	NA	NA
Lead	NA	ND	ND	0.015	NA	0.01
Mercury	NA	ND	ND	0.002	NA	0.02
Nickel	NA	ND	ND	0.1	NA	0.2
Selenium	NA	ND	ND	0.05	NA	0.1
Silver	NA	ND	ND	0.1	NA	0.007
Sodium	NA	39.2	NA	NA	NA	NA
Thallium	NA	ND	ND	0.002	NA	3
Zinc	NA	ND	0.074	5	NA	0.9
Oil and Grease, Total	NA	NA	NA			
Phenols, Total	NA	NA	NA			
Base Neutrals, Total (ppb)	NA	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	ND	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	ND	NA			
Volatile Organic Compounds, Total (ppb)	NA	ND	NA			
Nitrates/Nitrites	NA	NA	NA			
Fecal Coliform (CFU/100ml)	NA	NA	NA			
Fecal Streptococcus (CFU/100ml)	NA	NA	NA			

Notes:

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL 2											
Sample Date:	**Feb-87**	**Mar-87**	**Jun-87**	**Sep-87**	**Dec-87**	**Mar-88**	**Jun-88**	**Sep-88**	**Dec-88**	**Mar-89**	**Jun-89**	**Sep-89**
pH $_{field}$ (pH units)	7.1		6.25	6.25	5.85	NA	4.55	5.21	7.6	6.7	5.3	5.05
PID $_{field}$	0.05		ND	ND	ND	0.05	ND	ND	ND	NA	ND	ND
Specific Conductance $_{field}$ (umho cm)	1110		283	NA	1043	1576	311.8	622	697.6	491	375.5	309
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenols, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
chloroform												
bromodichloromethane												

Notes:

All values have units pf ppm (mg/ L) unless indicated otherwise.
ND = Not Detected
NA = Not analyzed (Particular test was not performed on the given date)
The April 1993 through February 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.
The April 2005 sampling was conducted as part of MCP site investigations.

Historical Groundwater Data - Walpole Park S

	WELL 2											
Sample Date:	**Dec-89**	**Mar-90**	**Jun-90**	**Sep-90**	**Dec-90**	**Mar-91**	**Jun-91**	**Sep-91**	**Dec-91**	**Mar-92**	**Jun-92**	**Sep-92**
pH $_{field}$ (pH units)	4.5	6.7	7.3	5.8	7.2	8.2	7	6.7	6.7	6.1	6.52	6.46
PID $_{field}$	ND	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance $_{field}$ (umho cm)	238.3	231	171.3	182	346	232	281	275	325	377	368	130
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenols, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
chloroform												
bromodichloromethane												

Notes:

All values have units pf ppm (mg/ L) unless indica
ND = Not Detected
NA = Not analyzed (Particular test was not per
The April 1993 through February 2004 groundw
Groundwater Sampling Report, Winter-Spring 2004,
The April 2005 sampling was conducted as part

Historical Groundwater Data - Walpole Park S

	WELL 2										
Sample Date:	**Dec-92**	**Apr-93**	**Jun-93**	**Dec-93**	**May-94**	**Mar-95**	**Apr-96**	**Apr-97**	**Apr-98**	**Apr-99**	**Apr-00**
pH $_{field}$ (pH units)	7.12	7.3	7.2	6.77	5.93	5.47	5.83	NA	5.98	6.33	6.68
PID $_{field}$	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND
Specific Conductance $_{field}$ (umho cm)	137	962.0	263.4	278.0	663.0	743.0	397.0	NA	848.0	827.0	1630.0
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	0.04	0.02	0.04
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001
Chromium, Total	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	<0.02	<0.02
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	<0.02	<0.02
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	0.002	<0.001
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	0.005	<0.005
Silver	NA	NA	NA	NA	NA	NA	NA	NA	<0.007	<0.007	<0.007
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	24.0	104.0	220.0
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0
Phenols, Total	NA	NA	NA	NA	NA	NA	NA	NA	0.086	<0.005	<0.005
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA	NA	0.8	0.66	1.11
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	<1	<2	<2
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	<1	<2	<2
chloroform											
bromodichloromethane											

Notes:ated otherwise.

rformed on the given date)

vater data is obtained from the following document:

Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.

of MCP site investigations.

Historical Groundwater Data - Walpole Park S

WELL 2

Sample Date:	Apr-01	Apr-02	Sep-03	Mar-03	Apr-03	Feb-04	Apr-05	Apr-06	Method 1 GW-1	Method 1 GW-2	Method 1 GW-3
pH $_{field}$ (pH units)	4.9	4.6	NA	5.0	5.0	5.7	6.18				
PID $_{field}$	ND	ND	NA	NA	ND	ND	ND				
Specific Conductance $_{field}$ (umho cm)	1555.0	1315.0	1,112.0	686.0	958	2506.9	1070				
Arsenic	ND	ND	NA	NA	ND	ND	ND	<0.01	10	NA	900
Antimony	NA	NA	NA	NA	NA	ND	ND	<0.01	6	NA	8000
Barium	0.04	<0.254	NA	NA	0.03	NA	NA	NA	2000	NA	50000
Beryllium	NA	NA	NA	NA	NA	ND	ND	<0.0025	4	NA	50
Cadmium	ND	ND	NA	NA	ND	ND	ND	<0.0011	5	NA	4
Chromium, Total	ND	<0.012	NA	NA	ND	ND	ND	<0.006	100	NA	300
Chromium (VI)	0.02	ND	NA	NA	ND	ND	NA	NA	100	NA	300
Copper	NA	NA	NA	NA	NA	ND	ND	0.02	NA	NA	NA
Lead	ND	0.018	NA	ND	ND	ND	ND	<0.01	15	NA	10
Mercury	ND	ND	NA	NA	ND	ND	ND	<0.0002	2	NA	20
Nickel	NA	NA	NA	NA	NA	ND	ND	<0.04	100	NA	200
Selenium	ND	ND	NA	NA	ND	ND	ND	<0.02	50	NA	100
Silver	ND	ND	NA	NA	ND	ND	ND	<0.005	100	NA	7
Sodium	233.0	NA	NA	194.0	225.0	362.0	NA	184	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	ND	ND	<0.02	2	NA	3000
Zinc	NA	NA	NA	NA	NA	ND	ND	0.079	5000	NA	900
Oil and Grease, Total	ND	1.5	NA	NA	ND	ND	NA	<1.4			
Phenols, Total	ND	ND	NA	NA	ND	ND	NA	<0.015			
Base Neutrals, Total (ppb)	ND	ND	NA	NA	ND	ND	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	ND	NA	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	ND	NA	NA			
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	ND	ND	NA	NA			
Nitrates/Nitrites	0.91	0.6	NA	NA	0.7	ND	NA	0.92			
Fecal Coliform (CFU/100ml)	<2	<2	NA	NA	<2	<2	NA	<5			
Fecal Streptococcus (CFU/100ml)	<2	<2	NA	NA	<2	<2/<2.2	NA	<5			
chloroform								18			
bromodichloromethane								7			

Notes:

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL 3											
Sample Date:	**Feb-87**	**Mar-87**	**Jun-87**	**Sep-87**	**Dec-87**	**Mar-88**	**Jun-88**	**Sep-88**	**Dec-88**	**Mar-89**	**Jun-89**	**Sep-89**
pH $_{field}$ (pH units)	732		7.05	6.25	6.3	NA	6.25	5.15	7.9	6.6	5.35	5.6
PID $_{field}$	0.05		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Specific Conductance $_{field}$ (umho cm)	259		135	338	355	296	263.9	281	295.8	333	131.8	165
Arsenic	NA	NA	NA	0.091*	NA	0.473*	NA	0.006	NA	<0.005	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	0.7	NA	0.5	NA	0.1	NA	<0.1	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA
Chromium, Total	NA	NA	NA	0.23*	NA	0.32*	NA	<0.02	NA	<0.02	NA	NA
Chromium (VI)	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	<.01	NA	<0.10	NA	<0.1	NA	<0.1	NA	NA
Mercury	NA	NA	NA	<0.001	NA	<0.001	NA	<0.001	NA	<0.001	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	<0.005	NA	<0.005	NA	<0.005	NA	<0.005	NA	NA
Silver	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA
Sodium	NA	NA	NA	38.4	NA	147	NA	5.9	NA	45	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	0.5	NA	0.2	NA	0.2	NA	0.2	NA	NA
Phenols, Total	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA	0.058	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	0.6	NA	1.9	NA	2.1	NA	1.89	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	0	NA	NA	NA	0	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	0	NA	NA	NA	0	NA	NA
chloroform												

Notes:

All values have units of ppm (mg l) unless indicated otherwise.

MW 3 was redrilled (replaced) in early May 2003. The new MW 3 is proximate to the old.

The well was not sampled during the April 2003 round of sampling because it was damaged.

ND = None detected

NA = Not analyzed (particular test was not performed on the given date)

* = Exceeds allowable limits

** = Butyl benzyl phthalate

The April 1994 through February 2004 groundwater data is obtained from the following document:

Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.

Historical Groundwater Data - Walpole Park S

	WELL 3										
Sample Date:	**Dec-89**	**Mar-90**	**Jun-90**	**Sep-90**	**Dec-90**	**Mar-91**	**Jun-91**	**Sep-91**	**Dec-91**	**Mar-92**	**Jun-92**
pH $_{field}$ (pH units)	6.1	6	6.3	5.5	6.8	6.5	6.5	6.4	6.8	6.1	6.39
PID $_{field}$	ND	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance $_{field}$ (umho cm)	186.6	149	284.2	197	355	210	263	291	256	257	259
Arsenic	NA	<0.005	NA	<0.005	NA	0.044	NA	NA	NA	<0.005	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	<0.1	NA	<0.1	NA	0.4	NA	NA	NA	<0.1	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA
Chromium, Total	NA	<0.02	NA	<0.02	NA	0.34*	NA	NA	NA	<0.02	NA
Chromium (VI)	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	<0.1	NA	<0.1	NA	0.2*	NA	NA	NA	<0.1	NA
Mercury	NA	<0.0005	NA	<0.001	NA	<0.001	NA	NA	NA	<0.001	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	<0.005	NA	<0.005	NA	<0.005	NA	NA	NA	<0.005	NA
Silver	NA	<0.02	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA
Sodium	NA	32.8	NA	32.5	NA	38.1	NA	NA	NA	34.6	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	7	NA	2.7	NA	NA	NA	3.3	NA
Phenols, Total	NA	<0.025	NA	<0.025	NA	0.01	NA	NA	NA	<0.02	NA
Base Neutrals, Total (ppb)	NA	ND	NA	ND	NA	ND	NA	NA	NA	ND	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	1.8	NA	1.55	NA	1.32	NA	NA	NA	1.16	NA
Fecal Coliform (CFU/100ml)	NA	<10	NA	NA	NA	0	NA	NA	NA	<10	NA
Fecal Streptococcus (CFU/100ml)	NA	<10	NA	NA	NA	0	NA	NA	NA	<10	NA
chloroform											

Notes:

Historical Groundwater Data - Walpole Park S

WELL 3

Sample Date:	Sep-92	Dec-92	Apr-93	Jun-93	Dec-93	May-94	Mar-95	Apr-96	Apr-97	Apr-98	Apr-99	Apr-00	Apr-01	Apr-02	May-02
pH $_{field}$ (pH units)	6.31	6.32	7.19	7.15	7.11	6.15	6.08	NA	NA	6.14	6.08	6.14	4.9	4.6	NA
PID $_{field}$	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	NA
Specific Conductance $_{field}$ (umho cm)	125	344	1002	285.0	338.0	309.0	283.0	NA	NA	292.0	356.1	457.0	4.2	854.0	NA
Arsenic	<0.005	NA	<0.005	NA	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	<0.1	NA	<0.10	NA	<0.01	0.14	0.01	NA	NA	NA	NA	NA	NA	<0.264	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	<0.02	NA	0.006	NA	NA	<0.005	<0.001	NA	NA	NA	NA	NA	NA	<0.0054	NA
Chromium, Total	<0.02	NA	<0.02	NA	<0.02	0.05	<0.02	NA	NA	NA	NA	NA	NA	<0.028	NA
Chromium (VI)	<0.02	NA	<0.02	NA	<0.02	<0.02	0.03	NA	NA	NA	NA	NA	NA	ND	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	<0.1	NA	<0.005	NA	<0.05	0.01	<0.001	NA	NA	NA	NA	NA	NA	0.059*	0.046*
Mercury	<0.001	NA	<0.001	NA	<0.001	<.0005	<0.001	NA	NA	NA	NA	NA	NA	<0.000223	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.005	NA	<0.005	NA	<0.05	<0.005	<0.005	NA	NA	NA	NA	NA	NA	ND	NA
Silver	<0.02	NA	<0.02	NA	<0.02	<0.02	<0.007	NA	NA	NA	NA	NA	NA	ND	NA
Sodium	34.7	NA	28.4	NA	47.0	36.1	28.0	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	<0.2	NA	1.6	NA	12.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	ND	NA
Phenols, Total	<0.01	NA	<0.01	NA	<0.02	<0.02	0.15	NA	NA	NA	NA	NA	NA	0.32	NA
Base Neutrals, Total (ppb)	ND	NA	ND	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	ND	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
Nitrates/Nitrites	1.43	NA	0.72	NA	1.3	1.1	1.39	NA	NA	NA	NA	NA	NA	3.07	NA
Fecal Coliform (CFU/100ml)	NA	NA	0	NA	NA	0	<100	NA	NA	NA	NA	NA	NA	<2	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	0	NA	NA	<100	NA	NA	NA	NA	NA	NA	<2	NA	NA
chloroform															

Notes:

Historical Groundwater Data - Walpole Park S

	WELL 3								Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Sep-02**	**Feb-03**	**Mar-03**	**Apr-03**	**May-03**	**Feb-04**	**Apr-05**	**Apr-06**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	NA	5.00	5.25	NA	6.0	5.8	6.22				
PID $_{field}$	NA	NA	NA	NA	NA	ND	2.8				
Specific Conductance $_{field}$ (umho cm)	NA	518.00	560.0	NA	560.0	582.1	527				
Arsenic	NA	NA	NA	NA	NA	ND	ND	<0.01	10	NA	900
Antimony	NA	NA	NA	NA	NA	ND	ND	<0.01	6	NA	8000
Barium	NA	NA	NA	NA	NA	NA	ND	NA	2000	NA	50000
Beryllium	NA	NA	NA	NA	NA	ND	ND	<0.0025	4	NA	50
Cadmium	NA	NA	NA	NA	NA	ND	ND	<0.0011	5	NA	4
Chromium, Total	NA	NA	NA	NA	NA	ND	ND	<0.006	100	NA	300
Chromium (VI)	NA	NA	NA	NA	NA	ND	ND	NA	100	NA	300
Copper	NA	NA	NA	NA	NA	0.216	0.006	0.9	NA	NA	NA
Lead	ND	ND	ND	NA	0.0223*	ND	ND	<0.01	15	NA	10
Mercury	NA	NA	NA	NA	NA	ND	ND	<0.0002	2	NA	20
Nickel	NA	NA	NA	NA	NA	ND	ND	<0.04	100	NA	200
Selenium	NA	NA	NA	NA	NA	ND	ND	<0.02	50	NA	100
Silver	NA	NA	NA	NA	NA	ND	ND	<0.005	100	NA	7
Sodium	72.5	66.40	76.5	NA	67.0	71.6	96.3	145	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	ND	ND	<0.02	2	NA	3000
Zinc	NA	NA	NA	NA	NA	0.238	0.029	0.127	5000	NA	900
Oil and Grease, Total	NA	NA	NA	NA	NA	ND	9	<1.4			
Phenols, Total	NA	NA	NA	NA	NA	ND	ND	<0.015			
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	5.9**	ND	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	ND	NA	NA			
Total Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	320	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	ND	ND	NA			
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	ND	ND	NA			
Nitrates/Nitrites	NA	NA	NA	NA	NA	1.0/ND	1.91/ND	1.8/ND			
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	<2	ND	<5			
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	80/30/10	ND		<5			
chloroform								11.6			

Notes:

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL 4											
Sample Date:	**Feb-87**	**Mar-87**	**Jun-87**	**Sep-87**	**Dec-87**	**Mar-88**	**Jun-88**	**Sep-88**	**Dec-88**	**Mar-89**	**Jun-89**	**Sep-89**
pH $_{field}$ (pH units)	7.62		6.35	5.9	6.8	NA	5.7	5.65	7.7	5.55	5.35	5.35
PID $_{field}$	0.1		ND	ND	ND	0.05	ND	ND	ND	NA	ND	ND
Specific Conductance $_{field}$ (umho cm)	178		114	258	153	95	149.2	132	123.3	147	96	97
Arsenic	<0.005	<0.005	NA	0.028	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	<0.1	<0.1	NA	0.42	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	<0.005	<0.005	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	<0.02	<0.02	NA	0.06	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.018	0.018	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.001	<0.001	NA	<0.001	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.005	<0.005	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	NA
Silver	<0.02	<0.02	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	9	9	NA	17.9	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	1.2	1.2	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
Phenols, Total	0.048	0.048	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	ND	<10	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA
methylene chloride	NA	8.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	0.59	0.59	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	<4	<4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	<4	<4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

All values have units of ppm (mg l) unless indicated otherwise.
ND = Not detected
NA = Not analyzed (Particular test was not performed on the given date)
* = Exceeds allowable limits.
** = C_{19}-C_{36} Aliphatics
The April 1993 through February 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.

Historical Groundwater Data - Walpole Park

	WELL 4											
Sample Date:	**Dec-89**	**Mar-90**	**Jun-90**	**Sep-90**	**Dec-90**	**Mar-91**	**Jun-91**	**Sep-91**	**Dec-91**	**Mar-92**	**Jun-92**	**Sep-92**
pH $_{field}$ (pH units)	6	6.2	5.2	5.4	6.6	6.7	6	5.8	6.6	5.9	6.09	5.89
PID $_{field}$	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance $_{field}$ (umho cm)	110.9	137	137.8	116	178	128	199	161	117	135	139	97
Arsenic	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	9.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenols, Total	NA	<0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Historical Groundwater Data - Walpole Park

WELL 4

Sample Date:	Dec-92	Apr-93	Jun-93	Dec-93	May-94	Mar-95	Apr-96	Apr-97	Apr-98	Apr-99	Apr-00	Apr-01	Apr-02	Sep-02
pH $_{field}$ (pH units)	6.45	7.35	7.16	6.75	5.9	5.76	5.83	5.99	5.66	5.77	5.27	5.2	4.9	NA
PID $_{field}$	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Specific Conductance $_{field}$ (umho cm)	135	591.0	266.5	201.0	138.0	214.0	192.0	136.0	159.0	203.9	305.5	168.7	258.2	100.0
Arsenic	NA	NA	NA	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	<0.01	NA	NA	0.02	0.01	0.01	0.02	0.03	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	<0.01	NA	NA	<0.001	0.003	<0.001	<0.001	<0.001	NA	NA	NA
Chromium, Total	NA	NA	NA	<0.02	NA	NA	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
Chromium (VI)	NA	NA	NA	<0.02	NA	NA	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	<0.05	NA	NA	<0.001	0.002	<0.001	<0.001	<0.001	NA	NA	ND
Mercury	NA	NA	NA	<0.001	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	<0.005	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
Silver	NA	NA	NA	<0.02	NA	NA	<0.007	<0.007	<0.007	<0.007	<0.007	NA	NA	NA
Sodium	NA	NA	NA	27.0	NA	NA	10.0	14.0	12.0	12.0	29.0	NA	NA	16.8
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	5.4	NA	NA	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA
Phenols, Total	NA	NA	NA	<0.02	NA	NA	<0.005	<0.005	0.027	<0.005	<0.005	NA	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	ND	NA	NA	25.0	ND	ND	ND	ND	NA	NA	NA
methylene chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	0.6	NA	NA	0.84	0.73	0.86	1.1	0.78	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	<2	<1	<1	<2	<2	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	<2	<1	<1	<2	<2	NA	NA	NA

Notes:

Historical Groundwater Data - Walpole Park		WELL 4		Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Apr-03**	**Feb-04**	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	NA	6.80	5.59			
PID $_{field}$	NA	ND	4.0			
Specific Conductance $_{field}$ (umho cm)	NA	256.40	149.6			
Arsenic	NA	ND	ND	10	NA	900
Antimony	NA	ND	ND	6	NA	8000
Barium	NA	NA	NA	2000	NA	50000
Beryllium	NA	ND	ND	4	NA	50
Cadmium	NA	ND	ND	5	NA	4
Chromium, Total	NA	ND	ND	100	NA	300
Chromium (VI)	NA	NA	NA	100	NA	300
Copper	NA	ND	ND	NA	NA	NA
Lead	NA	ND	ND	15	NA	10
Mercury	NA	ND	ND	2	NA	20
Nickel	NA	ND	ND	100	NA	200
Selenium	NA	ND	ND	50	NA	100
Silver	NA	ND	ND	100	NA	7
Sodium	NA	32.10	20.3	NA	NA	NA
Thallium	NA	ND	ND	2	NA	3000
Zinc	NA	ND	ND	5000	NA	900
Oil and Grease, Total	NA	NA	ND			
Phenols, Total	NA	NA	ND			
Base Neutrals, Total (ppb)	NA	NA	ND			
methylene chloride						
Extractable Petroleum Hydrocarbons (ppb)	NA	46.5**	NA			
Total Petroleum Hydrocarbons (ppb)	NA	NA	ND			
Volatile Petroleum Hydrocarbons (ppb)	NA	ND	ND			
Volatile Organic Compounds, Total (ppb)	NA	ND	NA			
Nitrates/Nitrites	NA	NA	3.14/ND			
Fecal Coliform (CFU/100ml)	NA	NA	ND			
Fecal Streptococcus (CFU/100ml)	NA	<2	NA			

Notes:

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL 5 SHALLOW										
Sample Date:	**Feb-87**	**Mar-87**	**Jun-87**	**Sep-87**	**Dec-87**	**Mar-88**	**Jun-88**	**Sep-88**	**Dec-88**	**Mar-89**	**Jun-89**
pH $_{field}$ (pH units)	8.15		7.6	7.45	6.75	NA	6.6	5.7	7.9	6.05	5.65
PID $_{field}$	0.05		ND	ND	ND	0.1	ND	ND	ND	NA	ND
Specific Conductance $_{field}$ (umho cm)	66		73	98	69	99	90.1	50	100.8	89	83
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenols, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

All values have units of ppm unless indicated otherwise.
ND = None detected
NA = Not analyzed (Particular test was not performed on the given date)
* = C_9-C_{18} Aliphatics
The April 1993 through February 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.
The April 2005 sampling was conducted as part of MCP site investigations.

Historical Groundwater Data - Walpole Park

	WELL 5 SHALLOW										
Sample Date:	**Sep-89**	**Dec-89**	**Mar-90**	**Jun-90**	**Sep-90**	**Dec-90**	**Mar-91**	**Jun-91**	**Sep-91**	**Dec-91**	**Mar-92**
pH $_{field}$ (pH units)	5.67	6	5.6	5.4	5.6	7.8	8.6	6.2	6.8	6.9	5.9
PID $_{field}$	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance $_{field}$ (umho cm)	48	66.5	80	82	83	104	96	107	106	110	113
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenols, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Historical Groundwater Data - Walpole Park

	WELL 5 SHALLOW													
Sample Date:	**Jun-92**	**Sep-92**	**Dec-92**	**Apr-93**	**Jun-93**	**Dec-93**	**May-94**	**Mar-95**	**Apr-96**	**Apr-97**	**Apr-98**	**Apr-99**	**Apr-00**	**Apr-01**
pH $_{field}$ (pH units)	6.59	6.5	6.45	7.29	7.46	7.35	6.05	5.94	6.06	6.15	5.88	5.92	5.73	5.0
PID $_{field}$	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1
Specific Conductance $_{field}$ (umho cm)	102	77	107	678.0	89.8	98.0	138.0	102.0	96.0	90.0	87.0	102.5	150.5	146.6
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenols, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

Historical Groundwater Data - Walpole Park

	WELL 5 SHALLOW					Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Apr-02**	**Sep-02**	**Apr-03**	**Feb-04**	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	5.2	NA	5.0	5.80	6.34			
PID $_{field}$	1.1	NA	ND	ND	ND			
Specific Conductance $_{field}$ (umho cm)	152	158	132.1	144.4	105.7			
Arsenic	NA	NA	ND	ND	ND	10	NA	900
Antimony	NA	NA	NA	ND	ND	6	NA	8000
Barium	NA	NA	0.0391	NA	NA	2000	NA	50000
Beryllium	NA	NA	NA	ND	ND	4	NA	50
Cadmium	NA	NA	ND	ND	ND	5	NA	4
Chromium, Total	NA	NA	ND	ND	ND	100	NA	300
Chromium (VI)	NA	NA	ND	NA	NA	100	NA	300
Copper	NA	NA	NA	ND	ND	NA	NA	NA
Lead	NA	ND	ND	ND	ND	15	NA	10
Mercury	NA	NA	ND	ND	ND	2	NA	20
Nickel	NA	NA	NA	ND	ND	100	NA	200
Selenium	NA	NA	ND	ND	ND	50	NA	100
Silver	NA	NA	ND	ND	ND	100	NA	7
Sodium	NA	13.8	10.7	9.10	NA	NA	NA	NA
Thallium	NA	NA	NA	ND	ND	2	NA	3000
Zinc	NA	NA	NA	ND	0.013	5000	NA	900
Oil and Grease, Total	NA	NA	ND	NA	NA			
Phenols, Total	NA	NA	ND	NA	NA			
Base Neutrals, Total (ppb)	NA	NA	ND	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	79.4*	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	ND	NA			
Volatile Organic Compounds, Total (ppb)	NA	NA	ND	ND	NA			
Nitrates/Nitrites	NA	NA	1.4	NA	NA			
Fecal Coliform (CFU/100ml)	NA	NA	<2	NA	NA			
Fecal Streptococcus (CFU/100ml)	NA	NA	<2	NA	NA			

Notes:

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL 5 DEEP															
Sample Date:	**Feb-87**	**Mar-87**	**Jun-87**	**Sep-87**	**Dec-87**	**Mar-88**	**Jun-88**	**Sep-88**	**Dec-88**	**Mar-89**	**Jun-89**	**Sep-89**	**Dec-89**	**Mar-90**	**Jun-90**	**Sep-90**
pH $_{field}$ (pH units)	8.15		8.15	NA	6.85	NA	5.95	5.5	7.7	6.7	5.45	6.2	6.05	6.7	5.6	6.1
PID $_{field}$	2.8		ND	ND	0.4	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific Conductance $_{field}$ (umho cm)	113		108	NA	88	80	63.1	84	70.8	103	62.5	64	79.1	103	89	64
Arsenic	<0.005	<0.005	NA	NA	NA	0.299*	NA	<0.005	NA	NA	NA	<0.02	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	<0.1	<0.1	NA	NA	NA	0.1	NA	0.4	NA	NA	NA	<0.1	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	<0.005	<0.005	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA	NA	NA	NA
Chromium, Total	<0.02	<0.02	NA	NA	NA	0.07	NA	<0.02	NA	NA	NA	<0.02	NA	NA	NA	NA
Chromium (VI)	NA	NA	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	<0.005	<0.005	NA	NA	NA	<0.10	NA	<0.1	NA	NA	NA	<0.1	NA	NA	NA	NA
Mercury	<0.001	<0.001	NA	NA	NA	<0.001	NA	<0.001	NA	NA	NA	<0.01	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.005	<0.005	NA	NA	NA	<0.005	NA	<0.005	NA	NA	NA	<0.005	NA	NA	NA	NA
Silver	<0.02	<0.02	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA	NA	NA	NA
Sodium	7	7	NA	NA	NA	73	NA	42	NA	NA	NA	8.3	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	1.6	1.6	NA	NA	NA	0.2	NA	0.4	NA	NA	NA	6	NA	NA	NA	NA
Phenols, Total	0.067	0.067	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	<0.02	NA	NA	NA	NA
Base Neutrals, Total (ppb)	ND	<10	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	0.082	0.082	NA	NA	NA	0.19	NA	0.03	NA	NA	NA	0.11	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	<4	<4	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	<4	<4	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

All values have units ppm unless indicated otherwise.
ND = None detected
NA = Not analyzed (Particular test was not performed on the given date)
The April 1993 through February 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.
The April 2005 sampling was conducted as part of MCP site investigations.

Historical Groundwater Data - Walpole Park

	WELL 5 DEEP													
Sample Date:	**Dec-90**	**Mar-91**	**Jun-91**	**Sep-91**	**Dec-91**	**Mar-92**	**Jun-92**	**Sep-92**	**Dec-92**	**Apr-93**	**Jun-93**	**Dec-93**	**May-94**	**Mar-95**
pH $_{field}$ (pH units)	6.9	8.5	6.8	6.6	7	7.2	6.89	6.62	6.75	7.42	7.22	7.45	6.87	7.06
PID $_{field}$	ND	0.05	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Specific Conductance $_{field}$ (umho cm)	100	86	98	92	104	93	97	75	104	215.0	105.9	89.0	106.0	101.0
Arsenic	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	<0.005	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	<0.10	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	0.02	NA	NA	NA	NA	NA	NA	NA	0.01	NA	NA	NA	NA
Chromium, Total	NA	0.05	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA
Chromium (VI)	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	<0.005	NA	NA	NA	NA
Mercury	NA	<0.001	NA	NA	NA	NA	NA	NA	NA	<0.001	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	<0.005	NA	NA	NA	NA	NA	NA	NA	<0.005	NA	NA	NA	NA
Silver	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA
Sodium	NA	7.4	NA	NA	NA	NA	NA	NA	NA	5.96	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	0.7	NA	NA	NA	NA	NA	NA	NA	1.4	NA	NA	NA	NA
Phenols, Total	NA	0.022	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	<0.02	NA	NA	NA	NA	NA	NA	NA	0.15	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	0	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	0	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	NA	NA

Notes:

Historical Groundwater Data - Walpole Park

	WELL 5 DEEP											Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Apr-96**	**Apr-97**	**Apr-98**	**Apr-99**	**Apr-00**	**Apr-01**	**Apr-02**	**Sep-02**	**Apr-03**	**Feb-04**	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	7.01	7.03	6.86	6.81	5.26	5.2	4.6	NA	5.0	5.80	6.63			
PID $_{field}$	ND	ND	ND	ND	ND	0.1	1.1	NA	ND	ND	ND			
Specific Conductance $_{field}$ (umho cm)	114.0	116.0	160.0	160.2	131.6	149.8	125.0	147.9	143.1	153.40	107.5			
Arsenic	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	10	NA	900
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	6	NA	8000
Barium	NA	NA	NA	NA	NA	1.02	NA	NA	NA	ND	NA	2000	NA	50000
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	4	NA	50
Cadmium	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	5	NA	4
Chromium, Total	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	100	NA	300
Chromium (VI)	NA	NA	NA	NA	NA	1.04	NA	NA	NA	NA	NA	100	NA	300
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Lead	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	ND	15	NA	10
Mercury	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	2	NA	20
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	100	NA	200
Selenium	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	50	NA	100
Silver	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	100	NA	7
Sodium	NA	NA	NA	NA	NA	7.21	NA	8.85	NA	5.26	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	2	NA	3000
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	5000	NA	900
Oil and Grease, Total	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA			
Phenols, Total	NA	NA	NA	NA	NA	1.12	NA	NA	NA	NA	NA			
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA			
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA			
Nitrates/Nitrites	NA	NA	NA	NA	NA	1.46	NA	NA	NA	NA	NA			
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	<3	NA	NA	NA	NA	NA			
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	<3	NA	NA	NA	NA	NA			

Notes:

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

WELL 6

Sample Date:	Feb-87	Mar-87	Jun-87	Sep-87	Dec-87	Mar-88	Jun-88	Sep-88	Dec-88	Mar-89	Jun-89	Sep-89	Dec-89	Mar-90	Jun-90	Sep-90	Dec-90
pH $_{field}$ (pH units)	7.6		6.35	5.65	5.8	NA	5.65	5.7	6.7	5.8	4.95	5.05	5.9	5.8	6.2	5.3	5.7
PID $_{field}$	0.05		ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	0.001	ND	ND
Specific Conductance $_{field}$ (umho cm)	166		97	122	129	140	129.6	102	129.5	169	122.4	86	100.6	136	170	134	194
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	<0.005	NA	<0.005	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1	NA	<0.1	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA
Chromium, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1	NA	<0.1	NA	<0.1	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.001	NA	<0.0005	NA	<0.001	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	NA	<0.005	NA	<0.005	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	<0.02	NA	<0.02	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.4	NA	10.8	NA	16.1	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	NA	5.2	NA	6.2	NA
Phenols, Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	<0.025	NA	<0.025	NA
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	2.1	NA	2.02	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10	NA	NA	NA

Notes:

All values have units of ppm unless indicated otherwise.
ND = None detected
NA = Not analyzed (Particular test was not performed on the given date)
* = Exceeds allowable limits
** = C_7-C_{18} Aliphatics
(1) = Chloroform; (2) = Bromodichloromethane; (3) = Toluene
The April 1993 through April 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.
The April 2005 sampling was conducted as part of MCP site investigations.

Historical Groundwater Data - Walpole Park :

	WELL 6													
Sample Date:	**Mar-91**	**Jun-91**	**Sep-91**	**Dec-91**	**Mar-92**	**Jun-92**	**Sep-92**	**Dec-92**	**Apr-93**	**Jun-93**	**Dec-93**	**May-94**	**Mar-95**	**Apr-96**
pH $_{field}$ (pH units)	5.9	5.3	5.7	6.3	5.4	5.64	6.62	NA	7.24	7.23	7.44	5.42	5.43	5.55
PID $_{field}$	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND
Specific Conductance $_{field}$ (umho cm)	151	375	346	314	313	307	110	NA	252.0	259.4	229.0	308.0	262.0	438.0
Arsenic	NA	NA	NA	NA	<0.005	NA	<0.005	NA	NA	NA	NA	<0.005	<0.005	<0.005
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	<0.1	NA	<0.1	NA	NA	NA	NA	0.48	0.04	0.08
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	NA	<0.005	<0.001	0.001
Chromium, Total	NA	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	NA	0.07	<0.02	<0.02
Chromium (VI)	NA	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	NA	<0.02	<0.02	<0.02
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	<0.1	NA	<0.1	NA	NA	NA	NA	0.03*	<0.001	<0.001
Mercury	NA	NA	NA	NA	<0.001	NA	<0.001	NA	NA	NA	NA	<.0005	<0.001	<0.001
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	<0.005	NA	<0.005	NA	NA	NA	NA	<0.005	<0.005	<0.005
Silver	NA	NA	NA	NA	<0.02	NA	<0.02	NA	NA	NA	NA	<0.02	<0.007	<0.007
Sodium	NA	NA	NA	NA	31.9	NA	27	NA	NA	NA	NA	32.5	23.0	27.0
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	18	NA	5.8	NA	NA	NA	NA	<5.0	<5.0	<5.0
Phenols, Total	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	NA	<0.02	0.09	<0.005
Base Neutrals, Total (ppb)	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	1.52	NA	1.6	NA	NA	NA	NA	1.7	1.74	2.2
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	0	<100	<2/2/4
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	<10	NA	NA	NA	NA	NA	NA	0	<100	<2

Notes:

Historical Groundwater Data - Walpole Park I

	WELL 6														Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Apr-97**	**Apr-98**	**Apr-99**	**Apr-00**	**Jun-00**	**Apr-01**	**Apr-02**	**Sep-02**	**Mar-03**	**Apr-03**	**May-03**	**Feb-04**	**Apr-04**	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	5.52	5.38	5.25	5.09	NA	5.2	4.9	NA	5.25	NA	6.00	5.9	5.8	6.30			
PID $_{field}$	ND	ND	ND	ND	NA	0.1	1	NA	NA	ND	NA	ND	NA	2.0			
Specific Conductance $_{field}$ (umho cm)	303.0	249.0	299.4	353.5	NA	475.0	560.0	510.0	577.00	NA	555.00	458.0	795	445.7			
Arsenic	<0.005	<0.005	<0.005	<0.005	NA	NA	ND	NA	NA	ND	NA	ND	ND	ND	10	NA	900
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.019*	ND	ND	6	NA	8000
Barium	0.04	0.01	0.05	0.04	NA	NA	<0.219	NA	NA	0.104	NA	NA	NA	NA	2000	NA	50000
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	4	NA	50
Cadmium	<0.001	<0.001	<0.001	<0.001	NA	NA	ND	NA	NA	ND	NA	ND	0.0012	ND	5	NA	4
Chromium, Total	<0.02	<0.02	<0.02	<0.02	NA	NA	<0.077	NA	NA	ND	NA	ND	ND	ND	100	NA	300
Chromium (VI)	<0.02	<0.02	<0.02	<0.03	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	100	NA	300
Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.0126	ND	NA	NA	NA
Lead	0.002	<0.001	0.003	<0.001	NA	NA	0.018	ND	ND	ND	NA	ND	ND	ND	15	NA	10
Mercury	<0.001	<0.001	<0.001	<0.001	NA	NA	ND	NA	NA	ND	NA	ND	ND	ND	2	NA	20
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	100	NA	200
Selenium	<0.005	<0.005	<0.005	<0.005	NA	NA	ND	NA	NA	ND	NA	ND	ND	ND	50	NA	100
Silver	<0.007	<0.007	<0.007	<0.007	NA	NA	ND	NA	NA	ND	NA	ND	ND	ND	100	NA	7
Sodium	25.0	109.0	27.0	35.0	NA	NA	NA	71.6	65.90	60.7	NA	55.2	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	2	NA	3000
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.032	5000	NA	900
Oil and Grease, Total	<5.0	<5.0	<5.0	<5.0	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA			
Phenols, Total	<0.005	0.113	<0.005	<0.005	NA	NA	0.23	NA	NA	ND	NA	0.249	NA	NA			
Base Neutrals, Total (ppb)	ND	ND	ND	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43**	NA	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA			
Volatile Organic Compounds, Total (ppb)	NA	NA	*5[1]	*9[1] /*6 [2]	*9.6[1] /*6.1 [2]	NA	2.49 [3]	NA	NA	NA	NA	NA	NA	NA			
Nitrates/Nitrites	1.7	2.6	1.3	0.89	NA	NA	NA	NA	NA	2.1	NA	2/ND	NA	NA			
Fecal Coliform (CFU/100ml)	<2	<1	<2	<2	NA	NA	<2	NA	NA	<2	NA	<2	NA	NA			
Fecal Streptococcus (CFU/100ml)	<2	<1	<2	<2	NA	NA	<2	NA	NA	<2	NA	4/16/8	NA	NA			

Notes:

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL 7							
Sample Date:	**Feb-87**	**Jun-87**	**Sep-87**	**Dec-87**	**Mar-88**	**Jun-88**	**Sep-88**	**Dec-88**
pH $_{field}$ (pH units)	NA	NA	NA	NA	NA	NA	NA	NA
PID $_{field}$	NA	NA	NA	NA	NA	NA	NA	NA
Specific Conductance $_{field}$ (umho cm)	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Chromium, Total	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA	NA
Phenols, Total	NA	NA	NA	NA	NA	NA	NA	NA
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA	NA	NA	NA	NA
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA	NA

Notes: All values have units of ppm unless indicated otherwise.
ND = Not detected
NA = Not analyzed (Particular test was not performed on the given date)
NM = Not meausred due to insufficient volume of water in the well.
The April 2001 through February 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.

Historical Groundwater Data - Walpole Par

	WELL 7				Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Mar-89**	**Jun-89**	**Sep-89**	**Dec-89**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	6.6	5.29	NA	NA			
PID $_{field}$	NA	NA	NA	NA			
Specific Conductance $_{field}$ (umho cm)	595	210.4	596	303.2			
Arsenic	<0.005	NA	NA	NA	10	NA	900
Antimony	<0.1	NA	NA	NA	6	NA	8000
Barium	<0.02	NA	NA	NA	2000	NA	50000
Beryllium	NA	NA	NA	NA	4	NA	50
Cadmium	<0.02	NA	NA	NA	5	NA	4
Chromium, Total	<0.02	NA	NA	NA	100	NA	300
Chromium (VI)	<0.02	NA	NA	NA	100	NA	300
Copper	NA	NA	NA	NA	NA	NA	NA
Lead	<0.1	NA	NA	NA	15	NA	10
Mercury	<0.001	NA	NA	NA	2	NA	20
Nickel	NA	NA	NA	NA	100	NA	200
Selenium	<0.005	NA	NA	NA	50	NA	100
Silver	<0.02	NA	NA	NA	100	NA	7
Sodium	97	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	2	NA	3000
Zinc	NA	NA	NA	NA	5000	NA	900
Oil and Grease, Total	0.4	NA	NA	NA			
Phenols, Total	0.063	NA	NA	NA			
Base Neutrals, Total (ppb)	ND	NA	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA			
Volatile Organic Compounds, Total (ppb)	NA	NA	NA	NA			
Nitrates/Nitrites	3.17	NA	NA	NA			
Fecal Coliform (CFU/100ml)	0	NA	NA	NA			
Fecal Streptococcus (CFU/100ml)	0	NA	NA	NA			

Notes:

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL 8							Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Apr-01**	**Apr-02**	**Mar-03**	**Apr-03**	**May-03**	**Feb-04**	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	5.5	NA	NA	5.0	NA	NA	NM			
PID $_{field}$	0.2	NA	NA	ND	NA	NA	NM			
Specific Conductance $_{field}$ (umho cm)	671	780	NA	454	NA	NA	NM			
Arsenic	NA	NA	NA	NA	NA	ND	NA	10	NA	900
Antimony	NA	NA	NA	NA	NA	ND	NA	6	NA	8000
Barium	NA	NA	NA	NA	NA	NA	NA	2000	NA	50000
Beryllium	NA	NA	NA	NA	NA	ND	NA	4	NA	50
Cadmium	NA	NA	NA	NA	NA	ND	NA	5	NA	4
Chromium, Total	NA	NA	NA	NA	NA	ND	NA	100	NA	300
Chromium (VI)	NA	NA	NA	NA	NA	NA	NA	100	NA	300
Copper	NA	NA	NA	NA	NA	0.0166	NA	NA	NA	NA
Lead	NA	NA	ND	NA	0.0264	ND	NA	15	NA	10
Mercury	NA	NA	NA	NA	NA	ND	NA	2	NA	20
Nickel	NA	NA	NA	NA	NA	ND	NA	100	NA	200
Selenium	NA	NA	NA	NA	NA	ND	NA	50	NA	100
Silver	NA	NA	NA	NA	NA	ND	NA	100	NA	7
Sodium	NA	NA	NA	NA	33.6	82.2	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	ND	NA	2	NA	3000
Zinc	NA	NA	NA	NA	NA	0.0302	NA	5000	NA	900
Oil and Grease, Total	NA	NA	NA	NA	NA	NA	NA			
Phenols, Total	NA	NA	NA	NA	NA	NA	NA			
Base Neutrals, Total (ppb)	NA	NA	NA	NA	NA	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	ND	NA			
Volatile Organic Compounds, Total (ppb)			NA	NA	NA	ND	NA			
Nitrates/Nitrites	NA	NA	NA	NA	NA	NA	NA			
Fecal Coliform (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA			
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	NA	NA	NA	NA			

Notes: All values have units of ppm unless indicated otherwise.
ND = Not detected
NA = Not analyzed (Particular test was not performed on the given date)
NM = Not meausred due to insufficient volume of water in the well.
The April 2001 through February 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	WELL 9									Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Apr-01**	**Apr-02**	**Sep-02**	**Feb-03**	**Mar-03**	**Apr-03**	**May-03**	**Feb-04**	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	5	4.9	NA	4.75	5	NA	6	6.1	6.58			
PID $_{field}$	0.4	1.4	NA	NA	NA	NA	NA	ND	ND			
Specific Conductance $_{field}$ (umho cm)	284.8	269.6	212	246	298.7	NA	310.7	215	152.5			
Arsenic	ND	NA	NA	NA	NA	NA	NA	ND	ND	10	NA	900
Antimony	NA	NA	NA	NA	NA	NA		ND	ND	6	NA	8000
Barium	0.02	NA	NA	NA	NA	NA	NA	NA	NA	2000	NA	50000
Beryllium	NA	NA	NA	NA	NA	NA	NA	ND	ND	4	NA	50
Cadmium	ND	NA	NA	NA	NA	NA	NA	ND	ND	5	NA	4
Chromium, Total	ND	NA	NA	NA	NA	NA	NA	ND	ND	100	NA	300
Chromium (VI)	0.04	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	300
Copper	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA
Lead	ND	NA	ND	ND	ND	NA	0.0231*	ND	ND	15	NA	10
Mercury	ND	NA	NA	NA	NA	NA	NA	ND	ND	2	NA	20
Nickel	NA	NA	NA	NA	NA	NA	NA	ND	ND	100	NA	200
Selenium	ND	NA	NA	NA	NA	NA	NA	ND	ND	50	NA	100
Silver	ND	NA	NA	NA	NA	NA	NA	ND	ND	100	NA	7
Sodium	22.8	NA	20.7	24.2	26.8	NA	28	18.9	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA		ND	ND	2	NA	3000
Zinc	NA	NA	NA	NA	NA	NA	NA	ND	0.032	5000	NA	900
Oil and Grease, Total	ND	NA	NA	NA	NA	NA	NA	NA	NA			
Phenols, Total	ND	NA	NA	NA	NA	NA	NA	NA	NA			
Base Neutrals, Total (ppb)	ND	NA	NA	NA	NA	NA	NA	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	95**	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA	NA	NA	NA	NA	NA	NA	ND	NA			
Volatile Organic Compounds, Total (ppb)			NA	NA	NA	NA	NA	ND	NA			
Nitrates/Nitrites	1.71	NA	NA	NA	NA	NA	NA	NA	NA			
Fecal Coliform (CFU/100ml)	<2	NA	NA	NA	NA	NA	NA	NA	NA			
Fecal Streptococcus (CFU/100ml)	<2	NA	NA	NA	NA	NA	NA	NA	NA			

Notes: All values have units of ppm unless indicated otherwise.
ND = None detected
NA = Not analyzed (Particular test was not performed on the given date)
* = Exceeds allowable limits
** = C_{11}-C_{22} Aromatics
The April 2001 through February 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.
The April 2005 sampling was conducted as part of MCP site investigations.

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts		Method I	Method I	Method I
	GHC-2	Standard	Standard	Standard
Sample Date:	Apr-05	GW-1	GW-2	GW-3
pH $_{field}$ (pH units)	6.8			
PID $_{field}$	0.4			
Specific Conductance $_{field}$ (umho cm)	518			
Arsenic	ND	10	NA	900
Antimony	ND	6	NA	8000
Barium	NA	2000	NA	50000
Beryllium	ND	4	NA	50
Cadmium	ND	5	NA	4
Chromium, Total	ND	100	NA	300
Chromium (VI)	NA	100	NA	300
Copper	ND	NA	NA	NA
Lead	ND	15	NA	10
Mercury	ND	2	NA	20
Nickel	ND	100	NA	200
Selenium	ND	50	NA	100
Silver	ND	100	NA	7
Sodium	151	NA	NA	NA
Thallium	ND	2	NA	3000
Zinc	0.023	5000	NA	900
Oil and Grease, Total	ND			
Phenols, Total	ND			
Base Neutrals, Total (ppb)	ND			
Extractable Petroleum Hydrocarbons (ppb)	NA			
Total Petroleum Hydrocarbons (ppb)	ND			
Volatile Petroleum Hydrocarbons (ppb)	NA			
Volatile Organic Compounds, Total (ppb)	ND			
Nitrates/Nitrites	0.93/ND			
Fecal Coliform (CFU/100ml)	ND			
Fecal Streptococcus (CFU/100ml)	ND			

All values have units of ppm unless indicated otherwise.
ND = Not detected
NA = Not analyzed (Particular test was not performed on the given date)

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts	GHC-5	Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	5.86			
PID $_{field}$	ND			
Specific Conductance $_{field}$ (umho cm)	416.7			
Arsenic	ND	10	NA	900
Antimony	ND	6	NA	8000
Barium	NA	2000	NA	50000
Beryllium	ND	4	NA	50
Cadmium	ND	5	NA	4
Chromium, Total	ND	100	NA	300
Chromium (VI)	NA	100	NA	300
Copper	ND	NA	NA	NA
Lead	ND	15	NA	10
Mercury	ND	2	NA	20
Nickel	0.008	100	NA	200
Selenium	ND	50	NA	100
Silver	ND	100	NA	7
Sodium	NA	NA	NA	NA
Thallium	ND	2	NA	3000
Zinc	0.053	5000	NA	900
Oil and Grease, Total	NA			
Phenols, Total	NA			
Base Neutrals, Total (ppb)	NA			
Extractable Petroleum Hydrocarbons (ppb)	NA			
Total Petroleum Hydrocarbons (ppb)	NA			
Volatile Petroleum Hydrocarbons (ppb)	NA			
Volatile Organic Compounds, Total (ppb)	NA			
Nitrates/Nitrites	NA			
Fecal Coliform (CFU/100ml)	NA			
Fecal Streptococcus (CFU/100ml)	NA			

All values have units of ppm unless indicated otherwise.
ND = Not detected
NA = Not analyzed (Particular test was not performed on the given date)
The April 2005 sampling was conducted as part of MCP site investigations.

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts	GHC-6		Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Feb-04**	**Apr-05**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	6.3	6.15			
PID $_{field}$	ND	ND			
Specific Conductance $_{field}$ (umho cm)	870	897.0			
Arsenic	ND	ND	10	NA	900
Antimony	ND	ND	6	NA	8000
Barium	NA	NA	2000	NA	50000
Beryllium	ND	ND	4	NA	50
Cadmium	ND	ND	5	NA	4
Chromium, Total	0.00758	ND	100	NA	300
Chromium (VI)	NA	NA	100	NA	300
Copper	0.00557	ND	NA	NA	NA
Lead	ND	ND	15	NA	10
Mercury	ND	ND	2	NA	20
Nickel	ND	ND	100	NA	200
Selenium	ND	ND	50	NA	100
Silver	ND	ND	100	NA	7
Sodium	134	NA	NA	NA	NA
Thallium	ND	ND	2	NA	3000
Zinc	ND	0.014	5000	NA	900
Oil and Grease, Total	NA	NA			
Phenols, Total	NA	NA			
Base Neutrals, Total (ppb)	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	37.8**	NA			
Volatile Petroleum Hydrocarbons (ppb)	ND	NA			
Volatile Organic Compounds, Total (ppb)	ND	NA			
Nitrates/Nitrites	NA	NA			
Fecal Coliform (CFU/100ml)	NA	NA			
Fecal Streptococcus (CFU/100ml)	NA	NA			

All values have units of ppm unless indicated otherwise.
ND = None detected
NA = Not analyzed (Particular test was not performed on the given date)
** = C_9-C_{18} Aliphatics
The February 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.
The April 2005 sampling was conducted as part of MCP site investigations.

Historical Groundwater Data - Walpole Park South, Walpole, Massachusetts

	GHC-7				Method 1 Standard	Method 1 Standard	Method 1 Standard
Sample Date:	**Feb-04**	**Apr-04**	**Apr-05**	**Apr-06**	**GW-1**	**GW-2**	**GW-3**
pH $_{field}$ (pH units)	6.1	6.1	NA				
PID $_{field}$	ND	NA	NA				
Specific Conductance $_{field}$ (umho cm)	848	848	NA				
Arsenic	ND	ND	NA	<0.01	10	NA	900
Antimony	0.0122*	0.0122*	NA	<0.01	6	NA	8000
Barium	NA	NA	NA	NA	2000	NA	50000
Beryllium	ND	ND	NA	<0.0025	4	NA	50
Cadmium	ND	ND	NA	<0.0011	5	NA	4
Chromium, Total	ND	ND	NA	<0.006	100	NA	300
Chromium (VI)	NA	NA	NA	NA	100	NA	300
Copper	0.00999	0.00999	NA	0.53	NA	NA	NA
Lead	ND	ND	NA	<0.01	15	NA	10
Mercury	ND	ND	NA	<0.0002	2	NA	20
Nickel	ND	ND	NA	<0.04	100	NA	200
Selenium	ND	ND	NA	<0.02	50	NA	100
Silver	ND	ND	NA	<0.005	100	NA	7
Sodium	101	NA	NA	188	NA	NA	NA
Thallium	ND	ND	NA	<0.02	2	NA	3000
Zinc	ND	0.294	NA	0.063	5000	NA	900
Oil and Grease, Total	NA	NA	NA	<1.4			
Phenols, Total	NA	NA	NA	<0.015			
Base Neutrals, Total (ppb)	NA	NA	NA	NA			
Extractable Petroleum Hydrocarbons (ppb)	72.1**	72.1**	NA	NA			
Volatile Petroleum Hydrocarbons (ppb)	ND	NA	NA	NA			
Volatile Organic Compounds, Total (ppb)	ND	NA	NA	NA			
Nitrates/Nitrites	NA	NA	NA	2.3/ND			
Fecal Coliform (CFU/100ml)	NA	NA	NA	<5			
Fecal Streptococcus (CFU/100ml)	NA	NA	NA	<5			
chloroform				9.31	5	400	10000
bromodichloromethane					3	6	50000

All values have units ppm unless indicated otherwise.
ND = Not detected
NA = Not analyzed (Particular test was not performed on the given date)
* = Exceeds allowable limit
** = C_{19}-C_{36} Aliphatics
The 2004 groundwater data is obtained from the following document:
Groundwater Sampling Report, Winter-Spring 2004, Walpole Park South, Walpole, Massachusetts. August 10, 2004. prepared by Carr Research Laboratory, Inc.
GHC-7 was not sampled during the April 2005 round of sampling because it was destroyed.

Appendix M

Town of Walpole Water Departments 2004 and 2005 Water Quality Reports

2004 Water Quality Report

Proudly Presented By:

Walpole Water Department

PWS ID#: MA3307000

Continuing Our Commitment

We are once again proud to present to you our annual water quality report. Over the years we have strived to produce drinking water that meets or exceeds all state and federal drinking water standards. We continually strive to adopt new and better methods of delivering to you the best quality drinking water. As regulations and drinking water standards change, we are committed to incorporating these changes system-wide in an expeditious and cost-effective manner.

As we enter our 110th year of providing public water service, we will diligently maintain our objective of providing quality drinking water. Currently, this objective is achieved through the operation of municipally owned treatment facilities for each of Walpole's two aquifers. The newly constructed H.E. Willis Plant located on Leonard Road was placed into service in June of 2004 and utilizes a technologically advanced treatment system. The Edward J. Delaney Plant (formerly School Meadow Brook) has been operating since June of 1998 and continues to provide the desired level of treatment. If you have any health concerns related to the information in this report, we encourage you to contact your health care provider.

The office of the Walpole Water Department is located on the second floor of the Town Hall at 135 School Street. The normal office hours are Monday through Friday from 8:00 a.m. to 4:00 p.m. For more information about this report, or for any questions relating to your drinking water, please call Rick Mattson, Superintendent of Sewer and Water, at (508) 660-7307.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets, and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

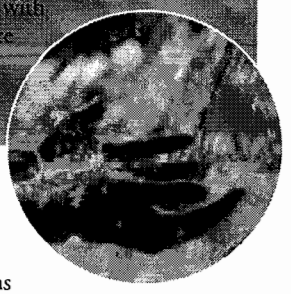
Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html.

Where Does My Water Come From?

The water supply for the Town of Walpole consists of groundwater, which is drawn from two underground water-bearing formations called aquifers. These aquifers were created thousands of years ago at the end of the Great Ice Age.

The School Meadow Brook Aquifer, located in the southern section of town, currently has seven wells that have historically provided three-quarters of the town's total water production. The Mine Brook Aquifer, located in the west-northwestern section of town, now has four sets of operational wells that will allow for a more evenly balanced distribution of water production between the two aquifers.

As an alternative source of water, Walpole has interconnections with the towns of Foxboro and Norwood. These connections, which are located on Washington, Water, and Union Streets, have not been used in recent years; however, they are maintained on a regular basis to ensure their availability if needed.

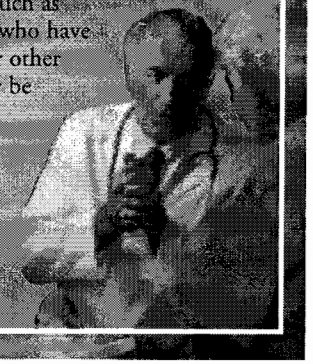


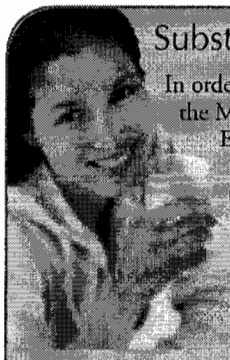
Source Water Assessment

The Massachusetts Department of Environmental Protection has completed a Source Water Assessment and Protection (SWAP) report for the Town of Walpole's water supply. The report contains information relative to land uses in the water supply areas of both the Mine Brook and School Meadow Brook aquifer wells, which are highly susceptible to potentially being contaminated. It also contains several recommendations including the use of best management practices and the performance of regular watershed inspections. These recommendations are being addressed through annual sanitary surveys of the aquifer areas and the management of stormwater discharges. As a member of the community you can assist by limiting the use of pesticides and fertilizers on your lawn and by properly disposing of hazardous household chemicals. Anyone who wishes to read the report in its entirety may do so by visiting the water or health department offices located in the Town Hall or by going online at www.state.ma.us/dep/brp/dws. For more information please call the Walpole Water Department at (508) 660-7309.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.





Substances That Might Be in Drinking Water

In order to ensure that tap water is safe to drink, the Massachusetts Department of Environmental Protection (MADEP) and the U.S. Environmental Protection Agency (U.S. EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Contamination from Cross-Connections

Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Fertilizers, cesspools, or garden chemicals may contaminate garden hoses that are left lying on the ground. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer to make sure that it is providing maximum protection.

For more information, visit the Web site of the American Backflow Prevention Association for a discussion of current issues (www.abpa.org).

What's In My Water?

We are pleased to report that during the past year, the water delivered to your home or business complied with all state and federal drinking water requirements. Over the course of each year, the Water Department conducted more than 400 water quality tests looking for bacteria, nitrates, volatile organic contaminants, and total trihalomethanes. For your information, we have compiled the table below to show what substances were detected in our drinking water during 2004. With the exception of lead in a few homes, all of the substances listed below are under the Maximum Contaminant Level (MCL) set by the U.S. EPA; we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE LOW HIGH	VIOLATION	TYPICAL SOURCE
Alpha emitters (pCi/L)	2003	15	0	1.5	0.4-1.5	No	Erosion of natural deposits
Beta/photon emitters (pCi/L)[1]	2003	50	0	11	NA	No	Decay of natural and man-made deposits
Combined Radium (pCi/L)	2003	5	0	0.5	ND-0.5	No	Erosion of natural deposits
Fluoride (ppm)	2004	4	4	1.01	0.92-1.01	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2004	60	NA	7.95[2]	3.5-15	No	By-product of drinking water disinfection
Nitrate (ppm)	2004	10	10	0.84	0.41-0.84	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2003	4	4	0.13	ND-0.13	No	Herbicide runoff
Total Coliforms (% positive samples)[3]	2004	5% positive monthly samples	0	3.8	NA	No	Naturally present in the environment
TTHMs [Total Trihalomethanes] (ppb)	2004	80	NA	32.75[2]	8-60	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from 30 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH%TILE)	HOMES ABOVE ACTION LEVEL	ACTION LEVEL EXCEEDANCE	TYPICAL SOURCE
Copper (ppm)	2004	1.3	1.3	0.74	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2004	15	0	70	3	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

NA: Not applicable

ND: Not detected

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

OTHER SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2004	13	2.0-13.0	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2004	2.0	0.6-2.0	By-product of drinking water disinfection
Chloroform (ppb)	2004	39.0	0.08-39.0	By-product of drinking water disinfection
Sulfate (ppm)	2004	10.0	6.7-10.0	Naturally occurring
Sodium (ppm)[4]	2004	45	19-45	Erosion of natural deposits and road de-icing agents

Footnotes:

[1] The MCL for beta/photon emitters is written as 4 mrem/year. The U.S. EPA considers 50 pCi/L as the level of concern for beta emitters.

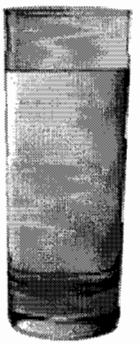
[2] *Amount Detected* is the highest running annual average.

[3] During the month of June, two of 52 samples indicated the presence of coliform bacteria. All remaining samples collected during 2004 were negative and absent of coliform.

[4] Sodium-sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the sodium levels where exposures are being carefully controlled.

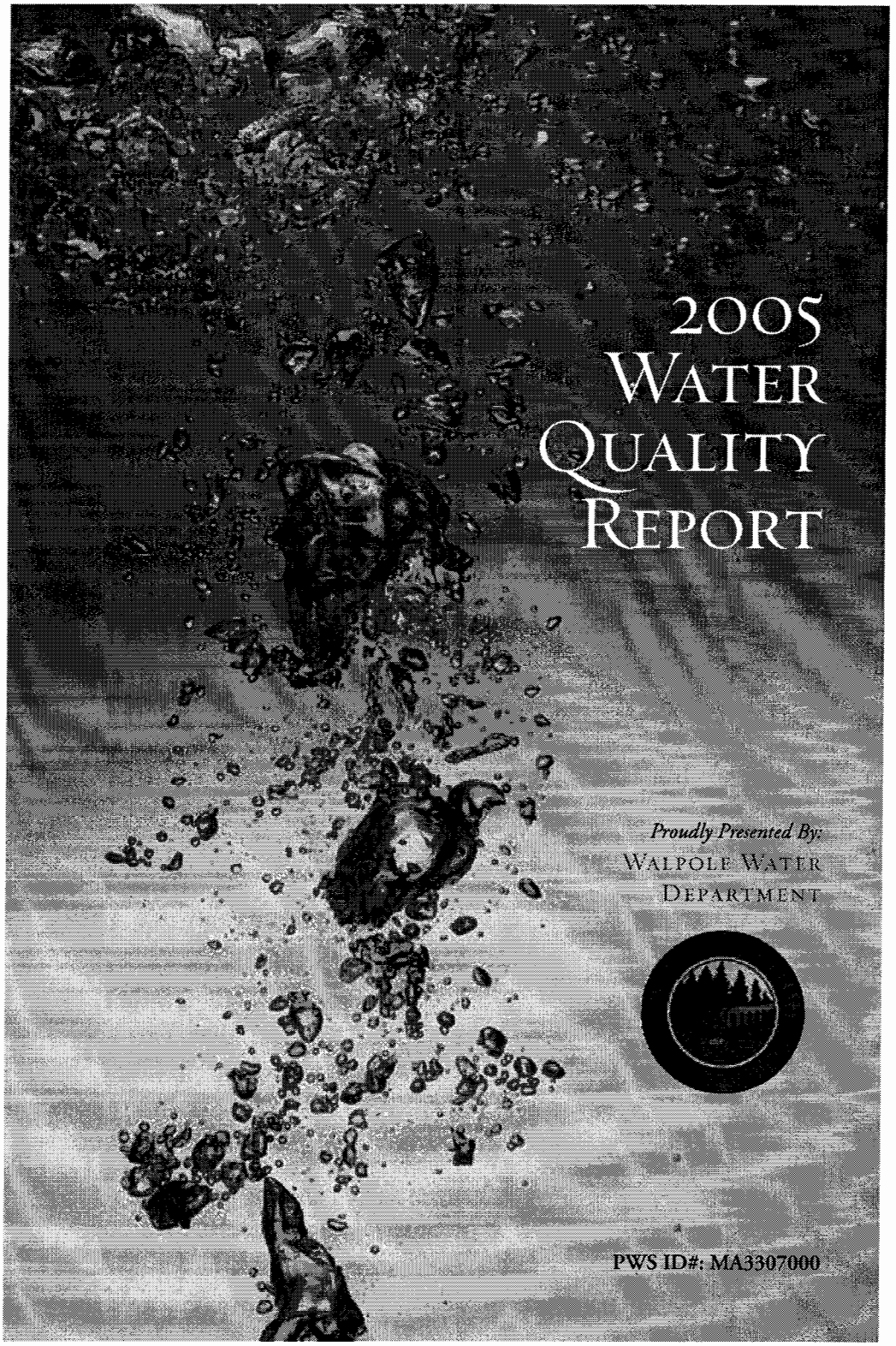
Community Participation

The Board of Sewer and Water Commissioners holds regularly scheduled meetings on the second and fourth Monday of each month. Those consumers who wish to attend or participate at meetings should look for postings in the Town Hall or call the secretary for details at (508) 660-7309. The public is invited to attend all meetings.



Lead in Drinking Water

During July, August, and September, the Water Department collected a round of water samples and had them analyzed for lead and copper. Of the 31 samples that were collected from 30 sites, only four exceeded the lead action level of 15 ppb (parts per billion). Since the lead value that was recorded at the 90th percentile exceeded the 15-ppb level, a violation of a corrosion control treatment technique occurred and as a result, a public education program was implemented by the Water Department. In an effort to reduce the lead levels, the pH was adjusted to better control corrosion. Additional sampling will be performed to check the effectiveness of this treatment technique; water treatment will continue in accordance with established regulations. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your homes plumbing. Infants and children who drink water that contains lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. If you are concerned about lead levels in your home's water, you may wish to have your water tested. To reduce lead content, flush your tap for 30 seconds to 2 minutes before using tap water. For more information call the Safe Drinking Water Hotline at (800) 426-4791.



2005 Water Quality Report

Proudly Presented By:

Walpole Water Department

PWS ID#: MA3307000

Continuing Our Commitment

We are once again proud to present to you our annual water quality report. Over the years we have strived to produce drinking water that meets or exceeds all state and federal drinking water standards. We continually strive to adopt new and better methods of delivering to you the best quality drinking water. As regulations and drinking water standards change, we are committed to incorporating these changes system-wide in an expeditious and cost-effective manner.

As we enter our 111th year of providing public water service, we all diligently maintain our objective of providing quality drinking water. Currently, this objective is achieved through the operation of municipally owned treatment facilities for each of Walpole's two aquifers. The newly constructed H.E. Willis Plant located on Leonard Road was placed into service in June of 2004 and utilizes a technologically advanced treatment system. The Edward J. Delaney Plant (formerly School Meadow Brook) has been operating since June of 1998 and continues to provide the desired level of treatment. If you have any health concerns related to the information in this report, we encourage you to contact your health care provider.

The office of the Walpole Water Department is located on the second floor of the Town Hall at 135 School Street. The normal office hours are Monday, Wednesday and Thursday from 8:00 a.m. to 4:00 p.m.; Tuesday from 8:00 a.m. to 8:00 p.m.; and Friday from 8:00 a.m. to 12:00 p.m. For more information about this report, or for any questions relating to your drinking water, please call Rick Mattson, Superintendent of Sewer and Water, at (508) 660-7307.

Where Does My Water Come From?

The water supply for the Town of Walpole consists of groundwater, which is drawn from two underground water-bearing formations called aquifers. These aquifers were created thousands of years ago at the end of the Great Ice Age.

The School Meadow Brook Aquifer, located in the southern section of town, currently has seven wells that have historically provided three-quarters of the town's total water production. The Mine Brook Aquifer, located in the west-northwestern section of town, now has four sets of operational wells that will allow for a more evenly balanced distribution of water production between the two aquifers.

As an alternative source of water, Walpole has interconnections with the towns of Foxboro and Norwood. These connections, which are located on Washington, Water and Union Streets, have not been used in recent years; however, they are maintained on a regular basis to ensure their availability if needed.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

The Massachusetts Department of Environmental Protection has completed a Source Water Assessment and Protection (SWAP) report for the Town of Walpole's water supply. The report contains information relative to land uses in the water supply areas of both the Mine Brook and School Meadow Brook aquifer wells, which are highly susceptible to potentially being contaminated. It also contains several recommendations including the use of best management practices and the performance of regular watershed inspections. These recommendations are being addressed through annual sanitary surveys of the aquifer areas and the management of stormwater discharges. As a member of the community, you can assist by limiting the use of pesticides and fertilizers on your lawn and by properly disposing of hazardous household chemicals. Anyone who wishes to read the report in its entirety may do so by visiting the water or health department offices located in the Town Hall or by going online at www.state.ma.us/dep/brp/dws. For more information, please call the Walpole Water Department at (508) 660-7309.

Community Participation

The Board of Sewer and Water Commissioners holds regularly scheduled meetings on the second and fourth Monday of each month. Those consumers who wish to attend or participate at meetings should look for postings in the Town Hall or call the secretary for details at (508) 660-7309. The public is invited to attend all meetings.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets, and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html.

Substances That Might Be in Drinking Water

In order to ensure that tap water is safe to drink, the Massachusetts Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (U.S. EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Monitoring Violation

As part of the July through September monitoring period, samples were to have been collected from three schools in rown. This notification is to inform the water consumers of Walpole that these samples were not collected until early October, which was outside of the timeframe that was mandated by the Department of Environmental Protection and the U.S. EPA. This action constitutes a monitoring violation, which requires public notification, as specified in 310 CMR: 22:16 Massachusetts Drinking Water Regulations.

To achieve and maintain compliance with the monitoring requirements, the Walpole Water Department will collect the required samples as specified and in accordance with the DEP-approved schedule.

Questions regarding this notice should be directed to Rick Mattson, Superintendent of Sewer and Water, at (508) 660-7309.

Lead in Drinking Water

During June, July, August and September, the Water Department collected a round of water samples and had them analyzed for lead and copper. Of the 62 samples that were collected, only seven exceeded the lead Action Level of 15 ppb (parts per billion). Since the lead value that was recorded at the 90th percentile exceeded the 15-ppb level, a violation of a corrosion control treatment technique occurred and, as a result, a public education program was implemented by the Walpole Water Department. In addition to this program, we are working with the Massachusetts Department of Environmental Protection and our consultants to improve this situation. In the interim, to reduce the lead levels, the pH has been adjusted to better control corrosion. Water quality monitoring will also be performed to check the effectiveness of this treatment technique and water treatment will continue in accordance with established regulations. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your homes plumbing. Infants and children who drink water that contains lead in excess of the Action Level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. If you are concerned about lead levels in your home's water, you may wish to have your water tested. To reduce lead content, flush your tap for 30 seconds to 2 minutes before using tap water. For more information call the Safe Drinking water Hotline at (800) 426-4791.

Table Definitions

90th Percentile: Out of every 10 homes sampled, 9 were at or below this level.

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

MFL (Million Fibers per liter): Measurement of the amount of fibrous material in one liter of sample.

NA: Not applicable

ND: Not detected

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

What's In My Water?

Over the course of this year, the Walpole Water Department conducted more than 400 water quality tests looking for bacteria, nitrates, organics and other contaminants such as radionuclides and total trihalomethanes. We have compiled the table below to show what substances were detected in our drinking water during 2005. With the exception of lead in some homes, all of the substances listed below are under the Maximum Contaminant Level (MCL) set by the U.S. EPA. Nonetheless, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data is included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha emitters (pCi/L)	2005	15	0	1.5	ND-1.5	No	Erosion of natural deposits
Asbestos (MFL)	2005	7	7	2.0	NA	No	Decay of asbestos cement water mains; Erosion of natural deposits
Benzene (ppb)	2005	5	0	0.7	ND-0.7	No	Discharge from factories; Leaching from gas storage tanks and landfills
Beta/photon emitters (pCi/L)[1]	2005	50	0	35.0	11.0-35.0	No	Decay of natural and manmade deposits
Chlorine (ppm)	2005	(4)	(4)	0.79	ND-0.79	No	Water additive used to control microbes
Combined radium (pCi/L)	2005	5	0	1.3	ND-1.3	No	Erosion of natural deposits
Fluoride (ppm)	2005	4	4	1.58	ND-1.58	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
HAAs (Haloacetic Acids) (ppb)[2]	2005	60	NA	17.35	ND-42.1	No	By-product of drinking water disinfection
Nitrate (ppm)	2005	10	10	0.86	0.39-0.86	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2003	4	4	0.13	ND-0.13	No	Herbicide runoff
TTHMs [Total Trihalomethanes] (ppb)[2]	2005	80	NA	33.55	27-46.5	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from 62 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH%TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2005	1.3	1.3	0.70	1	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2005	15	0	18.0	7	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES[3]

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2005	10.0	1.5-10.0	By-product of drinking water disinfection
Chlorodibromomethane (ppb)	2005	2.4	0.9-2.4	By-product of drinking water disinfection
Chloroform (ppb)	2005	24.0	0.7-24.0	By-product of drinking water disinfection
Sodium (ppm)[4]	2004	45	19-45	Erosion of natural deposits and road de-icing agents

[1] The MCL for beta/photon emitters is written as 4 mrem/year. The EPA considers 50 pCi/L as the level of concern for beta emitters.

[2] Amount detected is the highest running annual average.

[3] Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the U.S. EPA in determining their occurrence in drinking water and whether future regulation is warranted.

[4] Sodium sensitive individuals, such as those experiencing hypertension, kidney failure or congestive heart failure, should be aware of the sodium levels where exposures are being carefully controlled.